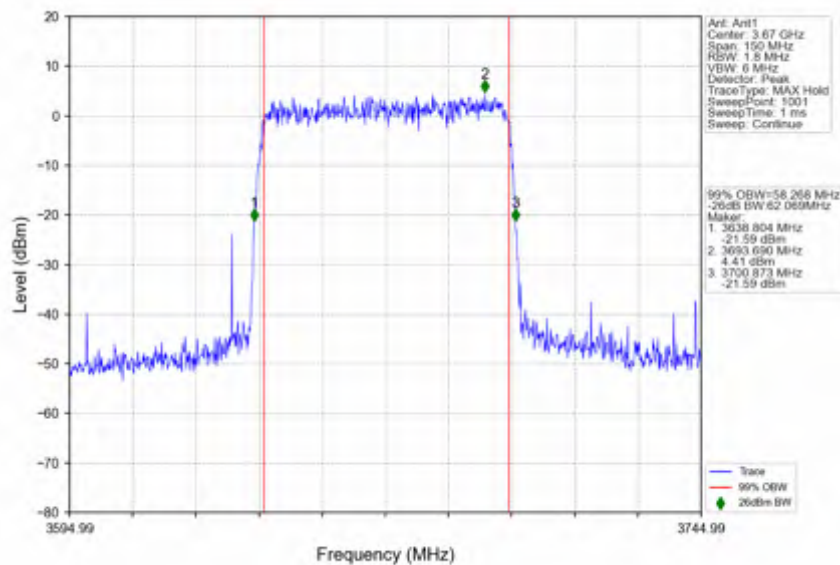
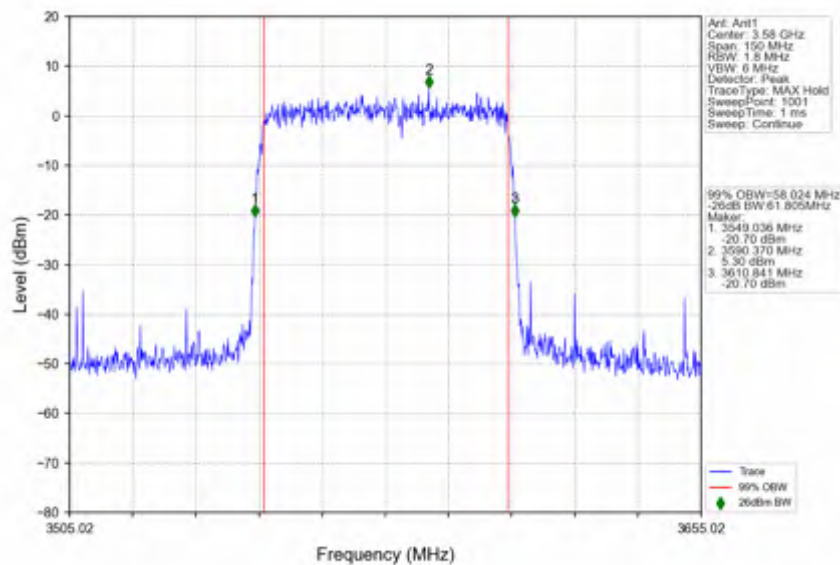


n78d_30kHz_SISO_NTNV_60MHz_CP-OFDM_16_QAM_3669.99MHz_Outer_Full



n78d_30kHz_SISO_NTNV_60MHz_CP-OFDM_64_QAM_3580.02MHz_Outer_Full

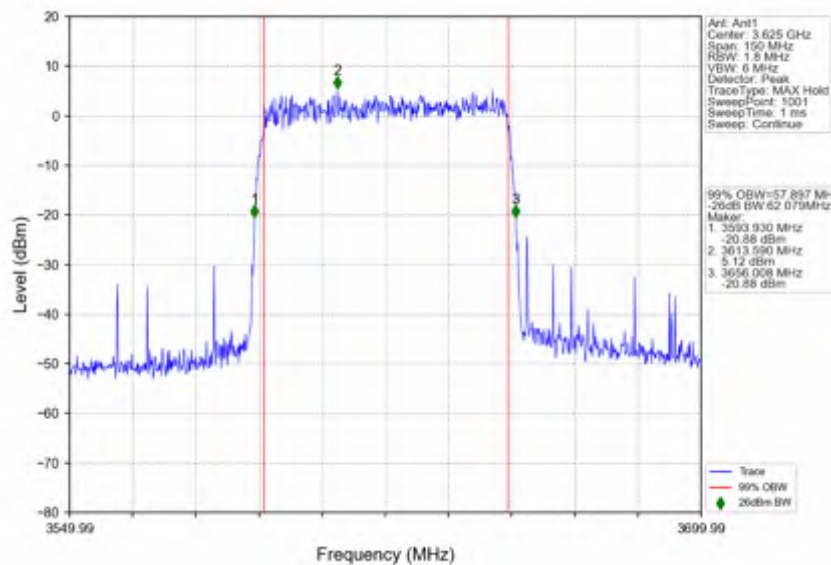


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed
overleaf, available on request or accessible at <http://www.egg.com.au/Terms-and-Conditions.aspx> and, for electronic format documents
subject to Terms and Conditions for Electronic Documents at <http://www.egg.com.au/terms-and-conditions/Terms-a-Documents.aspx>.
Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is
advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of
Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a
transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced
without in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or
appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the
results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.
Attention: To check the authenticity of testing report, please contact us at the phone: (853)52997722
or email: CH.00@celtektech.com

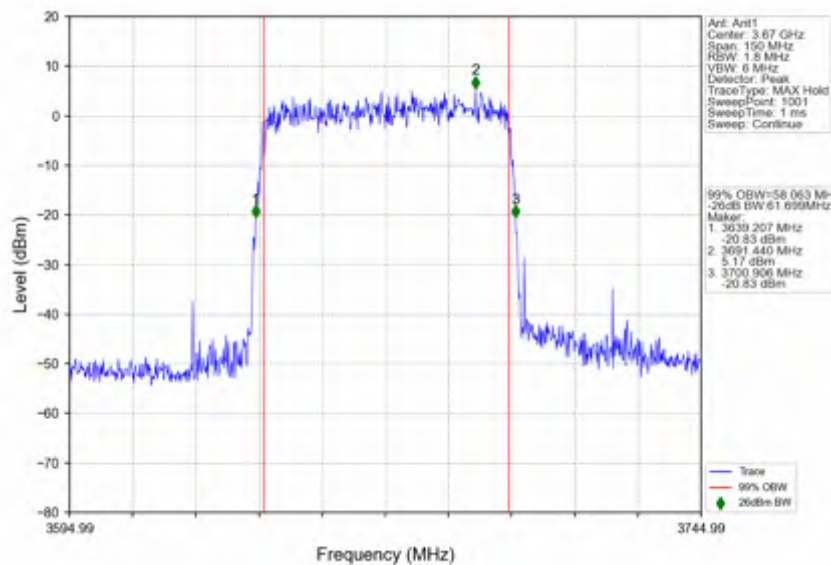
中国·江苏·昆山市周庄生创业园伟业路10号 邮编 215300

086-5125735688 086-5125737001 www.sgsigroup.com.cn
086-5125735688 086-5125737001 sgs.china@sgs.com

n78d_30kHz_SISO_NTNV_60MHz_CP-OFDM_64_QAM_3624.99MHz_Outer_Full



n78d_30kHz_SISO_NTNV_60MHz_CP-OFDM_64_QAM_3669.99MHz_Outer_Full

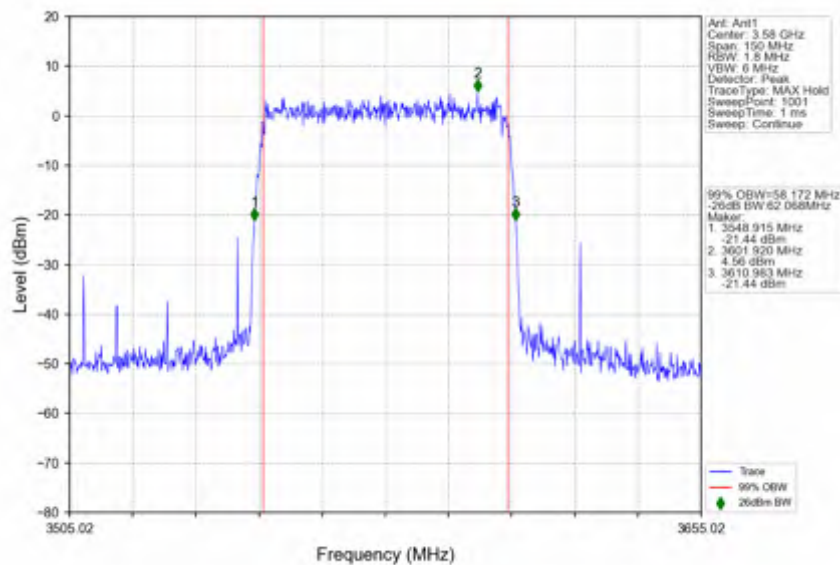


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed hereon, available on request or accessible at <http://www.etsi.com/ETSI%20Terms%20and%20Conditions.aspx> and, for selected forms, printed subject to Terms and Conditions for Electronic Documents at <http://www.etsi.com/ETSI%20Terms%20and%20Conditions/Terms%20Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of the Company's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a trial from their responsibility to the court. The Company's findings are contained in the document and are not to be reproduced, in whole or in part, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this fast report refer only to the sample(s) tested and such sample(s) are retained for 30 days only. For more information on the use of this document, please contact the Company at info@etsi.com or <tel:+352437342000>.

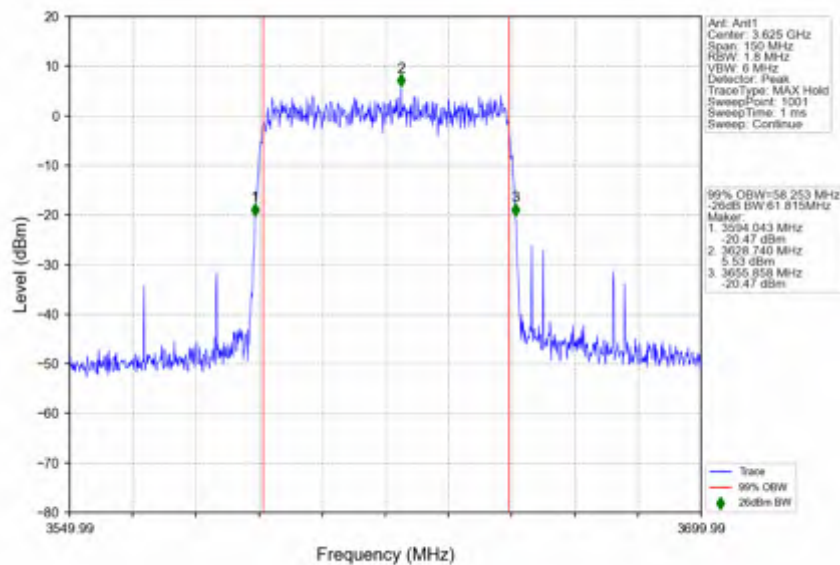
中国·江苏·昆山市周庄生创业园伟业路10号 邮编 215300

086-5125735688 086-5125737091 www.sgsgroup.com.cn
086-5125735688 086-5125737091 sgs.china@sgs.com

n78d_30kHz_SISO_NTNV_60MHz_CP-OFDM_256_QAM_3580.02MHz_Outer_Full



n78d_30kHz_SISO_NTNV_60MHz_CP-OFDM_256_QAM_3624.99MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at sgs@sgs.com or CN-Online@sgs.com.

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学院创业园伟业路10号 邮编 215300

0512-57350888

0512-57370910

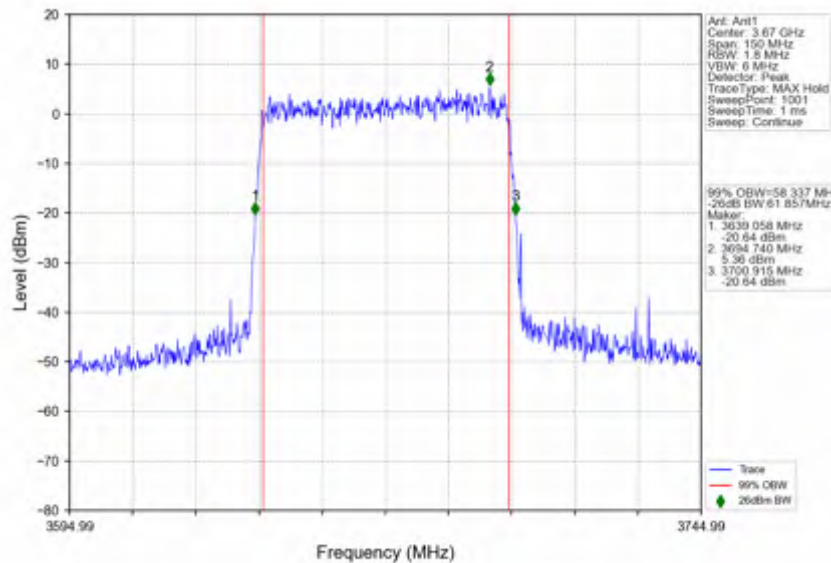
www.sgs.com.cn

0512-57350883

0512-57370910

sgs.china@sgs.com

n78d_30kHz_SISO_NTNV_60MHz_CP-OFDM_256_QAM_3669.99MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification reports & certificates, please connect us at telephone: (86-512) 57370011 or email: CH.Official@sgs.com.

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学生创业园伟业路10号 邮编 215300

(86-512) 57350888 (86-512) 57370011 www.sgs.com.cn

(86-512) 57350883 (86-512) 57370011 sgs.china@sgs.com

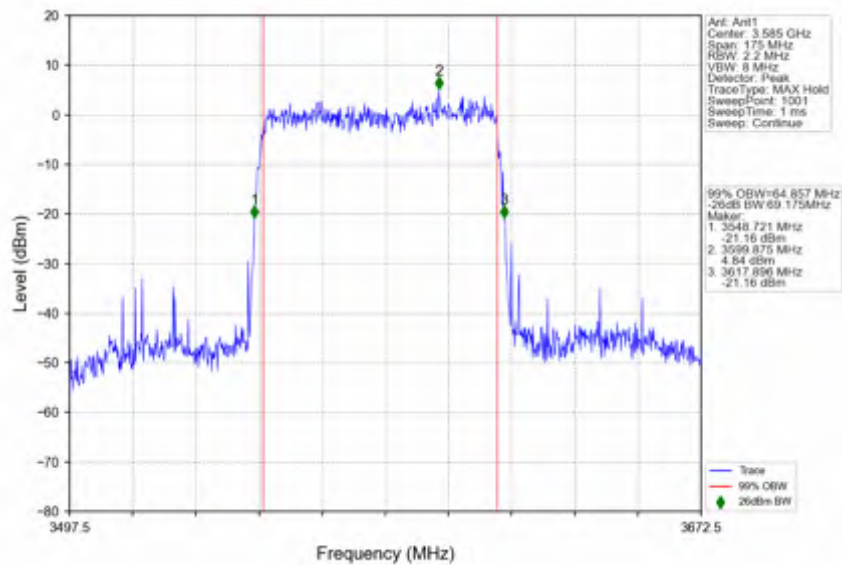
8.16 30k_SISO_70MHz_NTNV

8.16.1 Test Result

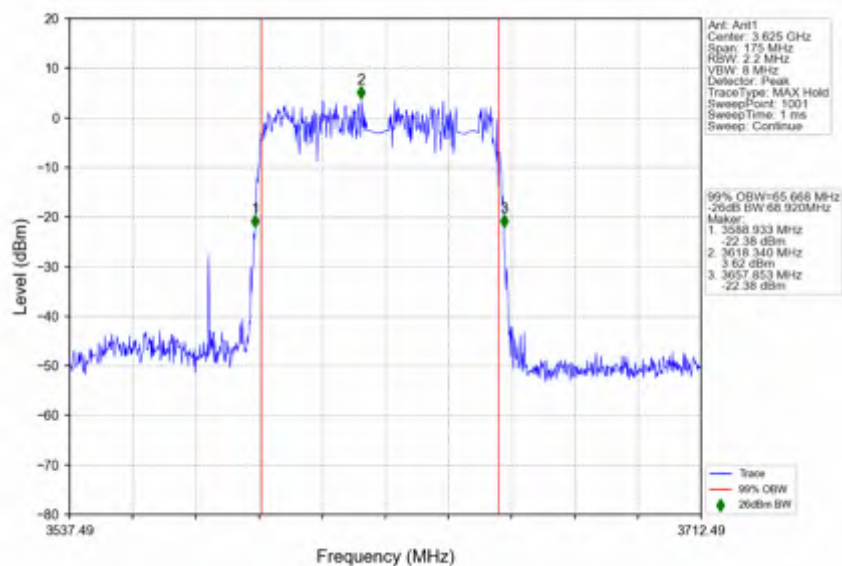
5G NR n78d SCS=30kHz SISO 70MHz NTV						
Modulation	Frequency (MHz)	RB Allocation	99% Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
DFT-s-OFDM PI/2 BPSK	3585	Outer_Full	64.86	69.17	/	Pass
	3624.99	Outer_Full	65.67	68.92	/	Pass
	3664.98	Outer_Full	64.54	70.05	/	Pass
DFT-s-OFDM QPSK	3585	Outer_Full	64.81	70.25	/	Pass
	3624.99	Outer_Full	64.97	69.27	/	Pass
	3664.98	Outer_Full	64.72	69.07	/	Pass
DFT-s-OFDM 16 QAM	3585	Outer_Full	64.82	69.52	/	Pass
	3624.99	Outer_Full	64.55	69.29	/	Pass
	3664.98	Outer_Full	64.73	69.56	/	Pass
DFT-s-OFDM 64 QAM	3585	Outer_Full	65.03	69.28	/	Pass
	3624.99	Outer_Full	64.87	68.86	/	Pass
	3664.98	Outer_Full	64.70	69.06	/	Pass
DFT-s-OFDM 256 QAM	3585	Outer_Full	64.77	69.75	/	Pass
	3624.99	Outer_Full	64.96	69.56	/	Pass
	3664.98	Outer_Full	65.09	69.58	/	Pass
CP-OFDM QPSK	3585	Outer_Full	68.48	72.42	/	Pass
	3624.99	Outer_Full	67.83	72.48	/	Pass
	3664.98	Outer_Full	67.99	72.75	/	Pass
CP-OFDM 16 QAM	3585	Outer_Full	68.44	72.46	/	Pass
	3624.99	Outer_Full	68.03	73.05	/	Pass
	3664.98	Outer_Full	67.91	72.17	/	Pass
CP-OFDM 64 QAM	3585	Outer_Full	67.99	72.21	/	Pass
	3624.99	Outer_Full	67.92	72.42	/	Pass
	3664.98	Outer_Full	67.88	72.49	/	Pass
CP-OFDM 256 QAM	3585	Outer_Full	68.08	72.36	/	Pass
	3624.99	Outer_Full	67.94	72.40	/	Pass
	3664.98	Outer_Full	68.02	72.20	/	Pass

8.16.2 Test Graph

n78d_30kHz_SISO_NTNV_70MHz_DFT-s-OFDM PI/2 BPSK_3585MHz_Outer_Full



n78d_30kHz_SISO_NTNV_70MHz_DFT-s-OFDM PI/2 BPSK_3624.99MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at sgs@sgs.com (86-512)57370011 or email: CH.Official@sgs.com.

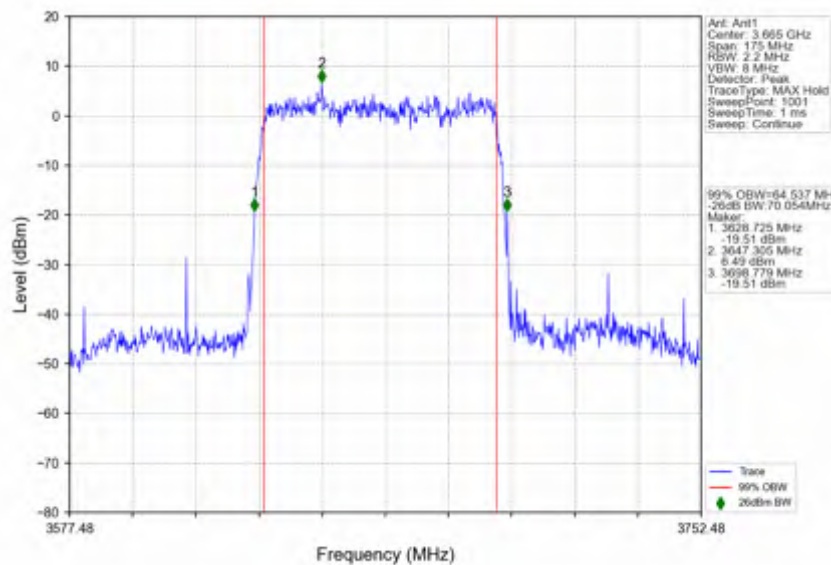
No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学院创业园伟业路18号 邮编 215300

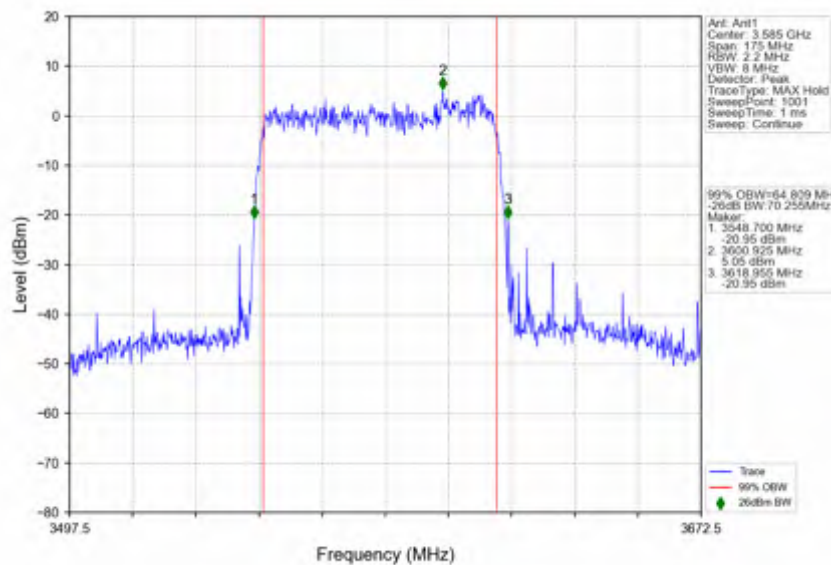
(86-512)57350888 (86-512)57370011 www.sgs.com.cn

(86-512)57350888 (86-512)57370011 sgs.china@sgs.com

n78d_30kHz_SISO_NTNV_70MHz_DFT-s-OFDM PI/2 BPSK_3664.98MHz_Outer_Full



n78d_30kHz_SISO_NTNV_70MHz_DFT-s-OFDM QPSK_3585MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overall, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing report and certificates, please connect us at sgs@sgs.com or sgs@sgs.com or sgs@sgs.com.

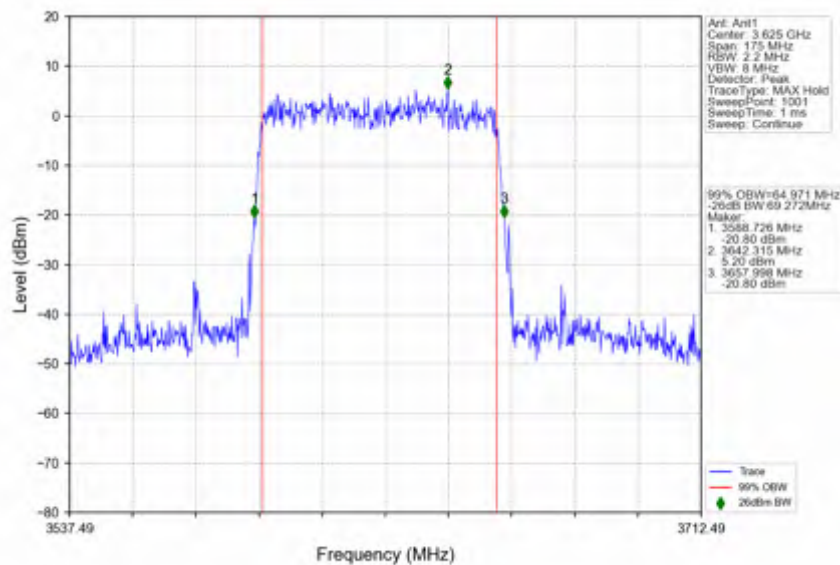
No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学院创业园伟业路18号 邮编 215300

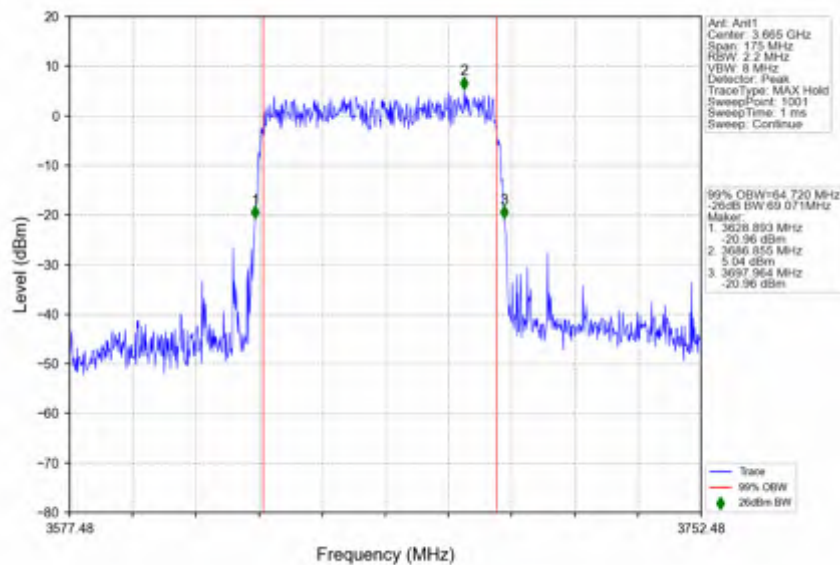
0512-51257370 0512-51257370 www.sgs.com.cn

0512-5125735000 0512-51257370 sgs.china@sgs.com

n78d_30kHz_SISO_NTNV_70MHz_DFT-s-OFDM_QPSK_3624.99MHz_Outer_Full



n78d_30kHz_SISO_NTNV_70MHz_DFT-s-OFDM_QPSK_3664.98MHz_Outer_Full

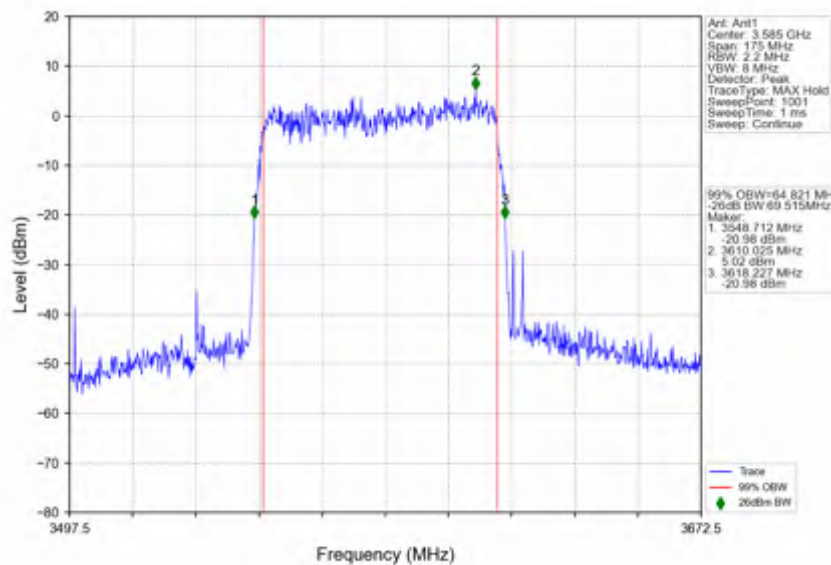


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed hereon, available on request or accessible at <http://www.etsi.com/ETSI%20Terms%20and%20Conditions.aspx> and, for selected forms, printed subject to Terms and Conditions for Electronic Documents at <http://www.etsi.com/terms-and-conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of the Company's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a trial from their responsibility to the court. The Company's liability is limited to the amount of the fee actually received by the Company, except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this fast report refer only to the sample(s) tested and such sample(s) are retained for 30 days only. For more information on the use of this document, please contact the Company at info@etsi.com or <tel:+352437342000>.

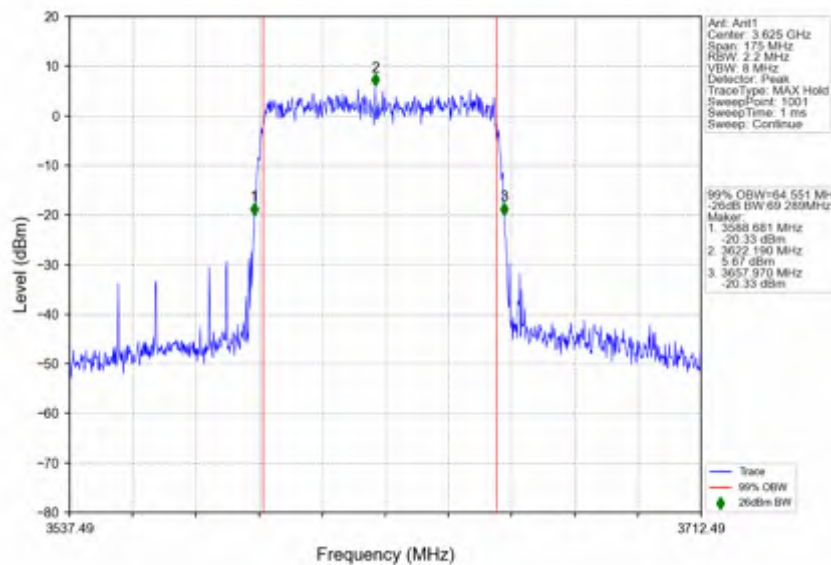
中国·江苏·昆山市周庄生创业园伟业路10号 邮编 215300

086-5125735688 086-5125737000 www.sgsgroup.com.cn
086-5125735688 086-5125737000 sgs.china@sgs.com

n78d_30kHz_SISO_NTNV_70MHz_DFT-s-OFDM 16 QAM_3585MHz_Outer_Full



n78d_30kHz_SISO_NTNV_70MHz_DFT-s-OFDM 16 QAM_3624.99MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at sgs@sgs.com or sgs@sgs.com or sgs@sgs.com.

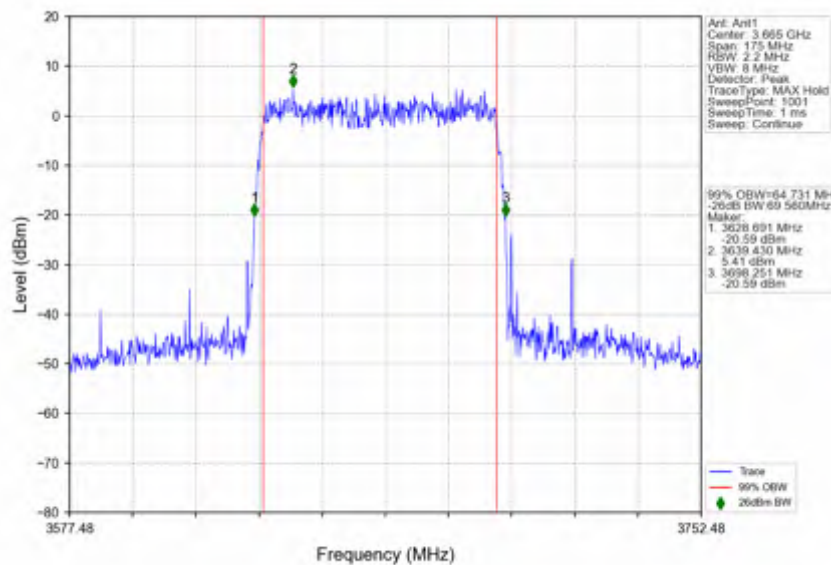
No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学生创业园伟业路18号 邮编 215300

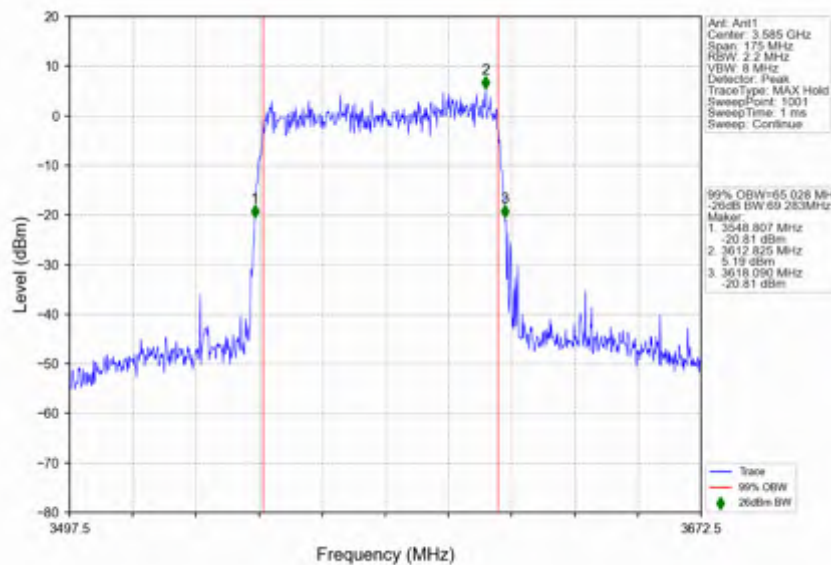
0512-51273700 0512-51273701 www.sgs.com.cn

0512-5127350000 0512-5127370011 sgs.china@sgs.com

n78d_30kHz_SISO_NTNV_70MHz_DFT-s-OFDM_16_QAM_3664.98MHz_Outer_Full



n78d_30kHz_SISO_NTNV_70MHz_DFT-s-OFDM_64_QAM_3585MHz_Outer_Full

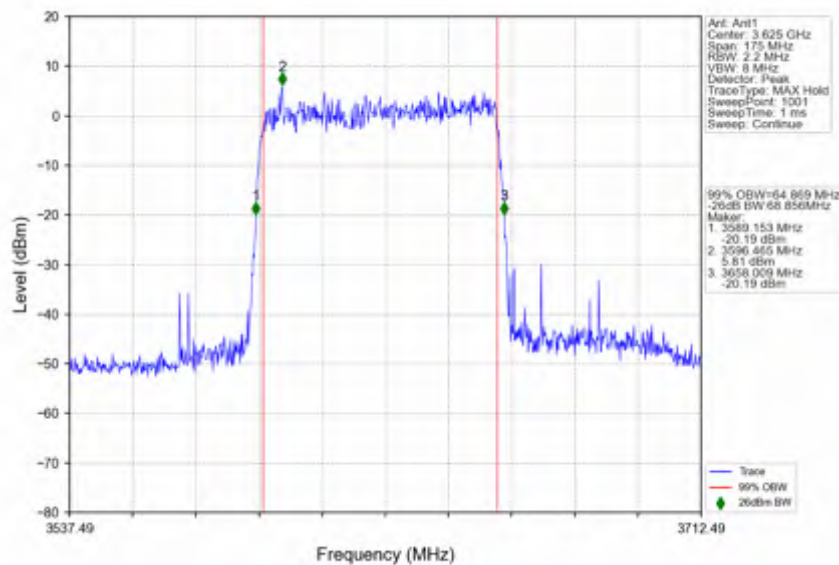


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed hereon, available on request or accessible at <http://www.irs.gov/efile/terms-and-conditions.asp> and, for electronic filing of documents, subject to Terms and Conditions for Electronic Documents at <http://www.irs.gov/efile/terms-and-conditions/terms-and-conditions.asp>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of the Company's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from their own responsibilities. The Company's intervention is limited to the matters specified in the instructions and is without prejudice, except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the samples shown in this report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

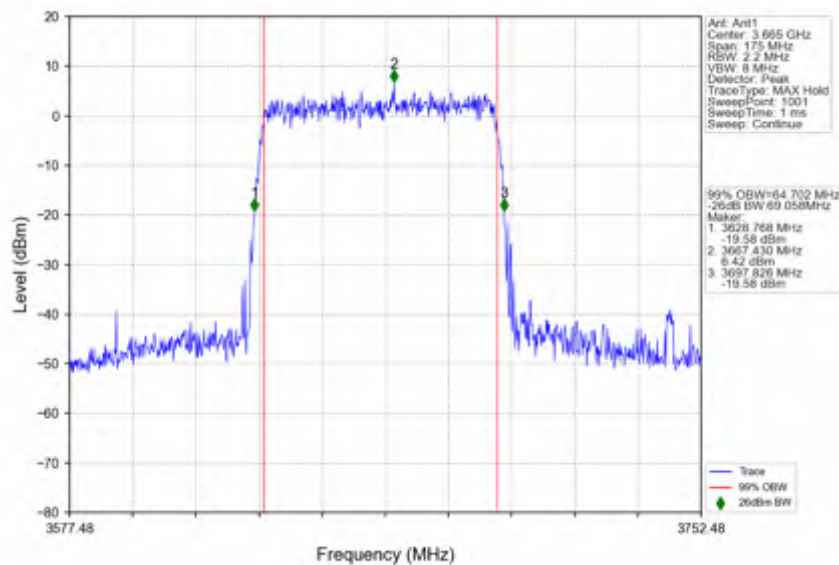
中国·江苏·昆山市留园学生创业园伟业路10号 邮编 215300

086-5125735688 086-5125737001 www.sgsigroup.com.cn
086-5125735688 086-5125737001 sgs.china@sgs.com

n78d_30kHz_SISO_NTV_70MHz_DFT-s-OFDM_64_QAM_3624.99MHz_Outer_Full



n78d_30kHz_SISO_NTV_70MHz_DFT-s-OFDM_64_QAM_3664.98MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overall, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing report or certificate, please connect us at telephone: (86-512) 57370011 or email: CH.Official@sgs.com.

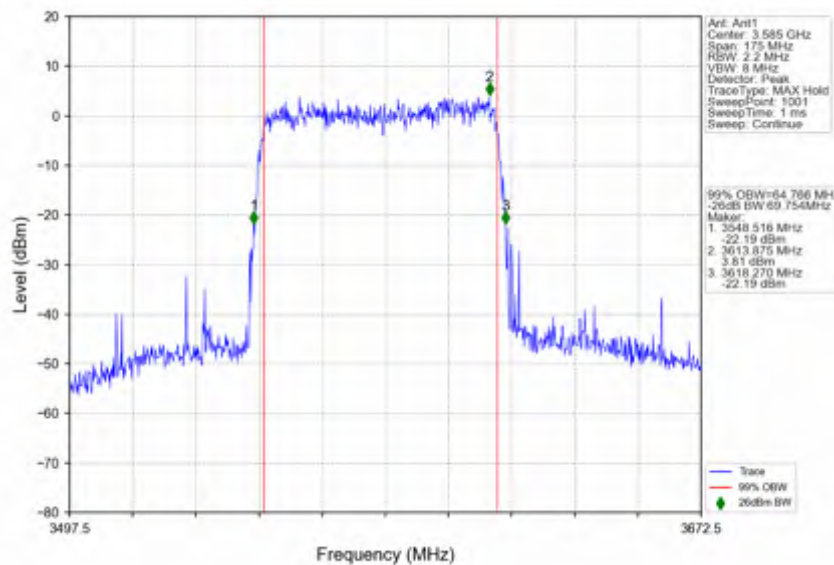
No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学院创业园伟业路18号 邮编 215300

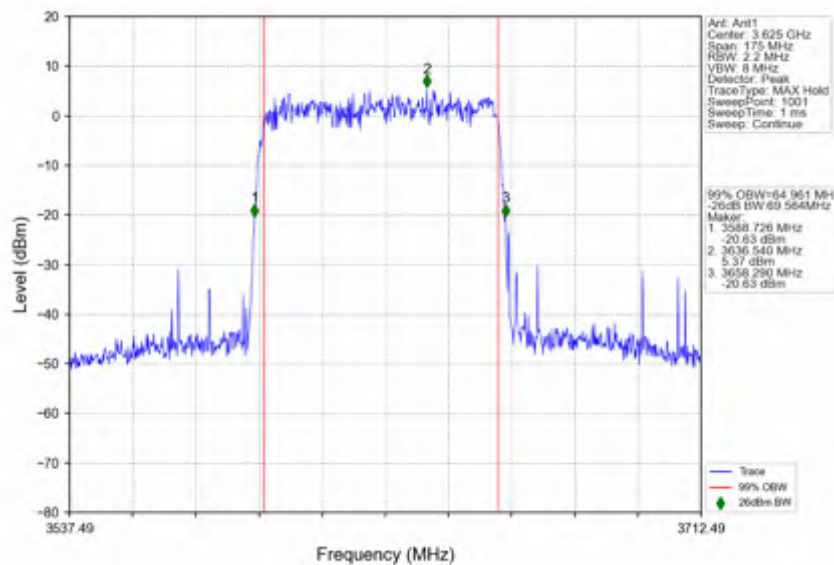
(86-512) 57350888 (86-512) 57370011 www.sgs.com.cn

(86-512) 57350883 (86-512) 57370011 sgs.china@sgs.com

n78d_30kHz_SISO_NTNV_70MHz_DFT-s-OFDM_256_QAM_3585MHz_Outer_Full



n78d_30kHz_SISO_NTNV_70MHz_DFT-s-OFDM_256_QAM_3624.99MHz_Outer_Full



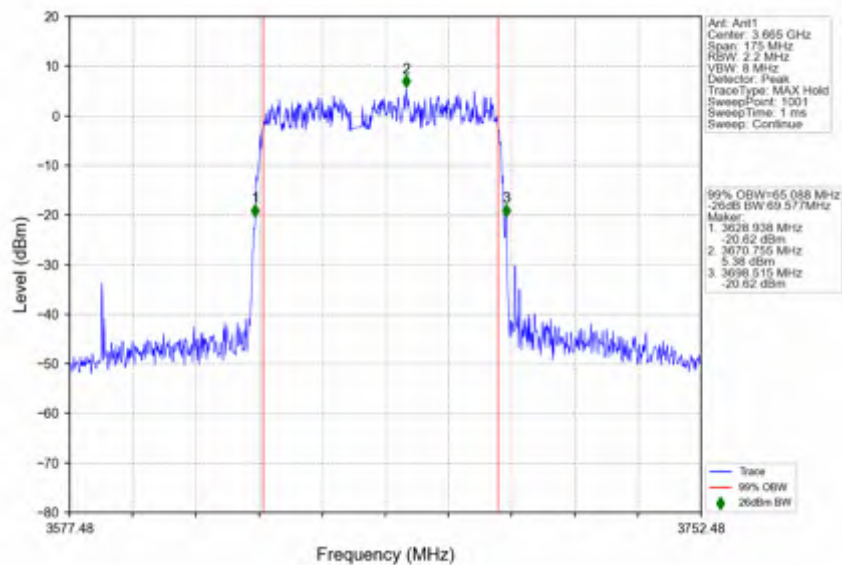
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overall, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing report or certificate, please connect us at telephone: (86-512) 57370011 or email: CH.Official@sgs.com.

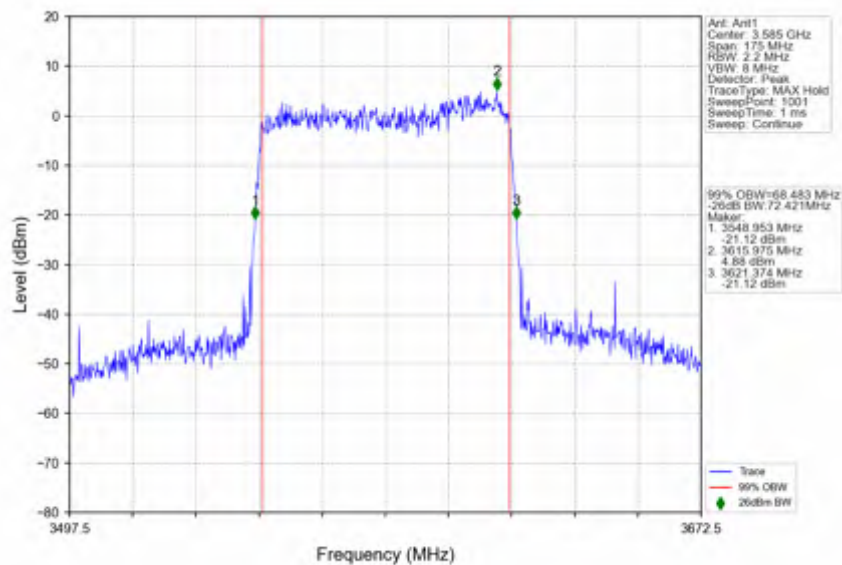
No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300
中国·江苏·昆山市留学院创业园伟业路18号 邮编 215300

(86-512) 57350888 (86-512) 57370011 www.sgs.com.cn
(86-512) 57350883 (86-512) 57370011 sgs.china@sgs.com

n78d_30kHz_SISO_NTNV_70MHz_DFT-s-OFDM_256_QAM_3664.98MHz_Outer_Full



n78d_30kHz_SISO_NTNV_70MHz_CP-OFDM_QPSK_3585MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at telephone: (86-512) 57370011 or email: CH.Official@sgs.com.

No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学生创业园伟业路18号 邮编 215300

(86-512) 57350888

(86-512) 57370011

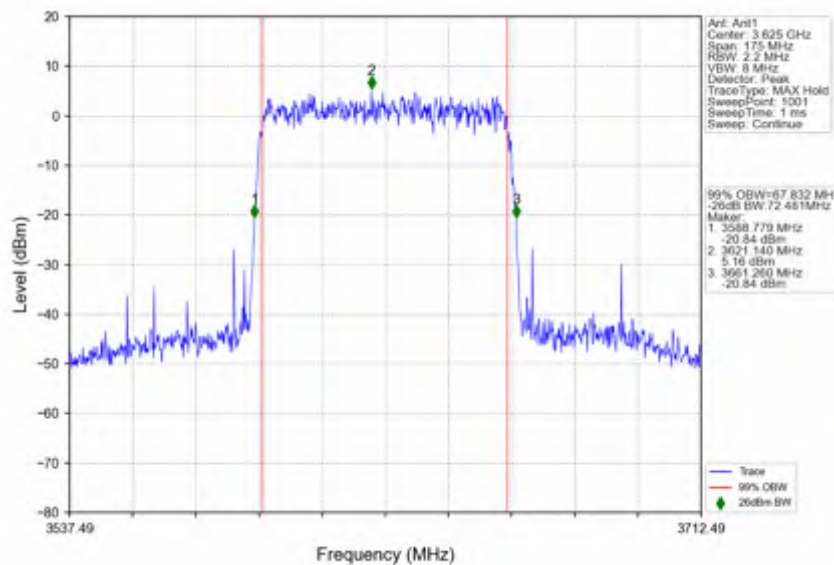
www.sgs.com.cn

(86-512) 57350883

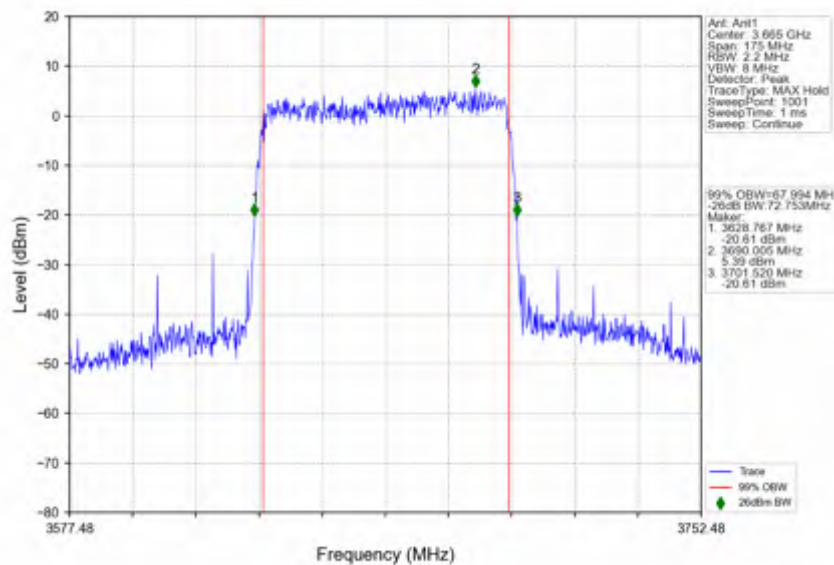
(86-512) 57370011

sgs.china@sgs.com

n78d 30kHz SISO NTNv 70MHz CP-OFDM QPSK 3624.99MHz Outer Full



n78d 30kHz SISO NTNv 70MHz CP-OFDM QPSK 3664.98MHz Outer Full

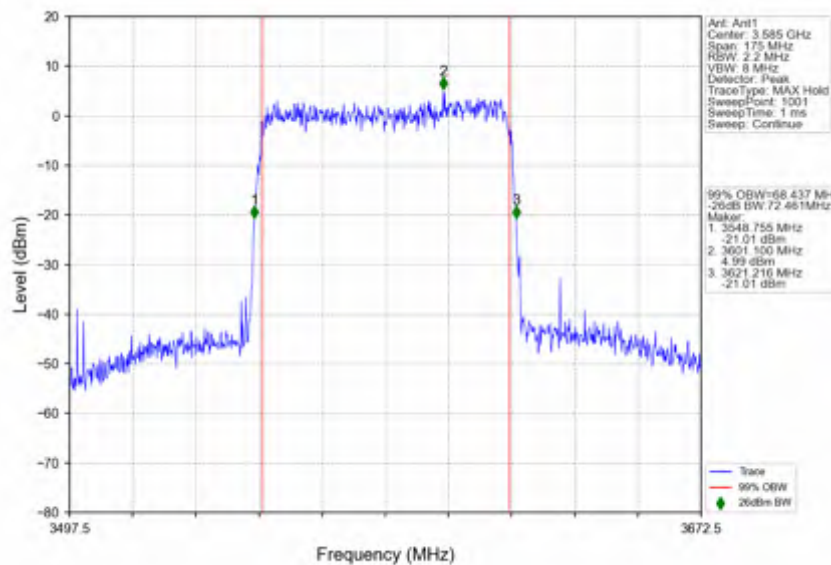


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed hereon, available on request or accessible at <http://www.etsi.com/ETSI%20Terms%20and%20Conditions.aspx> and, for selected forms, printed subject to Terms and Conditions for Electronic Documents at <http://www.etsi.com/terms-and-conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of the Company's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a trial from their responsibility to the court. The Company's liability is limited to the amount of the fee actually paid for the service, except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this fast report refer only to the sample(s) tested and such sample(s) are retained for 30 days only. For more information on the use of this document, please contact the Customer Service Centre at info@etsi.com or <tel:+352437342000>.

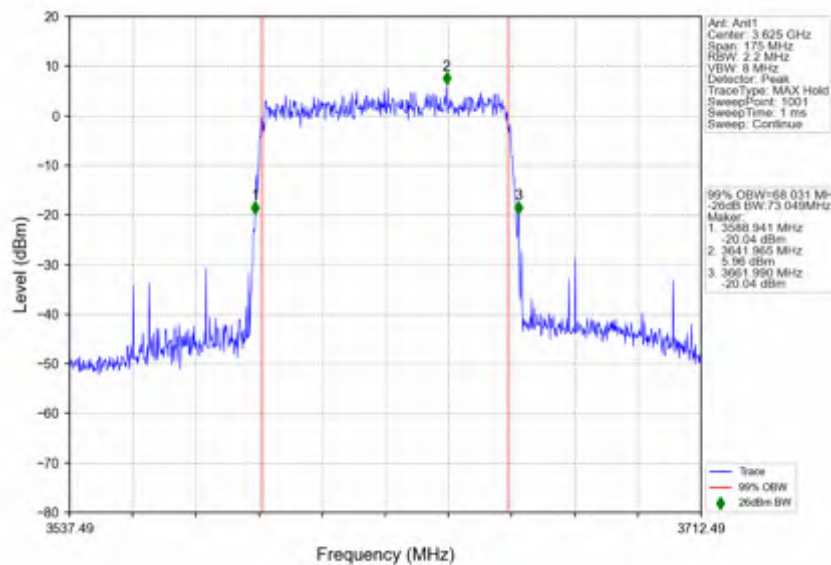
中国·江苏·昆山市周庄生创业园伟业路10号 邮编 215300

086-5125735688 086-5125737000 www.sgsgroup.com.cn
086-5125735688 086-5125737000 sgs.china@sgs.com

n78d_30kHz_SISO_NTNV_70MHz_CP-OFDM 16 QAM_3585MHz_Outer_Full



n78d_30kHz_SISO_NTNV_70MHz_CP-OFDM 16 QAM_3624.99MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overall, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at sgs@sgs.com or sgs@sgs.com or sgs@sgs.com.

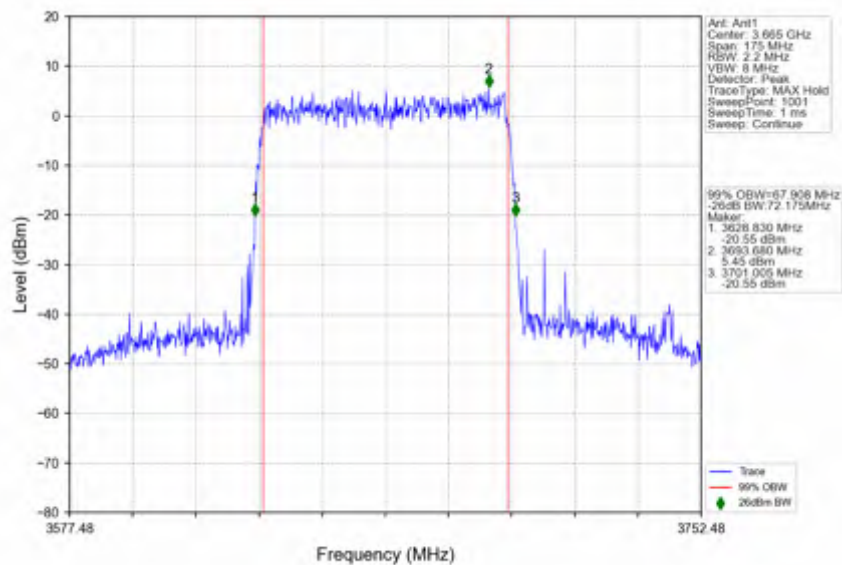
No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学生创业园伟业路10号 邮编 215300

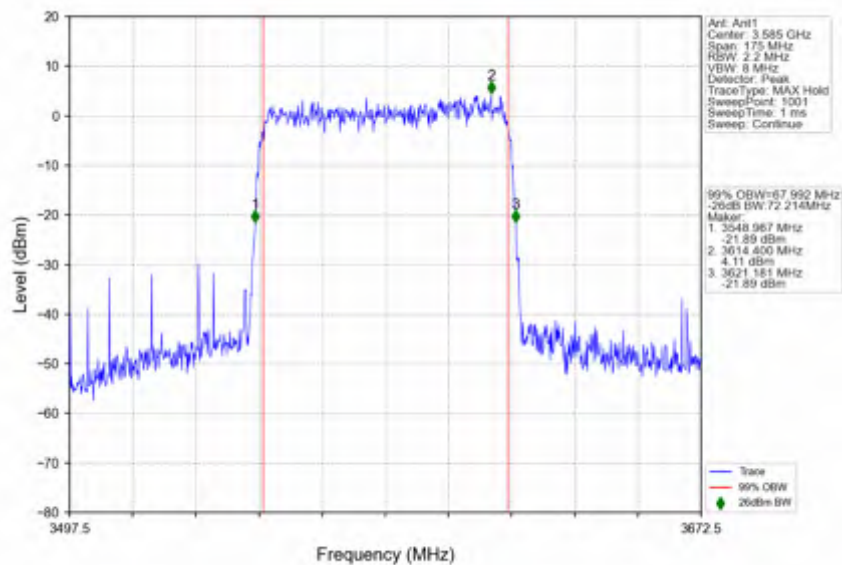
0512-51257350888 0512-51257370910 www.sgs.com.cn

0512-51257350888 0512-51257370910 sgs.china@sgs.com

n78d_30kHz_SISO_NTNV_70MHz_CP-OFDM 16 QAM_3664.98MHz_Outer_Full



n78d_30kHz_SISO_NTNV_70MHz_CP-OFDM 64 QAM_3585MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated, the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at sgs@sgs.com or sgs@sgs.com or sgs@sgs.com.

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学院创业园伟业路10号 邮编 215300

0512-57350888

0512-57350888

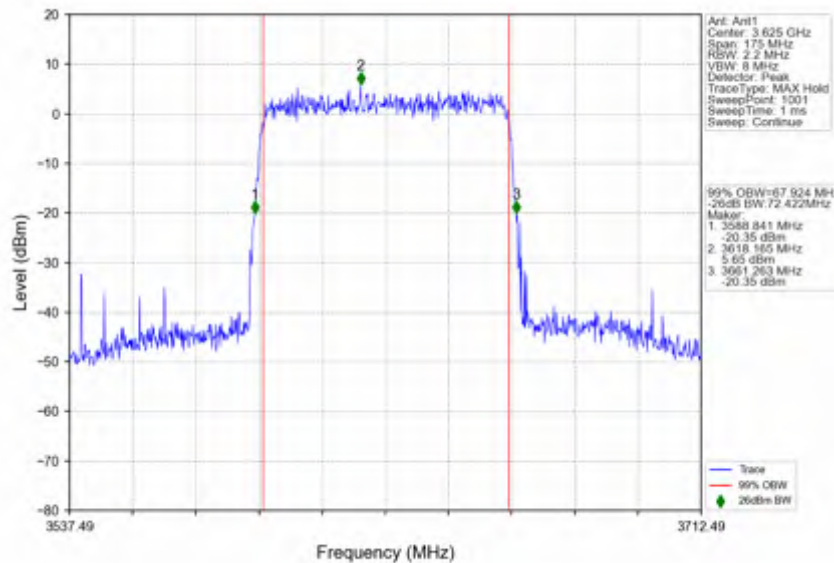
0512-57370910

0512-57370910

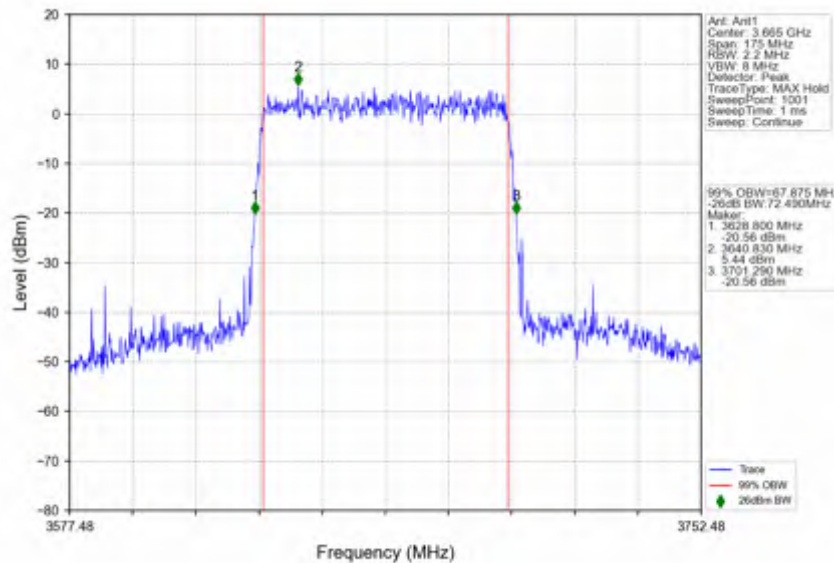
www.sgs.com.cn

sgs.china@sgs.com

n78d_30kHz_SISO_NTNV_70MHz_CP-OFDM 64 QAM_3624.99MHz_Outer_Full



n78d_30kHz_SISO_NTNV_70MHz_CP-OFDM 64 QAM_3664.98MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overall, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated, the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing report & certificate, please connect us at sgs@sgs.com or sgs@sgs.com or sgs@sgs.com.

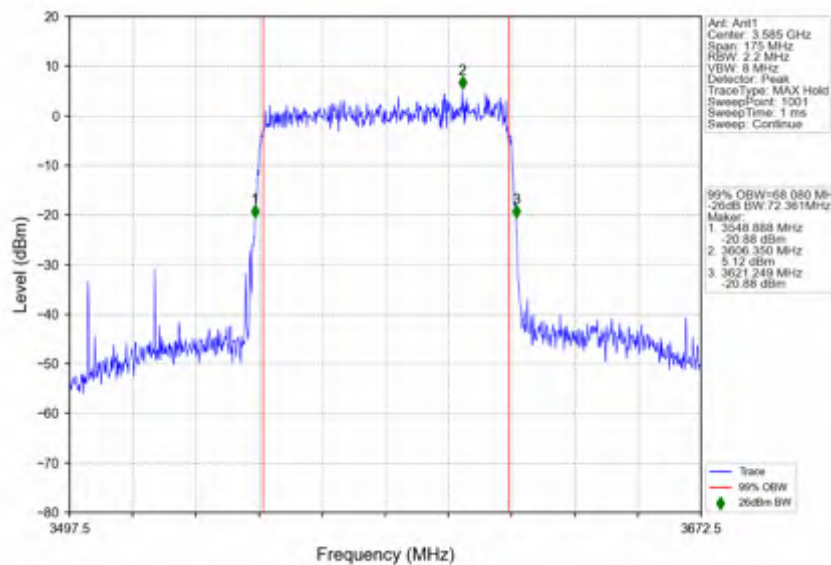
No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学院创业园伟业路18号 邮编 215300

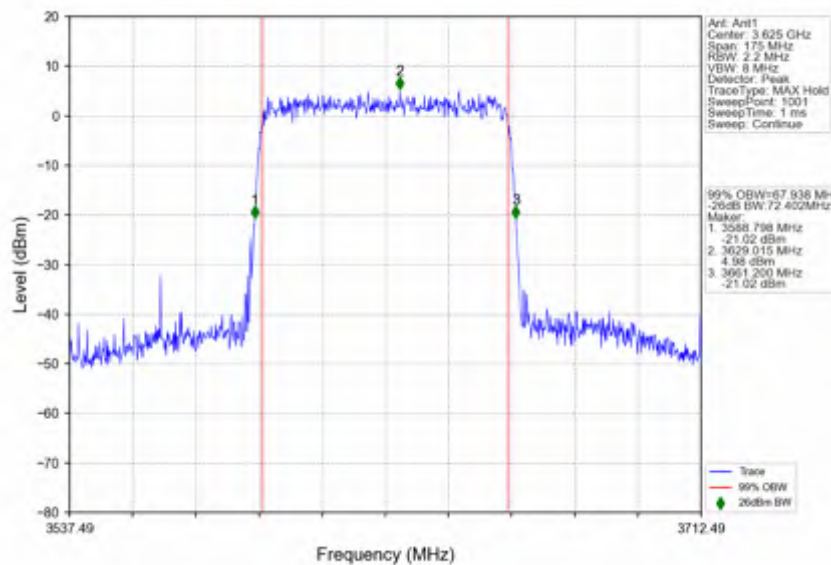
0512-57350888 0512-57370910 www.sgs.com.cn

0512-57350888 0512-57370910 sgs.china@sgs.com

n78d_30kHz_SISO_NTNV_70MHz_CP-OFDM_256_QAM_3585MHz_Outer_Full



n78d_30kHz_SISO_NTNV_70MHz_CP-OFDM_256_QAM_3624.99MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at sgs@sgs.com or sgs@sgs.com or sgs@sgs.com.

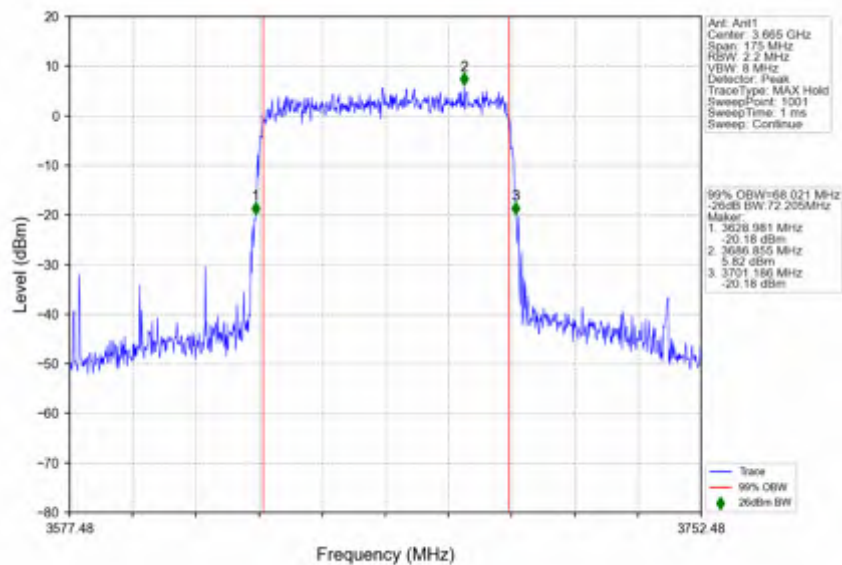
No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学生创业园伟业路18号 邮编 215300

0512-51257350888 0512-5125737010 www.sgs.com.cn

0512-51257350888 0512-5125737010 sgs.china@sgs.com

n78d_30kHz_SISO_NTNV_70MHz_CP-OFDM_256_QAM_3664.98MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed hereon, available on request or accessible at <http://www.irs.gov/efile/terms-and-conditions.asp> and, for electronic documents, subject to Terms and Conditions for Electronic Documents at <http://www.irs.gov/efile/terms-and-conditions/Terms-a-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of the Company's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from their own responsibilities. The Company does not warrant the accuracy or completeness of the information reported, except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the samples shown in this report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

No. 10, Waiye Road, Innovation Park, Keshan, Jiangsu, China 215300
中国·江苏·昆山市留园学生创业园伟业路10号 邮编 215300

086-5125735688 086-5125737000 www.sgsgroup.com.cn
086-5125735688 086-5125737000 sgs.china@sgs.com

**8.17 30k_SISO_80MHz_NTNV****8.17.1 Test Result**

5G NR n78d SCS=30kHz SISO 80MHz NTV						
Modulation	Frequency (MHz)	RB Allocation	99% Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
DFT-s-OFDM PI/2 BPSK	3590.01	Outer_Full	77.25	82.38	/	Pass
	3624.99	Outer_Full	77.66	82.66	/	Pass
	3660	Outer_Full	77.53	82.66	/	Pass
DFT-s-OFDM QPSK	3590.01	Outer_Full	77.38	82.84	/	Pass
	3624.99	Outer_Full	77.58	82.79	/	Pass
	3660	Outer_Full	77.71	82.32	/	Pass
DFT-s-OFDM 16 QAM	3590.01	Outer_Full	77.67	82.31	/	Pass
	3624.99	Outer_Full	77.43	82.32	/	Pass
	3660	Outer_Full	77.31	82.53	/	Pass
DFT-s-OFDM 64 QAM	3590.01	Outer_Full	77.90	82.49	/	Pass
	3624.99	Outer_Full	77.40	82.85	/	Pass
	3660	Outer_Full	77.33	82.41	/	Pass
DFT-s-OFDM 256 QAM	3590.01	Outer_Full	77.67	82.51	/	Pass
	3624.99	Outer_Full	77.99	82.40	/	Pass
	3660	Outer_Full	77.90	83.07	/	Pass
CP-OFDM QPSK	3590.01	Outer_Full	78.24	82.67	/	Pass
	3624.99	Outer_Full	77.47	83.03	/	Pass
	3660	Outer_Full	77.36	83.16	/	Pass
CP-OFDM 16 QAM	3590.01	Outer_Full	77.86	82.94	/	Pass
	3624.99	Outer_Full	77.79	83.05	/	Pass
	3660	Outer_Full	77.83	82.84	/	Pass
CP-OFDM 64 QAM	3590.01	Outer_Full	77.84	82.87	/	Pass
	3624.99	Outer_Full	77.86	83.02	/	Pass
	3660	Outer_Full	77.69	82.74	/	Pass
CP-OFDM 256 QAM	3590.01	Outer_Full	77.81	85.20	/	Pass
	3624.99	Outer_Full	77.94	83.02	/	Pass
	3660	Outer_Full	78.17	82.82	/	Pass



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

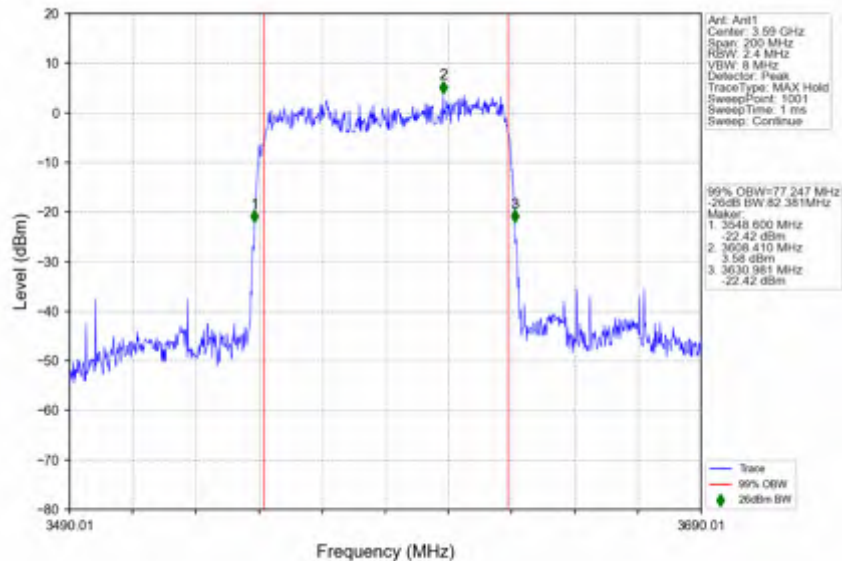
Attention: To ensure the authenticity of testing conclusion report & certificate, please connect us at telephone (+86-512) 57370011 or email: CH-Compliance@sgs.com.

No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300
中国·江苏·昆山市留学院创业园伟业路18号 邮编 215300

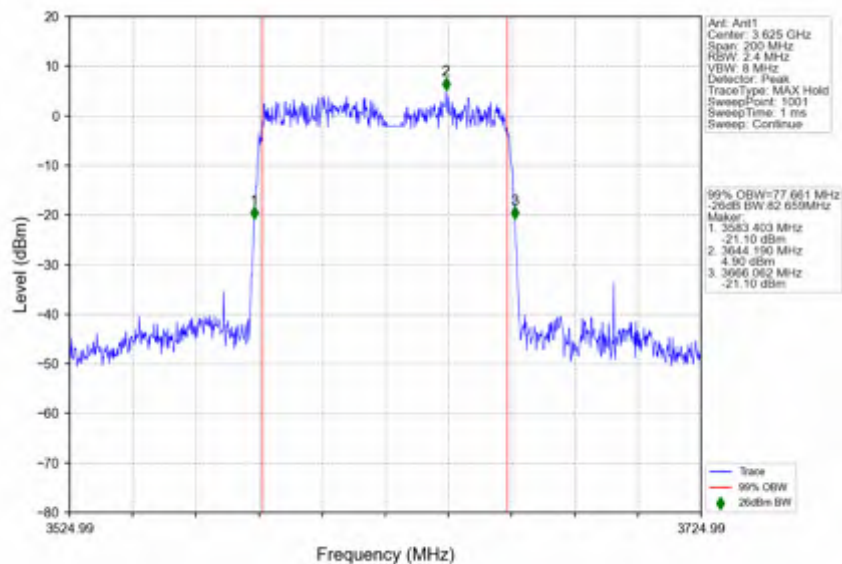
(86-512)57350888 (86-512)57370011 www.sgs.com.cn
(86-512)57350883 (86-512)57370011 sgs.china@sgs.com

8.17.2 Test Graph

n78d_30kHz_SISO_NTNV_80MHz_DFT-s-OFDM PI/2 BPSK_3590.01MHz_Outer_Full



n78d_30kHz_SISO_NTNV_80MHz_DFT-s-OFDM PI/2 BPSK_3624.99MHz_Outer_Full



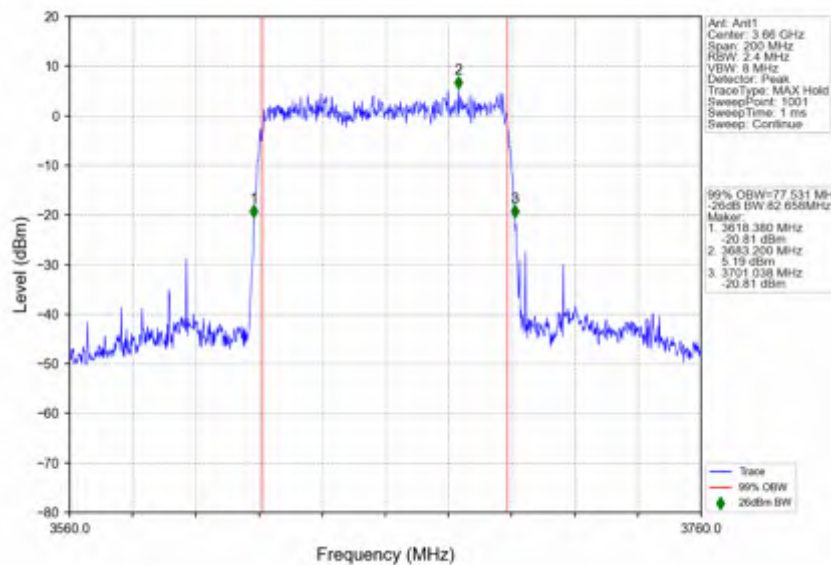
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To Check the authenticity of testing report & certificate, please connect us at sgs@sgs.com (86-512)57370011 or email: CN-Check@sgs.com.

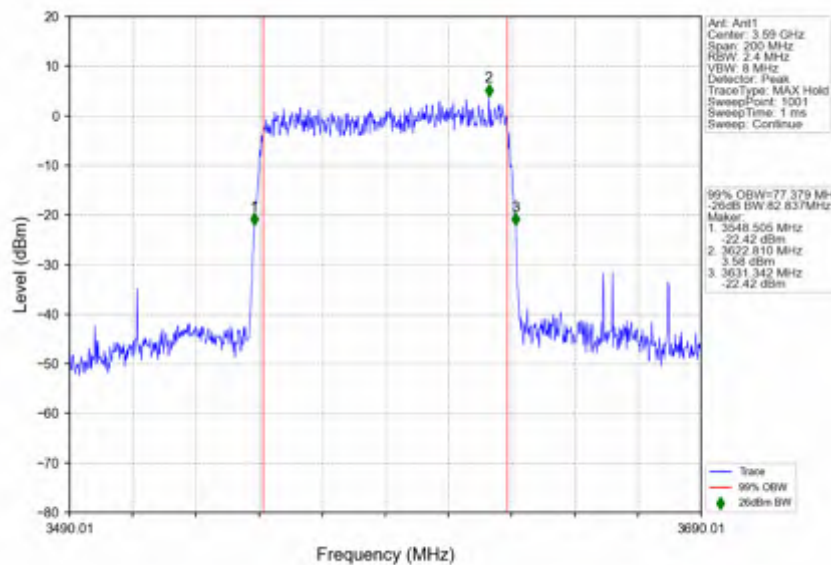
No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300
中国·江苏·昆山市留学院创业园伟业路18号 邮编 215300

(86-512)57350888 (86-512)57370011 www.sgs.com.cn
(86-512)57350888 (86-512)57370011 sgs.china@sgs.com

n78d_30kHz_SISO_NTNV_80MHz_DFT-s-OFDM_PI/2_BPSK_3660MHz_Outer_Full



n78d_30kHz_SISO_NTNV_80MHz_DFT-s-OFDM_QPSK_3590.01MHz_Outer_Full

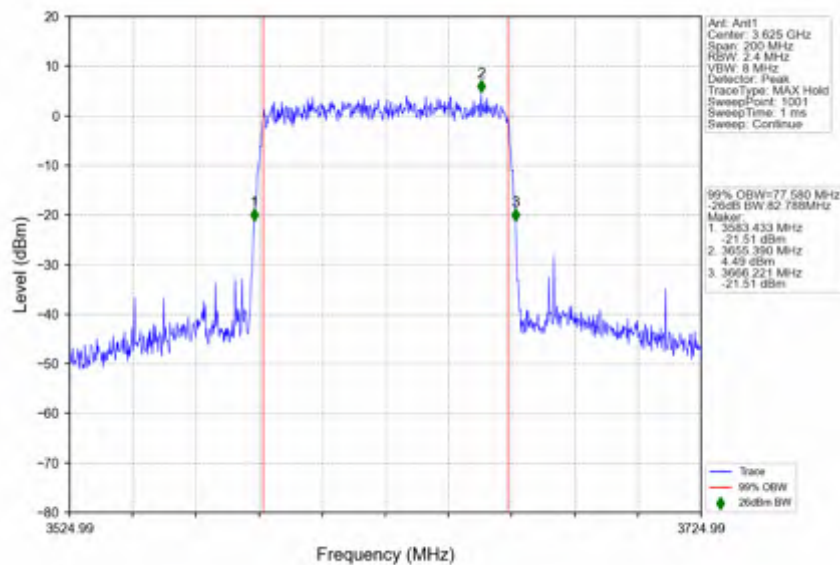


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.usc.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.usc.com/en/Terms-and-Conditions/Terms-a-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of its liability. The Company does not accept any responsibility for the accuracy or completeness of the information or for any loss or transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this last report refer only in the sample(s) tested and such sample(s) are retained for 30 days only.

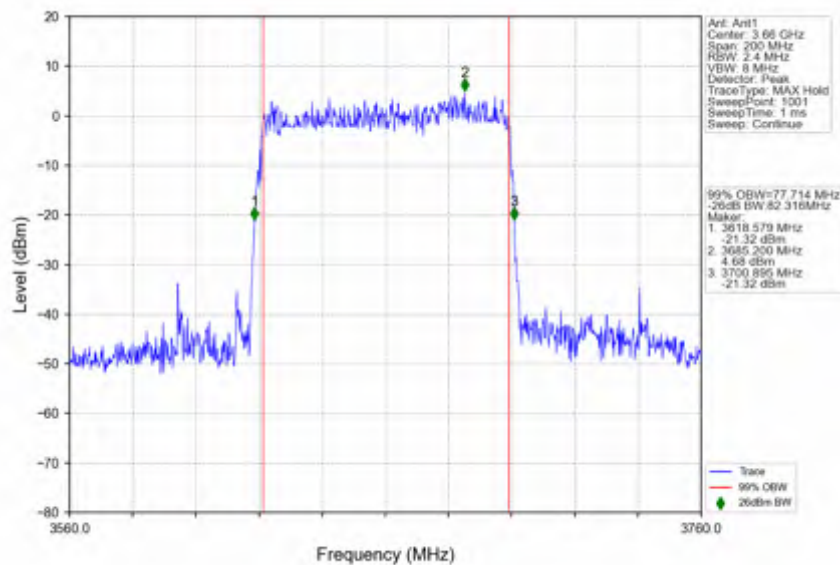
中国·江苏·昆山市留學生创业园伟业路10号 邮编 215300

086-5125735688 086-5125737000 www.sgsgroup.com.cn
086-5125735688 086-5125737000 sgs.china@sgs.com

n78d_30kHz_SISO_NTNV_80MHz_DFT-s-OFDM_QPSK_3624.99MHz_Outer_Full



n78d_30kHz_SISO_NTNV_80MHz_DFT-s-OFDM_QPSK_3660MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To Check the authenticity of testing certification report & certificate, please connect us at sgs@sgs.com or sgs@sgs.com or sgs@sgs.com

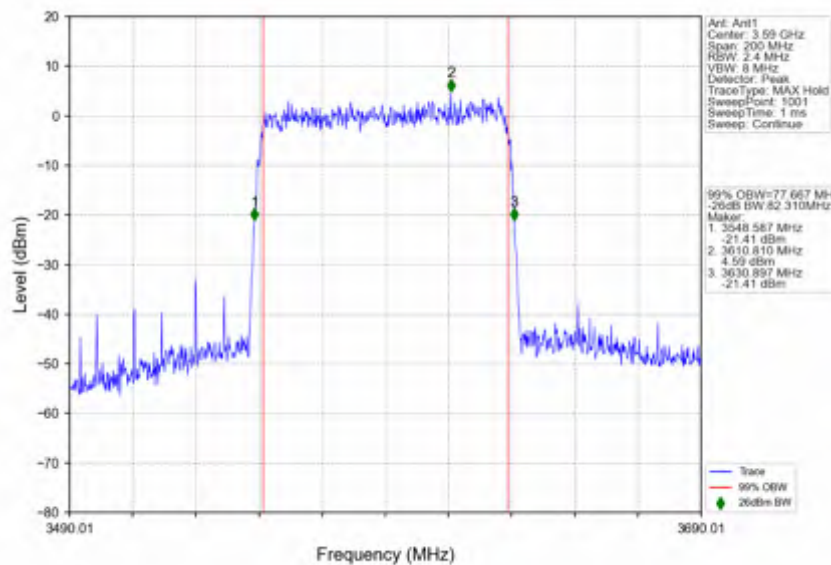
No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学院创业园伟业路18号 邮编 215300

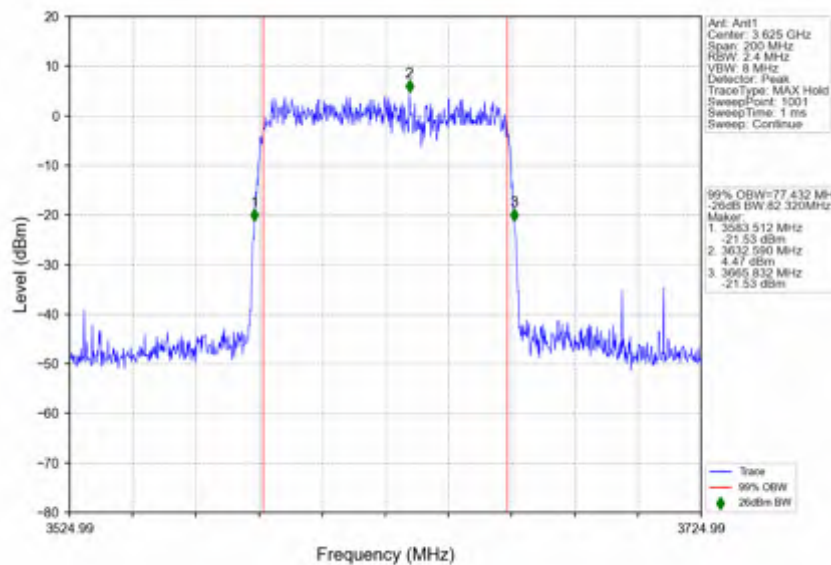
0512-57350888 0512-57370910 www.sgs.com.cn

0512-57350883 0512-57370911 sgs.china@sgs.com

n78d_30kHz_SISO_NTNV_80MHz_DFT-s-OFDM_16_QAM_3590.01MHz_Outer_Full



n78d_30kHz_SISO_NTNV_80MHz_DFT-s-OFDM_16_QAM_3624.99MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at sgs@sgs.com or sgs@sgs.com or email: CN-Online@sgs.com.

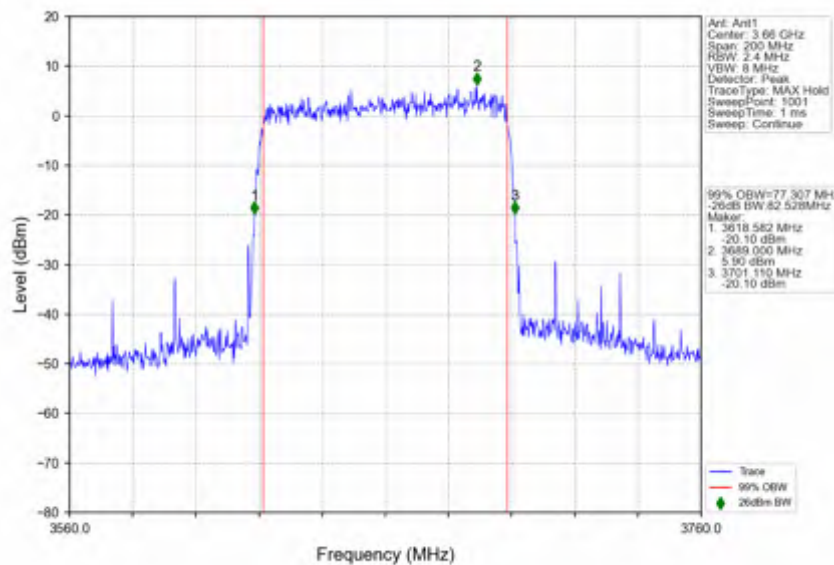
No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学生创业园伟业路10号 邮编 215300

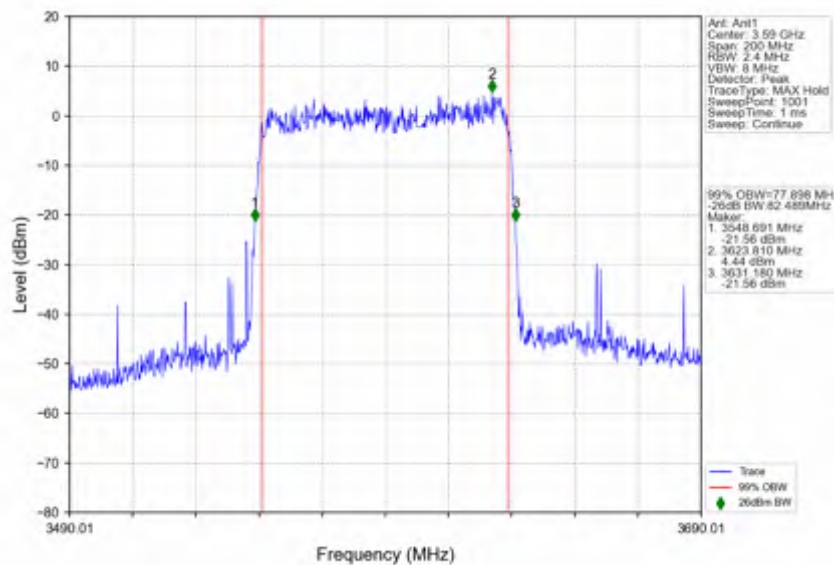
0512-51257350888 0512-5125737010 www.sgs.com.cn

0512-51257350888 0512-5125737010 sgs.china@sgs.com

n78d_30kHz_SISO_NTNV_80MHz_DFT-s-OFDM_16_QAM_3660MHz_Outer_Full



n78d_30kHz_SISO_NTNV_80MHz_DFT-s-OFDM_64_QAM_3590.01MHz_Outer_Full

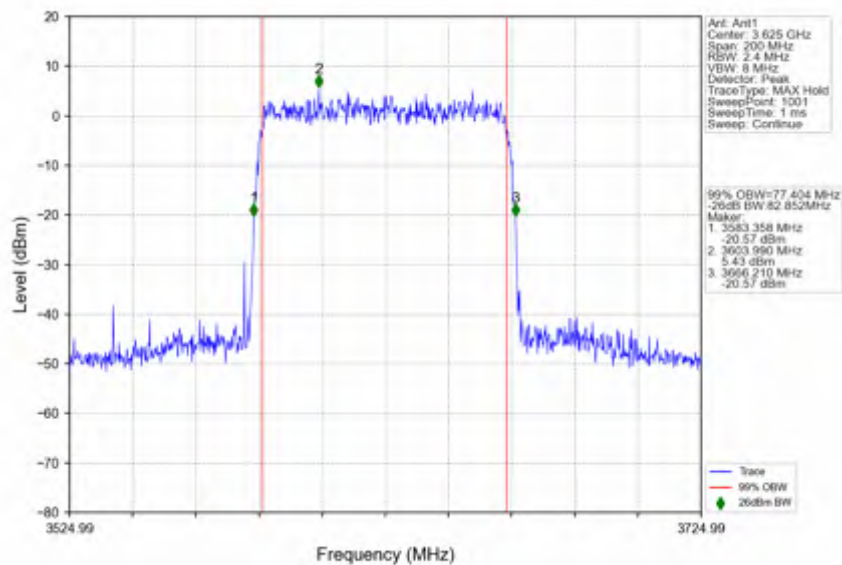


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.usc.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.usc.com/en/Terms-and-Conditions/Terms-a-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of its instructions, if any. The Company's sole responsibility is to its client and this document is not to be made available to any third party without the Company's prior written approval. The Company's documents, documents and documents are not to be reproduced, copied, altered, modified, or otherwise used in any way without the Company's prior written approval. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only. info@usc.com or <tel:+353145222222> for further information or testing outside of the scope of this document. www.usc.com [05/23/2017]

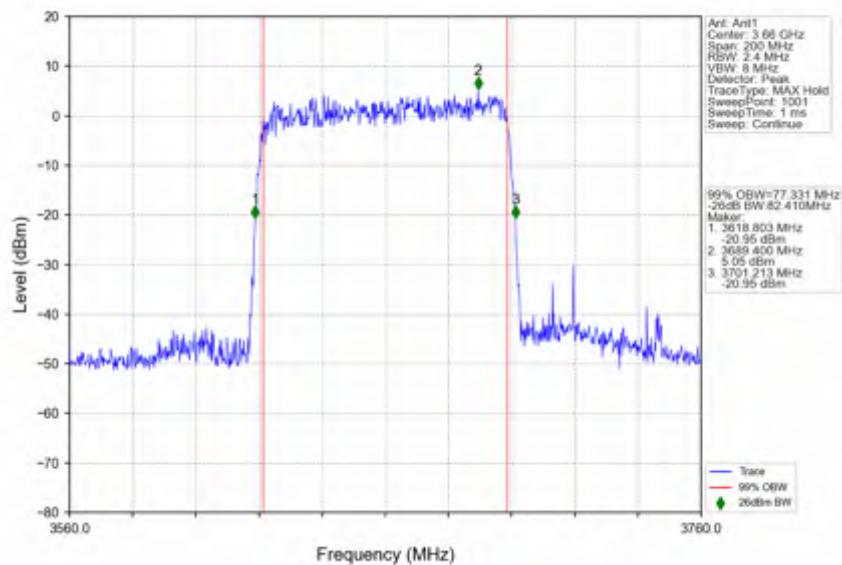
中国·江苏·昆山市留园学生创业园伟业路10号 邮编 215300

086-5125735688 086-5125737091 www.sgsigroup.com.cn
086-5125735688 086-5125737091 sgs.china@sgs.com

n78d_30kHz_SISO_NTNV_80MHz_DFT-s-OFDM_64_QAM_3624.99MHz_Outer_Full



n78d_30kHz_SISO_NTNV_80MHz_DFT-s-OFDM_64_QAM_3660MHz_Outer_Full

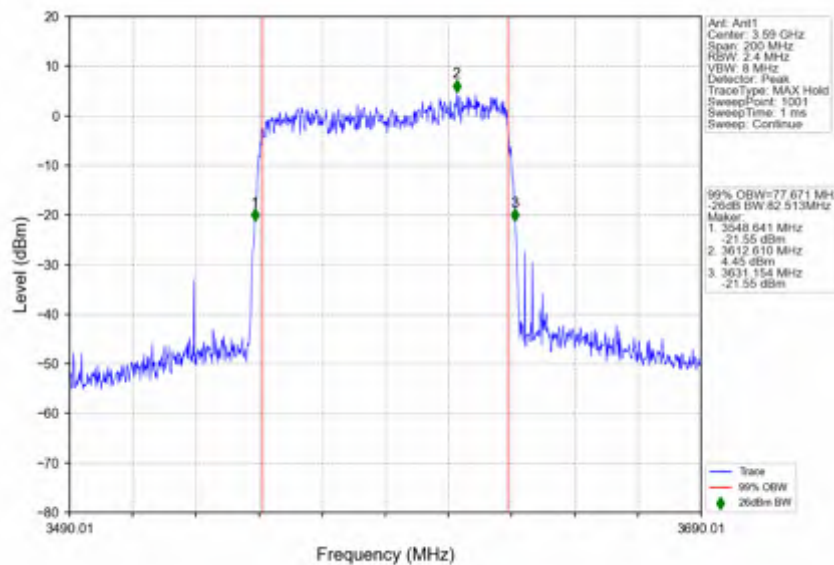


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.usc.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.usc.com/en/Terms-and-Conditions/Terms-a-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of its legal and professional responsibility. The Company does not accept any liability for any loss or damage arising from a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this last report refer only in the sample(s) tested and such sample(s) are retained for 30 days only.

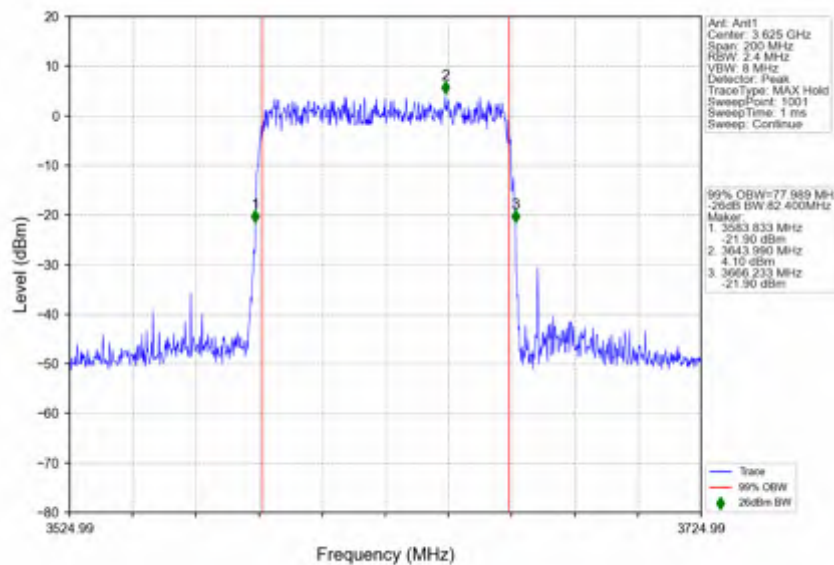
中国·江苏·昆山市留园学生创业园伟业路10号 邮编 215300

086-5125735688 086-5125737001 www.sgsgroup.com.cn
086-5125735688 086-5125737001 sgs.china@sgs.com

n78d_30kHz_SISO_NTNV_80MHz_DFT-s-OFDM_256_QAM_3590.01MHz_Outer_Full



n78d_30kHz_SISO_NTNV_80MHz_DFT-s-OFDM_256_QAM_3624.99MHz_Outer_Full

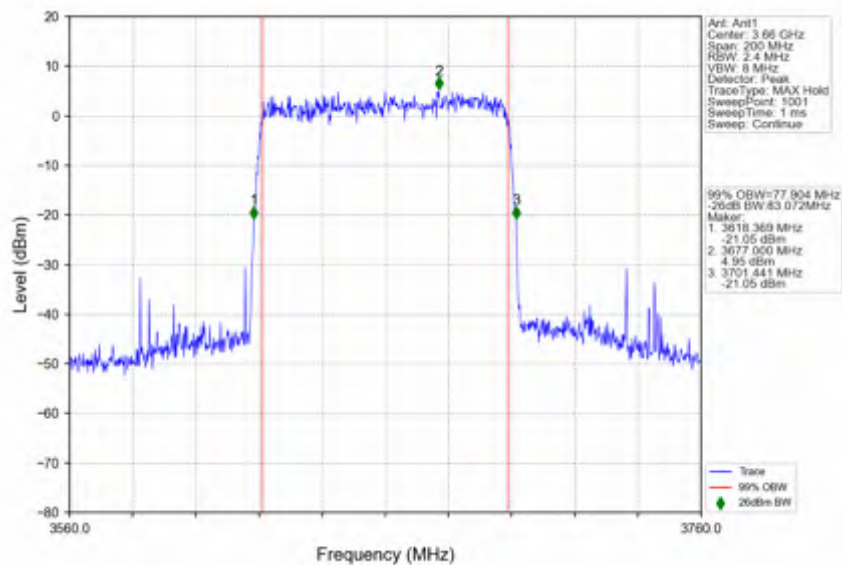


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed and available on request or accessible at <http://www.etsi.org/ETSI/Products/Conditions.aspx> and for which the subject is Terms and Conditions for Electronic Documents at <http://www.etsi.org/ETSI/Products/Terms-and-Conditions/Terms-a-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction terms defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of the Company's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a trial from their responsibility to the court. The Company's findings are contained in the document and are not to be reproduced, in whole or in part, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this fast report refer only to the sample(s) tested and such sample(s) are retained for 30 days only. For more information on the use of this document, please contact the Company at info@etsi.org or <tel:+352437341000>.

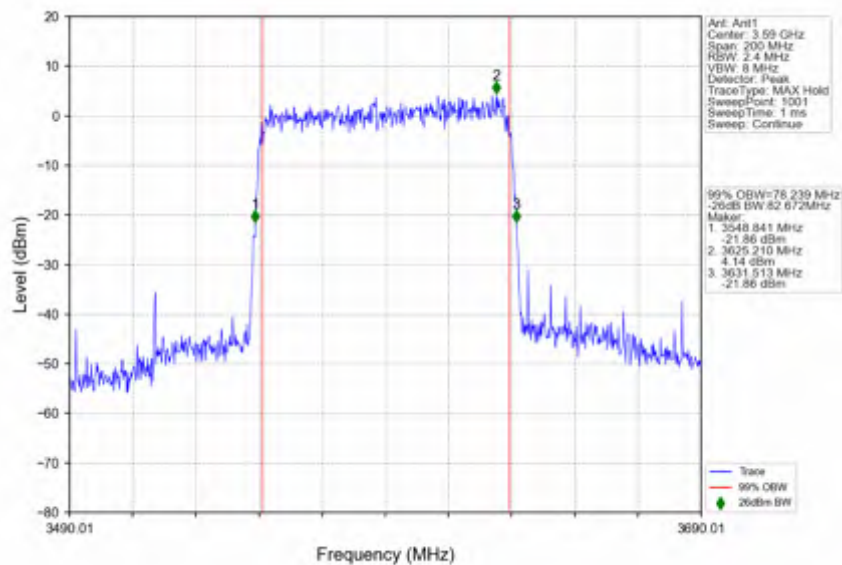
中国·江苏·昆山市阳澄湖生态创业园伟业路10号 邮编 215300

086-5125735688 086-5125737000 www.sgsgroup.com.cn
086-5125735688 086-5125737000 sgs.china@sgs.com

n78d_30kHz_SISO_NTNV_80MHz_DFT-s-OFDM_256_QAM_3660MHz_Outer_Full



n78d 30kHz SISO NTNv 80MHz CP-OFDM QPSK 3590.01MHz Outer Full

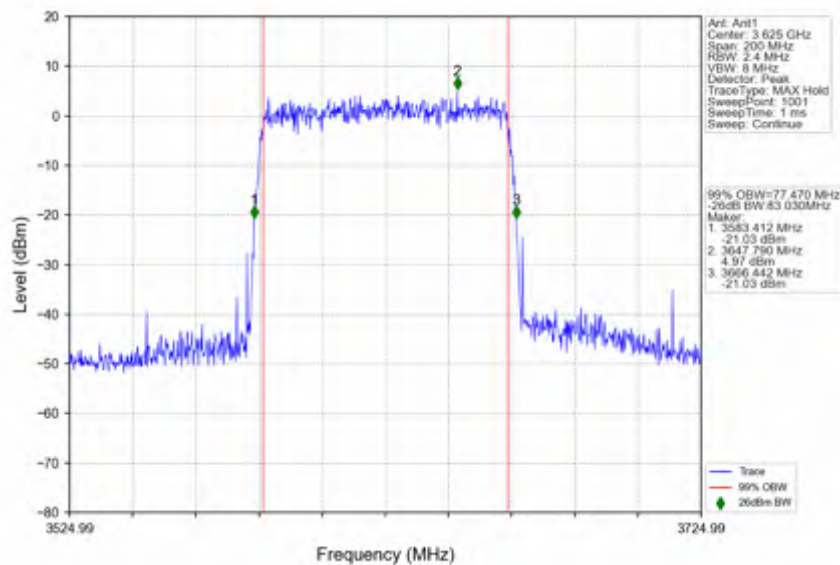


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed hereon, available on request or accessible at <http://www.irs.gov/efile/terms-and-conditions.asp> and, for electronic filing of documents, subject to Terms and Conditions for Electronic Documents at <http://www.irs.gov/efile/terms-and-conditions/terms-and-conditions.asp>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of the Company's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from their own responsibilities. The Company's intervention is limited to the matters specified in its instructions and it does not accept liability, except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the samples shown in this report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

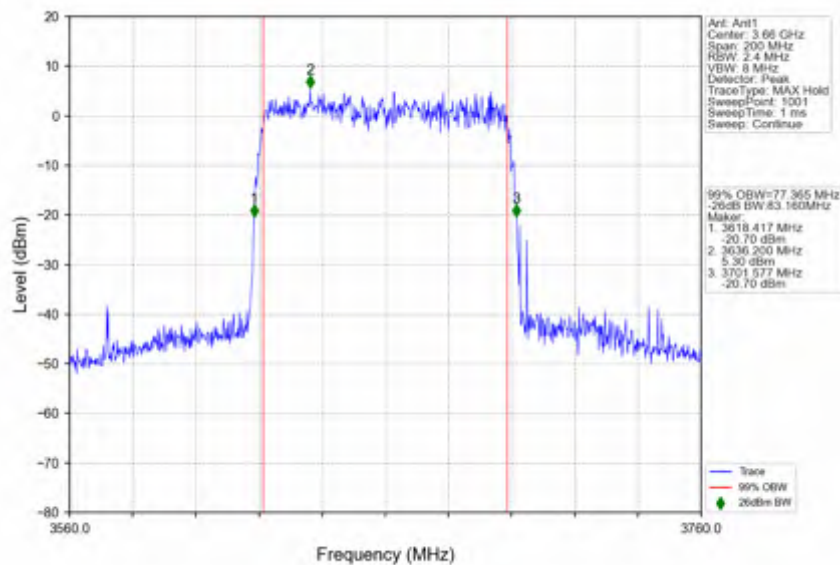
中国·江苏·昆山市留园学生创业园伟业路10号 邮编 215300

086-5125735688 086-5125737091 www.sgsigroup.com.cn
086-5125735688 086-5125737091 sgs.china@sgs.com

n78d_30kHz_SISO_NTNV_80MHz_CP-OFDM QPSK_3624.99MHz_Outer_Full



n78d_30kHz_SISO_NTNV_80MHz_CP-OFDM QPSK_3660MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overall, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated, the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing report & certificate, please connect us at telephone: (86-512) 57370011 or email: CH.Official@sgs.com.

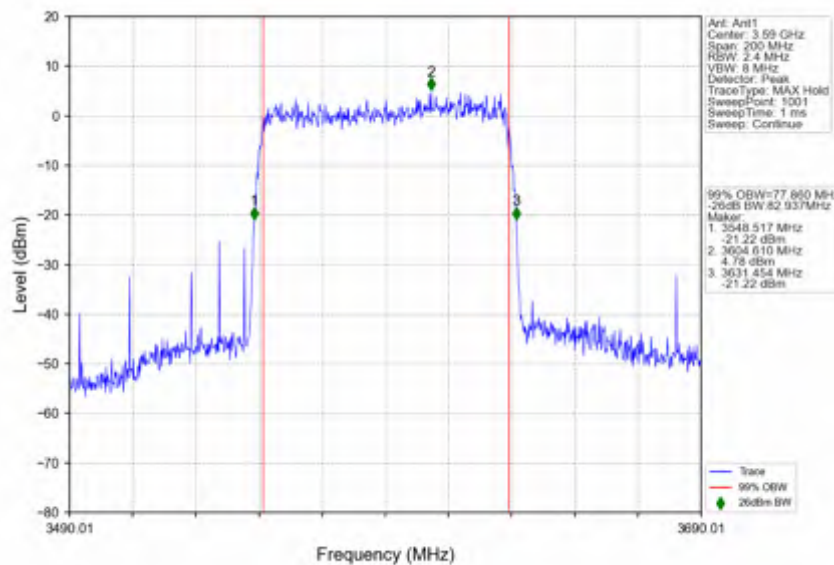
No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学院创业园伟业路18号 邮编 215300

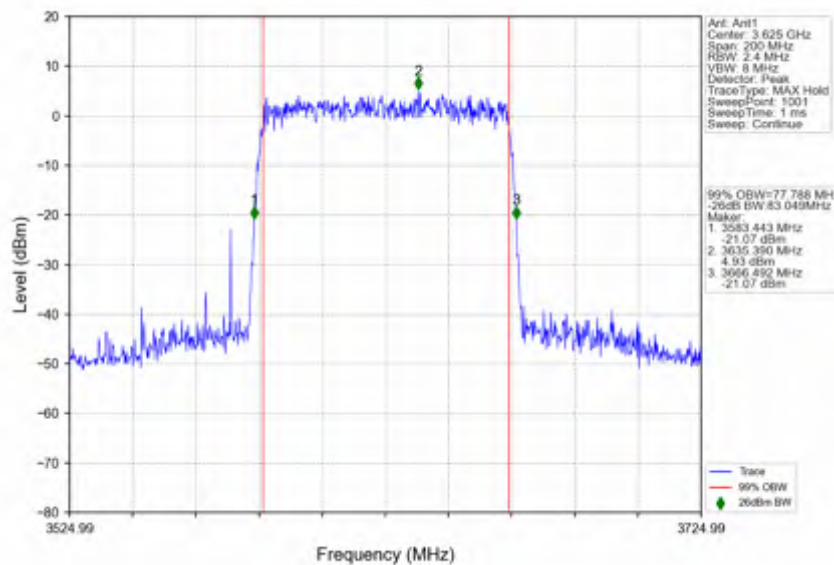
(86-512) 57350888 (86-512) 57370011 www.sgs.com.cn

(86-512) 57350883 (86-512) 57370011 sgs.china@sgs.com

n78d_30kHz_SISO_NTNV_80MHz_CP-OFDM 16 QAM 3590.01MHz_Outer_Full



n78d_30kHz_SISO_NTNV_80MHz_CP-OFDM 16 QAM 3624.99MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overall, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated, the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To Check the authenticity of testing certification report & certificate, please connect us at sgs@sgs.com or CN-Online@sgs.com.

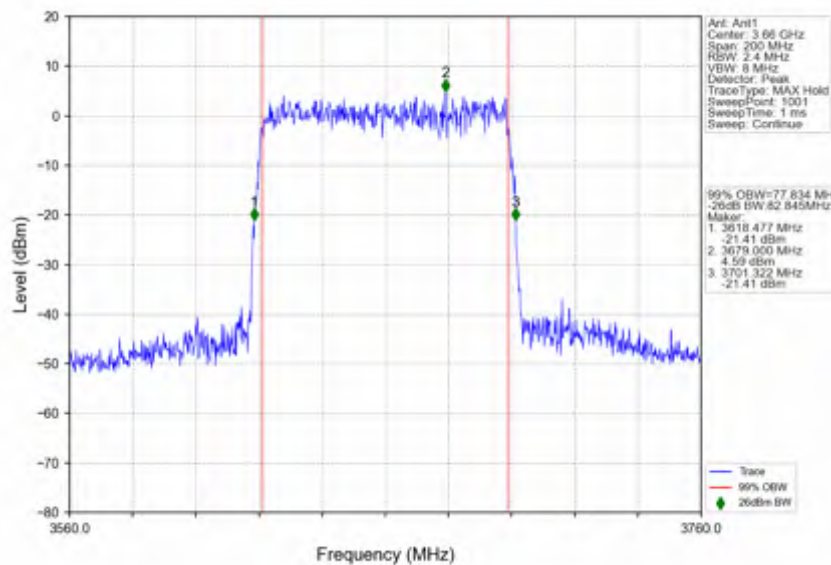
No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留學生创业园伟业路18号 邮编 215300

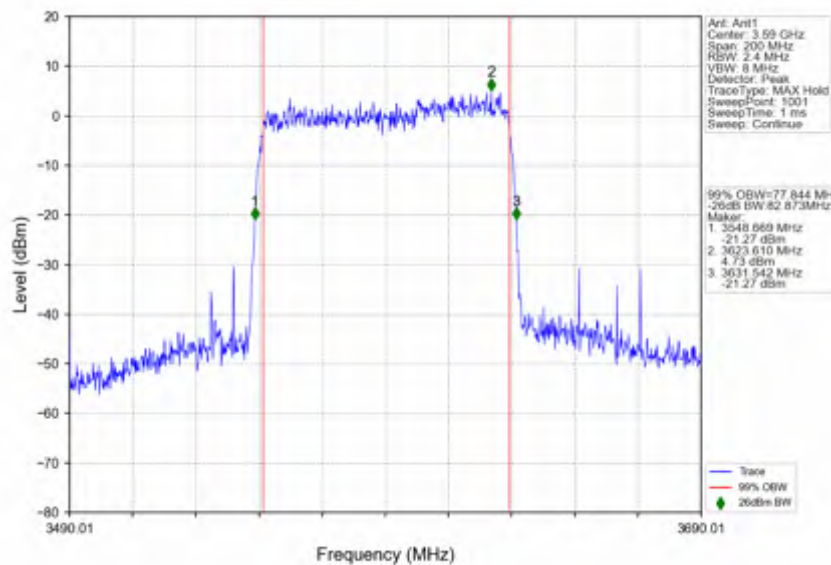
0512-51257350888 0512-5125737010 www.sgs.com cn

0512-51257350888 0512-5125737010 sgs.china@sgs.com

n78d_30kHz_SISO_NTNV_80MHz_CP-OFDM 16 QAM_3660MHz_Outer_Full



n78d_30kHz_SISO_NTNV_80MHz_CP-OFDM 64 QAM_3590.01MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at sgs@sgs.com or sgs@sgs.com or sgs@sgs.com.

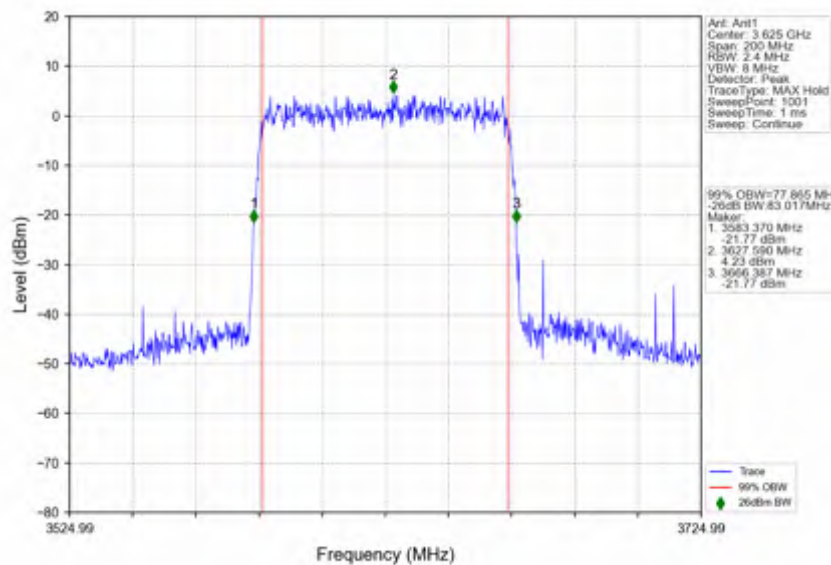
No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学院创业园伟业路18号 邮编 215300

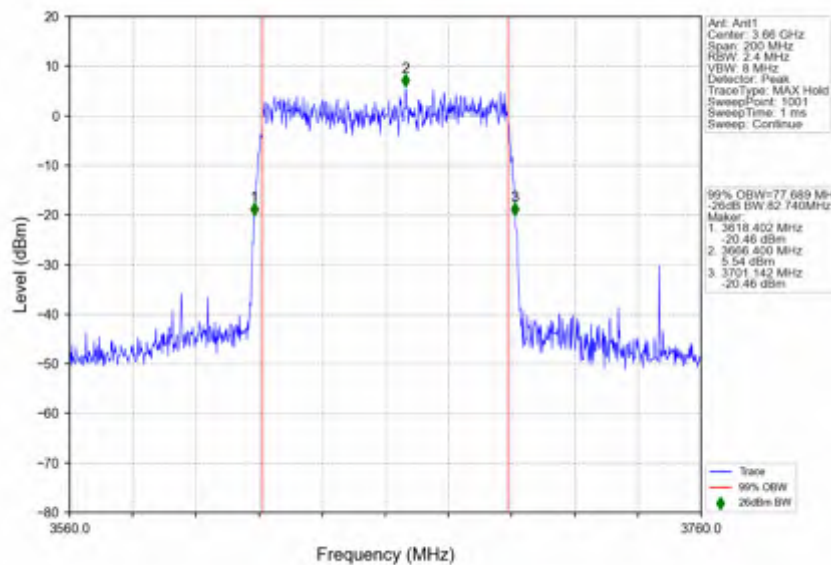
0512-51257350888 0512-5125737010 www.sgs.com.cn

0512-51257350888 0512-5125737010 sgs.china@sgs.com

n78d_30kHz_SISO_NTNV_80MHz_CP-OFDM 64 QAM_3624.99MHz_Outer_Full



n78d_30kHz_SISO_NTNV_80MHz_CP-OFDM 64 QAM_3660MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing report or certificate, please connect us at sgs@sgs.com or sgs@sgs.com or sgs@sgs.com.

No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学生创业园伟业路18号 邮编 215300

0512-57350888

0512-57370910

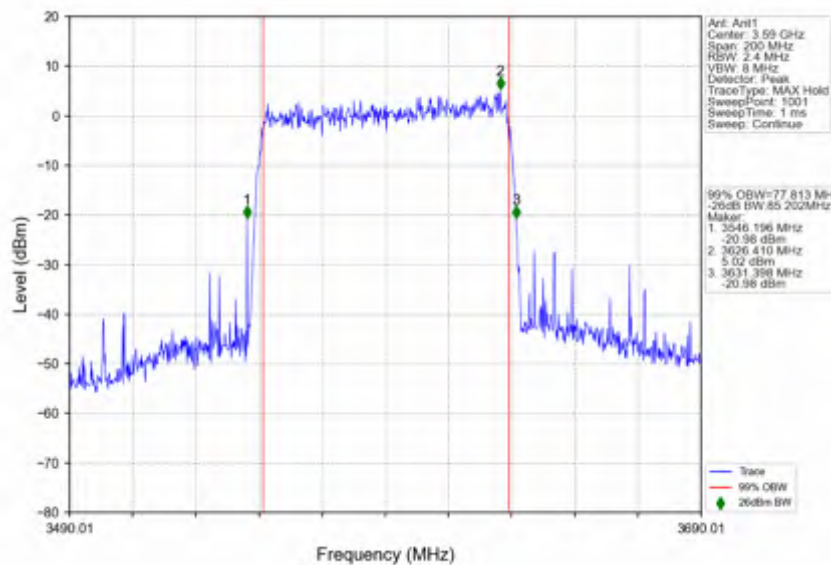
www.sgs.com.cn

0512-57350888

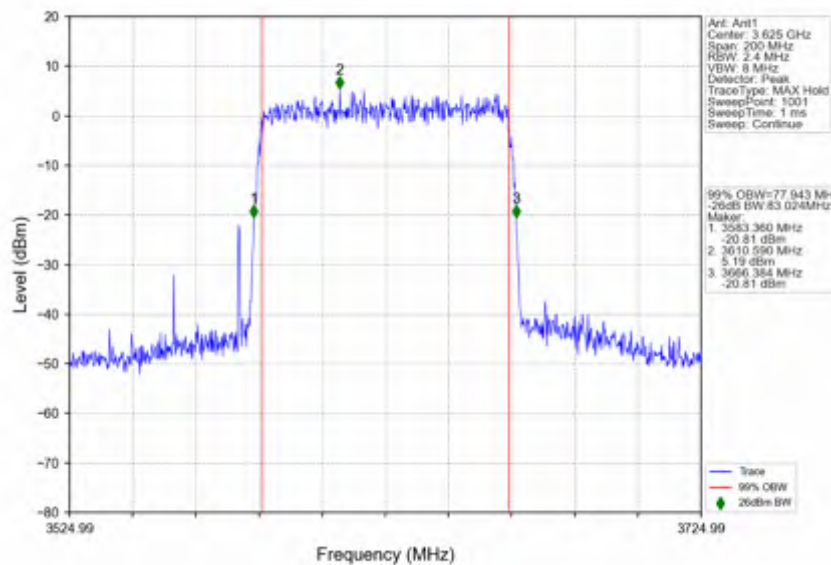
0512-57370910

sgs.china@sgs.com

n78d_30kHz_SISO_NTNV_80MHz_CP-OFDM_256_QAM_3590.01MHz_Outer_Full



n78d_30kHz_SISO_NTNV_80MHz_CP-OFDM_256_QAM_3624.99MHz_Outer_Full



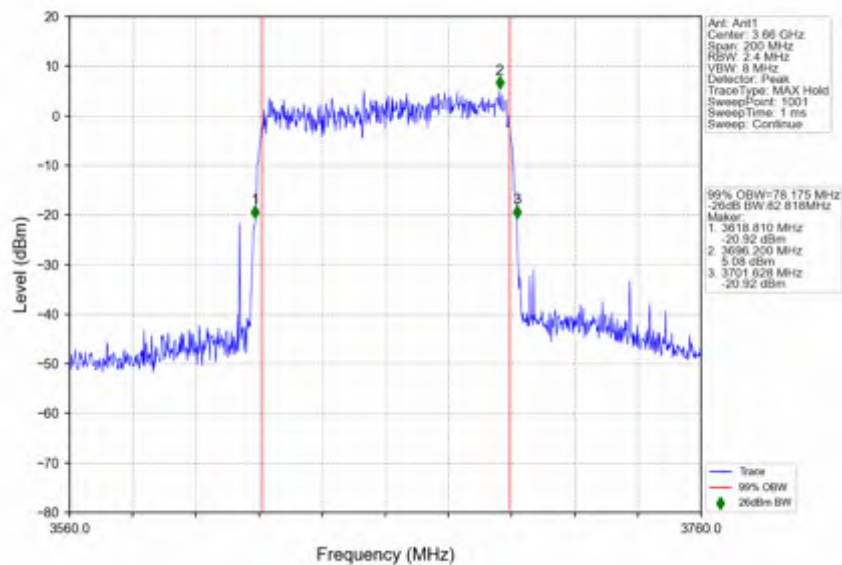
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overall, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated, the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at telephone: (86-512) 57370011 or email: CH.Official@sgs.com.

No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300
中国·江苏·昆山市留學生创业园伟业路10号 邮编 215300

(86-512) 57350888 (86-512) 57370011 www.sgs.com.cn
(86-512) 57350883 (86-512) 57370011 sgs.china@sgs.com

n78d_30kHz_SISO_NTNV_80MHz_CP-OFDM_256_QAM_3660MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at telephone: (86-512) 57350888 or email: CH.Official@sgs.com.

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300
中国·江苏·昆山市留学院创业园伟业路10号 邮编 215300

(86-512) 57350888 (86-512) 57370910 www.sgs.com.cn
(86-512) 57350888 (86-512) 57370910 sgs.china@sgs.com

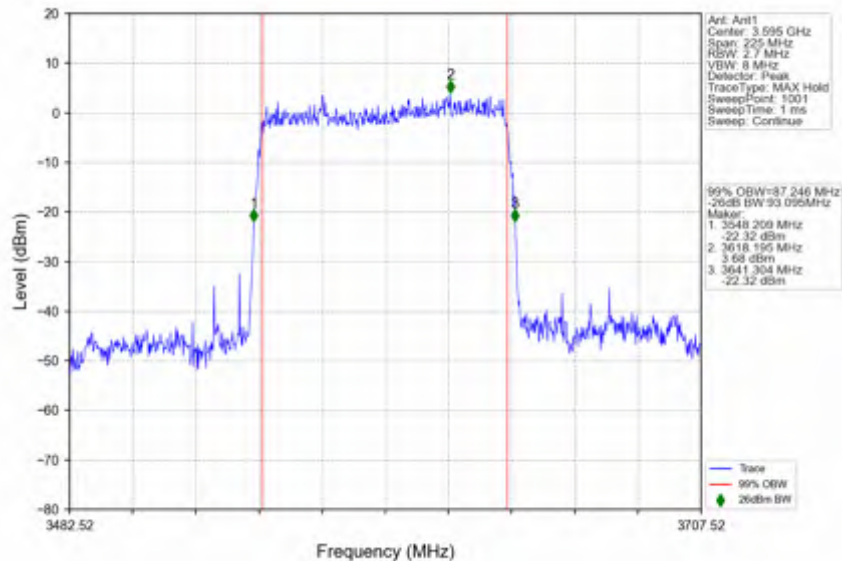
8.18 30k_SISO_90MHz_NTNV

8.18.1 Test Result

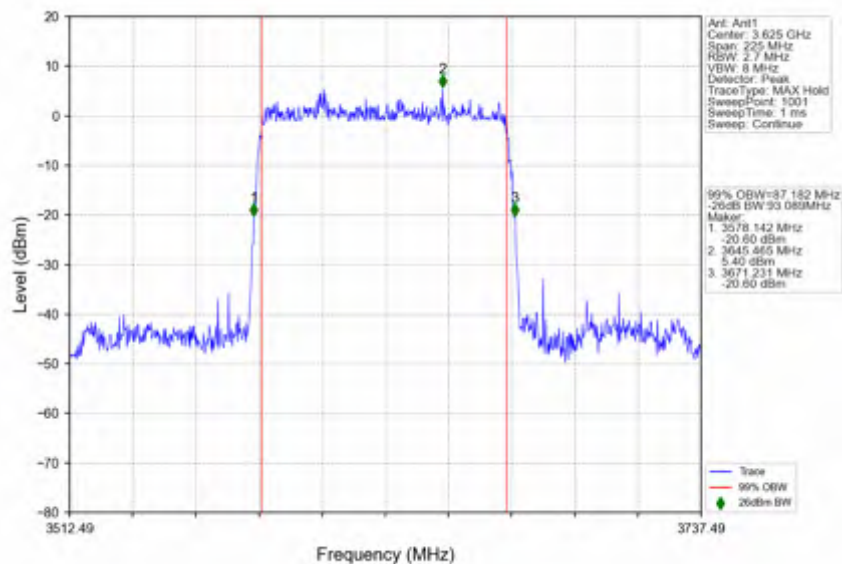
5G NR n78d SCS=30kHz SISO 90MHz NTN						
Modulation	Frequency (MHz)	RB Allocation	99% Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
DFT-s-OFDM PI/2 BPSK	3595.02	Outer_Full	87.25	93.09	/	Pass
	3624.99	Outer_Full	87.18	93.09	/	Pass
	3654.99	Outer_Full	86.73	92.96	/	Pass
DFT-s-OFDM QPSK	3595.02	Outer_Full	86.96	92.40	/	Pass
	3624.99	Outer_Full	87.15	92.86	/	Pass
	3654.99	Outer_Full	87.28	93.34	/	Pass
DFT-s-OFDM 16 QAM	3595.02	Outer_Full	86.74	92.83	/	Pass
	3624.99	Outer_Full	87.26	92.69	/	Pass
	3654.99	Outer_Full	87.14	92.81	/	Pass
DFT-s-OFDM 64 QAM	3595.02	Outer_Full	87.23	92.53	/	Pass
	3624.99	Outer_Full	87.05	92.90	/	Pass
	3654.99	Outer_Full	86.99	92.96	/	Pass
DFT-s-OFDM 256 QAM	3595.02	Outer_Full	86.78	92.80	/	Pass
	3624.99	Outer_Full	87.13	93.01	/	Pass
	3654.99	Outer_Full	87.06	92.83	/	Pass
CP-OFDM QPSK	3595.02	Outer_Full	87.55	93.25	/	Pass
	3624.99	Outer_Full	87.74	92.97	/	Pass
	3654.99	Outer_Full	88.29	93.39	/	Pass
CP-OFDM 16 QAM	3595.02	Outer_Full	87.44	93.69	/	Pass
	3624.99	Outer_Full	87.85	93.60	/	Pass
	3654.99	Outer_Full	87.94	93.01	/	Pass
CP-OFDM 64 QAM	3595.02	Outer_Full	88.06	93.46	/	Pass
	3624.99	Outer_Full	88.06	93.52	/	Pass
	3654.99	Outer_Full	88.10	93.49	/	Pass
CP-OFDM 256 QAM	3595.02	Outer_Full	87.74	93.68	/	Pass
	3624.99	Outer_Full	87.99	93.54	/	Pass
	3654.99	Outer_Full	88.40	93.31	/	Pass

8.18.2 Test Graph

n78d_30kHz_SISO_NTNV_90MHz_DFT-s-OFDM PI/2 BPSK_3595.02MHz_Outer_Full



n78d_30kHz_SISO_NTNV_90MHz_DFT-s-OFDM PI/2 BPSK_3624.99MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at sgs@sgs.com (86-512) 57370011 or email: CN-Online@sgs.com.

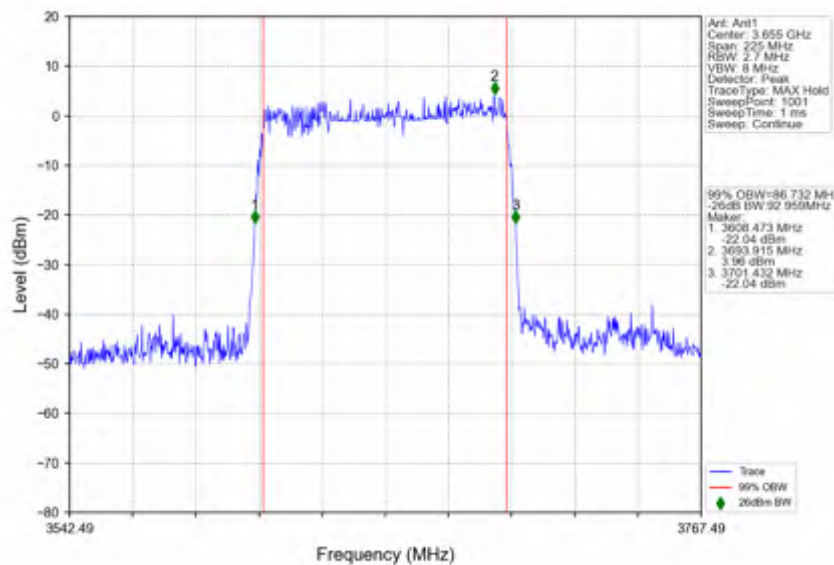
No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学生创业园伟业路18号 邮编 215300

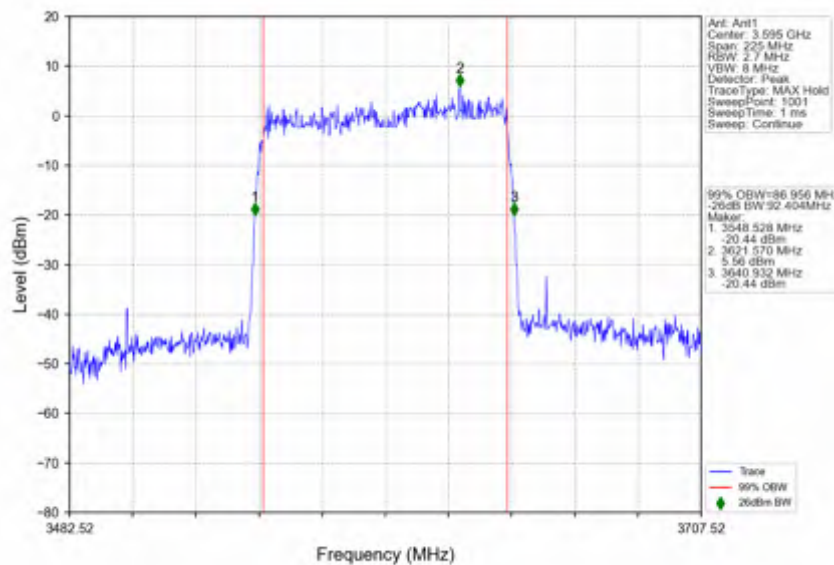
0085-51257350888 0065-1257370011 www.sgs.com.cn

0085-51257350888 0065-1257370011 sgs.china@sgs.com

n78d_30kHz_SISO_NTNV_90MHz_DFT-s-OFDM PI/2 BPSK_3654.99MHz_Outer_Full



n78d_30kHz_SISO_NTNV_90MHz_DFT-s-OFDM QPSK_3595.02MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overall, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated, the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at sgs@sgs.com or sgs@sgs.com.

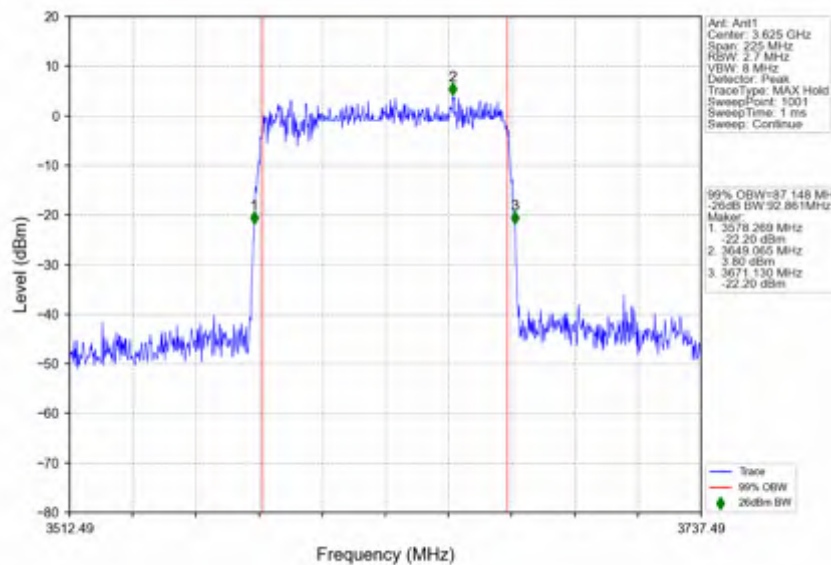
No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学院创业园伟业路18号 邮编 215300

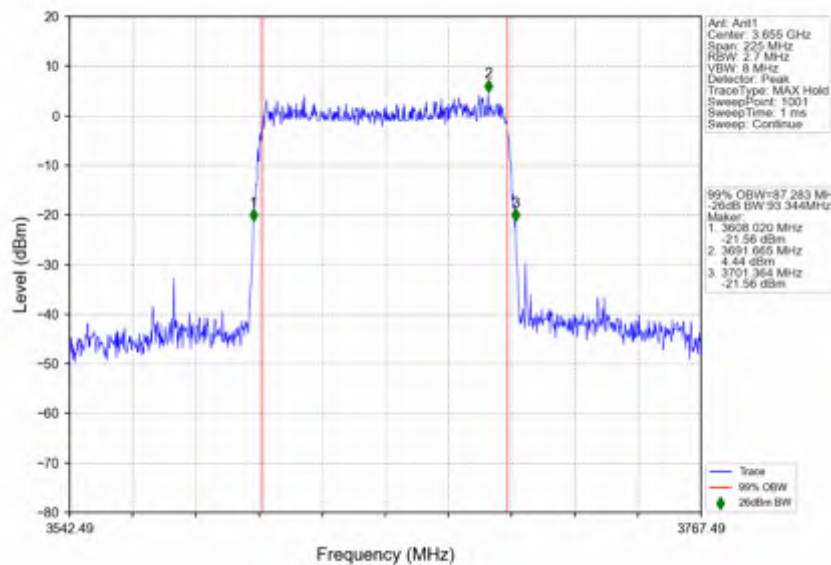
0512-51257350888 0512-51257370910 www.sgs.com.cn

0512-51257350888 0512-51257370910 sgs.china@sgs.com

n78d_30kHz_SISO_NTNV_90MHz_DFT-s-OFDM_QPSK_3624.99MHz_Outer_Full



n78d	30kHz	SISO	NTNV	90MHz	DFT-s-OFDM	QPSK	3654.99MHz	Outer	Full
------	-------	------	------	-------	------------	------	------------	-------	------

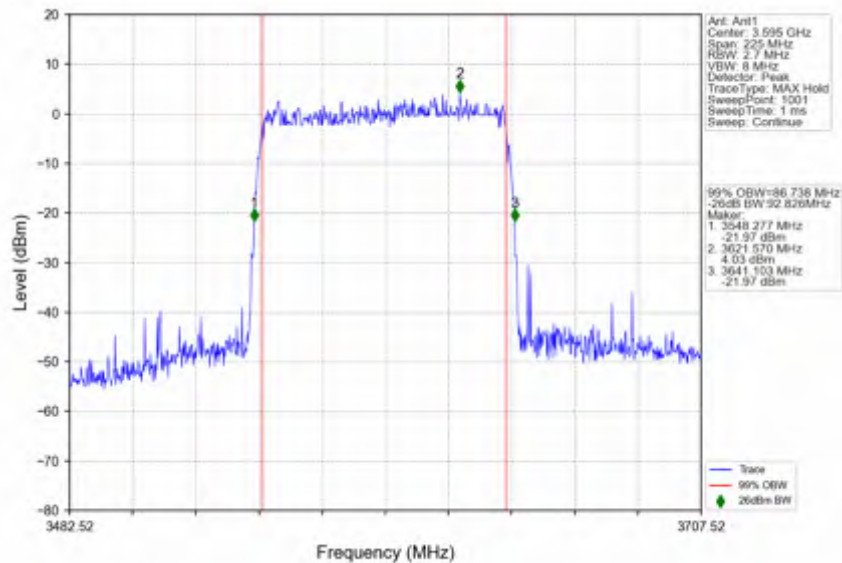


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed hereon, available on request or accessible at <http://www.irs.gov/efile/terms-and-conditions.asp> and, for electronic filing of documents, subject to Terms and Conditions for Electronic Documents at <http://www.irs.gov/efile/terms-and-conditions/terms-and-conditions.asp>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of the Company's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from their own responsibilities. The Company's intervention is limited to the matters specified in its instructions and it does not accept liability, except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the samples shown in this report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

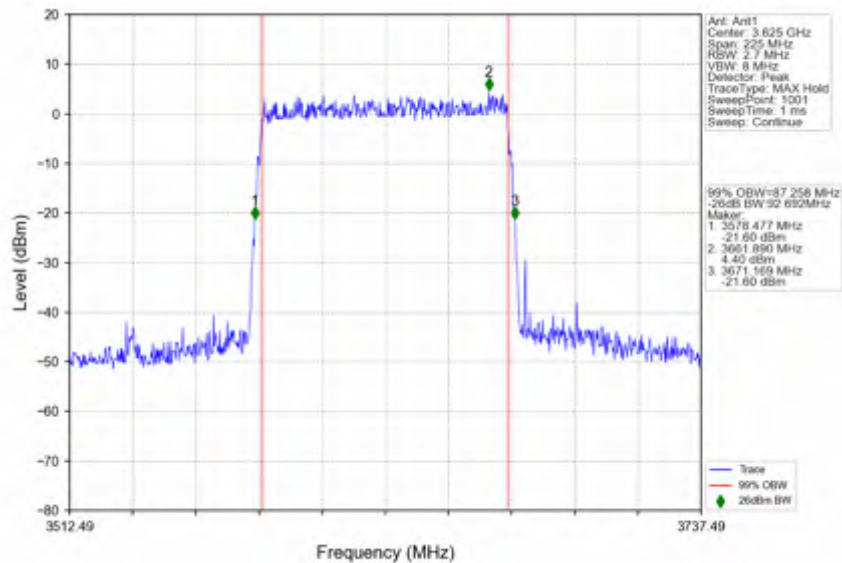
中国·江苏·昆山市留學生创业园伟业路10号 邮编 215300

086-5125735688 086-5125737000 www.sgsgroup.com.cn
086-5125735688 086-5125737000 sgs.china@sgs.com

n78d_30kHz_SISO_NTV_90MHz_DFT-s-OFDM_16_QAM_3595.02MHz_Outer_Full



n78d_30kHz_SISO_NTV_90MHz_DFT-s-OFDM_16_QAM_3624.99MHz_Outer_Full

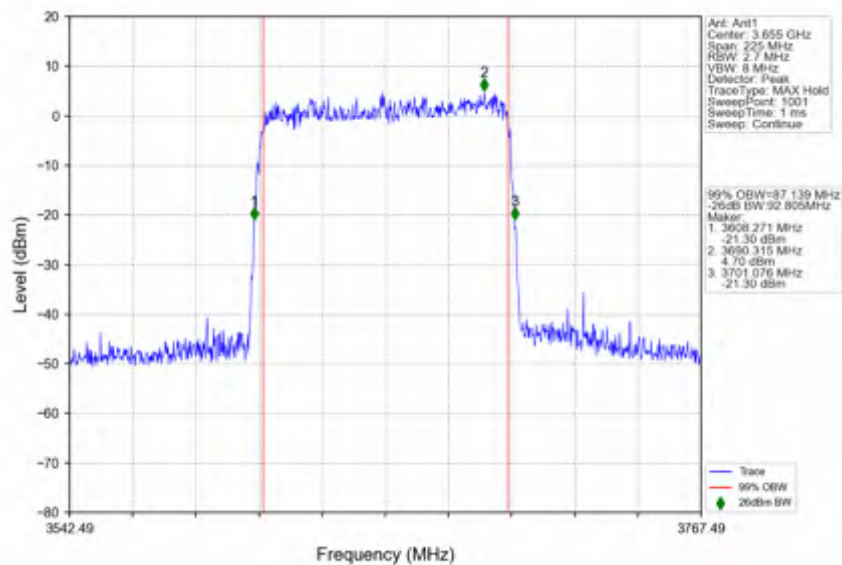


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overall, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

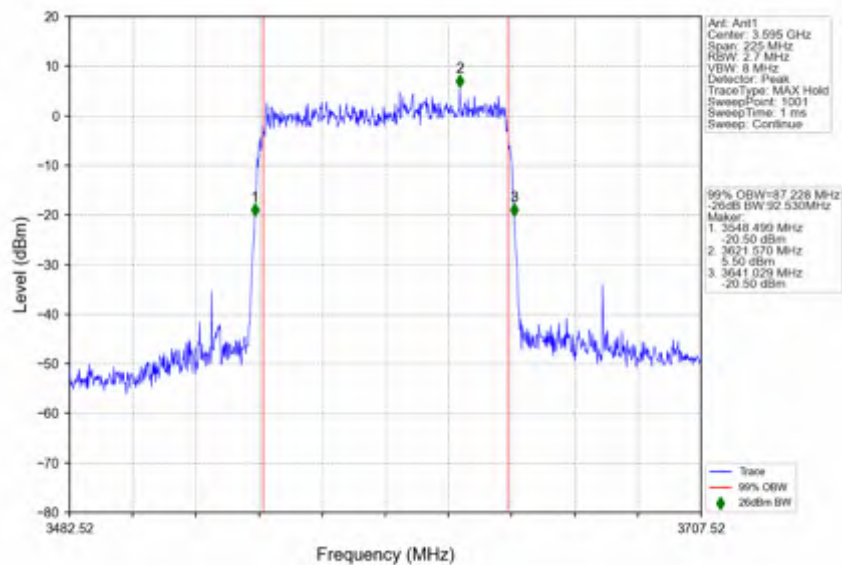
Attention: To check the authenticity of testing certification report & certificate, please connect us at sgs@sgs.com or sgs@sgs.com or email: CN-Online@sgs.com.
No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300
中国·江苏·昆山市留学院创业园伟业路18号 邮编 215300

086-51215735088 086-51215737010 www.sgs.com.cn
086-51215735088 086-51215737010 sgs.china@sgs.com

n78d_30kHz_SISO_NTNV_90MHz_DFT-s-OFDM_16_QAM_3654.99MHz_Outer_Full



n78d_30kHz_SISO_NTNV_90MHz_DFT-s-OFDM_64_QAM_3595.02MHz_Outer_Full

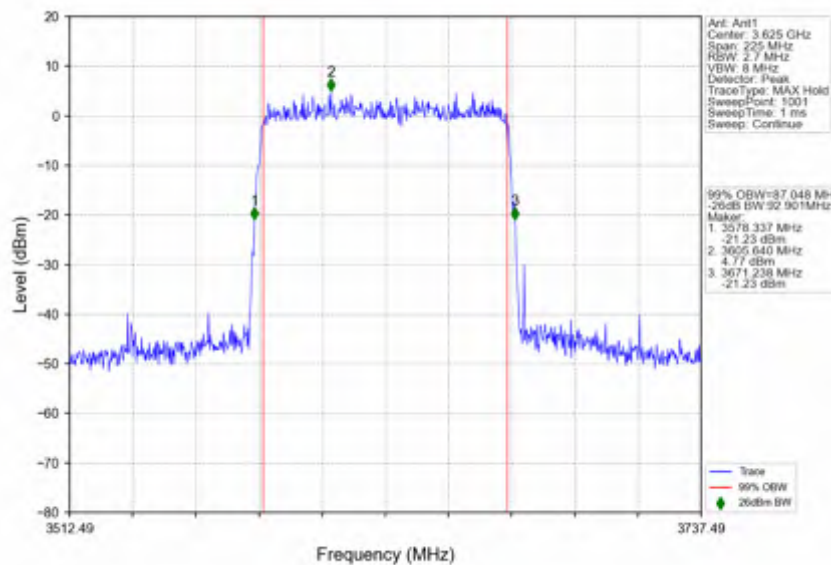


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed hereon, available on request or accessible at <http://www.etsi.com/ETSI%20Terms%20and%20Conditions.aspx> and, for selected forms, printed subject to Terms and Conditions for Electronic Documents at <http://www.etsi.com/ETSI%20Terms%20and%20Conditions/Terms%20Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of the Company's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a trial from their responsibility to the court. The Company's findings are contained in the document and are not to be reproduced, in whole or in part, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this fast report refer only to the sample(s) tested and such sample(s) are retained for 30 days only. For more information on the use of this document, please contact the Company at info@etsi.com or <tel:+352437342000>.

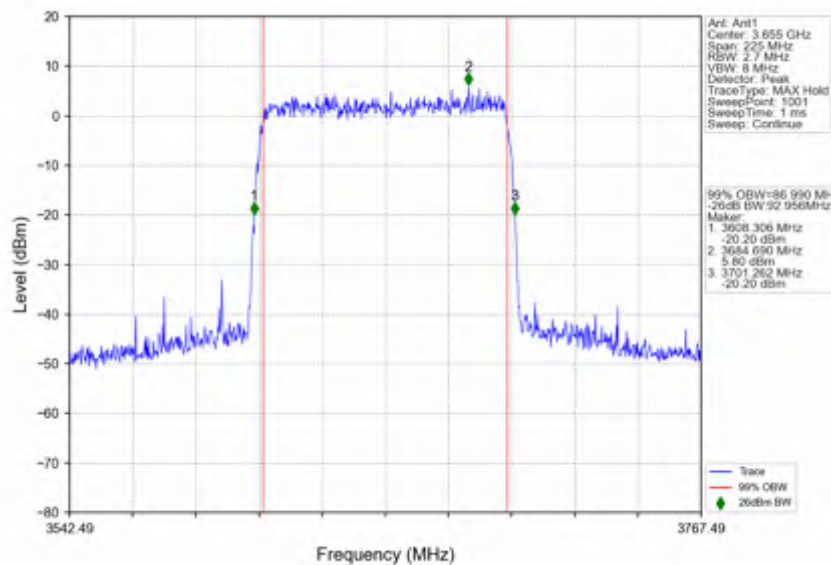
中国·江苏·昆山市阳澄湖生态创业园伟业路10号 邮编 215300

086-5125735688 086-5125737091 www.sgsgroup.com.cn
086-5125735688 086-5125737091 sgs.china@sgs.com

n78d_30kHz_SISO_NTV_90MHz_DFT-s-OFDM_64_QAM_3624.99MHz_Outer_Full



n78d_30kHz_SISO_NTV_90MHz_DFT-s-OFDM_64_QAM_3654.99MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overall, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated, the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at sgs@sgs.com or sgs@sgs.com or sgs@sgs.com.

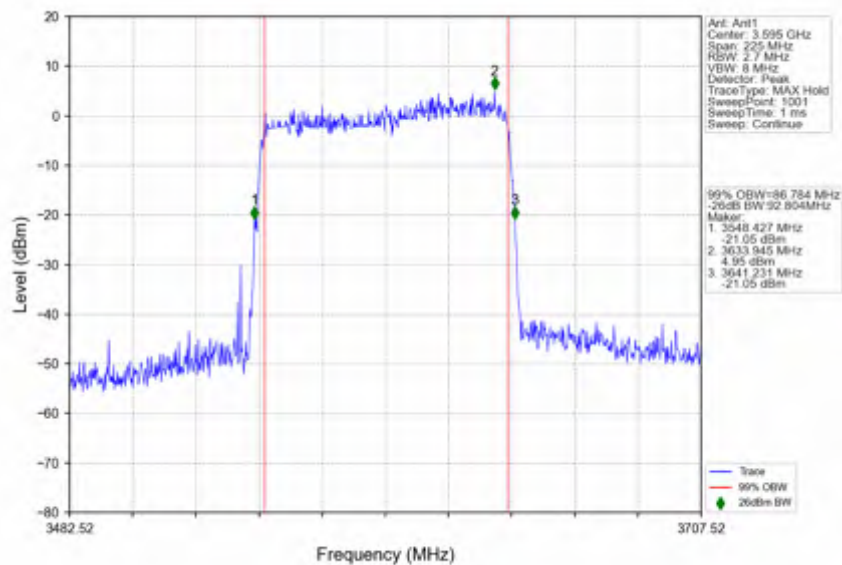
No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学院创业园伟业路18号 邮编 215300

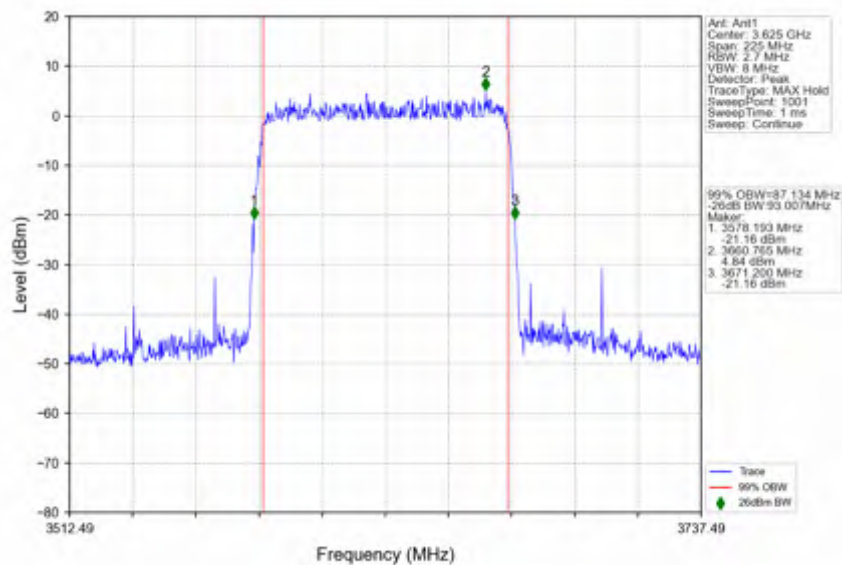
0085-512157350888 0085-512157370011 www.sgs.com.cn

0085-512157350888 0085-512157370011 sgs.china@sgs.com

n78d_30kHz_SISO_NTNV_90MHz_DFT-s-OFDM_256_QAM_3595.02MHz_Outer_Full



n78d_30kHz_SISO_NTNV_90MHz_DFT-s-OFDM_256_QAM_3624.99MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overall, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at sgs@sgs.com or CN-Online@sgs.com.

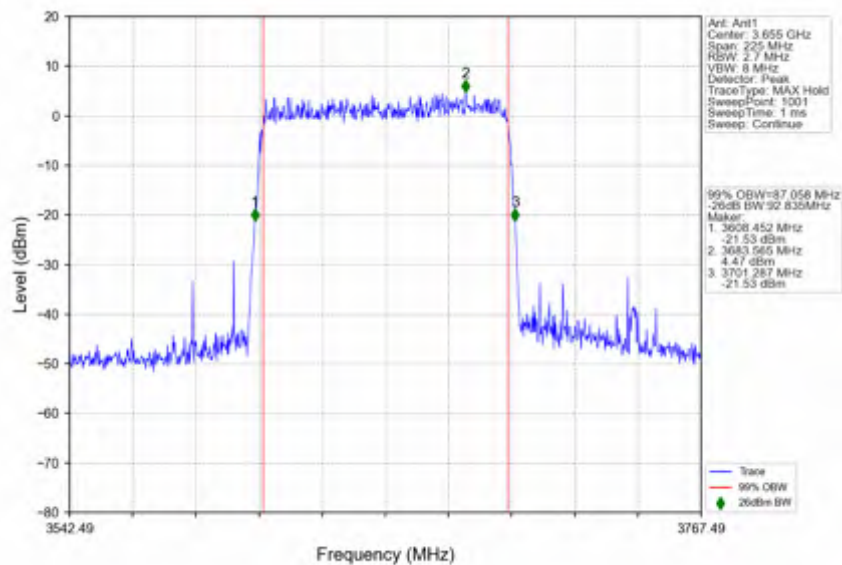
No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学院创业园伟业路18号 邮编 215300

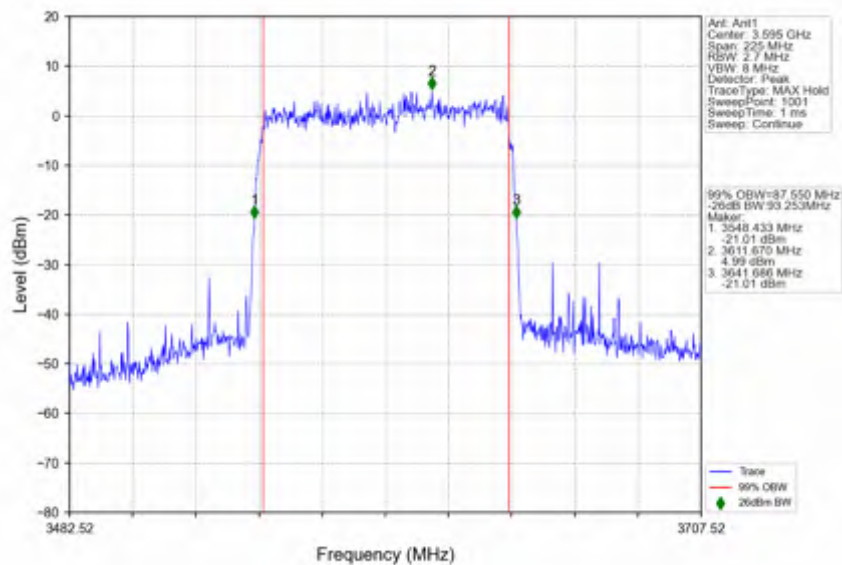
0512-515735088 0512-515737010 www.sgs.com.cn

0512-515735088 0512-515737010 sgs.china@sgs.com

n78d_30kHz_SISO_NTNV_90MHz_DFT-s-OFDM_256_QAM_3654.99MHz_Outer_Full



n78d_30kHz_SISO_NTNV_90MHz_CP-OFDM_QPSK_3595.02MHz_Outer_Full

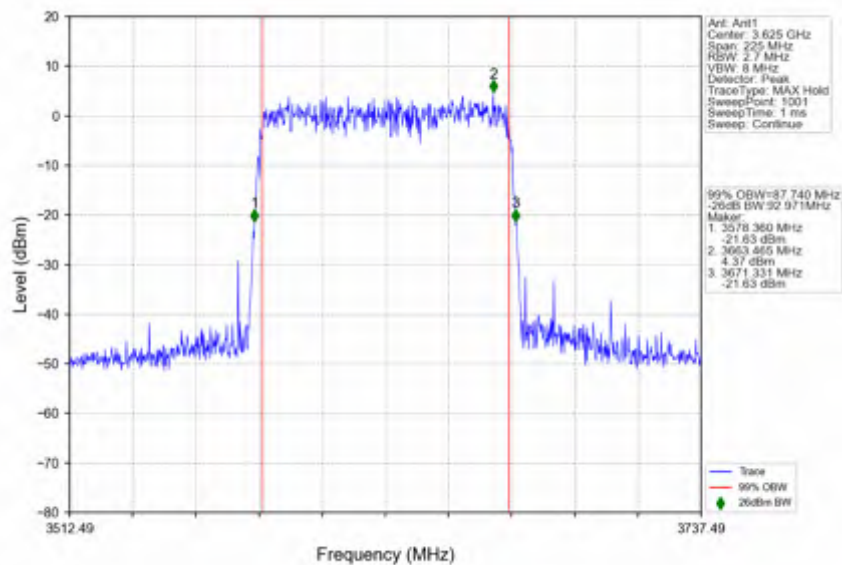


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.usc.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.usc.com/en/Terms-and-Conditions/Terms-a-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of its instructions, if any. The Company's sole responsibility is to its client and this document is not to be made available to any third party without the Company's prior written approval. The Company's documents, documents and documents are not to be reproduced, copied or distributed in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information storage and retrieval system, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only. info@usc.com or <tel:+353145222222> for further information or testing outside of the scope of this document. www.usc.com [05/23/2017]

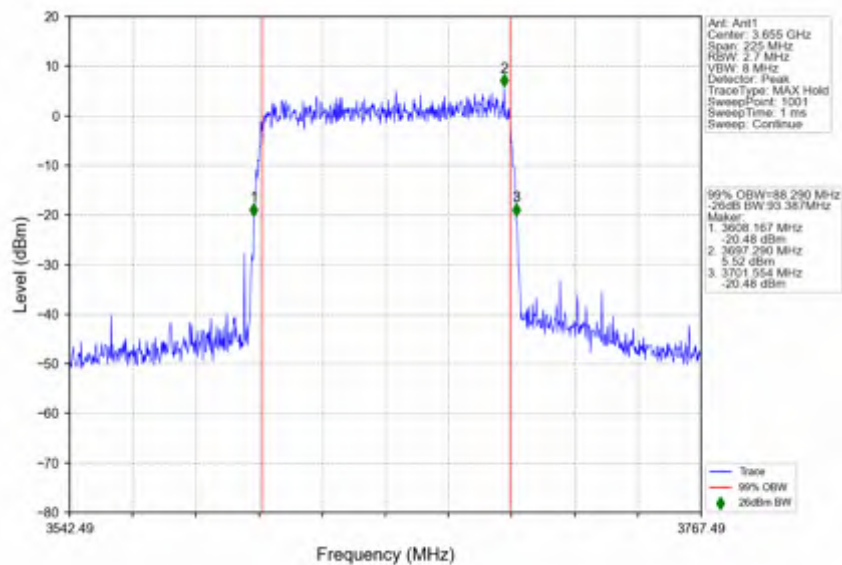
中国·江苏·昆山市留园学生创业园伟业路10号 邮编 215300

086-5125735688 086-5125737000 www.sgsgroup.com.cn
086-5125735688 086-5125737000 sgs.china@sgs.com

n78d 30kHz SISO NTNv 90MHz CP-OFDM QPSK 3624.99MHz Outer Full



n78d 30kHz SISO NTNv 90MHz CP-OFDM QPSK 3654.99MHz Outer Full

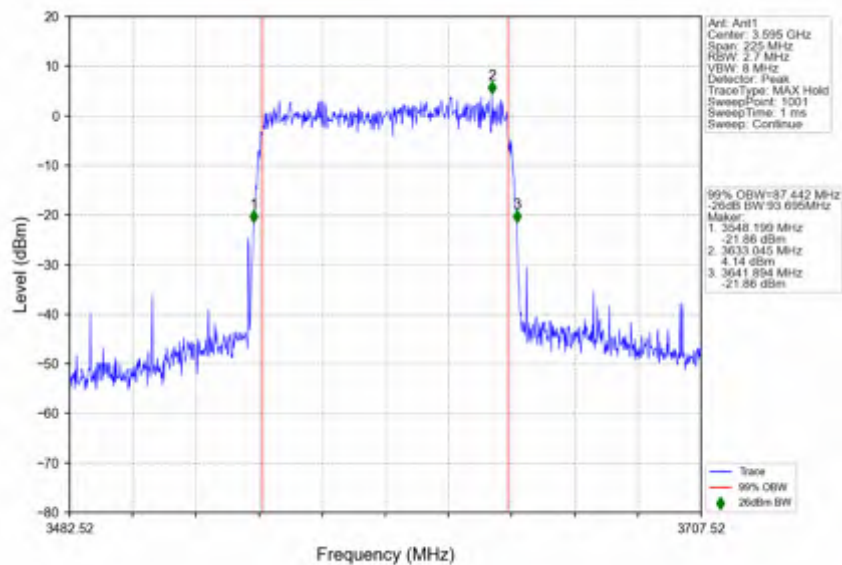


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed hereon, available on request or accessible at <http://www.etsi.com/Products/ETSI%20Products%20and%20Conditions> and, for selected forms, printed subject to Terms and Conditions for Electronic Documents at <http://www.etsi.com/terms-and-conditions/Terms-a-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction terms defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of the Company's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a trial from their responsibility to the court. The Company's liability is limited to the amount of the fee actually paid for the service, except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this fast report refer only to the sample(s) tested and such sample(s) are retained for 30 days only. For more information on the fast report or testing methods, please contact our technical service centre at ts@etsi.com or <tel:+35894422222>.

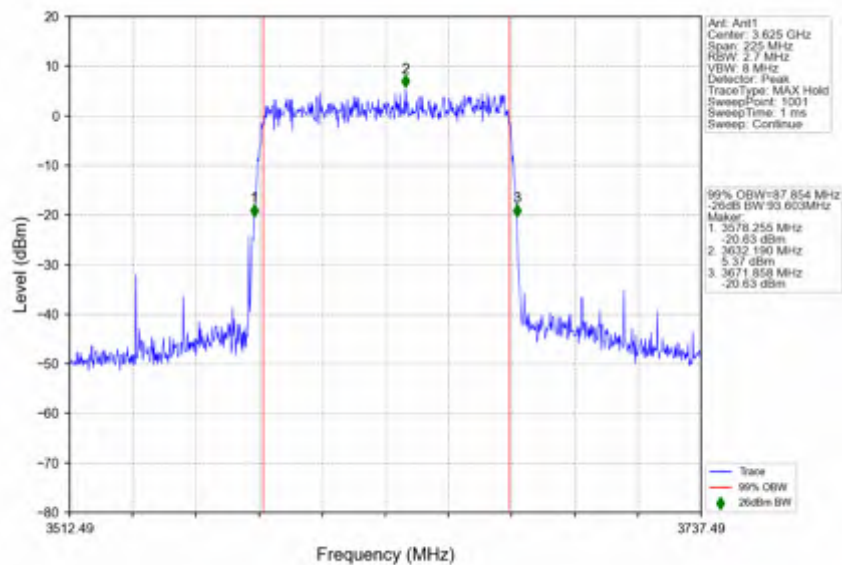
中国·江苏·昆山市周庄学生创业园伟业路10号 邮编 215300

086-5125735688 086-5125737000 www.sgsgroup.com.cn
086-5125735688 086-5125737000 sgs.china@sgs.com

n78d_30kHz_SISO_NTNV_90MHz_CP-OFDM 16 QAM_3595.02MHz_Outer_Full



n78d_30kHz_SISO_NTNV_90MHz_CP-OFDM 16 QAM_3624.99MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overall, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated, the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at sgs@sgs.com or CN-Online@sgs.com.

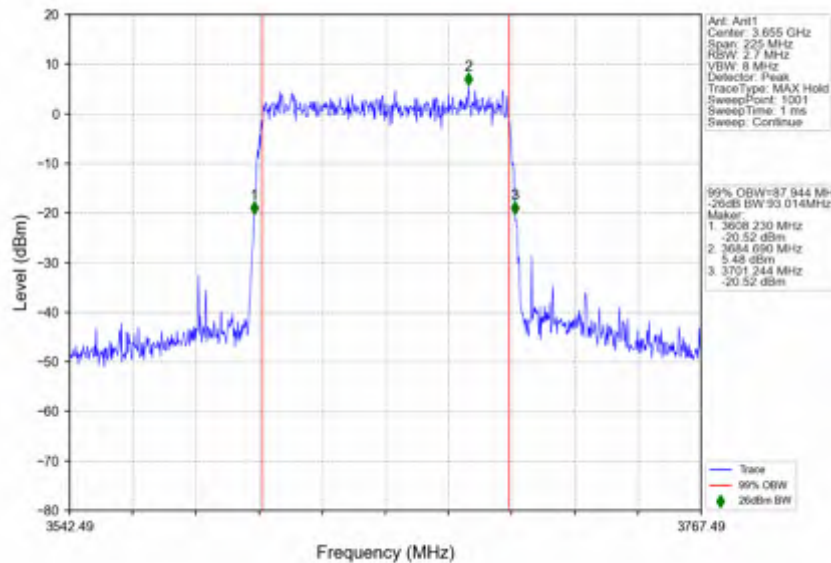
No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学生创业园伟业路18号 邮编 215300

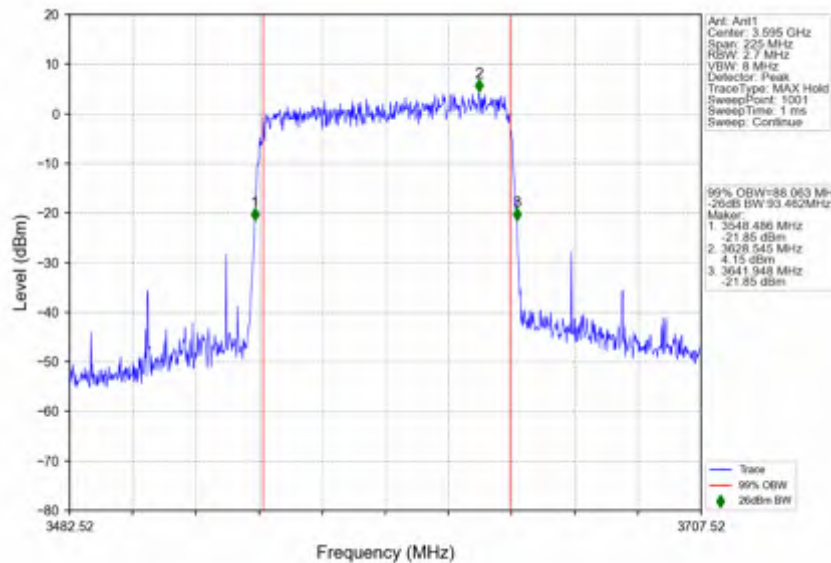
0512-51257350888 0512-51257370910 www.sgs.com.cn

0512-51257350888 0512-51257370910 sgs.china@sgs.com

n78d_30kHz_SISO_NTNV_90MHz_CP-OFDM 16 QAM_3654.99MHz_Outer_Full



n78d_30kHz_SISO_NTNV_90MHz_CP-OFDM 64 QAM_3595.02MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated, the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at sgs@sgs.com or sgs@sgs.com or sgs@sgs.com.

No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学生创业园伟业路18号 邮编 215300

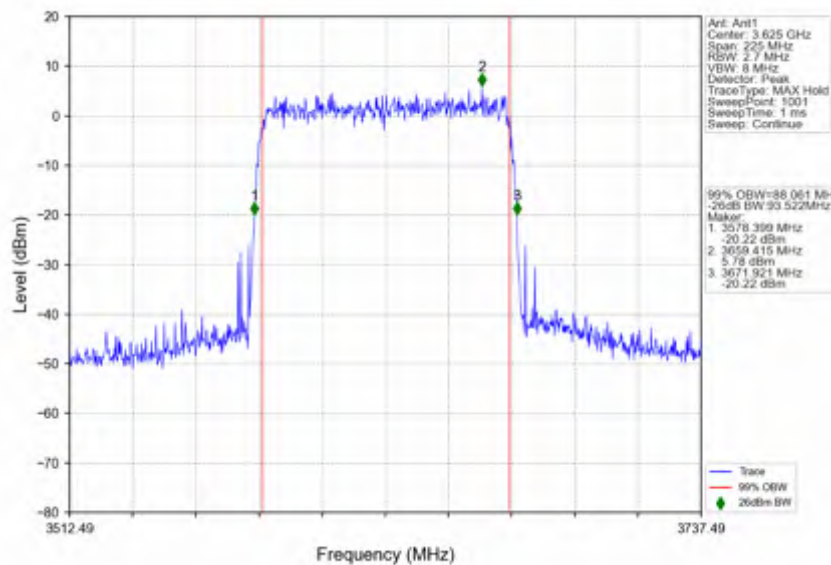
0512-51257370 0512-51257370 0512-51257370

0512-51257370 0512-51257370 0512-51257370

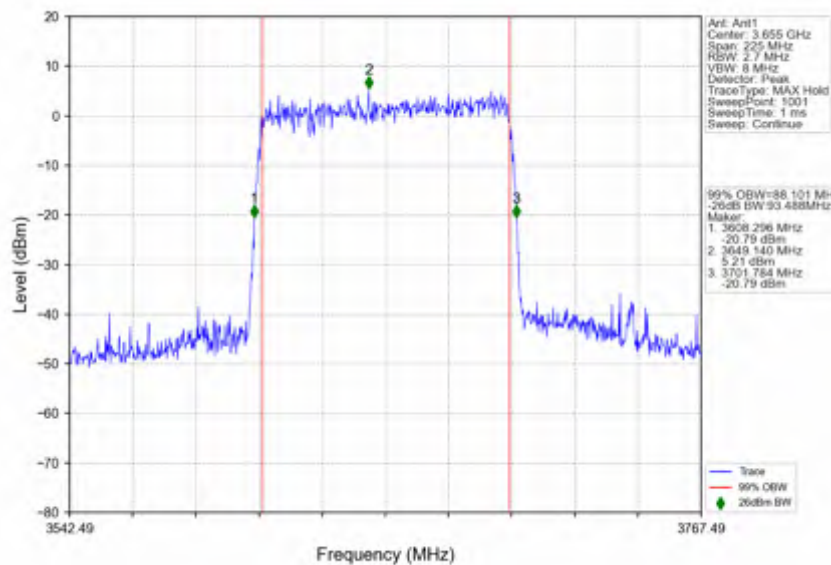
www.sgs.com.cn

sgs.china@sgs.com

n78d 30kHz SISO NTNv 90MHz CP-OFDM 64 QAM 3624.99MHz Outer Full



n78d 30kHz SISO NTNv 90MHz CP-OFDM 64 QAM 3654.99MHz Outer Full

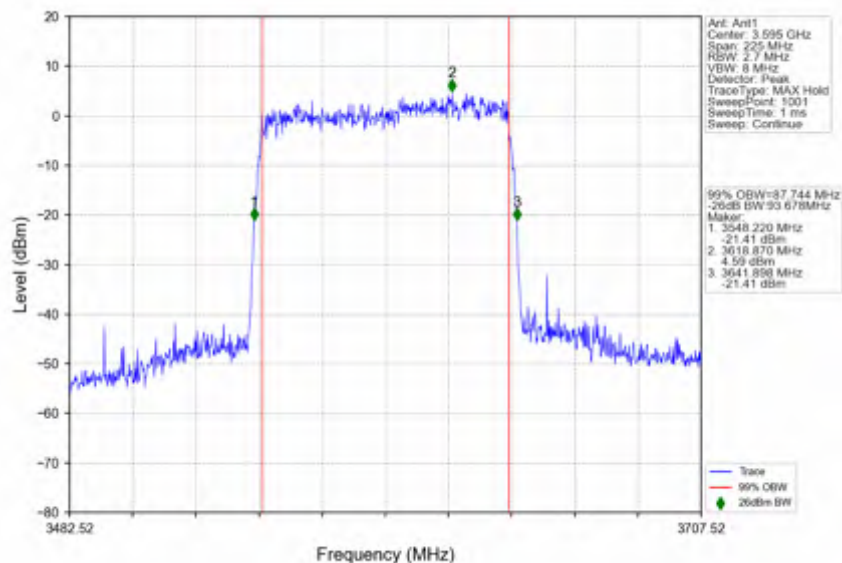


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed hereon, available on request or accessible at <http://www.etsi.com/ETSI-Products-and-Conditions.aspx> and, for selected forms, printed subject to Terms and Conditions for Electronic Documents at <http://www.etsi.com/terms-and-conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of the Company's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a trial from their responsibility to the court. The Company's findings are contained in the document and are not subject to any appeal, except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this fast report refer only to the sample(s) tested and such sample(s) are retained for 30 days only. For more information on the use of this document, please contact the Company at info@etsi.com or <tel:+352437342000>.

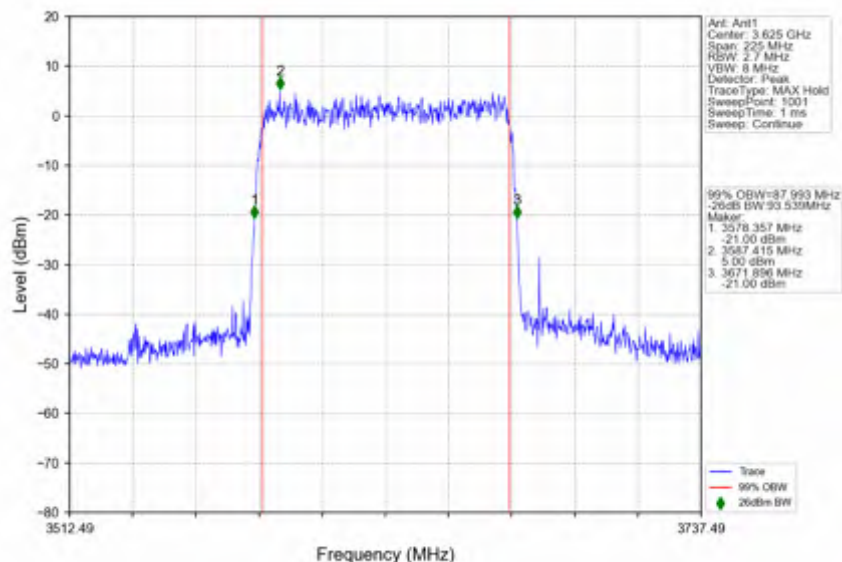
中国·江苏·昆山市周庄学生创业园伟业路10号 邮编 215300

086-5125735688 086-5125737000 www.sgsgroup.com.cn
086-5125735688 086-5125737000 sgs.china@sgs.com

n78d	30kHz	SISO	NTNV	90MHz	CP-OFDM	256 QAM	3595.02MHz	Outer	Full
------	-------	------	------	-------	---------	---------	------------	-------	------



n78d	30kHz	SISO	NTNV	90MHz	CP-OFDM	256 QAM	3624.99MHz	Outer	Full
------	-------	------	------	-------	---------	---------	------------	-------	------

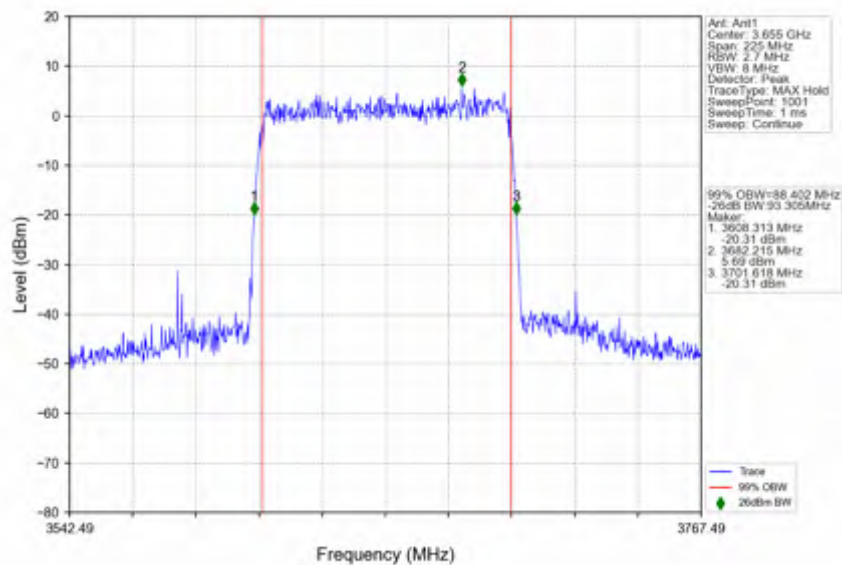


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed hereon, available on request or accessible at <http://www.etsi.com/ETSI-Products-and-Conditions.aspx> and, for selected forms, printed subject to Terms and Conditions for Electronic Documents at <http://www.etsi.com/terms-and-conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of the Company's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a trial from their responsibility to the court. The Company's responsibility is limited to the occurrence of a technical error, if reported, except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this fast report refer only to the sample(s) tested and such sample(s) are retained for 30 days only. etsi@etsi.com or <tel:+352437342000> for testing enquiries and sample collection and/or contact at any time. www.etsi.com for more information. etsi@etsi.com or <tel:+352437342000> for more information.

中国·江苏·昆山市阳澄湖生态创业园伟业路10号 邮编 215300

086-5125735688 086-5125737001 www.sgsgroup.com.cn
086-5125735688 086-5125737001 sgs.china@sgs.com

n78d_30kHz_SISO_NTNV_90MHz_CP-OFDM_256_QAM_3654.99MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at telephone: (86-512) 57370011 or email: CH.Official@sgs.com.

No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学院创业园伟业路18号 邮编 215300

(86-512) 57350888 (86-512) 57370011 www.sgs.com.cn

(86-512) 57350883 (86-512) 57370011 sgs.china@sgs.com

8.19 30k_SISO_100MHz_NTNV

8.19.1 Test Result

5G NR n78d SCS=30kHz SISO 100MHz NTN						
Modulation	Frequency (MHz)	RB Allocation	99% Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
DFT-s-OFDM PI/2 BPSK	3600	Outer_Full	96.56	102.58	/	Pass
	3624.99	Outer_Full	97.05	103.14	/	Pass
	3649.98	Outer_Full	96.64	102.89	/	Pass
DFT-s-OFDM QPSK	3600	Outer_Full	96.83	103.04	/	Pass
	3624.99	Outer_Full	96.64	107.20	/	Pass
	3649.98	Outer_Full	97.17	102.94	/	Pass
DFT-s-OFDM 16 QAM	3600	Outer_Full	97.00	103.35	/	Pass
	3624.99	Outer_Full	95.97	103.48	/	Pass
	3649.98	Outer_Full	96.74	103.28	/	Pass
DFT-s-OFDM 64 QAM	3600	Outer_Full	96.70	102.75	/	Pass
	3624.99	Outer_Full	96.56	103.47	/	Pass
	3649.98	Outer_Full	96.22	103.09	/	Pass
DFT-s-OFDM 256 QAM	3600	Outer_Full	96.50	102.97	/	Pass
	3624.99	Outer_Full	96.93	102.86	/	Pass
	3649.98	Outer_Full	96.76	103.20	/	Pass
CP-OFDM QPSK	3600	Outer_Full	97.35	104.53	/	Pass
	3624.99	Outer_Full	97.72	104.13	/	Pass
	3649.98	Outer_Full	97.59	103.85	/	Pass
CP-OFDM 16 QAM	3600	Outer_Full	97.70	104.05	/	Pass
	3624.99	Outer_Full	97.67	104.25	/	Pass
	3649.98	Outer_Full	97.61	104.19	/	Pass
CP-OFDM 64 QAM	3600	Outer_Full	97.98	104.13	/	Pass
	3624.99	Outer_Full	97.43	104.44	/	Pass
	3649.98	Outer_Full	97.89	104.26	/	Pass
CP-OFDM 256 QAM	3600	Outer_Full	98.05	104.06	/	Pass
	3624.99	Outer_Full	97.47	103.97	/	Pass
	3649.98	Outer_Full	97.61	104.08	/	Pass



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification reports & certificates, please connect us at sgs@sgs.com (86-512) 57370011 or email: CH-Office@sgs.com.

No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

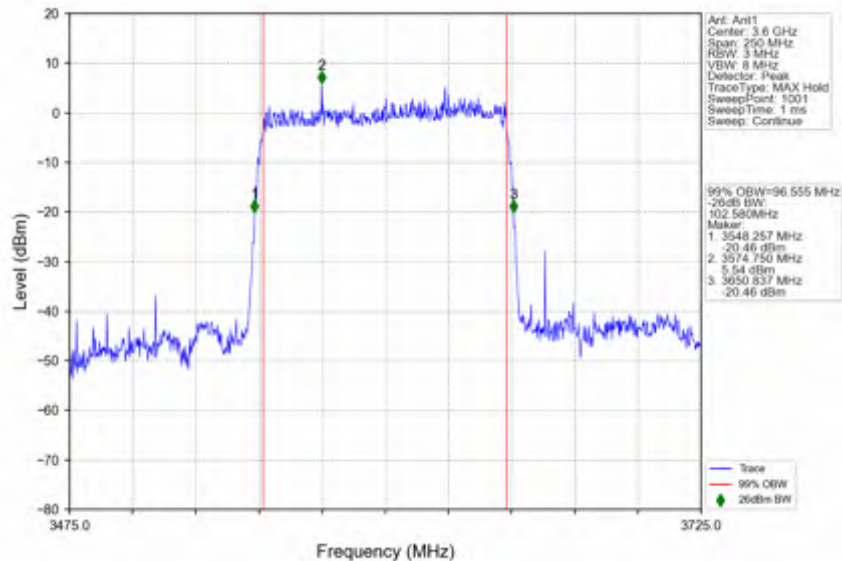
中国·江苏·昆山市留學生创业园伟业路18号 邮编 215300

0086-51257350888 0086-51257370011 www.sgs.com

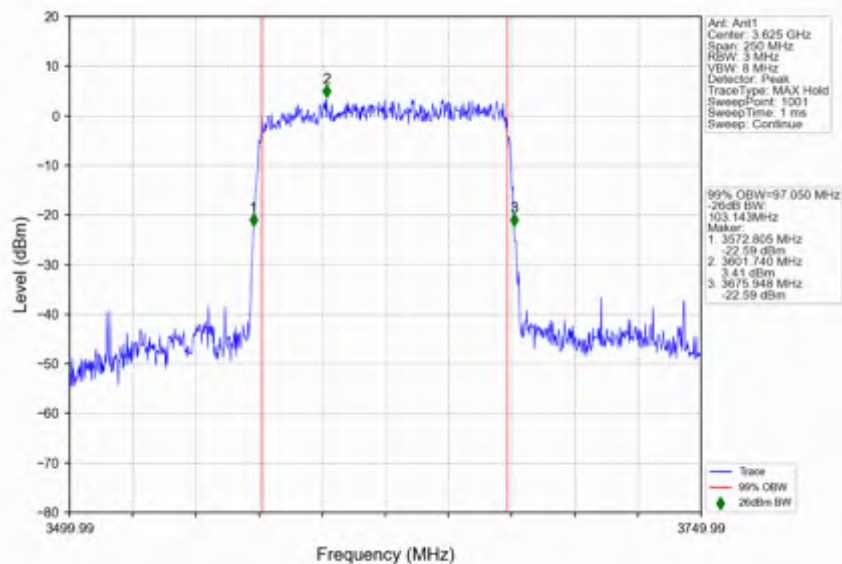
0086-51257350883 0086-51257370011 sgs.china@sgs.com

8.19.2 Test Graph

n78d_30kHz_SISO_NTNV_100MHz_DFT-s-OFDM_PI/2_BPSK_3600MHz_Outer_Full



n78d_30kHz_SISO_NTNV_100MHz_DFT-s-OFDM_PI/2_BPSK_3624.99MHz_Outer_Full

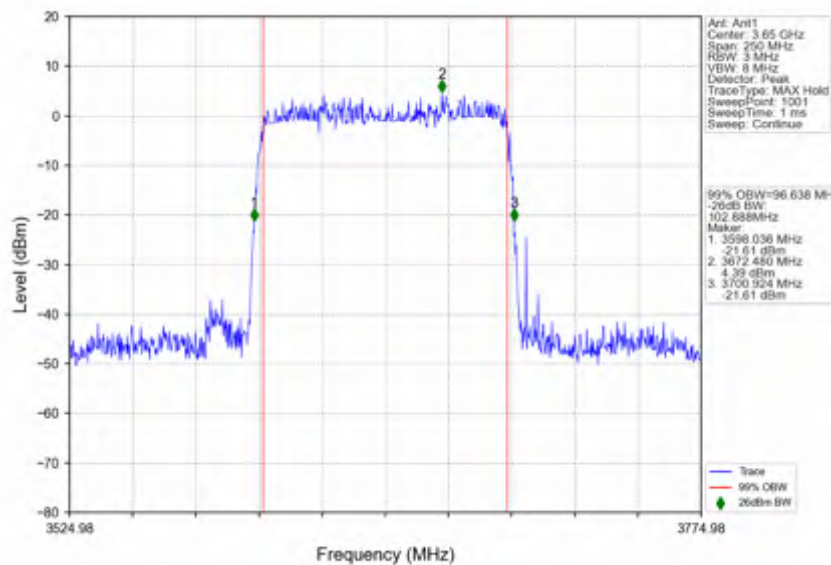


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

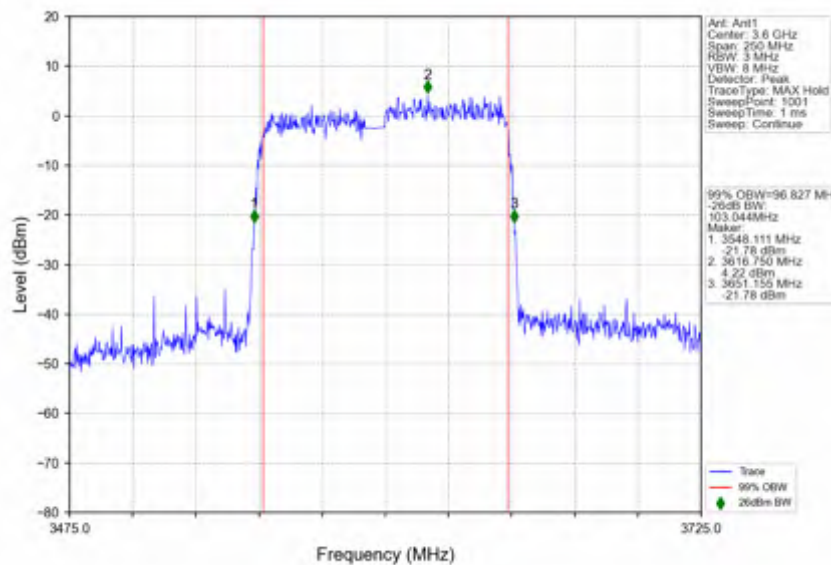
Attention: To Check the authenticity of testing report and certificate, please connect us at sgs@sgs.com or CN-Check@sgs.com.
No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300
中国·江苏·昆山市留学院创业园伟业路10号 邮编 215300

0512-57350888 0512-57370910 www.sgs.com.cn
0512-57350883 0512-57370911 sgs.china@sgs.com

n78d_30kHz_SISO_NTNV_100MHz_DFT-s-OFDM PI/2 BPSK_3649.98MHz_Outer_Full



n78d_30kHz_SISO_NTNV_100MHz_DFT-s-OFDM QPSK_3600MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To Check the authenticity of testing certification report & certificate, please connect us at sgs@sgs.com or sgs@sgs.com or sgs@sgs.com

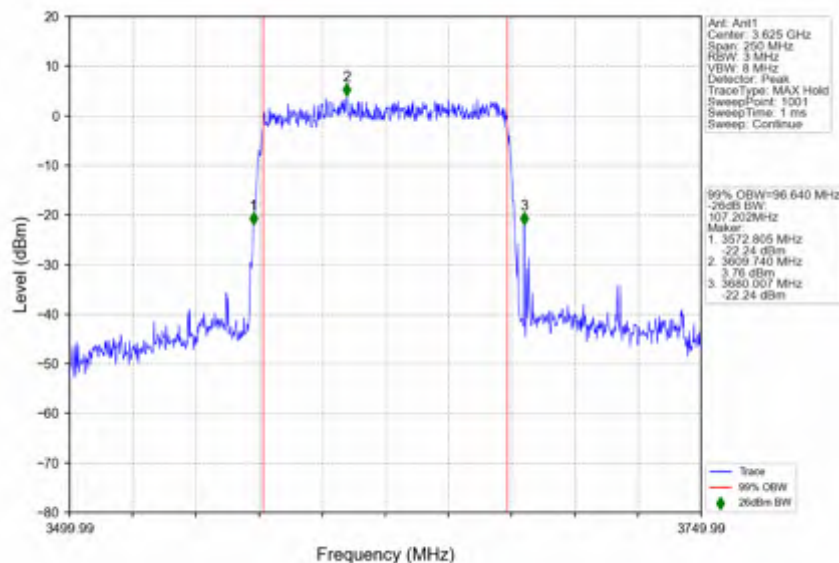
No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学生创业园伟业路18号 邮编 215300

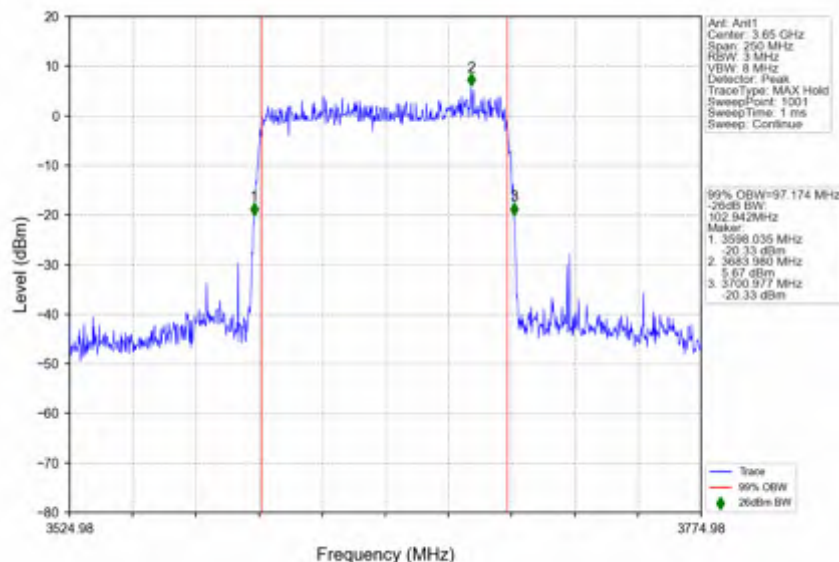
0512-57350888 0512-57370910 www.sgs.com.cn

0512-51257350888 0512-51257370910 sgs.china@sgs.com

n78d_30kHz_SISO_NTNV_100MHz_DFT-s-OFDM QPSK_3624.99MHz_Outer_Full



n78d_30kHz_SISO_NTNV_100MHz_DFT-s-OFDM QPSK_3649.98MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at sgs@sgs.com or sgs@sgs.com.

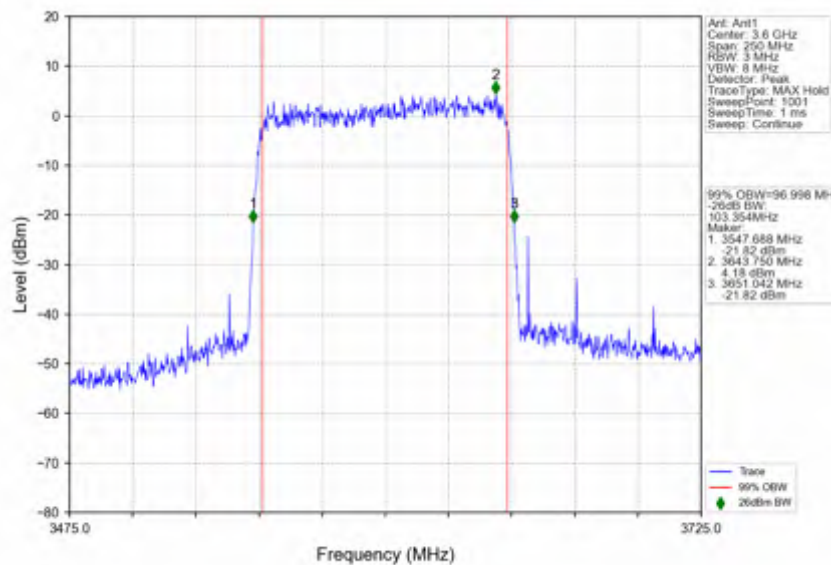
No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学生创业园伟业路18号 邮编 215300

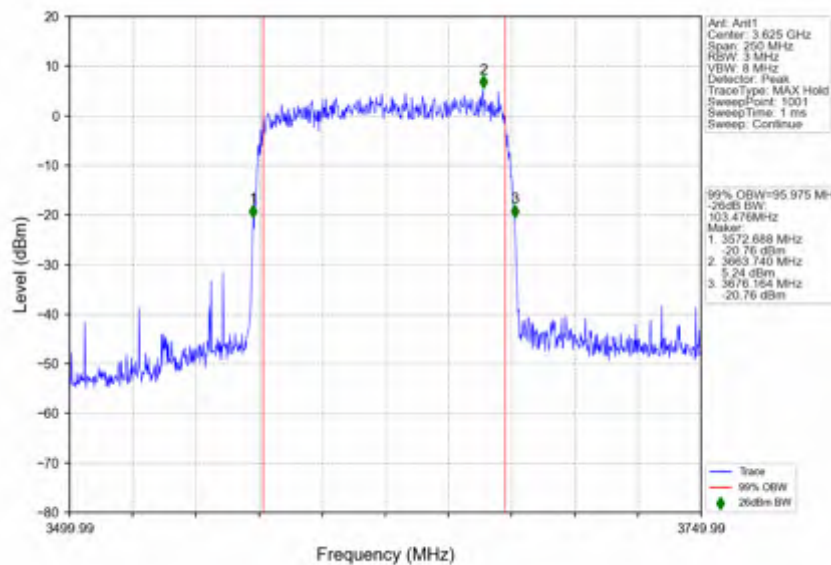
0512-57350888 0512-57370910 www.sgs.com.cn

0512-57350888 0512-57370910 sgs.china@sgs.com

n78d_30kHz_SISO_NTNV_100MHz_DFT-s-OFDM_16_QAM_3600MHz_Outer_Full



n78d_30kHz_SISO_NTNV_100MHz_DFT-s-OFDM_16_QAM_3624.99MHz_Outer_Full



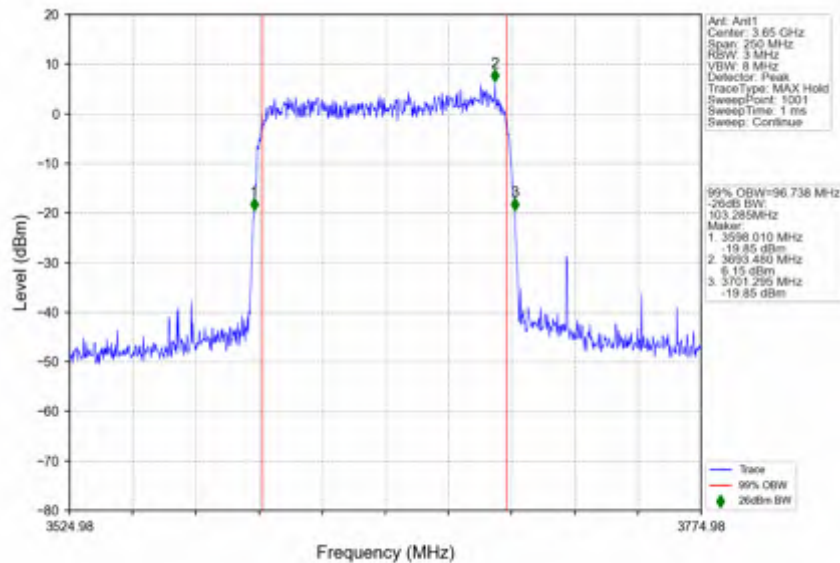
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overall, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing report or certificate, please connect us at telephone: (86-512) 57370011 or email: CH.Official@sgs.com.

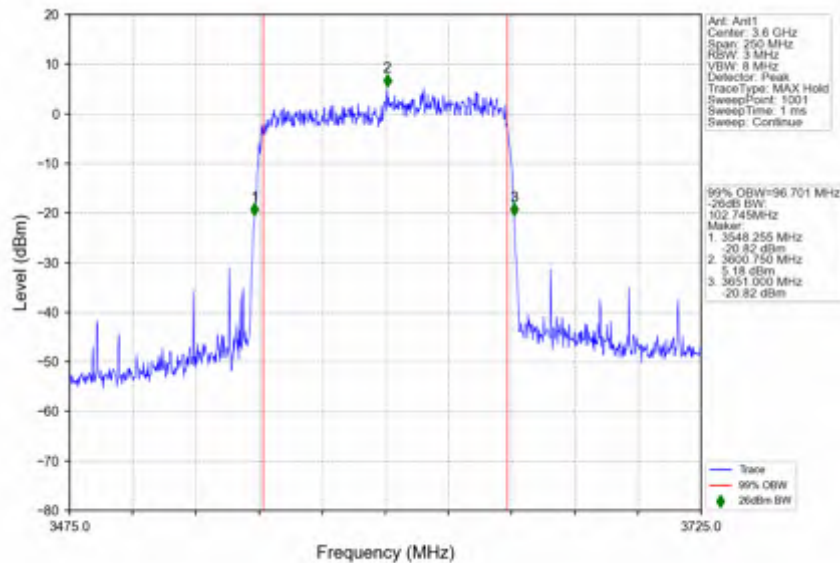
No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300
中国·江苏·昆山市留学院创业园伟业路10号 邮编 215300

(86-512) 57350888 (86-512) 57370011 www.sgs.com.cn
(86-512) 57350883 (86-512) 57370011 sgs.china@sgs.com

n78d_30kHz_SISO_NTNV_100MHz_DFT-s-OFDM 16 QAM_3649.98MHz_Outer_Full



n78d_30kHz_SISO_NTNV_100MHz_DFT-s-OFDM 64 QAM_3600MHz_Outer_Full



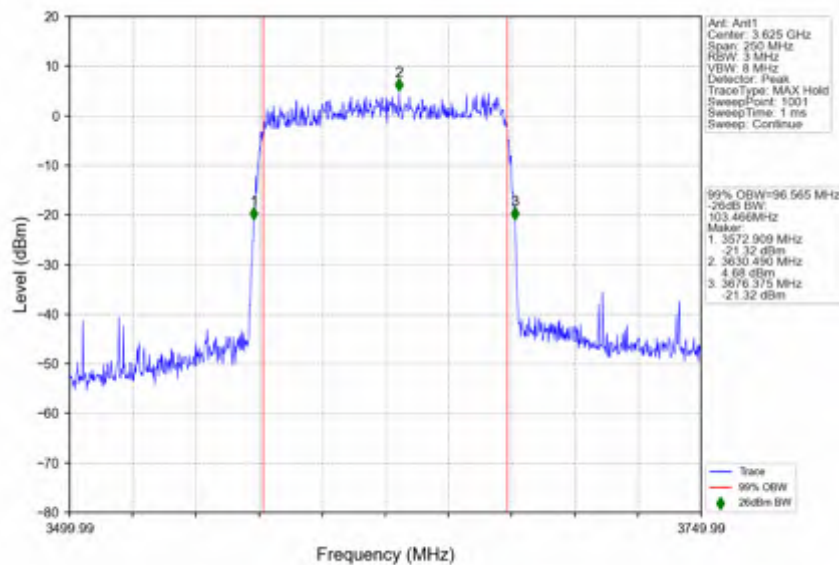
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overall, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at telephone: (86-512) 57370011 or email: CH.Official@sgs.com.

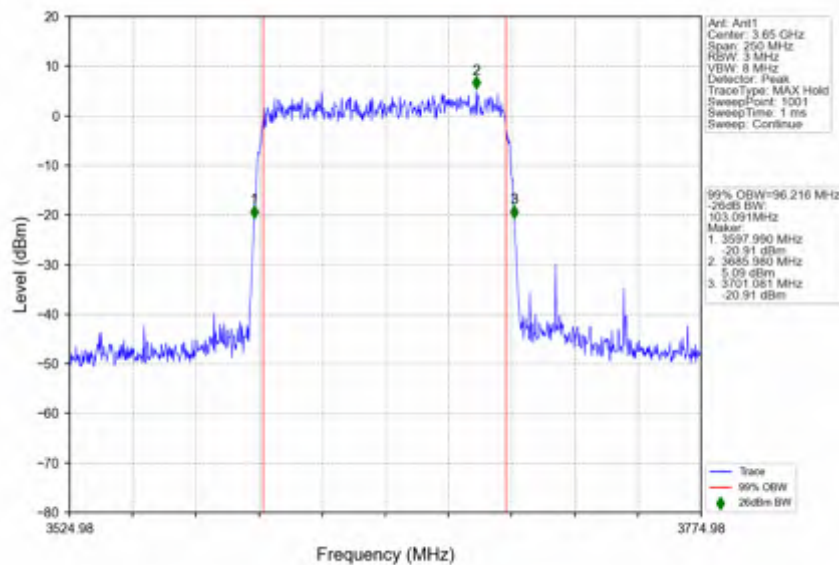
No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300
中国·江苏·昆山市留学院创业园伟业路18号 邮编 215300

(86-512) 57350888 (86-512) 57370011 www.sgs.com.cn
(86-512) 57350883 (86-512) 57370011 sgs.china@sgs.com

n78d_30kHz_SISO_NTNV_100MHz_DFT-s-OFDM 64 QAM_3624.99MHz_Outer_Full



n78d_30kHz_SISO_NTNV_100MHz_DFT-s-OFDM 64 QAM_3649.98MHz_Outer_Full



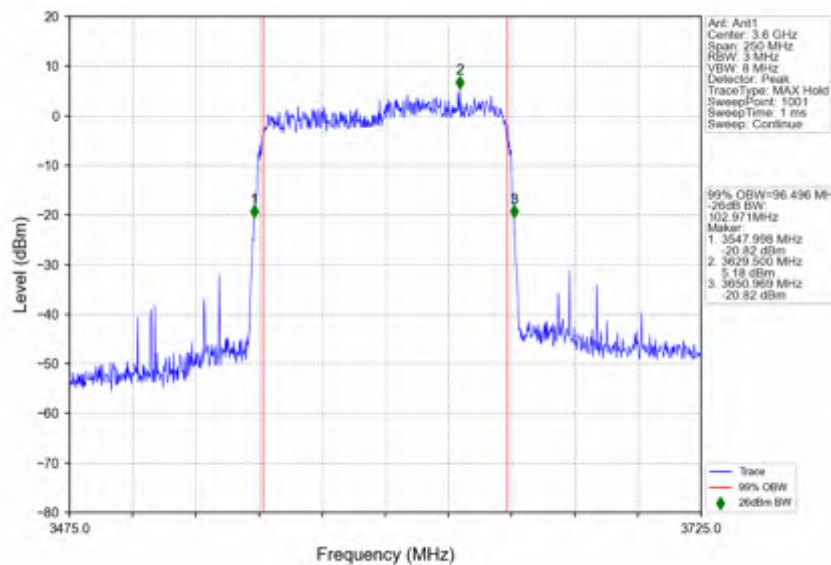
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To Check the authenticity of testing certification report & certificate, please connect us at telephone: (86-512)57370011 or email: CH.Official@sgs.com.

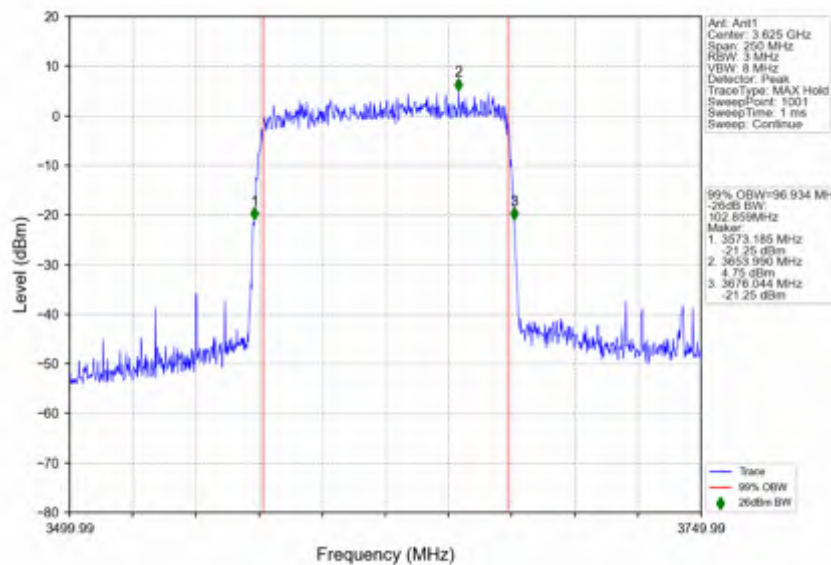
No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300
中国·江苏·昆山市留学院创业园伟业路10号 邮编 215300

(86-512)57350888 (86-512)57370011 www.sgs.com.cn
(86-512)57350883 (86-512)57370011 sgs.china@sgs.com

n78d_30kHz_SISO_NTNV_100MHz_DFT-s-OFDM_256_QAM_3600MHz_Outer_Full



n78d_30kHz_SISO_NTNV_100MHz_DFT-s-OFDM_256_QAM_3624.99MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overall, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at sgs@sgs.com or CN-Check@sgs.com.

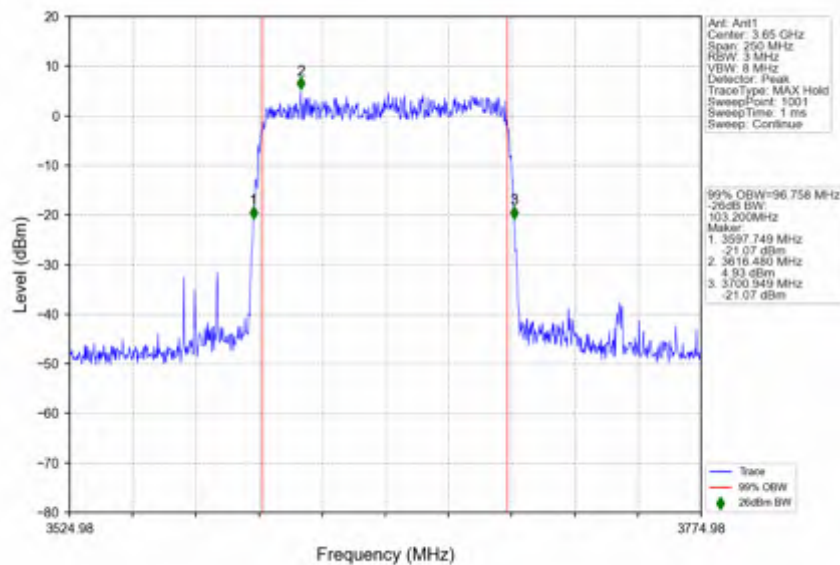
No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留學生创业园伟业路18号 邮编 215300

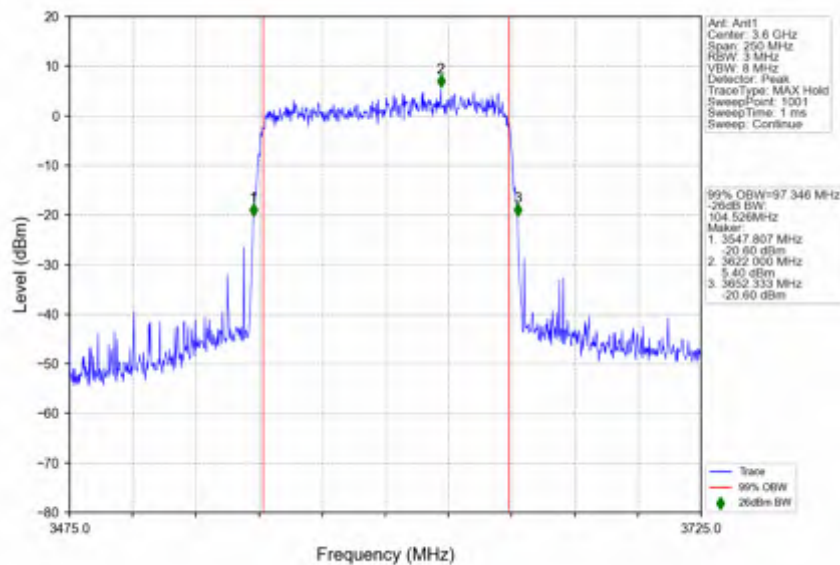
0512-51273700 0512-51273701 www.sgs.com.cn

0512-51273700 0512-51273701 sgs.china@sgs.com

n78d_30kHz_SISO_NTNV_100MHz_DFT-s-OFDM_256_QAM_3649.98MHz_Outer_Full



n78d_30kHz_SISO_NTV_100MHz_CP-OFDM_QPSK_3600MHz_Outer_Full

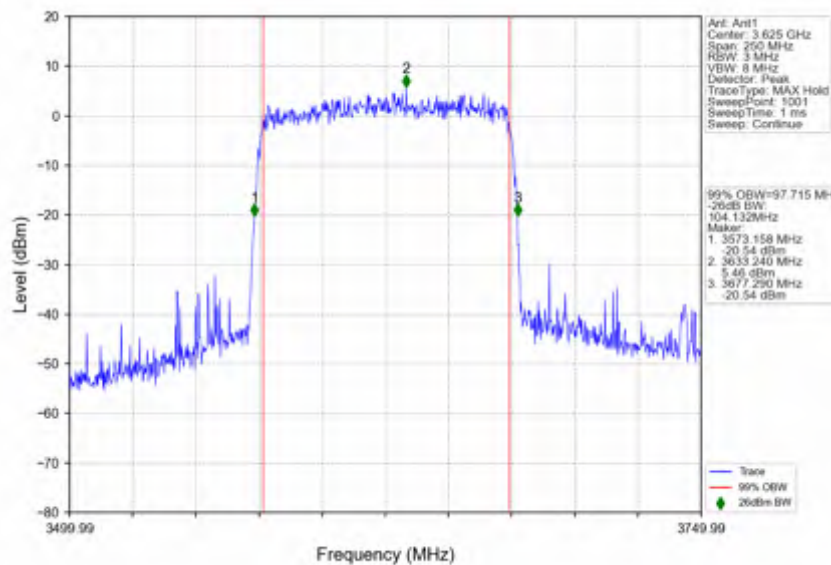


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed
overleaf, available on request or accessible at <http://www.egg.com.au/Terms-and-Conditions.aspx> and, for electronic format documents
subject to Terms and Conditions for Electronic Documents at <http://www.egg.com.au/terms-and-conditions/Terms-a-Documents.aspx>.
Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is
advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of
Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a
transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced
without in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or
appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the
results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.
Attention: To check the authenticity of testing report, please contact us at the phone: (853)52997722
or email: CH.00@celtektech.com

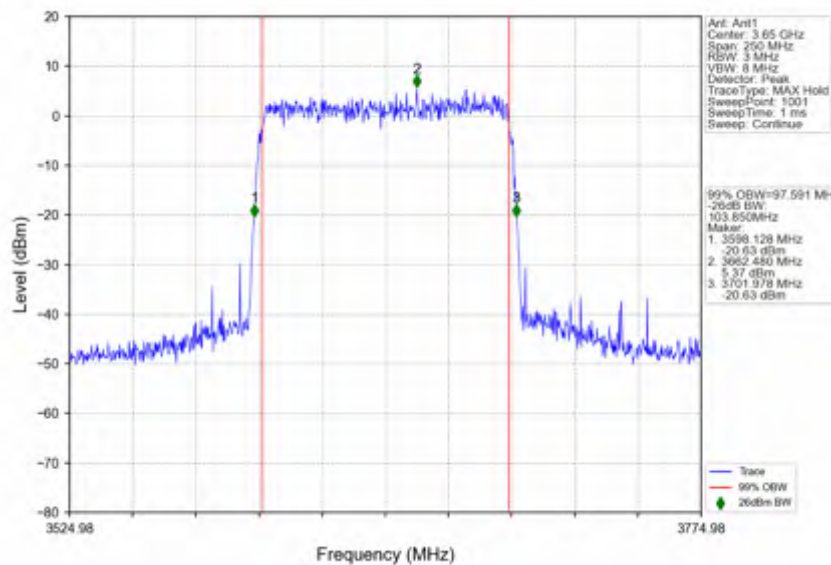
No. 10, Waiye Road, Innovation Park, Keshan, Jiangsu, China 215300
中国·江苏·昆山市留园学生创业园伟业路10号 邮编 215300

086-5125735688 086-5125737001 www.sgsgroup.com.cn
086-5125735688 086-5125737001 sgs.china@sgs.com

n78d_30kHz_SISO_NTNV_100MHz_CP-OFDM QPSK_3624.99MHz_Outer_Full



n78d_30kHz_SISO_NTNV_100MHz_CP-OFDM QPSK_3649.98MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overall, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at sgs@sgs.com or CN-Check@sgs.com.

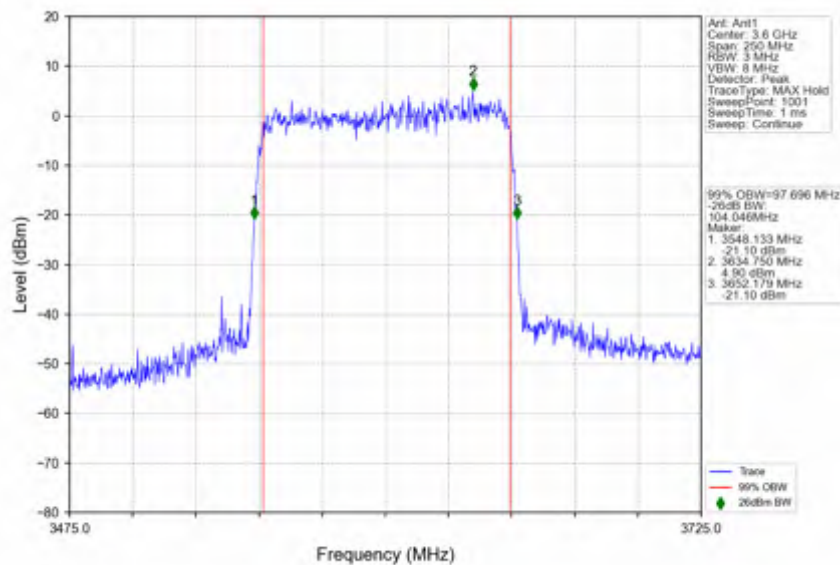
No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学生创业园伟业路18号 邮编 215300

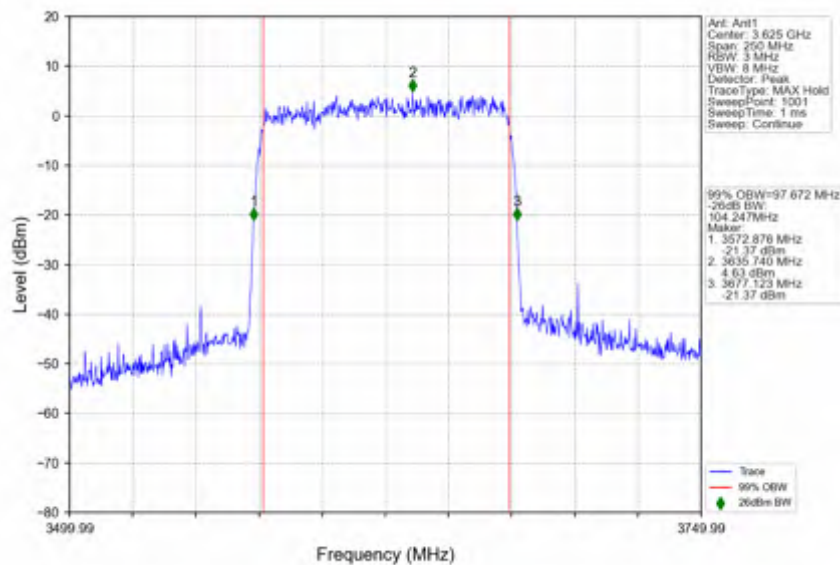
0512-51273700 0512-51273701 www.sgs.com.cn

0512-5127350003 0512-5127370011 sgs.china@sgs.com

n78d_30kHz_SISO_NTNV_100MHz_CP-OFDM_16_QAM_3600MHz_Outer_Full



n78d_30kHz_SISO_NTNV_100MHz_CP-OFDM_16_QAM_3624.99MHz_Outer_Full

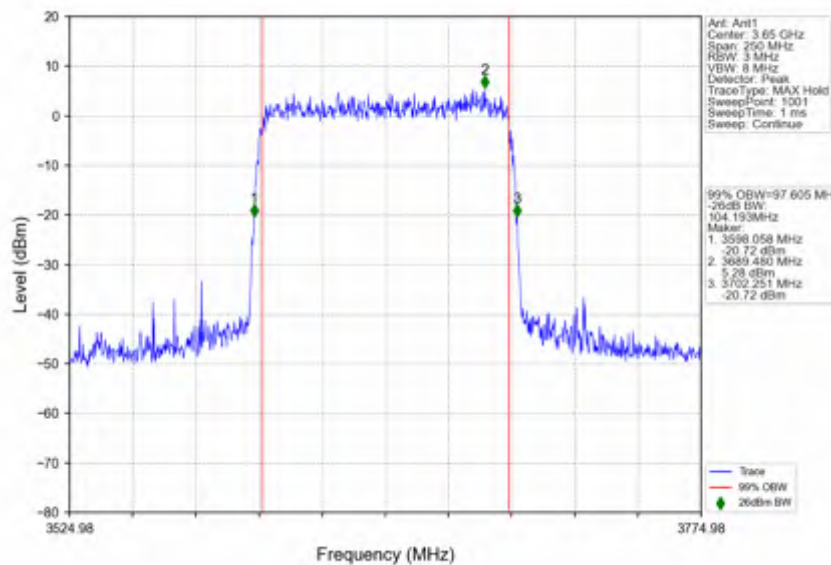


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.usc.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.usc.com/en/Terms-and-Conditions/Terms-a-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of its legal and professional responsibility. The Company does not accept any liability for any loss or damage arising out of any transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this last report refer only in the sample(s) tested and such sample(s) are retained for 30 days only.

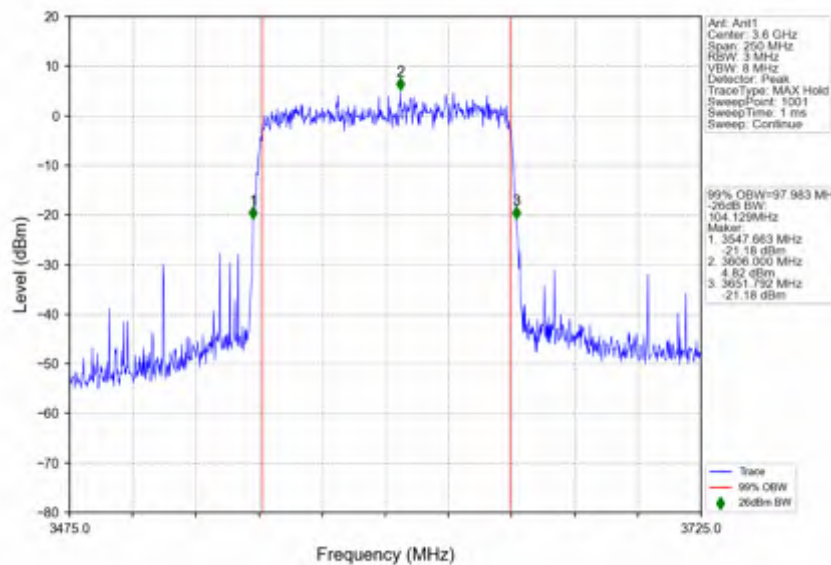
中国·江苏·昆山市留园学生创业园伟业路10号 邮编 215300

086-5125735688 086-5125737000 www.sgsgroup.com.cn
086-5125735688 086-5125737000 sgs.china@sgs.com

n78d_30kHz_SISO_NTNV_100MHz_CP-OFDM 16 QAM_3649.98MHz_Outer_Full



n78d_30kHz_SISO_NTNV_100MHz_CP-OFDM 64 QAM_3600MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To Check the authenticity of testing certification report & certificate, please connect us at telephone: (86-512) 57370011 or email: CH.Official@sgs.com.

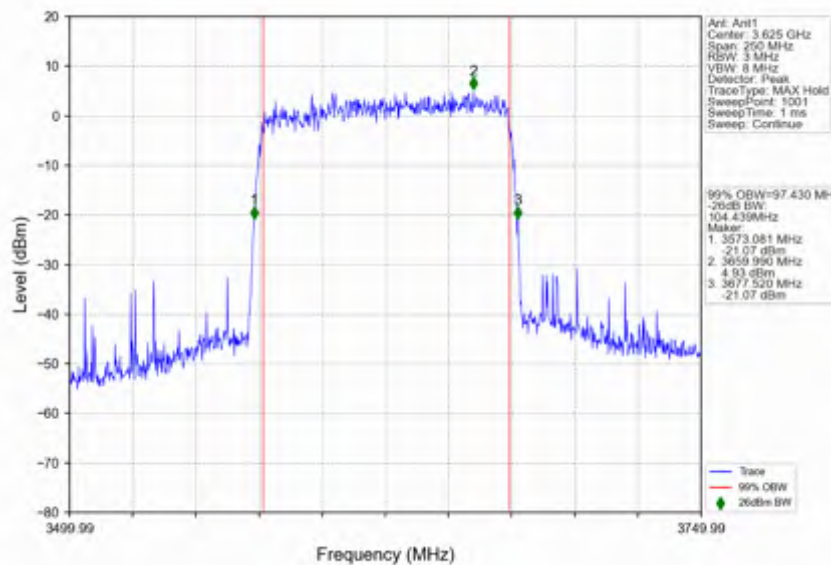
No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学生创业园伟业路18号 邮编 215300

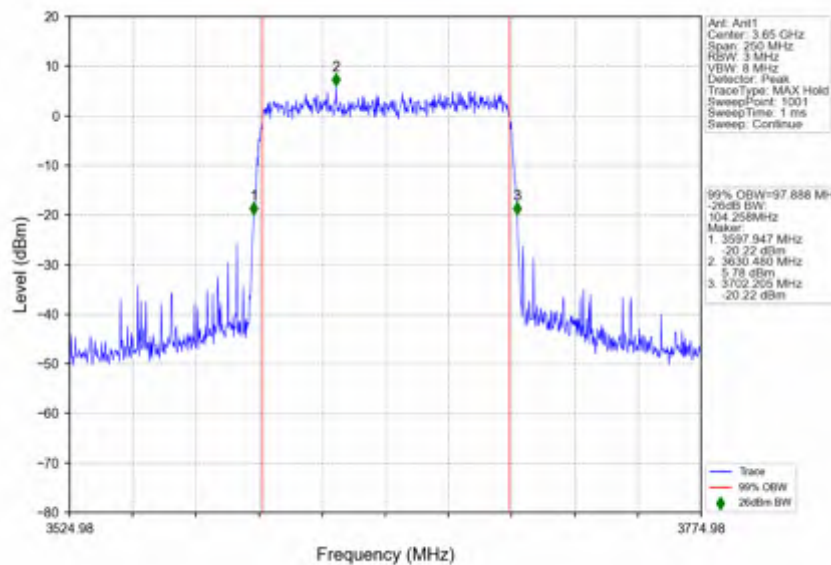
(86-512) 57350888 (86-512) 57370011 www.sgs.com.cn

(86-512) 57350883 (86-512) 57370011 sgs.china@sgs.com

n78d_30kHz_SISO_NTNV_100MHz_CP-OFDM 64 QAM_3624.99MHz_Outer_Full



n78d_30kHz_SISO_NTNV_100MHz_CP-OFDM 64 QAM_3649.98MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overall, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification reports & certificates, please connect us at sgs@sgs.com or sgs@sgs.com or sgs@sgs.com.

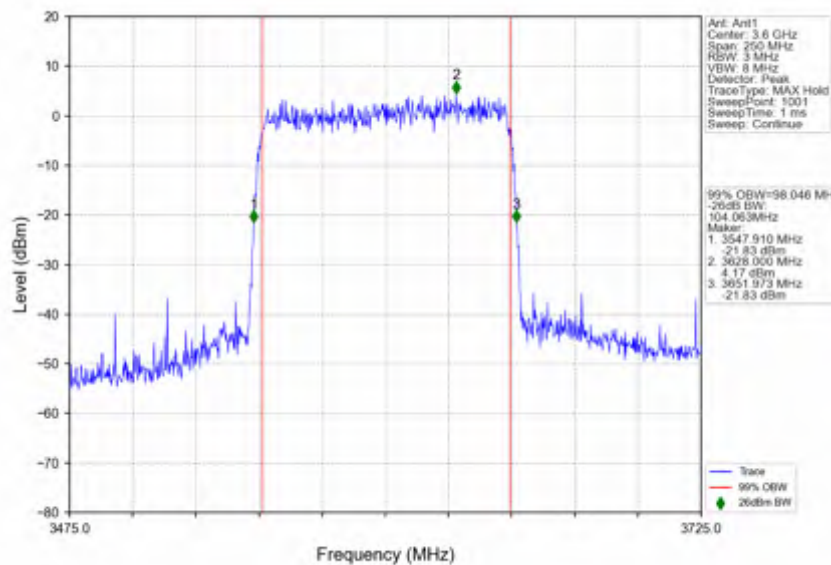
No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学院创业园伟业路18号 邮编 215300

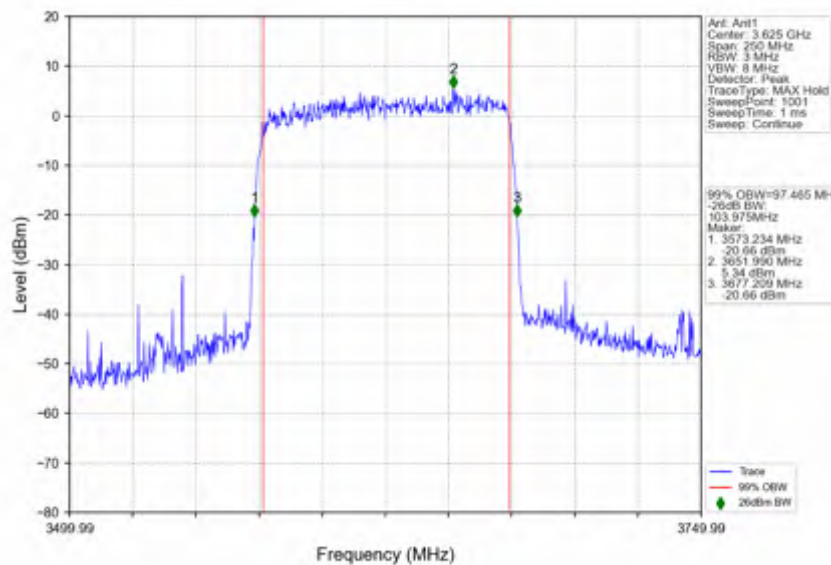
0512-51273700 0512-51273701 www.sgs.com.cn

0512-5127350003 0512-5127370011 sgs.china@sgs.com

n78d_30kHz_SISO_NTNV_100MHz_CP-OFDM_256_QAM_3600MHz_Outer_Full



n78d_30kHz_SISO_NTNV_100MHz_CP-OFDM_256_QAM_3624.99MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overall, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To Check the authenticity of testing certification report & certificate, please connect us at sgs@sgs.com or sgs@sgs.com or sgs@sgs.com.

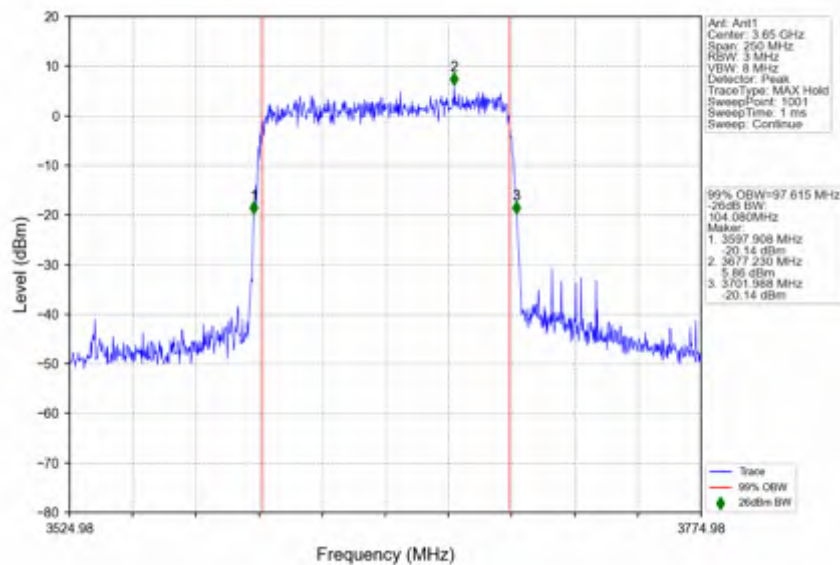
No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学生创业园伟业路10号 邮编 215300

0512-51273700 0512-51273701 www.sgs.com.cn

0512-5127350000 0512-51273700 sgs.china@sgs.com

n78d_30kHz_SISO_NTNV_100MHz_CP-OFDM 256 QAM 3649.98MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at telephone: (86-512) 57370011 or email: CH.Official@sgs.com.

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学院创业园伟业路10号 邮编 215300

(86-512) 57350888 (86-512) 57370011 www.sgs.com.cn

(86-512) 57350888 (86-512) 57370011 sgs.china@sgs.com



9. 99% & 26dB Bandwidth

9.1 n78e 15k_SISO_10MHz_NTNV

9.1.1 Test Result

5G NR n78e SCS=15kHz SISO 10MHz NTN						
Modulation	Frequency (MHz)	RB Allocation	99% Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
DFT-s-OFDM PI/2 BPSK	3455.01	Outer_Full	9.07	9.97	/	Pass
	3499.995	Outer_Full	9.05	10.63	/	Pass
	3544.995	Outer_Full	9.06	10.76	/	Pass
DFT-s-OFDM QPSK	3455.01	Outer_Full	9.07	11.14	/	Pass
	3499.995	Outer_Full	9.09	10.48	/	Pass
	3544.995	Outer_Full	9.06	11.24	/	Pass
DFT-s-OFDM 16 QAM	3455.01	Outer_Full	9.05	10.30	/	Pass
	3499.995	Outer_Full	9.08	10.07	/	Pass
	3544.995	Outer_Full	9.03	10.10	/	Pass
DFT-s-OFDM 64 QAM	3455.01	Outer_Full	9.08	10.30	/	Pass
	3499.995	Outer_Full	9.07	10.58	/	Pass
	3544.995	Outer_Full	9.06	10.23	/	Pass
DFT-s-OFDM 256 QAM	3455.01	Outer_Full	9.07	10.47	/	Pass
	3499.995	Outer_Full	9.04	10.54	/	Pass
	3544.995	Outer_Full	9.04	10.68	/	Pass
CP-OFDM QPSK	3455.01	Outer_Full	9.37	10.10	/	Pass
	3499.995	Outer_Full	9.37	10.19	/	Pass
	3544.995	Outer_Full	9.39	10.15	/	Pass
CP-OFDM 16 QAM	3455.01	Outer_Full	9.39	11.48	/	Pass
	3499.995	Outer_Full	9.41	11.49	/	Pass
	3544.995	Outer_Full	9.39	11.06	/	Pass
CP-OFDM 64 QAM	3455.01	Outer_Full	9.40	11.03	/	Pass
	3499.995	Outer_Full	9.38	11.64	/	Pass
	3544.995	Outer_Full	9.40	10.85	/	Pass
CP-OFDM 256 QAM	3455.01	Outer_Full	9.38	11.06	/	Pass
	3499.995	Outer_Full	9.38	11.10	/	Pass
	3544.995	Outer_Full	9.39	11.06	/	Pass



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated, the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

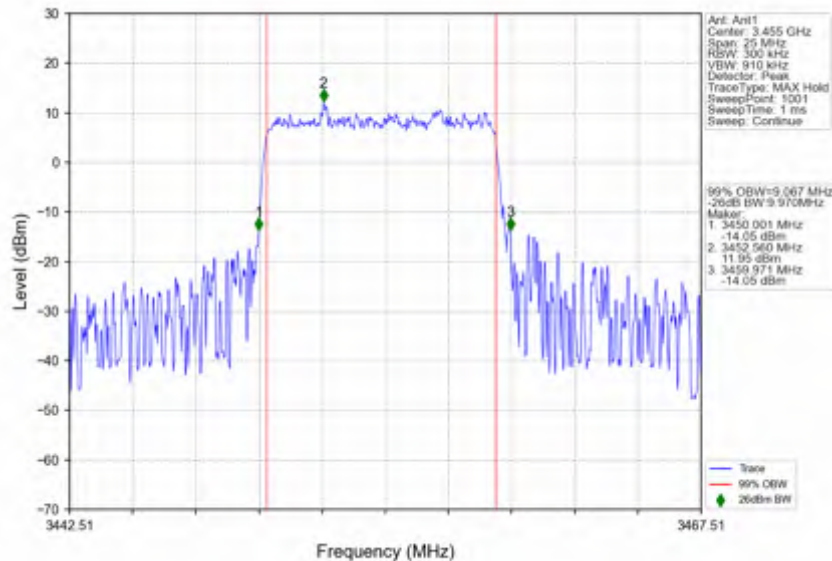
Attention: To check the authenticity of testing certification reports & certificates, please connect us at sgs@sgs.com (86-512) 57370011 or email: CN-Check@sgs.com.

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300
中国·江苏·昆山市留学院创业园伟业路10号 邮编 215300

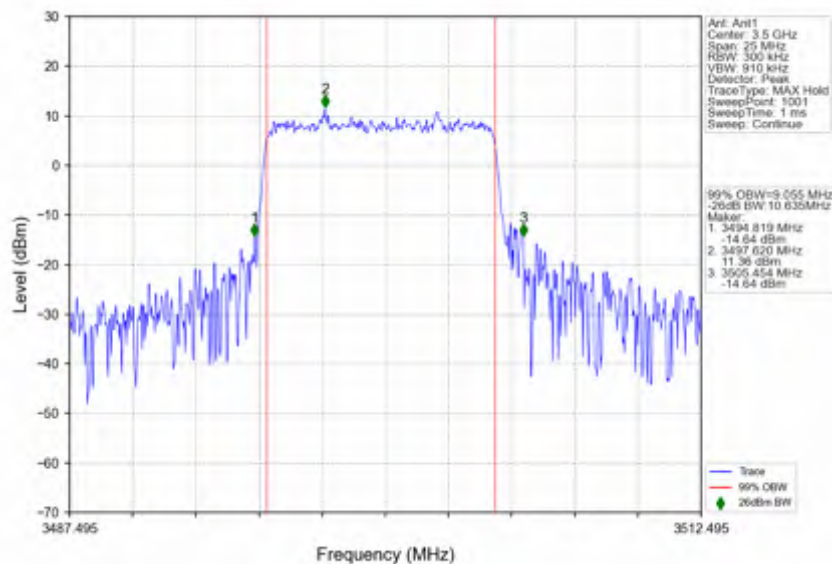
086-51257350888 086-51257370011 www.sgs.com.cn
086-51257350888 086-51257370011 sgs.china@sgs.com

9.1.2 Test Graph

n78e_15kHz_SISO_NTNV_10MHz_DFT-s-OFDM PI/2 BPSK_3455.01MHz_Outer_Full



n78e_15kHz_SISO_NTNV_10MHz_DFT-s-OFDM PI/2 BPSK_3499.995MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-and-Conditions-for-Electronic-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing report and certificate, please contact us at sgs@sgs.com (86-512) 57370000 or email: CH.Official@sgs.com.

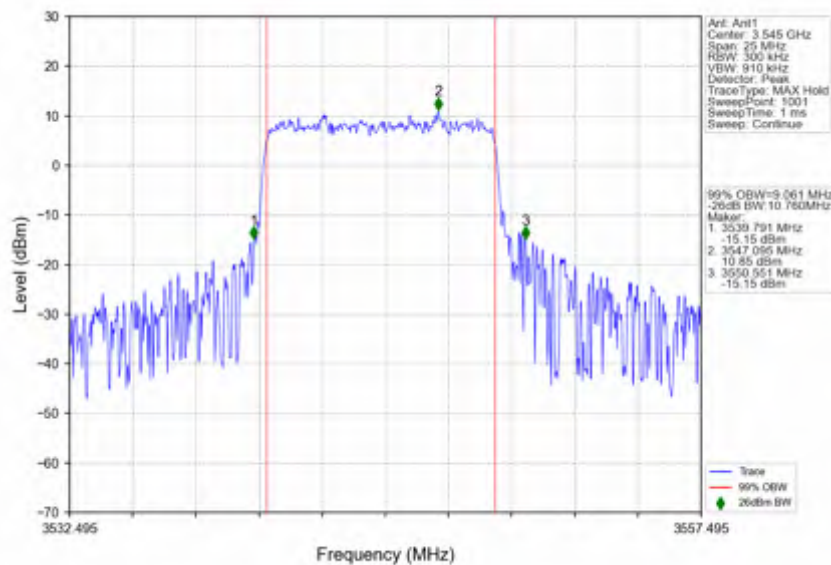
No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学生创业园伟业路10号 邮编 215300

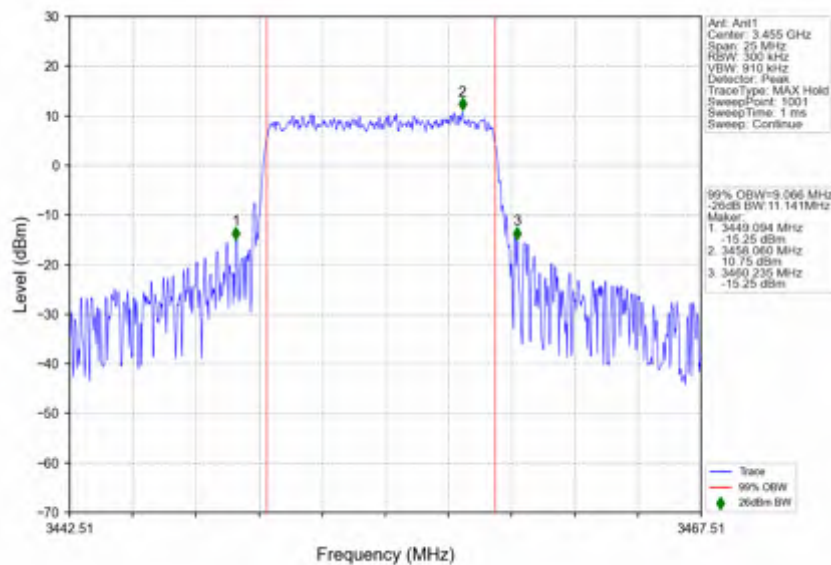
0085-51257350888 0065-125737000 www.sgs.com sgs.china@sgs.com

0085-51257350888 0065-125737000 www.sgs.com sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_10MHz_DFT-s-OFDM_PI/2_BPSK_3544.995MHz_Outer_Full



n78e	15kHz	SISO	NTNV	10MHz	DFT-s-OFDM	QPSK	3455.01MHz	Outer	Full
------	-------	------	------	-------	------------	------	------------	-------	------

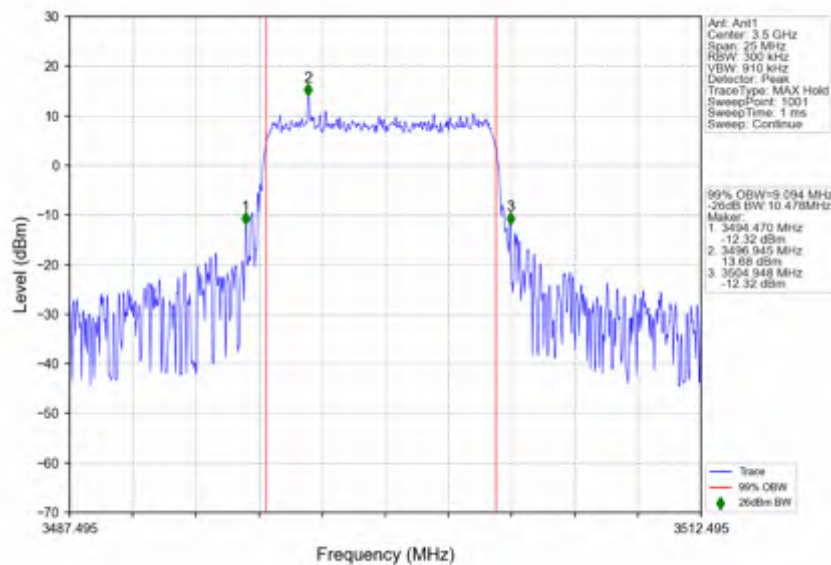


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed hereon, available on request or accessible at <http://www.etsi.com/ETSI-Products-and-Conditions.aspx> and, for selected forms, printed subject to Terms and Conditions for Electronic Documents at <http://www.etsi.com/terms-and-conditions/Terms-a-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of the Company's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a trial from their responsibility to the court. The Company's responsibility is limited to the occurrence of a technical error, if reported, except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this fast report refer only to the sample(s) tested and such sample(s) are retained for 30 days only. etsi@etsi.com or <tel:+352437342000> for testing enquiries and sample collection and/or contact at any time. www.etsi.com for more information. [05/2019]

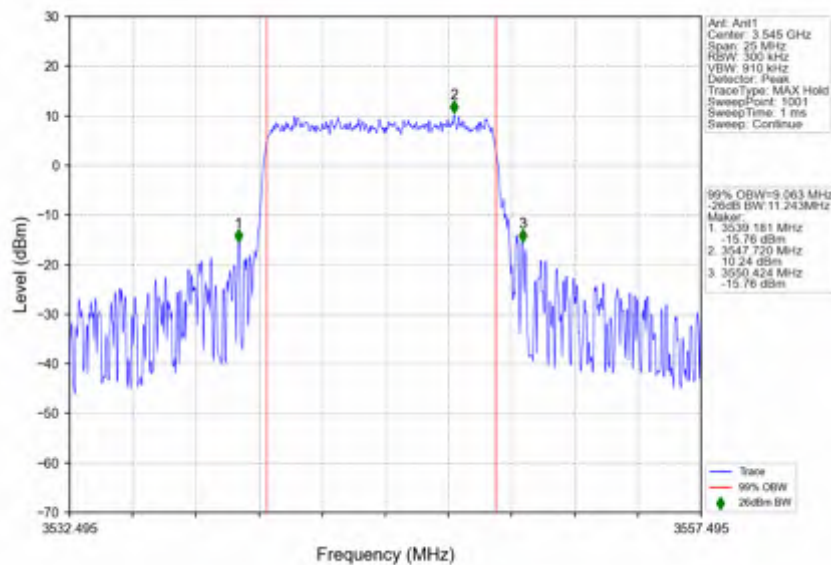
中国·江苏·昆山市周庄学生创业园伟业路10号 邮编 215300

086-5125735688 086-5125737000 www.sgsigroup.com.cn
086-5125735688 086-5125737000 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_10MHz_DFT-s-OFDM QPSK_3499.995MHz_Outer_Full



n78e_15kHz_SISO_NTNV_10MHz_DFT-s-OFDM QPSK_3544.995MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing report and certificates, please connect us at sgs@sgs.com or sgs@sgs.com.

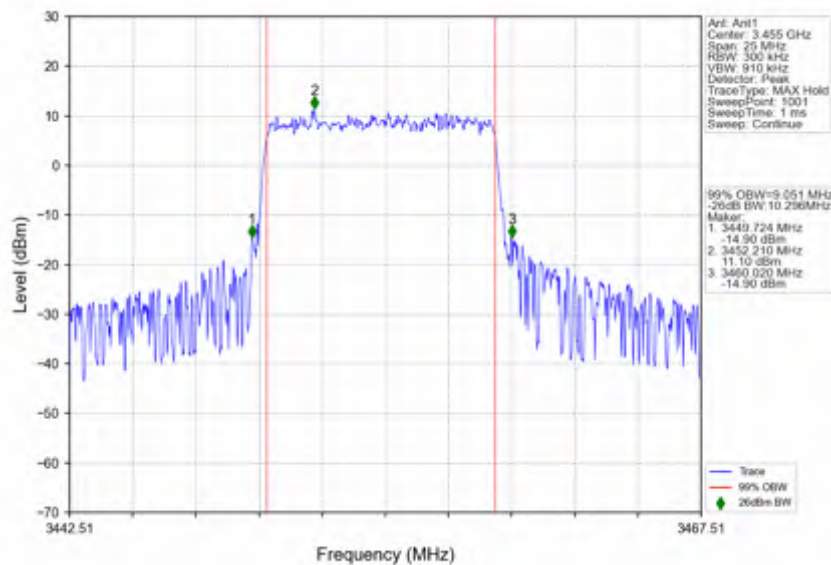
No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学生创业园伟业路10号 邮编 215300

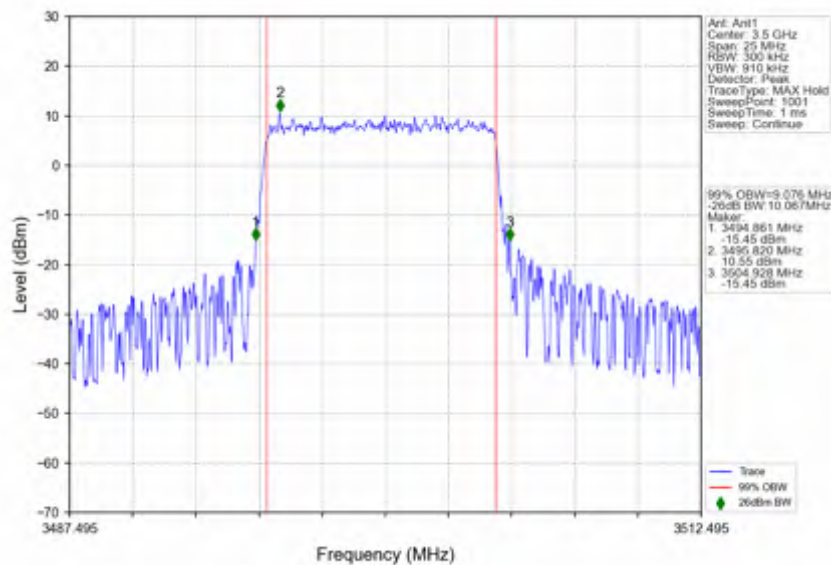
0512-51257350888 0512-5125737010 www.sgs.com.cn

0512-51257350888 0512-5125737010 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_10MHz_DFT-s-OFDM_16_QAM_3455.01MHz_Outer_Full



n78e_15kHz_SISO_NTNV_10MHz_DFT-s-OFDM_16_QAM_3499.995MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing report or certificate, please contact us at sgs@sgs.com or sgs@sgs.com.

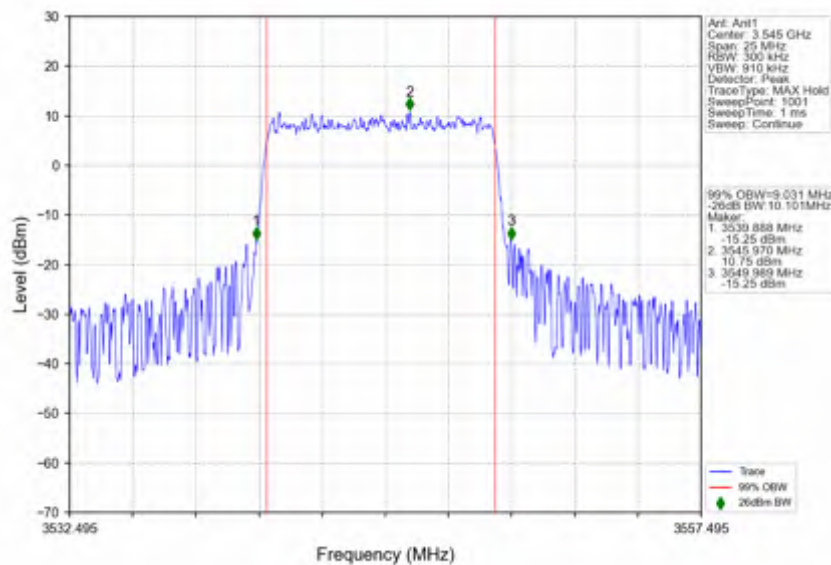
No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学院创业园伟业路18号 邮编 215300

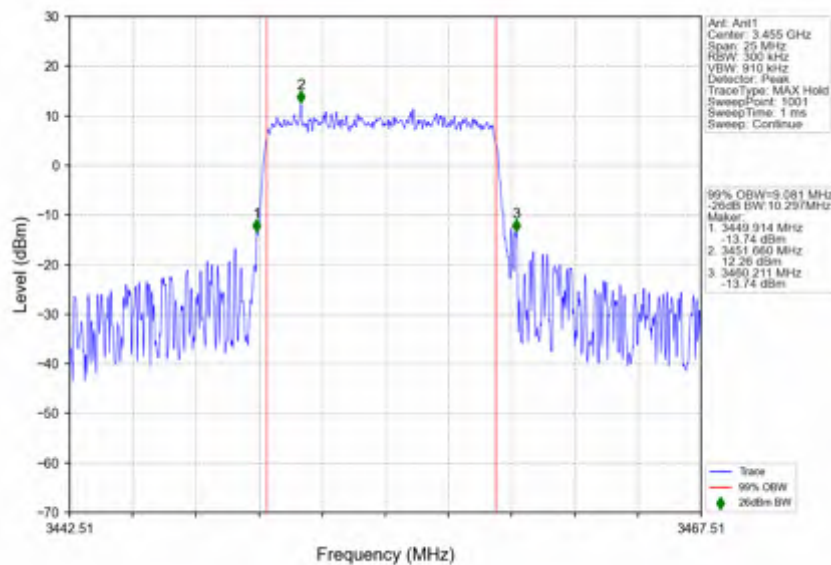
0512-51273700 0512-51273701 www.sgs.com.cn

0512-5127350003 0512-5127370011 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_10MHz_DFT-s-OFDM_16_QAM_3544.995MHz_Outer_Full



n78e_15kHz_SISO_NTNV_10MHz_DFT-s-OFDM_64_QAM_3455.01MHz_Outer_Full

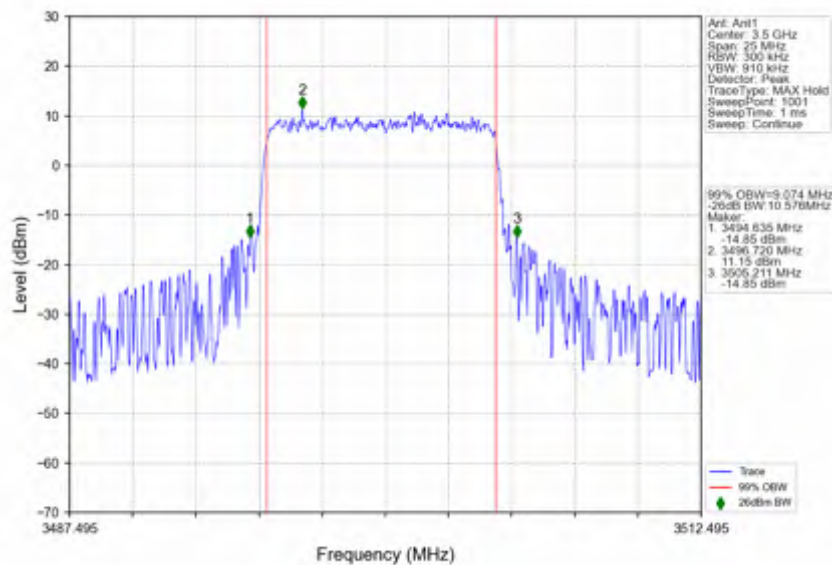


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.usc.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.usc.com/en/Terms-and-Conditions/Terms-a-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of its instructions, if any. The Company's sole responsibility is to its client and this document is not to be made available to any third party without the Company's prior written approval. The Company's documents, documents and documents are not to be reproduced, copied or used in any way without the Company's prior written approval. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only. info@usc.com or <tel:+353145222222> for further information or testing contact our technical contact at info@usc.com or <tel:+353145222222>.

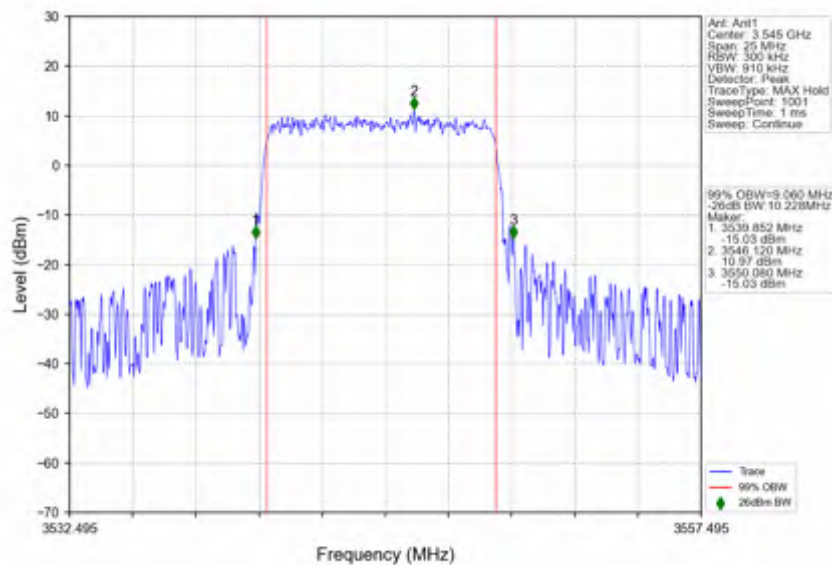
中国·江苏·昆山市留园学生创业园伟业路10号 邮编 215300

086-5125735688 086-5125737001 www.sgsgroup.com.cn
086-5125735688 086-5125737001 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_10MHz_DFT-s-OFDM 64 QAM_3499.995MHz_Outer_Full



n78e_15kHz_SISO_NTNV_10MHz_DFT-s-OFDM 64 QAM_3544.995MHz_Outer_Full



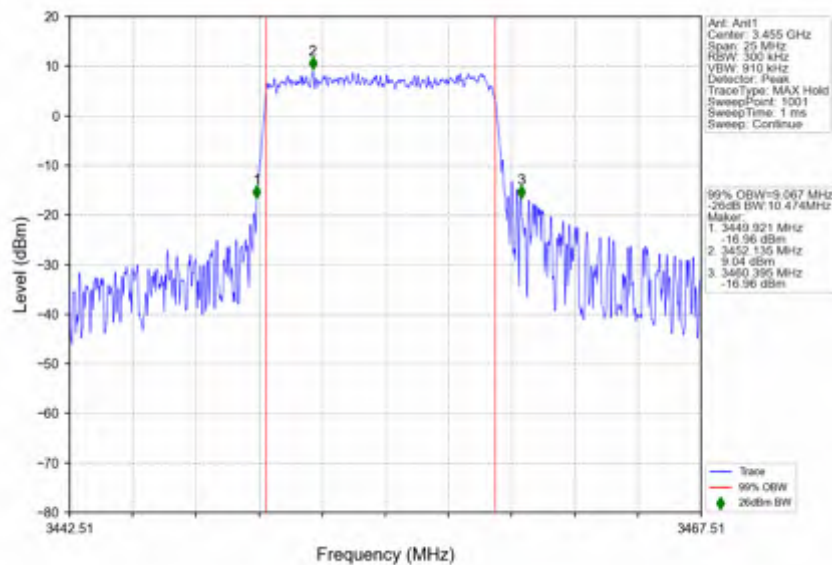
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at telephone: (86-512) 57370011 or email: CH.Official@sgs.com.

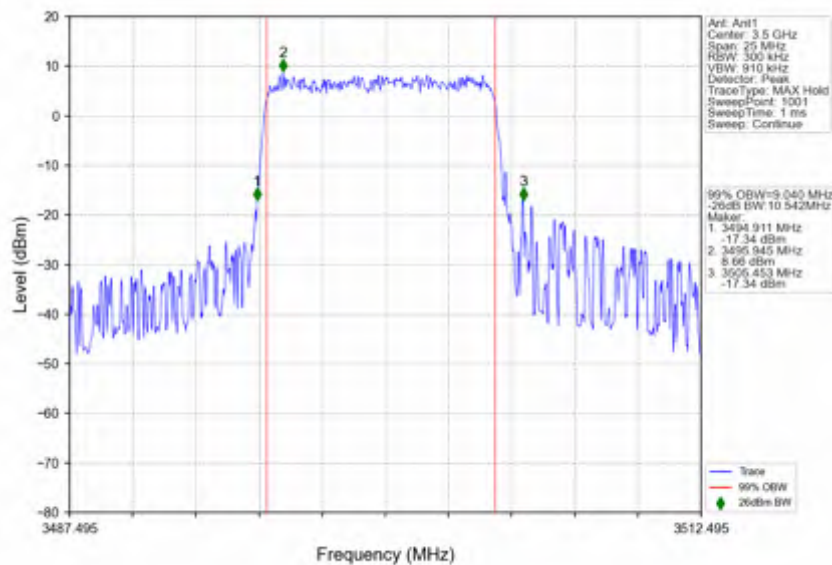
No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300
中国·江苏·昆山市留學生创业园伟业路10号 邮编 215300

(86-512) 57350888 (86-512) 57370011 www.sgs.com.cn
(86-512) 57350883 (86-512) 57370011 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_10MHz_DFT-s-OFDM_256_QAM_3455.01MHz_Outer_Full



n78e_15kHz_SISO_NTNV_10MHz_DFT-s-OFDM_256_QAM_3499.995MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overall, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated, the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing report or certificate, please connect us at telephone: (86-512) 57370011 or email: CH.Official@sgs.com.

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留學生创业园伟业路10号 邮编 215300

(86-512) 57350888

(86-512) 57370011

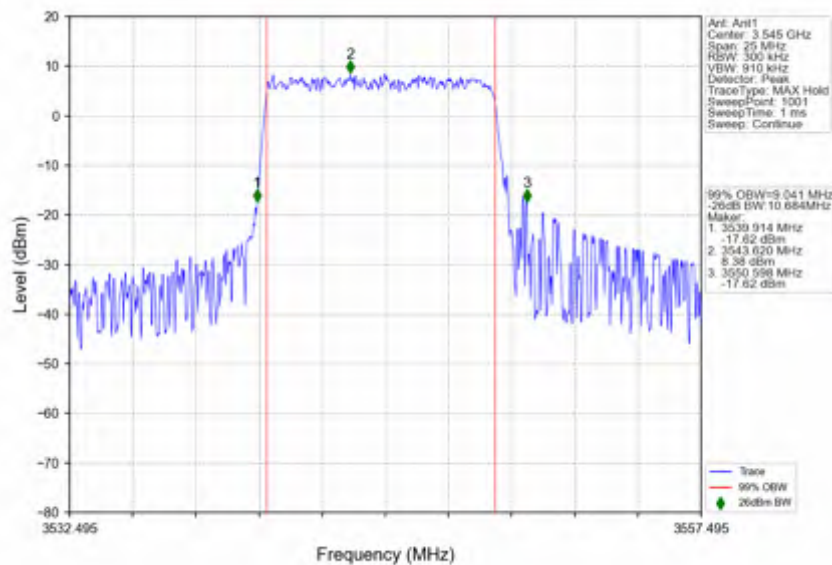
www.sgs.com.cn

(86-512) 57350883

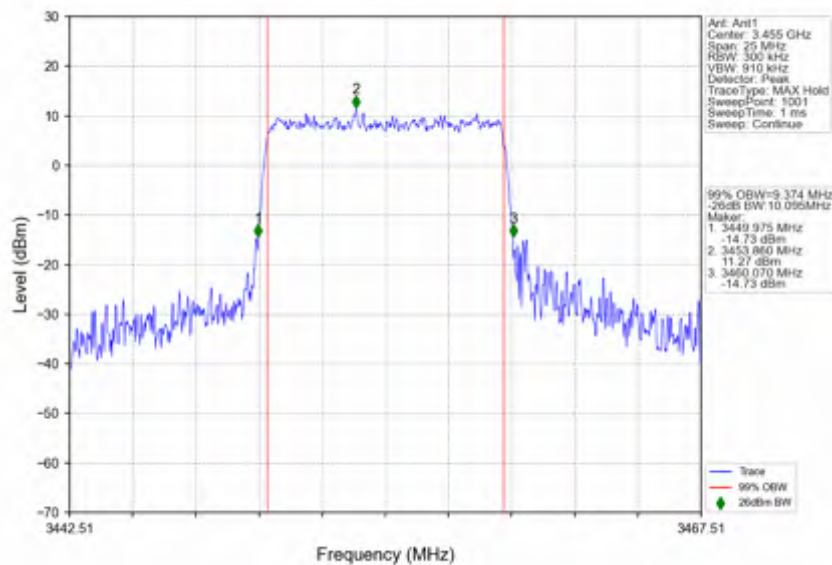
(86-512) 57370011

sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_10MHz_DFT-s-OFDM_256_QAM_3544.995MHz_Outer_Full



n78e_15kHz_SISO_NTNV_10MHz_CP-OFDM_QPSK_3455.01MHz_Outer_Full

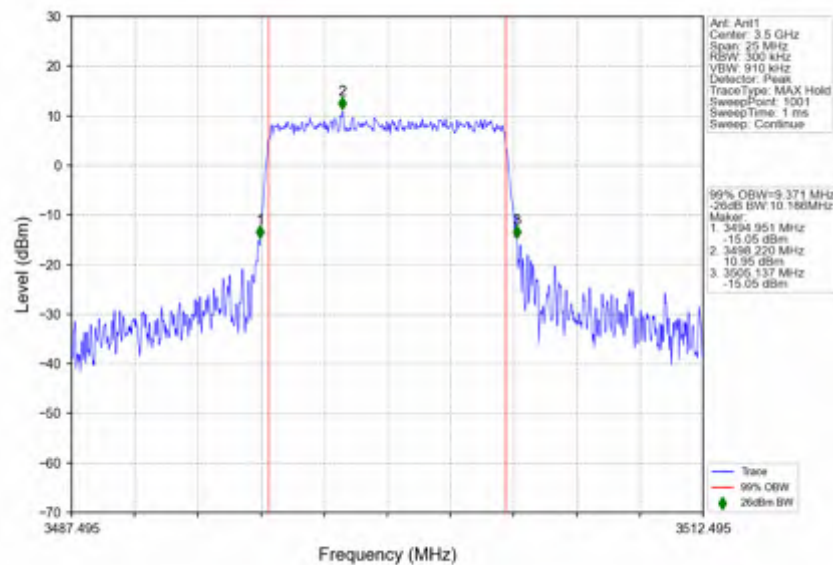


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.usc.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.usc.com/en/Terms-and-Conditions/Terms-a-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of its instructions, if any. The Company's sole responsibility is to its client and this document is not to be made available to any third party without the Company's prior written approval. The Company's documents, documents and documents are not to be reproduced, copied or used in any way without the prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

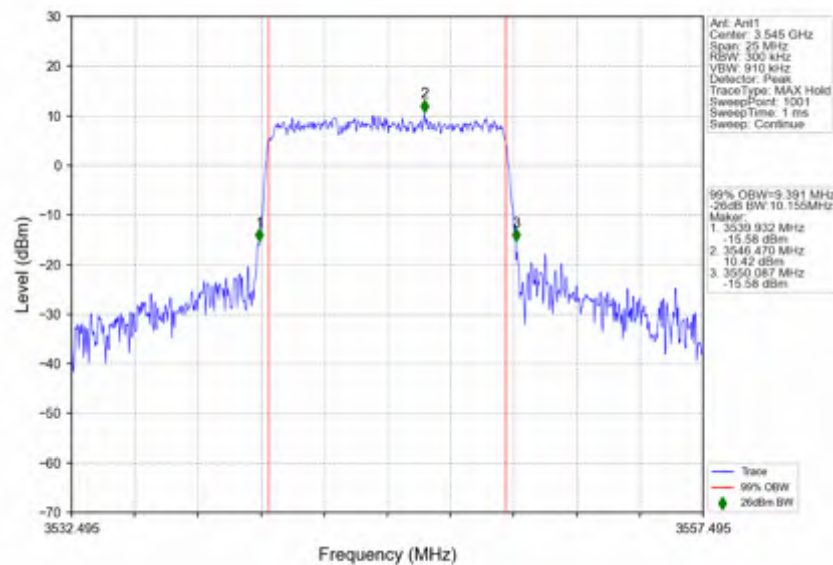
中国·江苏·昆山市留學生创业园伟业路10号 邮编 215300

086-5125735688 086-5125737000 www.sgsgroup.com.cn
086-5125735688 086-5125737000 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_10MHz_CP-OFDM_QPSK_3499.995MHz_Outer_Full



n78e_15kHz_SISO_NTNV_10MHz_CP-OFDM_QPSK_3544.995MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at sgs@sgs.com or sgs@sgs.com.

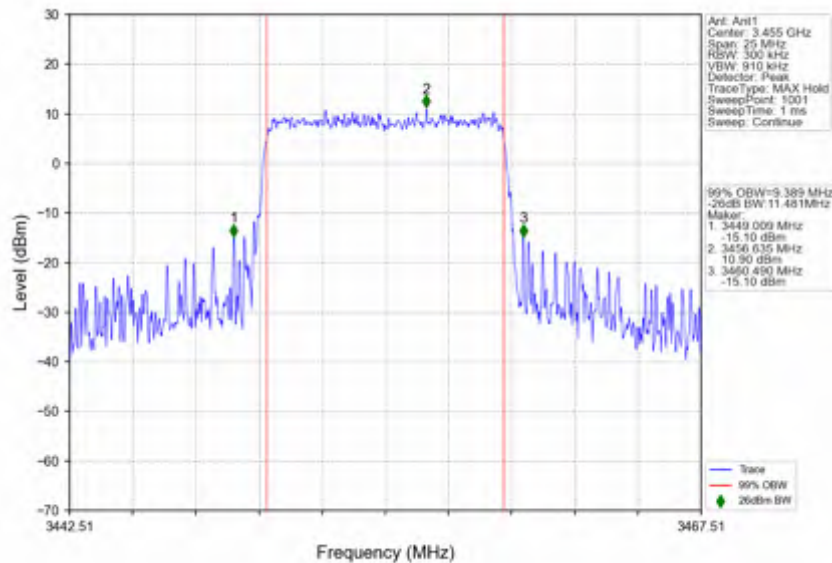
No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学院创业园伟业路10号 邮编 215300

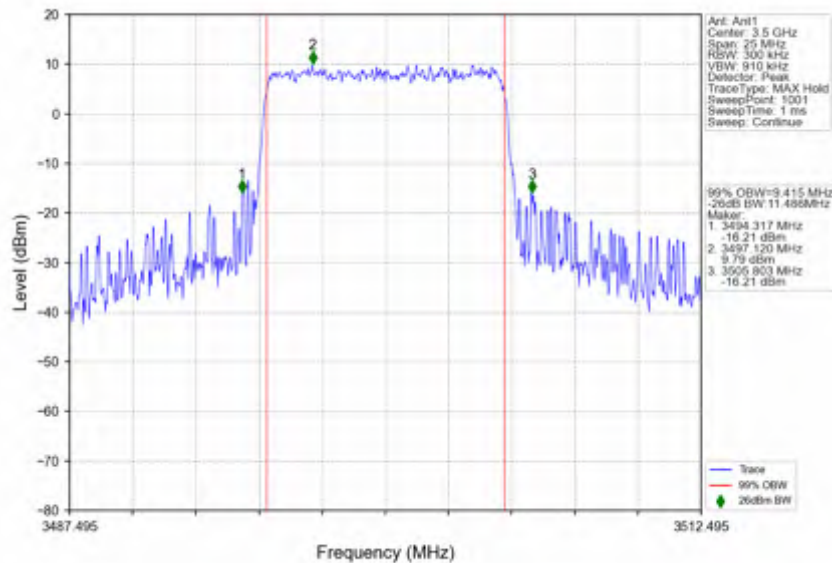
0512-51257370/0088 0512-51257370/0088 www.sgs.com.cn

0512-51257370/0088 0512-51257370/0088 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_10MHz_CP-OFDM_16_QAM_3455.01MHz_Outer_Full



n78e_15kHz_SISO_NTNV_10MHz_CP-OFDM_16_QAM_3499.995MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification reports & certificates, please connect us at sgs@sgs.com or sgs@sgs.com or sgs@sgs.com.

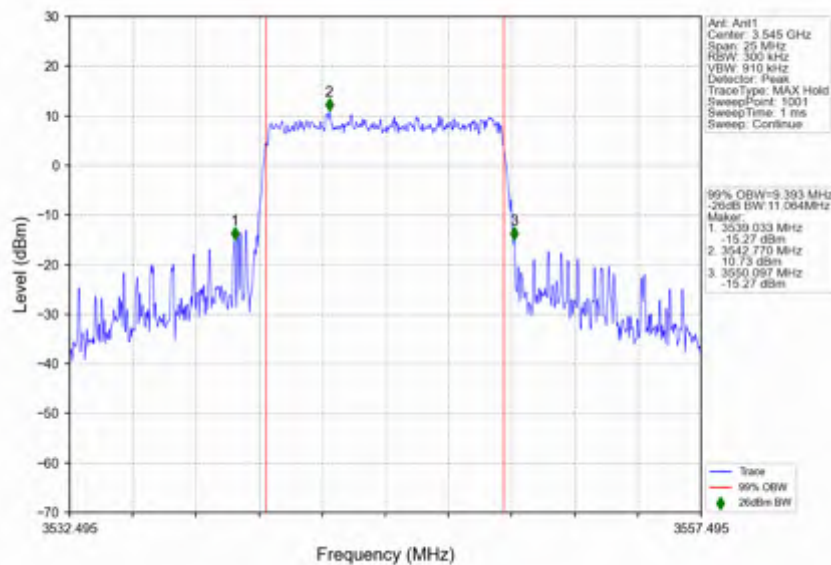
No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学生创业园伟业路10号 邮编 215300

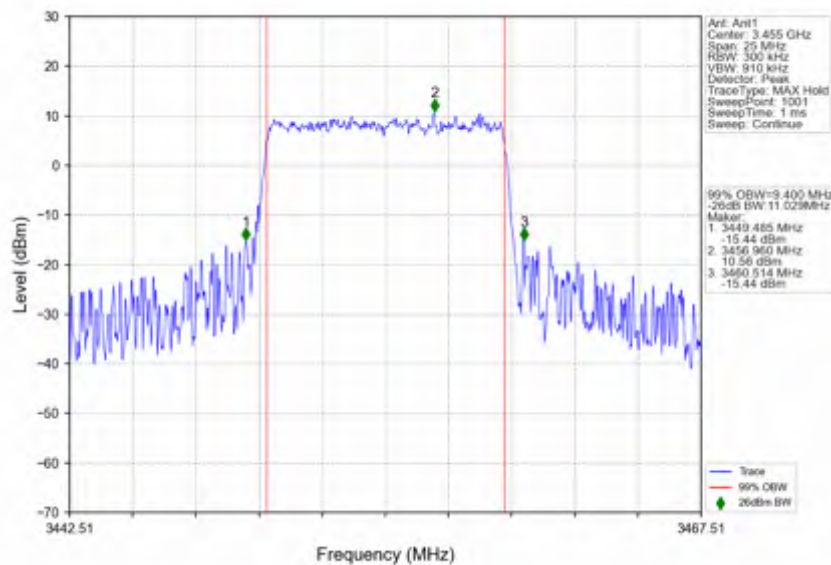
0512-51257350888 0512-51257370910 www.sgs.com.cn

0512-51257350888 0512-51257370910 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_10MHz_CP-OFDM_16_QAM_3544.995MHz_Outer_Full



n78e_15kHz_SISO_NTNV_10MHz_CP-OFDM_64_QAM_3455.01MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overall, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification reports & certificates, please connect us at china@sgs.com or CN-Check@sgs.com.

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留學生创业园伟业路10号 邮编 215300

0512-57350888

0512-57370910

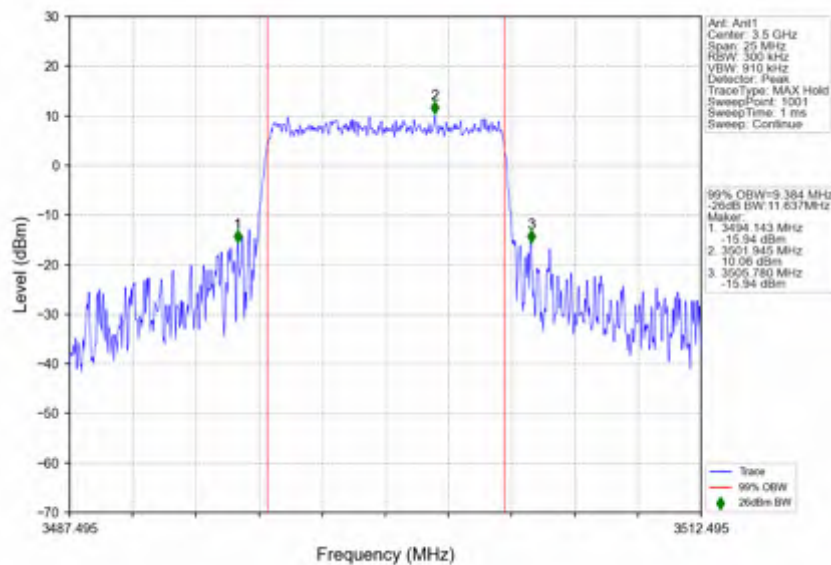
www.sgs.com.cn

0512-57350883

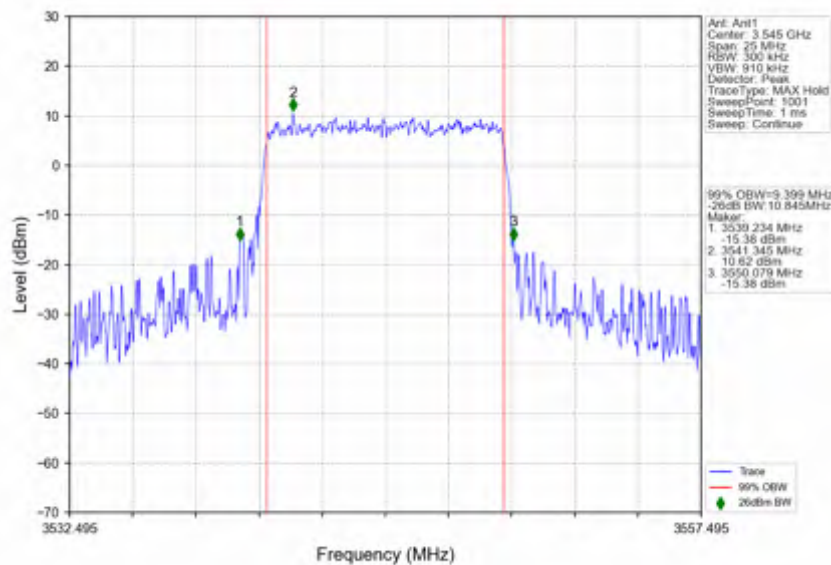
0512-57370910

sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_10MHz_CP-OFDM_64_QAM_3499.995MHz_Outer_Full



n78e_15kHz_SISO_NTNV_10MHz_CP-OFDM_64_QAM_3544.995MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overall, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at sgs@sgs.com or sgs@sgs.com or sgs@sgs.com.

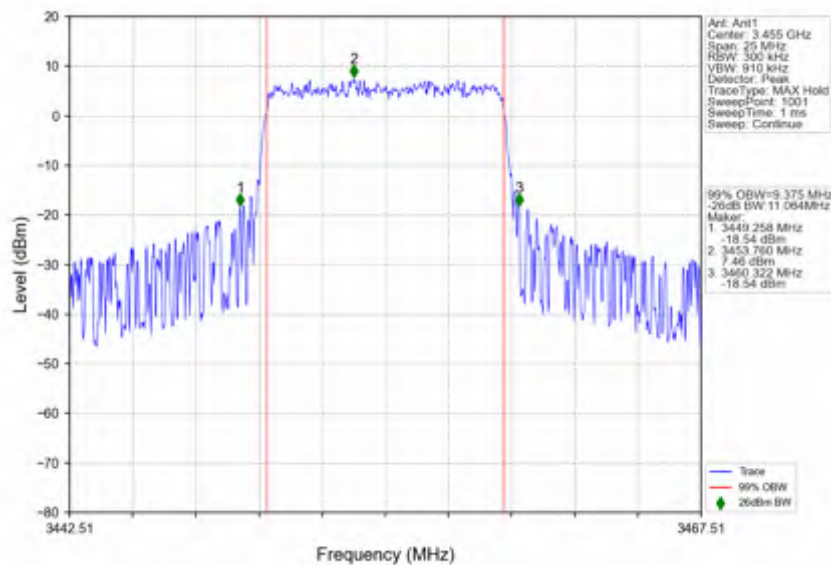
No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学生创业园伟业路10号 邮编 215300

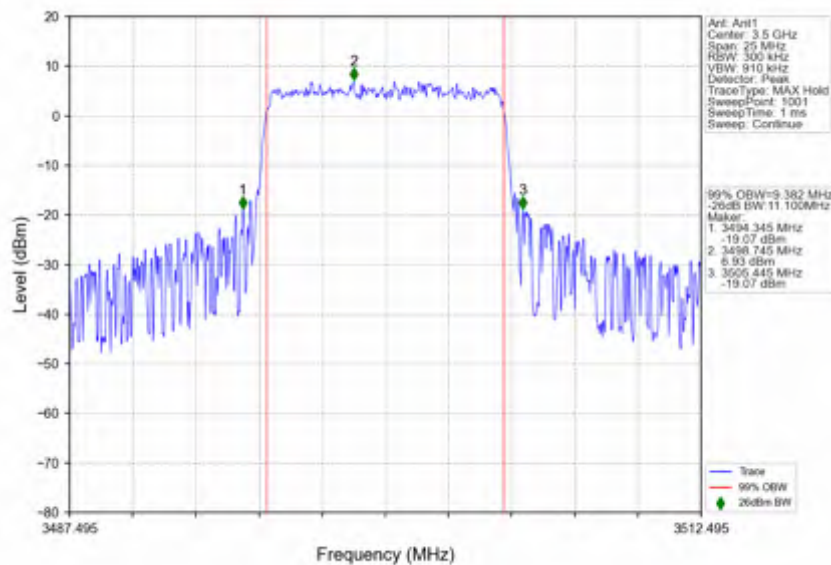
0512-51273700 0512-51273701 www.sgs.com.cn

0512-512735000 0512-51273700 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_10MHz_CP-OFDM_256_QAM_3455.01MHz_Outer_Full



n78e	15kHz	SISO	NTNV	10MHz	CP-OFDM	256 QAM	3499.995MHz	Outer	Full
------	-------	------	------	-------	---------	---------	-------------	-------	------

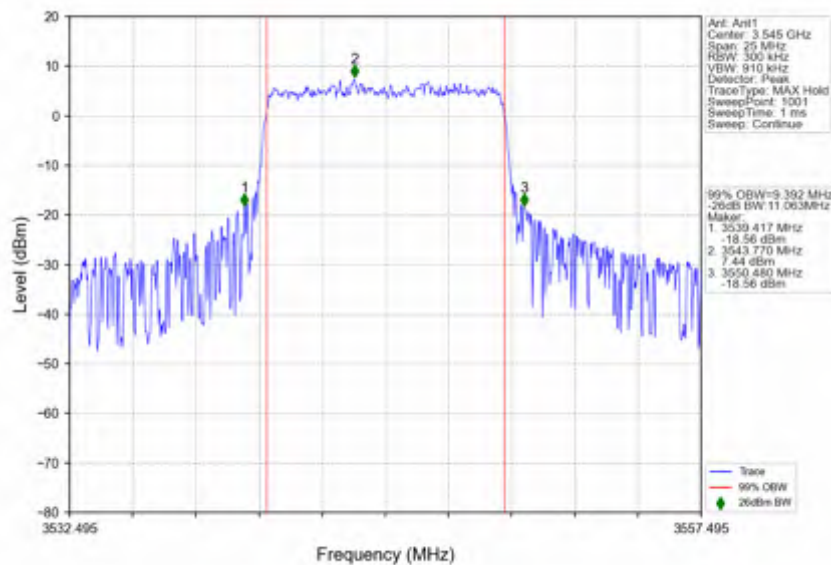


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed hereon, available on request or accessible at <http://www.irs.gov/efile/terms-and-conditions.asp> and, for electronic documents, subject to Terms and Conditions for Electronic Documents at <http://www.irs.gov/efile/terms-and-conditions/terms-and-conditions.asp>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of the Company's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from their own responsibilities. The Company's intervention is limited to the matters specified in its instructions and it does not accept liability, except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the samples shown in this fast report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

中国·江苏·昆山市留园学生创业园伟业路10号 邮编 215300

086-5125735688 086-5125737091 www.sgsgroup.com.cn
086-5125735688 086-5125737091 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_10MHz_CP-OFDM 256 QAM_3544.995MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing, certification report & certificate, please connect us at telephone: (86-512) 57370011 or email: CH.Official@sgs.com.

No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学生创业园伟业路18号 邮编 215300

(86-512) 57350888 (86-512) 57370011 www.sgs.com.cn

(86-512) 57350883 (86-512) 57370011 sgs.china@sgs.com



9.2 15k_SISO_15MHz_NTNV

9.2.1 Test Result

5G NR n78e SCS=15kHz SISO 15MHz NTN						
Modulation	Frequency (MHz)	RB Allocation	99% Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
DFT-s-OFDM PI/2 BPSK	3457.5	Outer_Full	13.54	14.66	/	Pass
	3499.995	Outer_Full	13.56	14.92	/	Pass
	3542.49	Outer_Full	13.59	14.95	/	Pass
DFT-s-OFDM QPSK	3457.5	Outer_Full	13.57	14.85	/	Pass
	3499.995	Outer_Full	13.59	14.89	/	Pass
	3542.49	Outer_Full	13.57	14.66	/	Pass
DFT-s-OFDM 16 QAM	3457.5	Outer_Full	13.58	14.65	/	Pass
	3499.995	Outer_Full	13.53	14.68	/	Pass
	3542.49	Outer_Full	13.55	14.68	/	Pass
DFT-s-OFDM 64 QAM	3457.5	Outer_Full	13.53	15.14	/	Pass
	3499.995	Outer_Full	13.55	14.74	/	Pass
	3542.49	Outer_Full	13.55	14.86	/	Pass
DFT-s-OFDM 256 QAM	3457.5	Outer_Full	13.56	15.13	/	Pass
	3499.995	Outer_Full	13.54	14.71	/	Pass
	3542.49	Outer_Full	13.56	14.60	/	Pass
CP-OFDM QPSK	3457.5	Outer_Full	14.23	15.38	/	Pass
	3499.995	Outer_Full	14.24	15.44	/	Pass
	3542.49	Outer_Full	14.24	15.24	/	Pass
CP-OFDM 16 QAM	3457.5	Outer_Full	14.24	15.25	/	Pass
	3499.995	Outer_Full	14.24	16.31	/	Pass
	3542.49	Outer_Full	14.21	17.93	/	Pass
CP-OFDM 64 QAM	3457.5	Outer_Full	14.26	15.40	/	Pass
	3499.995	Outer_Full	14.24	15.30	/	Pass
	3542.49	Outer_Full	14.20	15.65	/	Pass
CP-OFDM 256 QAM	3457.5	Outer_Full	14.23	15.29	/	Pass
	3499.995	Outer_Full	14.23	15.25	/	Pass
	3542.49	Outer_Full	14.20	15.31	/	Pass



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

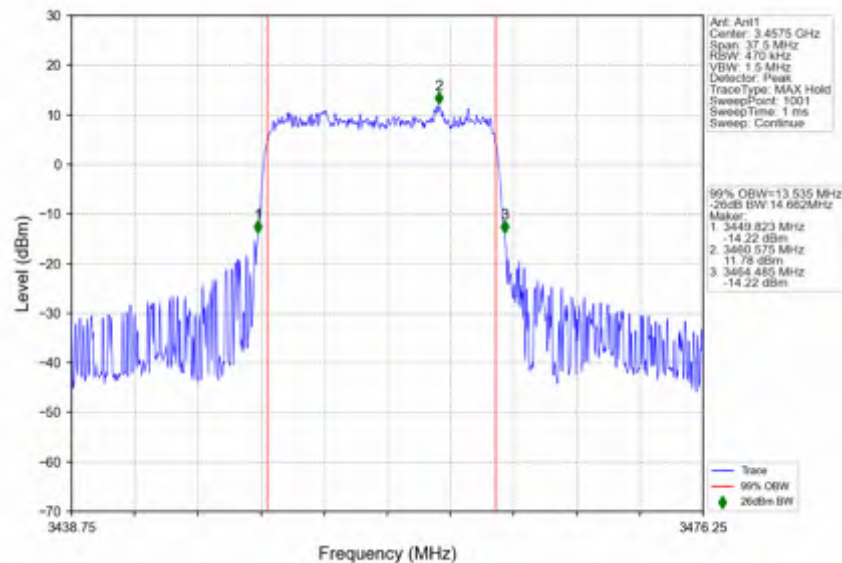
Attention: To check the authenticity of testing certification reports & certificates, please connect us at info@sgs.com (86-512) 57370011 or email: CN-Check@sgs.com.

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300
中国·江苏·昆山市留学院创业园伟业路10号 邮编 215300

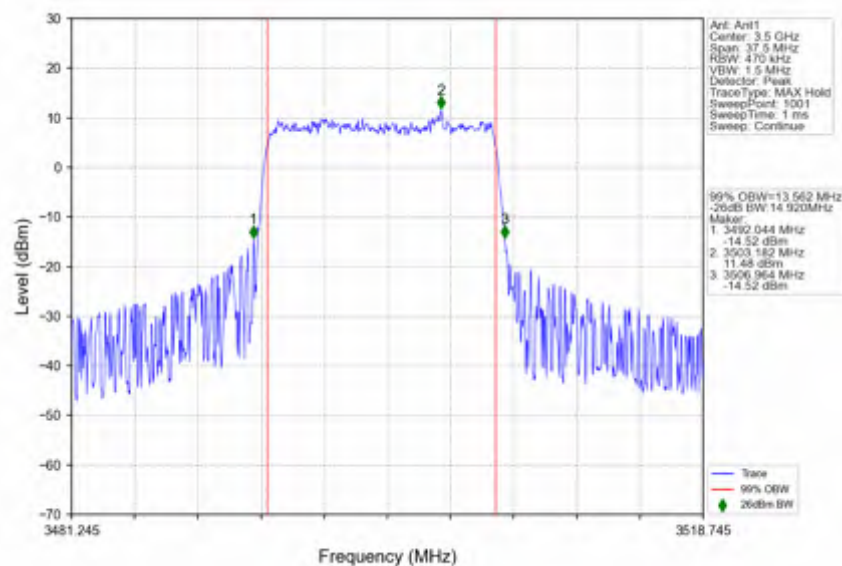
0086-51257350888 0086-51257370011 www.sgs.com.cn
0086-51257350883 0086-51257370011 sgs.china@sgs.com

9.2.2 Test Graph

n78e_15kHz_SISO_NTNV_15MHz_DFT-s-OFDM_PI/2_BPSK_3457.5MHz_Outer_Full



n78e_15kHz_SISO_NTNV_15MHz_DFT-s-OFDM_PI/2_BPSK_3499.995MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at sgs@sgs.com (86-512)57370011 or email: CH.Official@sgs.com.

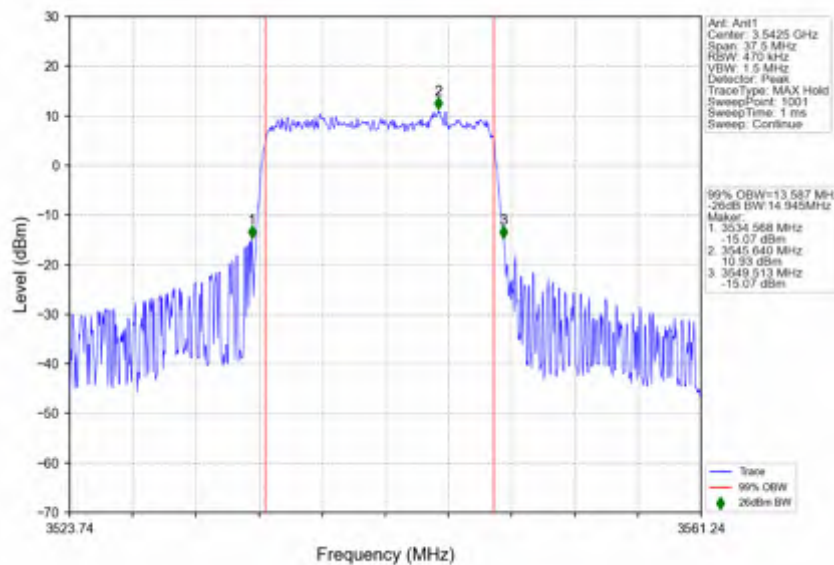
No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学生创业园伟业路18号 邮编 215300

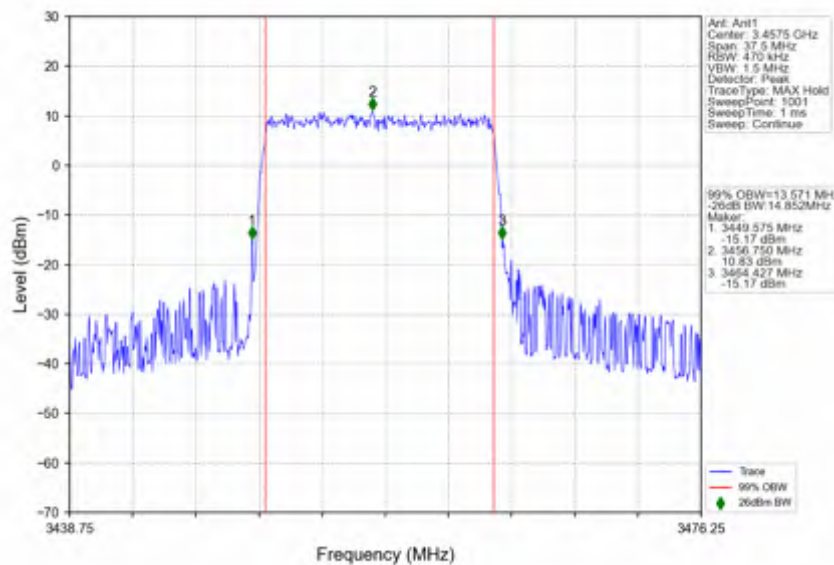
0086-51257350888 006-51257370011 www.sgs.com.cn

0086-51257350888 006-51257370011 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_15MHz_DFT-s-OFDM PI/2 BPSK_3542.49MHz_Outer_Full



n78e_15kHz_SISO_NTNV_15MHz_DFT-s-OFDM QPSK_3457.5MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overall, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated, the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing report and certificates, please connect us at sgs@sgs.com or sgs@sgs.com.

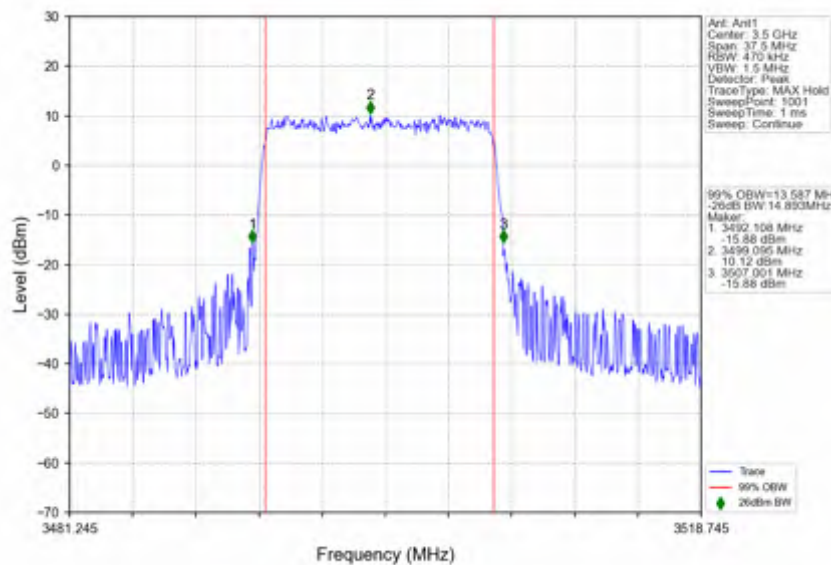
No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学生创业园伟业路10号 邮编 215300

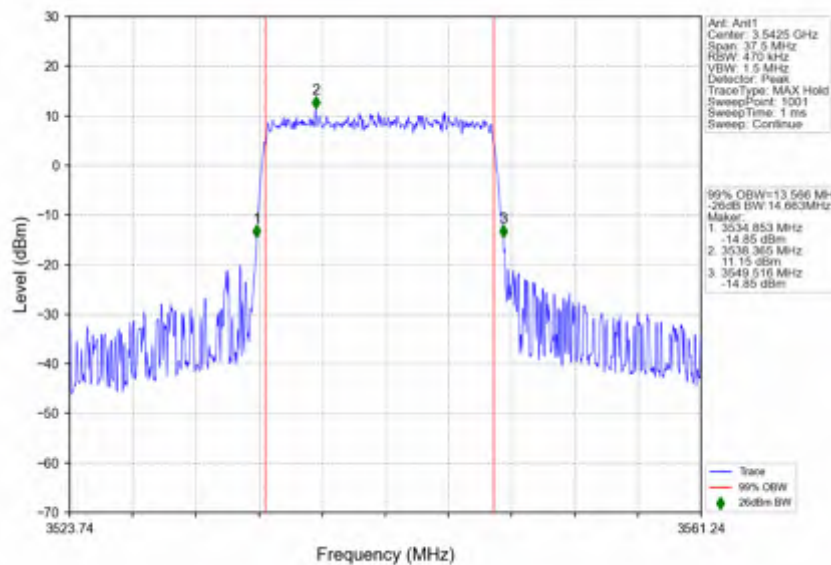
0512-51257350888 0512-5125737010 www.sgs.com.cn

0512-51257350888 0512-5125737010 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_15MHz_DFT-s-OFDM QPSK_3499.995MHz_Outer_Full



n78e_15kHz_SISO_NTNV_15MHz_DFT-s-OFDM QPSK_3542.49MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To Check the authenticity of testing report or certificate, please connect us at telephone: (86-512) 57370011 or email: CH.Official@sgs.com.

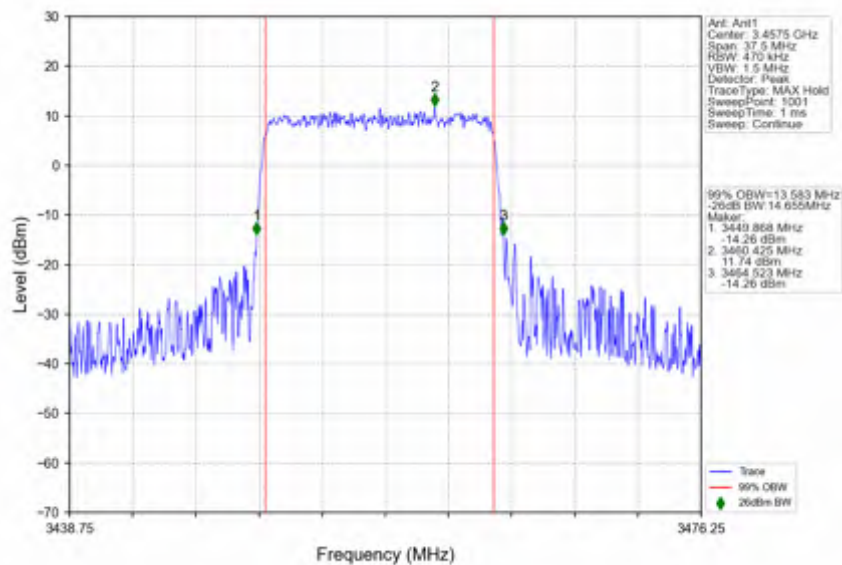
No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学生创业园伟业路18号 邮编 215300

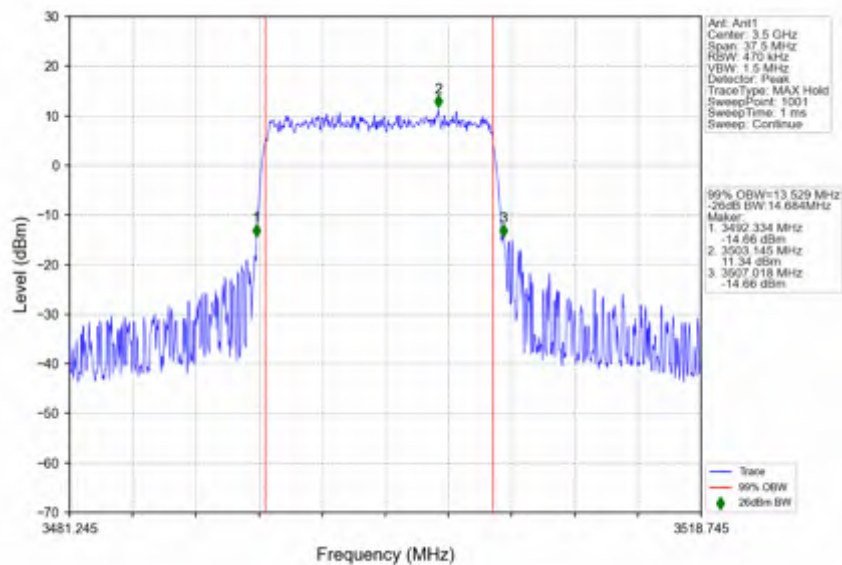
(86-512) 57350888 (86-512) 57370011 www.sgs.com.cn

(86-512) 57350883 (86-512) 57370011 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_15MHz_DFT-s-OFDM_16_QAM_3457.5MHz_Outer_Full



n78e_15kHz_SISO_NTNV_15MHz_DFT-s-OFDM_16_QAM_3499.995MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated, the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at sgs@sgs.com or sgs@sgs.com or sgs@sgs.com.

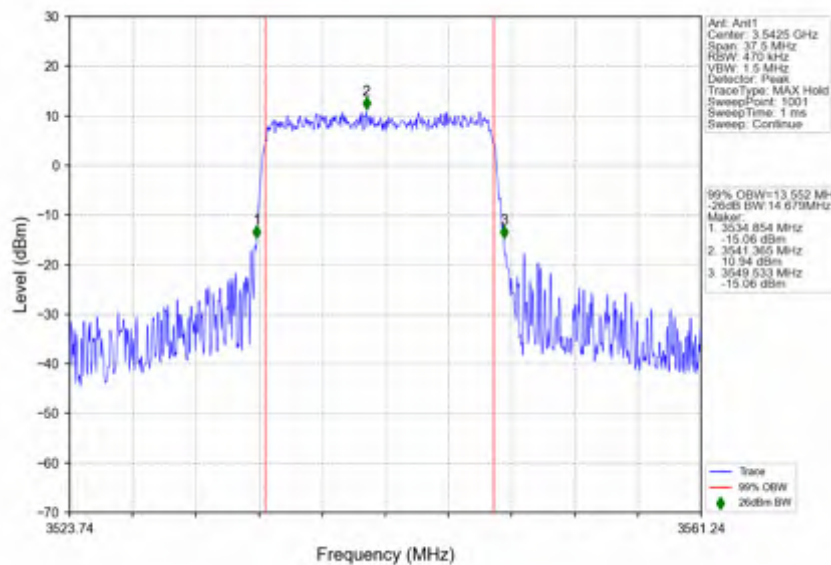
No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学生创业园伟业路18号 邮编 215300

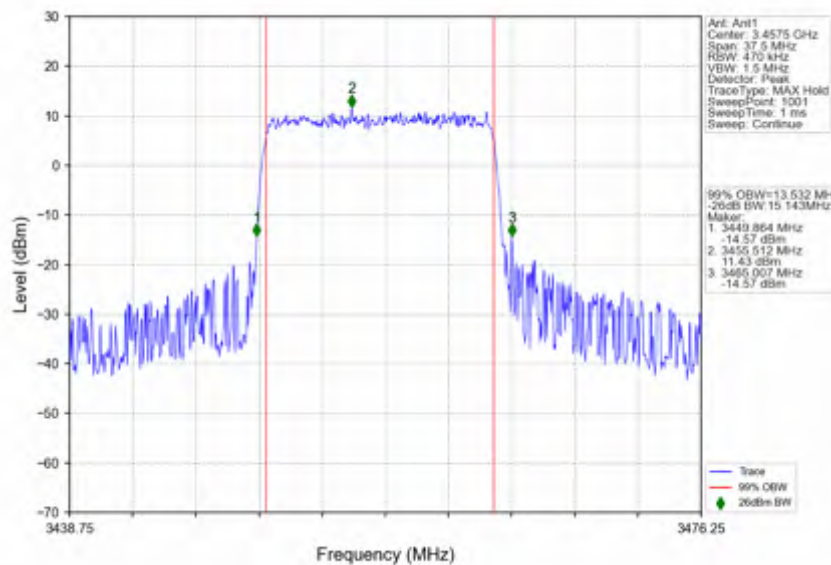
0512-57350888 0512-57370910 www.sgs.com.cn

0512-51257350888 0512-51257370910 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_15MHz_DFT-s-OFDM_16_QAM_3542.49MHz_Outer_Full



n78e_15kHz_SISO_NTNV_15MHz_DFT-s-OFDM_64_QAM_3457.5MHz_Outer_Full

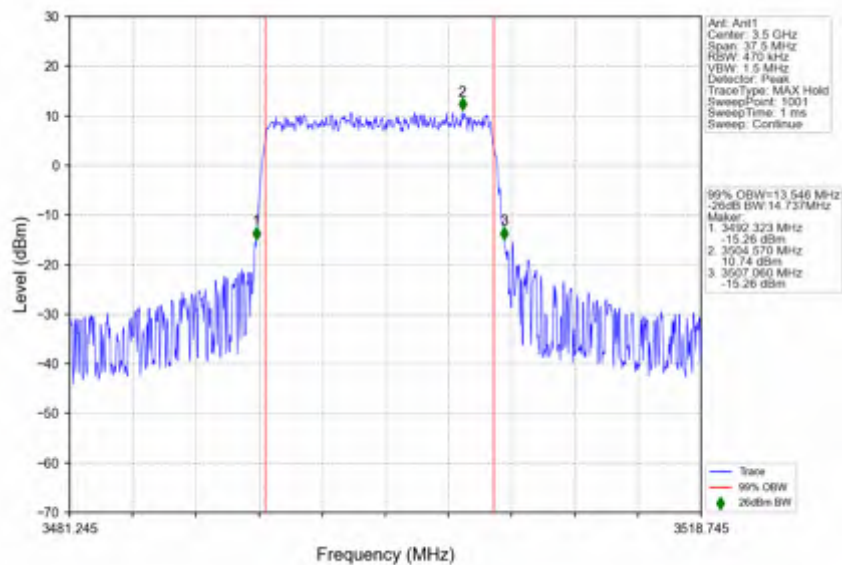


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed and available on request or accessible at <http://www.etsi.org/ETSI/Products/Conditions.aspx> and, for selected forms, printed subject to Terms and Conditions for Electronic Documents at <http://www.etsi.org/ETSI/Products/Terms-and-Conditions/Terms-a-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction terms defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of the Company's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a trial from their responsibility to the court. The Company's findings are contained in the document and are not to be reproduced, in whole or in part, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this fast report refer only to the sample(s) tested and such sample(s) are retained for 30 days only. For more information on the fast report service, please contact your local ETSI representative at etsi@etsi.org or visit the ETSI website at www.etsi.org.

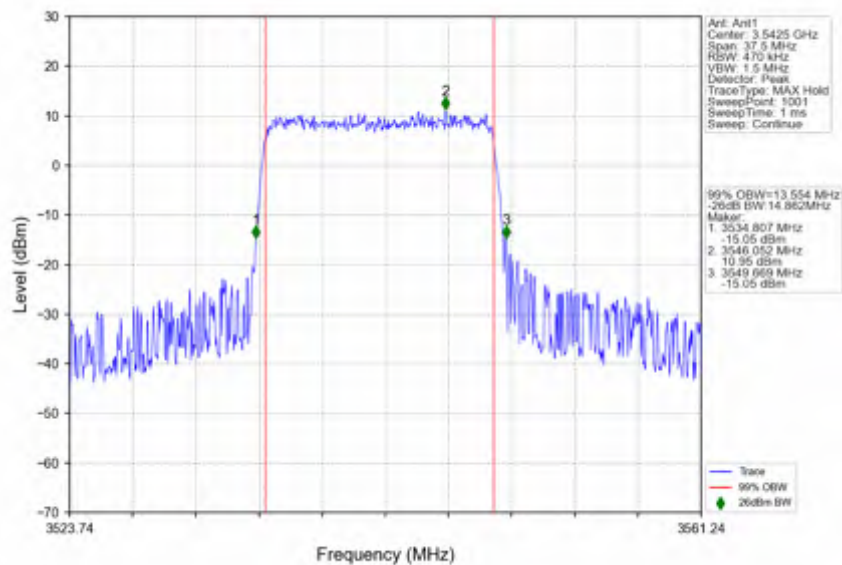
中国·江苏·昆山市周庄学生创业园伟业路10号 邮编 215300

086-5125735688 086-5125737091 www.sgsigroup.com.cn
086-5125735688 086-5125737091 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_15MHz_DFT-s-OFDM_64_QAM_3499.995MHz_Outer_Full



n78e_15kHz_SISO_NTNV_15MHz_DFT-s-OFDM_64_QAM_3542.49MHz_Outer_Full

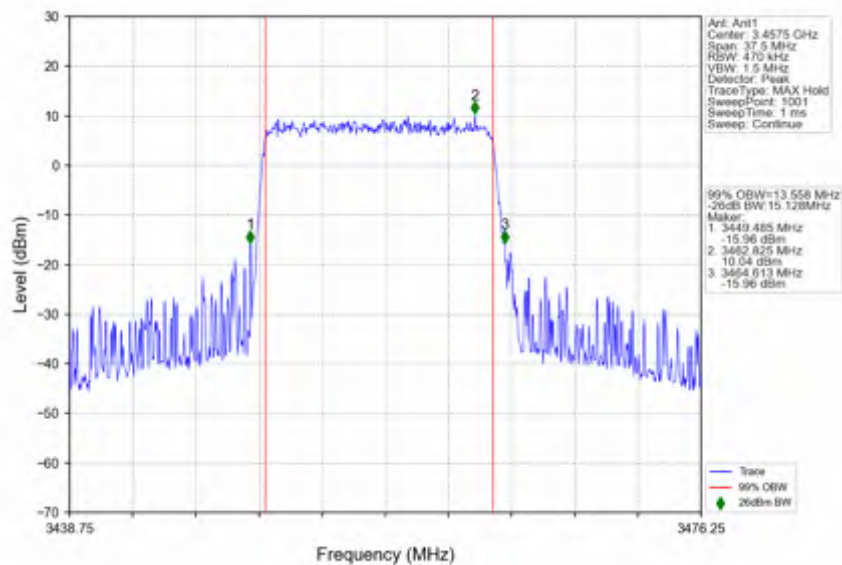


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed hereon, available on request or accessible at <http://www.etsi.com/Products/ETSI%20Terms%20and%20Conditions> and, for selected forms, printed subject to Terms and Conditions for Electronic Documents at <http://www.etsi.com/Products/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of the Company's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a trial from their responsibility to the court. The Company's findings are not intended to constitute an opinion, a recommendation or a warranty, except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this fast report refer only to the sample(s) tested and such sample(s) are retained for 30 days only. For more information on the use of this document, please contact the ETSI Customer Service at etsi@etsi.org or <tel:+3333707410000>.

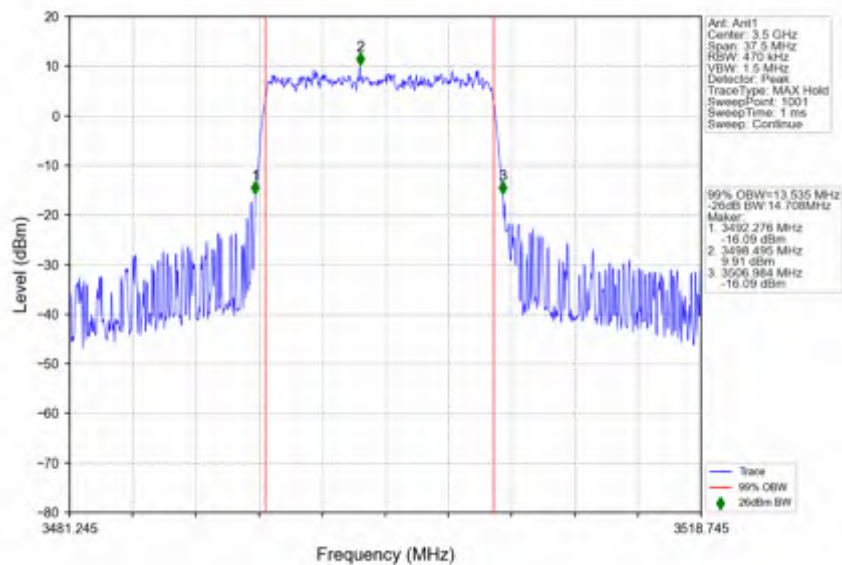
中国·江苏·昆山市周庄生创业园伟业路10号 邮编 215300

086-5125735688 086-5125737091 www.sgsigroup.com.cn
086-5125735688 086-5125737091 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_15MHz_DFT-s-OFDM_256_QAM_3457.5MHz_Outer_Full



n78e_15kHz_SISO_NTNV_15MHz_DFT-s-OFDM_256_QAM_3499.995MHz_Outer_Full

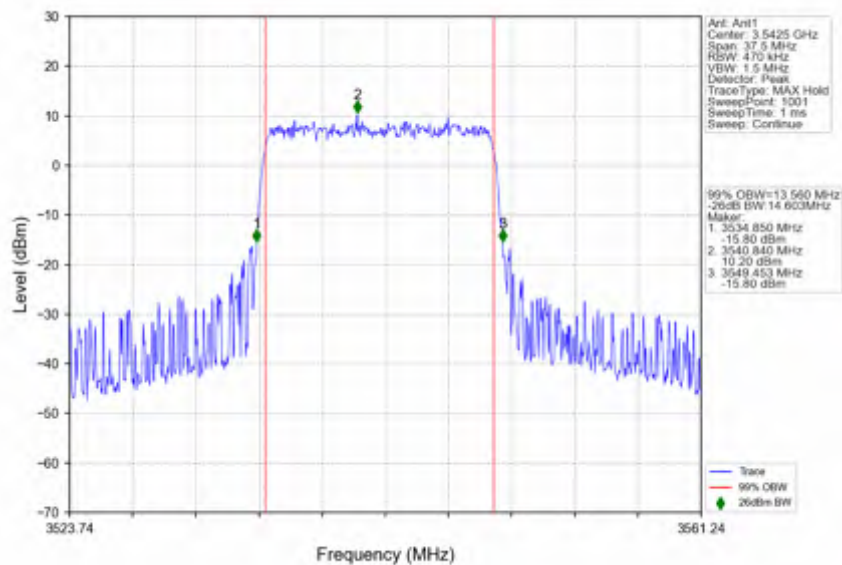


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.usc.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.usc.com/en/Terms-and-Conditions/Terms-a-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of its legal and professional responsibility. The Company does not accept any liability for any loss or damage arising out of any transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this last report refer only in the sample(s) tested and such sample(s) are retained for 30 days only.

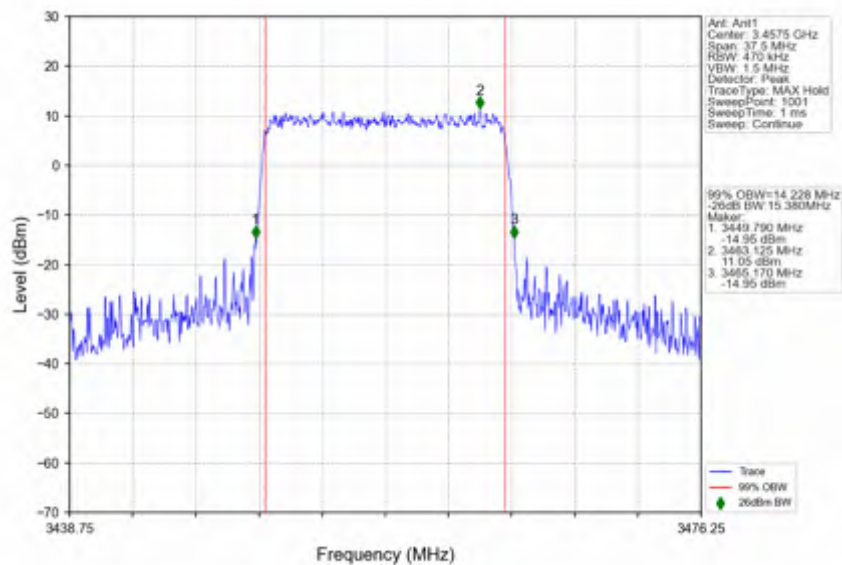
No.10, Waiye Road, Innovation Park, Kunshan, Jiangsu, China 215300
中国·江苏·昆山市留學生创业园伟业路10号 邮编 215300

86-5125735688 86-5125737091 www.sgschina.com.cn
86-5125735688 86-5125737091 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_15MHz_DFT-s-OFDM_256_QAM_3542.49MHz_Outer_Full



n78e_15kHz_SISO_NTNV_15MHz_CP-OFDM_QPSK_3457.5MHz_Outer_Full

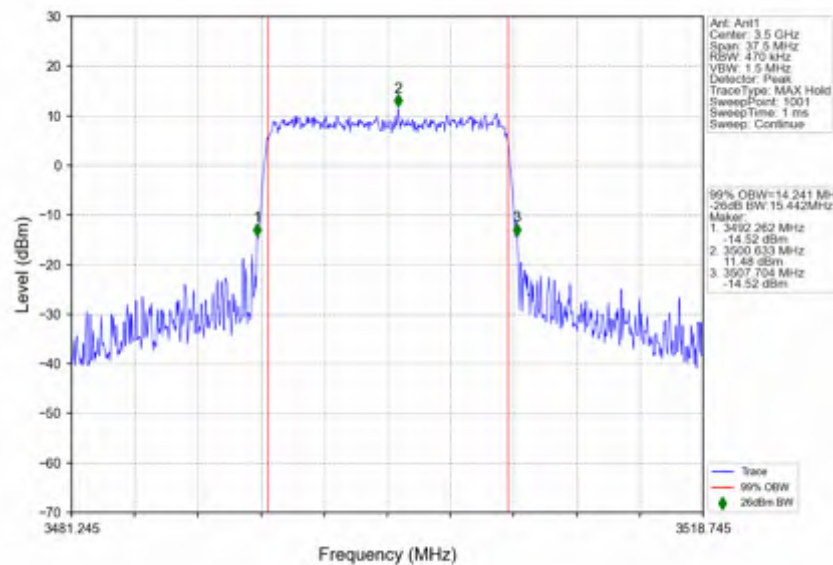


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed hereon, available on request or accessible at <http://www.irs.gov/efile/terms-and-conditions.asp> and, for electronic filing of documents, subject to Terms and Conditions for Electronic Documents at <http://www.irs.gov/efile/terms-and-conditions/terms-and-conditions.asp>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of the Company's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from their own responsibilities. The Company's intervention is limited to the matters specified in its instructions and it does not accept liability, except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the samples shown in this report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

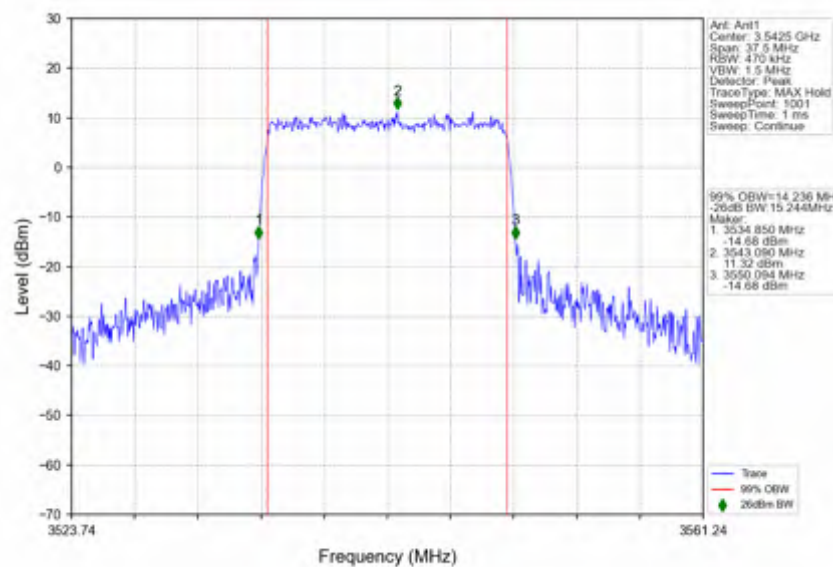
中国·江苏·昆山市留學生创业园伟业路10号 邮编 215300

086-5125735688 086-5125737000 www.sgsgroup.com.cn
086-5125735688 086-5125737000 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_15MHz_CP-OFDM QPSK_3499.995MHz_Outer_Full



n78e_15kHz_SISO_NTNV_15MHz_CP-OFDM QPSK_3542.49MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To Check the authenticity of testing certification report & certificate, please connect us at sgs@sgs.com or CN-Check@sgs.com.

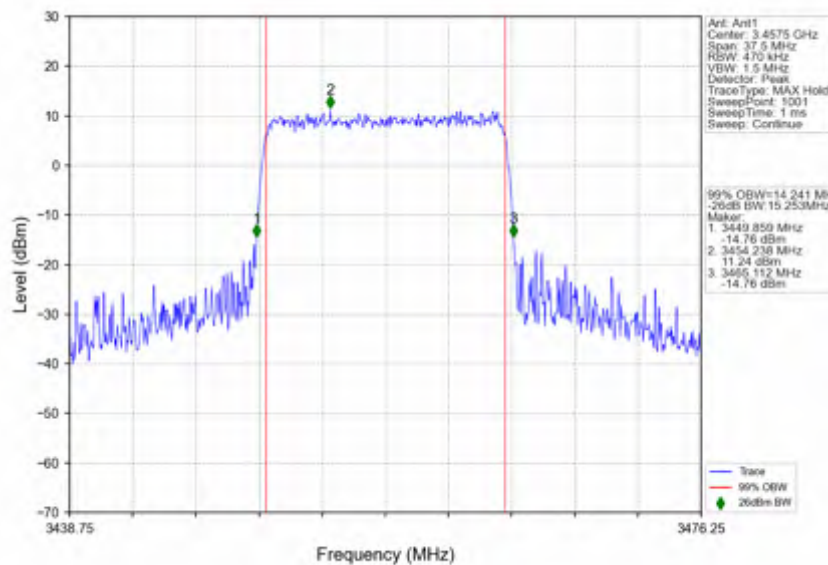
No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学生创业园伟业路18号 邮编 215300

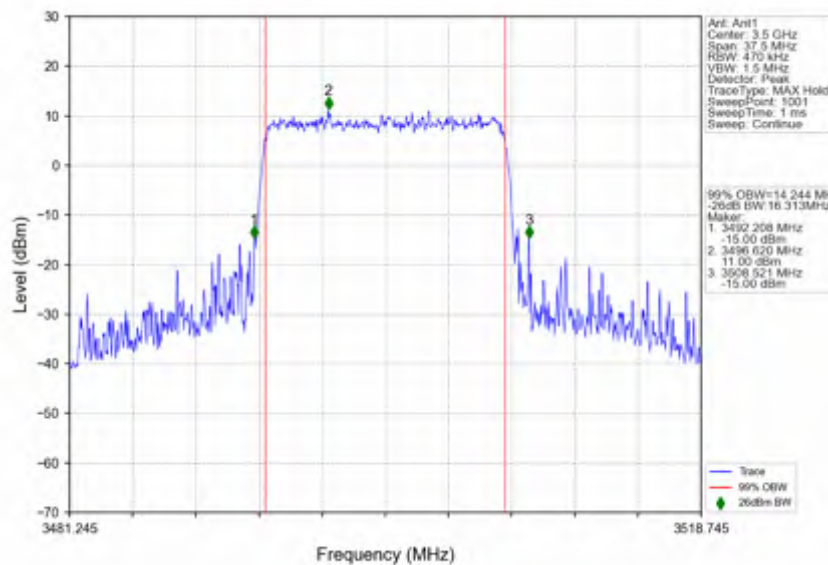
0512-51257350888 0512-5125737010 www.sgs.com.cn

0512-51257350888 0512-5125737010 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_15MHz_CP-OFDM_16_QAM_3457.5MHz_Outer_Full



n78e_15kHz_SISO_NTNV_15MHz_CP-OFDM_16_QAM_3499.995MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To Check the authenticity of testing certification report & certificate, please connect us at telephone: (86-512) 57370011 or email: CH.Official@sgs.com.

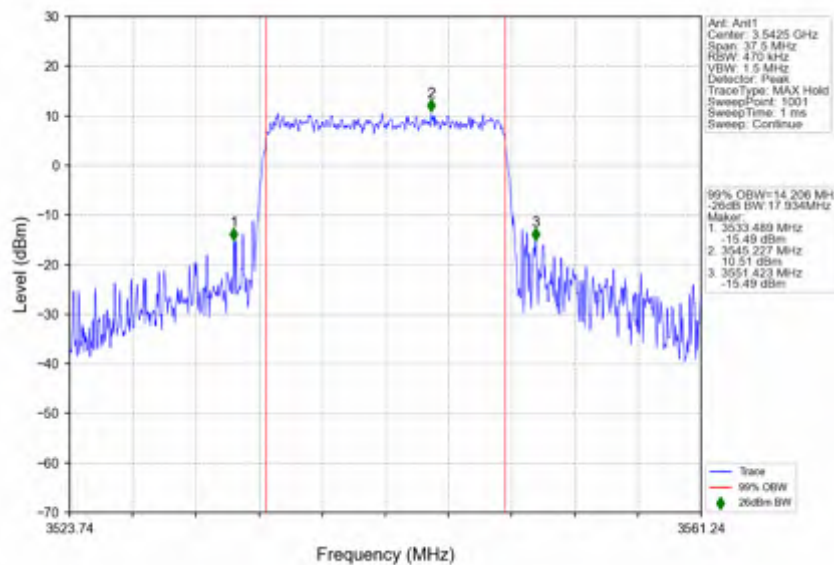
No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学生创业园伟业路18号 邮编 215300

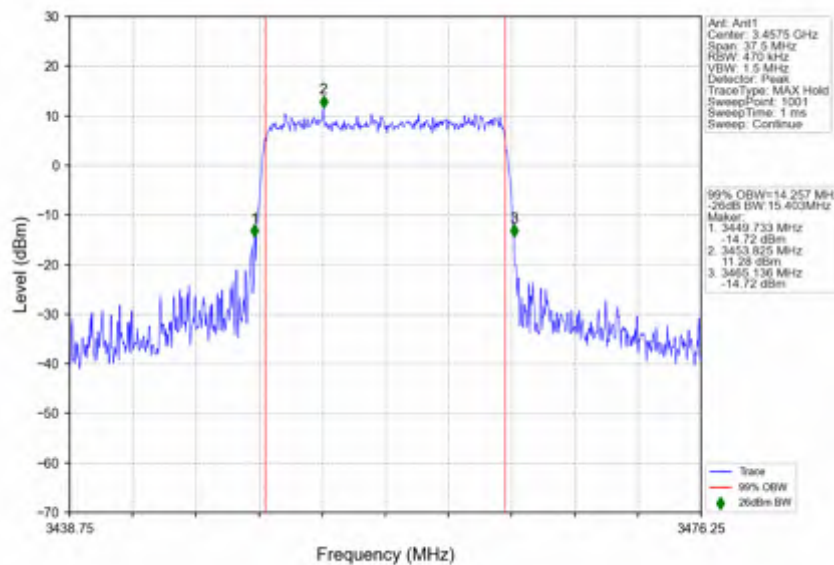
(86-512) 57350888 (86-512) 57370011 www.sgs.com.cn

(86-512) 57350883 (86-512) 57370011 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_15MHz_CP-OFDM 16 QAM_3542.49MHz_Outer_Full



n78e_15kHz_SISO_NTNV_15MHz_CP-OFDM 64 QAM_3457.5MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at Tel: +86 (0512) 57370011 or email: CH.Official@sgs.com

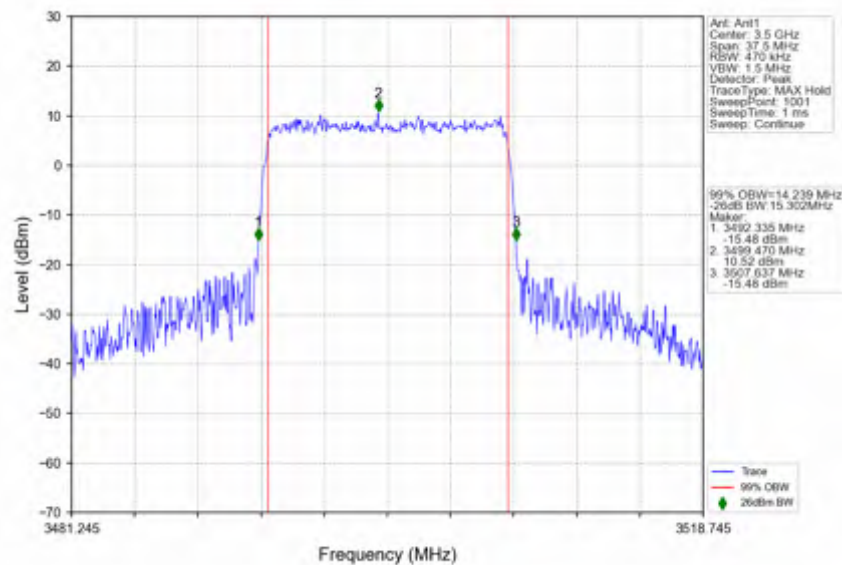
No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留學生创业园伟业路18号 邮编 215300

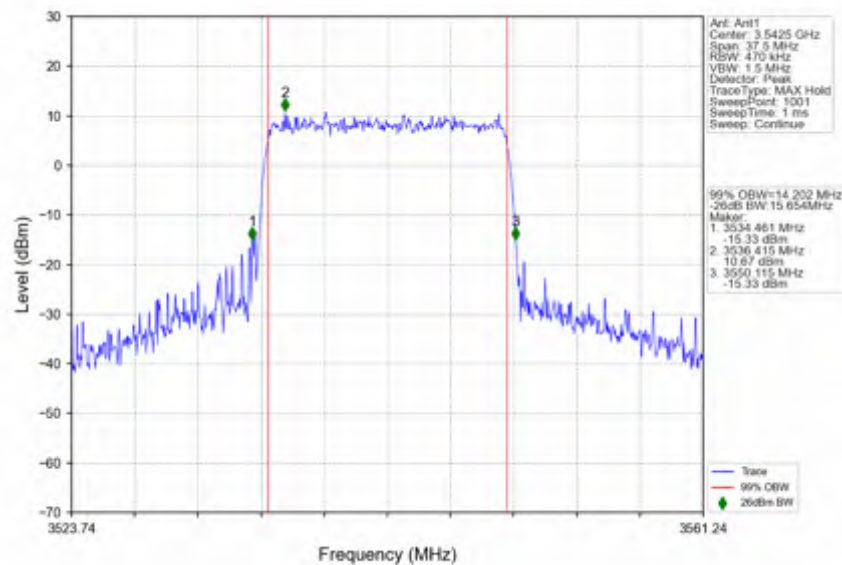
+86-512-57350888 +86-512-57370011 www.sgs.com.cn

+86-512-57350888 +86-512-57370011 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_15MHz_CP-OFDM 64 QAM_3499.995MHz_Outer_Full



n78e_15kHz_SISO_NTNV_15MHz_CP-OFDM 64 QAM_3542.49MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at telephone: (86-512) 57370011 or email: CH.Official@sgs.com.

No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学生创业园伟业路18号 邮编 215300

(86-512) 57350888

(86-512) 57370011

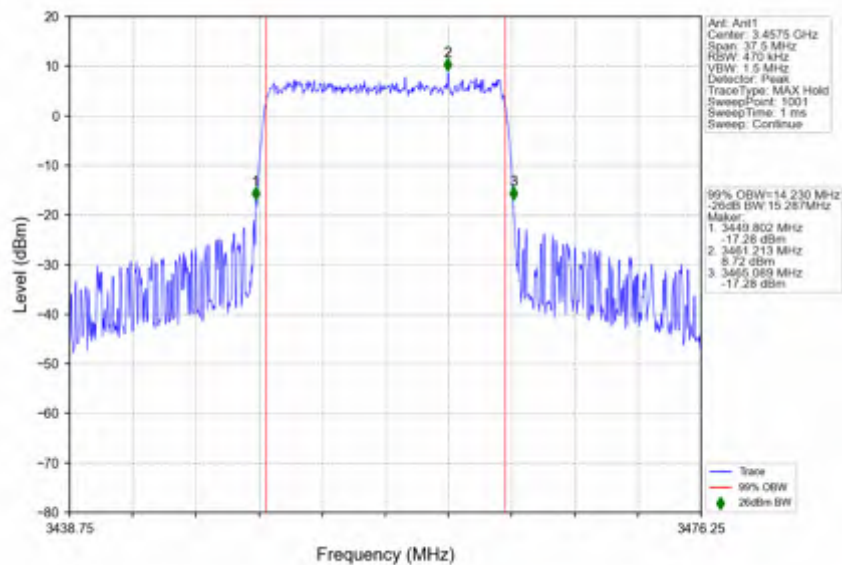
www.sgs.com.cn

(86-512) 57350883

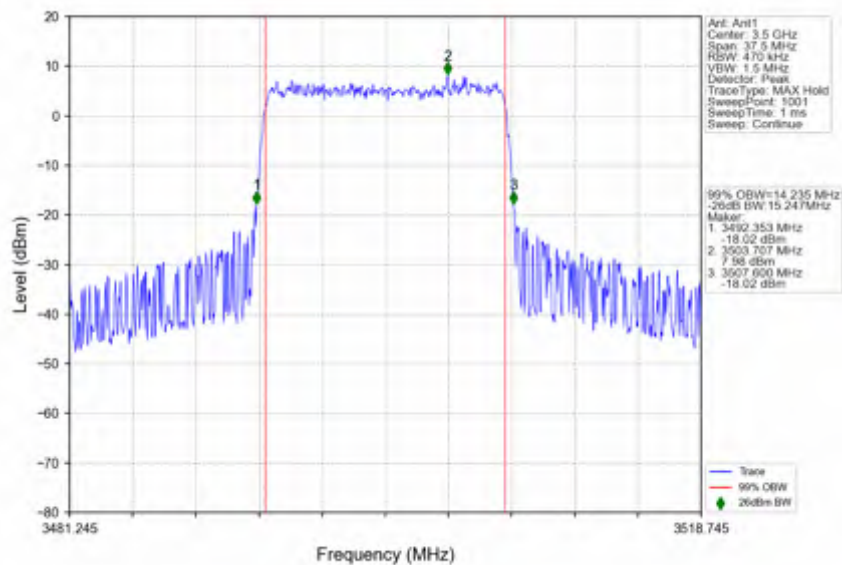
(86-512) 57370011

sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_15MHz_CP-OFDM 256 QAM_3457.5MHz_Outer_Full



n78e_15kHz_SISO_NTNV_15MHz_CP-OFDM 256 QAM_3499.995MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification reports & certificates, please connect us at sgs@sgs.com or sgs@sgs.com or sgs@sgs.com.

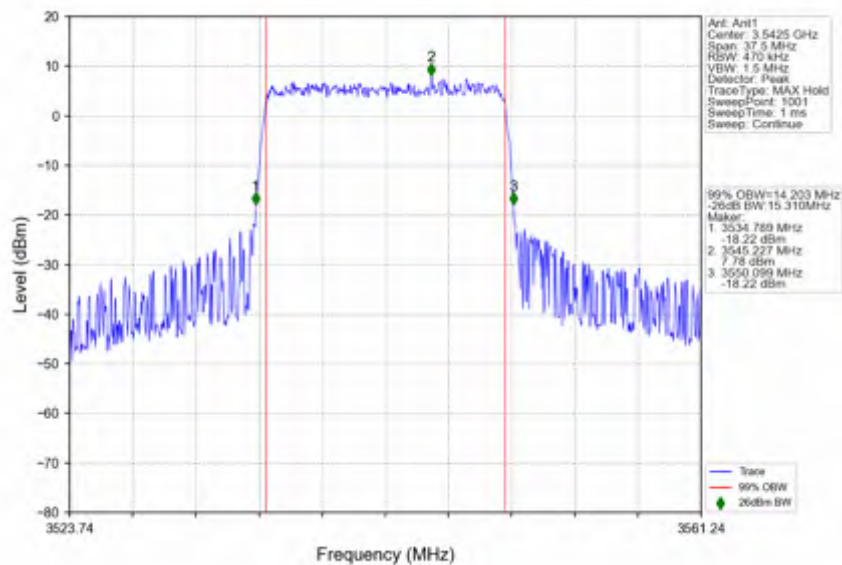
No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学院创业园伟业路18号 邮编 215300

0512-51273700 0512-51273701 www.sgs.com.cn

0512-5127350000 0512-51273700 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_15MHz_CP-OFDM_256_QAM_3542.49MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at telephone: (86-512) 57370011 or email: CH.Official@sgs.com.

No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留學生创业园伟业路18号 邮编 215300

(86-512) 57350888 (86-512) 57370011 www.sgs.com.cn

(86-512) 57350883 (86-512) 57370011 sgs.china@sgs.com

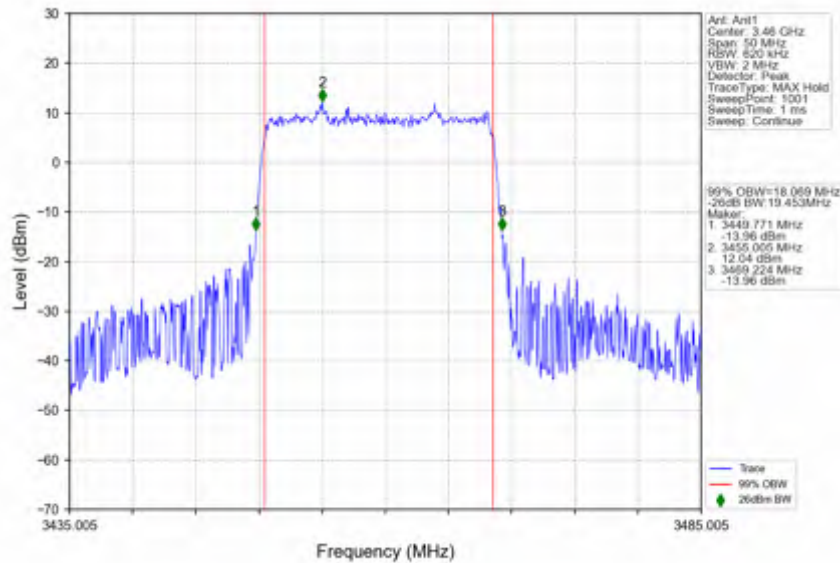
9.3 15k_SISO_20MHz_NTNV

9.3.1 Test Result

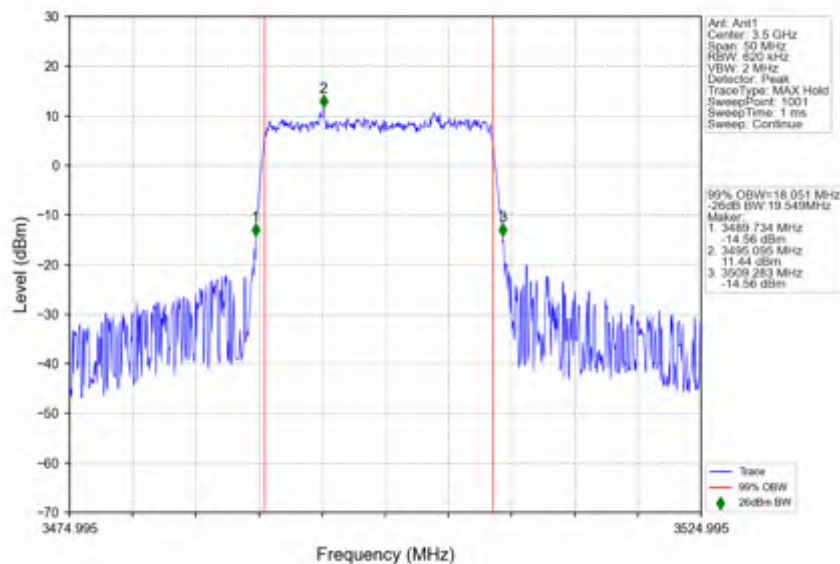
5G NR n78e SCS=15kHz SISO 20MHz NTN						
Modulation	Frequency (MHz)	RB Allocation	99% Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
DFT-s-OFDM PI/2 BPSK	3460.005	Outer_Full	18.07	19.45	/	Pass
	3499.995	Outer_Full	18.05	19.55	/	Pass
	3540	Outer_Full	18.08	19.65	/	Pass
DFT-s-OFDM QPSK	3460.005	Outer_Full	18.11	19.72	/	Pass
	3499.995	Outer_Full	18.24	19.16	/	Pass
	3540	Outer_Full	18.22	19.55	/	Pass
DFT-s-OFDM 16 QAM	3460.005	Outer_Full	18.09	19.73	/	Pass
	3499.995	Outer_Full	18.09	19.99	/	Pass
	3540	Outer_Full	18.13	19.75	/	Pass
DFT-s-OFDM 64 QAM	3460.005	Outer_Full	18.12	19.59	/	Pass
	3499.995	Outer_Full	18.07	19.82	/	Pass
	3540	Outer_Full	18.05	19.99	/	Pass
DFT-s-OFDM 256 QAM	3460.005	Outer_Full	18.03	19.53	/	Pass
	3499.995	Outer_Full	18.01	19.61	/	Pass
	3540	Outer_Full	18.07	19.68	/	Pass
CP-OFDM QPSK	3460.005	Outer_Full	19.14	21.22	/	Pass
	3499.995	Outer_Full	19.06	20.90	/	Pass
	3540	Outer_Full	19.07	20.63	/	Pass
CP-OFDM 16 QAM	3460.005	Outer_Full	19.06	20.49	/	Pass
	3499.995	Outer_Full	19.10	20.59	/	Pass
	3540	Outer_Full	19.07	20.85	/	Pass
CP-OFDM 64 QAM	3460.005	Outer_Full	19.08	21.32	/	Pass
	3499.995	Outer_Full	19.10	20.93	/	Pass
	3540	Outer_Full	19.07	20.63	/	Pass
CP-OFDM 256 QAM	3460.005	Outer_Full	19.01	20.86	/	Pass
	3499.995	Outer_Full	19.02	20.68	/	Pass
	3540	Outer_Full	19.08	20.50	/	Pass

9.3.2 Test Graph

n78e_15kHz_SISO_NTNV_20MHz_DFT-s-OFDM_PI/2_BPSK_3460.005MHz_Outer_Full



n78e_15kHz_SISO_NTNV_20MHz_DFT-s-OFDM_PI/2_BPSK_3499.995MHz_Outer_Full



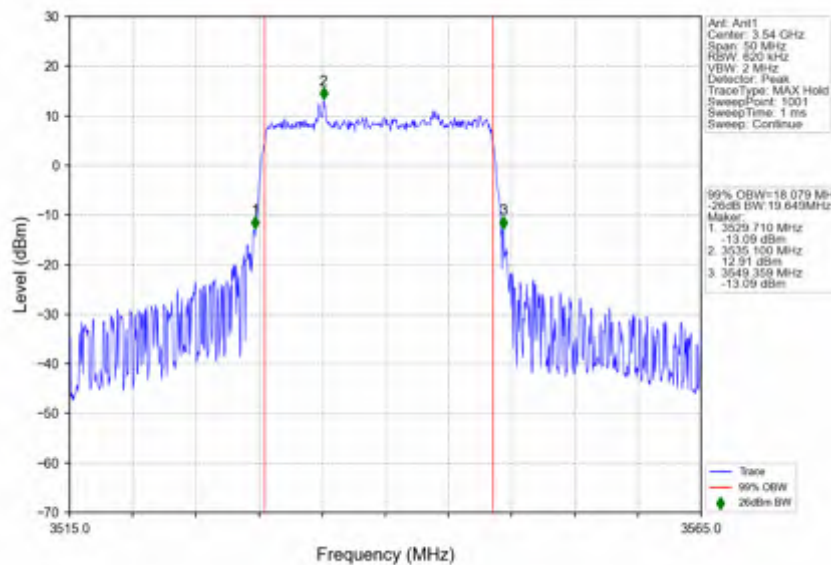
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at sgs@sgs.com (86-512)57370011 or email: CN-Online@sgs.com.

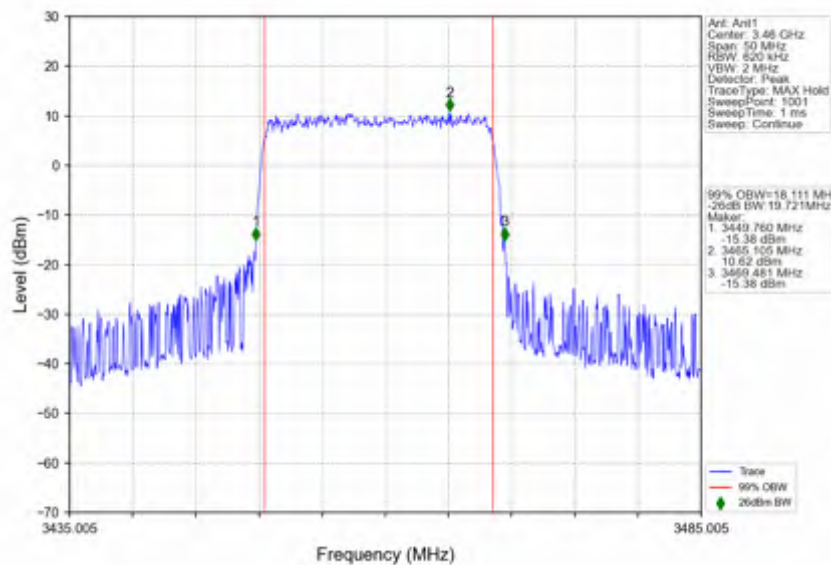
No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300
中国·江苏·昆山市留学院创业园伟业路18号 邮编 215300

(86-512)57350888 (86-512)57370011 www.sgs.com.cn
(86-512)57350888 (86-512)57370011 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_20MHz_DFT-s-OFDM PI/2 BPSK_3540MHz_Outer_Full



n78e_15kHz_SISO_NTNV_20MHz_DFT-s-OFDM QPSK_3460.005MHz_Outer_Full



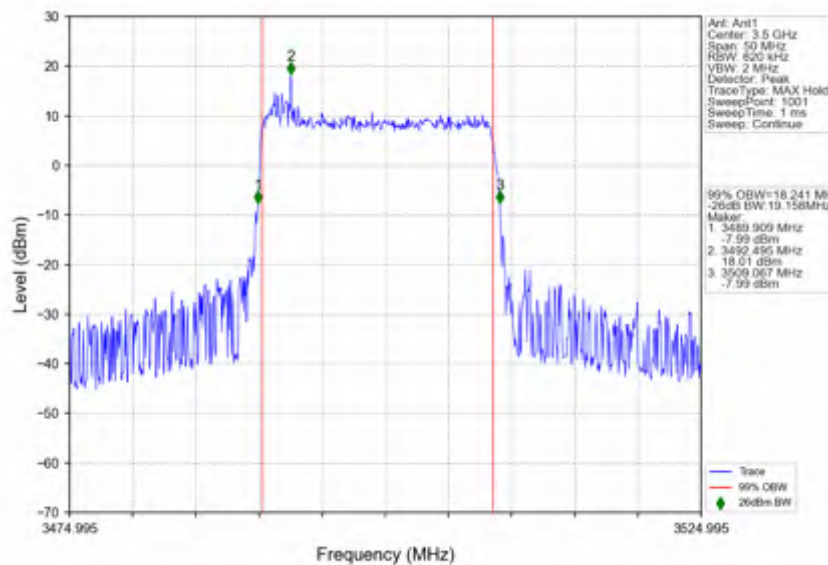
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at telephone: (86-512) 57370011 or email: CH.Official@sgs.com.

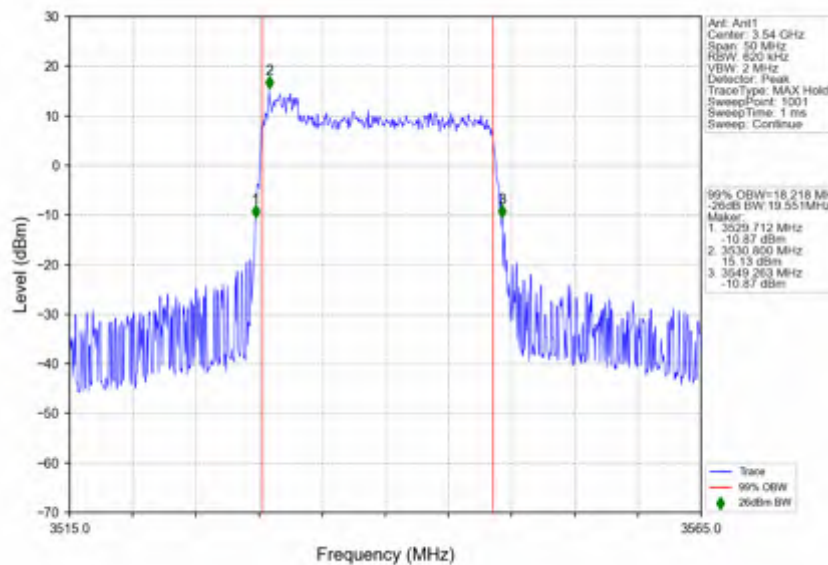
No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300
中国·江苏·昆山市留学院创业园伟业路18号 邮编 215300

(86-512) 57350888 (86-512) 57370011 www.sgs.com.cn
(86-512) 57350883 (86-512) 57370011 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_20MHz_DFT-s-OFDM QPSK_3499.995MHz_Outer_Full



n78e_15kHz_SISO_NTNV_20MHz_DFT-s-OFDM QPSK_3540MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing report or certificate, please connect us at telephone: (86-512) 57370011 or email: CH.Official@sgs.com.

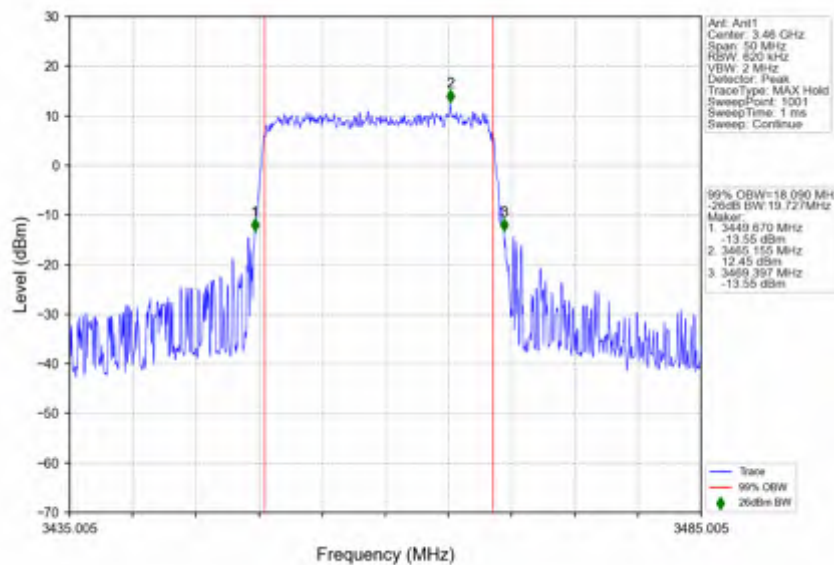
No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学生创业园伟业路18号 邮编 215300

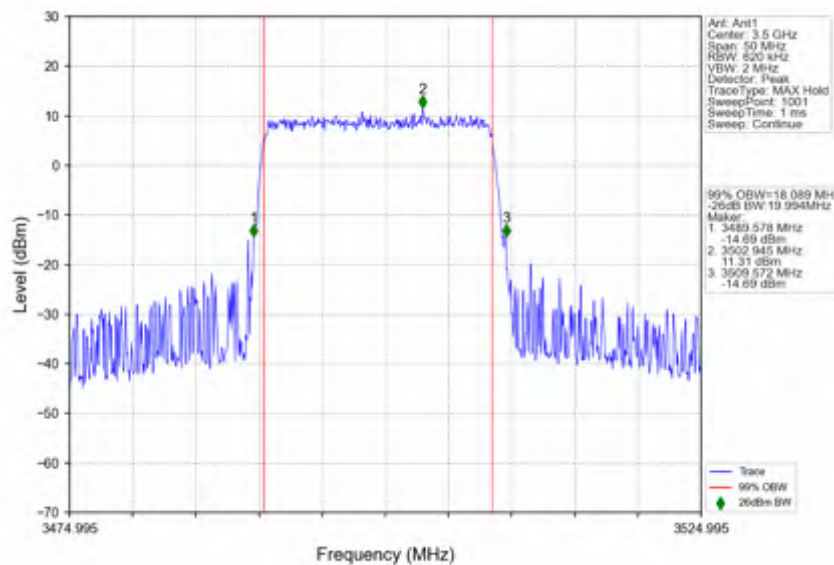
(86-512) 57350888 (86-512) 57370011 www.sgs.com.cn

(86-512) 57350883 (86-512) 57370011 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_20MHz_DFT-s-OFDM_16_QAM_3460.005MHz_Outer_Full



n78e_15kHz_SISO_NTNV_20MHz_DFT-s-OFDM_16_QAM_3499.995MHz_Outer_Full



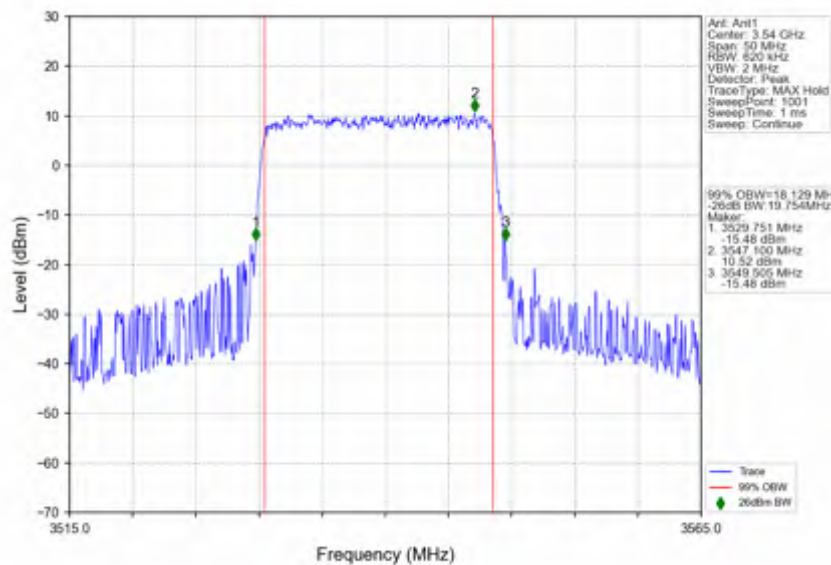
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at telephone: (86-512) 57370011 or email: CH.Official@sgs.com.

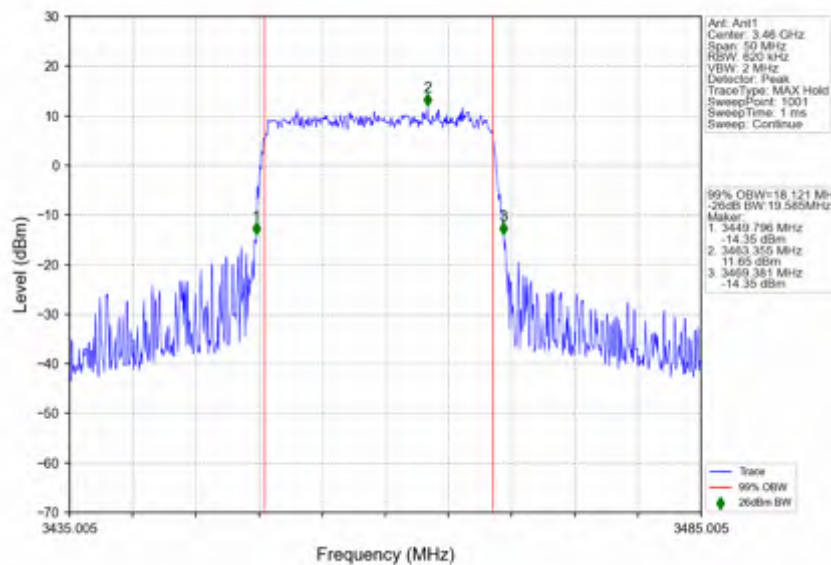
No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300
中国·江苏·昆山市留学院创业园伟业路10号 邮编 215300

(86-512) 57350888 (86-512) 57370011 www.sgs.com.cn
(86-512) 57350883 (86-512) 57370011 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_20MHz_DFT-s-OFDM 16 QAM_3540MHz_Outer_Full



n78e_15kHz_SISO_NTNV_20MHz_DFT-s-OFDM 64 QAM_3460.005MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overall, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated, the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing report or certificate, please connect us at sgs@sgs.com or sgs@sgs.com or sgs@sgs.com.

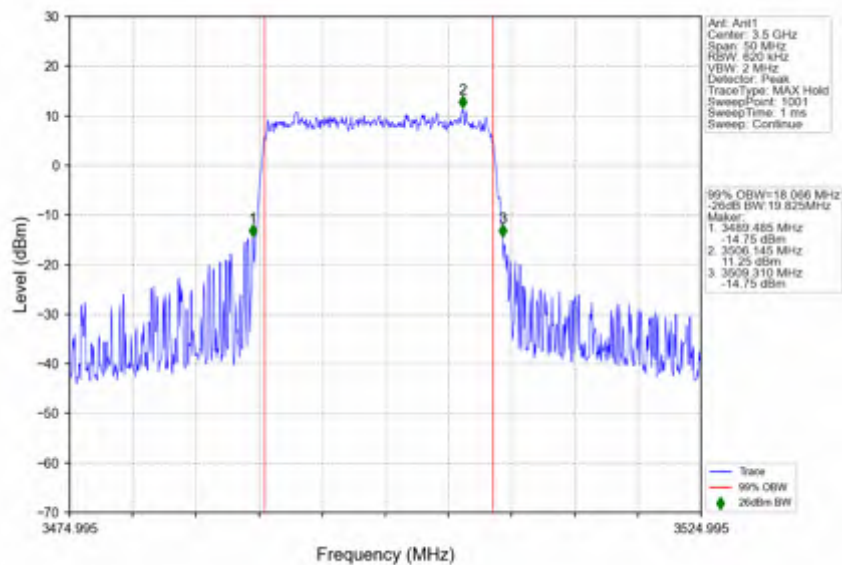
No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留學生创业园伟业路10号 邮编 215300

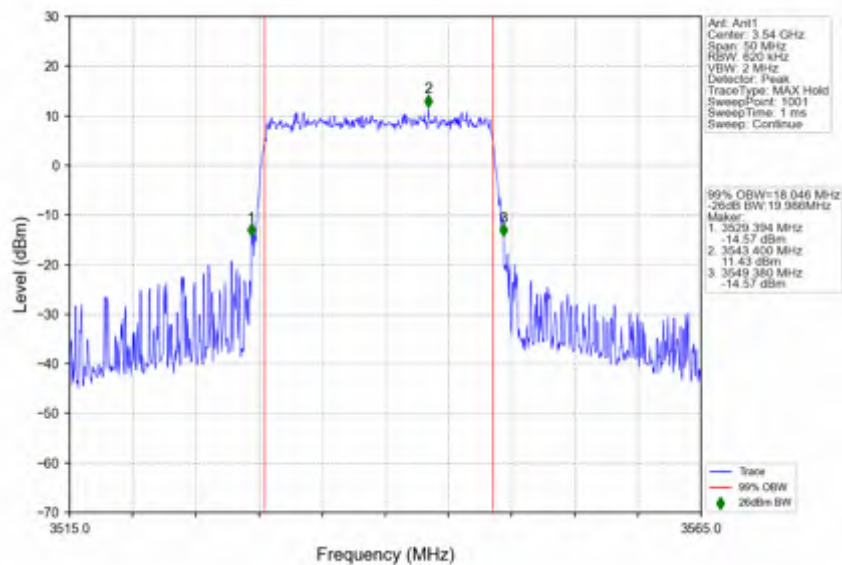
0512-57350888 0512-57370910 www.sgs.com.cn

0512-51257350888 0512-51257370910 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_20MHz_DFT-s-OFDM_64_QAM_3499.995MHz_Outer_Full



n78e_15kHz_SISO_NTNV_20MHz_DFT-s-OFDM_64_QAM_3540MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing report or certificate, please connect us at sgs@sgs.com or sgs@sgs.com or sgs@sgs.com.

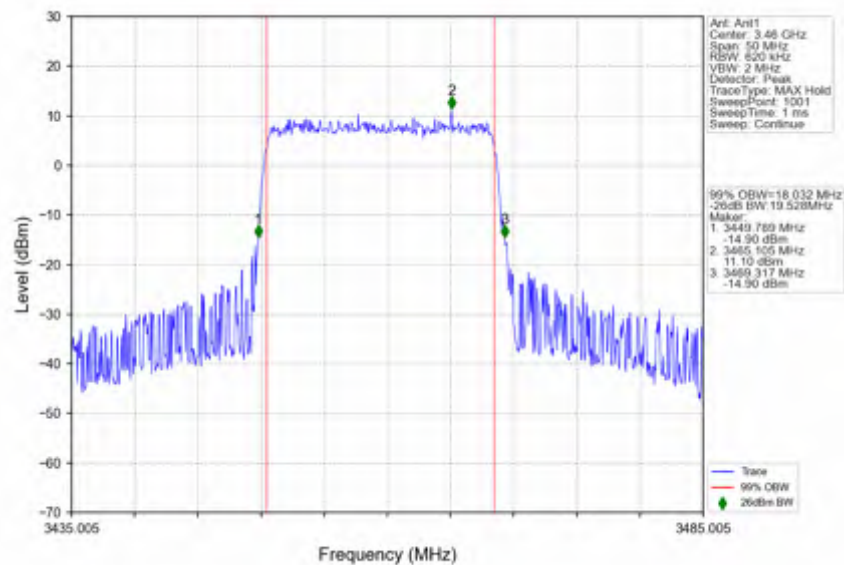
No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学生创业园伟业路18号 邮编 215300

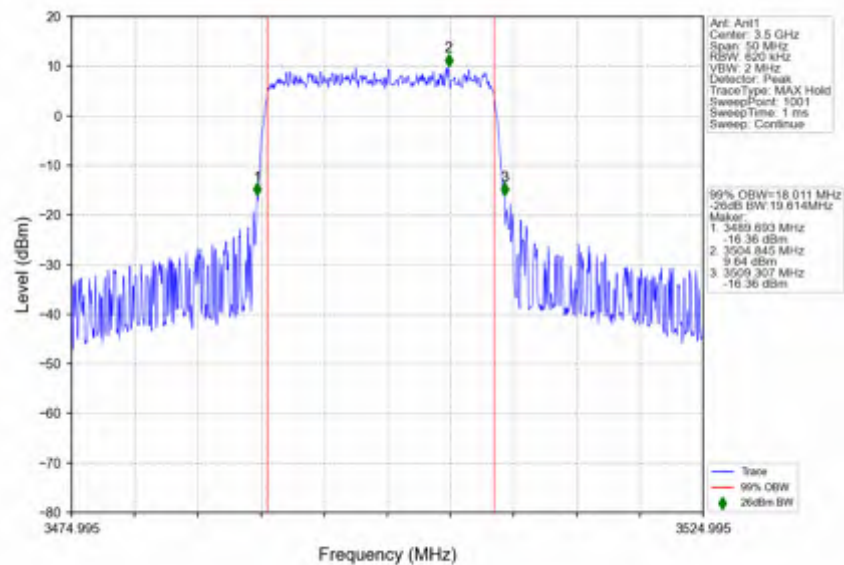
0512-51257350888 0512-51257370910 www.sgs.com.cn

0512-51257350888 0512-51257370910 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_20MHz_DFT-s-OFDM_256_QAM_3460.005MHz_Outer_Full



n78e_15kHz_SISO_NTNV_20MHz_DFT-s-OFDM_256_QAM_3499.995MHz_Outer_Full



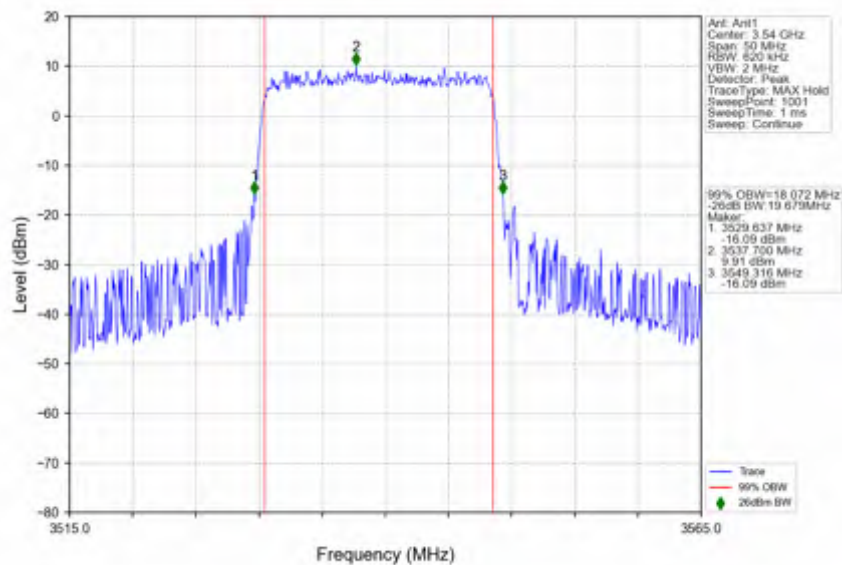
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overall, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at telephone: (86-512) 57370011 or email: CH.Official@sgs.com.

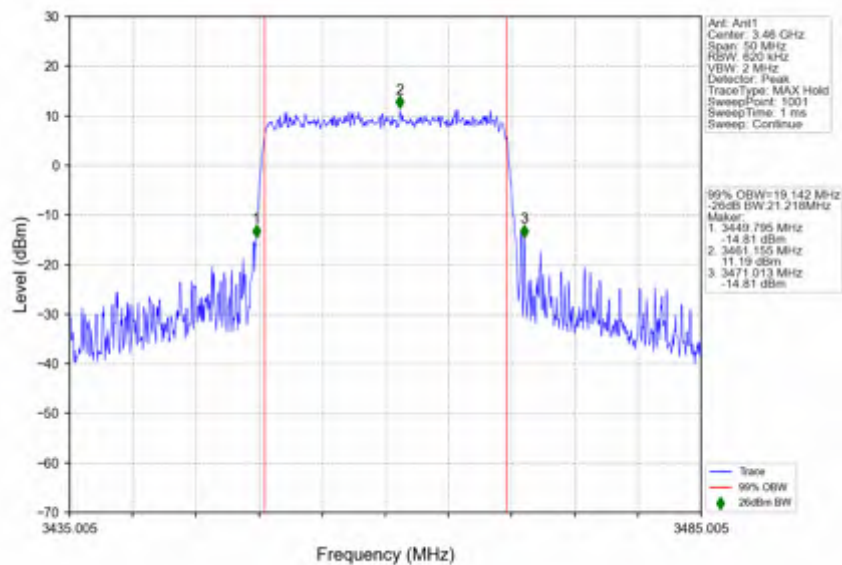
No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300
中国·江苏·昆山市留学院创业园伟业路10号 邮编 215300

(86-512) 57350888 (86-512) 57370011 www.sgs.com.cn
(86-512) 57350883 (86-512) 57370011 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_20MHz_DFT-s-OFDM_256_QAM_3540MHz_Outer_Full



n78e_15kHz_SISO_NTNV_20MHz_CP-OFDM_QPSK_3460.005MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overall, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated, the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing report & certificate, please connect us at sgs@sgs.com or sgs@sgs.com.

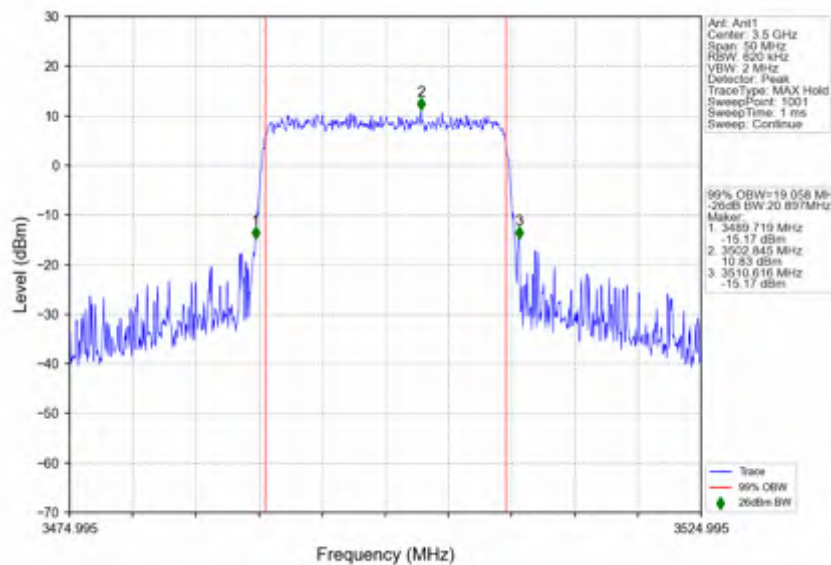
No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学院创业园伟业路10号 邮编 215300

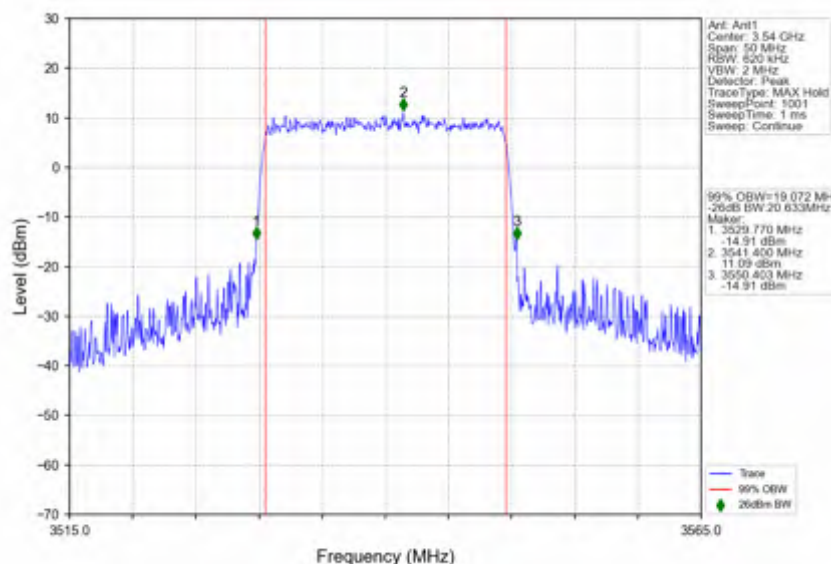
0512-51273700 0512-51273701 www.sgs.com.cn

0512-5127350003 0512-5127370011 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_20MHz_CP-OFDM QPSK_3499.995MHz_Outer_Full



n78e_15kHz_SISO_NTNV_20MHz_CP-OFDM QPSK_3540MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at sgs@sgs.com or CN-Check@sgs.com.

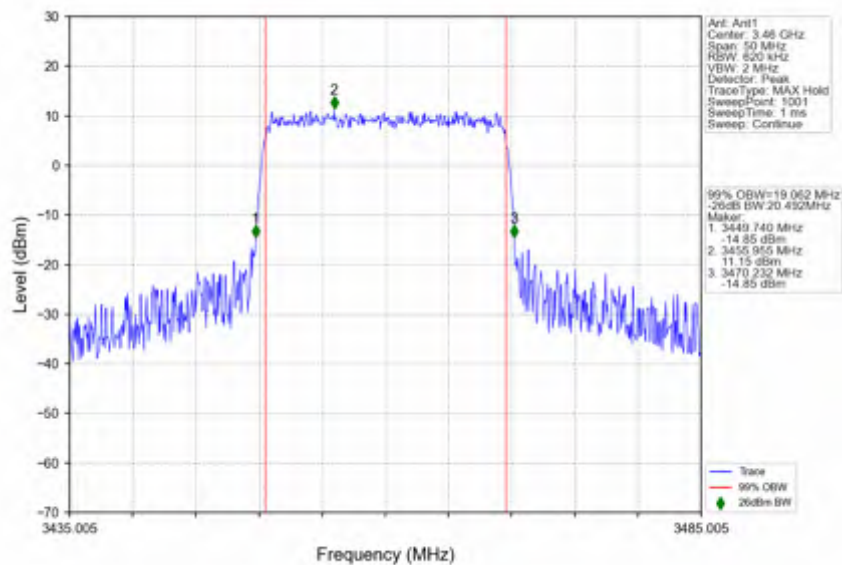
No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学生创业园伟业路10号 邮编 215300

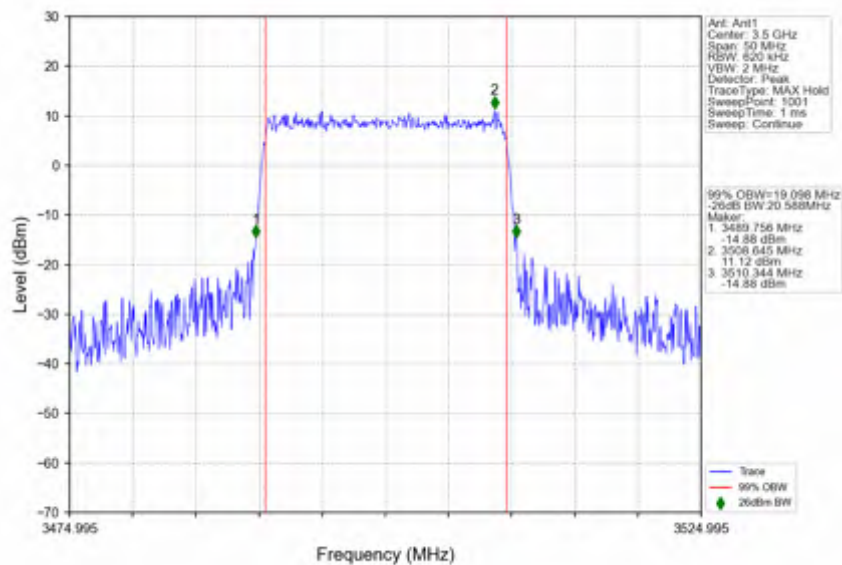
0512-51257350888 0512-5125737010 www.sgs.com.cn

0512-51257350888 0512-5125737010 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_20MHz_CP-OFDM_16_QAM_3460.005MHz_Outer_Full



n78e_15kHz_SISO_NTNV_20MHz_CP-OFDM_16_QAM_3499.995MHz_Outer_Full

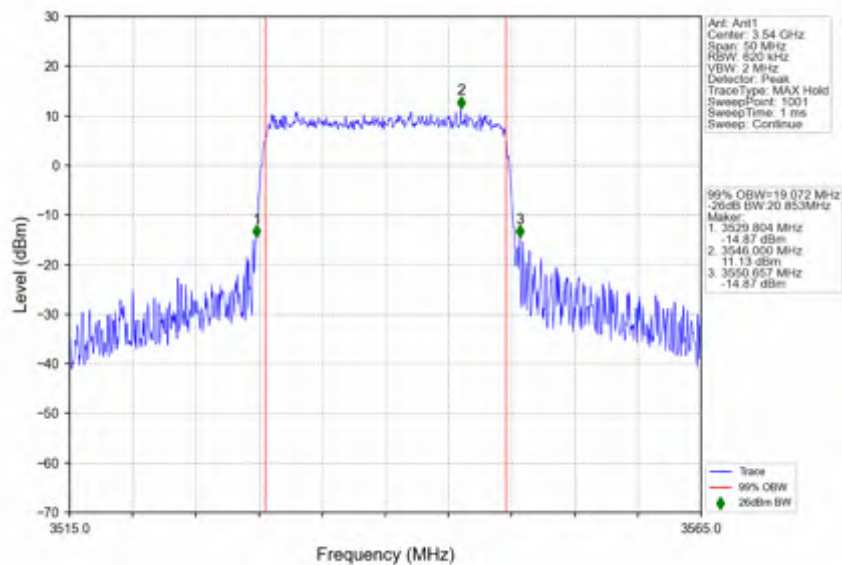


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.usc.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.usc.com/en/Terms-and-Conditions/Terms-a-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of its legal and professional responsibility. The Company does not accept any liability for any loss or damage arising from any transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this last report refer only in the sample(s) tested and such sample(s) are retained for 30 days only.

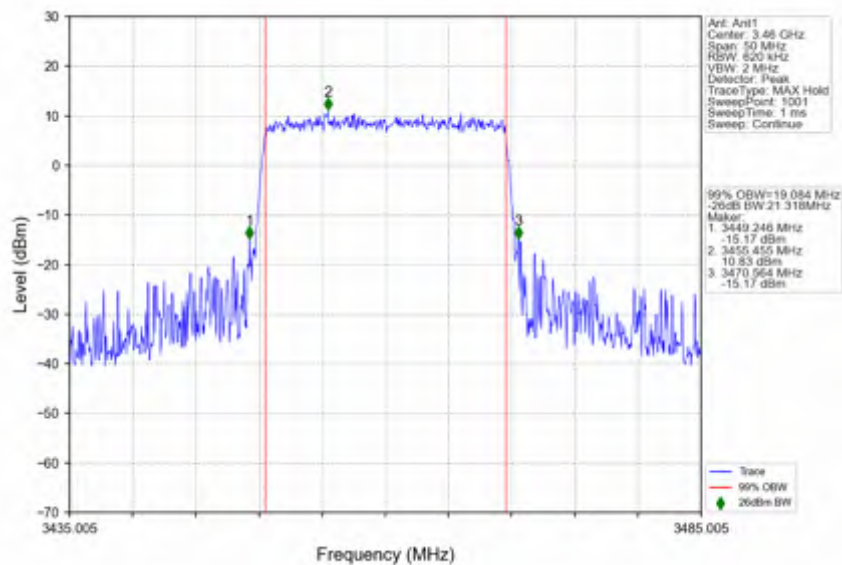
中国·江苏·昆山市留园学生创业园伟业路10号 邮编 215300

086-5125735688 086-5125737000 www.sgsigroup.com.cn
086-5125735688 086-5125737000 sgs.china@sgs.com

n78e 15kHz SISO NTN 20MHz CP-OFDM 16 QAM 3540MHz Outer Full



n78e_15kHz_SISO_NTNV_20MHz_CP-OFDM_64_QAM_3460.005MHz_Outer_Full

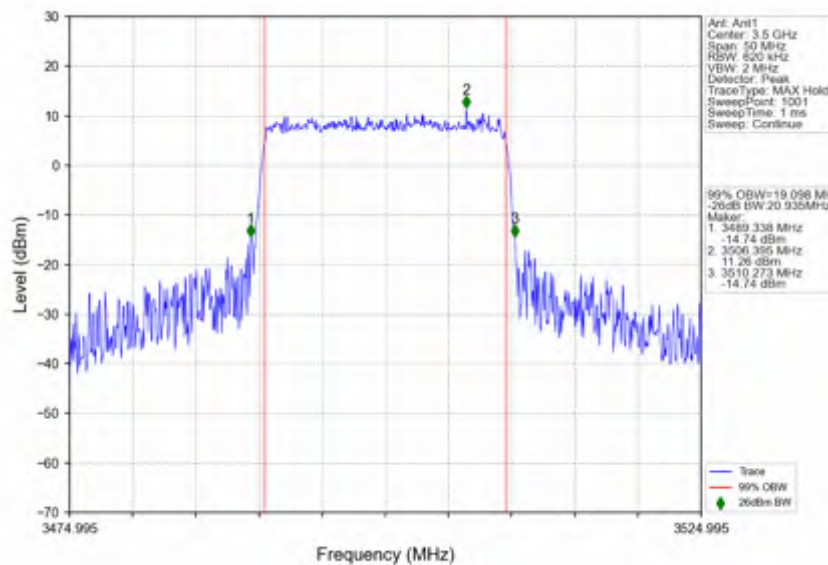


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.usc.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.usc.com/en/Terms-and-Conditions/Terms-a-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of its legal and professional responsibility. The Company does not accept any liability for any loss or damage arising from a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this last report refer only in the sample(s) tested and such sample(s) are retained for 30 days only.

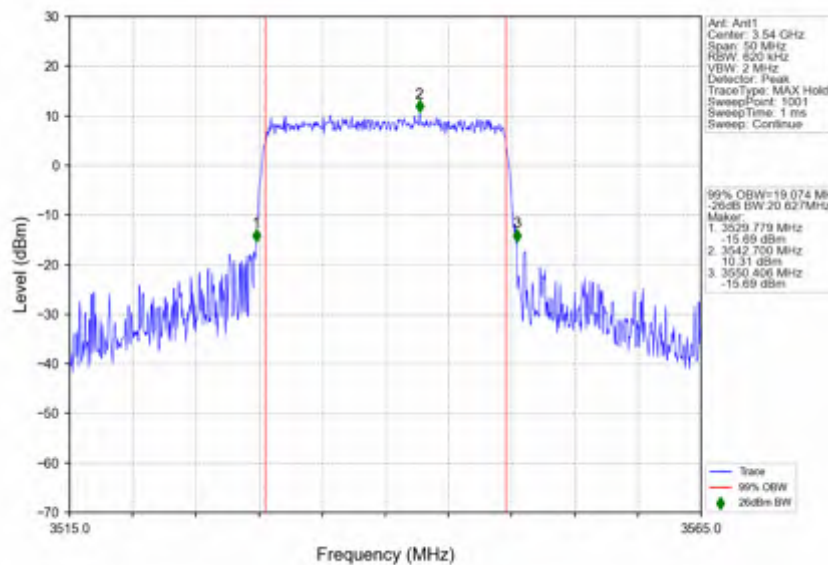
No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300
中国·江苏·昆山市留园学生创业园伟业路10号 邮编 215300

86-5125735688 86-5125737011 www.sgschina.com.cn
86-5125735688 86-5125737011 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_20MHz_CP-OFDM 64 QAM_3499.995MHz_Outer_Full



n78e_15kHz_SISO_NTNV_20MHz_CP-OFDM 64 QAM_3540MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at telephone: (86-512) 57370011 or email: CH.Official@sgs.com.

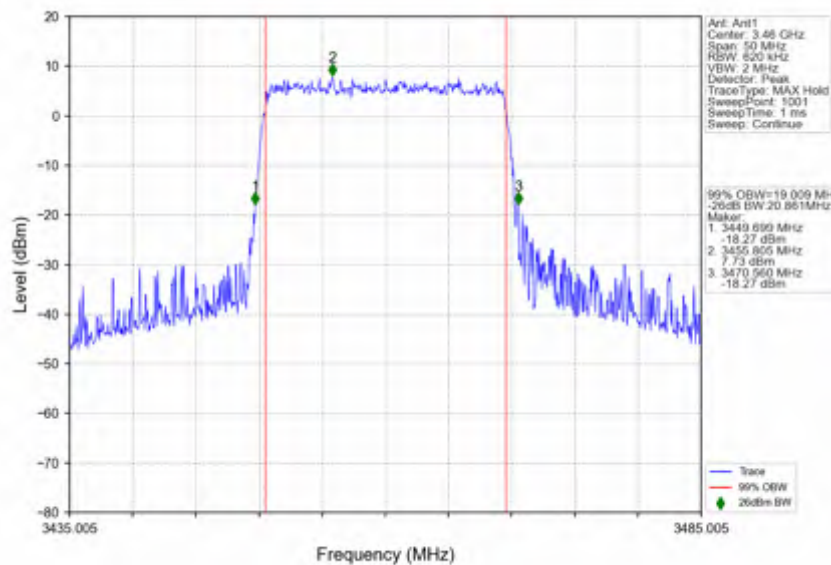
No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学生创业园伟业路18号 邮编 215300

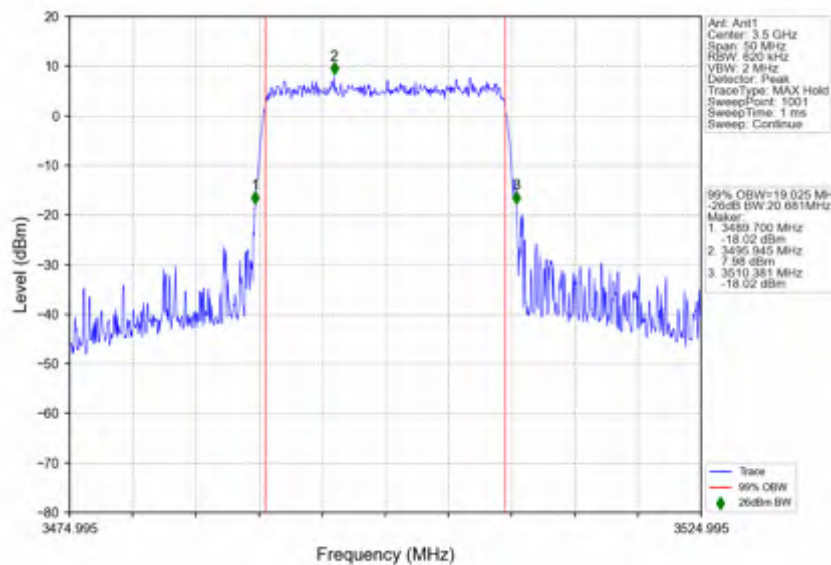
(86-512) 57350888 (86-512) 57370011 www.sgs.com.cn

(86-512) 57350883 (86-512) 57370011 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_20MHz_CP-OFDM_256_QAM_3460.005MHz_Outer_Full



n78e_15kHz_SISO_NTNV_20MHz_CP-OFDM_256_QAM_3499.995MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated, the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at sgs.china@sgs.com or CN-Check@sgs.com.

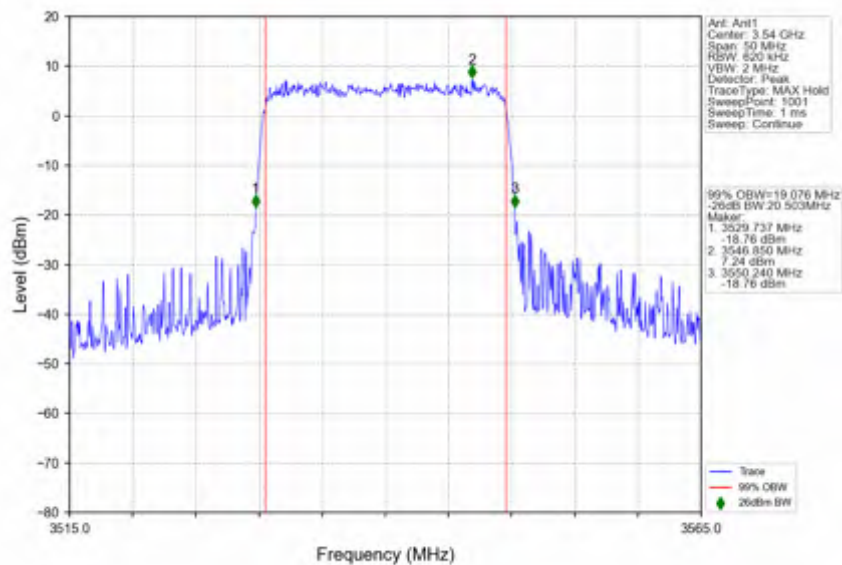
No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学生创业园伟业路18号 邮编 215300

0512-51257350888 0512-51257370910 www.sgs.com.cn

0512-51257350888 0512-51257370910 sgs.china@sgs.com

n78e_15kHz_SISO_NTV_20MHz_CP-OFDM_256_QAM_3540MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.egg.com/en/Terms-and-Conditions.egg> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.egg.com/en/Terms-and-Conditions/Terms-of-Electronic-documents.egg>. The Company disclaims any liability for any loss or damage, including consequential loss or damage, arising from the use of the information drawn to the attention of the regulator, its officers, candidates and other persons involved in the trial. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

中国·江苏·昆山市留园学生创业园伟业路10号 邮编 215300

86-5125735688 86-5125737011 www.sgsgroup.com.cn
86-5125735688 86-5125737011 sgs.china@sgs.com

9.4 15k_SISO_25MHz_NTNV

9.4.1 Test Result

5G NR n78e SCS=15kHz SISO 25MHz NTN						
Modulation	Frequency (MHz)	RB Allocation	99% Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
DFT-s-OFDM PI/2 BPSK	3462.51	Outer_Full	23.05	25.52	/	Pass
	3499.995	Outer_Full	23.06	25.64	/	Pass
	3537.495	Outer_Full	23.07	25.11	/	Pass
3462.51 3499.995 3537.495	3462.51	Outer_Full	23.06	25.84	/	Pass
	3499.995	Outer_Full	23.08	25.96	/	Pass
	3537.495	Outer_Full	23.12	25.95	/	Pass
DFT-s-OFDM 16 QAM	3462.51	Outer_Full	23.11	25.65	/	Pass
	3499.995	Outer_Full	23.00	24.77	/	Pass
	3537.495	Outer_Full	23.02	25.40	/	Pass
DFT-s-OFDM 64 QAM	3462.51	Outer_Full	23.05	24.75	/	Pass
	3499.995	Outer_Full	23.14	24.99	/	Pass
	3537.495	Outer_Full	23.06	25.19	/	Pass
DFT-s-OFDM 256 QAM	3462.51	Outer_Full	23.08	25.40	/	Pass
	3499.995	Outer_Full	23.11	24.94	/	Pass
	3537.495	Outer_Full	23.02	25.19	/	Pass
CP-OFDM QPSK	3462.51	Outer_Full	24.00	29.09	/	Pass
	3499.995	Outer_Full	23.96	31.07	/	Pass
	3537.495	Outer_Full	23.95	27.56	/	Pass
CP-OFDM 16 QAM	3462.51	Outer_Full	23.91	25.65	/	Pass
	3499.995	Outer_Full	23.92	27.43	/	Pass
	3537.495	Outer_Full	23.94	26.42	/	Pass
CP-OFDM 64 QAM	3462.51	Outer_Full	23.94	26.32	/	Pass
	3499.995	Outer_Full	23.94	26.61	/	Pass
	3537.495	Outer_Full	23.92	26.00	/	Pass
CP-OFDM 256 QAM	3462.51	Outer_Full	23.97	25.64	/	Pass
	3499.995	Outer_Full	23.99	25.61	/	Pass
	3537.495	Outer_Full	23.87	25.56	/	Pass



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification reports & certificates, please connect us at sgs@sgs.com (86-512) 57370011 or email: CH.Official@sgs.com.

No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

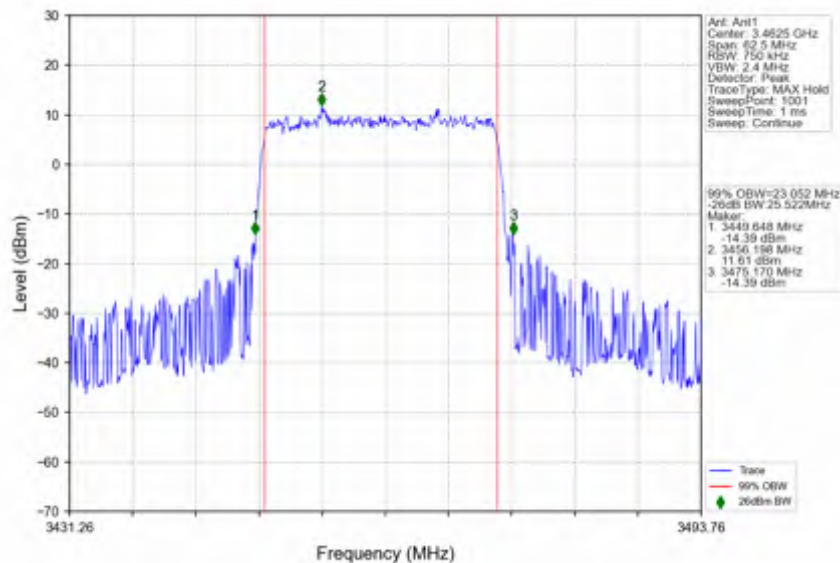
中国·江苏·昆山市留学生创业园伟业路18号 邮编 215300

0086-512/57350888 006-512/57370011 www.sgs.com.cn

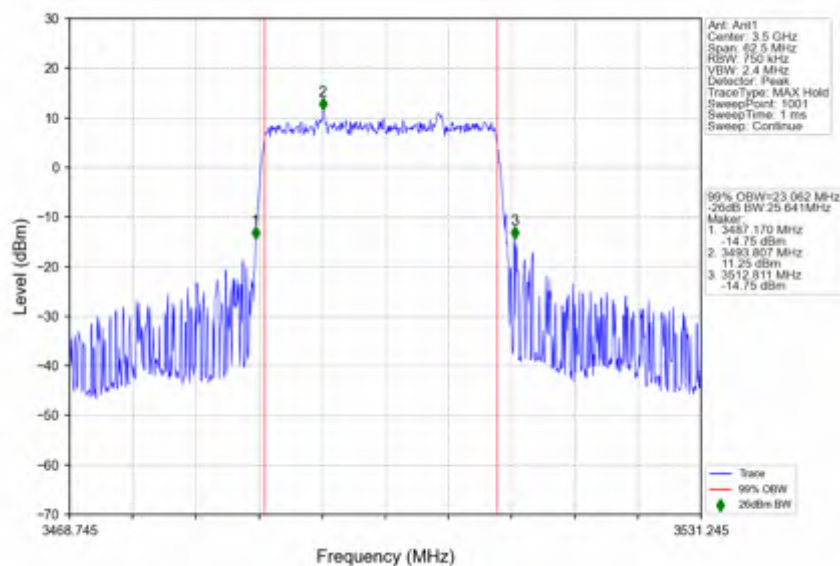
0086-512/57350888 006-512/57370011 sgs.china@sgs.com

9.4.2 Test Graph

n78e_15kHz_SISO_NTNV_25MHz_DFT-s-OFDM PI/2 BPSK_3462.51MHz_Outer_Full



n78e_15kHz_SISO_NTNV_25MHz_DFT-s-OFDM PI/2 BPSK_3499.995MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at sgs@sgs.com (86-512) 57370011 or email: CH.Official@sgs.com.

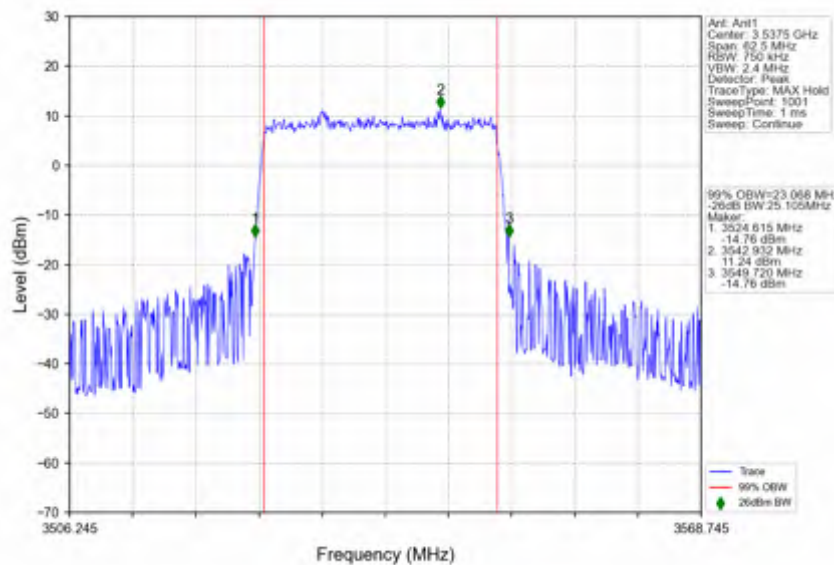
No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学院创业园伟业路18号 邮编 215300

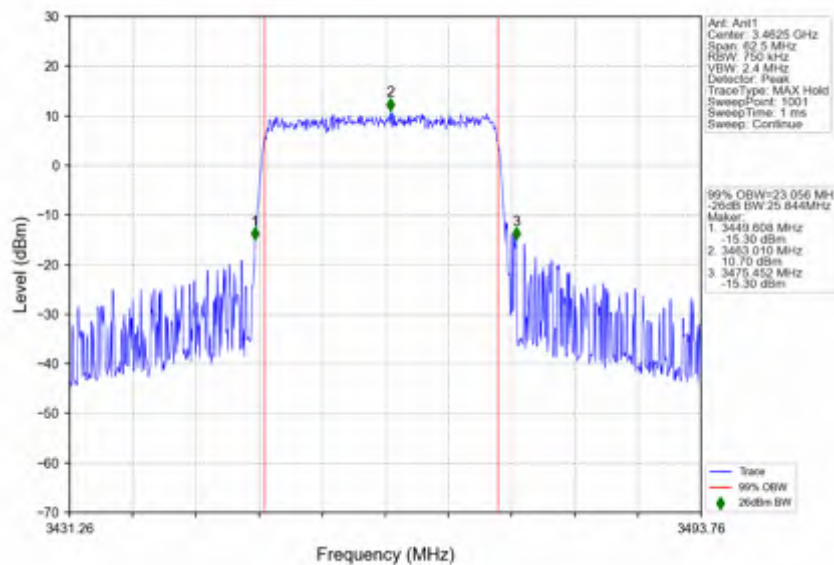
0085-51257350888 0065-1257370011 www.sgs.com.cn

0085-51257350888 0065-1257370011 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_25MHz_DFT-s-OFDM_PI/2_BPSK_3537.495MHz_Outer_Full



n78e_15kHz_SISO_NTNV_25MHz_DFT-s-OFDM_QPSK_3462.51MHz_Outer_Full



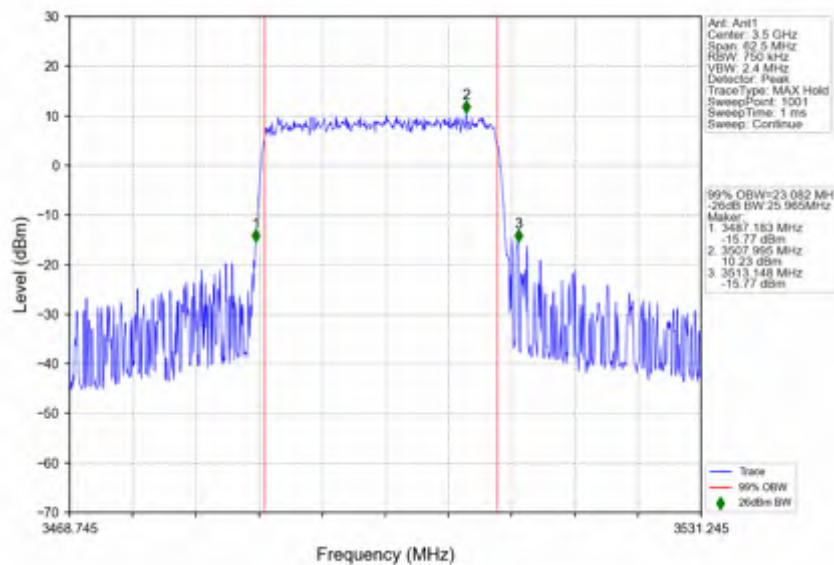
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at telephone: (86-512) 57370011 or email: CH.Official@sgs.com.

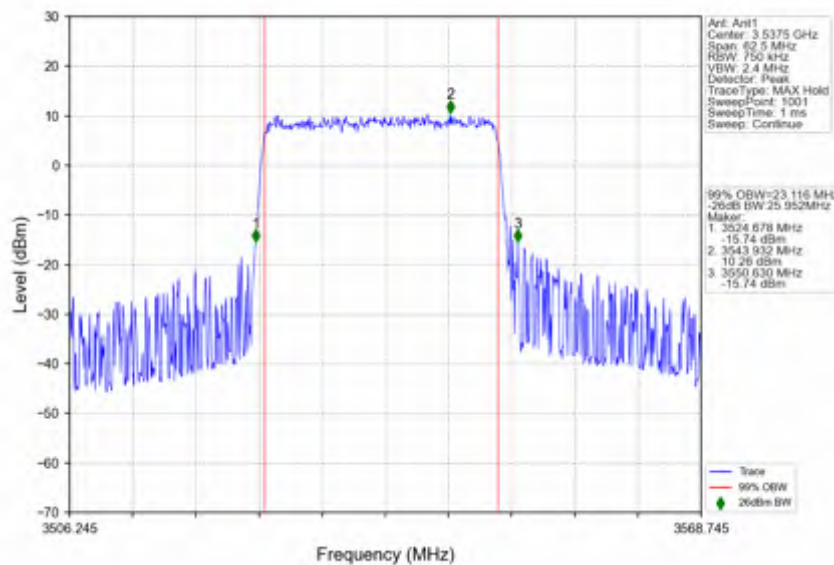
No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300
中国·江苏·昆山市留学院创业园伟业路10号 邮编 215300

(86-512) 57350888 (86-512) 57370011 www.sgs.com.cn
(86-512) 57350883 (86-512) 57370011 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_25MHz_DFT-s-OFDM QPSK_3499.995MHz_Outer_Full



n78e_15kHz_SISO_NTNV_25MHz_DFT-s-OFDM QPSK_3537.495MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overall, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at sgs@sgs.com or sgs@sgs.com or sgs@sgs.com.

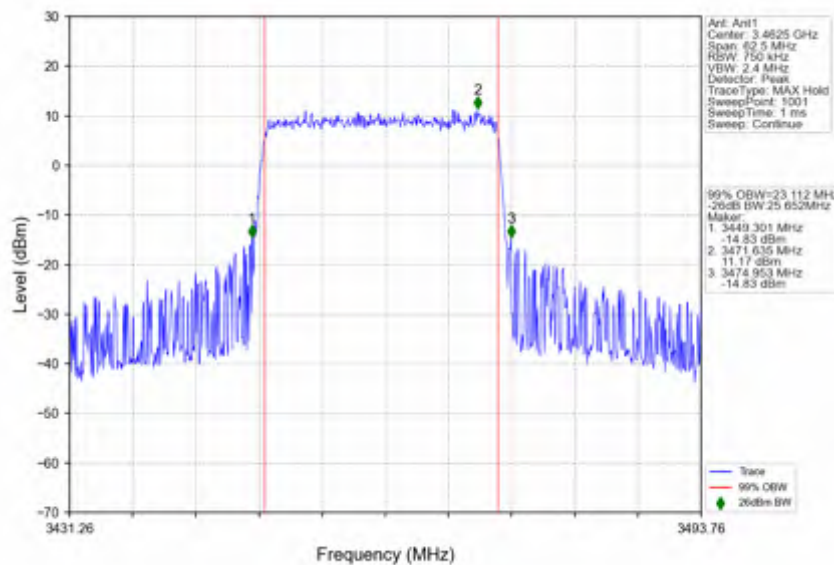
No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留學生创业园伟业路10号 邮编 215300

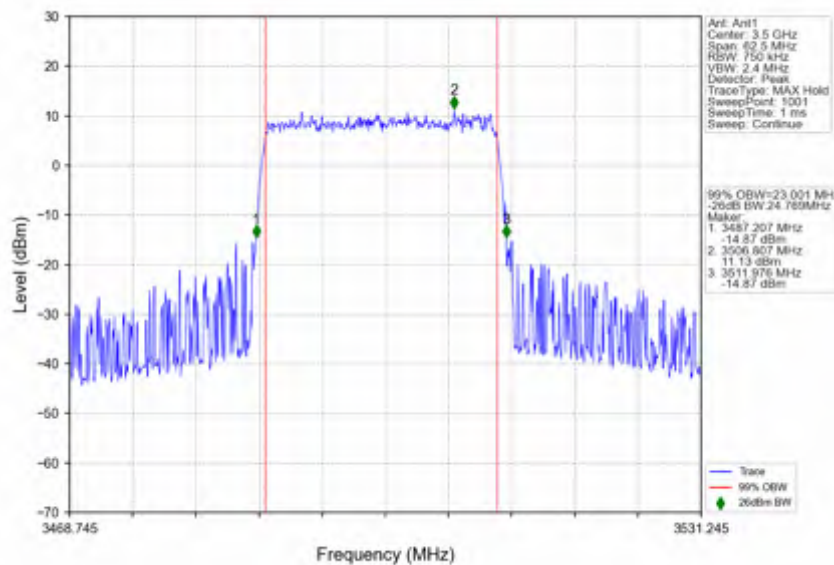
0512-51257350888 0512-5125737010 www.sgs.com.cn

0512-51257350888 0512-5125737010 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_25MHz_DFT-s-OFDM_16_QAM_3462.51MHz_Outer_Full



n78e_15kHz_SISO_NTNV_25MHz_DFT-s-OFDM_16_QAM_3499.995MHz_Outer_Full

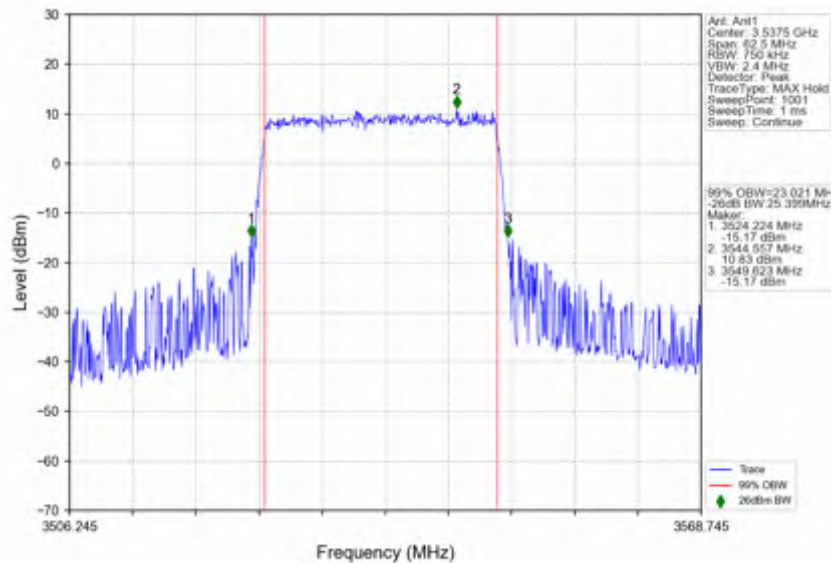


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed hereon, available on request or accessible at <http://www.etsi.com/ETSI%20Terms%20and%20Conditions.aspx> and, for selected forms, printed subject to Terms and Conditions for Electronic Documents at <http://www.etsi.com/ETSI%20Terms%20and%20Conditions/Terms%20Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of the Company's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a trial from their responsibility to the court. The Company's findings are not intended to constitute an opinion or a recommendation, except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this fast report refer only to the sample(s) tested and such sample(s) are retained for 30 days only. For more information on the use of this document, please contact the ETSI Customer Support at ETSI-CSI@etsi.org or <tel:+3333707410000>.

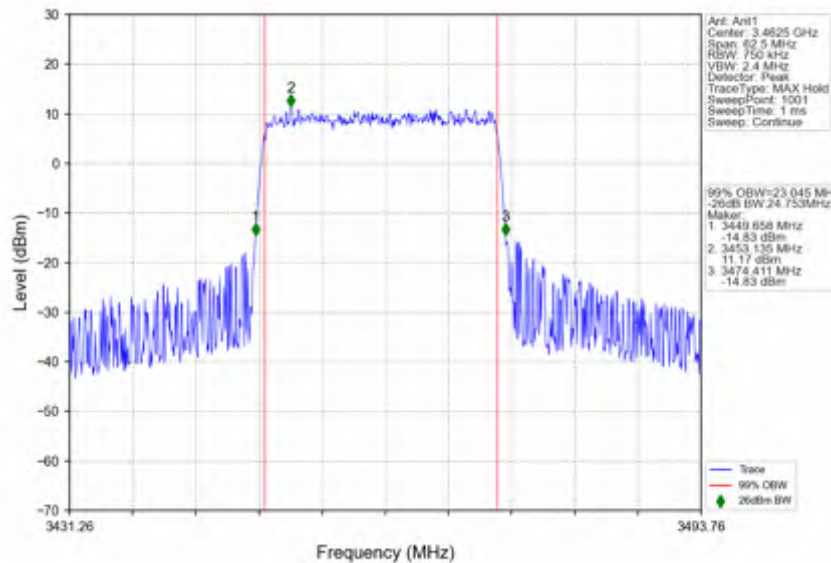
No. 10, Waiye Road, Innovation Park, Keshan, Jiangsu, China 215300
中国·江苏·昆山市留园学生创业园伟业路10号 邮编 215300

086-5125735688 086-5125737000 www.sgschina.com.cn
086-5125735688 086-5125737000 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_25MHz_DFT-s-OFDM_16_QAM_3537.495MHz_Outer_Full



n78e_15kHz_SISO_NTNV_25MHz_DFT-s-OFDM_64_QAM_3462.51MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing report or certificate, please connect us at sgs@sgs.com or sgs@sgs.com or sgs@sgs.com.

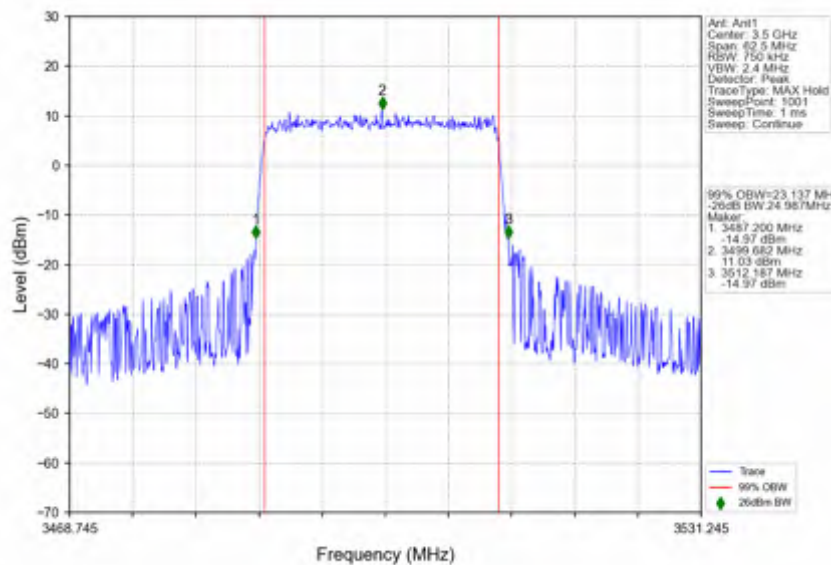
No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学生创业园伟业路18号 邮编 215300

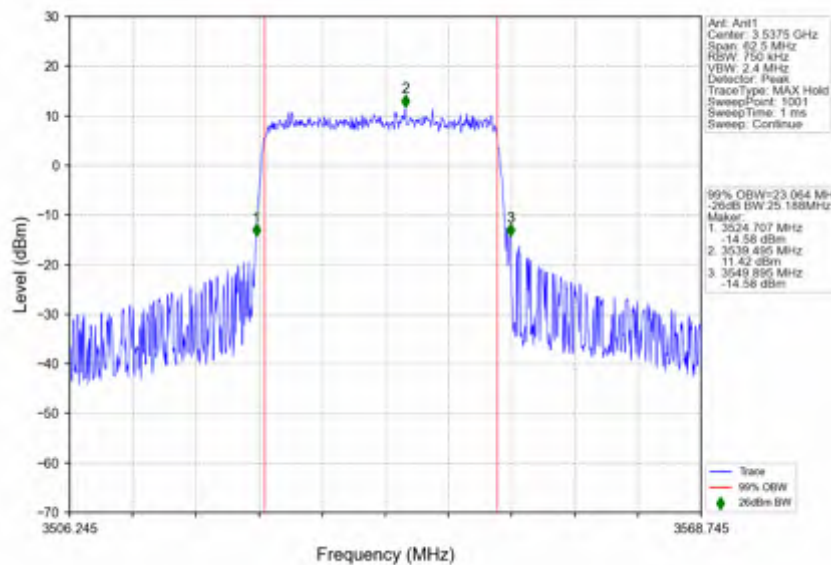
0512-512735088 0512-512737010 www.sgs.com.cn

0512-512735088 0512-512737010 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_25MHz_DFT-s-OFDM_64_QAM_3499.995MHz_Outer_Full



n78e_15kHz_SISO_NTNV_25MHz_DFT-s-OFDM_64_QAM_3537.495MHz_Outer_Full

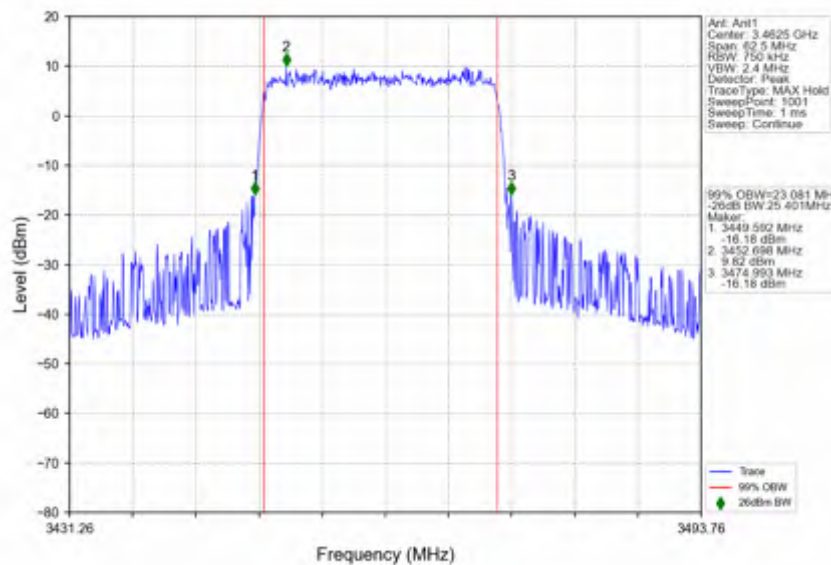


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed hereon, available on request or accessible at <http://www.etsi.com/ETSI%20Terms%20and%20Conditions.aspx> and, for selected forms, printed subject to Terms and Conditions for Electronic Documents at <http://www.etsi.com/terms-and-conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction terms defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of the Company's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a trial from their responsibility to the court. The Company's liability is limited to the amount of the fee for the service performed, except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this fast report refer only to the sample(s) tested and such sample(s) are retained for 30 days only. For more information on the use of this document, please contact the Customer Service Centre at info@etsi.com or <tel:+352437342000>.

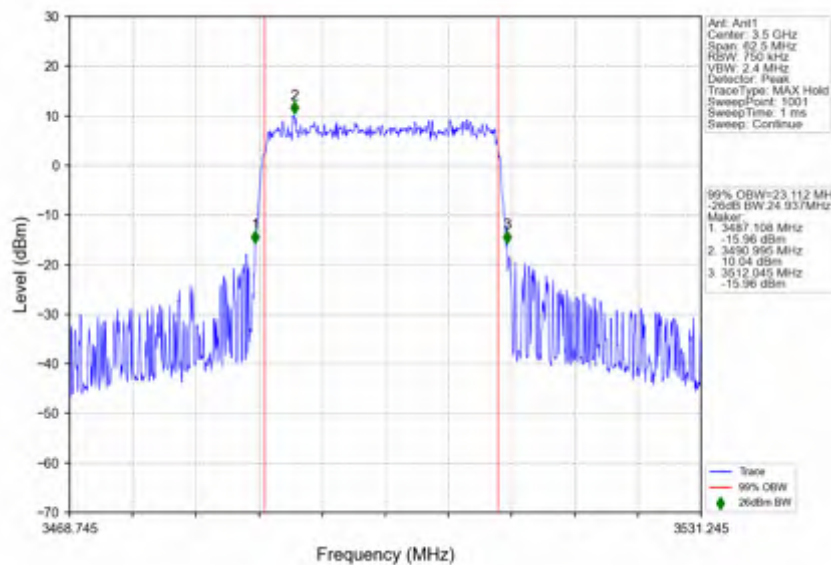
中国·江苏·昆山市周庄生创业园伟业路10号 邮编 215300

086-5125735688 086-5125737000 www.sgschina.com.cn
086-5125735688 086-5125737000 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_25MHz_DFT-s-OFDM_256_QAM_3462.51MHz_Outer_Full



n78e_15kHz_SISO_NTNV_25MHz_DFT-s-OFDM_256_QAM_3499.995MHz_Outer_Full

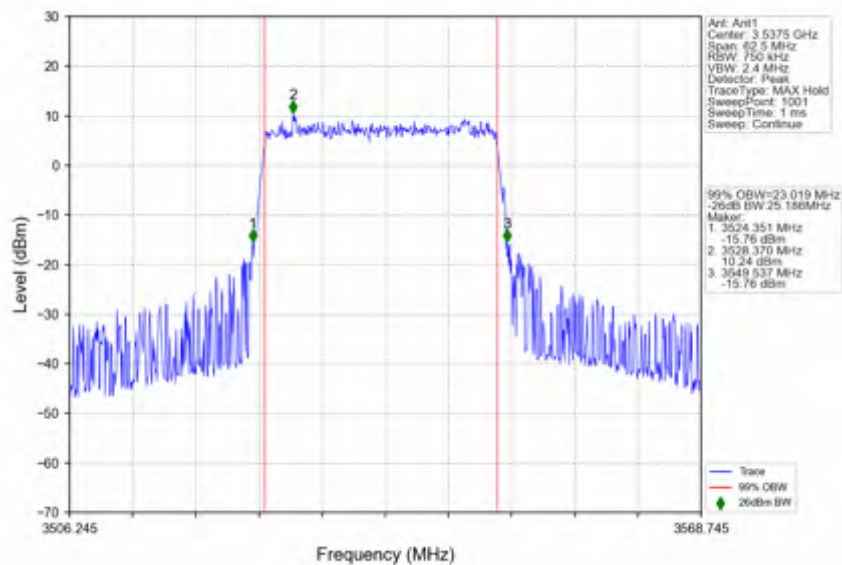


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed hereon, available on request or accessible at <http://www.egg.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.egg.com/en/Terms-and-Conditions/Terms-a-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is deemed to have accepted the information contained herein, to be true and correct, and to be in compliance with the limits set forth in the Client's instructions. If any, The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

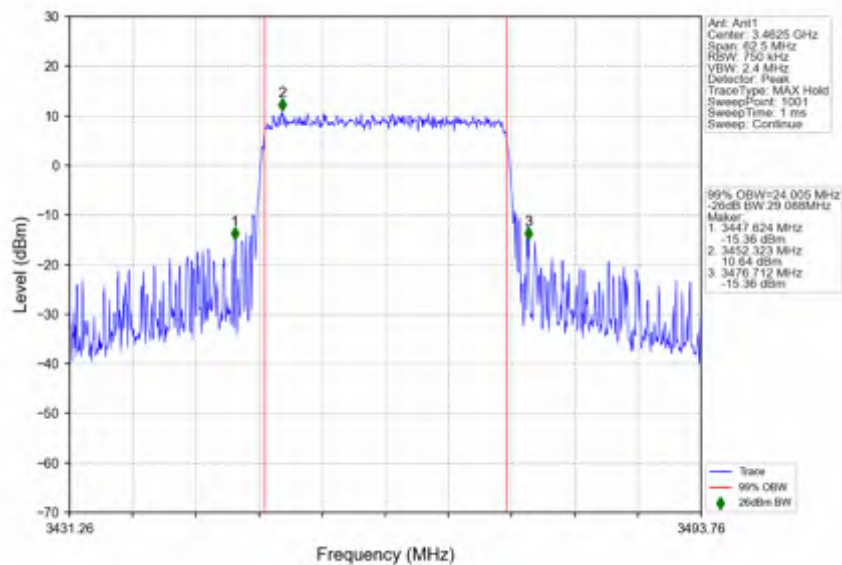
中国·江苏·昆山市周庄学生创业园伟业路10号 邮编 215300

86-5125735688 86-5125737011 www.sgsgroup.com.cn
86-5125735688 86-5125737011 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_25MHz_DFT-s-OFDM_256_QAM_3537.495MHz_Outer_Full



n78e_15kHz_SISO_NTNV_25MHz_CP-OFDM_QPSK_3462.51MHz_Outer_Full

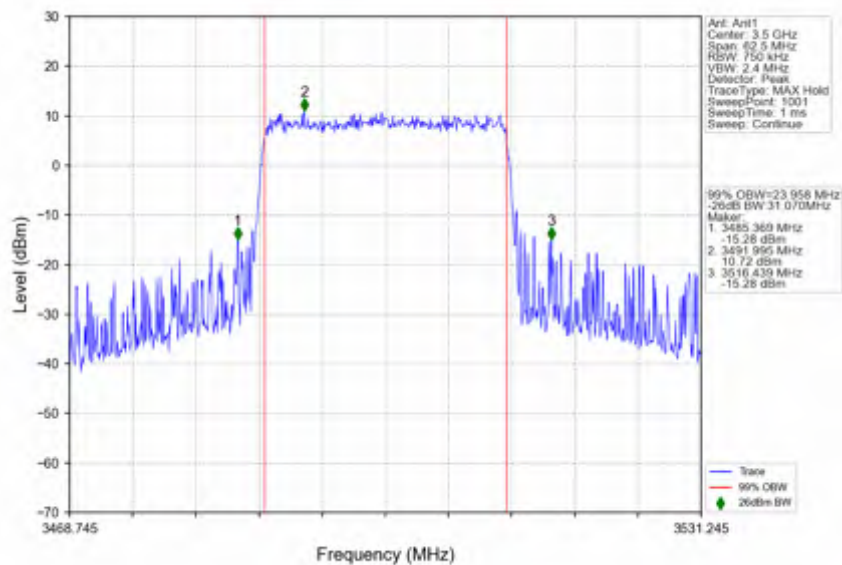


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed herein, available on request or accessible at <http://www.ags.com/en/Terms-and-Conditions.aspx> and, for electronic formal documents, subject to Terms and Conditions. Electronic Documents at this page are subject to the same conditions as a document especially attention drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated, the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

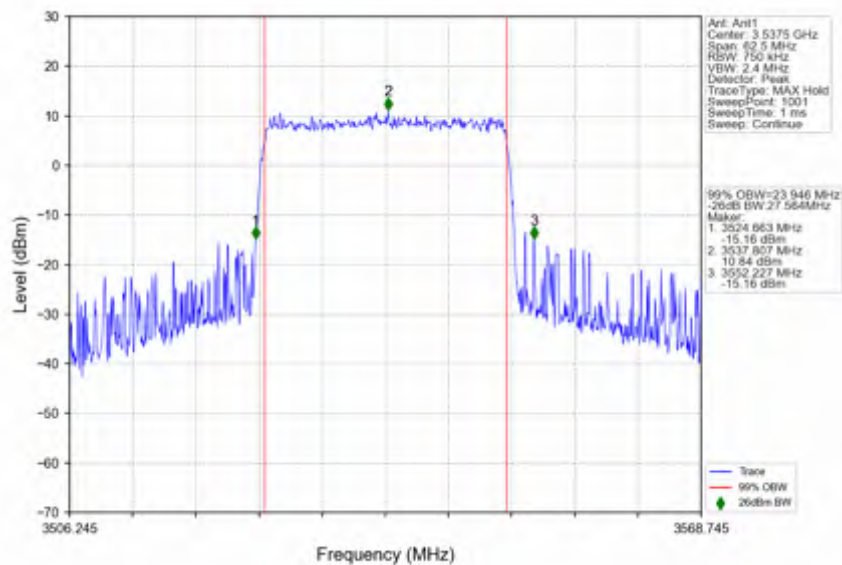
中国·江苏·昆山市留园学生创业园伟业路10号 邮编 215300

086-5125735688 086-5125737000 www.sgsgroup.com.cn
086-5125735688 086-5125737000 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_25MHz_CP-OFDM_QPSK_3499.995MHz_Outer_Full



n78e_15kHz_SISO_NTNV_25MHz_CP-OFDM_QPSK_3537.495MHz_Outer_Full

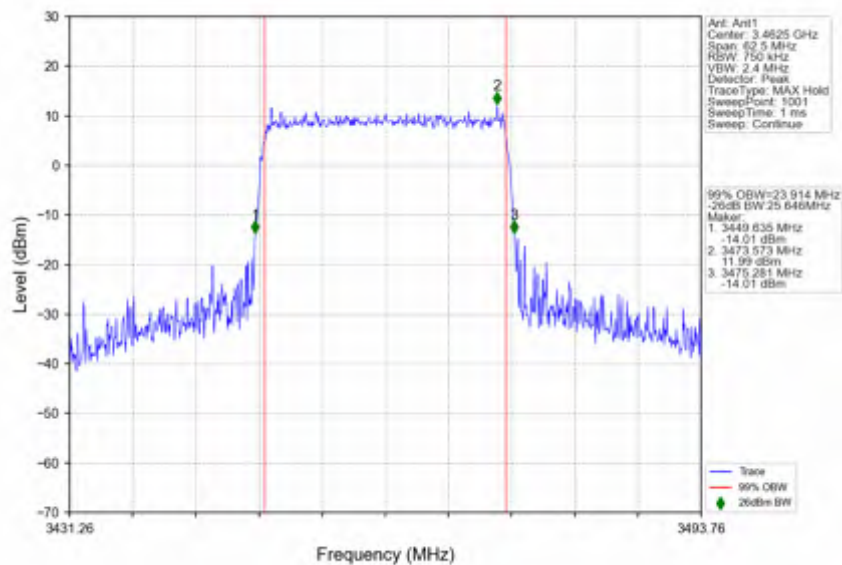


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed hereon, available on request or accessible at <http://www.egg.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.egg.com/en/Terms-and-Conditions/Terms-a-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is deemed to have accepted the information contained herein, to be the Company's sole responsibility in its use, and to be limited to the Client's instructions. If any, The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

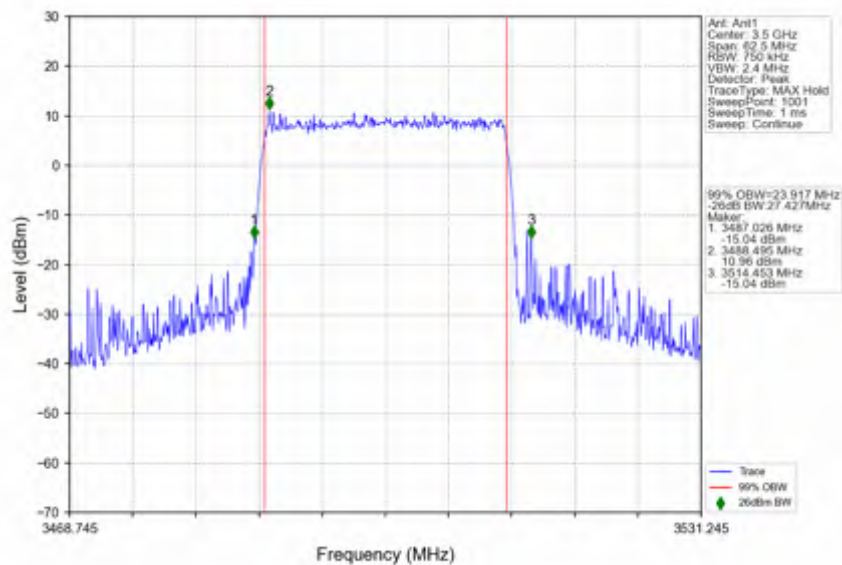
中国·江苏·昆山市周庄学生创业园伟业路10号 邮编 215300

86-5125735688 86-5125737011 www.sgsigroup.com.cn
86-5125735688 86-5125737011 sga.china@sgs.com

n78e_15kHz_SISO_NTNV_25MHz_CP-OFDM_16_QAM_3462.51MHz_Outer_Full



n78e_15kHz_SISO_NTNV_25MHz_CP-OFDM_16_QAM_3499.995MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing report or certificate, please connect us at sgs@sgs.com or sgs@sgs.com or sgs@sgs.com.

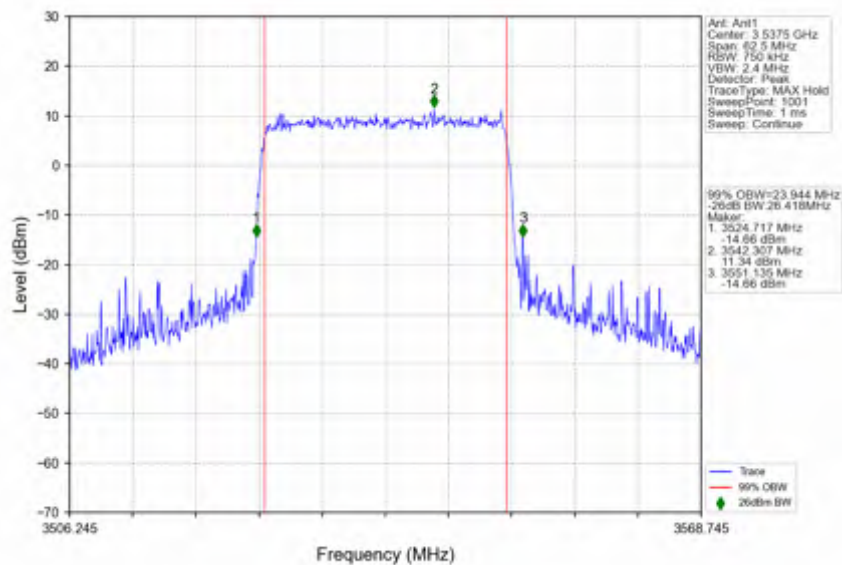
No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学生创业园伟业路10号 邮编 215300

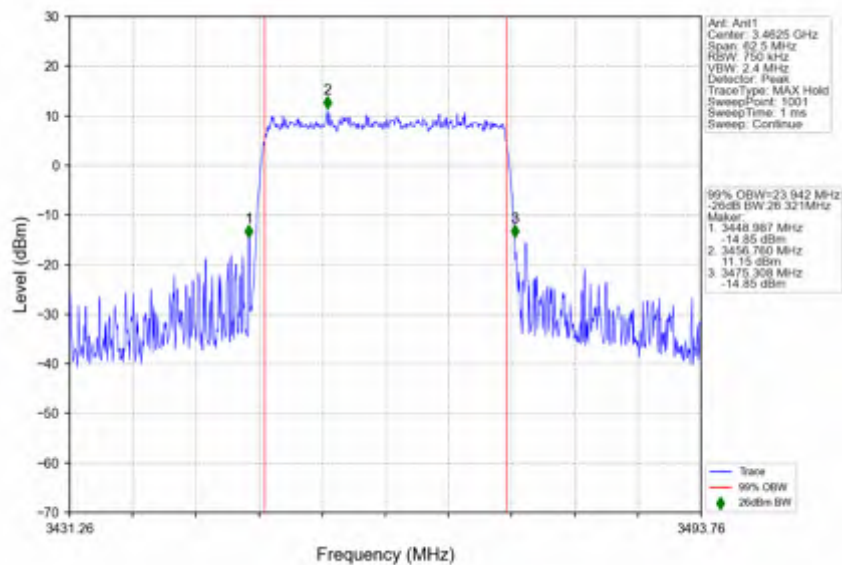
0512-51257350888 0512-5125737010 www.sgs.com.cn

0512-51257350888 0512-5125737010 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_25MHz_CP-OFDM_16_QAM_3537.495MHz_Outer_Full



n78e_15kHz_SISO_NTNV_25MHz_CP-OFDM_64_QAM_3462.51MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing report & certificate, please connect us at sgs@sgs.com or sgs@sgs.com or sgs@sgs.com.

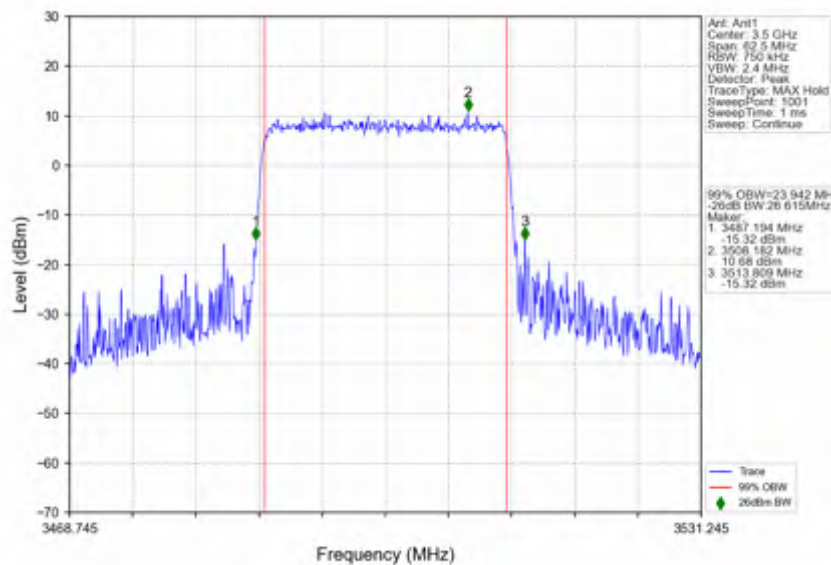
No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学院创业园伟业路10号 邮编 215300

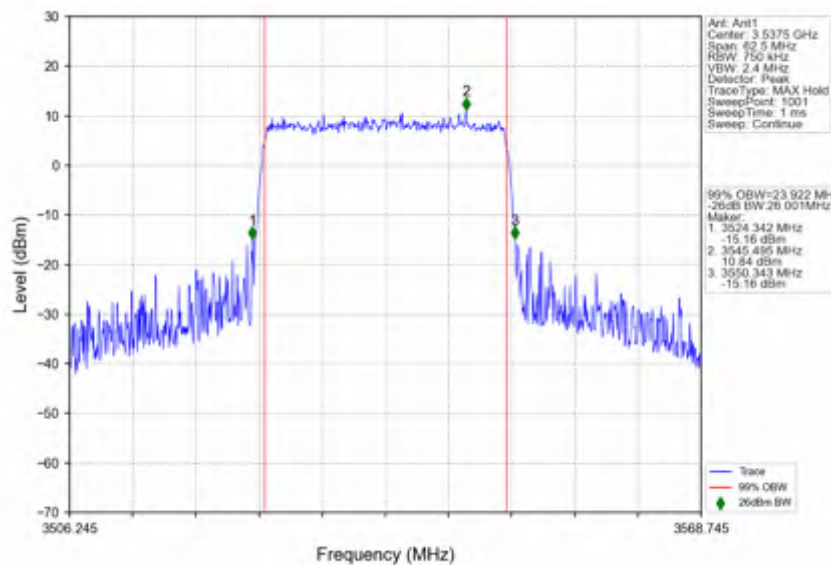
0512-51257350888 0512-5125737010 www.sgs.com.cn

0512-51257350888 0512-5125737010 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_25MHz_CP-OFDM_64_QAM_3499.995MHz_Outer_Full



n78e_15kHz_SISO_NTNV_25MHz_CP-OFDM_64_QAM_3537.495MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overall, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at sgs@sgs.com (86-512) 57370000 or email: CN-Online@sgs.com.

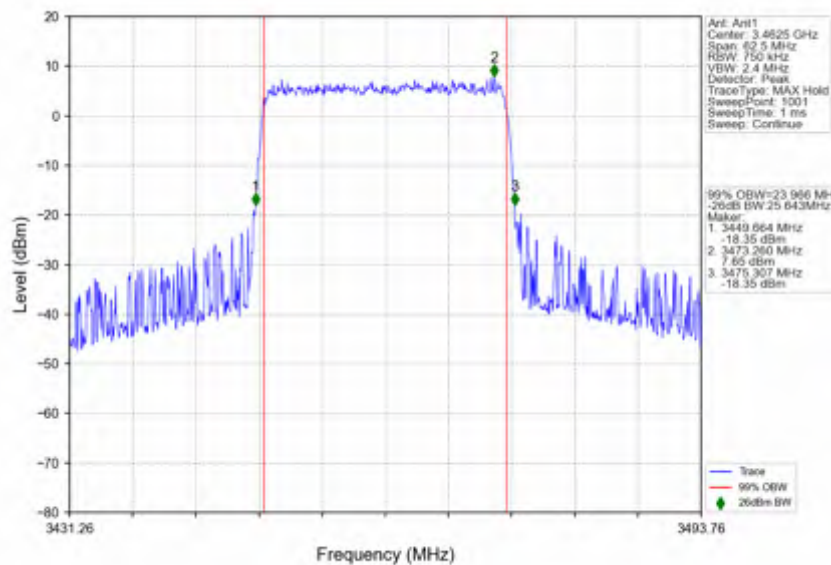
No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留學生创业园伟业路10号 邮编 215300

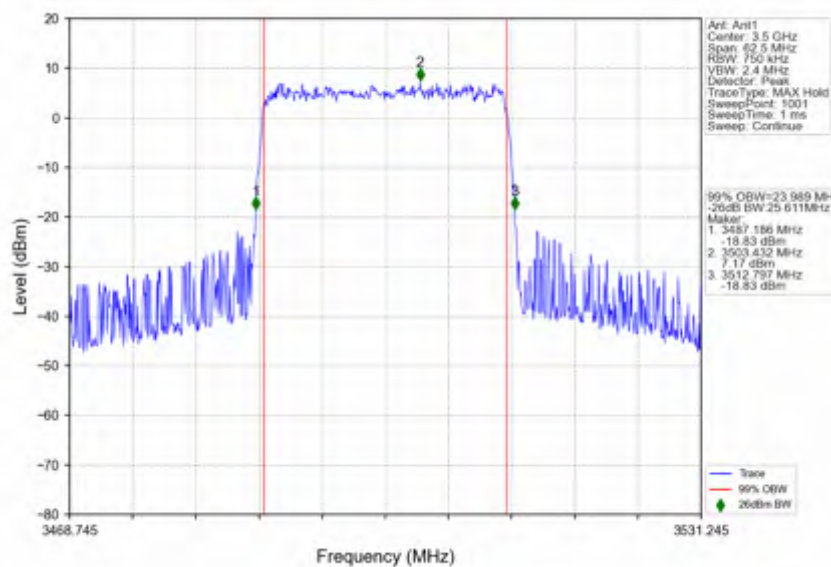
086-51257350888 086-51257370000 www.sgs.com.cn

086-51257350888 086-51257370000 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_25MHz_CP-OFDM_256_QAM_3462.51MHz_Outer_Full



n78e	15kHz	SISO	NTNV	25MHz	CP-OFDM	256 QAM	3499.995MHz	Outer	Full
------	-------	------	------	-------	---------	---------	-------------	-------	------

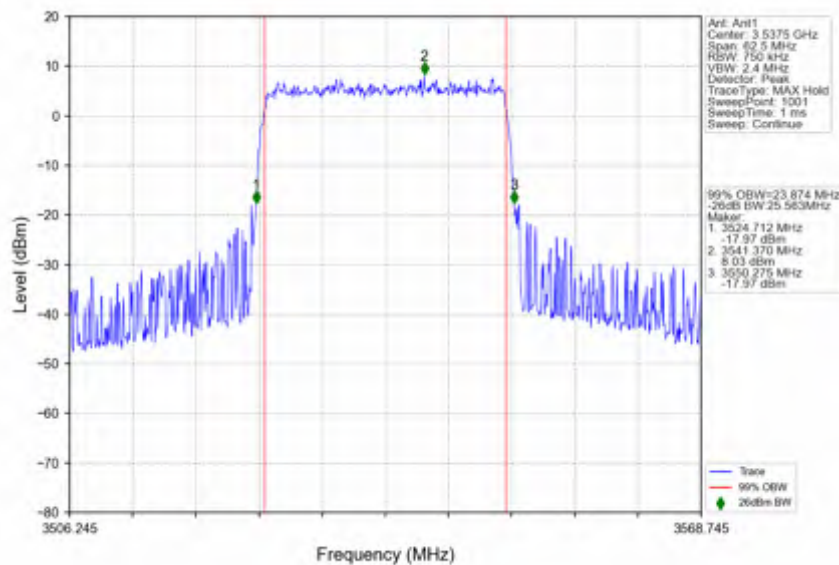


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.egg.com.au/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.egg.com.au/terms-and-conditions/Terms-a-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's current view of the law, and is not intended to waive the limits of the Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this fast report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

中国·江苏·昆山市留园学生创业园伟业路10号 邮编 215300

86-5125735688 86-5125737011 www.sgs-group.com.cn
86-5125735688 86-5125737011 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_25MHz_CP-OFDM 256 QAM_3537.495MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at telephone: (86-512) 57370011 or email: CH.Official@sgs.com.

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300
中国·江苏·昆山市留学院创业园伟业路10号 邮编 215300

(86-512) 57350888 (86-512) 57370011 www.sgs.com.cn
(86-512) 57350883 (86-512) 57370011 sgs.china@sgs.com

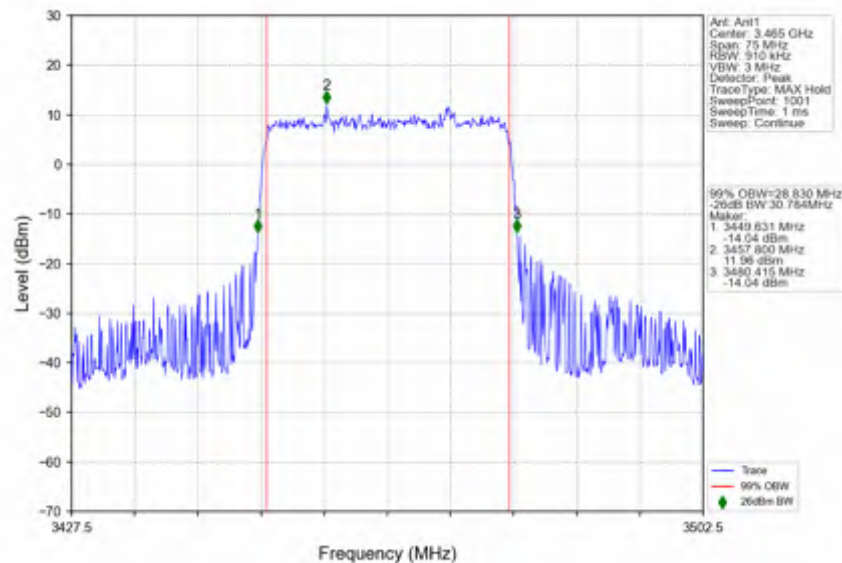
9.5 15k_SISO_30MHz_NTNV

9.5.1 Test Result

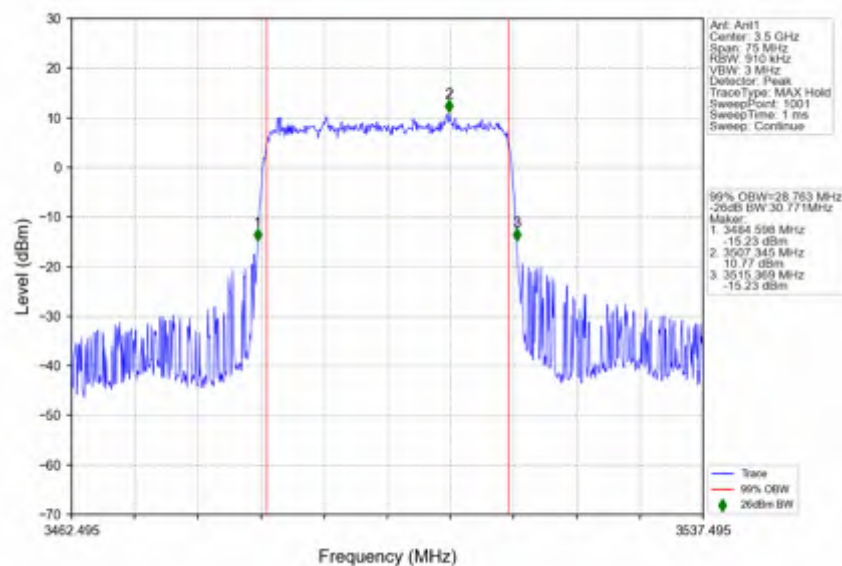
5G NR n78e SCS=15kHz SISO 30MHz NTN						
Modulation	Frequency (MHz)	RB Allocation	99% Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
DFT-s-OFDM PI/2 BPSK	3465	Outer_Full	28.83	30.78	/	Pass
	3499.995	Outer_Full	28.76	30.77	/	Pass
	3534.99	Outer_Full	28.80	30.74	/	Pass
DFT-s-OFDM QPSK	3465	Outer_Full	28.79	30.84	/	Pass
	3499.995	Outer_Full	28.79	30.79	/	Pass
	3534.99	Outer_Full	28.84	31.20	/	Pass
DFT-s-OFDM 16 QAM	3465	Outer_Full	28.76	31.33	/	Pass
	3499.995	Outer_Full	28.79	30.81	/	Pass
	3534.99	Outer_Full	28.73	31.12	/	Pass
DFT-s-OFDM 64 QAM	3465	Outer_Full	28.75	30.84	/	Pass
	3499.995	Outer_Full	28.72	30.76	/	Pass
	3534.99	Outer_Full	28.70	30.70	/	Pass
DFT-s-OFDM 256 QAM	3465	Outer_Full	28.74	30.76	/	Pass
	3499.995	Outer_Full	28.83	31.20	/	Pass
	3534.99	Outer_Full	28.82	31.12	/	Pass
CP-OFDM QPSK	3465	Outer_Full	28.81	31.08	/	Pass
	3499.995	Outer_Full	28.82	32.72	/	Pass
	3534.99	Outer_Full	28.79	30.79	/	Pass
CP-OFDM 16 QAM	3465	Outer_Full	28.89	30.96	/	Pass
	3499.995	Outer_Full	28.81	30.88	/	Pass
	3534.99	Outer_Full	28.84	31.05	/	Pass
CP-OFDM 64 QAM	3465	Outer_Full	28.76	30.98	/	Pass
	3499.995	Outer_Full	28.76	30.78	/	Pass
	3534.99	Outer_Full	28.80	31.52	/	Pass
CP-OFDM 256 QAM	3465	Outer_Full	28.80	30.75	/	Pass
	3499.995	Outer_Full	28.85	30.80	/	Pass
	3534.99	Outer_Full	28.86	30.86	/	Pass

9.5.2 Test Graph

n78e_15kHz_SISO_NTNV_30MHz_DFT-s-OFDM_PI/2_BPSK_3465MHz_Outer_Full



n78e_15kHz_SISO_NTNV_30MHz_DFT-s-OFDM_PI/2_BPSK_3499.995MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To Check the authenticity of testing certification report & certificate, please connect us at sgs@sgs.com (86-512) 57370011 or email: CN-Check@sgs.com.

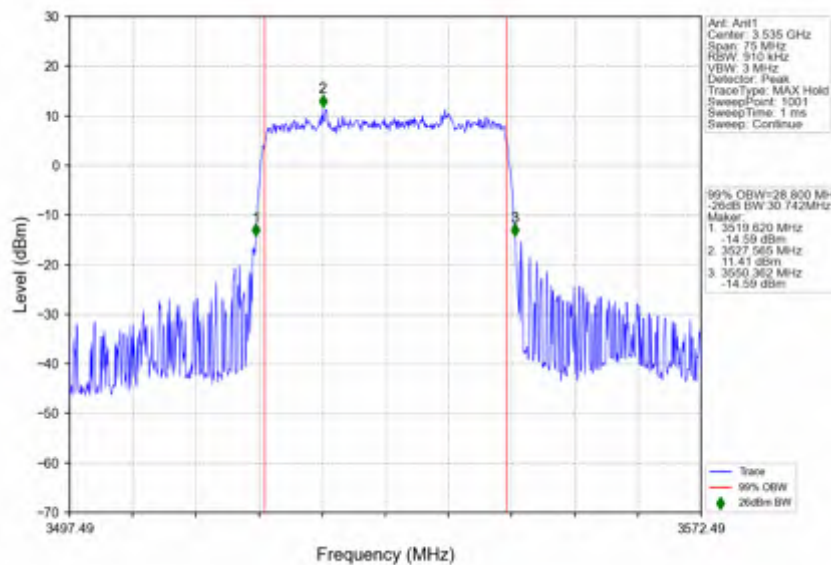
No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学生创业园伟业路18号 邮编 215300

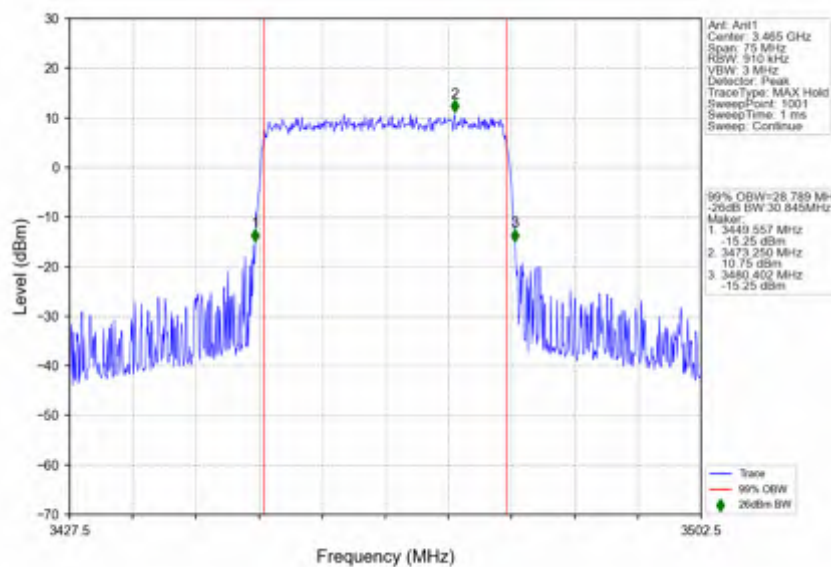
0086-51257350888 006-51257370011 www.sgs.com.cn

0086-51257350888 006-51257370011 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_30MHz_DFT-s-OFDM_PI/2_BPSK_3534.99MHz_Outer_Full



n78e 15kHz SISO NTNv 30MHz DFT-s-OFDM QPSK 3465MHz Outer Full

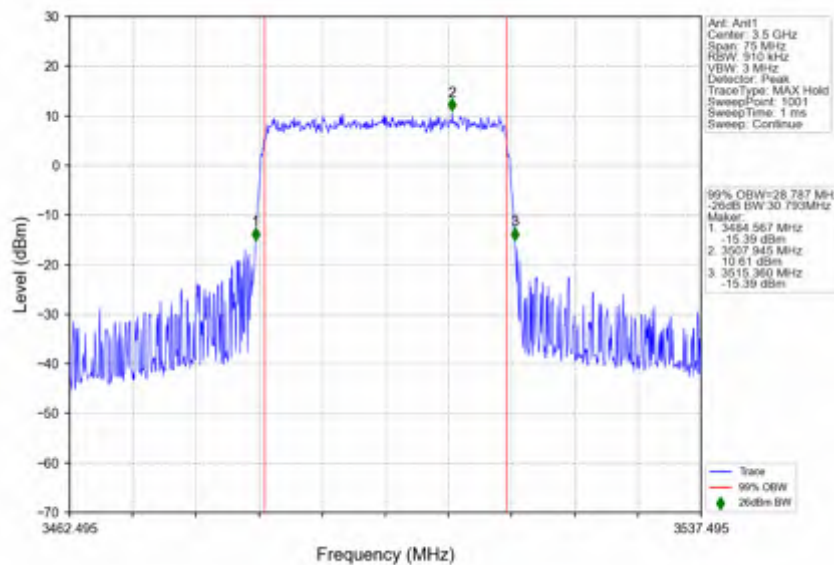


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed hereon, available on request or accessible at <http://www.irs.gov/efile/terms-and-conditions.asp> and, for electronic documents, subject to Terms and Conditions for Electronic Documents at <http://www.irs.gov/efile/terms-and-conditions/terms-and-conditions.asp>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of the Company's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from their own responsibilities. The Company's intervention is limited to the matters specified in its instructions and it does not accept liability, except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the samples shown in this fast report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

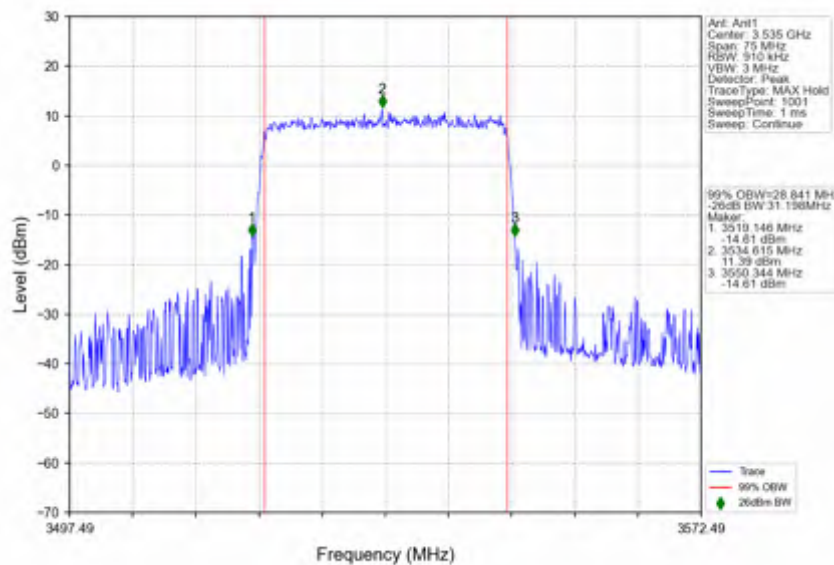
中国·江苏·昆山市留學生创业园伟业路10号 邮编 215300

086-5125735688 086-5125737001 www.sgsgroup.com.cn
086-5125735688 086-5125737001 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_30MHz_DFT-s-OFDM QPSK_3499.995MHz_Outer_Full



n78e_15kHz_SISO_NTNV_30MHz_DFT-s-OFDM QPSK_3534.99MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing report or certificate, please connect us at sgs@sgs.com (86-512) 57370000 or email: CN-Check@sgs.com.

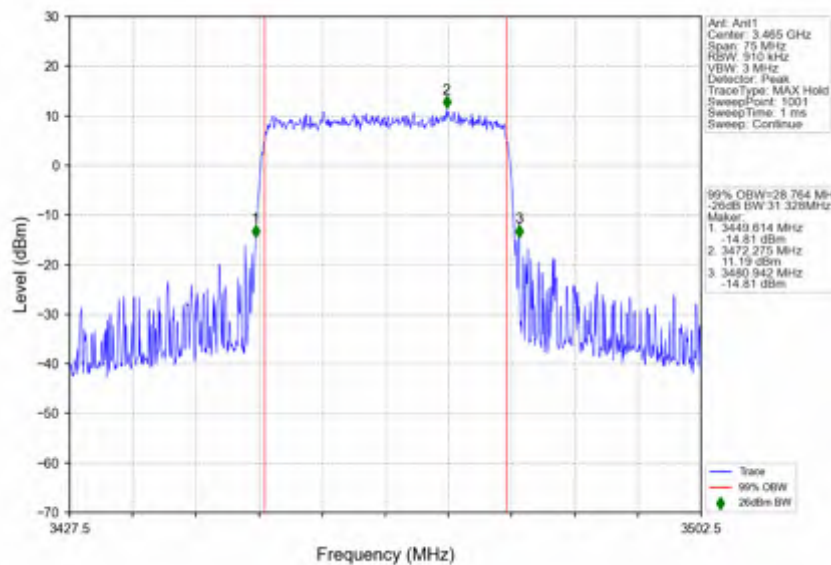
No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学生创业园伟业路18号 邮编 215300

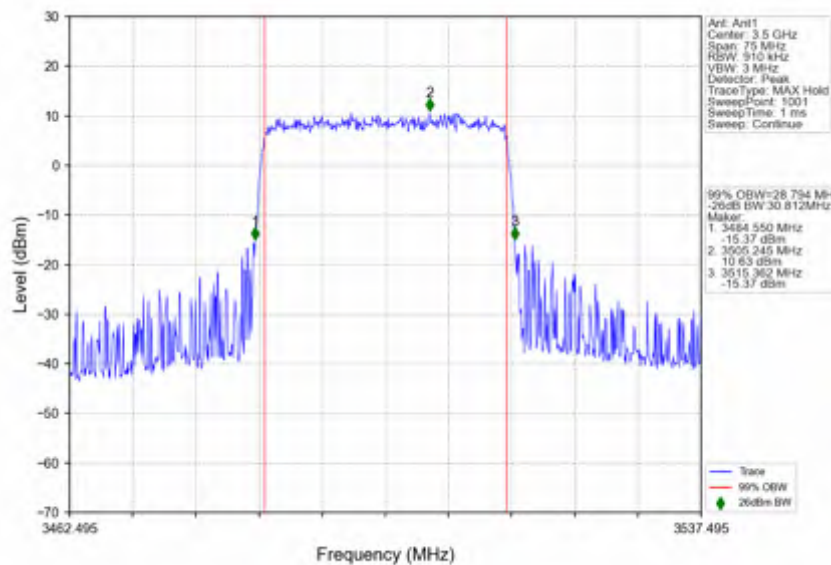
086-51257350888 086-51257370000 www.sgs.com.cn

086-51257350888 086-51257370000 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_30MHz_DFT-s-OFDM_16_QAM_3465MHz_Outer_Full



n78e_15kHz_SISO_NTNV_30MHz_DFT-s-OFDM_16_QAM_3499.995MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overall, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated, the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at sgs@sgs.com or sgs@sgs.com or sgs@sgs.com.

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学院创业园伟业路10号 邮编 215300

0512-57350888

0512-57350888

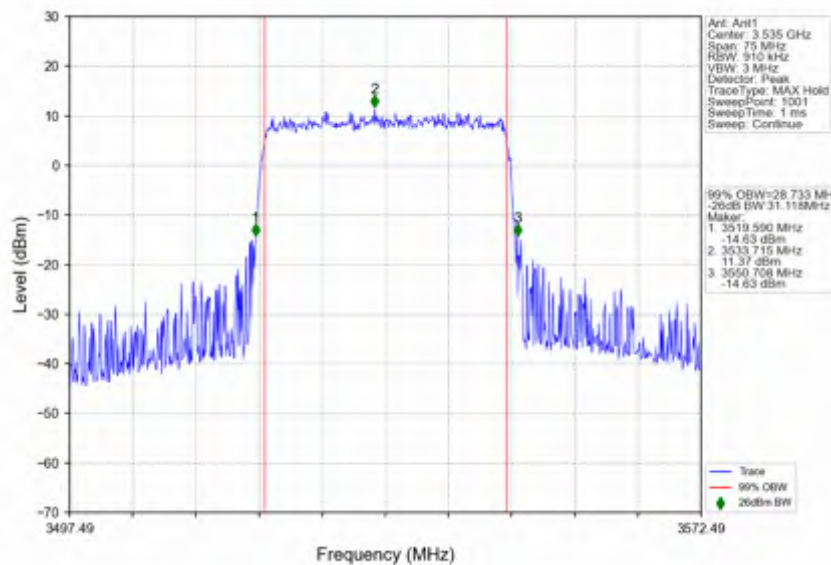
0512-57370910

0512-57370910

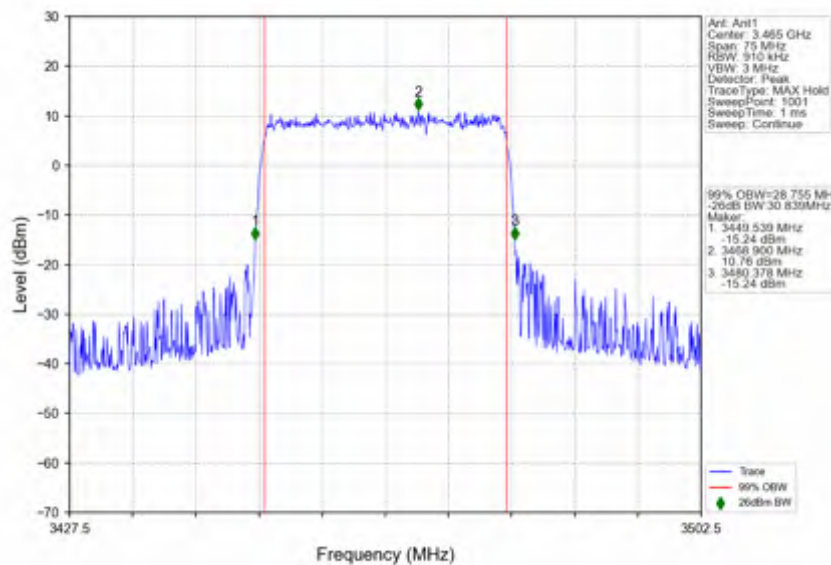
www.sgs.com.cn

sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_30MHz_DFT-s-OFDM 16 QAM_3534.99MHz_Outer_Full



n78e_15kHz_SISO_NTNV_30MHz_DFT-s-OFDM 64 QAM_3465MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at sgs@sgs.com or sgs@sgs.com or email: CN-Check@sgs.com.

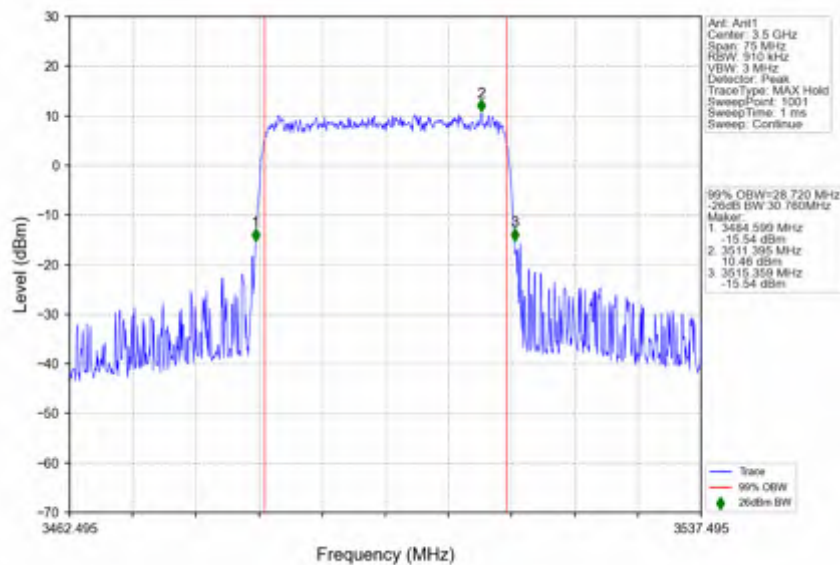
No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留學生创业园伟业路18号 邮编 215300

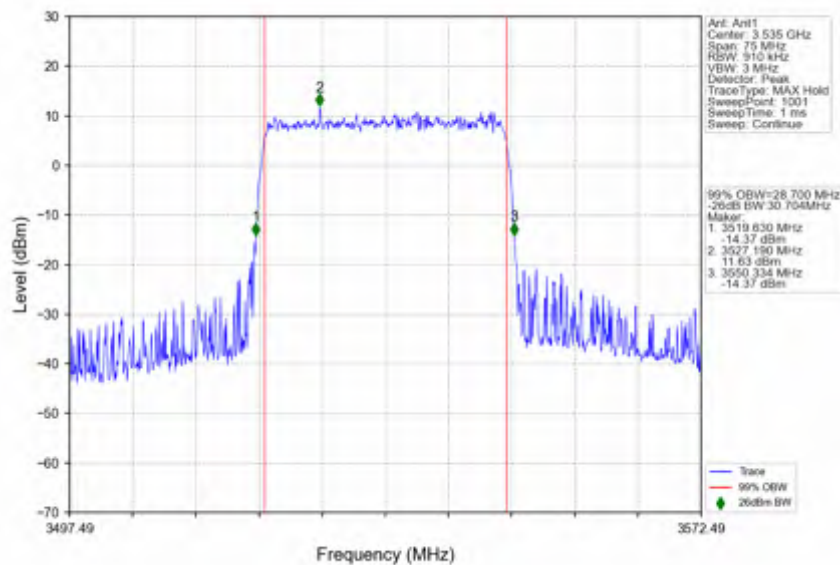
0512-51257350888 0512-51257370910 www.sgs.com.cn

0512-51257350888 0512-51257370910 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_30MHz_DFT-s-OFDM_64_QAM_3499.995MHz_Outer_Full



n78e_15kHz_SISO_NTNV_30MHz_DFT-s-OFDM_64_QAM_3534.99MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at sgs@sgs.com or sgs@sgs.com or email: CH.Official@sgs.com

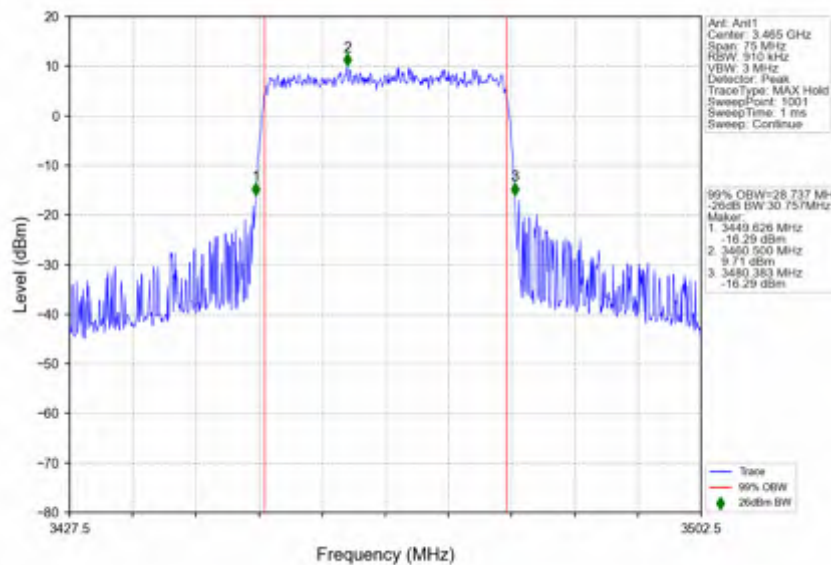
No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学院创业园伟业路10号 邮编 215300

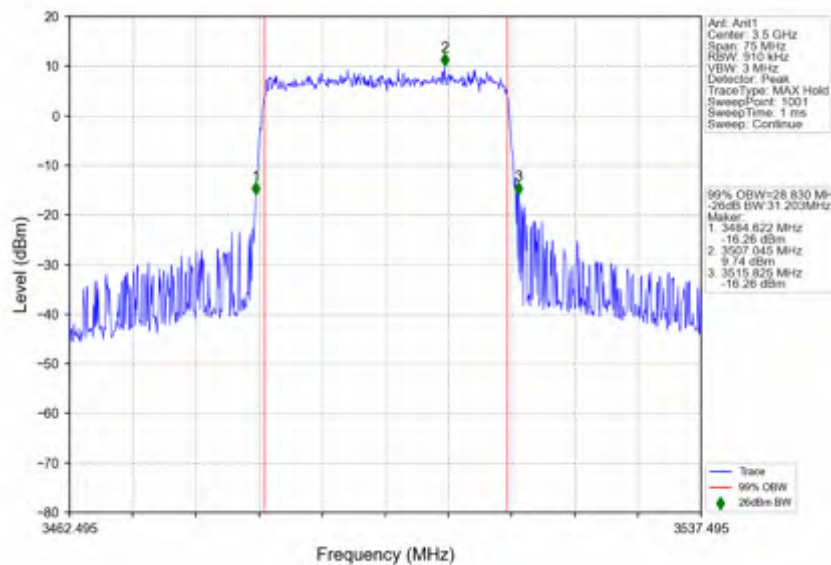
0512-51257350888 0512-51257370910 www.sgs.com.cn

0512-51257350888 0512-51257370910 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_30MHz_DFT-s-OFDM_256_QAM_3465MHz_Outer_Full



n78e_15kHz_SISO_NTNV_30MHz_DFT-s-OFDM_256_QAM_3499.995MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated, the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing report & certificate, please connect us at sgs@sgs.com or sgs@sgs.com or sgs@sgs.com.

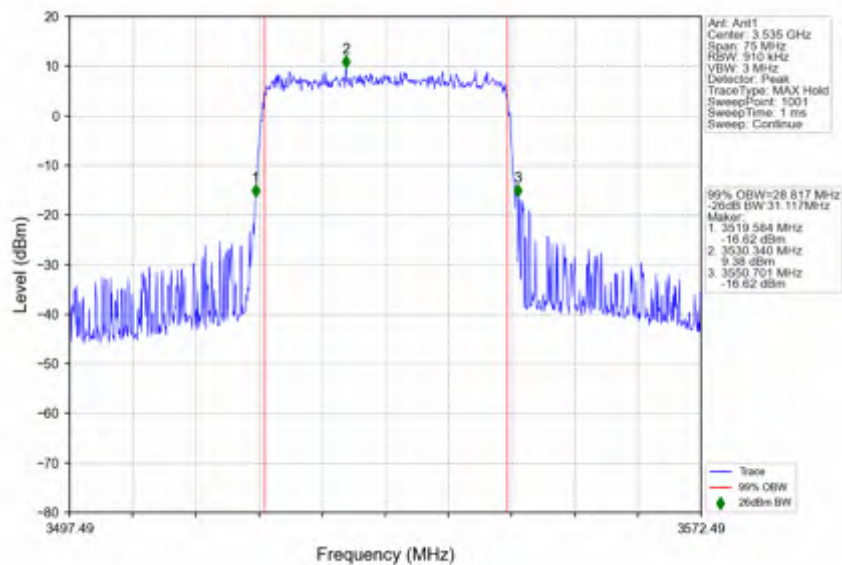
No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学生创业园伟业路10号 邮编 215300

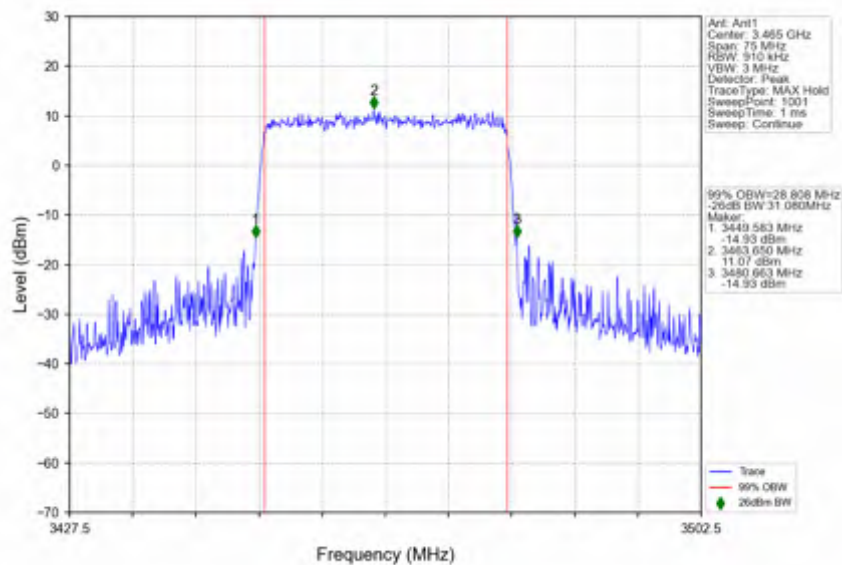
0512-51273700 0512-51273701 www.sgs.com.cn

0512-5127350003 0512-5127370011 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_30MHz_DFT-s-OFDM_256_QAM_3534.99MHz_Outer_Full



n78e_15kHz_SISO_NTNV_30MHz_CP-OFDM_QPSK_3465MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at sgs@sgs.com or CN-Check@sgs.com.

No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学生创业园伟业路18号 邮编 215300

0512-51257350888

0512-51257370910

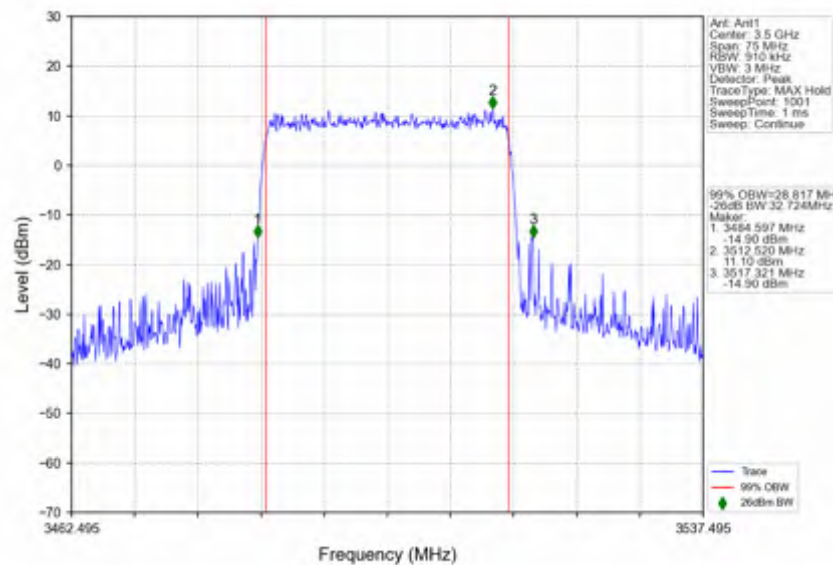
www.sgs.com.cn

0512-51257350888

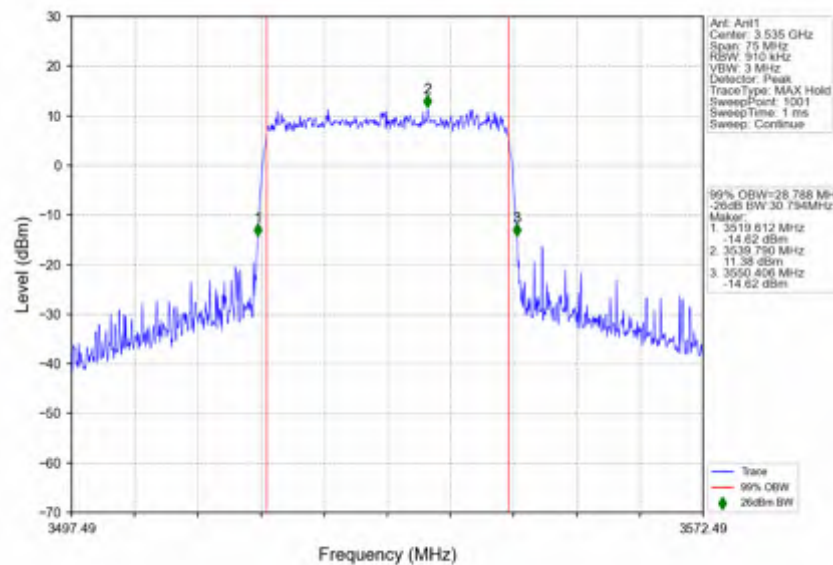
0512-51257370910

sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_30MHz_CP-OFDM QPSK_3499.995MHz_Outer_Full



n78e_15kHz_SISO_NTNV_30MHz_CP-OFDM QPSK_3534.99MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at sgs@sgs.com or sgs@sgs.com or sgs@sgs.com.

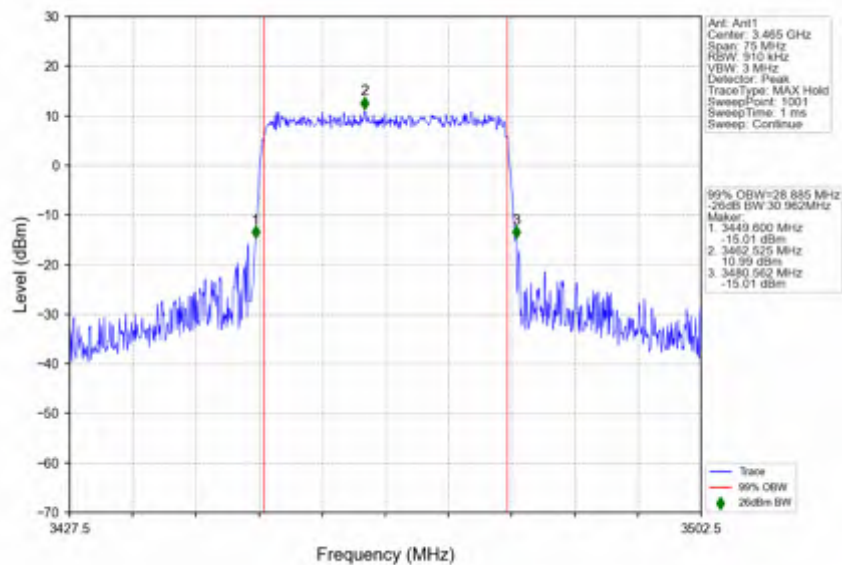
No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学院创业园伟业路18号 邮编 215300

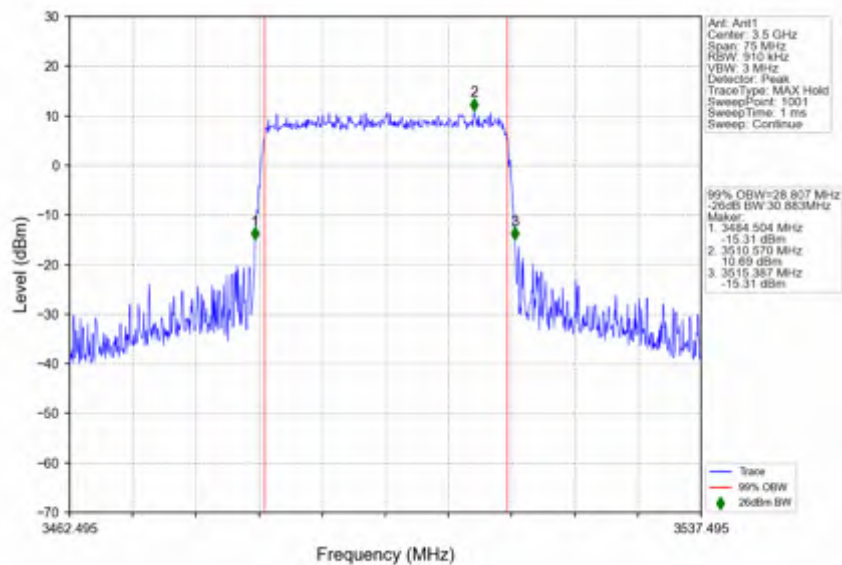
0512-51273700 0512-51273701 www.sgs.com.cn

0512-5127350003 0512-5127370011 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_30MHz_CP-OFDM_16_QAM_3465MHz_Outer_Full



n78e_15kHz_SISO_NTNV_30MHz_CP-OFDM_16_QAM_3499.995MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at sgs@sgs.com or sgs@sgs.com or sgs@sgs.com.

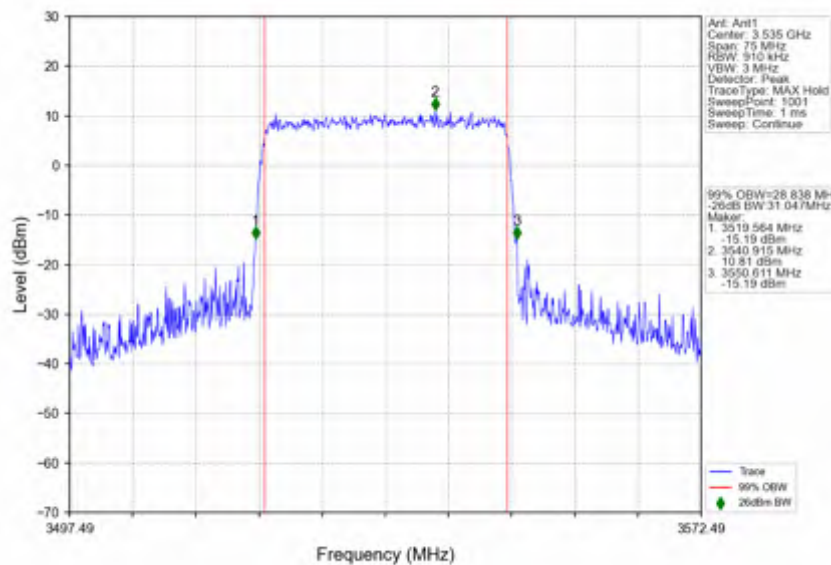
No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学院创业园伟业路10号 邮编 215300

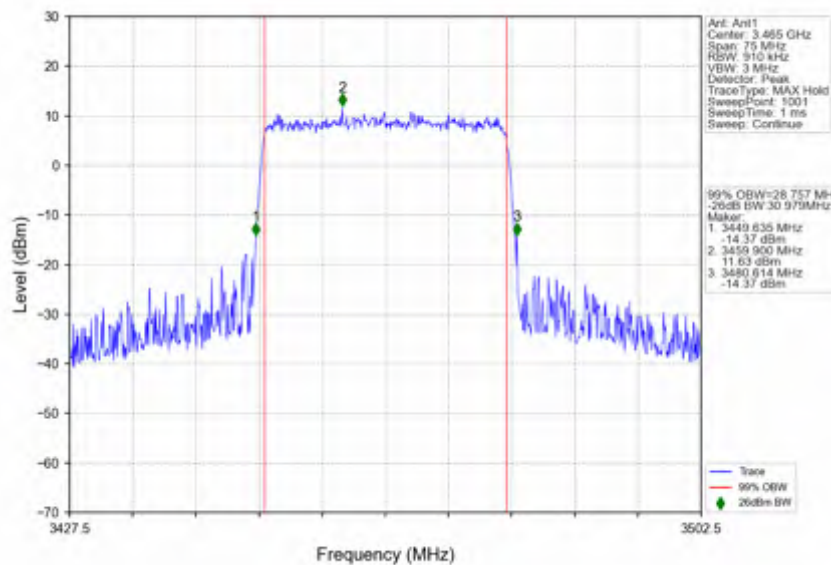
0512-51273700 0512-51273701 www.sgs.com.cn

0512-5127350003 0512-5127370011 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_30MHz_CP-OFDM 16 QAM_3534.99MHz_Outer_Full



n78e_15kHz_SISO_NTNV_30MHz_CP-OFDM 64 QAM_3465MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at sgs@sgs.com or sgs@sgs.com or sgs@sgs.com.

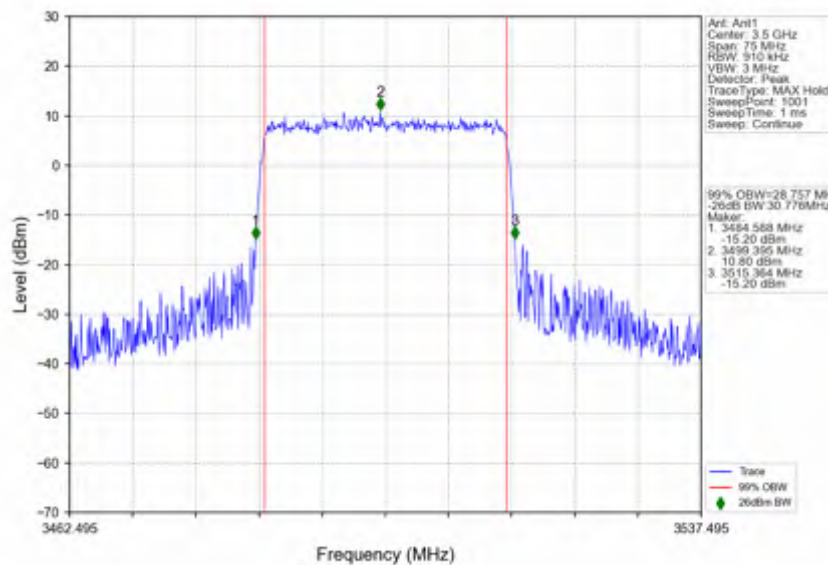
No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学生创业园伟业路18号 邮编 215300

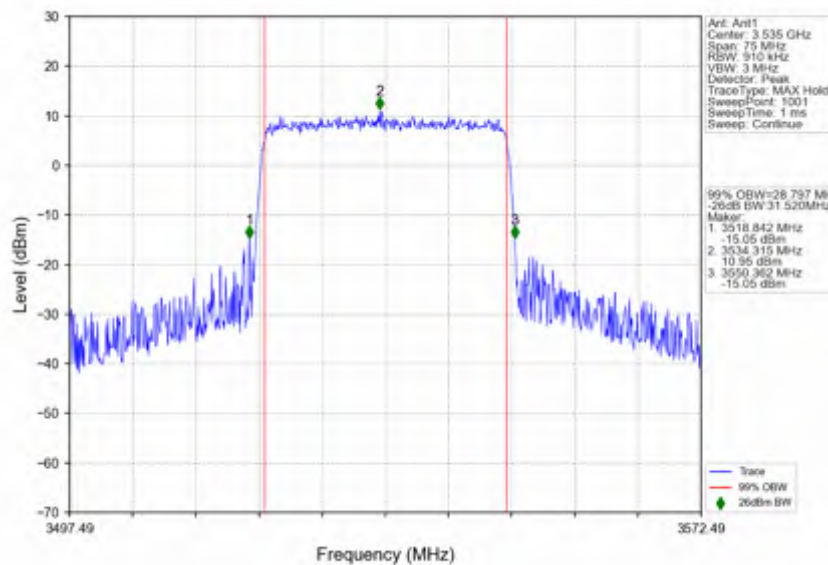
0512-51273700 0512-51273701 www.sgs.com.cn

0512-512735000 0512-51273700 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_30MHz_CP-OFDM 64 QAM_3499.995MHz_Outer_Full



n78e_15kHz_SISO_NTNV_30MHz_CP-OFDM 64 QAM_3534.99MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated, the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at sgs@sgs.com or sgs@sgs.com or email: CN-Office@sgs.com.

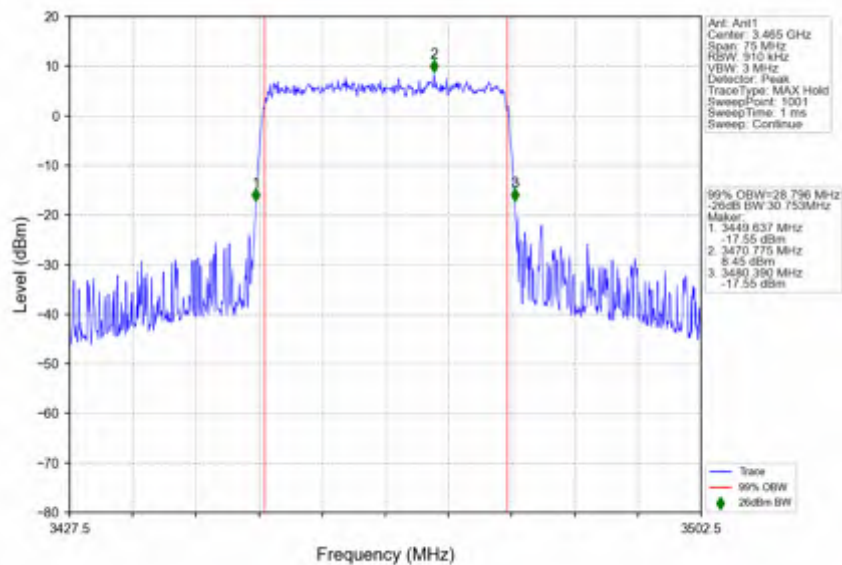
No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学院创业园伟业路10号 邮编 215300

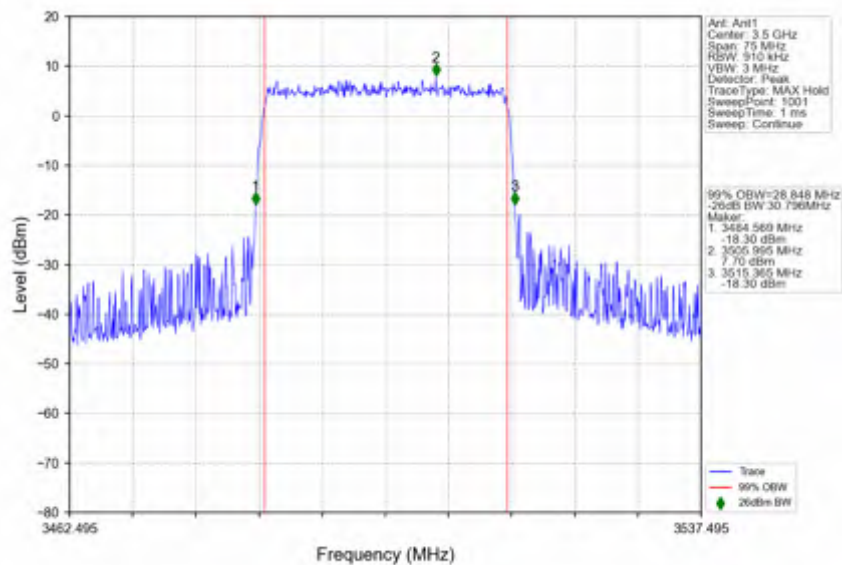
0512-51257350888 0512-5125737010 www.sgs.com.cn

0512-51257350888 0512-5125737010 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_30MHz_CP-OFDM_256_QAM_3465MHz_Outer_Full



n78e_15kHz_SISO_NTNV_30MHz_CP-OFDM_256_QAM_3499.995MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated, the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To Check the authenticity of testing report or certificate, please connect us at sgs@sgs.com or sgs@sgs.com or sgs@sgs.com.

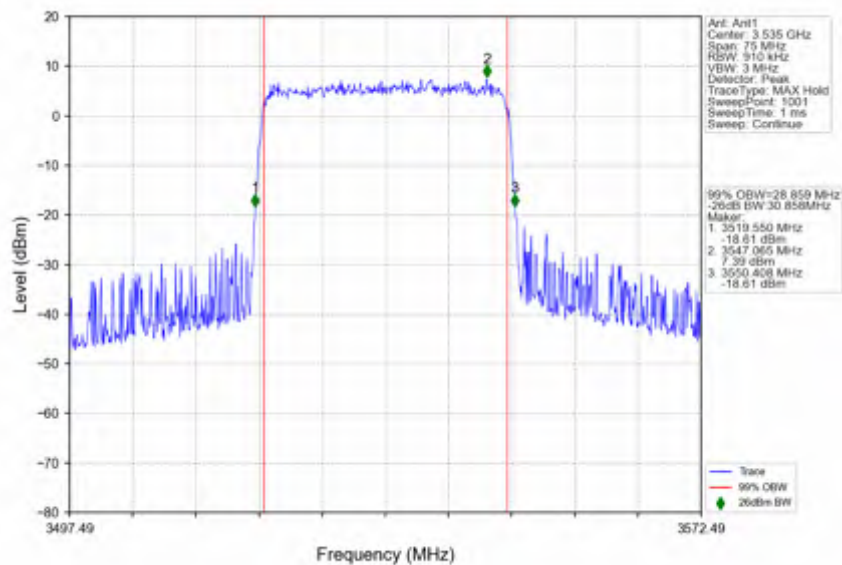
No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学院创业园伟业路18号 邮编 215300

0512-51257350888 0512-5125737010 www.sgs.com

0512-51257350888 0512-5125737010 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_30MHz_CP-OFDM_256_QAM_3534.99MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at telephone: (86-512) 57370011 or email: CH.Official@sgs.com.

No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学生创业园伟业路18号 邮编 215300

(86-512) 57350888 (86-512) 57370011 www.sgs.com.cn

(86-512) 57350883 (86-512) 57370011 sgs.china@sgs.com

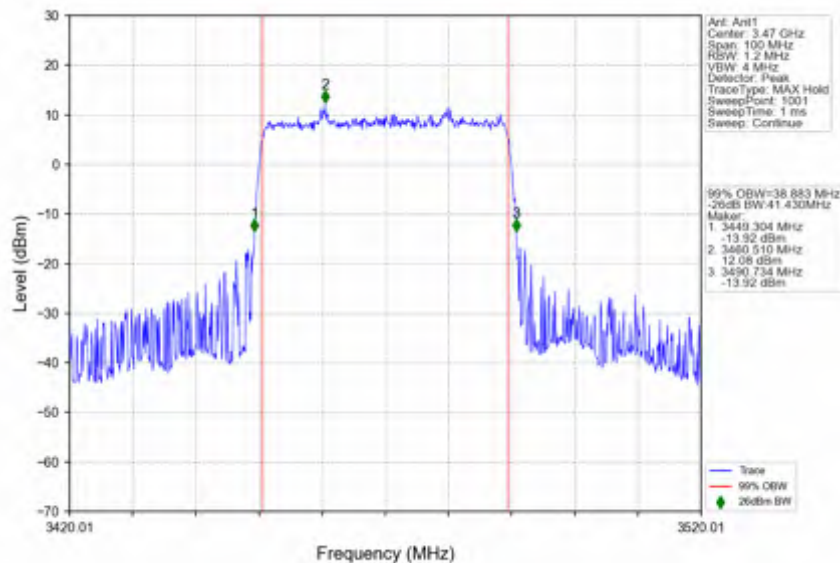
9.6 15k_SISO_40MHz_NTNV

9.6.1 Test Result

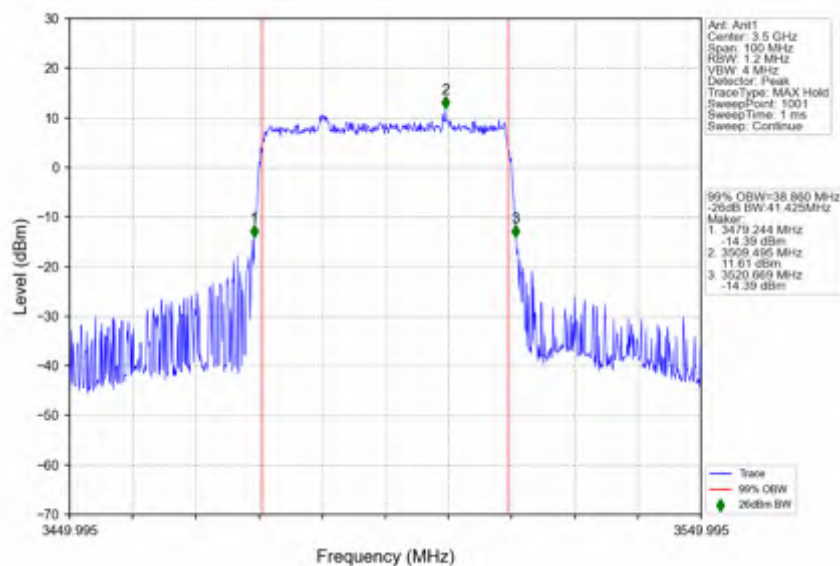
5G NR n78e SCS=15kHz SISO 40MHz NTN						
Modulation	Frequency (MHz)	RB Allocation	99% Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
DFT-s-OFDM PI/2 BPSK	3470.01	Outer_Full	38.88	41.43	/	Pass
	3499.995	Outer_Full	38.86	41.42	/	Pass
	3529.995	Outer_Full	39.00	41.84	/	Pass
DFT-s-OFDM QPSK	3470.01	Outer_Full	38.94	41.47	/	Pass
	3499.995	Outer_Full	38.97	41.69	/	Pass
	3529.995	Outer_Full	39.00	42.18	/	Pass
DFT-s-OFDM 16 QAM	3470.01	Outer_Full	38.90	42.52	/	Pass
	3499.995	Outer_Full	38.86	41.51	/	Pass
	3529.995	Outer_Full	38.90	41.81	/	Pass
DFT-s-OFDM 64 QAM	3470.01	Outer_Full	38.86	41.76	/	Pass
	3499.995	Outer_Full	38.91	42.15	/	Pass
	3529.995	Outer_Full	38.85	42.09	/	Pass
DFT-s-OFDM 256 QAM	3470.01	Outer_Full	38.87	42.54	/	Pass
	3499.995	Outer_Full	38.92	42.00	/	Pass
	3529.995	Outer_Full	38.88	42.46	/	Pass
CP-OFDM QPSK	3470.01	Outer_Full	38.85	41.58	/	Pass
	3499.995	Outer_Full	38.84	41.74	/	Pass
	3529.995	Outer_Full	38.87	41.75	/	Pass
CP-OFDM 16 QAM	3470.01	Outer_Full	38.85	41.57	/	Pass
	3499.995	Outer_Full	38.78	42.31	/	Pass
	3529.995	Outer_Full	38.81	41.36	/	Pass
CP-OFDM 64 QAM	3470.01	Outer_Full	38.79	41.47	/	Pass
	3499.995	Outer_Full	38.75	41.57	/	Pass
	3529.995	Outer_Full	38.78	43.03	/	Pass
CP-OFDM 256 QAM	3470.01	Outer_Full	38.84	43.58	/	Pass
	3499.995	Outer_Full	38.97	41.50	/	Pass
	3529.995	Outer_Full	38.79	41.39	/	Pass

9.6.2 Test Graph

n78e_15kHz_SISO_NTNV_40MHz_DFT-s-OFDM PI/2 BPSK_3470.01MHz_Outer_Full



n78e_15kHz_SISO_NTNV_40MHz_DFT-s-OFDM PI/2 BPSK_3499.995MHz_Outer_Full



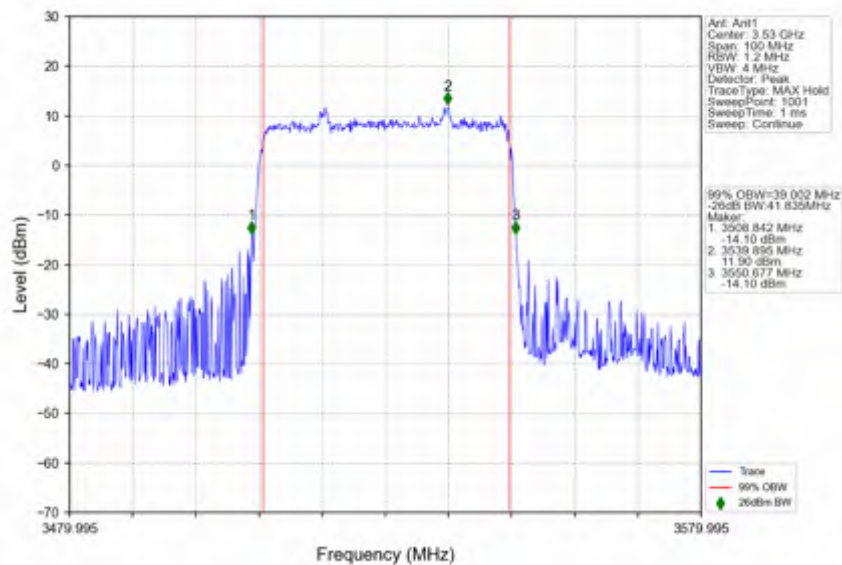
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at sgs@sgs.com (86-512)57370011 or email: CN-Online@sgs.com.

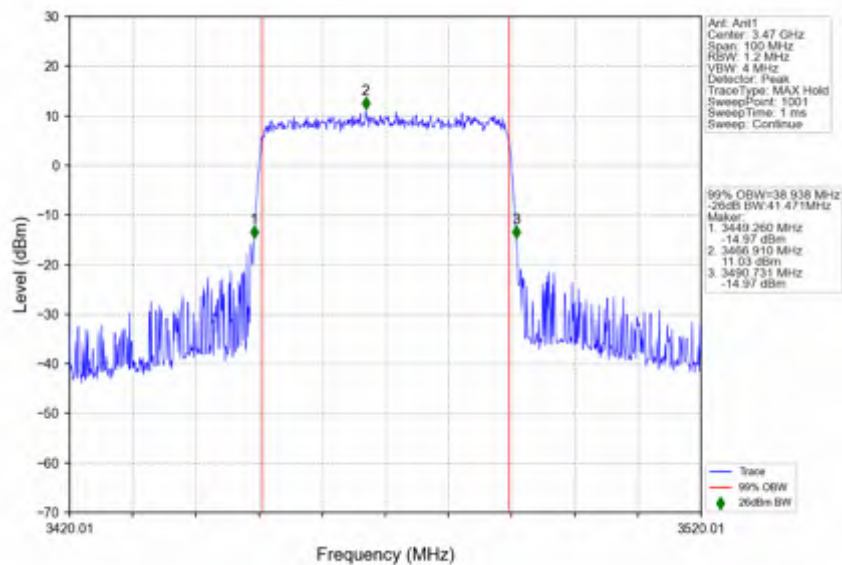
No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300
中国·江苏·昆山市留学院创业园伟业路18号 邮编 215300

(86-512)57350888 (86-512)57370011 www.sgs.com.cn
(86-512)57350883 (86-512)57370011 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_40MHz_DFT-s-OFDM_PI/2_BPSK_3529.995MHz_Outer_Full



n78e_15kHz_SISO_NTNV_40MHz_DFT-s-OFDM_QPSK_3470.01MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at sgs@sgs.com or sgs@sgs.com or sgs@sgs.com

No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学院创业园伟业路18号 邮编 215300

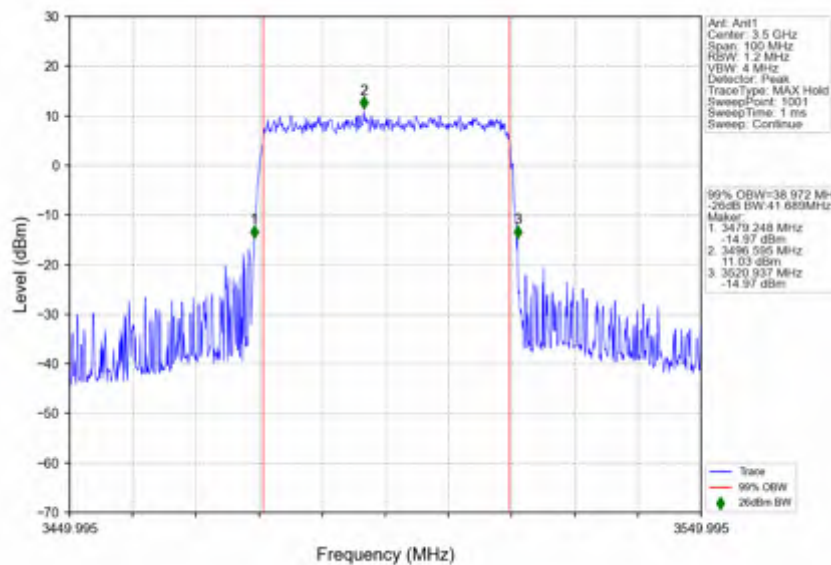
0512-51257370

0512-51257370

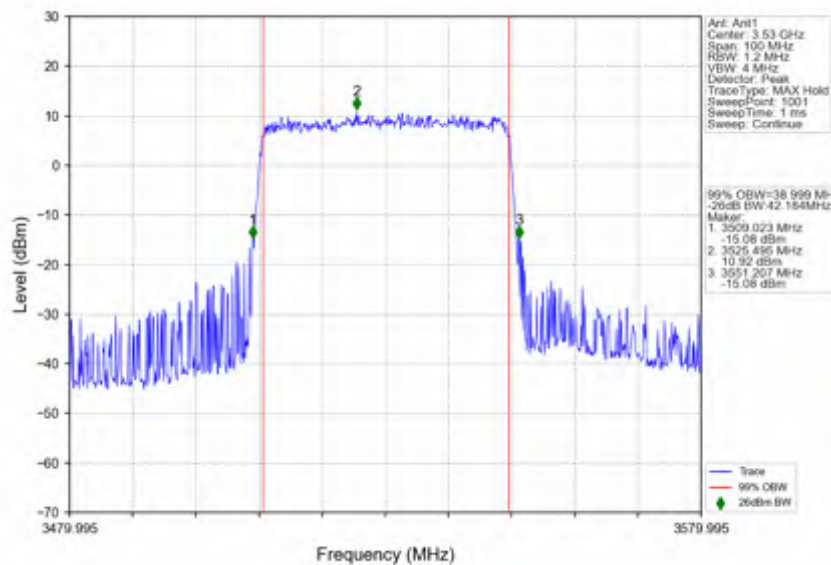
www.sgs.com.cn

sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_40MHz_DFT-s-OFDM_QPSK_3499.995MHz_Outer_Full



n78e_15kHz_SISO_NTNV_40MHz_DFT-s-OFDM_QPSK_3529.995MHz_Outer_Full

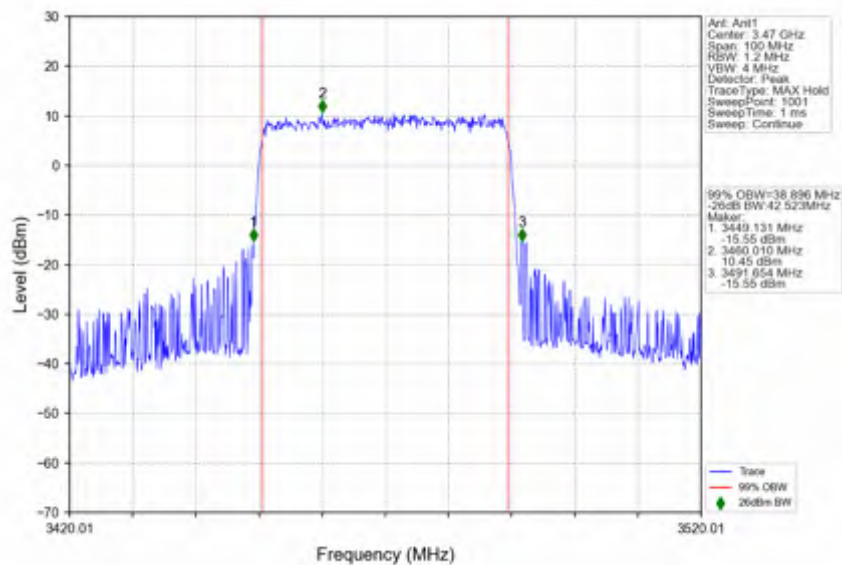


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed and available on request or accessible at <http://www.etsi.com/Products/ETSI%20Products%20and%20Conditions> and, for selected documents, subject to Terms and Conditions for Electronic Documents at <http://www.etsi.com/terms-and-conditions/Terms-a-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction terms defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of the Company's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a trial from their own responsibility. The Company's liability is limited to the actual costs of the work performed and is not an assumption of liability in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this fast report refer only to the sample(s) tested and such sample(s) are retained for 30 days only. For more information on the fast report service, please contact your local ETSI representative at etsi@etsi.com or visit the ETSI website at www.etsi.com.

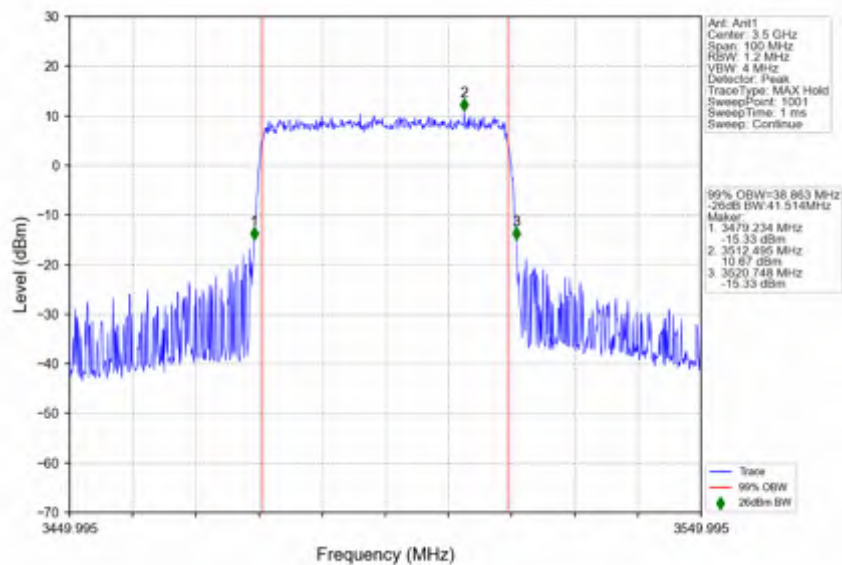
中国·江苏·昆山市阳澄湖生态创业园伟业路10号 邮编 215300

086-5125735688 086-5125737000 www.sgsigroup.com.cn
086-5125735688 086-5125737000 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_40MHz_DFT-s-OFDM_16_QAM_3470.01MHz_Outer_Full



n78e_15kHz_SISO_NTNV_40MHz_DFT-s-OFDM_16_QAM_3499.995MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing report & certificate, please connect us at sgs@sgs.com or CN-Check@sgs.com.

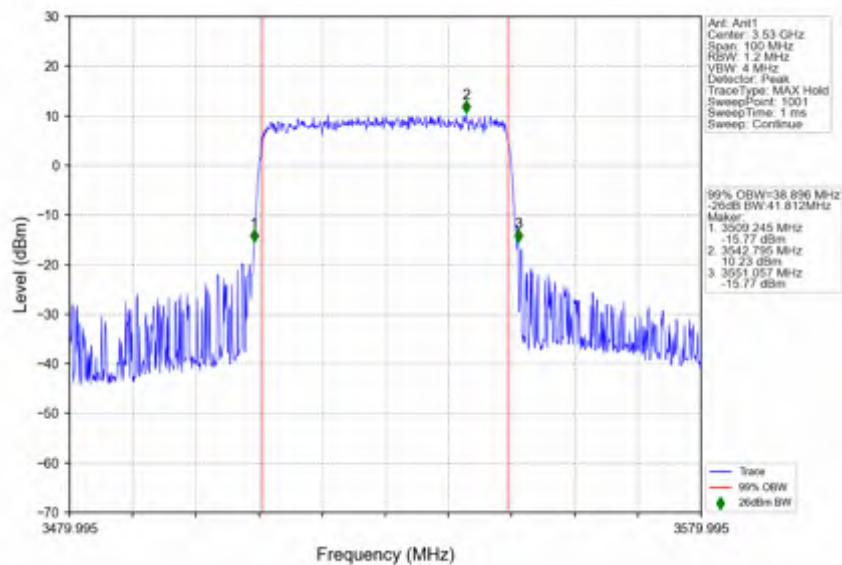
No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学生创业园伟业路10号 邮编 215300

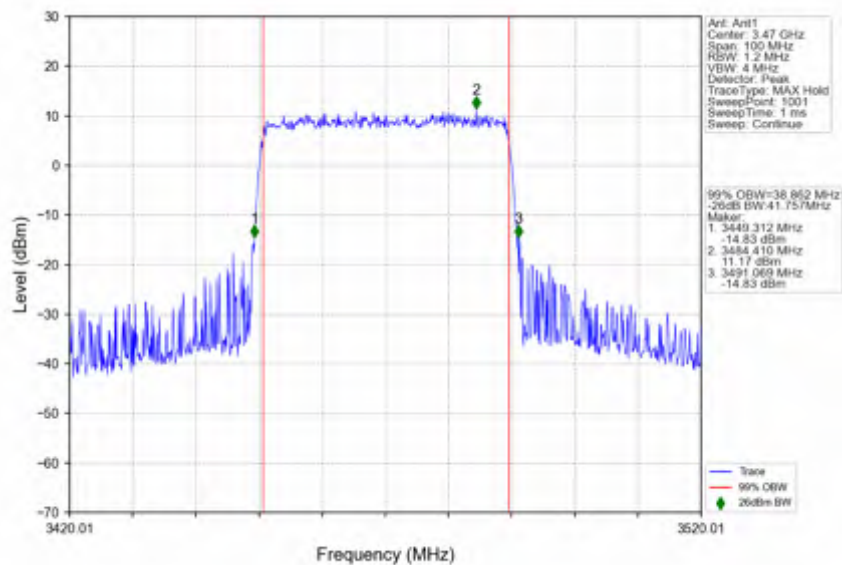
0512-57350888 0512-57370910 www.sgs.com.cn

0512-51257350888 0512-51257370910 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_40MHz_DFT-s-OFDM_16_QAM_3529.995MHz_Outer_Full



n78e_15kHz_SISO_NTNV_40MHz_DFT-s-OFDM_64_QAM_3470.01MHz_Outer_Full

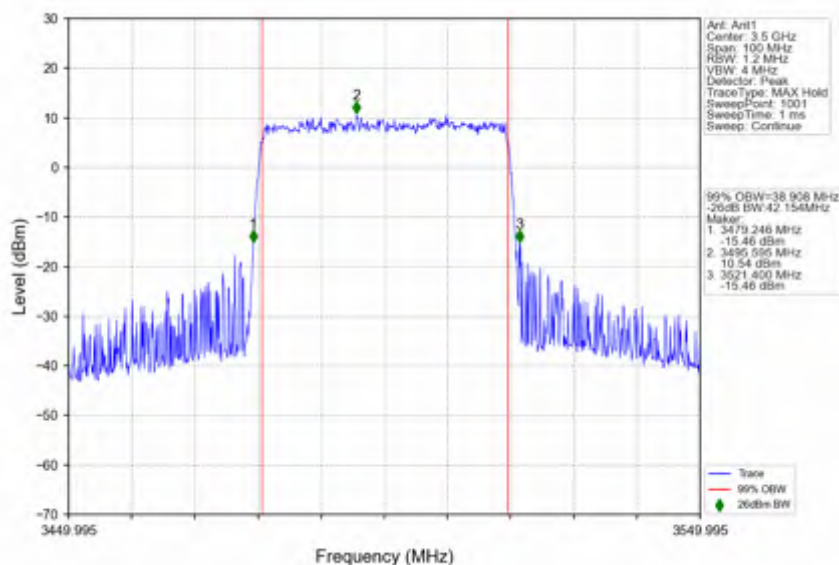


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed and available on request or accessible at <http://www.etsi.com/Products/ETSI%20Products%20and%20Conditions> and, for selected forms, printed subject to Terms and Conditions for Electronic Documents at <http://www.etsi.com/terms-and-conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction terms defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of the Company's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a trial from their responsibility to the court. The Company's responsibility is limited to the occurrence of a technical error in the report, except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this fast report refer only to the sample(s) tested and such sample(s) are retained for 30 days only. For more information on the use of this document, please contact the Company at info@etsi.com or <tel:+352437342000>.

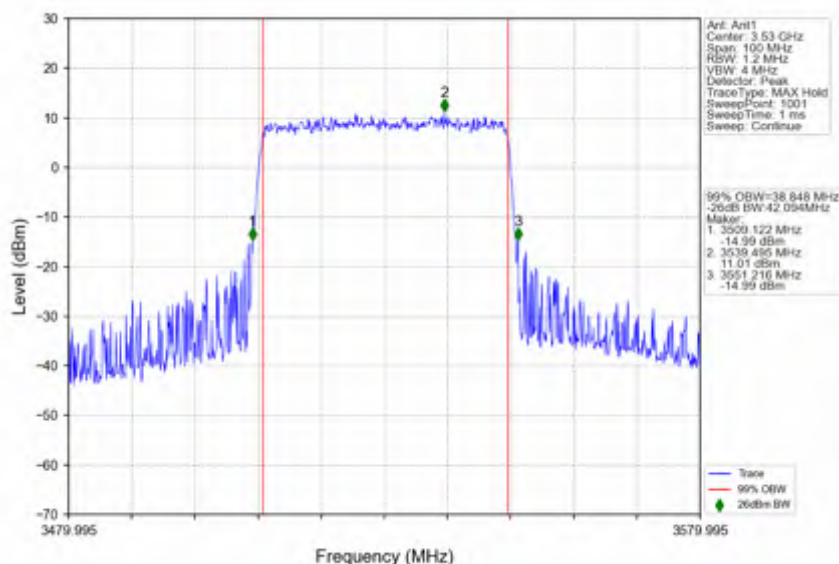
中国·江苏·昆山市留学院创业园伟业路10号 邮编 215300

086-5125735688 086-5125737000 www.sgsigroup.com.cn
086-5125735688 086-5125737000 sgs.china@sgs.com

n78e	15kHz	SISO	NTNV	40MHz	DFT-s-OFDM	64 QAM	3499.995MHz	Outer	Full
------	-------	------	------	-------	------------	--------	-------------	-------	------



n78e	15kHz	SISO	NTNV	40MHz	DFT-s-OFDM	64	OAM	3529.995MHz	Outer	Full
------	-------	------	------	-------	------------	----	-----	-------------	-------	------



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overall, available on request or online, available at <http://www.sgs.com/en/Terms-and-Conditions.aspx>, and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of its qualifications, if any. The Company's sole responsibility is to its client and this document cannot be presented parties to a transaction, nor used in a transaction, and obliging the client to the contents of the document. The document cannot be reproduced, except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this fast report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

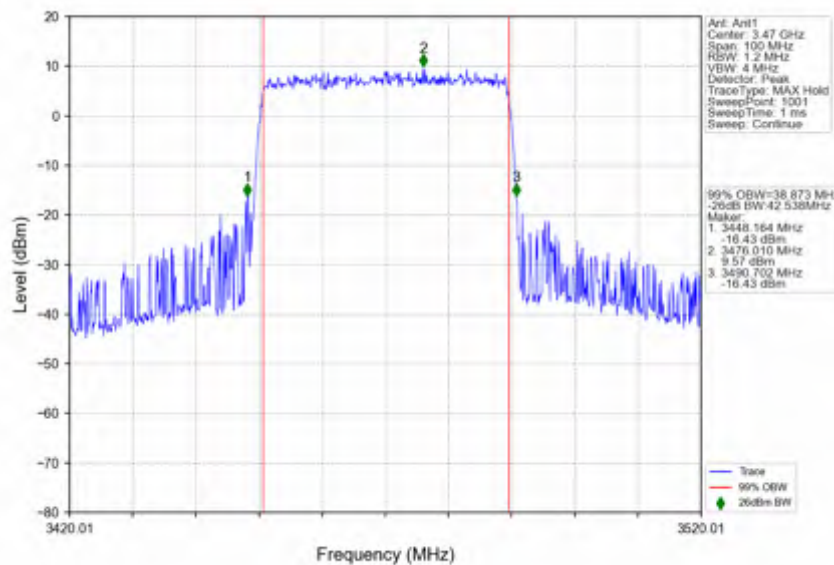
No. 19, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市周庄生创业园伟业路10号 邮编 215300

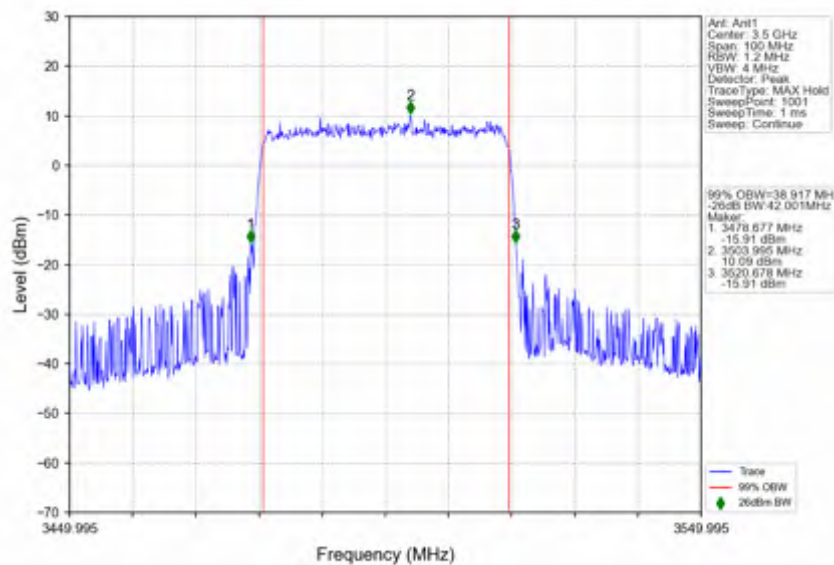
800-512-5722 800-512-5722 www.3dsysgroup.com.cn

185-5121573500831 185-512157370014 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_40MHz_DFT-s-OFDM_256_QAM_3470.01MHz_Outer_Full



n78e_15kHz_SISO_NTNV_40MHz_DFT-s-OFDM_256_QAM_3499.995MHz_Outer_Full

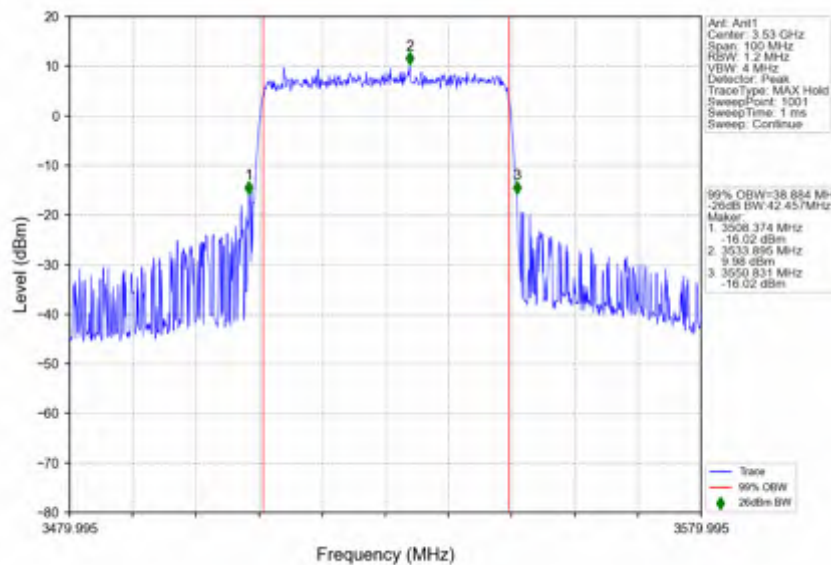


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed and available on request or accessible at <http://www.etsi.com/ETSI%20Terms%20and%20Conditions.aspx> and, for selected forms, printed subject to Terms and Conditions for Electronic Documents at <http://www.etsi.com/ETSI%20Terms%20and%20Conditions/Terms%20Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction terms defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of the Company's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a trial from their responsibility to the court. The Company's responsibility is limited to the occurrence of a technical error, if reported, except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this fast report refer only to the sample(s) tested and such sample(s) are retained for 30 days only. For more information on the use of this document, please contact the Company at info@etsi.com or <tel:+352437342200>.

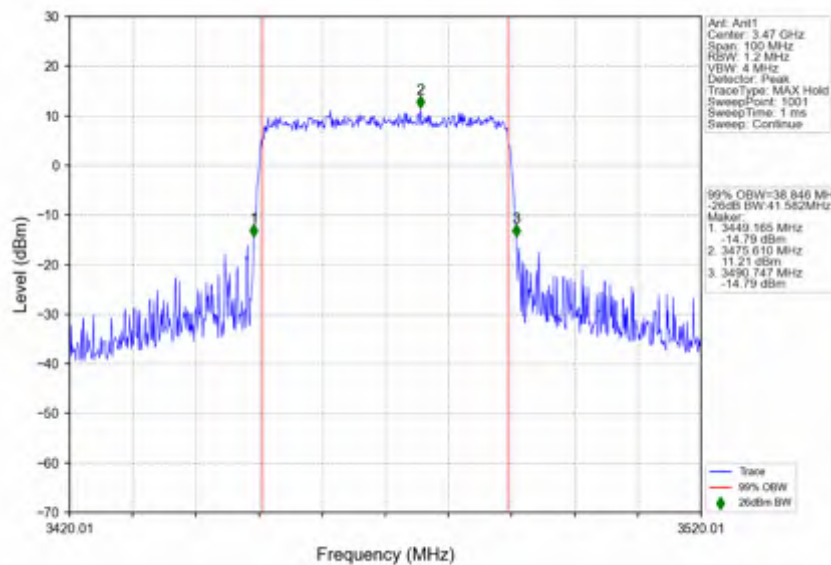
中国·江苏·昆山市周庄学生创业园伟业路10号 邮编 215300

086-5125735688 086-5125737000 www.sgsgroup.com.cn
086-5125735688 086-5125737000 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_40MHz_DFT-s-OFDM 256 QAM_3529.995MHz_Outer_Full



n78e_15kHz_SISO_NTNV_40MHz_CP-OFDM QPSK_3470.01MHz_Outer_Full



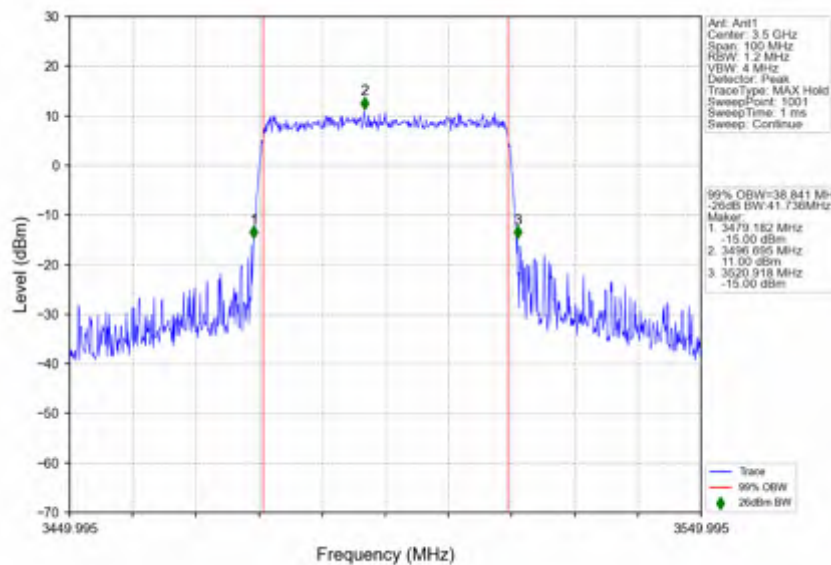
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at telephone: (86-512) 57370011 or email: CH.Official@sgs.com.

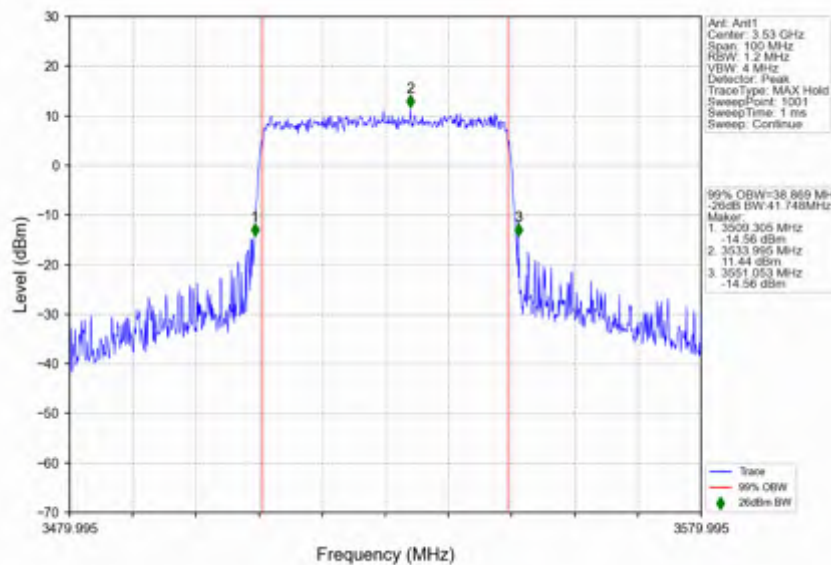
No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300
中国·江苏·昆山市留学院创业园伟业路18号 邮编 215300

(86-512) 57350888 (86-512) 57370011 www.sgs.com.cn
(86-512) 57350883 (86-512) 57370011 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_40MHz_CP-OFDM QPSK_3499.995MHz_Outer_Full



n78e_15kHz_SISO_NTNV_40MHz_CP-OFDM QPSK_3529.995MHz_Outer_Full



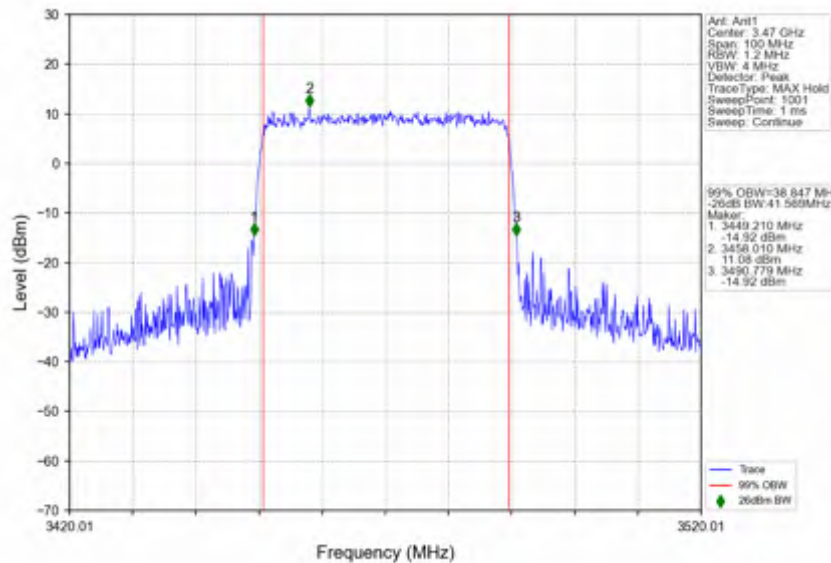
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To Check the authenticity of testing certification report & certificate, please connect us at telephone: (86-512) 57370011 or email: CH.Official@sgs.com.

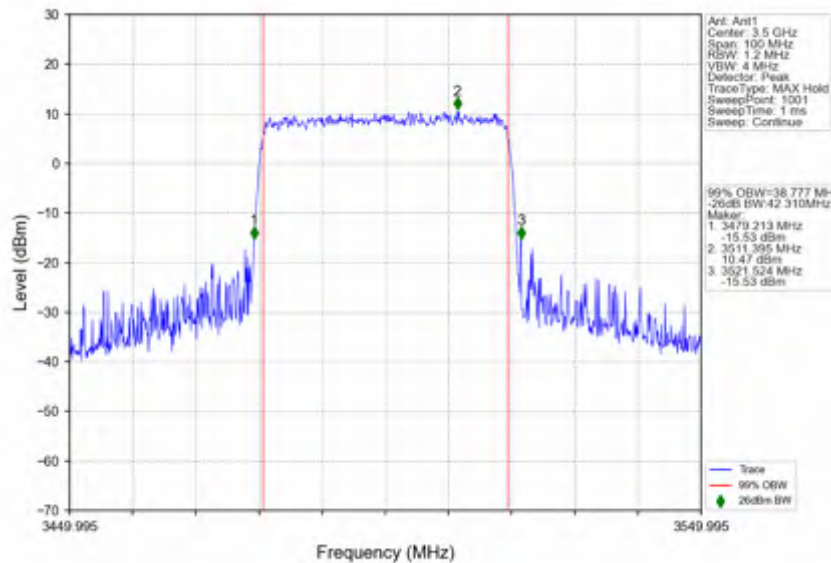
No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300
中国·江苏·昆山市留學生创业园伟业路10号 邮编 215300

(86-512) 57350888 (86-512) 57370011 www.sgs.com.cn
(86-512) 57350883 (86-512) 57370011 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_40MHz_CP-OFDM_16_QAM_3470.01MHz_Outer_Full



n78e_15kHz_SISO_NTNV_40MHz_CP-OFDM_16_QAM_3499.995MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at sgs@sgs.com or CN-Check@sgs.com.

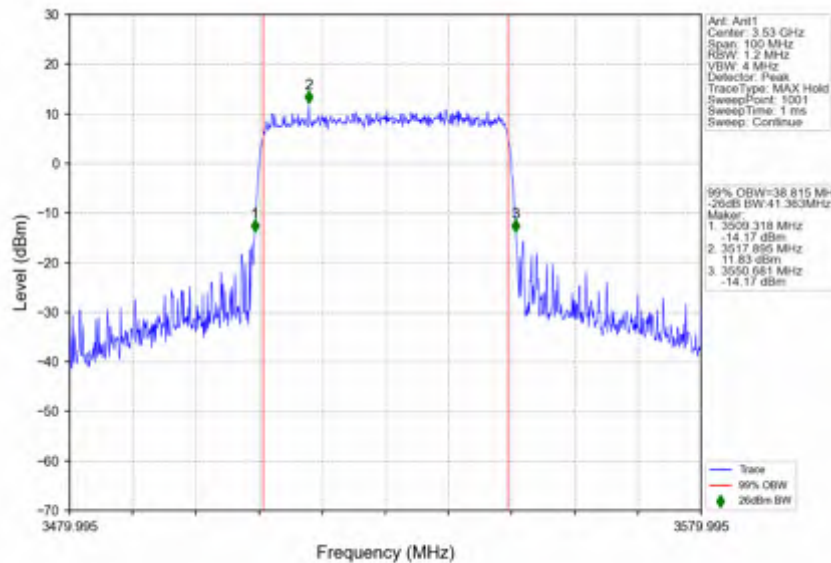
No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留學生创业园伟业路10号 邮编 215300

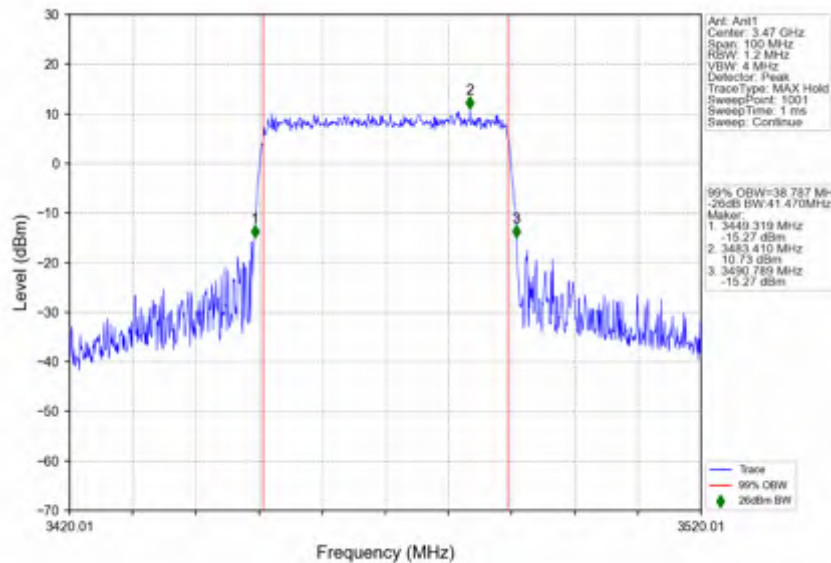
0512-51257350888 0512-5125737010 www.sgs.com.cn

0512-51257350888 0512-5125737010 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_40MHz_CP-OFDM_16_QAM_3529.995MHz_Outer_Full



n78e_15kHz_SISO_NTNV_40MHz_CP-OFDM_64_QAM_3470.01MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at sgs@sgs.com (86-512) 57370011 or email: CN-Check@sgs.com.

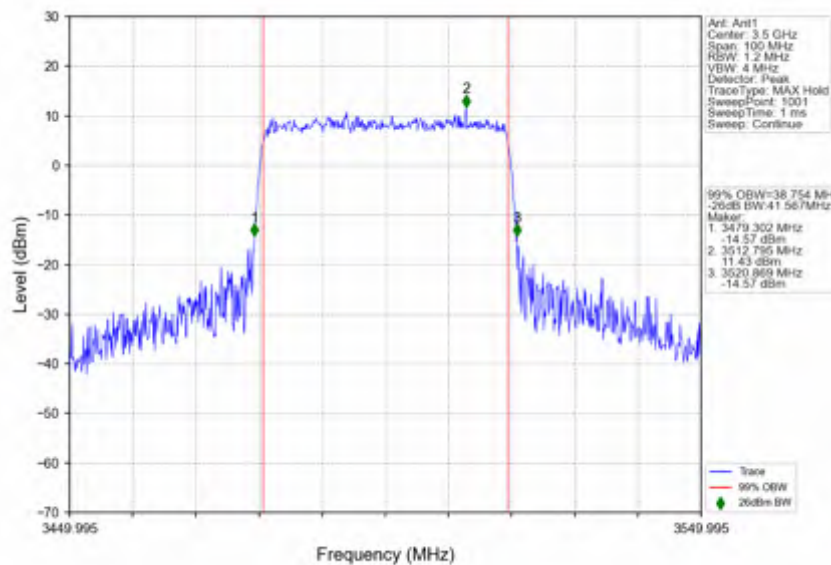
No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学院创业园伟业路18号 邮编 215300

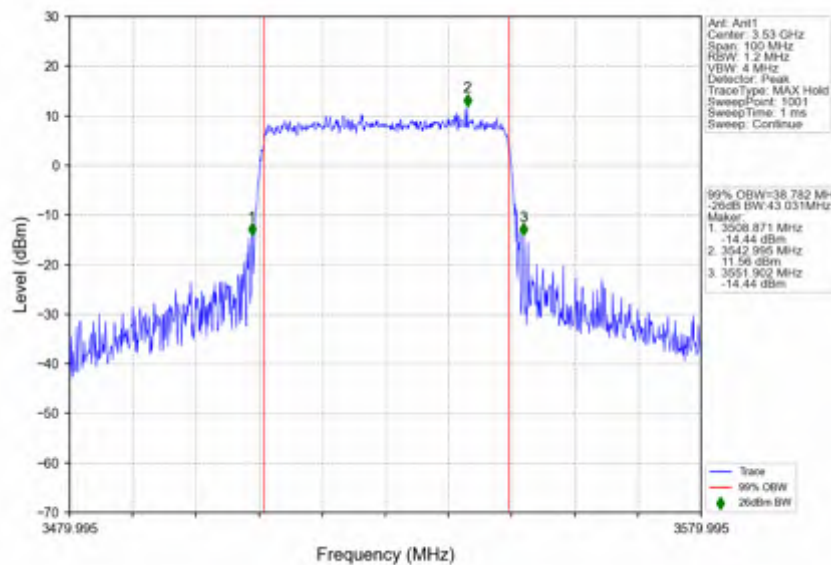
086-51257350888 086-51257370011 www.sgs.com.cn

086-51257350888 086-51257370011 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_40MHz_CP-OFDM_64_QAM_3499.995MHz_Outer_Full



n78e_15kHz_SISO_NTNV_40MHz_CP-OFDM_64_QAM_3529.995MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at sgs@sgs.com or sgs@sgs.com or sgs@sgs.com.

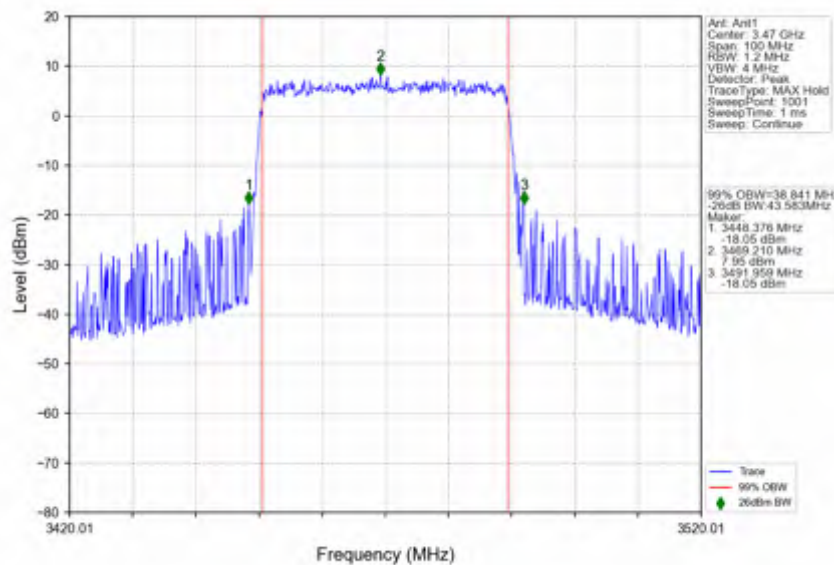
No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学生创业园伟业路10号 邮编 215300

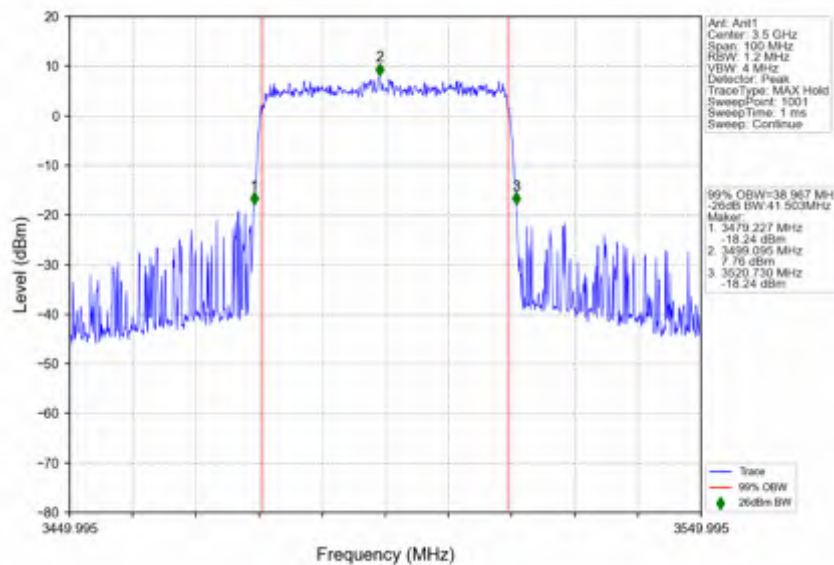
0512-57350888 0512-57370910 www.sgs.com.cn

0512-57350883 0512-57370911 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_40MHz_CP-OFDM_256_QAM_3470.01MHz_Outer_Full



n78e_15kHz_SISO_NTNV_40MHz_CP-OFDM_256_QAM_3499.995MHz_Outer_Full

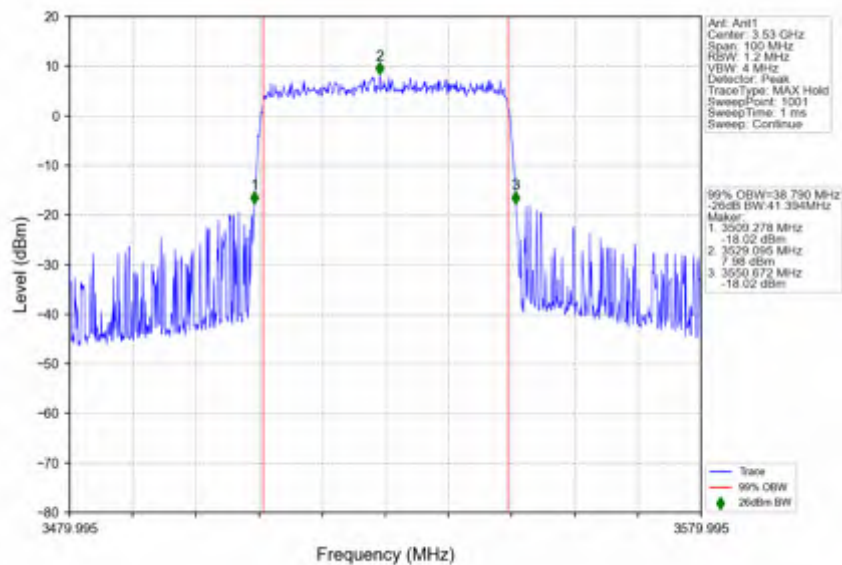


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed herein, available on request or accessible at <http://www.ags.com/en/Terms-and-Conditions.aspx> and, for electronic formal documents, subject to Terms and Conditions. Electronic Documents at <http://www.ags.com/en/Terms-and-Conditions.aspx> are a document especially drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated, the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

中国·江苏·昆山市留學生创业园伟业路10号 邮编 215300

086-5125735688 086-5125737000 www.sgsigroup.com.cn
086-5125735688 086-5125737000 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_40MHz_CP-OFDM_256_QAM_3529.995MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.egg.com.au/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.egg.com.au/Terms-and-Conditions/Terms-a-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced, in whole or in part, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this last report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing inspection report & certificate, please contact us at telephone: (853)52997722 or email: CHD@eggcheck.com.hk

中国·江苏·昆山市留学院创业园伟业路10号 邮编 215300

086-5125735688 086-5125737000 www.sgsgroup.com.cn
086-5125735688 086-5125737000 sgs.china@sgs.com

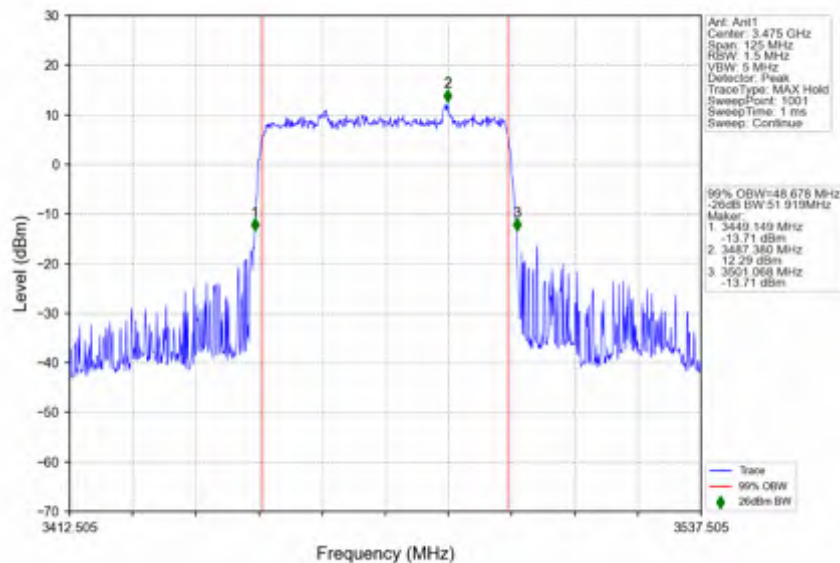
9.7 15k_SISO_50MHz_NTNV

9.7.1 Test Result

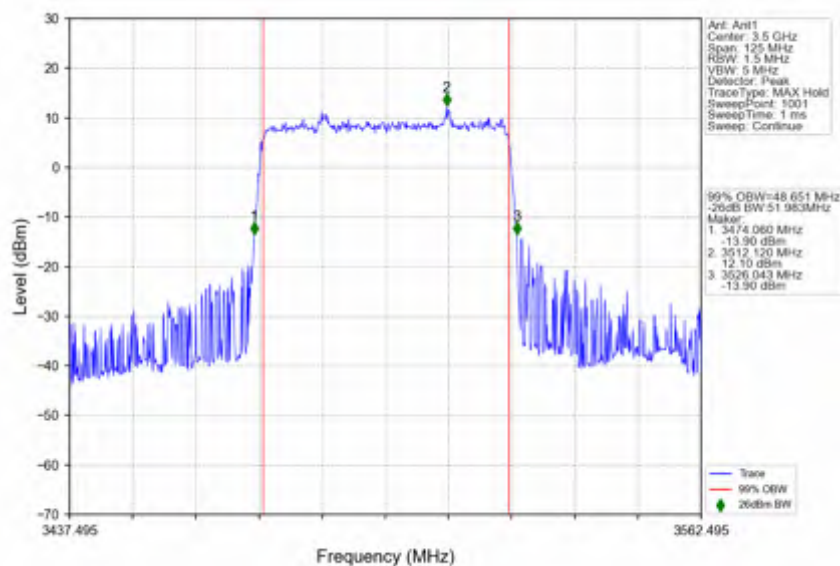
5G NR n78e SCS=15kHz SISO 50MHz NTN						
Modulation	Frequency (MHz)	RB Allocation	99% Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
DFT-s-OFDM PI/2 BPSK	3475.005	Outer_Full	48.68	51.92	/	Pass
	3499.995	Outer_Full	48.65	51.98	/	Pass
	3525	Outer_Full	48.70	51.83	/	Pass
DFT-s-OFDM QPSK	3475.005	Outer_Full	48.44	52.09	/	Pass
	3499.995	Outer_Full	48.47	51.90	/	Pass
	3525	Outer_Full	48.47	51.84	/	Pass
DFT-s-OFDM 16 QAM	3475.005	Outer_Full	48.57	52.27	/	Pass
	3499.995	Outer_Full	48.61	52.31	/	Pass
	3525	Outer_Full	48.48	51.86	/	Pass
DFT-s-OFDM 64 QAM	3475.005	Outer_Full	48.50	52.06	/	Pass
	3499.995	Outer_Full	48.51	51.93	/	Pass
	3525	Outer_Full	48.51	51.83	/	Pass
DFT-s-OFDM 256 QAM	3475.005	Outer_Full	48.74	52.80	/	Pass
	3499.995	Outer_Full	48.61	51.96	/	Pass
	3525	Outer_Full	48.57	52.17	/	Pass
CP-OFDM QPSK	3475.005	Outer_Full	48.56	51.83	/	Pass
	3499.995	Outer_Full	48.64	56.23	/	Pass
	3525	Outer_Full	48.60	52.03	/	Pass
CP-OFDM 16 QAM	3475.005	Outer_Full	48.70	53.02	/	Pass
	3499.995	Outer_Full	48.65	52.70	/	Pass
	3525	Outer_Full	48.56	51.93	/	Pass
CP-OFDM 64 QAM	3475.005	Outer_Full	48.47	51.82	/	Pass
	3499.995	Outer_Full	48.51	52.33	/	Pass
	3525	Outer_Full	48.41	51.75	/	Pass
CP-OFDM 256 QAM	3475.005	Outer_Full	48.59	52.82	/	Pass
	3499.995	Outer_Full	48.56	52.14	/	Pass
	3525	Outer_Full	48.60	51.77	/	Pass

9.7.2 Test Graph

n78e_15kHz_SISO_NTNV_50MHz_DFT-s-OFDM_PI/2_BPSK_3475.005MHz_Outer_Full



n78e_15kHz_SISO_NTNV_50MHz_DFT-s-OFDM_PI/2_BPSK_3499.995MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing report and certificate, please connect us at sgs@sgs.com (86-512)57370011 or email: CN-Check@sgs.com.

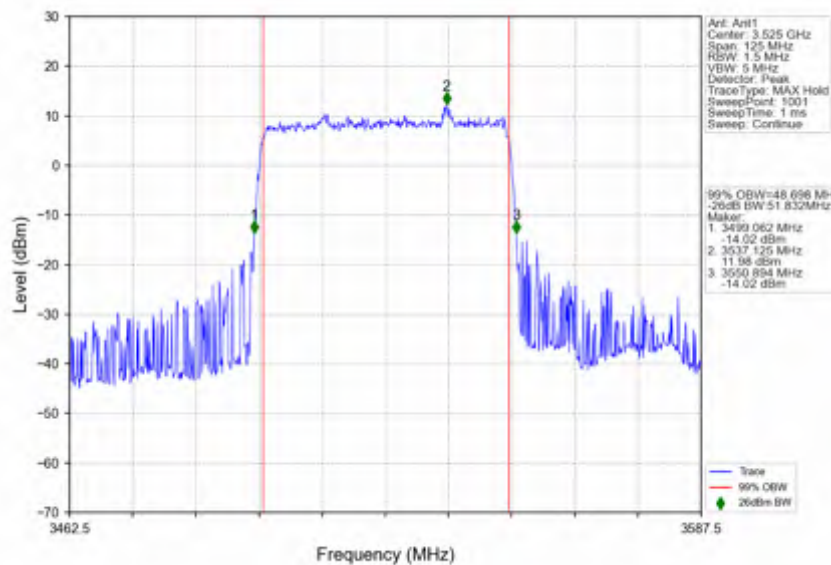
No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学院创业园伟业路18号 邮编 215300

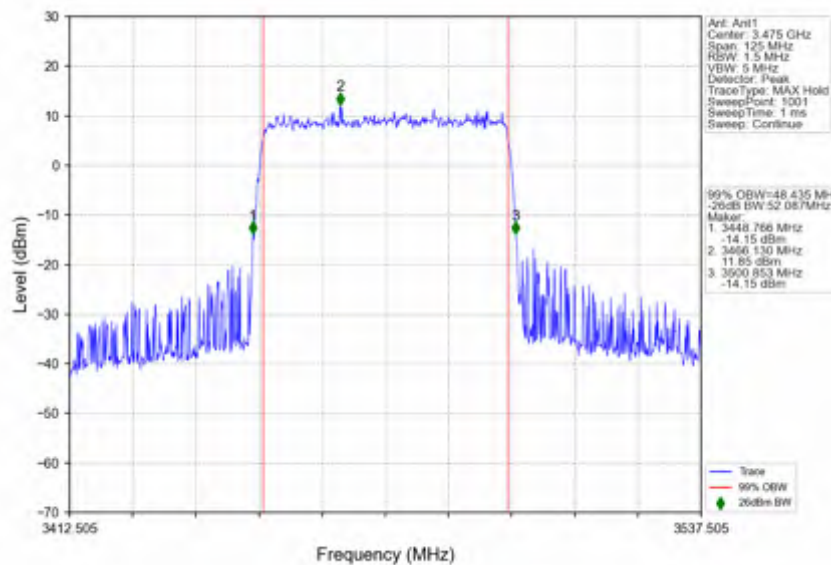
0086-51257350888 006-51257370011 www.sgs.com.cn

0086-51257350888 006-51257370011 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_50MHz_DFT-s-OFDM_PI/2_BPSK_3525MHz_Outer_Full



n78e_15kHz_SISO_NTNV_50MHz_DFT-s-OFDM_QPSK_3475.005MHz_Outer_Full

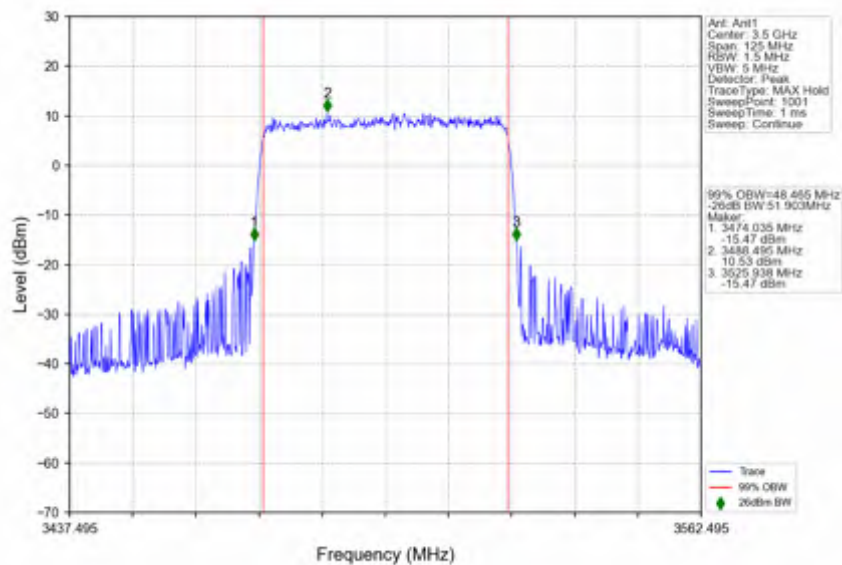


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed hereon, available on request or accessible at <http://www.egg.com.au/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.egg.com.au/terms-and-conditions/Terms-a-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is deemed to have accepted the terms and conditions of the General Conditions of Service and the limitation of liability set out in the Client's Instructions. If any, The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

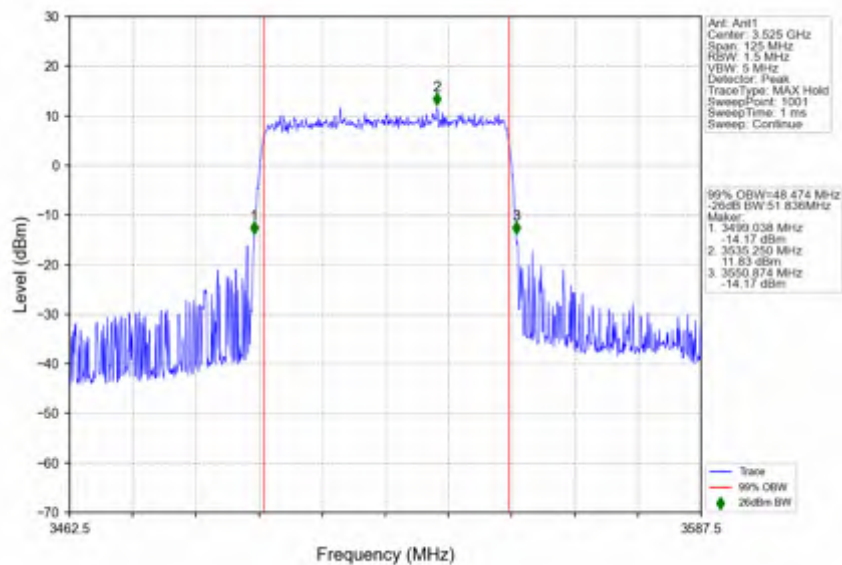
中国·江苏·昆山市周庄学生创业园伟业路10号 邮编 215300

86-5125735688 86-5125737011 www.sgs-group.com.cn
86-5125735688 86-5125737011 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_50MHz_DFT-s-OFDM QPSK_3499.995MHz_Outer_Full



n78e_15kHz_SISO_NTNV_50MHz_DFT-s-OFDM QPSK_3525MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at sgs@sgs.com or sgs@sgs.com or sgs@sgs.com.

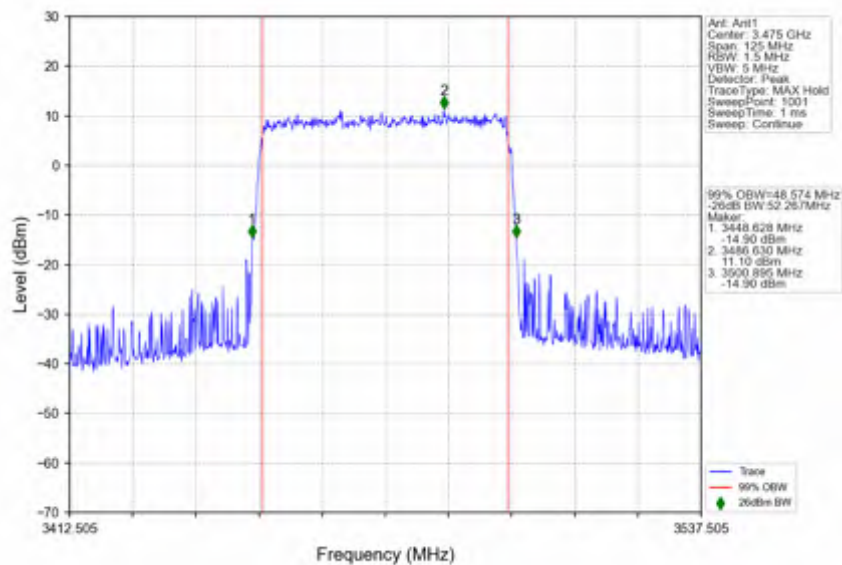
No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学生创业园伟业路18号 邮编 215300

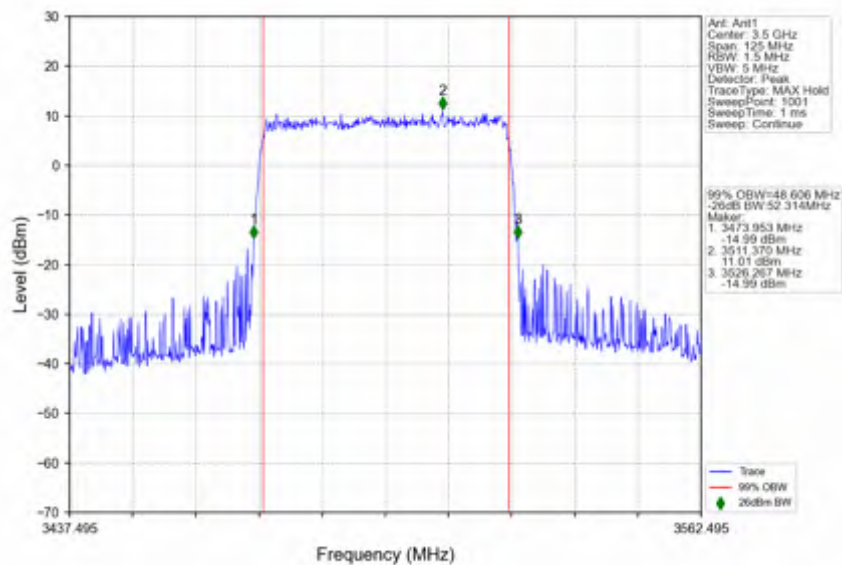
0512-51273700 0512-51273701 www.sgs.com.cn

0512-5127350003 0512-5127370011 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_50MHz_DFT-s-OFDM_16_QAM_3475.005MHz_Outer_Full



n78e_15kHz_SISO_NTNV_50MHz_DFT-s-OFDM_16_QAM_3499.995MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing report or certificate, please connect us at sgs@sgs.com or sgs@sgs.com or sgs@sgs.com.

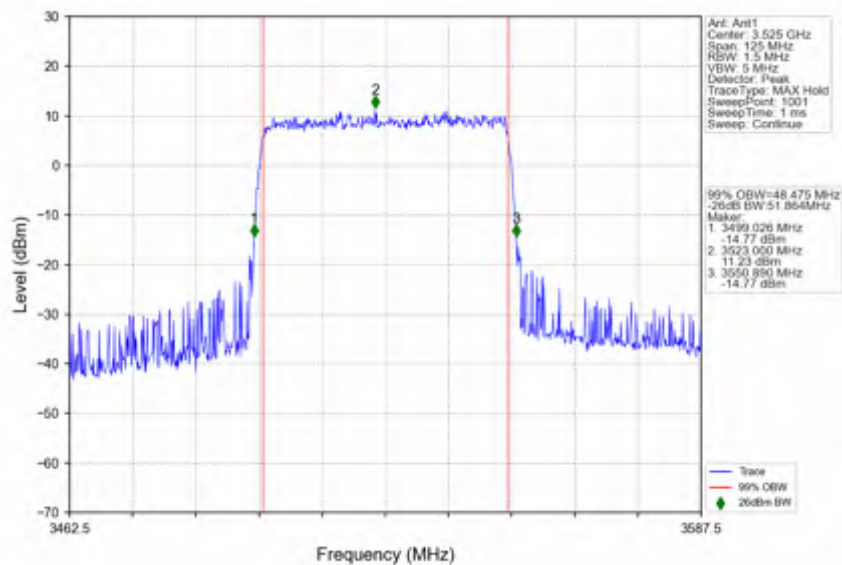
No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学院创业园伟业路18号 邮编 215300

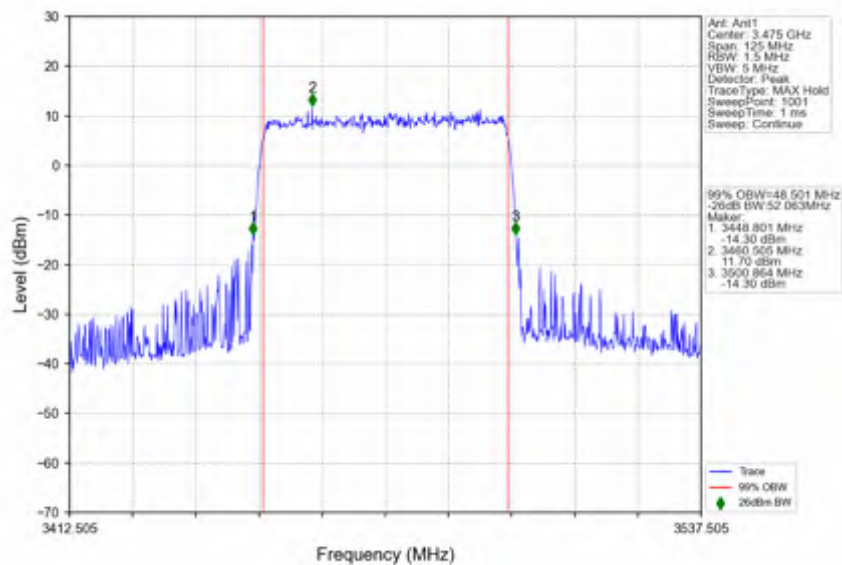
0512-51257350888 0512-5125737010 www.sgs.com.cn

0512-51257350888 0512-5125737010 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_50MHz_DFT-s-OFDM_16_QAM_3525MHz_Outer_Full



n78e_15kHz_SISO_NTNV_50MHz_DFT-s-OFDM_64_QAM_3475.005MHz_Outer_Full

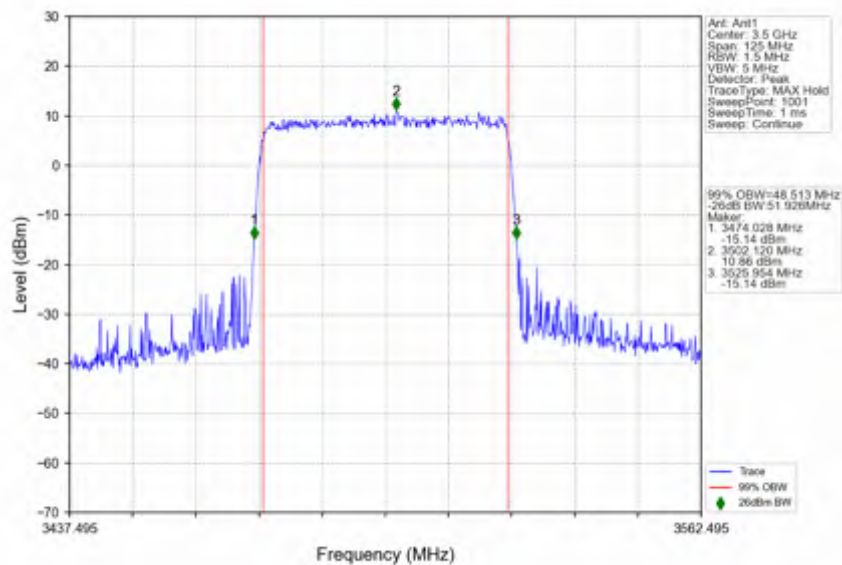


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.usc.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.usc.com/en/Terms-and-Conditions/Terms-a-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of its liability. The Company does not accept any responsibility for the accuracy or completeness of the information or for any loss or transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this last report refer only in the sample(s) tested and such sample(s) are retained for 30 days only.

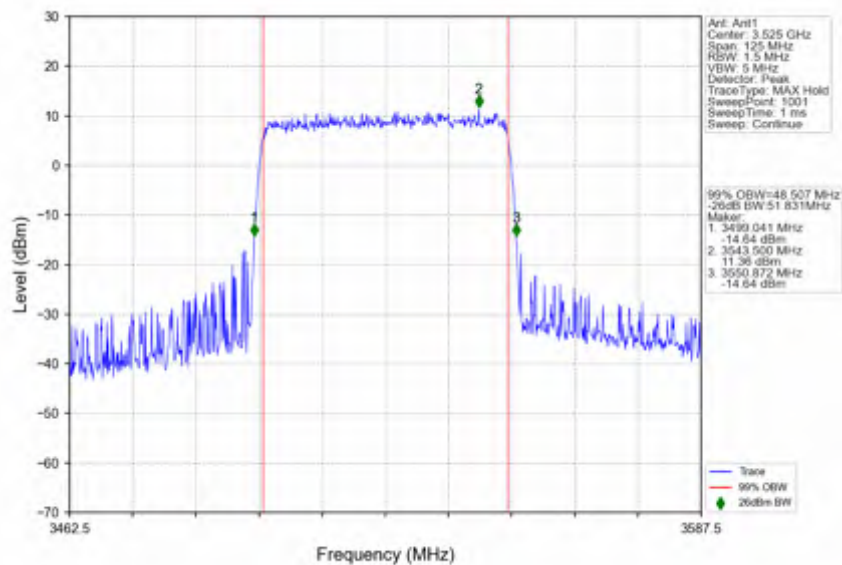
中国·江苏·昆山市留學生创业园伟业路10号 邮编 215300

086-5125735688 086-5125737000 www.sgsigroup.com.cn
086-5125735688 086-5125737000 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_50MHz_DFT-s-OFDM 64 QAM_3499.995MHz_Outer_Full



n78e_15kHz_SISO_NTNV_50MHz_DFT-s-OFDM 64 QAM_3525MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overall, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at sgs@sgs.com or CN-Check@sgs.com.

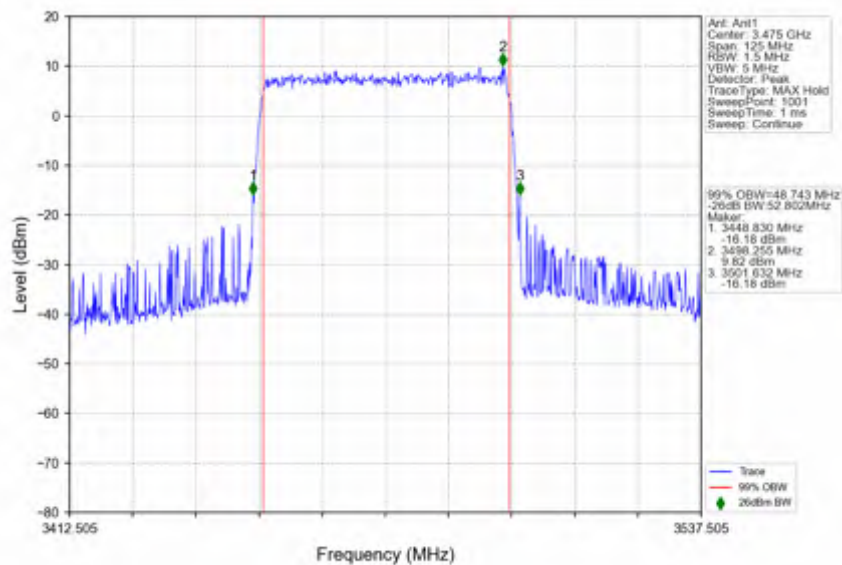
No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学生创业园伟业路18号 邮编 215300

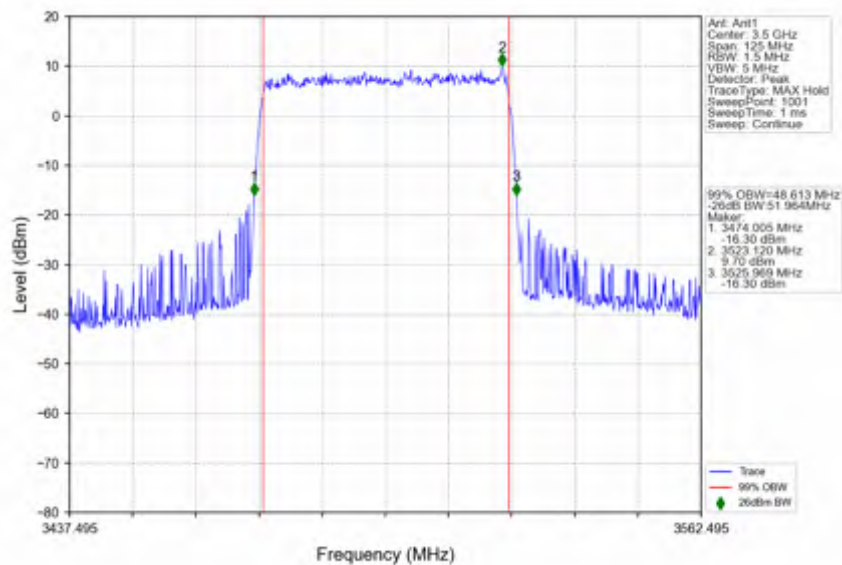
0512-51273700 0512-51273701 www.sgs.com.cn

0512-5127350003 0512-5127370011 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_50MHz_DFT-s-OFDM 256 QAM_3475.005MHz_Outer_Full



n78e_15kHz_SISO_NTNV_50MHz_DFT-s-OFDM 256 QAM_3499.995MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated, the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing report & certificate, please connect us at sgs@sgs.com or sgs@sgs.com or sgs@sgs.com.

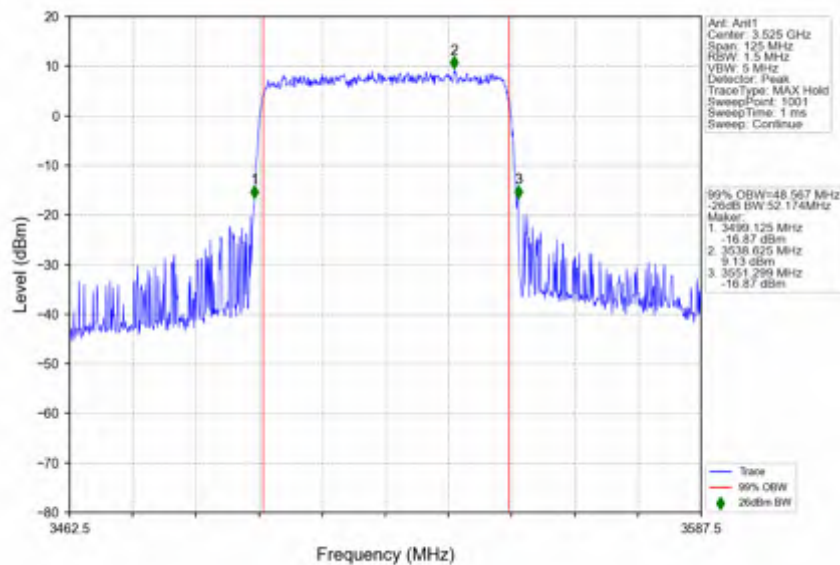
No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学院创业园伟业路18号 邮编 215300

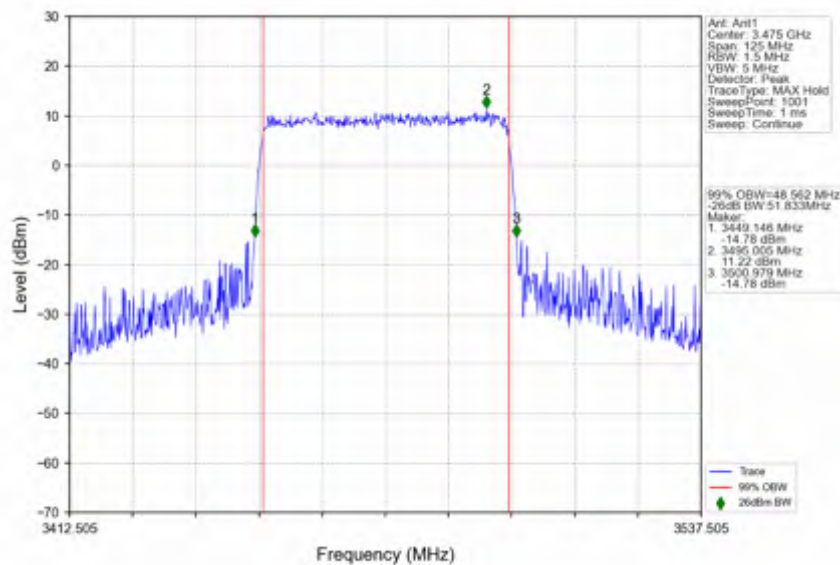
0512-57350888 0512-57370910 www.sgs.com.cn

0512-57350883 0512-57370911 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_50MHz_DFT-s-OFDM_256_QAM_3525MHz_Outer_Full



n78e_15kHz_SISO_NTNV_50MHz_CP-OFDM_QPSK_3475.005MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated, the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at sgs@sgs.com or sgs@sgs.com or email: CN-Online@sgs.com.

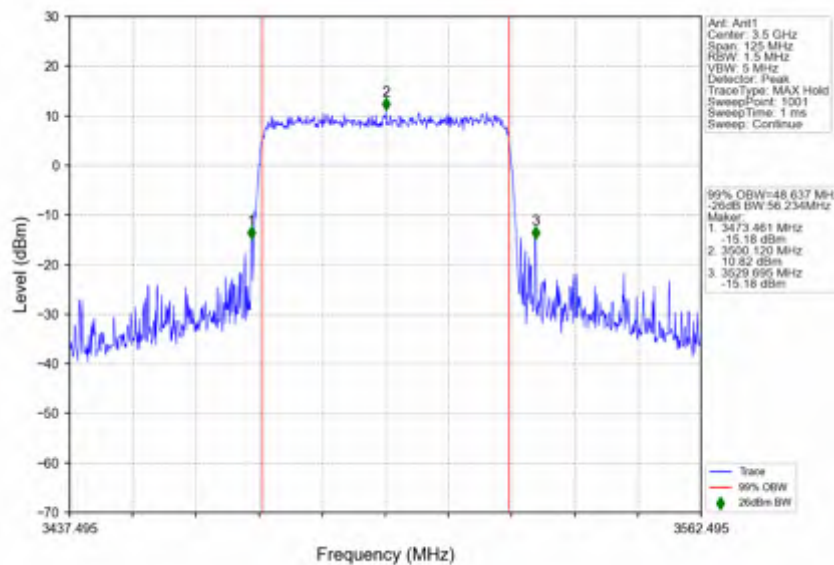
No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学院创业园伟业路18号 邮编 215300

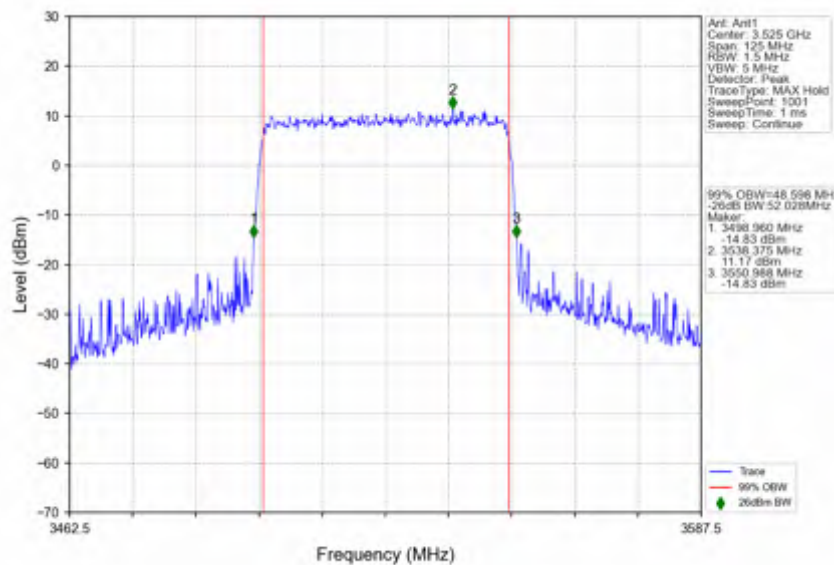
0512-5125735088 0512-5125737010 www.sgs.com.cn

0512-5125735088 0512-5125737010 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_50MHz_CP-OFDM QPSK_3499.995MHz_Outer_Full



n78e_15kHz_SISO_NTNV_50MHz_CP-OFDM QPSK_3525MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overall, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at sgs@sgs.com or CN-Check@sgs.com.

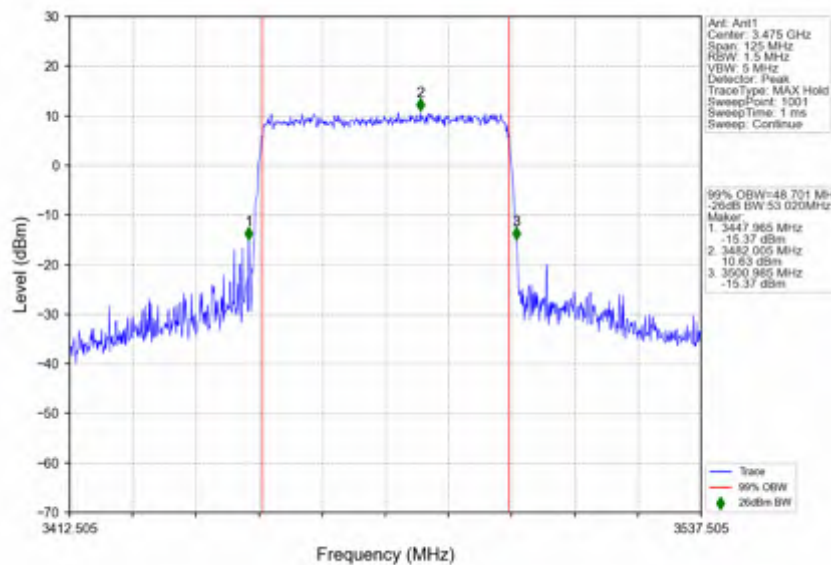
No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学生创业园伟业路18号 邮编 215300

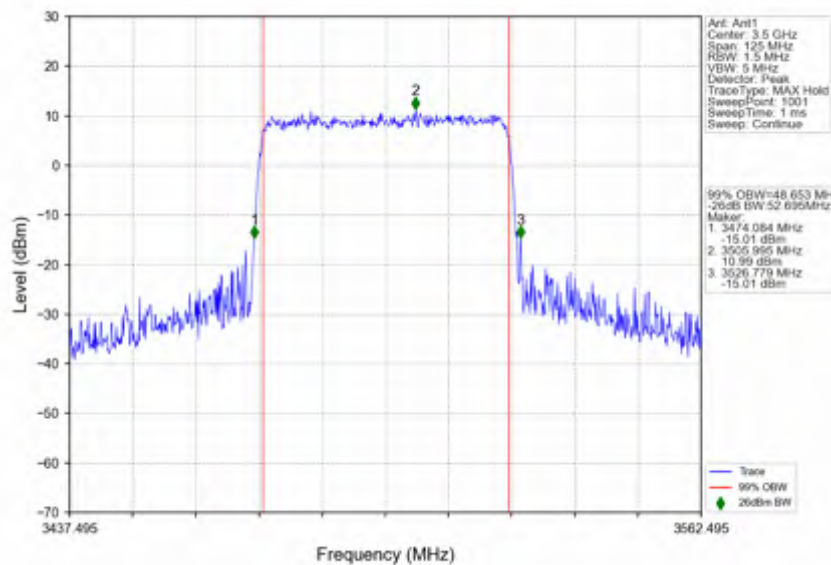
0512-51273700 0512-51273701 www.sgs.com.cn

0512-5127350003 0512-5127370011 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_50MHz_CP-OFDM_16_QAM_3475.005MHz_Outer_Full



n78e_15kHz_SISO_NTNV_50MHz_CP-OFDM_16_QAM_3499.995MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at sgs@sgs.com or sgs@sgs.com or sgs@sgs.com.

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

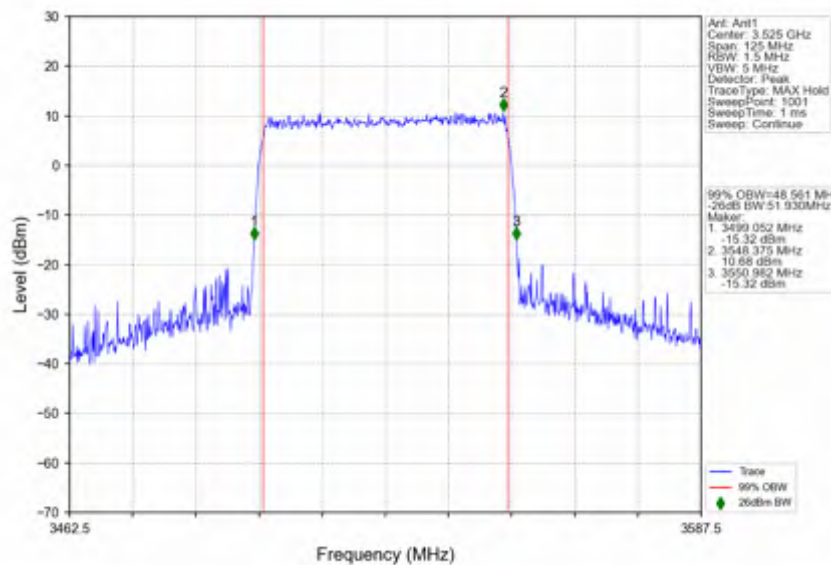
中国·江苏·昆山市留学生创业园伟业路10号 邮编 215300

0512-51257370 0512-51257370 0512-51257370 0512-51257370

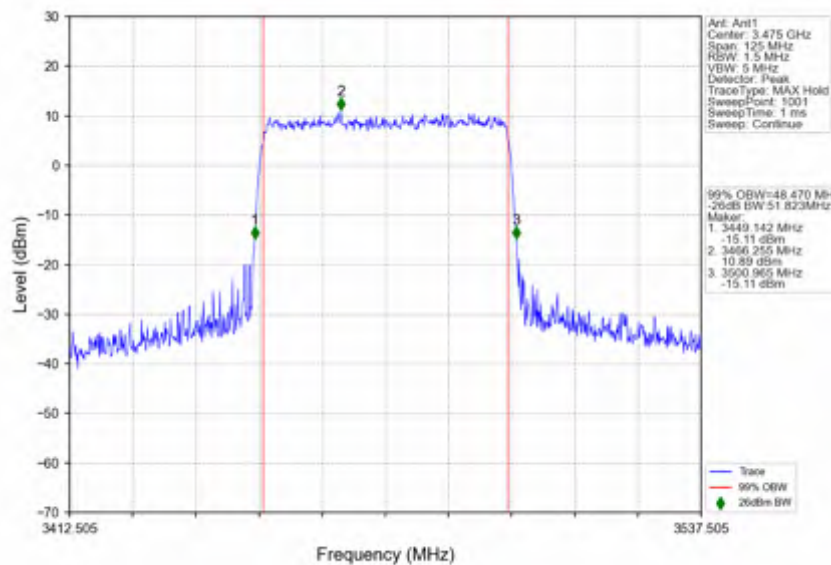
0512-51257370 0512-51257370 0512-51257370 0512-51257370

www.sgs.com.cn sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_50MHz_CP-OFDM_16 QAM_3525MHz_Outer_Full



n78e_15kHz_SISO_NTNV_50MHz_CP-OFDM_64 QAM_3475.005MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at sgs@sgs.com or sgs@sgs.com or sgs@sgs.com.

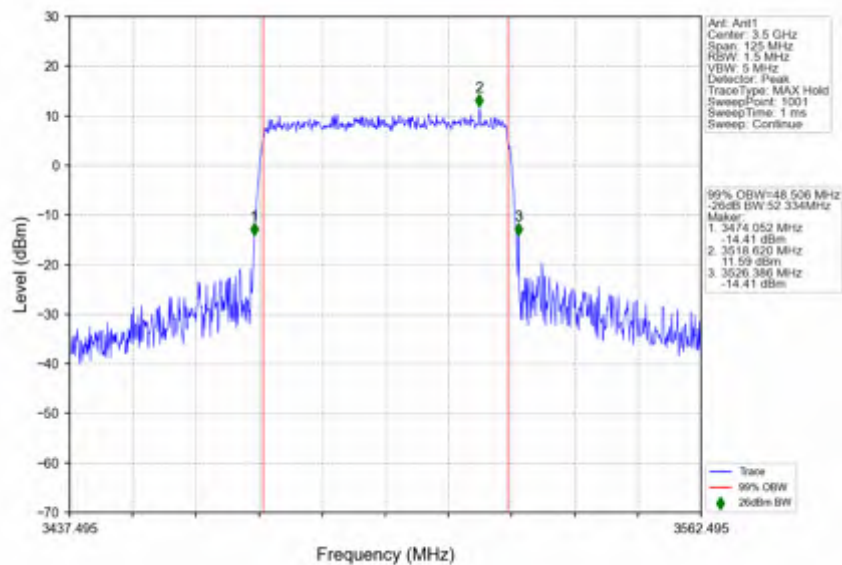
No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学生创业园伟业路10号 邮编 215300

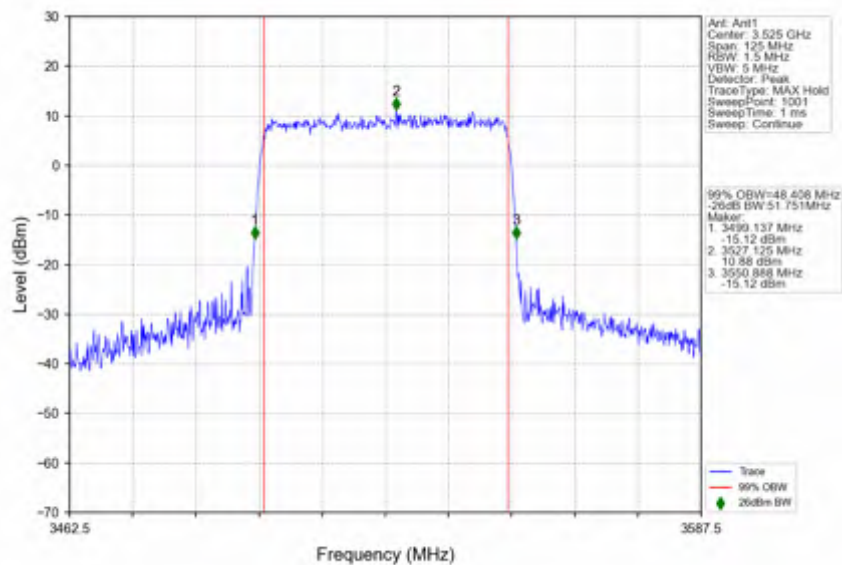
0512-57350888 0512-57370910 www.sgs.com.cn

0512-57350883 0512-57370911 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_50MHz_CP-OFDM 64 QAM_3499.995MHz_Outer_Full



n78e_15kHz_SISO_NTNV_50MHz_CP-OFDM 64 QAM_3525MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overall, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at sgs@sgs.com or CN-Check@sgs.com.

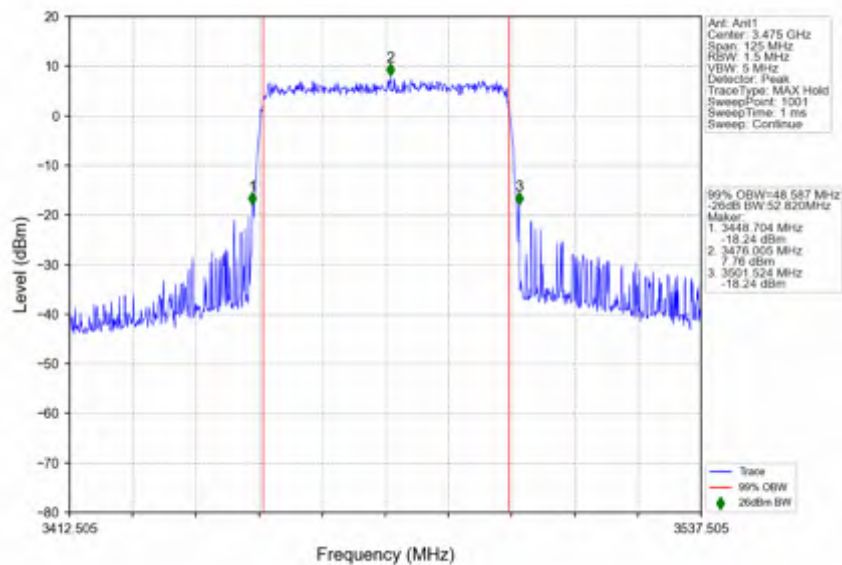
No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学生创业园伟业路18号 邮编 215300

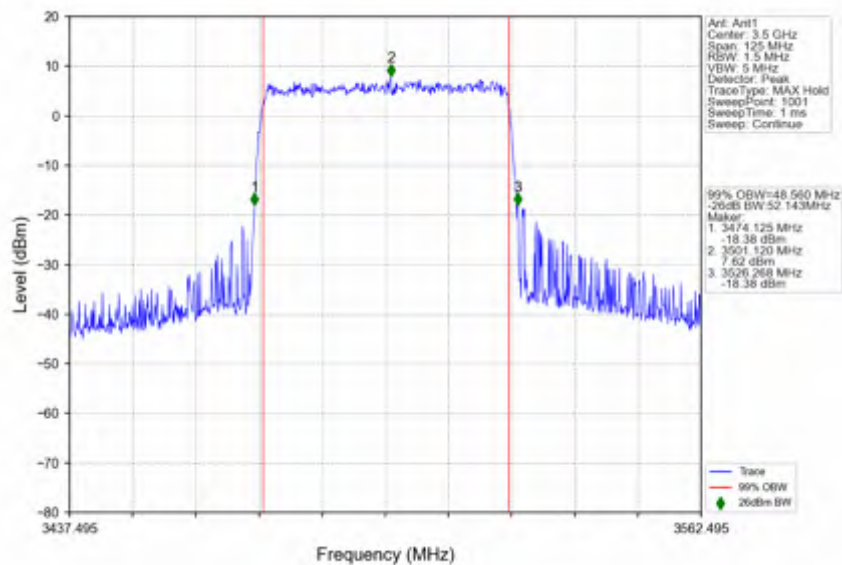
0512-51257370/0088 0512-51257370/01 www.sgs.com.cn

0512-51257350/0088 0512-51257370/01 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_50MHz_CP-OFDM_256_QAM_3475.005MHz_Outer_Full



n78e_15kHz_SISO_NTNV_50MHz_CP-OFDM_256_QAM_3499.995MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated, the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing report & certificate, please connect us at sgs@sgs.com or sgs@sgs.com or sgs@sgs.com.

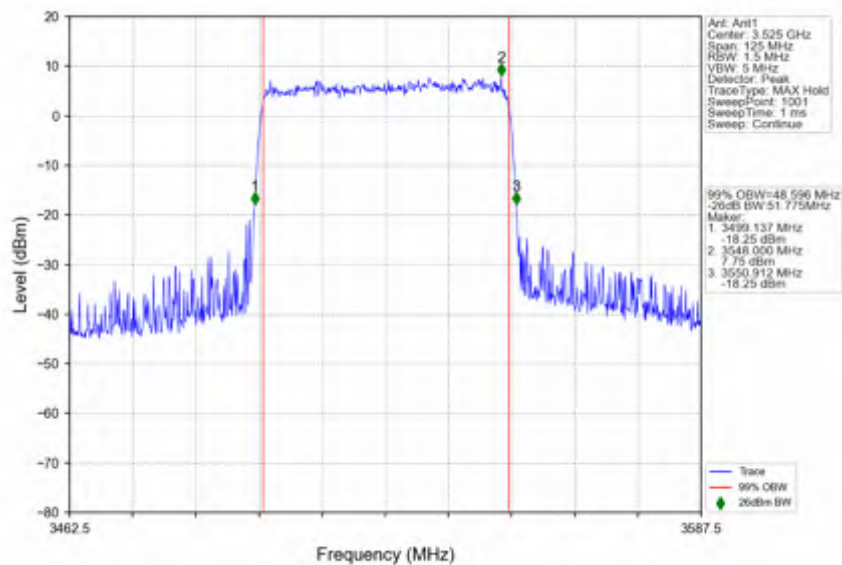
No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学院创业园伟业路18号 邮编 215300

0512-5125735088 0512-5125737010 www.sgs.com.cn

0512-5125735088 0512-5125737010 sgs.china@sgs.com

n78e_15kHz_SISO_NTNV_50MHz_CP-OFDM_256_QAM_3525MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing report and certificates, please connect us at telephone: (86-512) 57370011 or email: CN-Online@sgs.com.

No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学院创业园伟业路18号 邮编 215300

(86-512) 57350888 (86-512) 57370011 www.sgs.com.cn

(86-512) 57350883 (86-512) 57370011 sgs.china@sgs.com

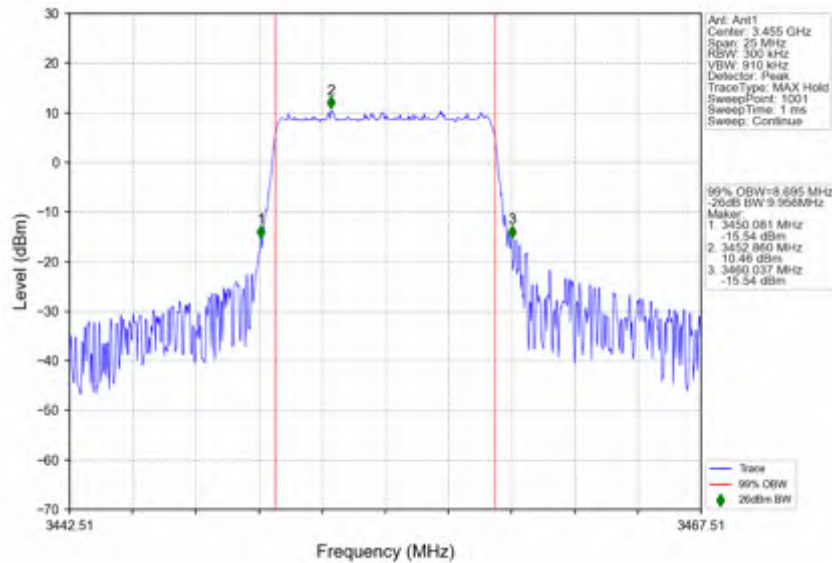
9.8 30k_SISO_10MHz_NTNV

9.8.1 Test Result

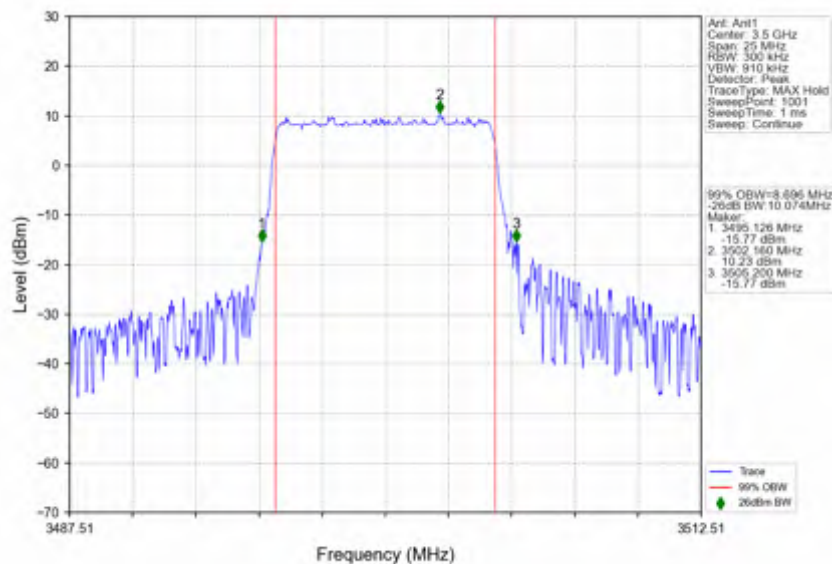
5G NR n78e SCS=30kHz SISO 10MHz NTN						
Modulation	Frequency (MHz)	RB Allocation	99% Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
DFT-s-OFDM PI/2 BPSK	3455.01	Outer_Full	8.70	9.96	/	Pass
	3500.01	Outer_Full	8.70	10.07	/	Pass
	3544.98	Outer_Full	8.70	10.07	/	Pass
DFT-s-OFDM QPSK	3455.01	Outer_Full	8.74	9.70	/	Pass
	3500.01	Outer_Full	8.70	9.76	/	Pass
	3544.98	Outer_Full	8.70	9.76	/	Pass
DFT-s-OFDM 16 QAM	3455.01	Outer_Full	8.68	9.78	/	Pass
	3500.01	Outer_Full	8.67	9.71	/	Pass
	3544.98	Outer_Full	8.66	9.77	/	Pass
DFT-s-OFDM 64 QAM	3455.01	Outer_Full	8.72	9.79	/	Pass
	3500.01	Outer_Full	8.72	9.72	/	Pass
	3544.98	Outer_Full	8.67	9.78	/	Pass
DFT-s-OFDM 256 QAM	3455.01	Outer_Full	8.73	9.76	/	Pass
	3500.01	Outer_Full	8.72	9.86	/	Pass
	3544.98	Outer_Full	8.75	9.81	/	Pass
CP-OFDM QPSK	3455.01	Outer_Full	8.63	9.69	/	Pass
	3500.01	Outer_Full	8.64	9.59	/	Pass
	3544.98	Outer_Full	8.63	9.76	/	Pass
CP-OFDM 16 QAM	3455.01	Outer_Full	8.70	9.80	/	Pass
	3500.01	Outer_Full	8.69	9.71	/	Pass
	3544.98	Outer_Full	8.69	9.81	/	Pass
CP-OFDM 64 QAM	3455.01	Outer_Full	8.68	9.74	/	Pass
	3500.01	Outer_Full	8.69	9.70	/	Pass
	3544.98	Outer_Full	8.66	9.64	/	Pass
CP-OFDM 256 QAM	3455.01	Outer_Full	8.68	9.93	/	Pass
	3500.01	Outer_Full	8.67	9.76	/	Pass
	3544.98	Outer_Full	8.69	9.81	/	Pass

9.8.2 Test Graph

n78e_30kHz_SISO_NTNV_10MHz_DFT-s-OFDM PI/2 BPSK_3455.01MHz_Outer_Full



n78e_30kHz_SISO_NTNV_10MHz_DFT-s-OFDM PI/2 BPSK_3500.01MHz_Outer_Full

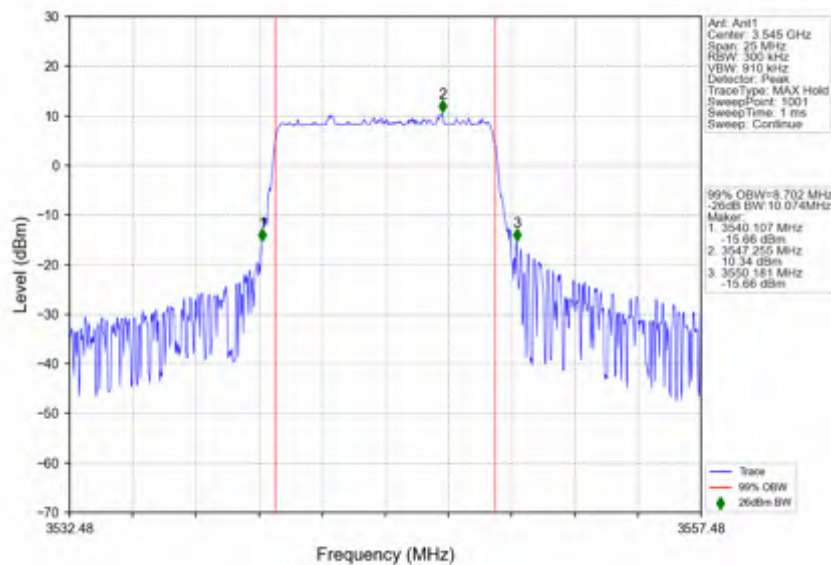


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

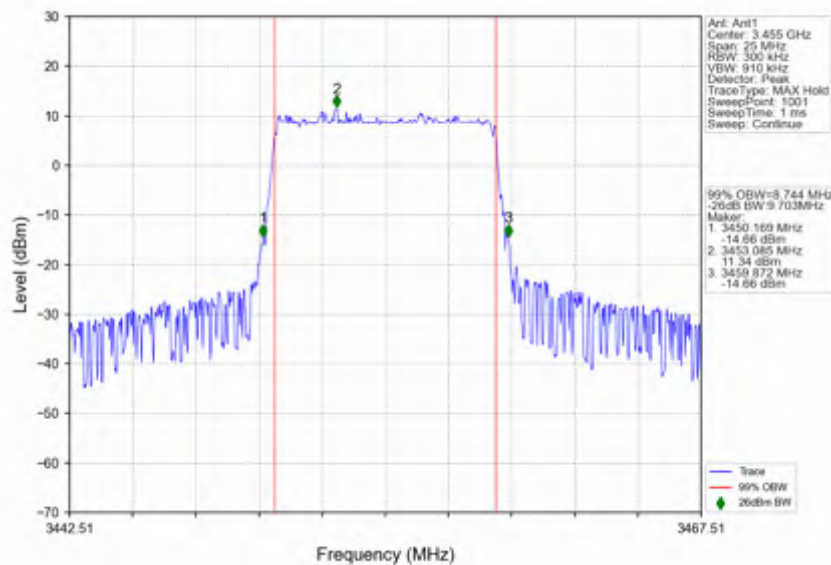
Attention: To check the authenticity of testing report and certificate, please connect us at sgs@sgs.com (86-512) 57370011 or email: CH.Official@sgs.com.
No. 10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300
中国·江苏·昆山市留学院创业园伟业路10号 邮编 215300

(86-512) 57350888 (86-512) 57370011 www.sgs.com.cn
(86-512) 57350883 (86-512) 57370011 sgs.china@sgs.com

n78e_30kHz_SISO_NTNV_10MHz_DFT-s-OFDM PI/2 BPSK_3544.98MHz_Outer_Full



n78e_30kHz_SISO_NTNV_10MHz_DFT-s-OFDM QPSK_3455.01MHz_Outer_Full

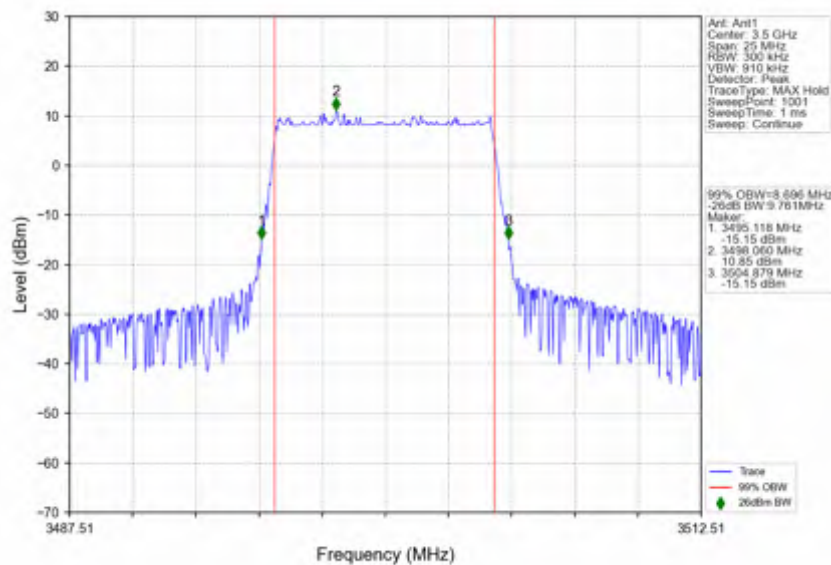


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overall, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

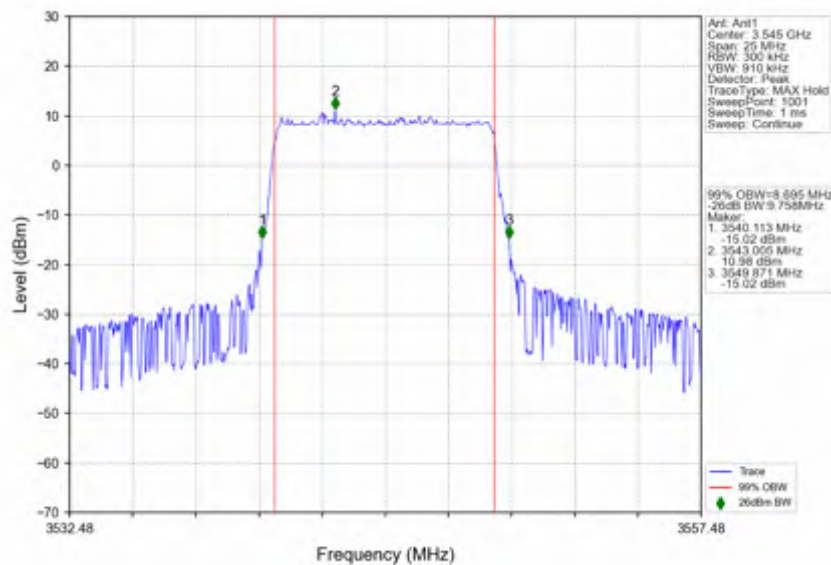
Attention: To check the authenticity of testing report or certificate, please connect us at telephone: (86-512) 57370011 or email: CH.Official@sgs.com.
No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300
中国·江苏·昆山市留学院创业园伟业路18号 邮编 215300

(86-512) 57350888 (86-512) 57370011 www.sgs.com.cn
(86-512) 57350883 (86-512) 57370011 sgs.china@sgs.com

n78e_30kHz_SISO_NTNV_10MHz_DFT-s-OFDM_QPSK_3500.01MHz_Outer_Full



n78e_30kHz_SISO_NTNV_10MHz_DFT-s-OFDM_QPSK_3544.98MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To Check the authenticity of testing report or certificate, please connect us at telephone: (86-512) 57370011 or email: CH.Official@sgs.com.

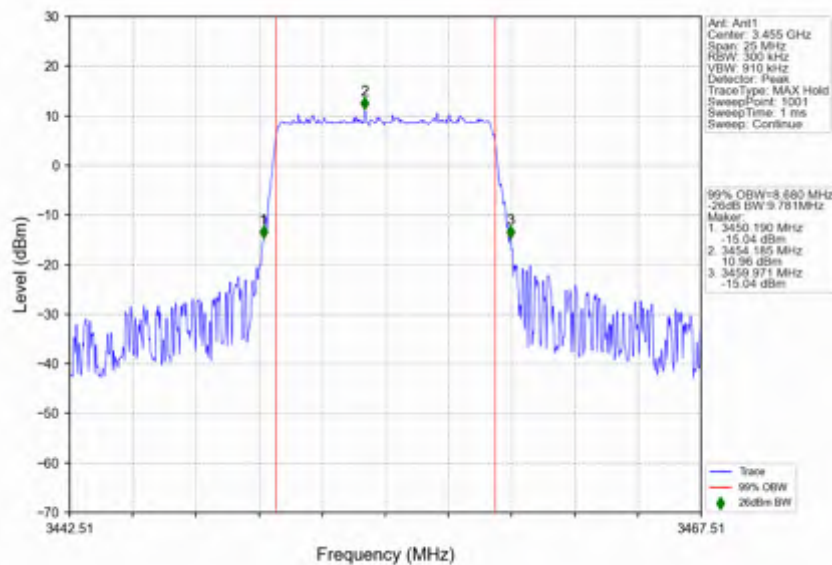
No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学院创业园伟业路18号 邮编 215300

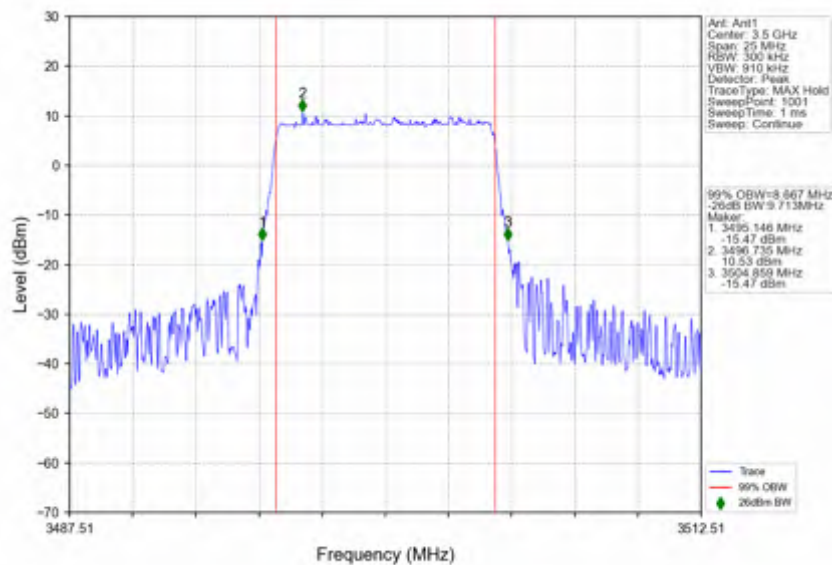
(86-512) 57350888 (86-512) 57370011 www.sgs.com.cn

(86-512) 57350883 (86-512) 57370011 sgs.china@sgs.com

n78e_30kHz_SISO_NTNV_10MHz_DFT-s-OFDM_16_QAM_3455.01MHz_Outer_Full



n78e_30kHz_SISO_NTNV_10MHz_DFT-s-OFDM_16_QAM_3500.01MHz_Outer_Full



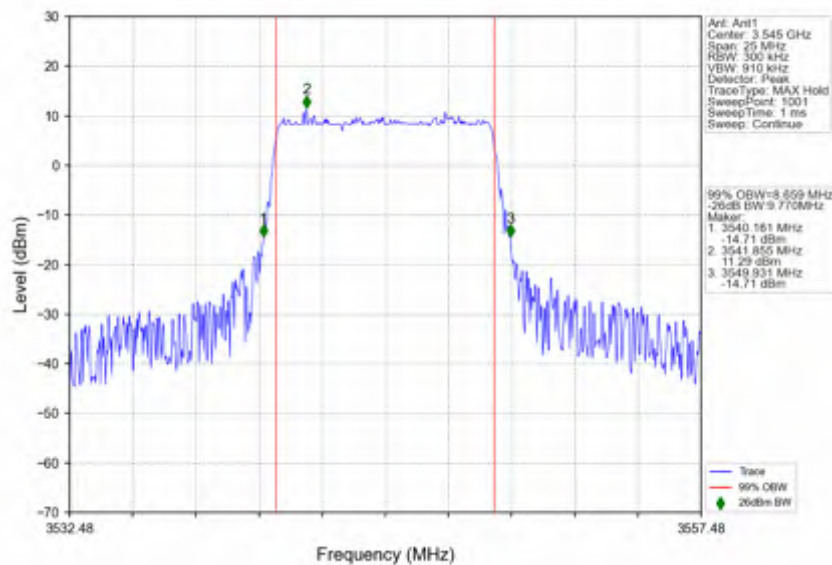
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at telephone: (86-512) 57370011 or email: CH.Official@sgs.com.

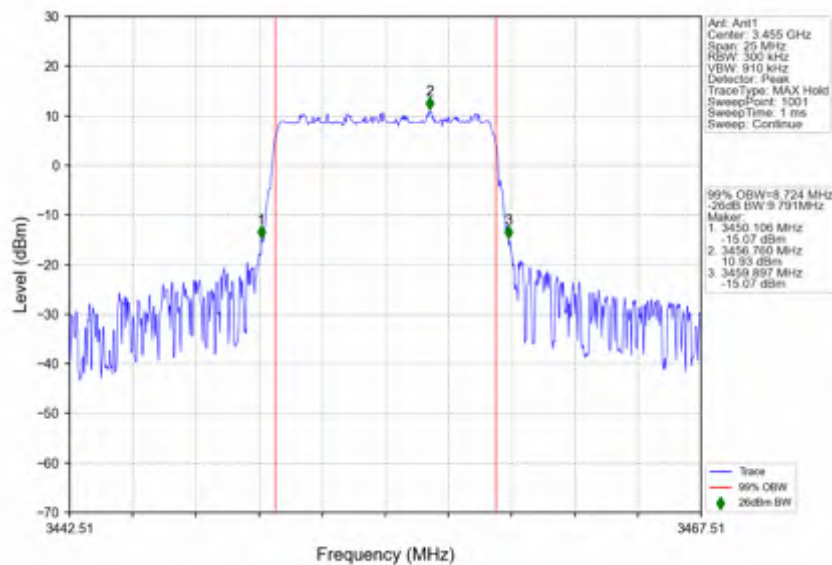
No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300
中国·江苏·昆山市留学院创业园伟业路18号 邮编 215300

(86-512) 57350888 (86-512) 57370011 www.sgs.com.cn
(86-512) 57350883 (86-512) 57370011 sgs.china@sgs.com

n78e_30kHz_SISO_NTNV_10MHz_DFT-s-OFDM 16 QAM_3544.98MHz_Outer_Full



n78e_30kHz_SISO_NTNV_10MHz_DFT-s-OFDM 64 QAM_3455.01MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification reports & certificates, please connect us at telephone: (86-512) 57370011 or email: CH.Official@sgs.com.

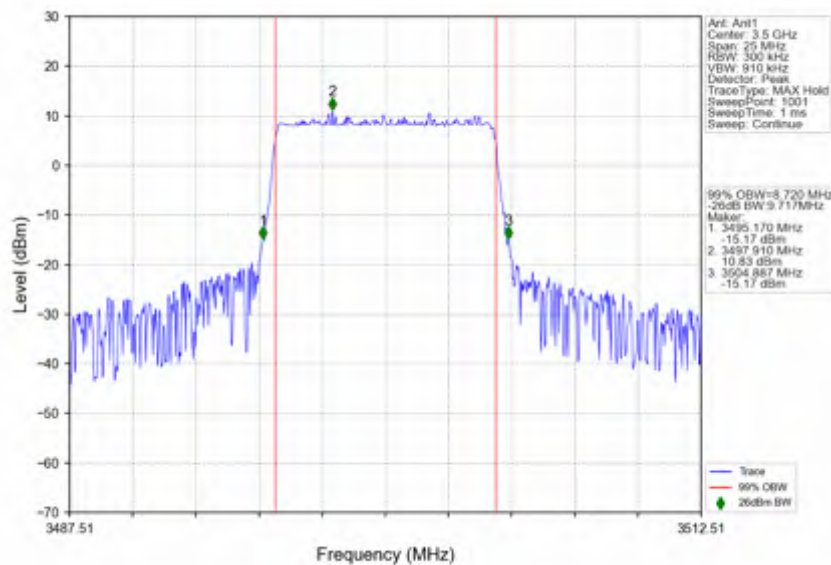
No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学生创业园伟业路10号 邮编 215300

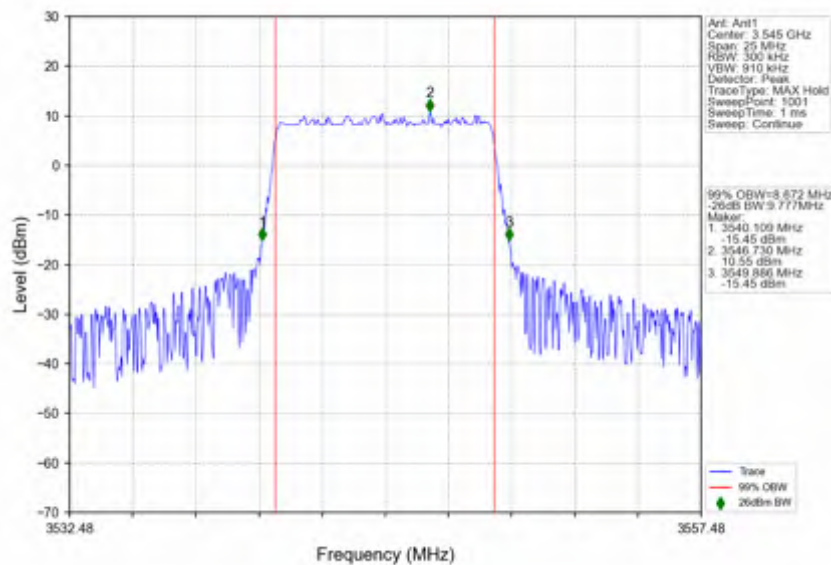
(86-512) 57350888 (86-512) 57370011 www.sgs.com.cn

(86-512) 57350883 (86-512) 57370011 sgs.china@sgs.com

n78e_30kHz_SISO_NTNV_10MHz_DFT-s-OFDM_64_QAM_3500.01MHz_Outer_Full



n78e_30kHz_SISO_NTNV_10MHz_DFT-s-OFDM_64_QAM_3544.98MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overall, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing report or certificate, please connect us at telephone: (86-512) 57370011 or email: CH.Official@sgs.com.

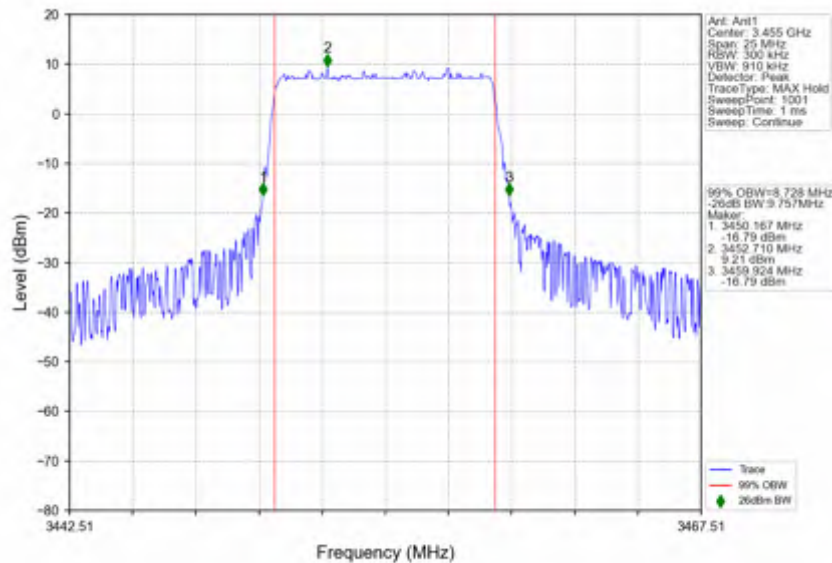
No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学生创业园伟业路10号 邮编 215300

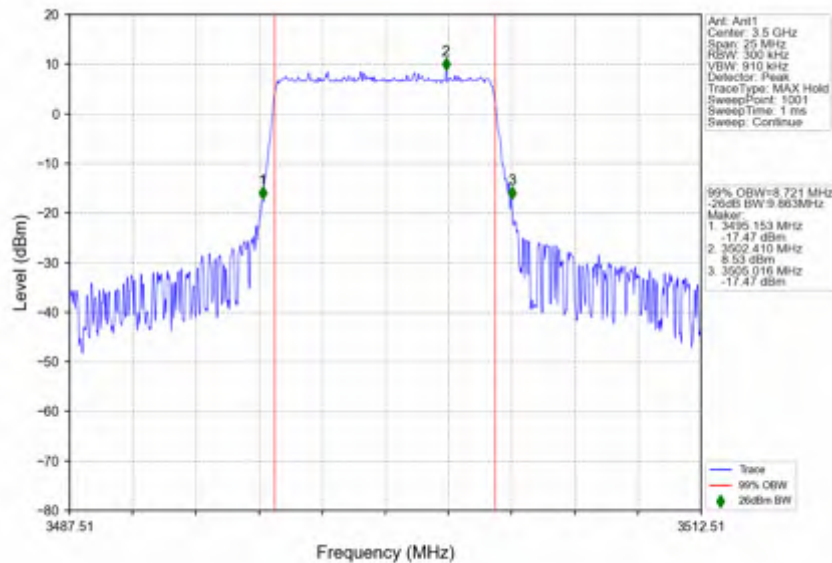
(86-512) 57350888 (86-512) 57370011 www.sgs.com.cn

(86-512) 57350883 (86-512) 57370011 sgs.china@sgs.com

n78e_30kHz_SISO_NTNV_10MHz_DFT-s-OFDM_256_QAM_3455.01MHz_Outer_Full



n78e_30kHz_SISO_NTNV_10MHz_DFT-s-OFDM_256_QAM_3500.01MHz_Outer_Full

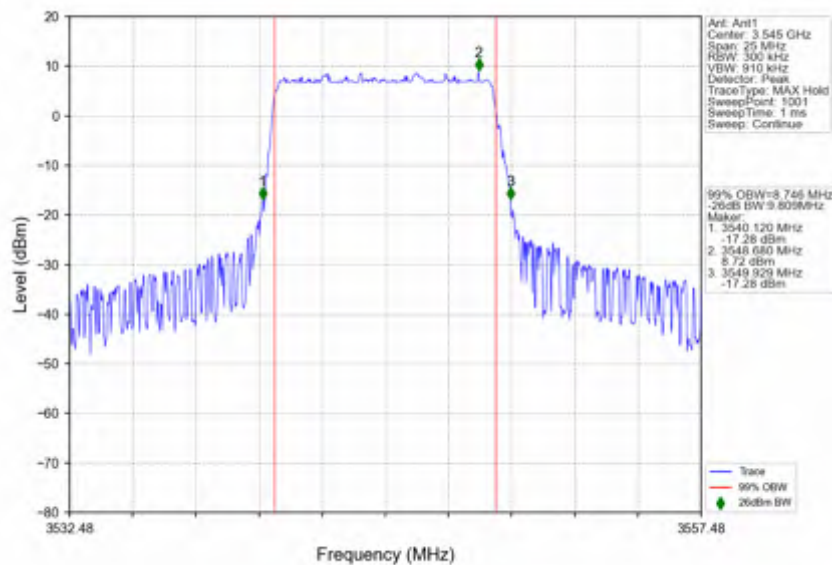


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overall, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

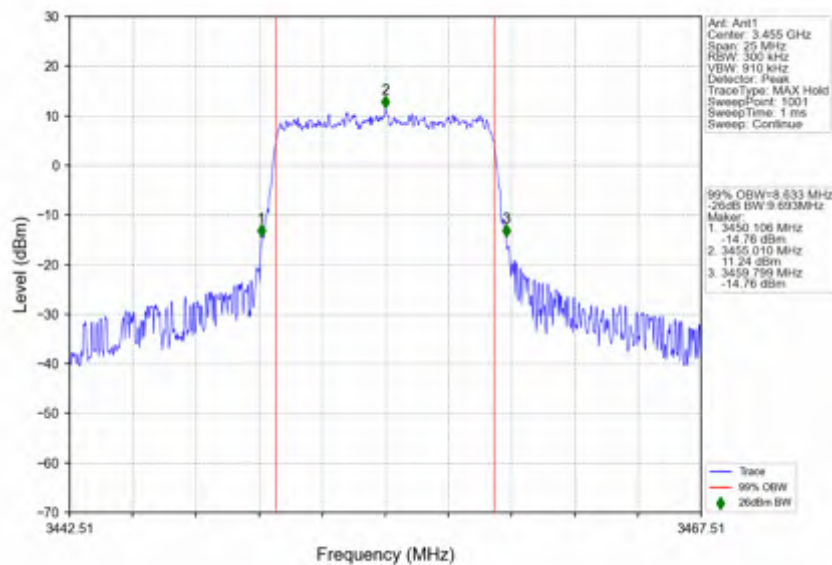
Attention: To check the authenticity of testing report or certificate, please connect us at telephone: (86-512) 57370011 or email: CH.Official@sgs.com.

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300
中国·江苏·昆山市留学院创业园伟业路10号 邮编 215300
(86-512) 57350888 (86-512) 57370011 www.sgs.com.cn
(86-512) 57350888 (86-512) 57370011 sgs.china@sgs.com

n78e_30kHz_SISO_NTNV_10MHz_DFT-s-OFDM_256_QAM_3544.98MHz_Outer_Full



n78e_30kHz_SISO_NTNV_10MHz_CP-OFDM_QPSK_3455.01MHz_Outer_Full



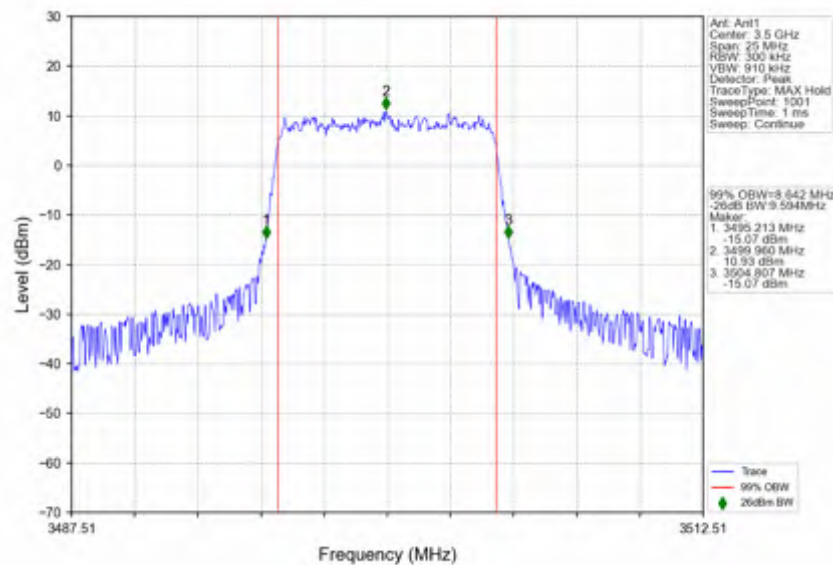
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overall, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at telephone: (86-512) 57370011 or email: CH.Official@sgs.com.

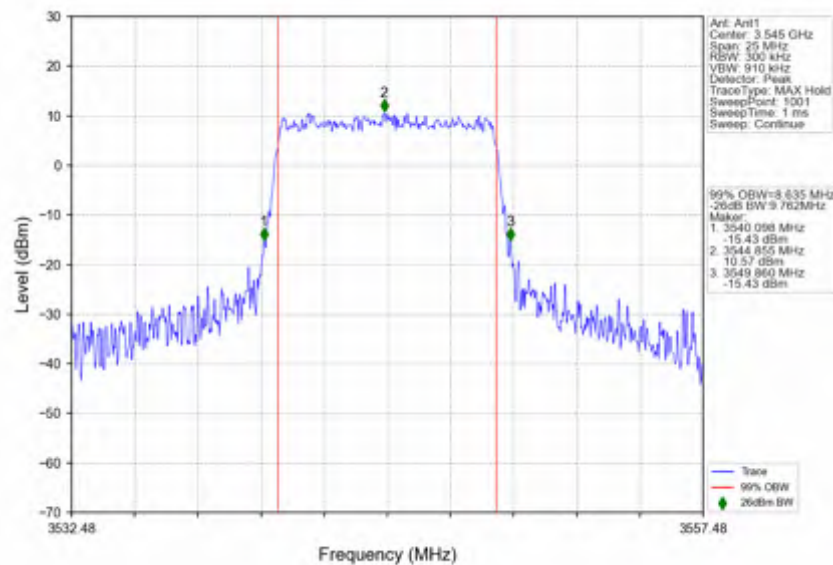
No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300
中国·江苏·昆山市留学院创业园伟业路10号 邮编 215300

(86-512) 57350888 (86-512) 57370011 www.sgs.com.cn
(86-512) 57350883 (86-512) 57370010 sgs.china@sgs.com

n78e_30kHz_SISO_NTNV_10MHz_CP-OFDM_QPSK_3500.01MHz_Outer_Full



n78e_30kHz_SISO_NTNV_10MHz_CP-OFDM_QPSK_3544.98MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To Check the authenticity of testing report or certificate, please connect us at telephone: (86-512) 57370011 or email: CH.Official@sgs.com.

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学院创业园伟业路10号 邮编 215300

(86-512) 57350888

(86-512) 57370011

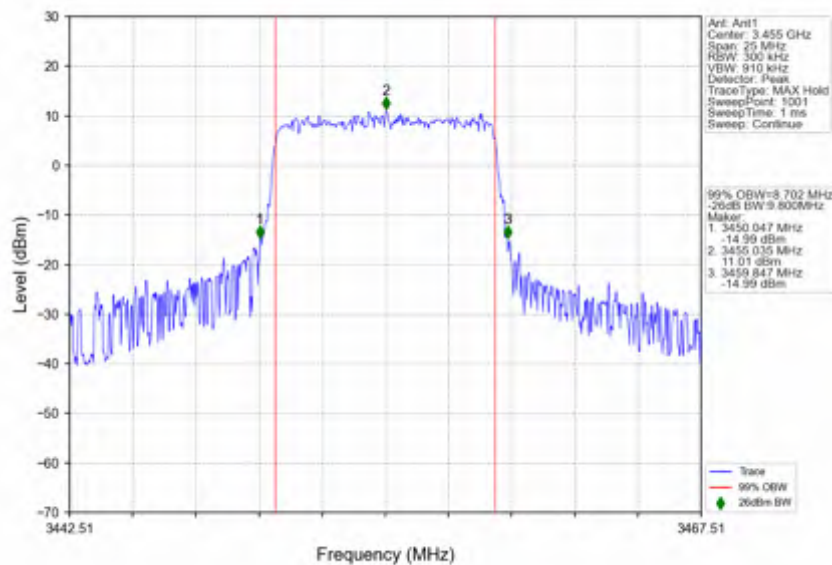
www.sgs.com.cn

(86-512) 57350888

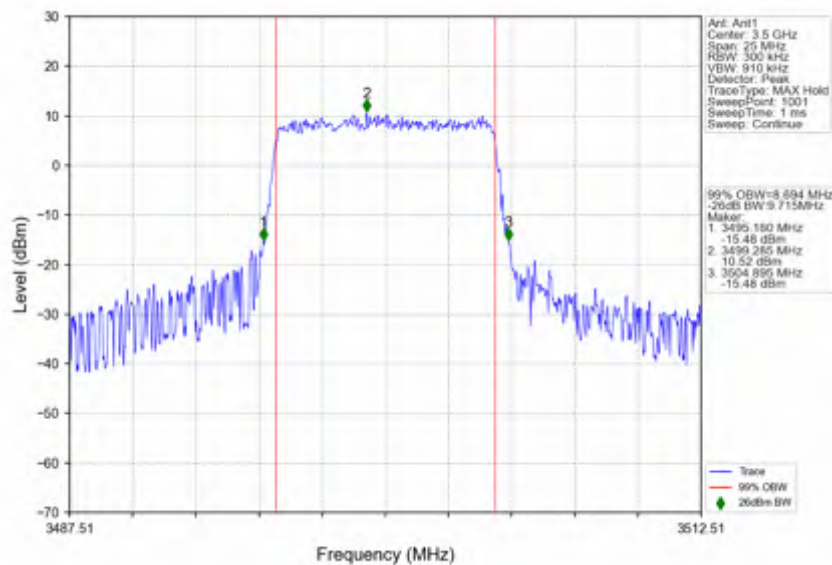
(86-512) 57370011

sgs.china@sgs.com

n78e_30kHz_SISO_NTNV_10MHz_CP-OFDM 16 QAM 3455.01MHz_Outer_Full



n78e_30kHz_SISO_NTNV_10MHz_CP-OFDM 16 QAM 3500.01MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To Check the authenticity of testing certification report & certificate, please connect us at telephone: (86-512) 57370011 or email: CH.Official@sgs.com.

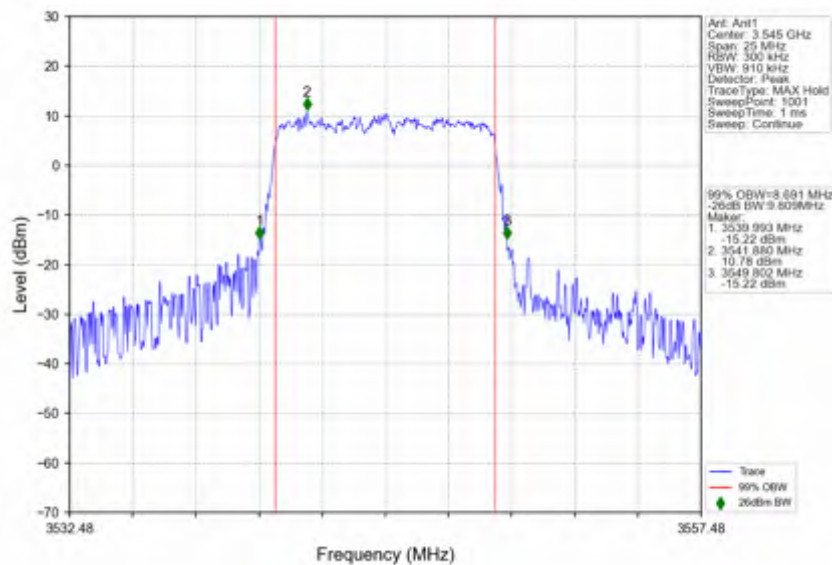
No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学生创业园伟业路10号 邮编 215300

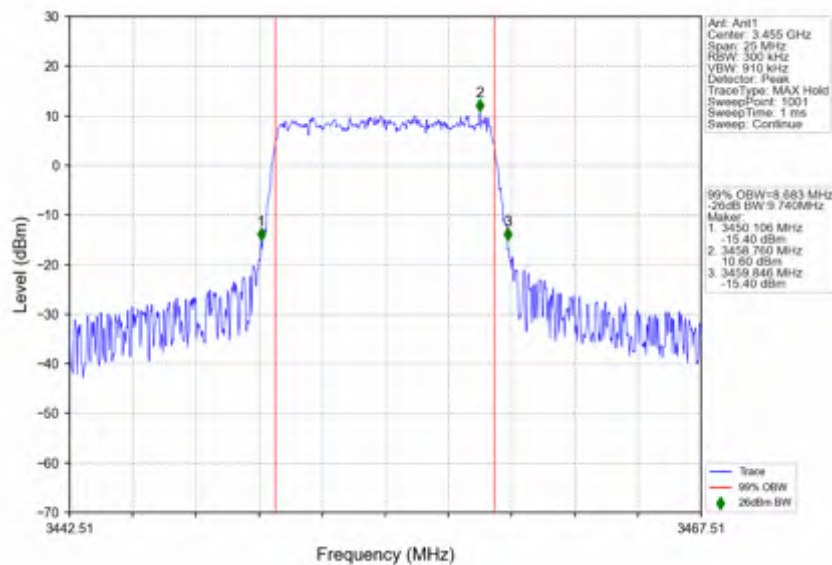
(86-512) 57350888 (86-512) 57370011 www.sgs.com.cn

(86-512) 57350883 (86-512) 57370011 sgs.china@sgs.com

n78e_30kHz_SISO_NTNV_10MHz_CP-OFDM 16 QAM_3544.98MHz_Outer_Full



n78e_30kHz_SISO_NTNV_10MHz_CP-OFDM 64 QAM_3455.01MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing report or certificate, please connect us at telephone: (86-512) 57370011 or email: CN-Check@sgs.com.

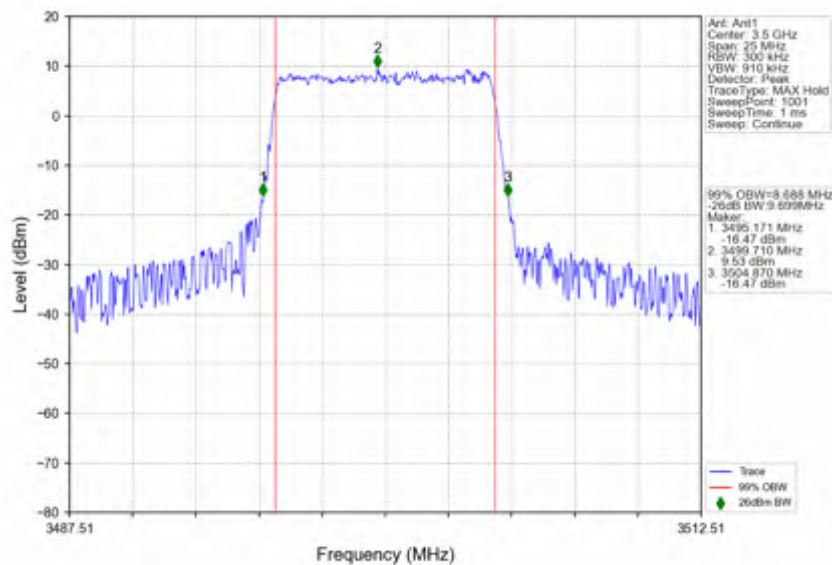
No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学生创业园伟业路10号 邮编 215300

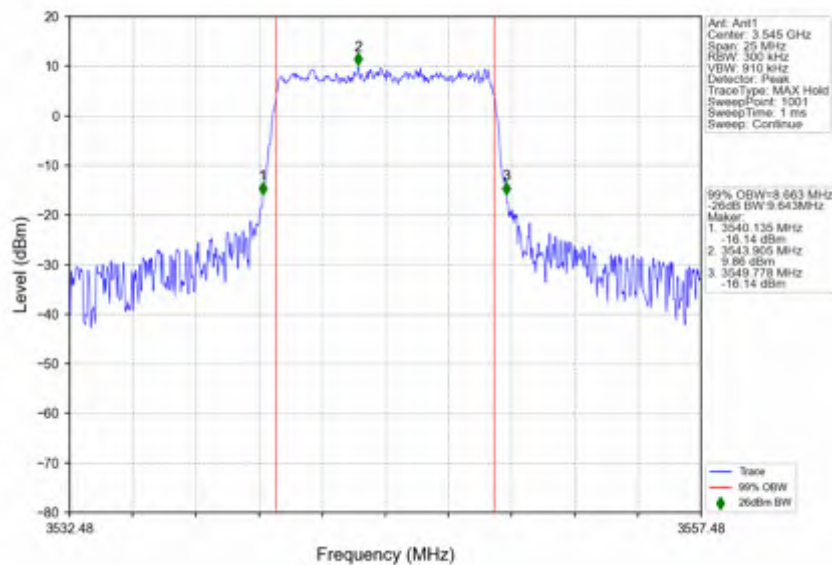
(86-512) 57350888 (86-512) 57370011 www.sgs.com.cn

(86-512) 57350883 (86-512) 57370011 sgs.china@sgs.com

n78e_30kHz_SISO_NTNV_10MHz_CP-OFDM 64 QAM_3500.01MHz_Outer_Full



n78e_30kHz_SISO_NTNV_10MHz_CP-OFDM 64 QAM_3544.98MHz_Outer_Full



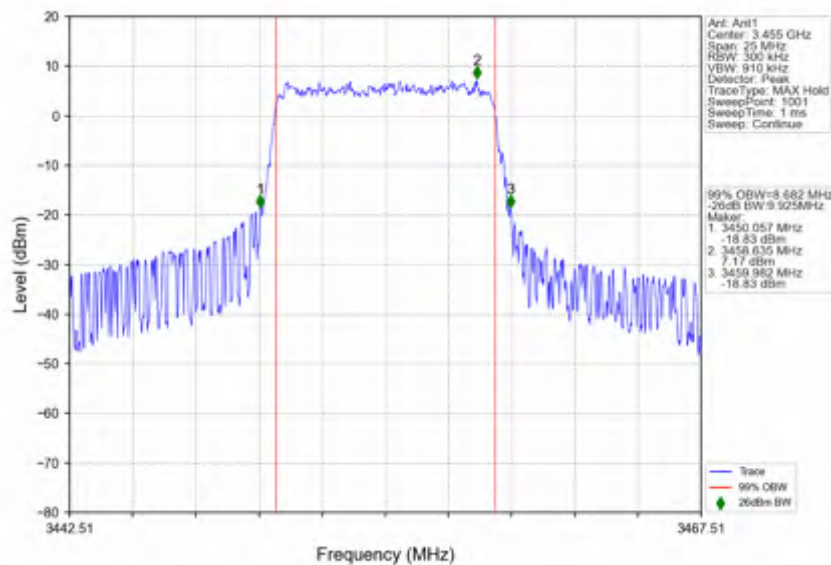
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated, the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at telephone: (86-512) 57370011 or email: CH.Official@sgs.com.

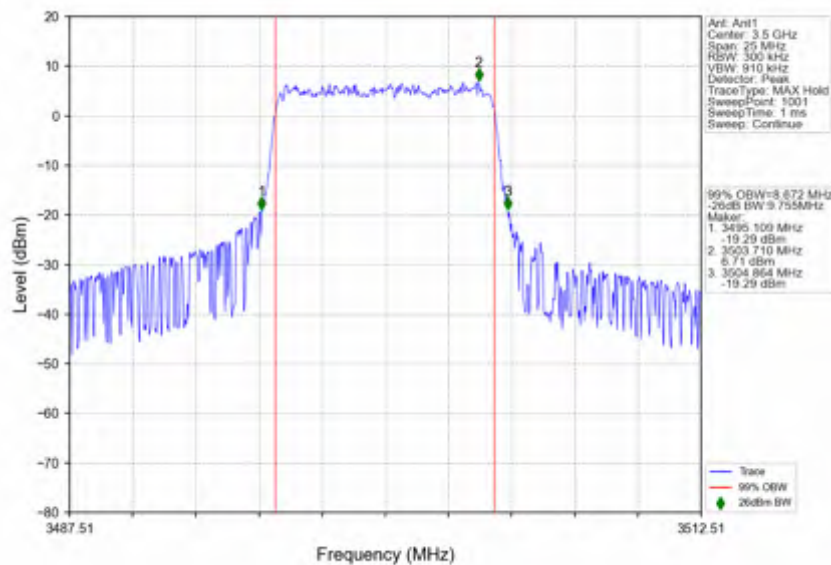
No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300
中国·江苏·昆山市留学院创业园伟业路18号 邮编 215300

(86-512) 57350888 (86-512) 57370011 www.sgs.com.cn
(86-512) 57350883 (86-512) 57370011 sgs.china@sgs.com

n78e_30kHz_SISO_NTNV_10MHz_CP-OFDM_256_QAM_3455.01MHz_Outer_Full



n78e_30kHz_SISO_NTNV_10MHz_CP-OFDM_256_QAM_3500.01MHz_Outer_Full



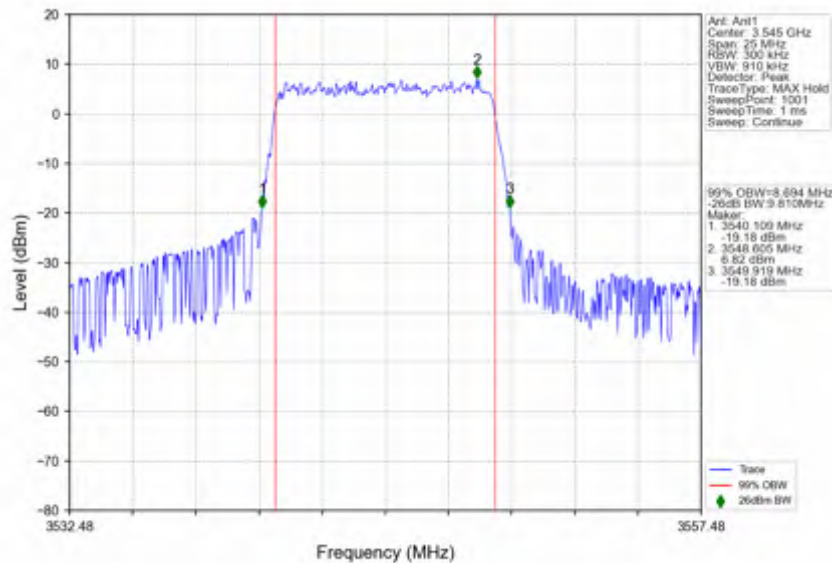
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing certification report & certificate, please connect us at telephone: (86-512) 57370011 or email: CH.Official@sgs.com.

No.18, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300
中国·江苏·昆山市留学院创业园伟业路18号 邮编 215300

(86-512) 57350888 (86-512) 57370011 www.sgs.com.cn
(86-512) 57350888 (86-512) 57370011 sgs.china@sgs.com

n78e_30kHz_SISO_NTNV_10MHz_CP-OFDM_256_QAM_3544.98MHz_Outer_Full



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing notification report & certificate, please connect us at telephone: (+86-512) 57370011 or email: CH.Official@sgs.com.

No.10, Weiye Road, Innovation Park, Kunshan, Jiangsu, China 215300

中国·江苏·昆山市留学院创业园伟业路10号 邮编 215300

0086-512/57350888 0086-512/57370011 www.sgs.com.cn

0086-512/57350888 0086-512/57370011 sgs.china@sgs.com

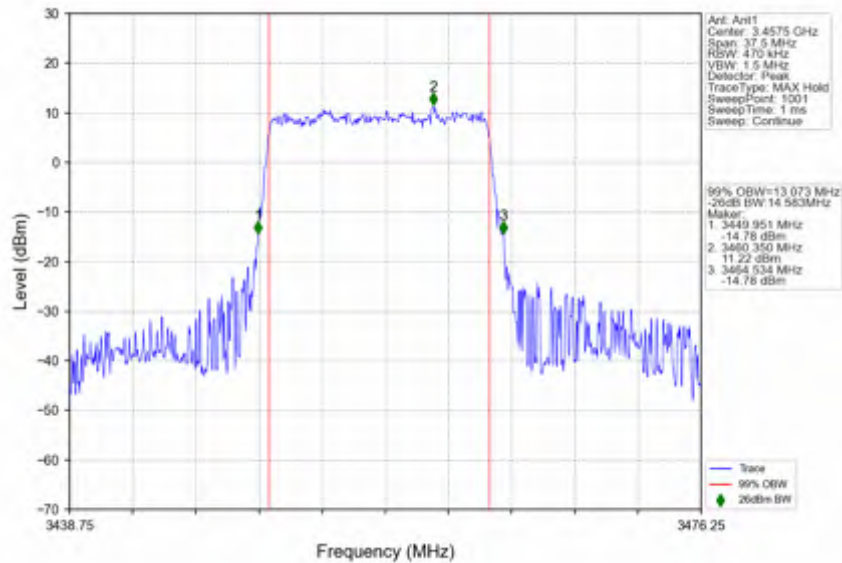
9.9 30k_SISO_15MHz_NTNV

9.9.1 Test Result

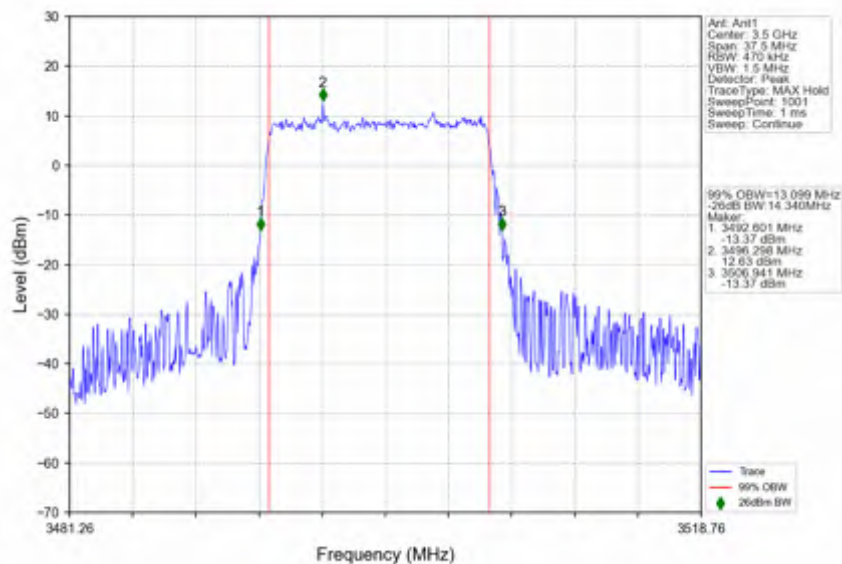
5G NR n78e SCS=30kHz SISO 15MHz NTN						
Modulation	Frequency (MHz)	RB Allocation	99% Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
DFT-s-OFDM PI/2 BPSK	3457.5	Outer_Full	13.07	14.58	/	Pass
	3500.01	Outer_Full	13.10	14.34	/	Pass
	3542.49	Outer_Full	13.09	14.36	/	Pass
DFT-s-OFDM QPSK	3457.5	Outer_Full	13.04	14.32	/	Pass
	3500.01	Outer_Full	13.04	14.58	/	Pass
	3542.49	Outer_Full	13.04	14.42	/	Pass
DFT-s-OFDM 16 QAM	3457.5	Outer_Full	13.08	14.49	/	Pass
	3500.01	Outer_Full	13.10	14.64	/	Pass
	3542.49	Outer_Full	13.12	14.53	/	Pass
DFT-s-OFDM 64 QAM	3457.5	Outer_Full	13.17	14.91	/	Pass
	3500.01	Outer_Full	13.10	14.66	/	Pass
	3542.49	Outer_Full	13.11	14.58	/	Pass
DFT-s-OFDM 256 QAM	3457.5	Outer_Full	13.03	14.38	/	Pass
	3500.01	Outer_Full	13.05	14.62	/	Pass
	3542.49	Outer_Full	13.04	14.34	/	Pass
CP-OFDM QPSK	3457.5	Outer_Full	13.70	15.10	/	Pass
	3500.01	Outer_Full	13.70	14.99	/	Pass
	3542.49	Outer_Full	13.70	15.07	/	Pass
CP-OFDM 16 QAM	3457.5	Outer_Full	13.69	15.85	/	Pass
	3500.01	Outer_Full	13.69	14.95	/	Pass
	3542.49	Outer_Full	13.75	15.28	/	Pass
CP-OFDM 64 QAM	3457.5	Outer_Full	13.68	15.01	/	Pass
	3500.01	Outer_Full	13.68	14.83	/	Pass
	3542.49	Outer_Full	13.71	15.12	/	Pass
CP-OFDM 256 QAM	3457.5	Outer_Full	13.70	15.06	/	Pass
	3500.01	Outer_Full	13.70	15.05	/	Pass
	3542.49	Outer_Full	13.71	15.07	/	Pass

9.9.2 Test Graph

n78e 30kHz SISO NTN 15MHz DFT-s-OFDM PI/2 BPSK 3457.5MHz Outer Full



n78e	30kHz	SISO	NTNV	15MHz	DFT-s-OFDM	PI/2	BPSK	3500.01MHz	Outer	Full
------	-------	------	------	-------	------------	------	------	------------	-------	------



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed hereon, available on request or accessible at <http://www.irs.gov/efile/terms-and-conditions.asp> and, for electronic filing of documents, subject to Terms and Conditions for Electronic Documents at <http://www.irs.gov/efile/terms-and-conditions/terms-and-conditions.asp>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of the Company's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from their own responsibilities. The Company's intervention is limited to the matters specified in its instructions and it does not accept liability, except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the samples shown in this fast report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

中国·江苏·昆山市留學生创业园伟业路10号 邮编 215300

086-5125735688 086-5125737000 www.sgsigroup.com.cn
086-5125735688 086-5125737000 sgs.china@sgs.com