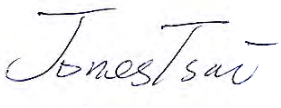
FCC RF Test Report

APPLICANT	: ZTE CORPORATION
EQUIPMENT	: CDMA LTE multi-mode Digital Mobile Phone
BRAND NAME	: ZTE
MODEL NAME	: ZTE N9516
FCC ID	: SRQ-ZTEN9516
STANDARD	: 47 CFR Part 2, 22(H), 24(E), 27(L), 27(H)
CLASSIFICATION	: PCS Licensed Transmitter Held to Ear (PCE)

The product was received on Jun. 14, 2014 and testing was completed on Jul. 16, 2014. We, SPORTON INTERNATIONAL (KUNSHAN) INC., would like to declare that the tested sample has been evaluated in accordance with the test procedures given in ANSI / TIA / EIA-603-C-2004 and the testing has shown the tested sample to be in compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL (KUNSHAN) INC., the test report shall not be reproduced except in full.

Reviewed by: Joseph Lin / Supervisor



Approved by: Jones Tsai / Manager

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APPENDIX A. SETUP PHOTOGRAPHS

REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG461401B	Rev. 01	Initial issue of report	Jul. 29, 2014

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.1	§2.1046	Conducted Output Power	Reporting Only	PASS	-
3.2	§24.232(d)	Peak-to-Average Ratio	<13 dB	PASS	-
3.3	§22.913(a)(2)	Effective Radiated Power (Band 5)	ERP < 7 Watt	PASS	-
	§27.50(b)(10) §27.50(c)(10) §27.50(c)(9)	Effective Radiated Power (Band 12) (Band 17)	ERP < 3 Watt		
	§24.232(c)	Equivalent Isotropic Radiated Power (Band 2)	EIRP < 2Watt		
	§27.50(d)(4)	Equivalent Isotropic Radiated Power (Band 4)	EIRP < 1Watt		
3.4	§2.1049 §22.917(b) §24.238(b) §27.53(h)(3)	Occupied Bandwidth	Reporting Only	PASS	-
3.5	§2.1051 §22.917(a) §24.238(a) §27.53(g) §27.53(h)	Conducted Band Edge Measurement (Band 2) (Band 4) (Band 5) (Band 12) (Band 17)	< 43+10log10(P[Watt])	PASS	-

Report Section	FCC Rule	Description	Limit	Result	Remark
3.6	§2.1051 §22.917(a) §24.238(a) §27.53(g) §27.53(h)	Conducted Spurious Emission (Band 2) (Band 4) (Band 5) (Band 12) (Band 17)	< 43+10log$_{10}$(P[Watts])	PASS	-
3.7	§2.1053 §22.917(a) §24.238(a) §27.53(f) §27.53(g) §27.53(h)	Radiated Spurious Emission (Band 2) (Band 4) (Band 5) (Band 12) (Band 17)	< 43+10log$_{10}$(P[Watts])	PASS	Under limit 28.08 dB at 5199.000 MHz
3.8	§2.1055 §22.355 §24.235 §27.54	Frequency Stability Temperature & Voltage	< 2.5 ppm	PASS	

1 General Description

1.1 Applicant

ZTE CORPORATION

ZTE Plaza, Keji Road South, Hi-Tech Industrial Park, Nanshan District, Shenzhen, Guangdong, 518057, P.R.China

1.2 Manufacturer

ZTE CORPORATION

ZTE Plaza, Keji Road South, Hi-Tech Industrial Park, Nanshan District, Shenzhen, Guangdong, 518057, P.R.China

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	CDMA LTE multi-mode Digital Mobile Phone
Brand Name	ZTE
Model Name	ZTE N9516
FCC ID	SRQ-ZTEN9516
EUT supports Radios application	CDMA/EV-DO/LTE WLAN 2.4GHz 802.11b/g/n HT20 Bluetooth v3.0 + EDR/ Bluetooth v4.0 LE
HW Version	cxyB
SW Version	N9516V1.0.0B01
EUT Stage	Identical Prototype

Remark: The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

1.4 Product Specification subjective to this standard

Product Specification subjective to this standard	
Tx Frequency	LTE Band 2 : 1850.7 MHz ~ 1909.3 MHz LTE Band 4 : 1710.7 MHz ~ 1754.3 MHz LTE Band 5 : 824.7 MHz ~ 848.3 MHz LTE Band 12 : 699.7 MHz ~ 715.3 MHz LTE Band 17 : 706.5 MHz ~ 713.5 MHz
Rx Frequency	LTE Band 2 : 1930.7 MHz ~ 1989.3 MHz LTE Band 4 : 2110.7 MHz ~ 2154.3 MHz LTE Band 5 : 869.7 MHz ~ 893.3 MHz LTE Band 12 : 729.7 MHz ~ 745.3 MHz LTE Band 17 : 736.5 MHz ~ 743.5 MHz
Bandwidth	LTE Band 2 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz LTE Band 4 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz LTE Band 5 : 1.4MHz / 3MHz / 5MHz / 10MHz LTE Band 12 : 1.4MHz / 3MHz / 5MHz / 10MHz LTE Band 17 : 5MHz / 10MHz
Maximum Output Power to Antenna	LTE Band 2 : 23.99 dBm LTE Band 4 : 24.73 dBm LTE Band 5 : 22.97 dBm LTE Band 12 : 24.49 dBm LTE Band 17 : 24.66 dBm
Antenna Type	PIFA Antenna
Antenna Gain	LTE Band 2 : 0.53 dBi LTE Band 4 : 0.05 dBi LTE Band 5 : -2.07 dBi LTE Band 12 : -3.50 dBi LTE Band 17 : -3.50 dBi
Type of Modulation	QPSK / 16QAM

1.5 Modification of EUT

No modifications are made to the EUT during all test items.

1.6 Maximum ERP/EIRP Power, Frequency Tolerance, and Emission Designator

FCC Rule	System	Type of Modulation	BW	Emission Designator	Frequency Tolerance (ppm)	Maximum ERP/EIRP
Part 22	LTE Band 5	QPSK	1.4 MHz	1M09G7D	-	0.0755 W
Part 22	LTE Band 5	16QAM	1.4 MHz	1M10D7W	-	0.0548 W
Part 22	LTE Band 5	QPSK	3 MHz	2M72G7D	-	-
Part 22	LTE Band 5	16QAM	3 MHz	2M72D7W	-	-
Part 22	LTE Band 5	QPSK	5 MHz	4M49G7D	-	-
Part 22	LTE Band 5	16QAM	5 MHz	4M48D7W	-	-
Part 22	LTE Band 5	QPSK	10 MHz	9M13G7D	0.0269 ppm	0.0735 W
Part 22	LTE Band 5	16QAM	10 MHz	9M03D7W	-	0.0537 W
Part 24	LTE Band 2	QPSK	1.4 MHz	1M10G7D	-	0.1762 W
Part 24	LTE Band 2	16QAM	1.4 MHz	1M10D7W	-	0.1084 W
Part 24	LTE Band 2	QPSK	3 MHz	2M73G7D	-	-
Part 24	LTE Band 2	16QAM	3 MHz	2M73D7W	-	-
Part 24	LTE Band 2	QPSK	5 MHz	4M51G7D	-	-
Part 24	LTE Band 2	16QAM	5 MHz	4M50D7W	-	-
Part 24	LTE Band 2	QPSK	10 MHz	9M09G7D	0.0144 ppm	-
Part 24	LTE Band 2	16QAM	10 MHz	9M03D7W	-	-
Part 24	LTE Band 2	QPSK	15 MHz	13M5G7D	-	-
Part 24	LTE Band 2	16QAM	15 MHz	13M4D7W	-	-
Part 24	LTE Band 2	QPSK	20 MHz	18M3G7D	-	0.1710 W
Part 24	LTE Band 2	16QAM	20 MHz	18M4D7W	-	0.1355 W

FCC Rule	System	Type of Modulation	BW	Emission Designator	Frequency Tolerance (ppm)	Maximum ERP/EIRP
Part 27	LTE Band 4	QPSK	1.4 MHz	1M10G7D	-	0.2056 W
Part 27	LTE Band 4	16QAM	1.4 MHz	1M10D7W	-	0.1671 W
Part 27	LTE Band 4	QPSK	3 MHz	2M73G7D	-	-
Part 27	LTE Band 4	16QAM	3 MHz	2M73D7W	-	-
Part 27	LTE Band 4	QPSK	5MHz	4M51G7D	-	-
Part 27	LTE Band 4	16QAM	5MHz	4M50D7W	-	-
Part 27	LTE Band 4	QPSK	10MHz	9M11G7D	0.0113 ppm	-
Part 27	LTE Band 4	16QAM	10MHz	9M07D7W	-	-
Part 27	LTE Band 4	QPSK	15MHz	13M5G7D	-	-
Part 27	LTE Band 4	16QAM	15MHz	13M5D7W	-	-
Part 27	LTE Band 4	QPSK	20MHz	18M3G7D	-	0.2023 W
Part 27	LTE Band 4	16QAM	20MHz	18M3D7W	-	0.1500 W
Part 27	LTE Band 17	QPSK	5MHz	4M51G7D	-	0.0986 W
Part 27	LTE Band 17	16QAM	5MHz	4M51D7W	-	0.0764 W
Part 27	LTE Band 17	QPSK	10MHz	9M11G7D	0.0305 ppm	0.1009 W
Part 27	LTE Band 17	16QAM	10MHz	9M03D7W	-	0.0741 W
Part 27H	LTE Band 12	QPSK	1.4 MHz	1M10G7D	-	0.0979 W
Part 27H	LTE Band 12	16QAM	1.4 MHz	1M10D7W	-	0.0705 W
Part 27H	LTE Band 12	QPSK	3 MHz	2M73G7D	-	-
Part 27H	LTE Band 12	16QAM	3 MHz	2M72D7W	-	-
Part 27H	LTE Band 12	QPSK	5 MHz	4M50G7D	-	-
Part 27H	LTE Band 12	16QAM	5 MHz	4M49D7W	-	-
Part 27H	LTE Band 12	QPSK	10 MHz	9M05G7D	0.0239 ppm	0.0989 W
Part 27H	LTE Band 12	16QAM	10 MHz	9M05D7W	-	0.0755 W

1.7 Testing Location

Test Site	SPORTON INTERNATIONAL (KUNSHAN) INC.			
Test Site Location	No. 3-2, PingXiang Road, Kunshan, Jiangsu Province, P.R.C. TEL: +86-0512-5790-0158 FAX: +86-0512-5790-0958			
Test Site No.	**Sporton Site No.**			**FCC Registration No.**
	TH01-KS	03CH01-KS	OTA01-KS	149928

1.8 Applicable Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- 47 CFR Part 2, 22(H), 24(E), 27(L), 27(H)
- ANSI / TIA / EIA-603-C-2004
- FCC KDB 971168 D01 Power Meas. License Digital Systems v02r01

Remark:

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.

2 Test Configuration of Equipment Under Test

2.1 Test Mode

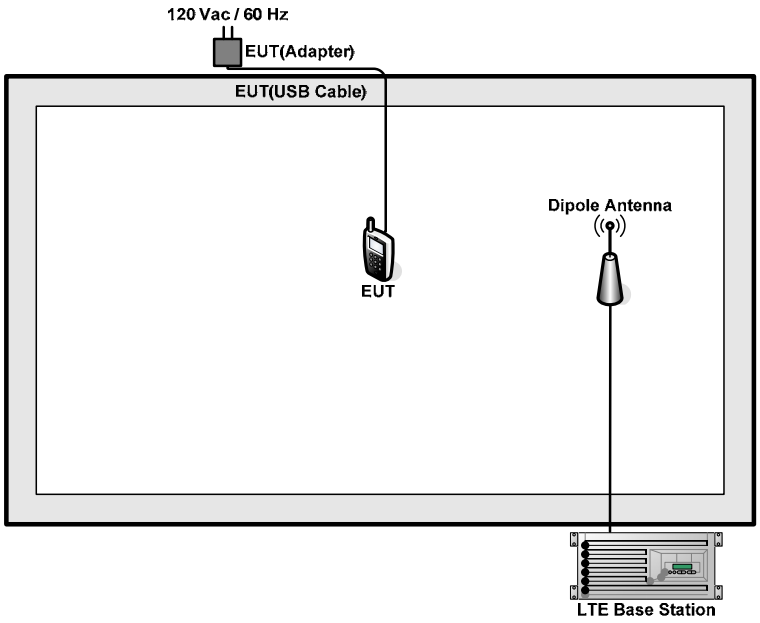
Antenna port conducted and radiated test items listed below are performed according to KDB 971168 D01 Power Meas. License Digital Systems v02r01 with maximum output power.

Radiated measurements are performed by rotating the EUT in three different orthogonal test planes to find the maximum emission.

Test Items	Band	Bandwidth (MHz)						Modulation		RB #			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	1	Half	Full	L	M	H
Max. Output Power	2	v	v	v	v	v	v	v	v	v	v	v	v	v	v
	4	v	v	v	v	v	v	v	v	v	v	v	v	v	v
	5	v	v	v	v	-	-	v	v	v	v	v	v	v	v
	12	v	v	v	v	-	-	v	v	v	v	v	v	v	v
	17	-	-	v	v	-	-	v	v	v	v	v	v	v	v
Peak-to-Average Ratio	2						v		v	v		v		v	
	4														
	5					-	-								
	12					-	-								
	17	-	-			-	-								
26dB and 99% Bandwidth	2	v	v	v	v	v	v	v	v			v		v	
	4	v	v	v	v	v	v	v	v			v		v	
	5	v	v	v	v	-	-	v	v			v		v	
	12	v	v	v	v	-	-	v	v			v		v	
	17	-	-	v	v	-	-	v	v			v		v	
Conducted Band Edge	2	v	v	v	v	v	v	v	v	v		v	v		v
	4	v	v	v	v	v	v	v	v	v		v	v		v
	5	v	v	v	v	-	-	v	v	v		v	v		v
	12	v	v	v	v	-	-	v	v	v		v	v		v
	17	-	-	v	v	-	-	v	v	v		v	v		v

Test Items	Band	Bandwidth (MHz)						Modulation		RB #			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	1	Half	Full	L	M	H
Conducted Spurious Emission	2	v	v	v	v	v	v	v	v	v			v	v	v
	4	v	v	v	v	v	v	v	v	v			v	v	v
	5	v	v	v	v	-	-	v	v	v			v	v	v
	12	v	v	v	v	-	-	v	v	v			v	v	v
	17	-	-	v	v	-	-	v	v	v			v	v	v
Frequency Stability	2				v			v				v		v	
	4				v			v				v		v	
	5				v	-	-	v				v		v	
	12				v	-	-	v				v		v	
	17	-	-		v	-	-	v				v		v	
E.R.P./ E.I.R.P.	2	v					v	v	v	v			v	v	v
	4	v					v	v	v	v			v	v	v
	5	v			v	-	-	v	v	v			v	v	v
	12	v			v	-	-	v	v	v			v	v	v
	17	-	-	v	v	-	-	v	v	v			v	v	v
Radiated Spurious Emission	2	v	v	v	v	v	v	v		v				v	
	4	v	v	v	v	v	v	v		v				v	
	5	v	v	v	v	-	-	v		v				v	
	12	v	v	v	v	-	-	v		v				v	
	17	-	-	v	v	-	-	v		v				v	
Note	1. The mark "v " means that this configuration is chosen for testing 2. The mark "-" means that this bandwidth is not supported. 3. For E.R.P/E.I.R.P. measurement, the widest bandwidth and the bandwidth with the highest conducted power of each band is chosen for testing. Besides, the lowest bandwidth of each band is also measured for reporting only. 4. The device is investigated from 30MHz to 10 times of fundamental signal for radiated spurious emission test under different RB size/offset and modulations in exploratory test. Subsequently, only the worst case emissions are reported.														

2.2 Connection Diagram of Test System



2.3 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model No.	FCC ID	Data Cable	Power Cord
1.	LTE Base Station	Anritsu	MT8820C	N/A	N/A	Unshielded, 1.8 m
2.	DC Power Supply	GWINSTEK	GPS-3030D	N/A	N/A	Unshielded, 1.8 m

2.4 Measurement Results Explanation Example

For all conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss between EUT conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly the EUT RF output level.

The spectrum analyzer offset is derived from RF cable loss.
Offset = RF cable loss.
Following shows an offset computation example with cable loss 6 dB.

Example :
Offset(dB) = RF cable loss(dB) = 6 (dB)

3 Test Result

3.1 Conducted Output Power Measurement

3.1.1 Description of the Conducted Output Power Measurement

A system simulator was used to establish communication with the EUT. Its parameters were set to force the EUT transmitting at maximum output power. The measured power in the radio frequency on the transmitter output terminals shall be reported.

3.1.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.1.3 Test Procedures

1. The transmitter output port was connected to the system simulator.
2. Set EUT at maximum power through the system simulator.
3. Select lowest, middle, and highest channels for each band and different modulation.
4. Measure and record the power level from the system simulator.

3.1.4 Test Setup

3.1.5 Test Result of Conducted Output Power

<LTE Band 5 Conducted Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power (dBm) Low Ch. / Freq.	Power (dBm) Middle Ch. / Freq.	Power (dBm) High Ch. / Freq.
Channel				**20450**	**20525**	**20600**
Frequency (MHz)				**829**	**836.5**	**844**
10	QPSK	1	0	22.96	22.97	22.89
10	QPSK	1	24	22.87	22.82	22.63
10	QPSK	1	49	22.87	22.85	22.83
10	QPSK	25	0	21.94	21.95	21.90
10	QPSK	25	12	21.83	21.85	21.86
10	QPSK	25	24	21.82	21.93	21.84
10	QPSK	50	0	21.89	22.02	21.91
10	16QAM	1	0	22.06	21.81	21.73
10	16QAM	1	24	21.96	21.58	21.48
10	16QAM	1	49	21.65	21.67	21.58
10	16QAM	25	0	20.91	20.91	21.02
10	16QAM	25	12	20.85	20.91	21.01
10	16QAM	25	24	20.79	20.91	20.89
10	16QAM	50	0	20.79	20.90	20.95
Channel				**20425**	**20525**	**20625**
Frequency (MHz)				**826.5**	**836.5**	**846.5**
5	QPSK	1	0	22.80	22.83	22.93
5	QPSK	1	12	22.64	22.64	22.87
5	QPSK	1	24	22.73	22.74	22.85
5	QPSK	12	0	21.73	21.80	21.88
5	QPSK	12	6	21.74	21.74	21.91
5	QPSK	12	11	21.69	21.78	21.94
5	QPSK	25	0	21.75	21.84	21.92
5	16QAM	1	0	21.75	21.92	22.04
5	16QAM	1	12	21.46	21.51	22.03
5	16QAM	1	24	21.69	21.65	22.01
5	16QAM	12	0	20.89	20.91	21.02
5	16QAM	12	6	20.77	20.82	20.93
5	16QAM	12	11	20.80	20.75	21.01
5	16QAM	25	0	20.71	20.85	20.96

BW [MHz]	Modulation	RB Size	RB Offset	Power (dBm) Low Ch. / Freq.	Power (dBm) Middle Ch. / Freq.	Power (dBm) High Ch. / Freq.
Channel				**20415**	**20525**	**20635**
Frequency (MHz)				**825.5**	**836.5**	**847.5**
3	QPSK	1	0	22.77	22.86	22.96
3	QPSK	1	7	22.70	22.76	22.79
3	QPSK	1	14	22.76	22.79	22.80
3	QPSK	8	0	21.75	21.84	21.88
3	QPSK	8	4	21.79	21.87	21.89
3	QPSK	8	7	21.74	21.80	21.87
3	QPSK	15	0	21.76	21.83	21.91
3	16QAM	1	0	22.09	21.99	21.72
3	16QAM	1	7	21.31	21.69	21.61
3	16QAM	1	14	21.51	21.71	21.41
3	16QAM	8	0	20.72	20.81	20.94
3	16QAM	8	4	20.88	20.88	20.95
3	16QAM	8	7	20.82	20.80	20.94
3	16QAM	15	0	20.81	20.85	20.93
Channel				**20407**	**20525**	**20643**
Frequency (MHz)				**824.7**	**836.5**	**848.3**
1.4	QPSK	1	0	22.82	22.86	22.95
1.4	QPSK	1	2	22.72	22.83	22.80
1.4	QPSK	1	5	22.73	22.71	22.91
1.4	QPSK	3	0	22.79	22.80	22.90
1.4	QPSK	3	1	22.78	22.85	22.83
1.4	QPSK	3	2	22.77	22.85	22.94
1.4	QPSK	6	0	21.86	21.91	21.93
1.4	16QAM	1	0	22.06	22.18	21.92
1.4	16QAM	1	2	21.82	21.70	21.49
1.4	16QAM	1	5	21.61	22.01	21.66
1.4	16QAM	3	0	21.70	21.91	21.89
1.4	16QAM	3	1	21.83	21.78	21.83
1.4	16QAM	3	2	21.61	21.75	21.90
1.4	16QAM	6	0	20.81	20.81	20.75

<LTE Band 2 Conducted Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power (dBm) Low Ch. / Freq.	Power (dBm) Middle Ch. / Freq.	Power (dBm) High Ch. / Freq.
Channel				**18700**	**18900**	**19100**
Frequency (MHz)				**1860**	**1880**	**1900**
20	QPSK	1	0	23.50	23.30	23.00
20	QPSK	1	49	23.89	23.99	23.18
20	QPSK	1	99	23.39	23.31	22.59
20	QPSK	50	0	22.95	22.86	22.85
20	QPSK	50	24	22.98	22.99	22.85
20	QPSK	50	49	22.94	23.03	22.86
20	QPSK	100	0	22.95	23.10	22.76
20	16QAM	1	0	22.41	22.51	22.13
20	16QAM	1	49	23.24	22.99	22.32
20	16QAM	1	99	22.42	22.51	21.69
20	16QAM	50	0	22.48	22.33	22.26
20	16QAM	50	24	22.07	22.50	22.22
20	16QAM	50	49	22.03	22.33	21.92
20	16QAM	100	0	21.92	22.27	22.08
Channel				**18675**	**18900**	**19125**
Frequency (MHz)				**1857.5**	**1880**	**1902.5**
15	QPSK	1	0	23.23	23.47	23.10
15	QPSK	1	37	23.90	23.76	23.09
15	QPSK	1	74	23.62	23.35	22.76
15	QPSK	36	0	22.78	23.02	22.78
15	QPSK	36	18	22.89	23.08	22.78
15	QPSK	36	37	22.87	23.26	22.59
15	QPSK	75	0	22.91	22.96	22.66
15	16QAM	1	0	22.39	22.86	21.91
15	16QAM	1	37	23.26	23.03	22.36
15	16QAM	1	74	22.70	22.21	21.71
15	16QAM	36	0	21.91	22.46	22.15
15	16QAM	36	18	21.90	22.13	22.12
15	16QAM	36	37	22.00	22.28	21.98
15	16QAM	75	0	21.91	22.48	22.09

BW [MHz]	Modulation	RB Size	RB Offset	Power (dBm) Low Ch. / Freq.	Power (dBm) Middle Ch. / Freq.	Power (dBm) High Ch. / Freq.
Channel				**18650**	**18900**	**19150**
Frequency (MHz)				**1855**	**1880**	**1905**
10	QPSK	1	0	23.35	23.57	22.98
10	QPSK	1	24	23.92	23.88	23.08
10	QPSK	1	49	23.76	23.62	22.86
10	QPSK	25	0	22.86	23.04	22.73
10	QPSK	25	12	22.86	23.08	22.75
10	QPSK	25	24	22.86	23.00	22.64
10	QPSK	50	0	22.91	23.02	22.64
10	16QAM	1	0	22.73	22.85	22.04
10	16QAM	1	24	23.14	23.04	22.17
10	16QAM	1	49	23.00	22.73	22.15
10	16QAM	25	0	21.99	22.01	22.05
10	16QAM	25	12	22.01	22.19	22.09
10	16QAM	25	24	22.04	22.09	21.97
10	16QAM	50	0	22.05	22.08	22.00
Channel				**18625**	**18900**	**19175**
Frequency (MHz)				**1852.5**	**1880**	**1907.5**
5	QPSK	1	0	23.57	23.87	22.98
5	QPSK	1	12	23.88	23.94	23.08
5	QPSK	1	24	23.79	23.77	22.96
5	QPSK	12	0	22.93	23.09	22.73
5	QPSK	12	6	22.81	23.05	22.75
5	QPSK	12	11	22.83	23.02	22.64
5	QPSK	25	0	22.88	23.05	22.64
5	16QAM	1	0	22.62	23.02	22.04
5	16QAM	1	12	23.22	22.87	22.40
5	16QAM	1	24	22.88	22.86	22.15
5	16QAM	12	0	21.99	22.13	22.05
5	16QAM	12	6	21.96	22.17	22.09
5	16QAM	12	11	21.89	22.17	21.97
5	16QAM	25	0	21.98	22.12	22.00

BW [MHz]	Modulation	RB Size	RB Offset	Power (dBm) Low Ch. / Freq.	Power (dBm) Middle Ch. / Freq.	Power (dBm) High Ch. / Freq.
Channel				**18615**	**18900**	**19185**
Frequency (MHz)				**1851.5**	**1880**	**1908.5**
3	QPSK	1	0	23.67	23.92	23.05
3	QPSK	1	7	23.86	23.93	22.99
3	QPSK	1	14	23.85	23.74	23.02
3	QPSK	8	0	22.91	23.08	22.65
3	QPSK	8	4	22.92	23.03	22.68
3	QPSK	8	7	22.94	23.04	22.56
3	QPSK	15	0	22.91	23.13	22.59
3	16QAM	1	0	22.48	23.32	22.46
3	16QAM	1	7	23.09	23.16	22.23
3	16QAM	1	14	23.15	22.99	22.18
3	16QAM	8	0	21.88	22.20	22.37
3	16QAM	8	4	21.96	22.18	22.36
3	16QAM	8	7	21.97	22.11	22.25
3	16QAM	15	0	22.07	22.14	22.37
Channel				**18607**	**18900**	**19193**
Frequency (MHz)				**1850.7**	**1880**	**1909.3**
1.4	QPSK	1	0	23.30	23.67	22.94
1.4	QPSK	1	2	23.43	23.63	22.99
1.4	QPSK	1	5	23.42	23.61	22.86
1.4	QPSK	3	0	23.24	23.62	22.84
1.4	QPSK	3	1	23.36	23.60	22.91
1.4	QPSK	3	2	23.34	23.63	22.90
1.4	QPSK	6	0	22.96	23.17	22.23
1.4	16QAM	1	0	22.57	23.09	22.12
1.4	16QAM	1	2	22.60	22.84	22.17
1.4	16QAM	1	5	22.54	22.80	21.81
1.4	16QAM	3	0	22.33	22.71	22.01
1.4	16QAM	3	1	22.43	22.63	21.92
1.4	16QAM	3	2	22.43	22.63	22.01
1.4	16QAM	6	0	22.47	22.46	22.13

<LTE Band 4 Conducted Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power (dBm) Low Ch. / Freq.	Power (dBm) Middle Ch. / Freq.	Power (dBm) High Ch. / Freq.
Channel				**20050**	**20175**	**20300**
Frequency (MHz)				**1720**	**1732.5**	**1745**
20	QPSK	1	0	24.49	24.73	24.57
20	QPSK	1	49	24.36	24.35	24.32
20	QPSK	1	99	24.10	24.50	24.52
20	QPSK	50	0	23.42	23.59	23.55
20	QPSK	50	24	23.40	23.44	23.58
20	QPSK	50	49	23.37	23.38	23.46
20	QPSK	100	0	23.53	23.68	23.49
20	16QAM	1	0	23.38	23.52	23.49
20	16QAM	1	49	23.19	23.14	23.48
20	16QAM	1	99	23.27	23.49	23.36
20	16QAM	50	0	22.54	22.58	22.66
20	16QAM	50	24	22.48	22.40	22.65
20	16QAM	50	49	22.52	22.52	22.55
20	16QAM	100	0	22.33	22.72	22.57
Channel				**20025**	**20175**	**20325**
Frequency (MHz)				**1717.5**	**1732.5**	**1747.5**
15	QPSK	1	0	24.38	24.32	24.48
15	QPSK	1	37	24.06	24.23	24.15
15	QPSK	1	74	24.30	24.17	24.37
15	QPSK	36	0	23.46	23.45	23.53
15	QPSK	36	18	23.31	23.36	23.44
15	QPSK	36	37	23.38	23.41	23.52
15	QPSK	75	0	23.15	23.57	23.51
15	16QAM	1	0	23.56	23.68	23.81
15	16QAM	1	37	23.47	23.48	23.27
15	16QAM	1	74	23.43	22.95	23.72
15	16QAM	36	0	22.51	22.51	22.50
15	16QAM	36	18	22.73	22.46	22.49
15	16QAM	36	37	22.42	22.24	22.59
15	16QAM	75	0	22.60	22.33	22.50

BW [MHz]	Modulation	RB Size	RB Offset	Power (dBm) Low Ch. / Freq.	Power (dBm) Middle Ch. / Freq.	Power (dBm) High Ch. / Freq.
Channel				**20000**	**20175**	**20350**
Frequency (MHz)				**1715**	**1732.5**	**1750**
10	QPSK	1	0	24.32	24.67	24.53
10	QPSK	1	24	24.20	24.26	24.07
10	QPSK	1	49	24.28	24.64	24.52
10	QPSK	25	0	23.27	23.57	23.48
10	QPSK	25	12	23.45	23.54	23.50
10	QPSK	25	24	23.42	23.41	23.56
10	QPSK	50	0	23.46	23.44	23.46
10	16QAM	1	0	23.58	23.61	23.76
10	16QAM	1	24	23.32	23.41	23.51
10	16QAM	1	49	23.53	23.07	23.15
10	16QAM	25	0	22.28	22.74	22.57
10	16QAM	25	12	22.46	22.71	22.63
10	16QAM	25	24	22.52	22.51	22.60
10	16QAM	50	0	22.53	22.69	22.56
Channel				**19975**	**20175**	**20375**
Frequency (MHz)				**1712.5**	**1732.5**	**1752.5**
5	QPSK	1	0	24.45	24.40	24.60
5	QPSK	1	12	24.14	24.33	24.61
5	QPSK	1	24	24.29	24.23	24.13
5	QPSK	12	0	23.32	23.44	23.63
5	QPSK	12	6	23.39	23.43	23.57
5	QPSK	12	11	23.47	23.36	23.54
5	QPSK	25	0	23.43	23.36	23.55
5	16QAM	1	0	23.55	23.51	23.29
5	16QAM	1	12	23.41	23.23	23.41
5	16QAM	1	24	23.48	23.19	23.40
5	16QAM	12	0	22.36	22.49	22.62
5	16QAM	12	6	22.52	22.44	22.60
5	16QAM	12	11	22.48	22.49	22.57
5	16QAM	25	0	22.98	22.52	22.61

BW [MHz]	Modulation	RB Size	RB Offset	Power (dBm) Low Ch. / Freq.	Power (dBm) Middle Ch. / Freq.	Power (dBm) High Ch. / Freq.
Channel				**19965**	**20175**	**20385**
Frequency (MHz)				**1711.5**	**1732.5**	**1753.5**
3	QPSK	1	0	24.72	24.40	24.34
3	QPSK	1	7	24.65	24.25	24.32
3	QPSK	1	14	24.71	24.28	24.32
3	QPSK	8	0	23.30	23.47	23.63
3	QPSK	8	4	23.46	23.47	23.55
3	QPSK	8	7	23.45	23.37	23.53
3	QPSK	15	0	23.46	23.42	23.62
3	16QAM	1	0	23.37	23.65	23.47
3	16QAM	1	7	23.25	23.29	23.42
3	16QAM	1	14	23.31	23.56	23.43
3	16QAM	8	0	22.51	22.48	22.60
3	16QAM	8	4	22.48	22.46	22.64
3	16QAM	8	7	22.46	22.51	22.69
3	16QAM	15	0	22.45	22.45	22.61
Channel				**19957**	**20175**	**20393**
Frequency (MHz)				**1710.7**	**1732.5**	**1754.3**
1.4	QPSK	1	0	24.67	24.68	24.65
1.4	QPSK	1	2	24.58	24.46	24.44
1.4	QPSK	1	5	24.10	24.67	24.35
1.4	QPSK	3	0	24.62	24.36	24.58
1.4	QPSK	3	1	24.56	24.51	24.62
1.4	QPSK	3	2	24.63	24.33	24.64
1.4	QPSK	6	0	23.39	23.43	23.61
1.4	16QAM	1	0	23.58	23.50	23.77
1.4	16QAM	1	2	23.50	23.27	23.76
1.4	16QAM	1	5	23.25	23.41	23.57
1.4	16QAM	3	0	23.32	23.48	23.48
1.4	16QAM	3	1	23.41	23.49	23.42
1.4	16QAM	3	2	23.11	23.39	23.55
1.4	16QAM	6	0	22.42	22.52	22.62

<LTE Band 12 Conducted Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power (dBm) Low Ch. / Freq.	Power (dBm) Middle Ch. / Freq.	Power (dBm) High Ch. / Freq.
Channel				**23060**	**23095**	**23130**
Frequency (MHz)				**704**	**707.5**	**711**
10	QPSK	1	0	24.32	24.49	24.31
10	QPSK	1	24	24.29	23.97	24.30
10	QPSK	1	49	24.30	24.23	24.24
10	QPSK	25	0	23.24	23.37	23.27
10	QPSK	25	12	23.31	23.31	23.35
10	QPSK	25	24	23.34	23.08	23.31
10	QPSK	50	0	23.40	23.45	23.37
10	16QAM	1	0	23.39	23.23	23.43
10	16QAM	1	24	23.24	23.08	22.96
10	16QAM	1	49	23.34	23.21	23.09
10	16QAM	25	0	22.25	22.37	22.13
10	16QAM	25	12	22.22	22.28	22.43
10	16QAM	25	24	22.29	22.11	22.23
10	16QAM	50	0	22.35	22.26	22.42
Channel				**23035**	**23095**	**23155**
Frequency (MHz)				**701.5**	**707.5**	**713.5**
5	QPSK	1	0	24.22	24.38	24.47
5	QPSK	1	12	24.16	24.14	24.33
5	QPSK	1	24	24.06	24.32	24.24
5	QPSK	12	0	23.30	23.30	23.23
5	QPSK	12	6	23.24	23.35	23.26
5	QPSK	12	11	23.32	23.34	23.25
5	QPSK	25	0	23.33	23.33	23.32
5	16QAM	1	0	23.36	23.66	23.59
5	16QAM	1	12	23.18	23.27	23.19
5	16QAM	1	24	23.06	23.33	23.12
5	16QAM	12	0	22.30	22.41	22.26
5	16QAM	12	6	22.33	22.29	22.31
5	16QAM	12	11	22.22	22.31	22.39
5	16QAM	25	0	22.36	22.29	22.29

BW [MHz]	Modulation	RB Size	RB Offset	Power (dBm) Low Ch. / Freq.	Power (dBm) Middle Ch. / Freq.	Power (dBm) High Ch. / Freq.
Channel				**23025**	**23095**	**23165**
Frequency (MHz)				**700.5**	**707.5**	**714.5**
3	QPSK	1	0	24.32	24.43	24.34
3	QPSK	1	7	24.31	24.38	24.20
3	QPSK	1	14	24.16	24.40	24.25
3	QPSK	8	0	23.30	23.33	23.31
3	QPSK	8	4	23.27	23.35	23.26
3	QPSK	8	7	23.34	23.31	23.48
3	QPSK	15	0	23.35	23.39	23.48
3	16QAM	1	0	23.22	23.44	23.10
3	16QAM	1	7	23.05	23.22	23.01
3	16QAM	1	14	23.14	23.42	23.05
3	16QAM	8	0	22.41	22.32	22.33
3	16QAM	8	4	22.20	22.37	22.34
3	16QAM	8	7	22.41	22.28	22.34
3	16QAM	15	0	22.19	22.31	22.30
Channel				**23017**	**23095**	**23173**
Frequency (MHz)				**699.7**	**707.5**	**715.3**
1.4	QPSK	1	0	24.48	24.41	24.32
1.4	QPSK	1	2	24.21	24.36	24.29
1.4	QPSK	1	5	24.26	24.27	24.30
1.4	QPSK	3	0	24.28	24.30	24.18
1.4	QPSK	3	1	24.36	24.35	24.22
1.4	QPSK	3	2	24.25	24.33	24.20
1.4	QPSK	6	0	23.28	23.27	23.31
1.4	16QAM	1	0	23.49	23.42	23.61
1.4	16QAM	1	2	23.16	23.36	23.59
1.4	16QAM	1	5	23.42	23.18	23.58
1.4	16QAM	3	0	23.25	23.10	23.22
1.4	16QAM	3	1	23.11	23.14	23.15
1.4	16QAM	3	2	23.21	23.36	23.32
1.4	16QAM	6	0	22.32	22.09	22.15

<LTE Band 17 Conducted Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power (dBm) Low Ch. / Freq.	Power (dBm) Middle Ch. / Freq.	Power (dBm) High Ch. / Freq.
Channel				**23780**	**23790**	**23800**
Frequency (MHz)				**709**	**710**	**711**
10	QPSK	1	0	24.62	24.66	24.65
10	QPSK	1	24	24.45	24.53	24.55
10	QPSK	1	49	24.56	24.61	24.37
10	QPSK	25	0	23.37	23.67	23.60
10	QPSK	25	12	23.62	23.61	23.50
10	QPSK	25	24	23.59	23.65	23.63
10	QPSK	50	0	23.66	23.68	23.65
10	16QAM	1	0	23.87	23.62	23.59
10	16QAM	1	24	23.45	23.51	23.42
10	16QAM	1	49	23.70	23.51	23.36
10	16QAM	25	0	22.80	22.64	22.66
10	16QAM	25	12	22.76	22.69	22.86
10	16QAM	25	24	22.74	22.54	22.66
10	16QAM	50	0	22.73	22.70	22.61
Channel				**23755**	**23790**	**23825**
Frequency (MHz)				**706.5**	**710**	**713.5**
5	QPSK	1	0	24.58	24.60	24.55
5	QPSK	1	12	24.49	24.25	24.49
5	QPSK	1	24	24.45	24.35	24.32
5	QPSK	12	0	23.45	23.55	23.58
5	QPSK	12	6	23.53	23.66	23.57
5	QPSK	12	11	23.57	23.64	23.62
5	QPSK	25	0	23.48	23.64	23.64
5	16QAM	1	0	23.64	23.69	23.70
5	16QAM	1	12	23.36	23.59	23.41
5	16QAM	1	24	23.85	23.35	23.55
5	16QAM	12	0	22.46	22.61	22.66
5	16QAM	12	6	22.58	22.62	22.53
5	16QAM	12	11	22.57	22.64	22.58
5	16QAM	25	0	22.53	22.63	22.67

Note: maximum average power for LTE.

3.2 Peak-to-Average Ratio

3.2.1 Description of the PAR Measurement

Power Complementary Cumulative Distribution Function (CCDF) curves provide a means for characterizing the power peaks of a digitally modulated signal on a statistical basis. A CCDF curve depicts the probability of the peak signal amplitude exceeding the average power level. Most contemporary measurement instrumentation include the capability to produce CCDF curves for an input signal provided that the instrument's resolution bandwidth can be set wide enough to accommodate the entire input signal bandwidth. In measuring transmissions in this band using an average power technique, the peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.

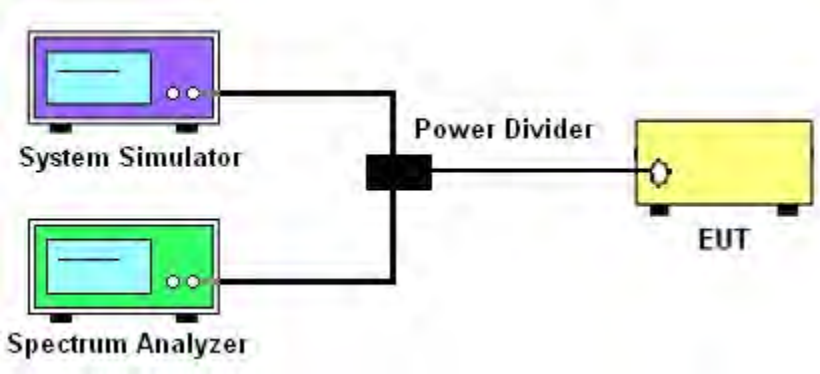
3.2.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.2.3 Test Procedures

1. The EUT was connected to spectrum and system simulator via a power divider.
2. Set the CCDF (Complementary Cumulative Distribution Function) option in spectrum analyzer.
3. The highest RF powers were measured and recorded the maximum PAPR level associated with a probability of 0.1 %.
4. Record the deviation as Peak to Average Ratio.

3.2.4 Test Setup



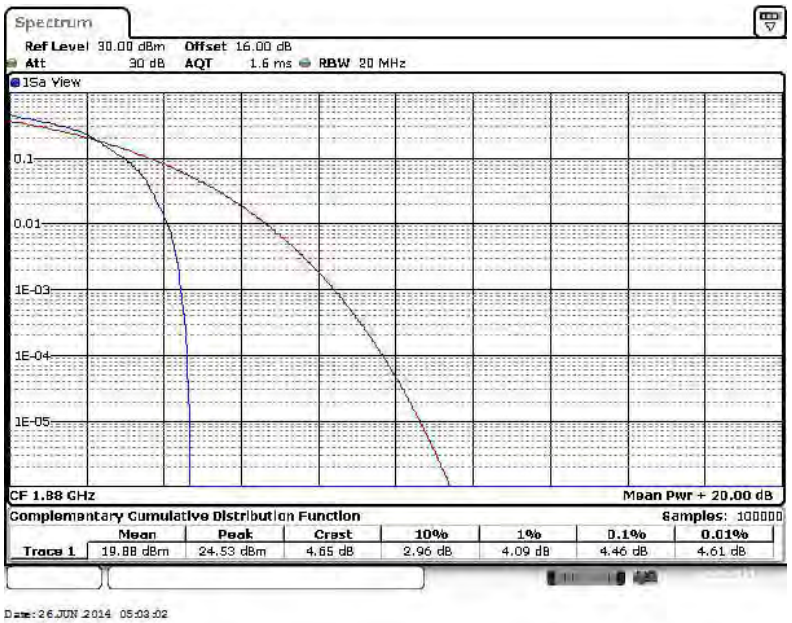
3.2.5 Test Result of Peak-to-Average Ratio

LTE Band 2				
BW [MHz]	Modulation	RB Size	RB Offset	Power (dBm) Middle Ch. / Freq.
Channel				18900
Frequency (MHz)				1880
20	16QAM	1	0	4.46
20	16QAM	100	0	5.30

3.2.6 Peak to Average Power Ratio

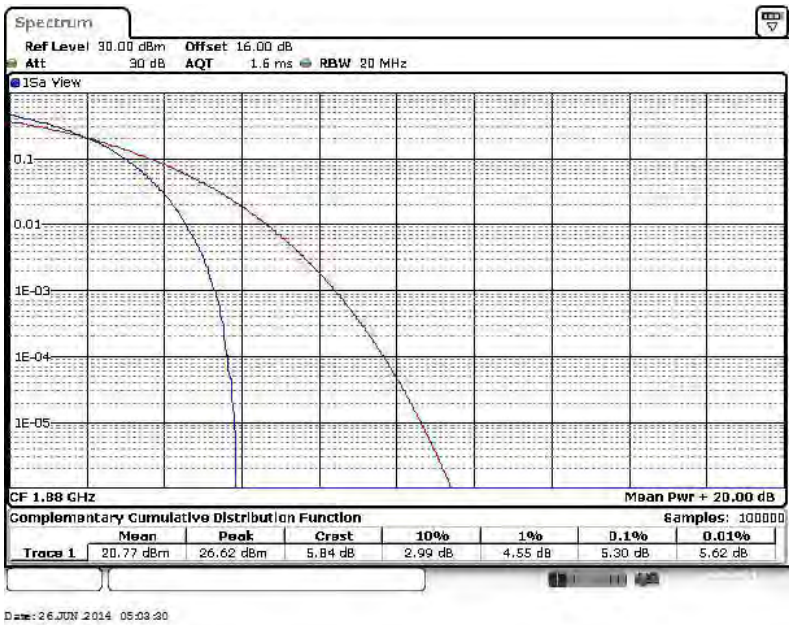
Peak-to-Average Ratio on LTE Band 2

20MHz / 16QAM in Ch. 18900 (1RB Size)



Peak-to-Average Ratio on LTE Band 2

20MHz / 16QAM in Ch. 18900 (100RB Size)



3.3 Effective Radiated Power and Equivalent Isotropic Radiated Power Measurement

3.3.1 Description of the ERP/EIRP Measurement

Effective radiated power output measurements by substitution method according to ANSI / TIA / EIA-603-C-2004, and the spectrum analyzer configuration follows KDB 971168 D01 Power Meas. License Digital Systems v02r01. Mobile and portable (hand-held) stations operating are limited to average ERP of 7 watts with LTE band 5 and 3 watts with LTE band 12 / 17.

Equivalent isotropic radiated power output measurements by substitution method according to ANSI / TIA / EIA-603-C-2004, and the spectrum analyzer configuration follows KDB 971168 D01 Power Meas. License Digital Systems v02r01. Mobile and portable (hand-held) stations operating are limited to average EIRP of 2 watts with LTE band 2 and 1 watt with LTE band 4.

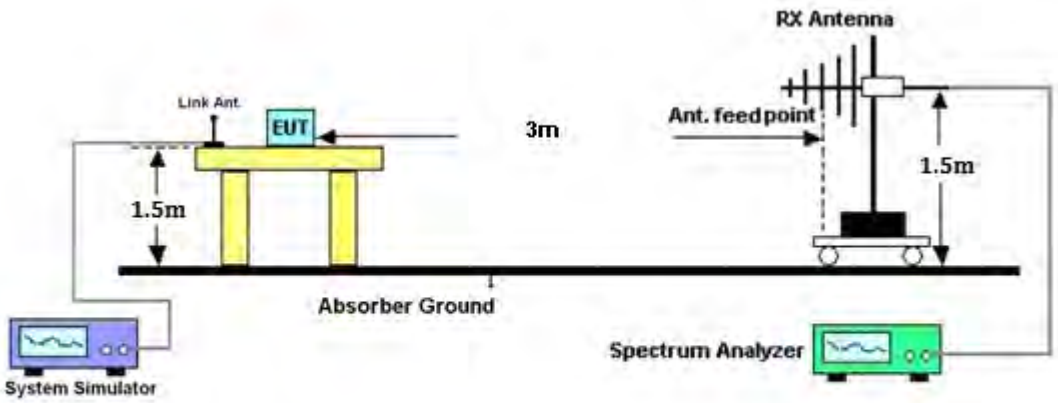
3.3.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.3.3 Test Procedures

1. The EUT was placed on a turntable with 1.5 meter height in a fully anechoic chamber.
2. The EUT was set at 3 meters from the receiving antenna, which was mounted on the antenna tower.
3. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and a spectrum analyzer which used a channel power option across EUT's signal bandwidth per section 4.0 of KDB 971168 D01.
4. The table was rotated 360 degrees to determine the position of the highest radiated power.
5. The height of the receiving antenna is adjusted to look for the maximum ERP/EIRP.
6. Taking the record of maximum ERP/EIRP.
7. A dipole antenna was substituted in place of the EUT and was driven by a signal generator.
8. The conducted power at the terminal of the dipole antenna is measured.
9. Repeat step 3 to step 5 to get the maximum ERP/EIRP of the substitution antenna.
10. ERP/EIRP = Ps + Et – Es + Gs = Ps + Rt – Rs + Gs
    Ps (dBm)：Input power to substitution antenna.
    Gs (dBi or dBd)：Substitution antenna Gain.
    Et = Rt + AF
    Es = Rs + AF
    AF (dB/m)：Receive antenna factor
    Rt：The highest received signal in spectrum analyzer for EUT.
    Rs：The highest received signal in spectrum analyzer for substitution antenna.

3.3.4 Test Setup



3.3.5 Test Result of ERP/EIRP

LTE Band 2 Radiated Power EIRP								
LTE Band	Channel BW (MHz)	Modulation	RB Configuration		Freq. (MHz)	EIRP (dBm)	EIRP (W)	H/V
			RB Size	RB Offset				
2	1.4	QPSK	1	2	1850.7	20.79	0.1199	H
2	1.4	QPSK	1	0	1880	21.45	0.1396	H
2	1.4	QPSK	1	2	1909.3	22.31	0.1702	H
2	1.4	QPSK	1	2	1850.7	21.05	0.1274	V
2	1.4	QPSK	1	0	1880	21.19	0.1315	V
2	1.4	QPSK	1	2	1909.3	22.46	0.1762	V
2	1.4	16QAM	1	2	1850.7	19.68	0.0929	H
2	1.4	16QAM	1	0	1880	20.14	0.1033	H
2	1.4	16QAM	1	2	1909.3	20.30	0.1072	H
2	1.4	16QAM	1	2	1850.7	19.94	0.0986	V
2	1.4	16QAM	1	0	1880	19.98	0.0995	V
2	1.4	16QAM	1	2	1909.3	20.35	0.1084	V
2	20	QPSK	1	49	1860	21.09	0.1285	H
2	20	QPSK	1	49	1880	21.67	0.1469	H
2	20	QPSK	1	49	1900	22.01	0.1589	H
2	20	QPSK	1	49	1860	21.19	0.1315	V
2	20	QPSK	1	49	1880	21.60	0.1445	V
2	20	QPSK	1	49	1900	22.33	0.1710	V
2	20	16QAM	1	49	1860	20.01	0.1002	H
2	20	16QAM	1	49	1880	20.68	0.1169	H
2	20	16QAM	1	49	1900	21.17	0.1309	H
2	20	16QAM	1	49	1860	20.04	0.1009	V
2	20	16QAM	1	49	1880	20.45	0.1109	V
2	20	16QAM	1	49	1900	21.32	0.1355	V

LTE Band 4 Radiated Power EIRP								
LTE Band	Channel BW (MHz)	Modulation	RB Configuration		Freq. (MHz)	EIRP (dBm)	EIRP (W)	H/V
			RB Size	RB Offset				
4	1.4	QPSK	1	0	1710.7	23.13	0.2056	H
4	1.4	QPSK	1	0	1732.5	22.68	0.1854	H
4	1.4	QPSK	1	0	1754.3	22.76	0.1888	H
4	1.4	QPSK	1	0	1710.7	22.59	0.1816	V
4	1.4	QPSK	1	0	1732.5	20.40	0.1096	V
4	1.4	QPSK	1	0	1754.3	20.58	0.1143	V
4	1.4	16QAM	1	0	1710.7	22.23	0.1671	H
4	1.4	16QAM	1	0	1732.5	21.75	0.1496	H
4	1.4	16QAM	1	0	1754.3	21.58	0.1439	H
4	1.4	16QAM	1	0	1710.7	21.45	0.1396	V
4	1.4	16QAM	1	0	1732.5	19.49	0.0889	V
4	1.4	16QAM	1	0	1754.3	19.42	0.0875	V
4	20	QPSK	1	0	1720	23.06	0.2023	H
4	20	QPSK	1	0	1732.5	22.90	0.1950	H
4	20	QPSK	1	0	1745	22.62	0.1828	H
4	20	QPSK	1	0	1720	22.38	0.1730	V
4	20	QPSK	1	0	1732.5	21.34	0.1361	V
4	20	QPSK	1	0	1745	20.13	0.1030	V
4	20	16QAM	1	0	1720	21.76	0.1500	H
4	20	16QAM	1	0	1732.5	21.62	0.1452	H
4	20	16QAM	1	0	1745	21.44	0.1393	H
4	20	16QAM	1	0	1720	21.45	0.1396	V
4	20	16QAM	1	0	1732.5	20.54	0.1132	V
4	20	16QAM	1	0	1745	19.27	0.0845	V

LTE Band 5 Radiated Power ERP								
LTE Band	Channel BW (MHz)	Modulation	RB Configuration		Freq. (MHz)	ERP (dBm)	ERP (W)	H/V
			RB Size	RB Offset				
5	1.4	QPSK	1	0	824.7	17.91	0.0618	H
5	1.4	QPSK	1	0	836.5	18.73	0.0746	H
5	1.4	QPSK	1	0	848.3	18.78	0.0755	H
5	1.4	QPSK	1	0	824.7	12.36	0.0172	V
5	1.4	QPSK	1	0	836.5	13.33	0.0215	V
5	1.4	QPSK	1	0	848.3	13.22	0.0210	V
5	1.4	16QAM	1	0	824.7	16.53	0.0450	H
5	1.4	16QAM	1	0	836.5	17.36	0.0545	H
5	1.4	16QAM	1	0	848.3	17.39	0.0548	H
5	1.4	16QAM	1	0	824.7	10.64	0.0116	V
5	1.4	16QAM	1	0	836.5	11.76	0.0150	V
5	1.4	16QAM	1	0	848.3	11.58	0.0144	V
5	10	QPSK	1	0	829	17.82	0.0605	H
5	10	QPSK	1	0	836.5	18.66	0.0735	H
5	10	QPSK	1	0	844	18.52	0.0711	H
5	10	QPSK	1	0	829	12.04	0.0160	V
5	10	QPSK	1	0	836.5	12.82	0.0191	V
5	10	QPSK	1	0	844	13.13	0.0206	V
5	10	16QAM	1	0	829	16.50	0.0447	H
5	10	16QAM	1	0	836.5	17.30	0.0537	H
5	10	16QAM	1	0	844	17.30	0.0537	H
5	10	16QAM	1	0	829	10.93	0.0124	V
5	10	16QAM	1	0	836.5	11.80	0.0151	V
5	10	16QAM	1	0	844	12.21	0.0166	V

LTE Band 12 Radiated Power ERP								
LTE Band	Channel BW (MHz)	Modulation	RB Configuration		Freq. (MHz)	ERP (dBm)	ERP (W)	H/V
			RB Size	RB Offset				
12	1.4	QPSK	1	0	699.7	19.91	0.0979	H
12	1.4	QPSK	1	0	707.5	19.10	0.0813	H
12	1.4	QPSK	1	0	715.3	18.33	0.0681	H
12	1.4	QPSK	1	0	699.7	6.36	0.0043	V
12	1.4	QPSK	1	0	707.5	6.17	0.0041	V
12	1.4	QPSK	1	0	715.3	5.49	0.0035	V
12	1.4	16QAM	1	0	699.7	18.48	0.0705	H
12	1.4	16QAM	1	0	707.5	18.02	0.0634	H
12	1.4	16QAM	1	0	715.3	17.10	0.0513	H
12	1.4	16QAM	1	0	699.7	5.78	0.0038	V
12	1.4	16QAM	1	0	707.5	5.07	0.0032	V
12	1.4	16QAM	1	0	715.3	4.30	0.0027	V
12	10	QPSK	1	0	704	19.95	0.0989	H
12	10	QPSK	1	0	707.5	19.86	0.0968	H
12	10	QPSK	1	0	711	19.29	0.0849	H
12	10	QPSK	1	0	704	6.43	0.0044	V
12	10	QPSK	1	0	707.5	6.41	0.0044	V
12	10	QPSK	1	0	711	6.26	0.0042	V
12	10	16QAM	1	0	704	18.78	0.0755	H
12	10	16QAM	1	0	707.5	18.66	0.0735	H
12	10	16QAM	1	0	711	18.03	0.0635	H
12	10	16QAM	1	0	704	5.31	0.0034	V
12	10	16QAM	1	0	707.5	5.30	0.0034	V
12	10	16QAM	1	0	711	5.17	0.0033	V

LTE Band 17 Radiated Power ERP								
LTE Band	Channel BW (MHz)	Modulation	RB Configuration		Freq. (MHz)	ERP (dBm)	ERP (W)	H/V
			RB Size	RB Offset				
17	5	QPSK	1	0	706.5	19.94	0.0986	H
17	5	QPSK	1	0	710	19.75	0.0944	H
17	5	QPSK	1	0	713.5	19.17	0.0826	H
17	5	QPSK	1	0	706.5	7.55	0.0057	V
17	5	QPSK	1	0	710	7.70	0.0059	V
17	5	QPSK	1	0	713.5	7.56	0.0057	V
17	5	16QAM	1	0	706.5	18.83	0.0764	H
17	5	16QAM	1	0	710	18.62	0.0728	H
17	5	16QAM	1	0	713.5	18.07	0.0641	H
17	5	16QAM	1	0	706.5	6.45	0.0044	V
17	5	16QAM	1	0	710	6.53	0.0045	V
17	5	16QAM	1	0	713.5	6.39	0.0044	V
17	10	QPSK	1	0	709	20.04	0.1009	H
17	10	QPSK	1	0	710	19.91	0.0979	H
17	10	QPSK	1	0	711	19.72	0.0938	H
17	10	QPSK	1	0	709	6.82	0.0048	V
17	10	QPSK	1	0	710	6.75	0.0047	V
17	10	QPSK	1	0	711	6.66	0.0046	V
17	10	16QAM	1	0	709	18.70	0.0741	H
17	10	16QAM	1	0	710	18.63	0.0729	H
17	10	16QAM	1	0	711	18.55	0.0716	H
17	10	16QAM	1	0	709	6.25	0.0042	V
17	10	16QAM	1	0	710	6.45	0.0044	V
17	10	16QAM	1	0	711	6.54	0.0045	V

3.4 99% Occupied Bandwidth and 26dB Bandwidth Measurement

3.4.1 Description of 99% Occupied Bandwidth and 26dB Bandwidth Measurement

The occupied bandwidth is the width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5% of the total mean transmitted power.

The 26 dB emission bandwidth is defined as the frequency range between two points, one above and one below the carrier frequency, at which the spectral density of the emission is attenuated 26 dB below the maximum in-band spectral density of the modulated signal. Spectral density (power per unit bandwidth) is to be measured with a detector of resolution bandwidth equal to approximately 1.0% of the emission bandwidth.

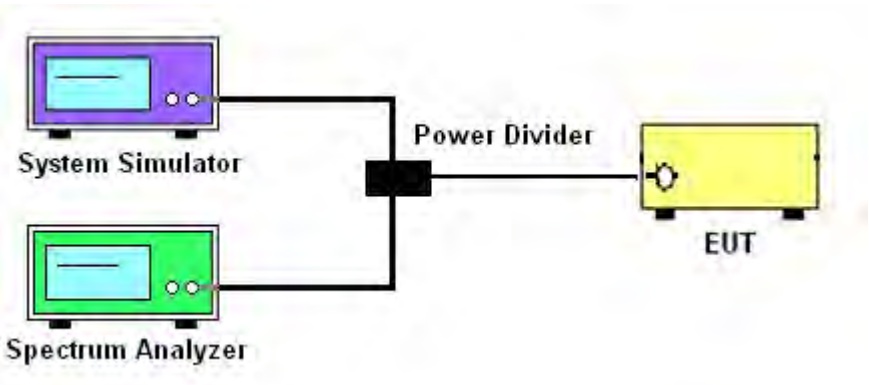
3.4.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.4.3 Test Procedures

1. The EUT was connected to spectrum analyzer and system simulator via a power divider.
2. The 26dB and 99% occupied bandwidth (BW) of the middle channel for the highest RF power with full RB sizes were measured.

3.4.4 Test Setup



3.4.5 Test Result of 99% Occupied Bandwidth and 26dB Bandwidth

Modes	LTE Band 5			
BW / Mod.	1.4MHz / QPSK	1.4MHz / 16QAM	3MHz / QPSK	3MHz / 16QAM
99% OBW (MHz)	1.094	1.097	2.721	2.721
26dB BW (MHz)	1.262	1.292	3.051	3.039
BW / Mod.	5MHz / QPSK	5MHz / 16QAM	10MHz / QPSK	10MHz / 16QAM
99% OBW (MHz)	4.486	4.476	9.131	9.031
26dB BW (MHz)	5.005	5.015	10.030	10.030

Modes	LTE Band 2			
BW / Mod.	1.4MHz / QPSK	1.4MHz / 16QAM	3MHz / QPSK	3MHz / 16QAM
99% OBW (MHz)	1.099	1.102	2.733	2.727
26dB BW (MHz)	1.306	1.309	3.057	3.051
BW / Mod.	5MHz / QPSK	5MHz / 16QAM	10MHz / QPSK	10MHz / 16QAM
99% OBW (MHz)	4.505	4.496	9.091	9.031
26dB BW (MHz)	5.065	5.025	9.950	9.910
BW / Mod.	15MHz / QPSK	15MHz / 16QAM	20MHz / QPSK	20MHz / 16QAM
99% OBW (MHz)	13.457	13.427	18.302	18.422
26dB BW (MHz)	14.655	14.655	20.300	20.380

Modes	LTE Band 4			
BW / Mod.	1.4MHz / QPSK	1.4MHz / 16QAM	3MHz / QPSK	3MHz / 16QAM
99% OBW (MHz)	1.097	1.102	2.733	2.727
26dB BW (MHz)	1.306	1.312	3.081	3.045
BW / Mod.	5MHz / QPSK	5MHz / 16QAM	10MHz / QPSK	10MHz / 16QAM
99% OBW (MHz)	4.505	4.496	9.111	9.071
26dB BW (MHz)	5.075	5.035	10.210	9.910
BW / Mod.	15MHz / QPSK	15MHz / 16QAM	20MHz / QPSK	20MHz / 16QAM
99% OBW (MHz)	13.457	13.457	18.302	18.302
26dB BW (MHz)	14.655	14.625	20.380	20.579

Modes	LTE Band 12			
BW / Mod.	1.4MHz / QPSK	1.4MHz / 16QAM	3MHz / QPSK	3MHz / 16QAM
99% OBW (MHz)	1.097	1.099	2.733	2.721
26dB BW (MHz)	1.281	1.306	3.051	3.051
BW / Mod.	5MHz / QPSK	5MHz / 16QAM	10MHz / QPSK	10MHz / 16QAM
99% OBW (MHz)	4.496	4.486	9.051	9.051
26dB BW (MHz)	5.055	5.035	10.110	10.030

Modes	LTE Band 17			
BW / Mod.	5MHz / QPSK	5MHz / 16QAM	10MHz / QPSK	10MHz / 16QAM
99% OBW (MHz)	4.505	4.505	9.111	9.031
26dB BW (MHz)	5.085	5.055	10.090	10.050

Note:

The maximum RB configurations of the 99% Occupied Bandwidth and 26dB Bandwidth summary as below:

BW1.4MHz RB setting：RB Size 6, RB offset 0

BW3.0MHz RB setting：RB Size 15, RB offset 0

BW5.0MHz RB setting：RB Size 25, RB offset 0

BW10MHz RB setting：RB Size 50, RB offset 0

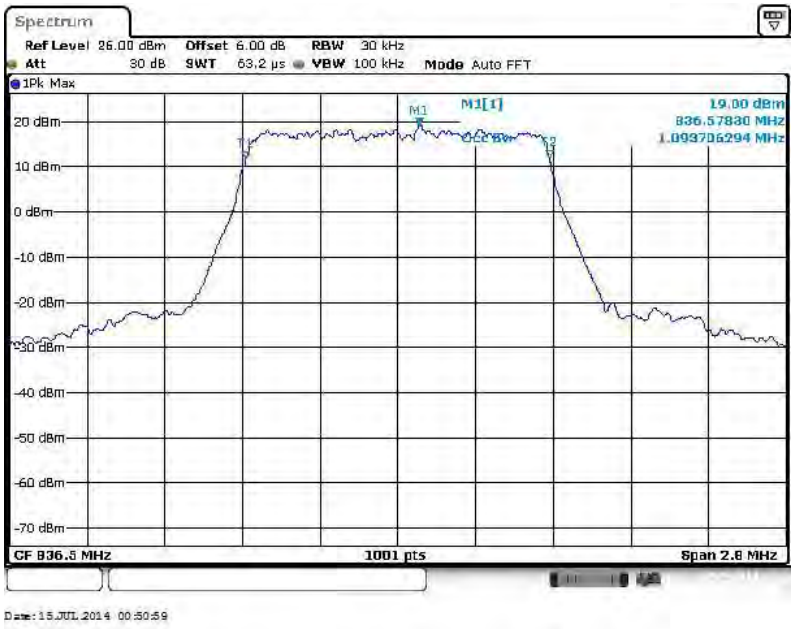
BW15MHz RB setting：RB Size 75, RB offset 0

BW20MHz RB setting：RB Size 100, RB offset 0

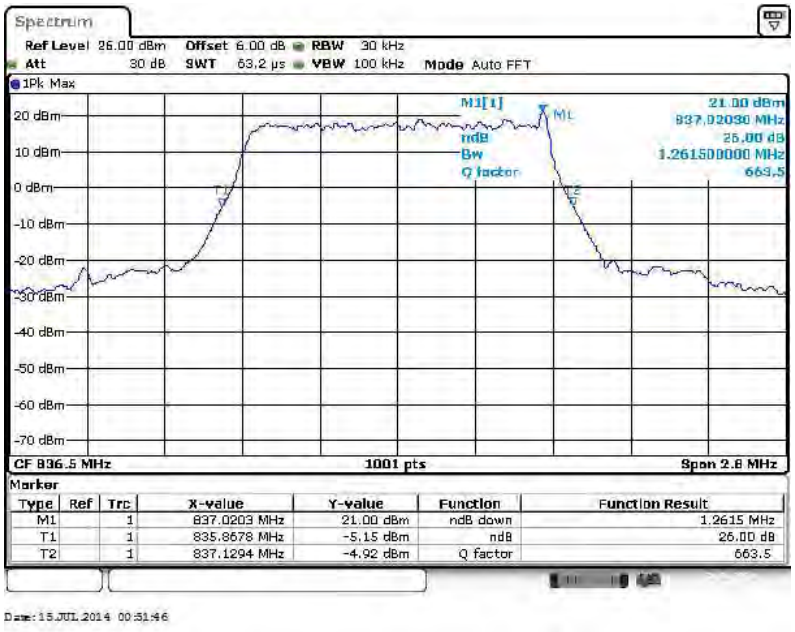
3.4.6 Test Result (Plots) of Occupied Bandwidth

Band :	LTE Band 5	BW / Mod. :	1.4MHz / QPSK

99% Occupied Bandwidth Plot on Channel 20525

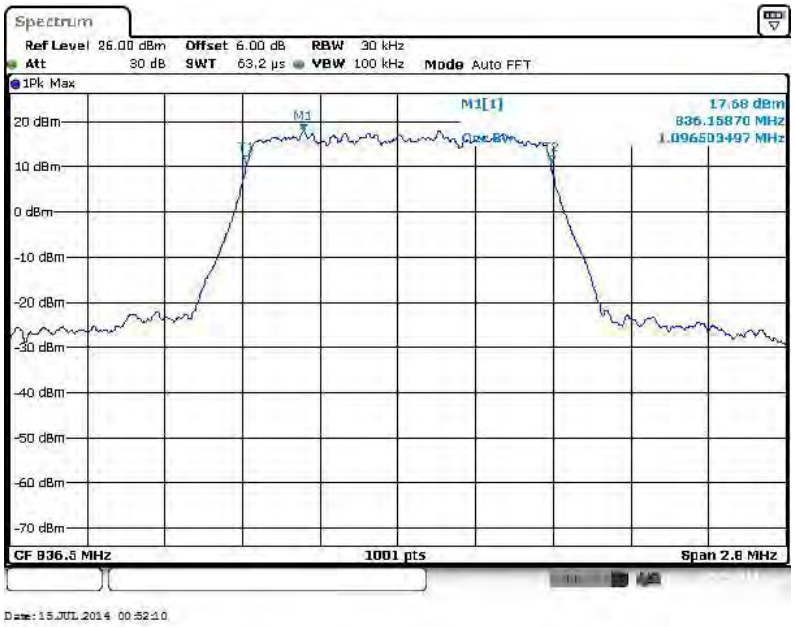


26dB Bandwidth Plot on Channel 20525

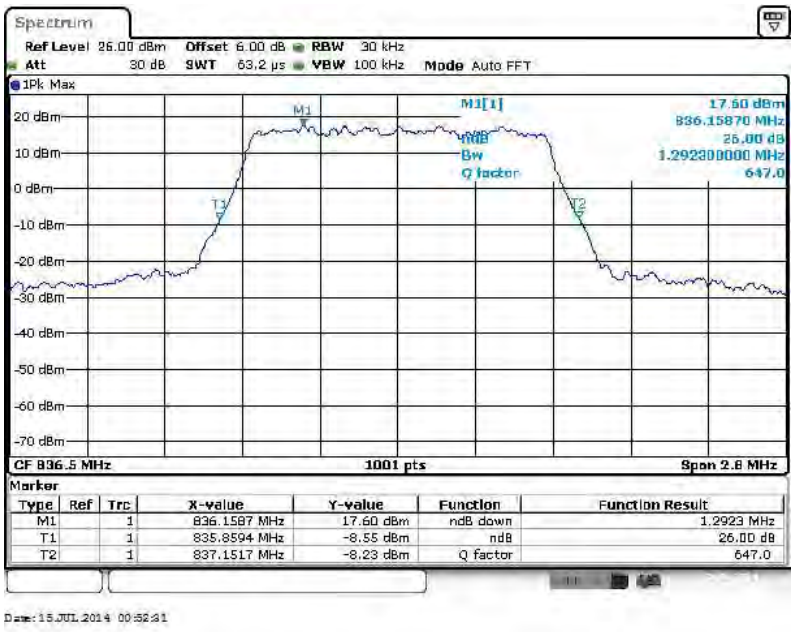


Band :	LTE Band 5	BW / Mod. :	1.4MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 20525

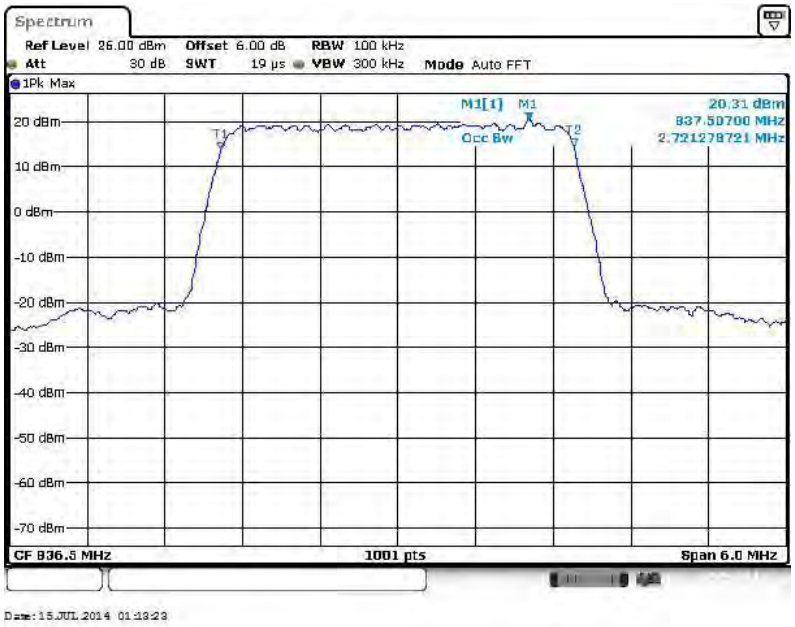


26dB Bandwidth Plot on Channel 20525

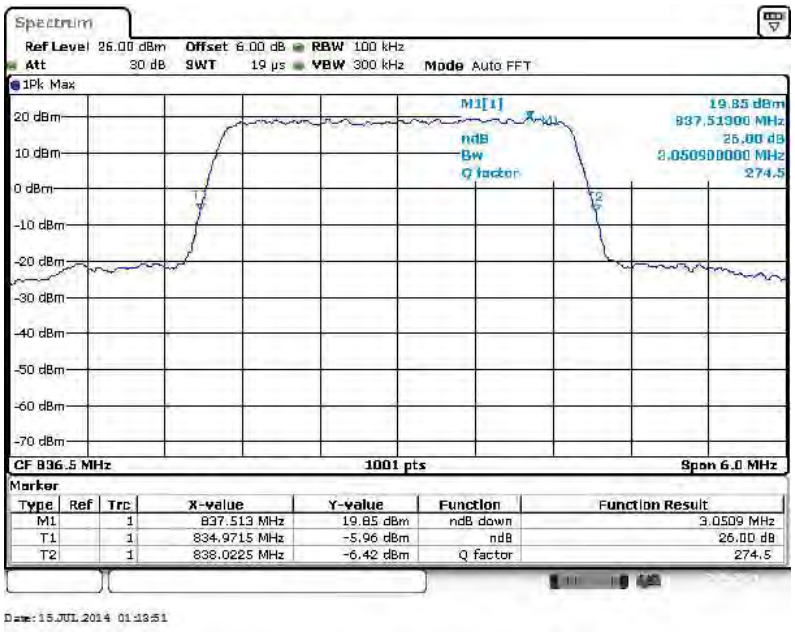


Band :	LTE Band 5	BW / Mod. :	3MHz / QPSK

99% Occupied Bandwidth Plot on Channel 20525

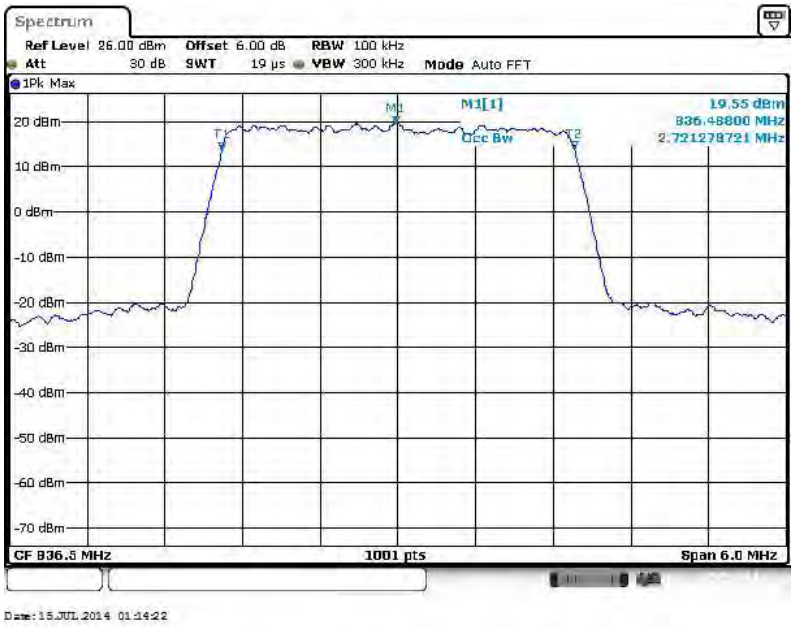


26dB Bandwidth Plot on Channel 20525

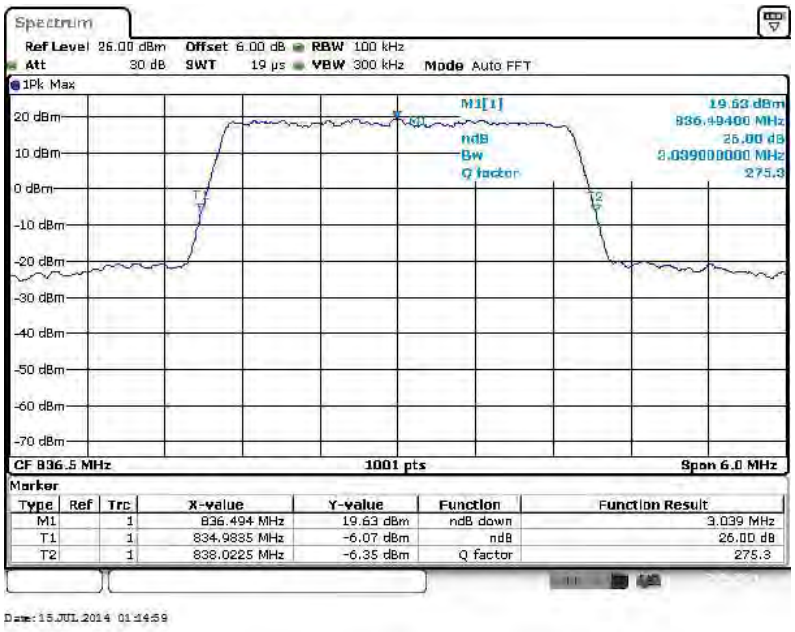


Band :	LTE Band 5	BW / Mod. :	3MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 20525

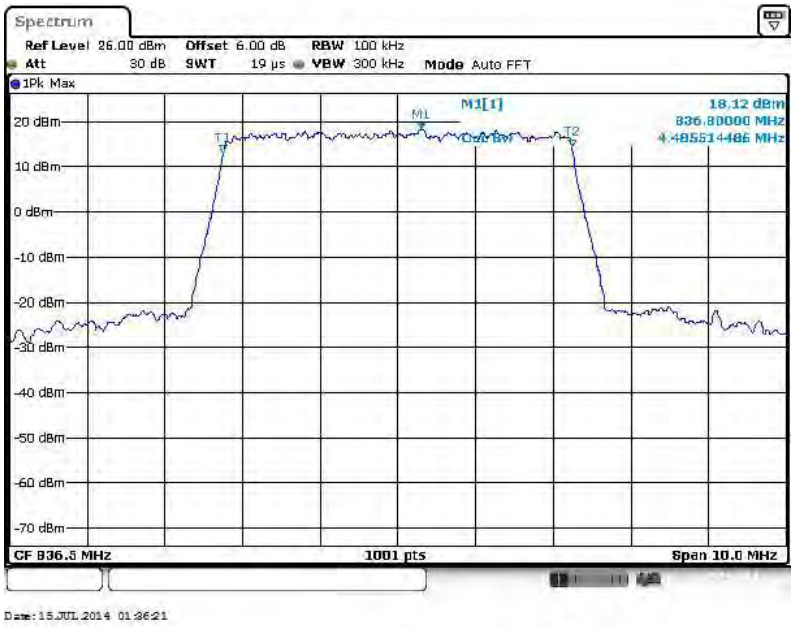


26dB Bandwidth Plot on Channel 20525

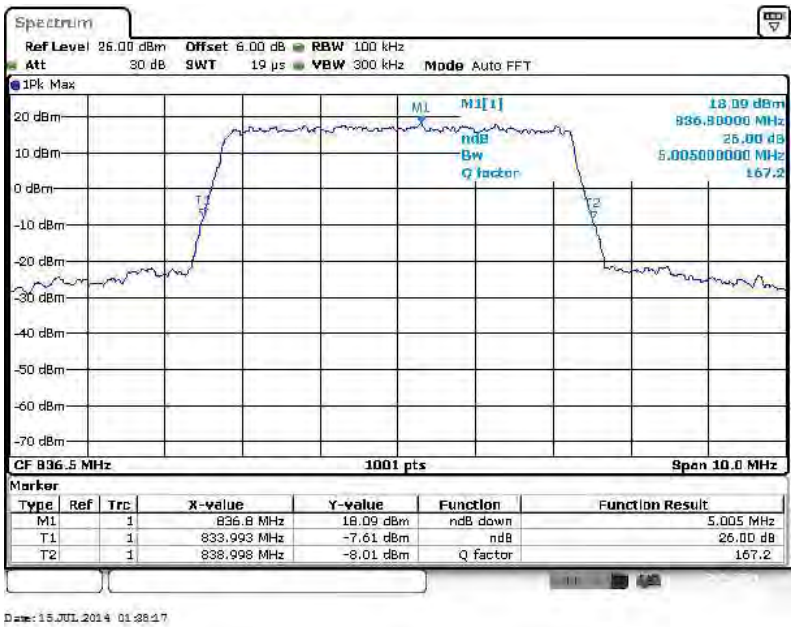


Band :	LTE Band 5	BW / Mod. :	5MHz / QPSK

99% Occupied Bandwidth Plot on Channel 20525

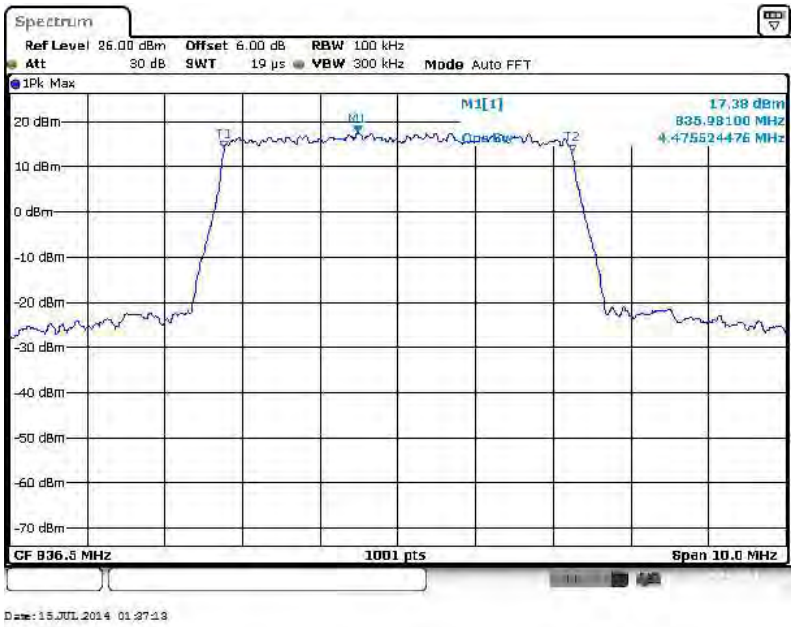


26dB Bandwidth Plot on Channel 20525

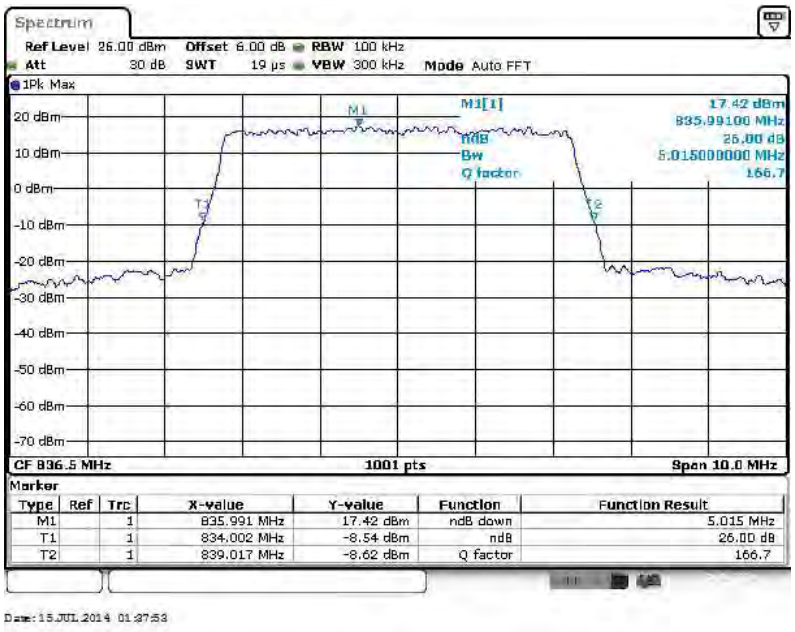


Band :	LTE Band 5	BW / Mod. :	5MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 20525

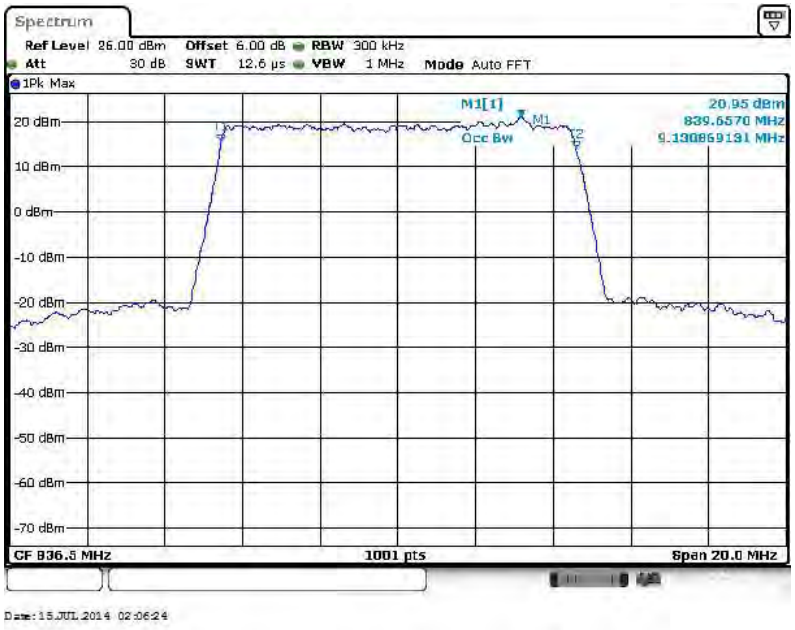


26dB Bandwidth Plot on Channel 20525

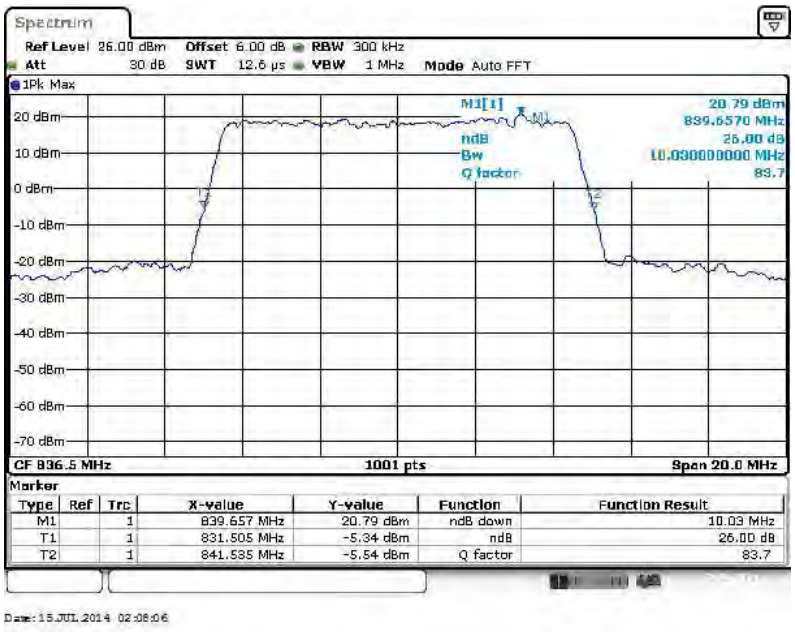


Band :	LTE Band 5	BW / Mod. :	10MHz / QPSK

99% Occupied Bandwidth Plot on Channel 20525

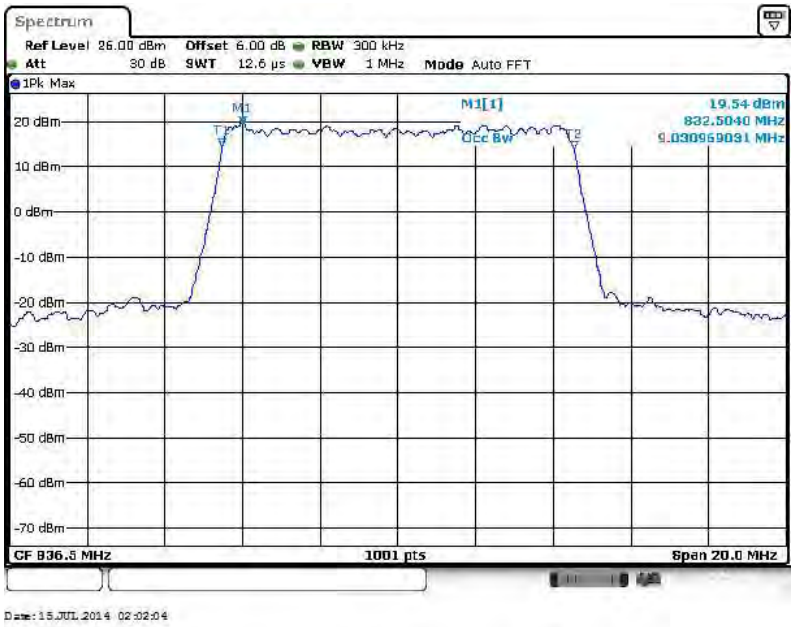


26dB Bandwidth Plot on Channel 20525

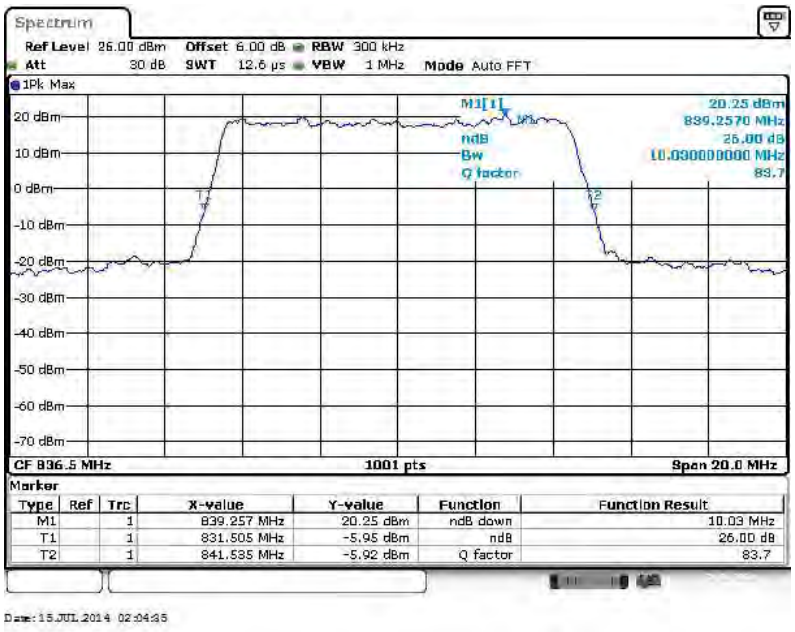


Band :	LTE Band 5	BW / Mod. :	10MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 20525

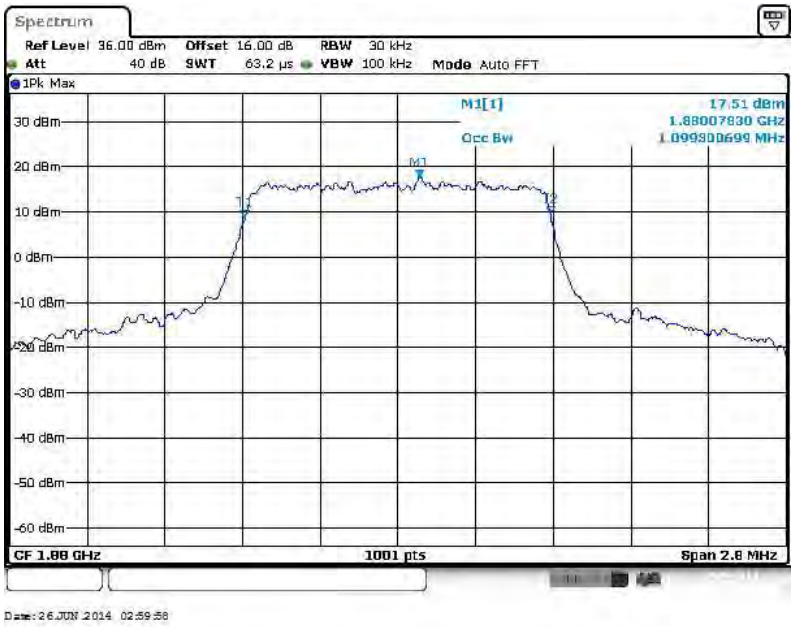


26dB Bandwidth Plot on Channel 20525

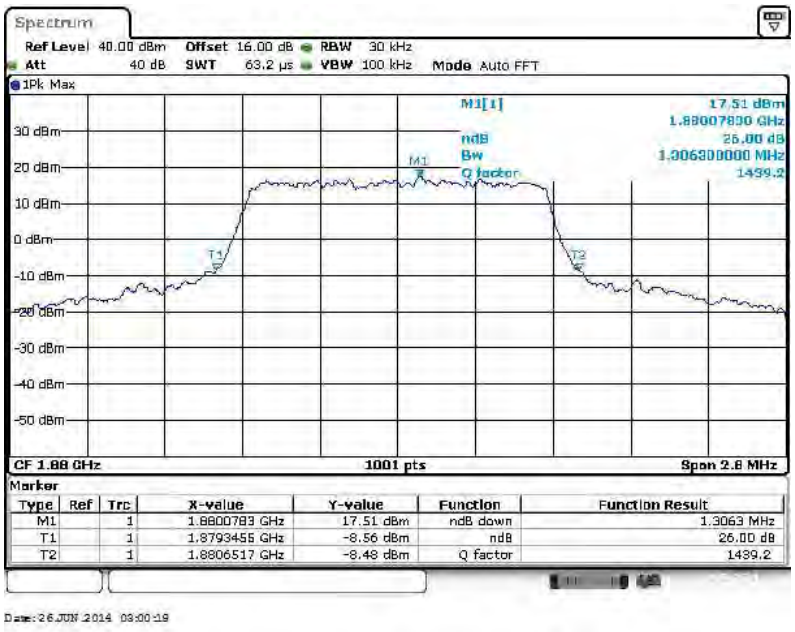


Band :	LTE Band 2	BW / Mod. :	1.4MHz / QPSK

99% Occupied Bandwidth Plot on Channel 18900

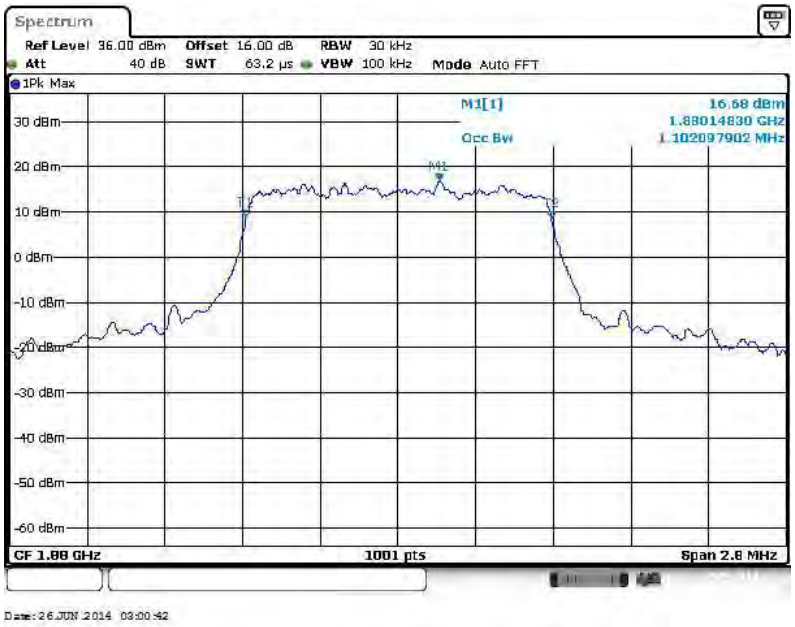


26dB Bandwidth Plot on Channel 18900

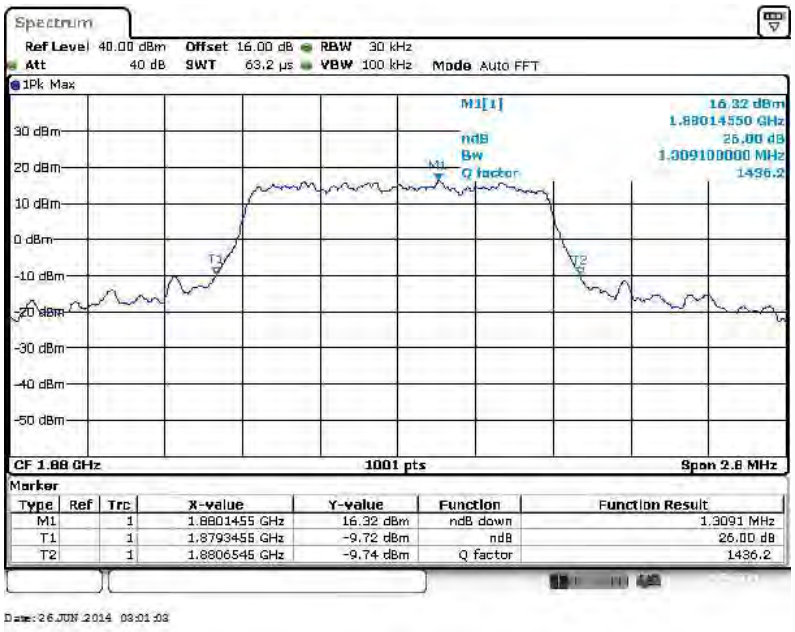


Band :	LTE Band 2	BW / Mod. :	1.4MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 18900

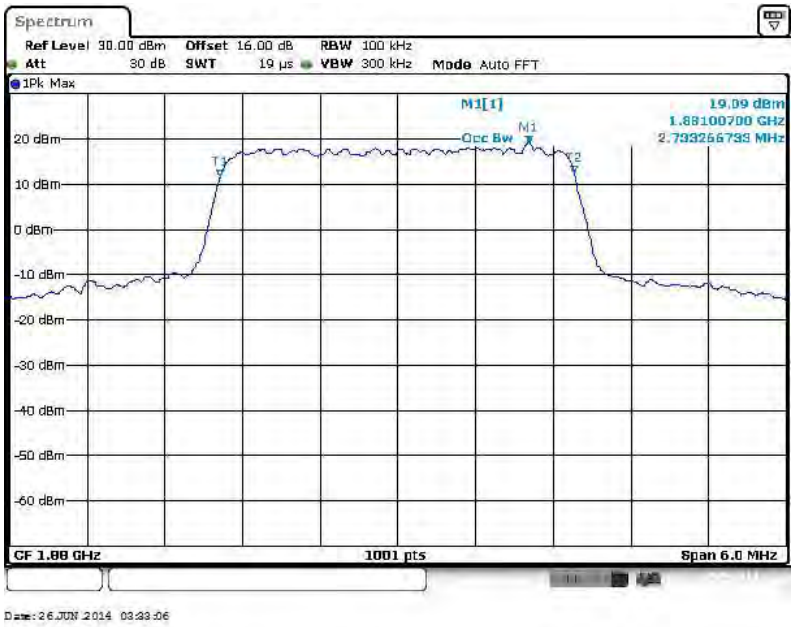


26dB Bandwidth Plot on Channel 18900

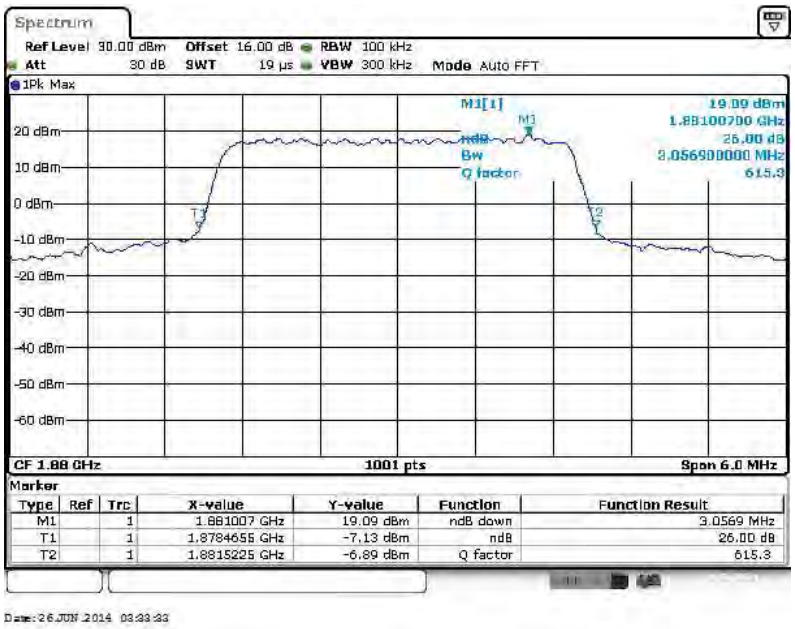


Band :	LTE Band 2	BW / Mod. :	3MHz / QPSK

99% Occupied Bandwidth Plot on Channel 18900

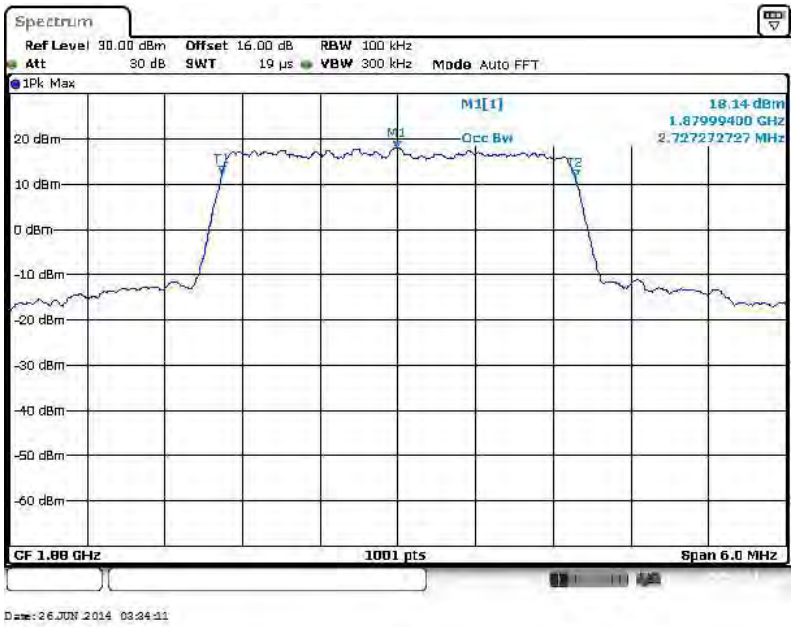


26dB Bandwidth Plot on Channel 18900

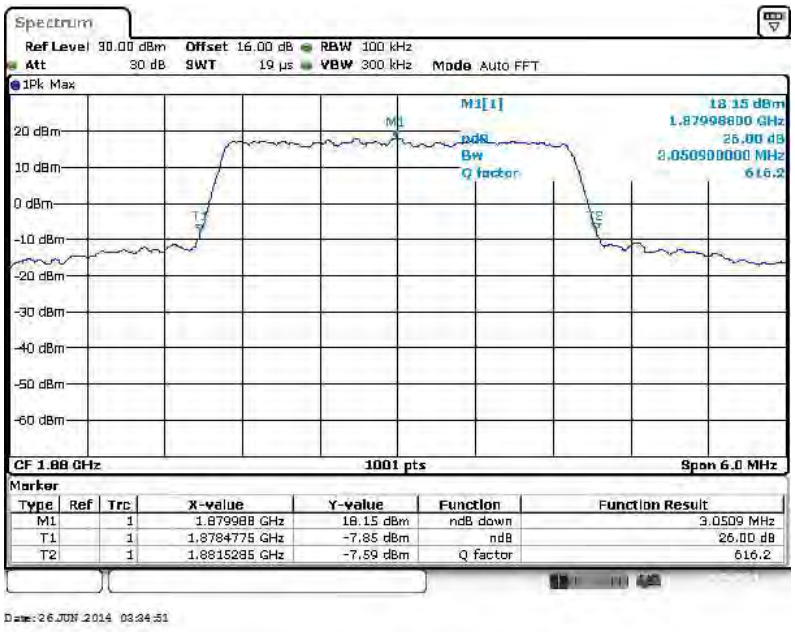


Band :	LTE Band 2	BW / Mod. :	3MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 18900

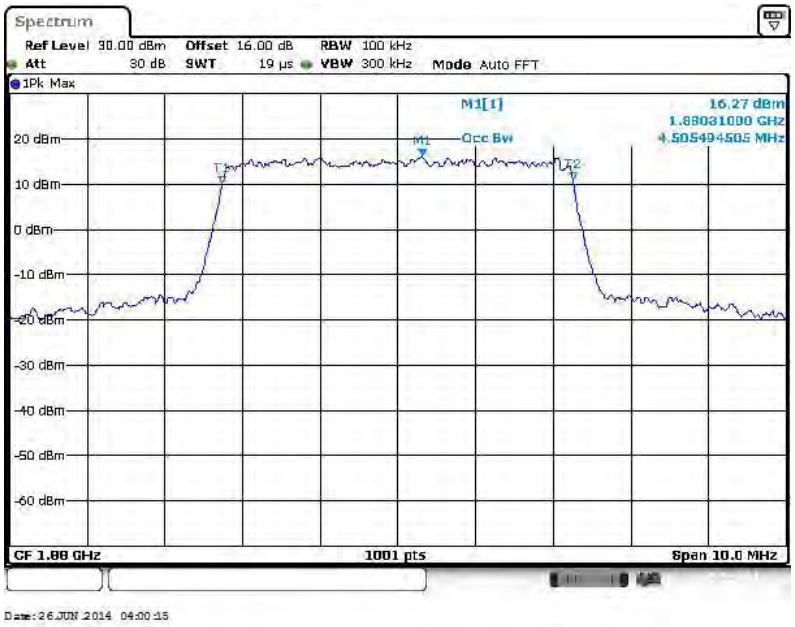


26dB Bandwidth Plot on Channel 18900

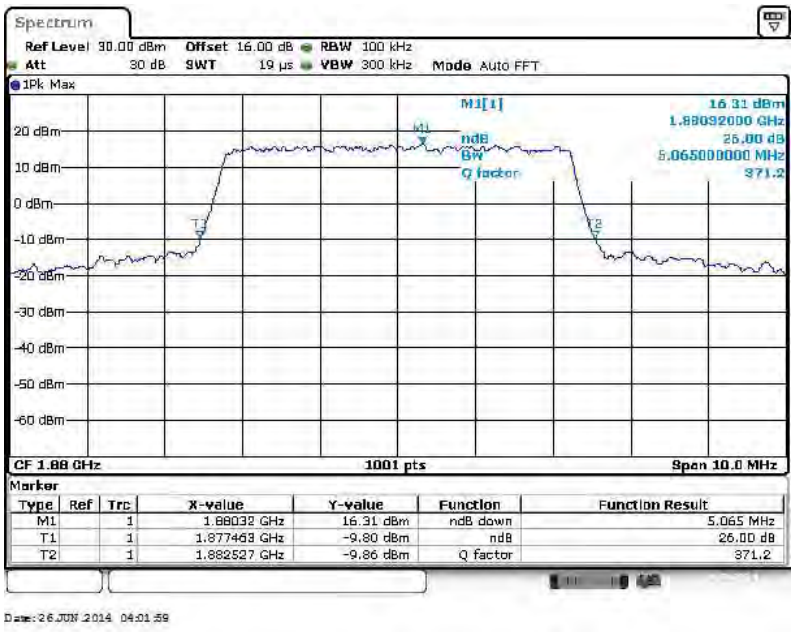


Band :	LTE Band 2	BW / Mod. :	5MHz / QPSK

99% Occupied Bandwidth Plot on Channel 18900

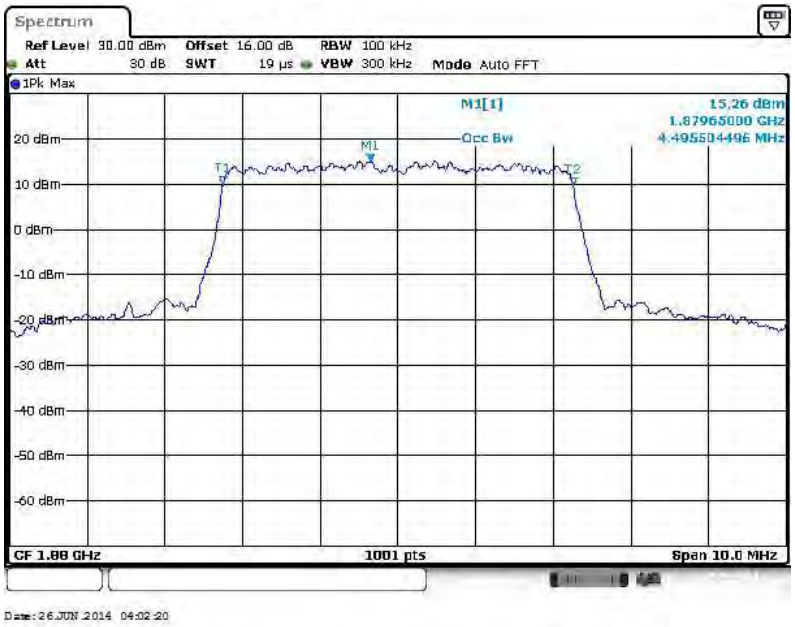


26dB Bandwidth Plot on Channel 18900

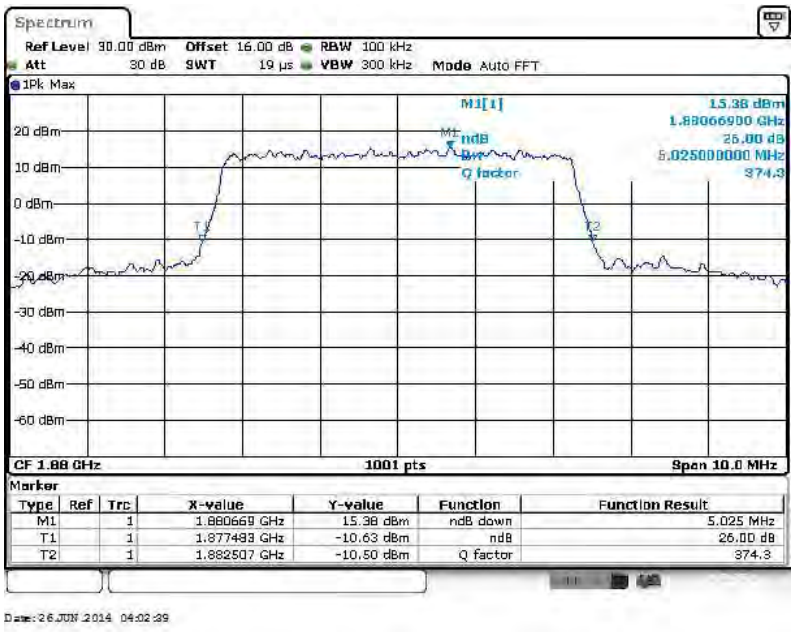


Band :	LTE Band 2	BW / Mod. :	5MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 18900

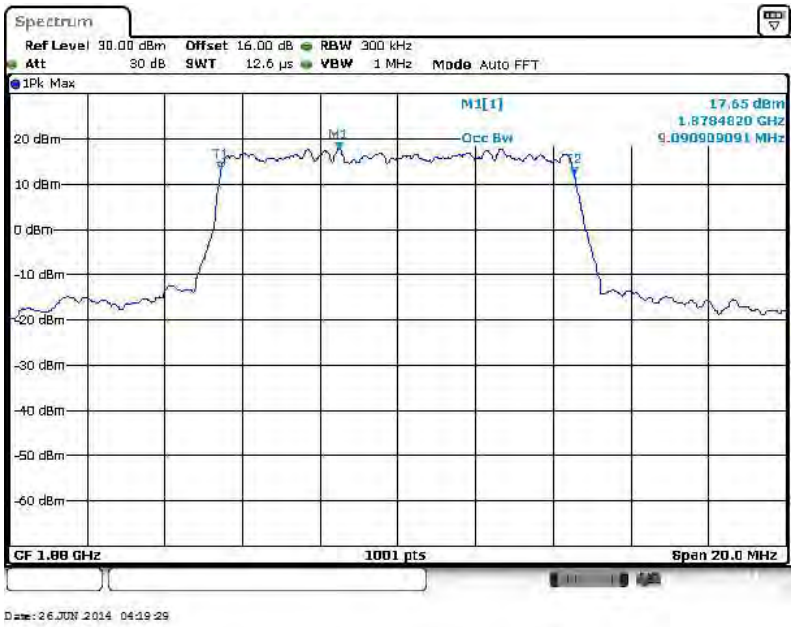


26dB Bandwidth Plot on Channel 18900

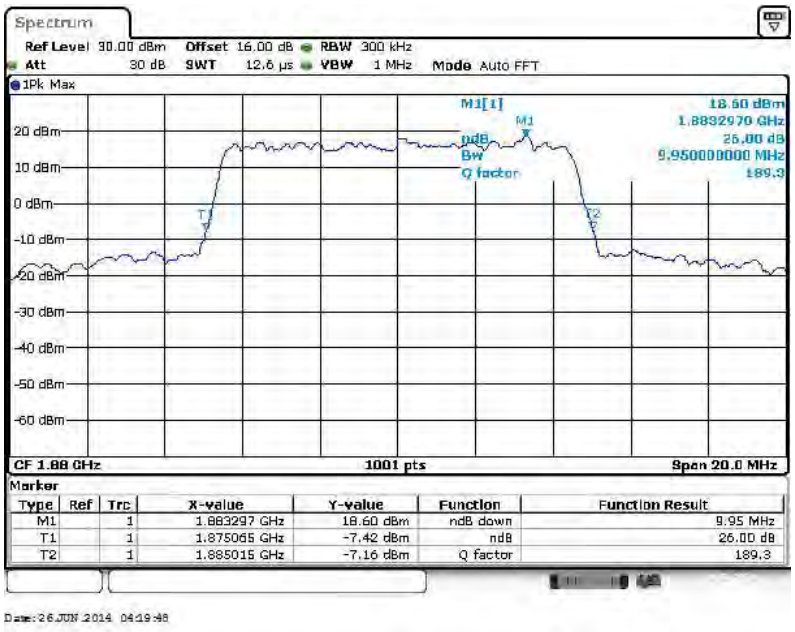


Band :	LTE Band 2	BW / Mod. :	10MHz / QPSK

99% Occupied Bandwidth Plot on Channel 18900

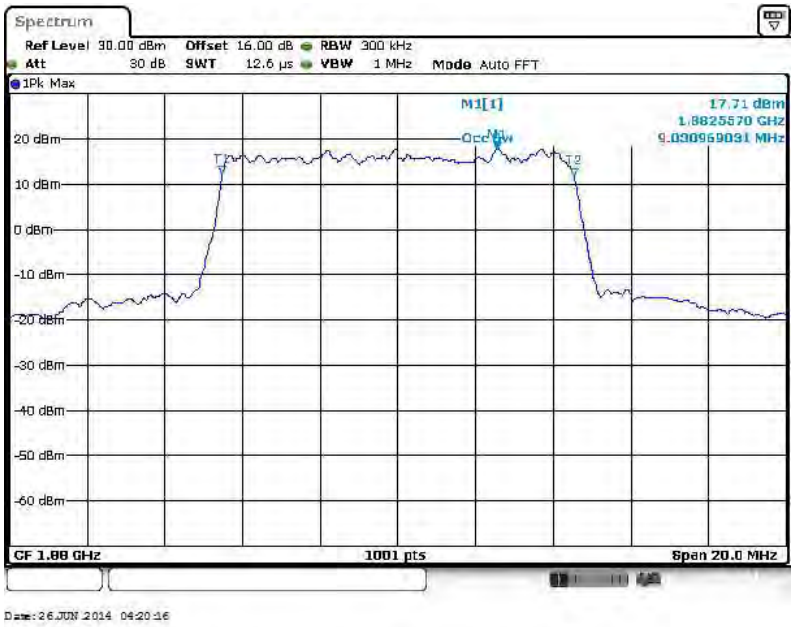


26dB Bandwidth Plot on Channel 18900

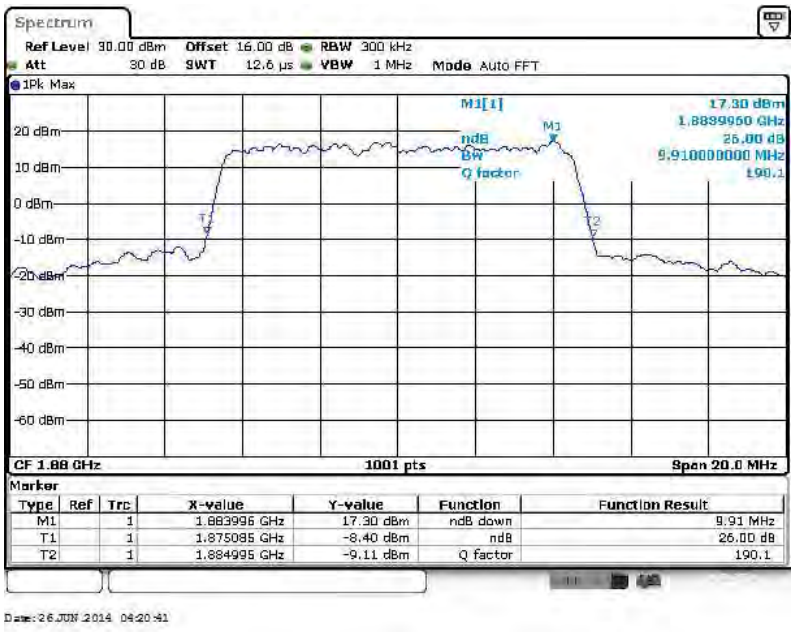


Band :	LTE Band 2	BW / Mod. :	10MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 18900

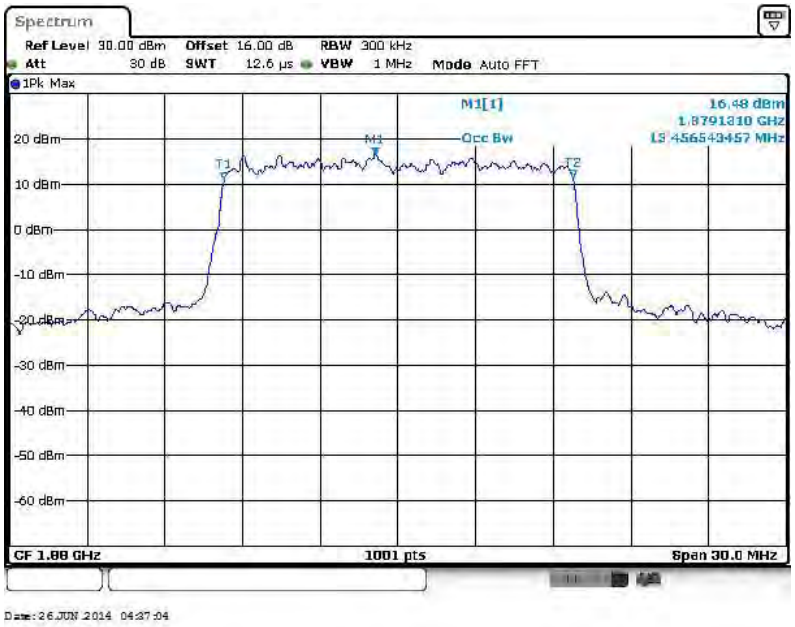


26dB Bandwidth Plot on Channel 18900

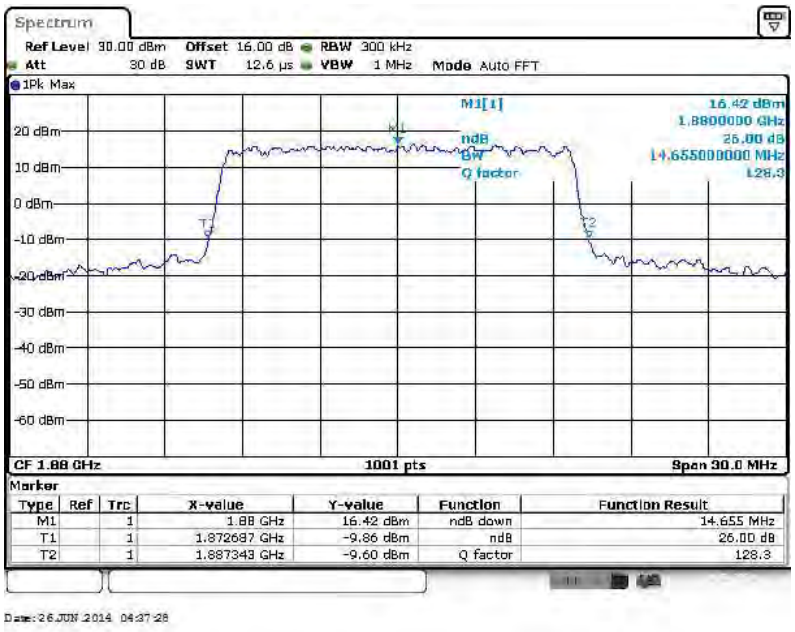


Band :	LTE Band 2	BW / Mod. :	15MHz / QPSK

99% Occupied Bandwidth Plot on Channel 18900

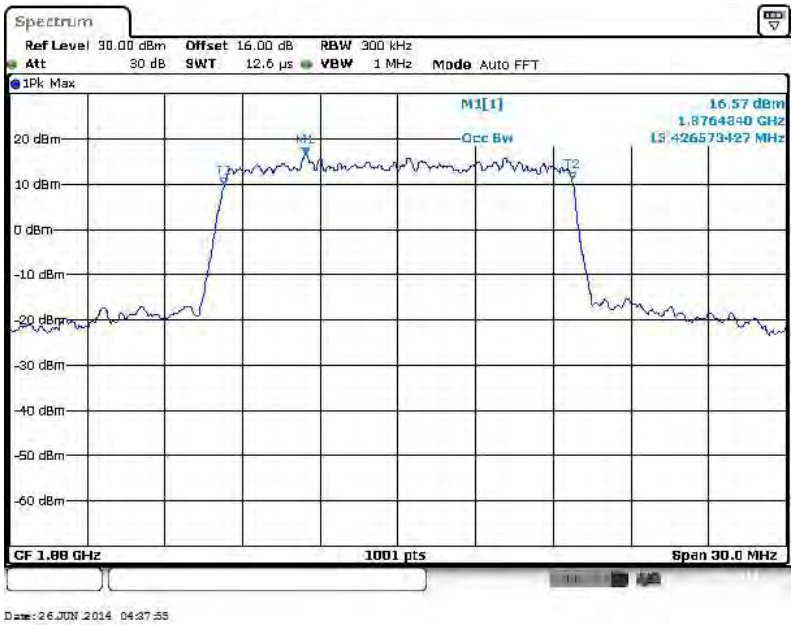


26dB Bandwidth Plot on Channel 18900

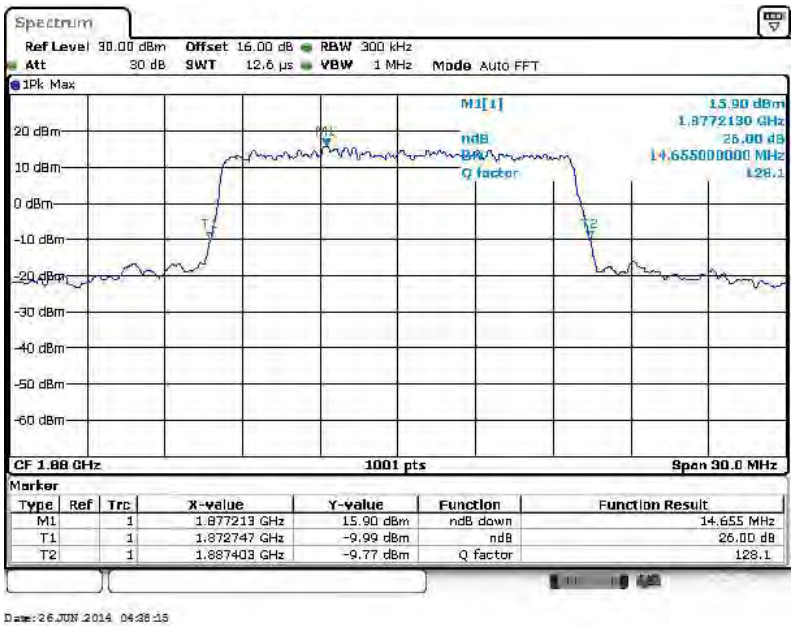


Band :	LTE Band 2	BW / Mod. :	15MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 18900

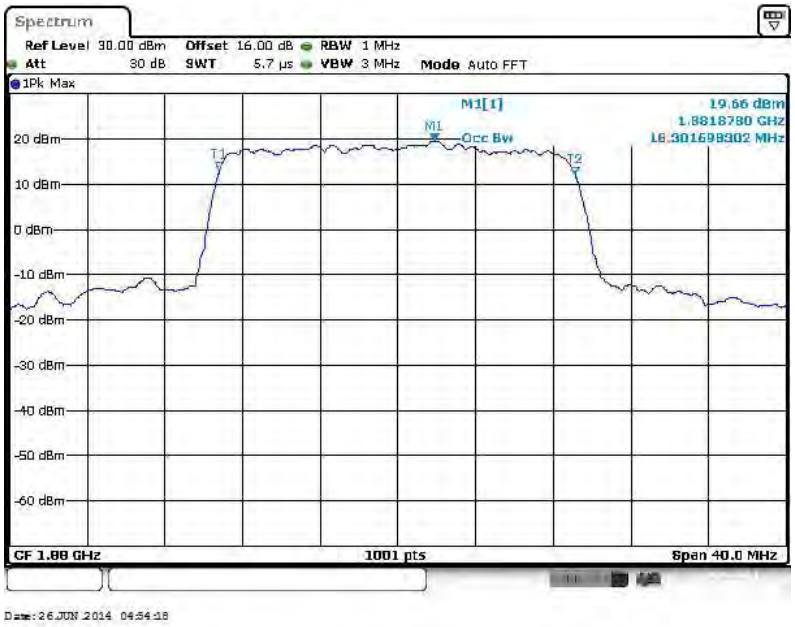


26dB Bandwidth Plot on Channel 18900

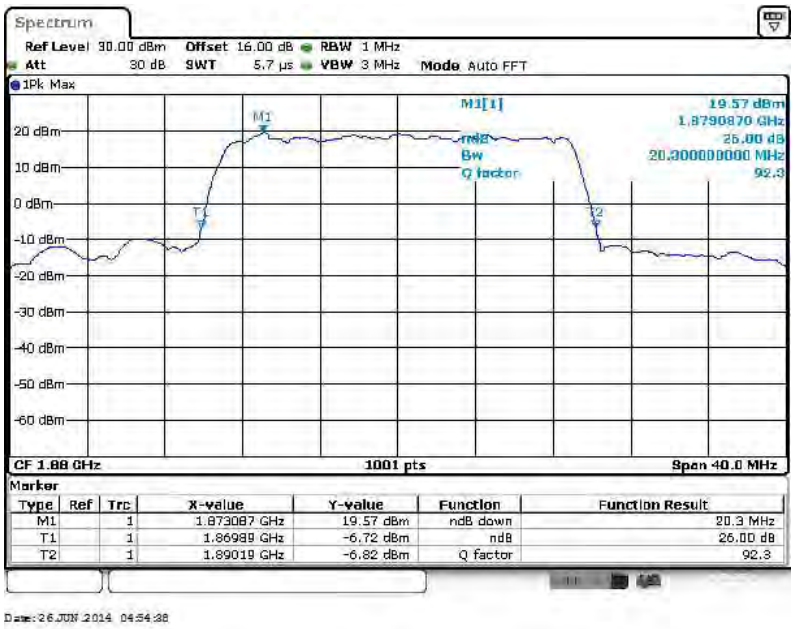


Band :	LTE Band 2	BW / Mod. :	20MHz / QPSK

99% Occupied Bandwidth Plot on Channel 18900

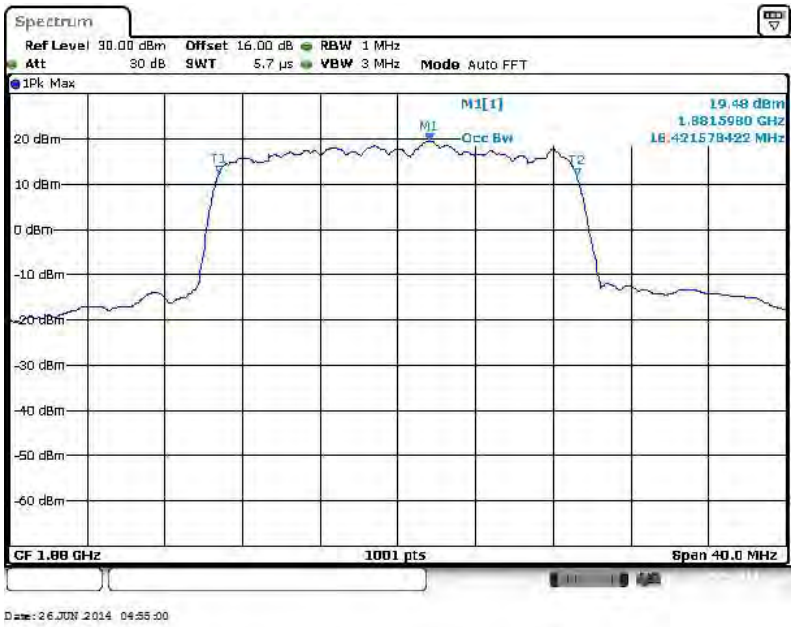


26dB Bandwidth Plot on Channel 18900

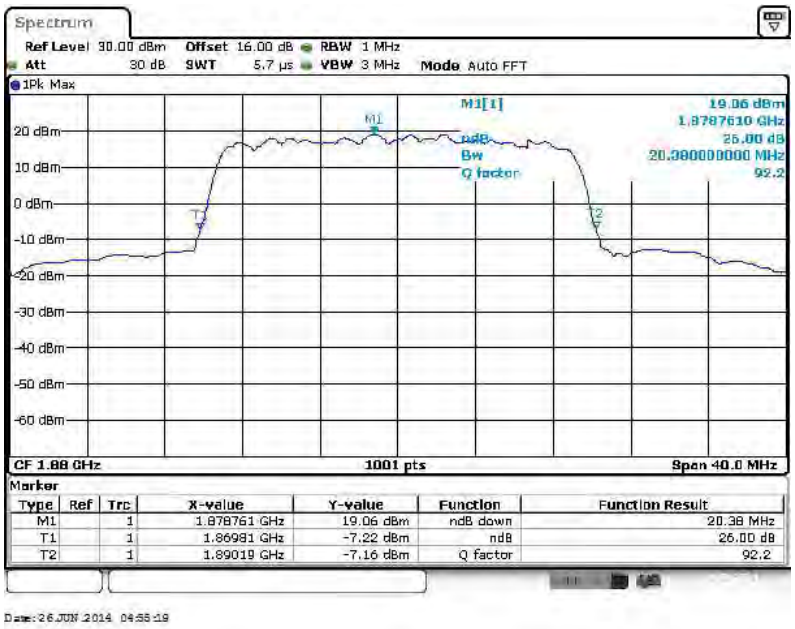


Band :	LTE Band 2	BW / Mod. :	20MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 18900

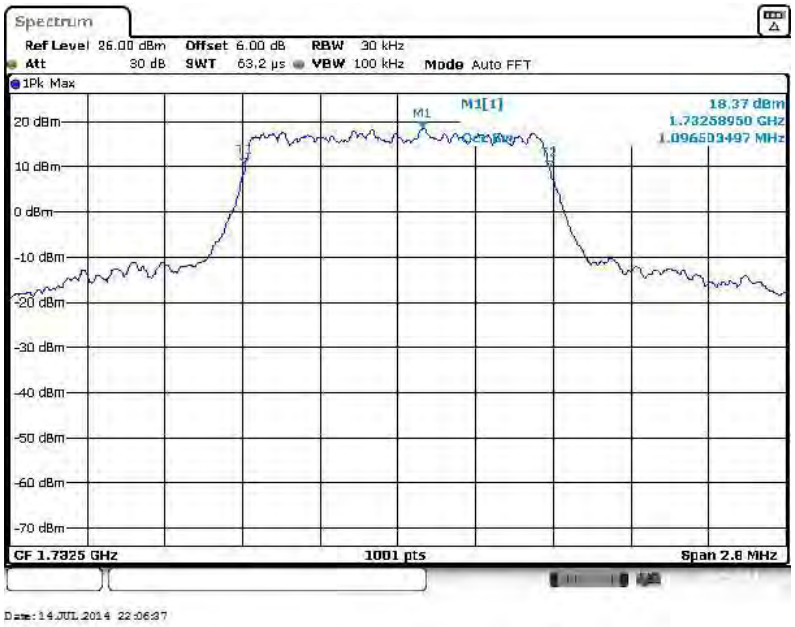


26dB Bandwidth Plot on Channel 18900

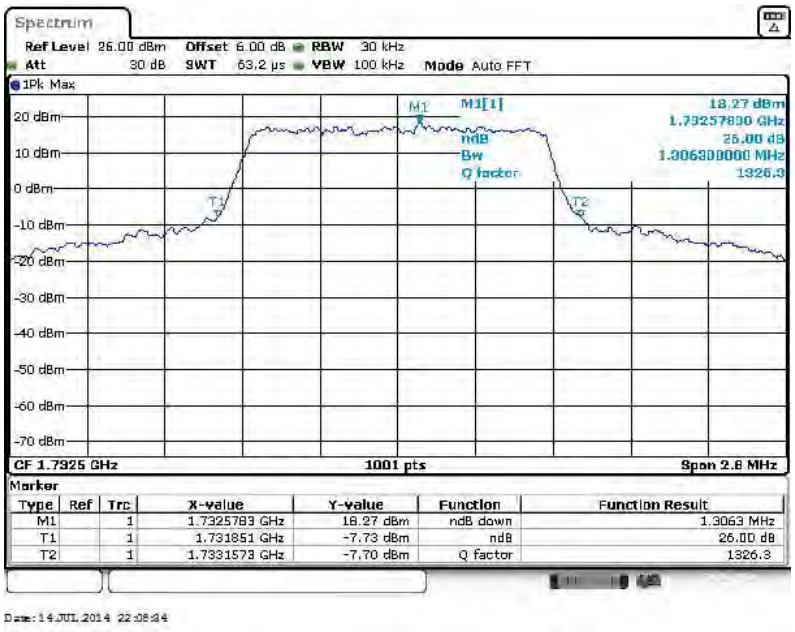


Band :	LTE Band 4	BW / Mod. :	1.4MHz / QPSK

99% Occupied Bandwidth Plot on Channel 20175

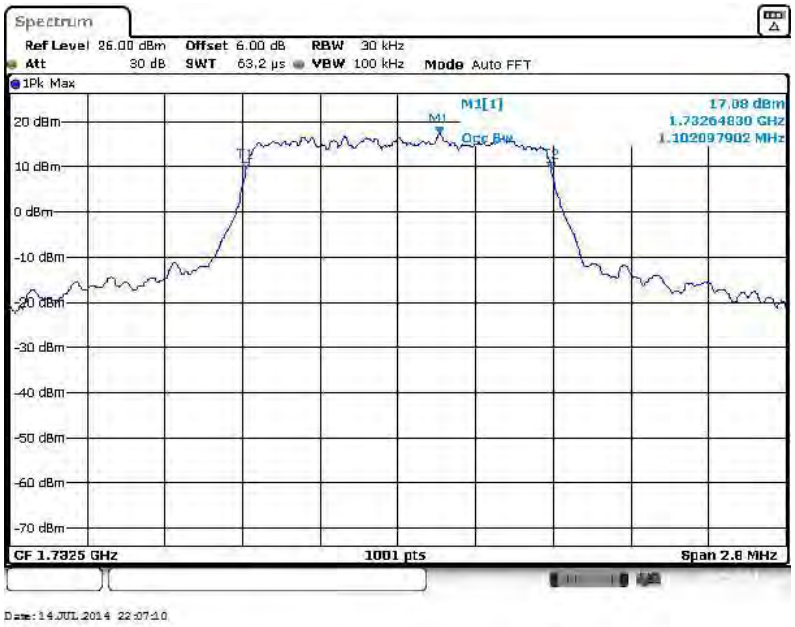


26dB Bandwidth Plot on Channel 20175

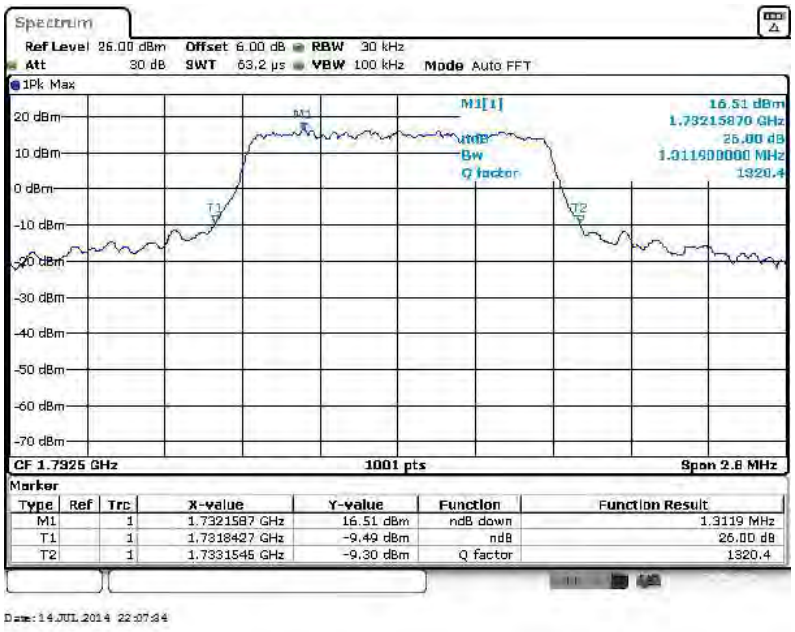


Band :	LTE Band 4	BW / Mod. :	1.4MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 20175

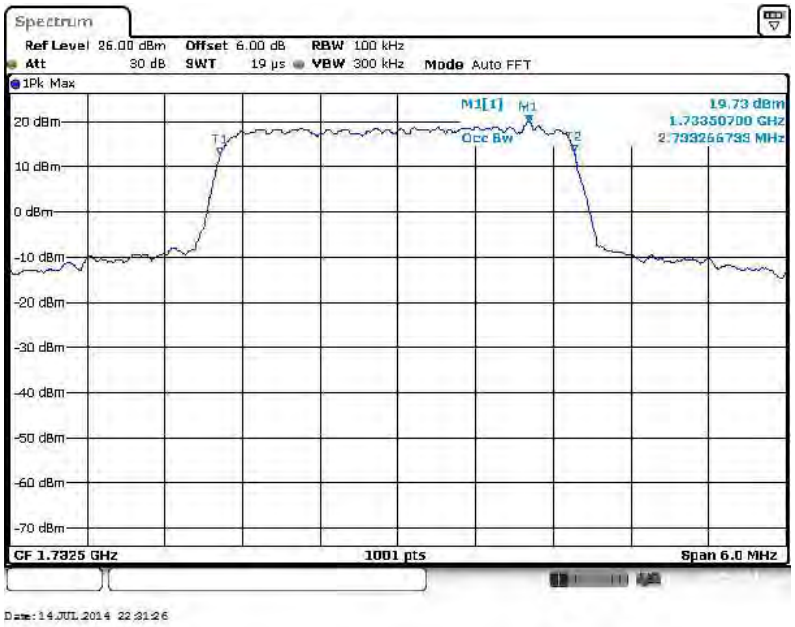


26dB Bandwidth Plot on Channel 20175

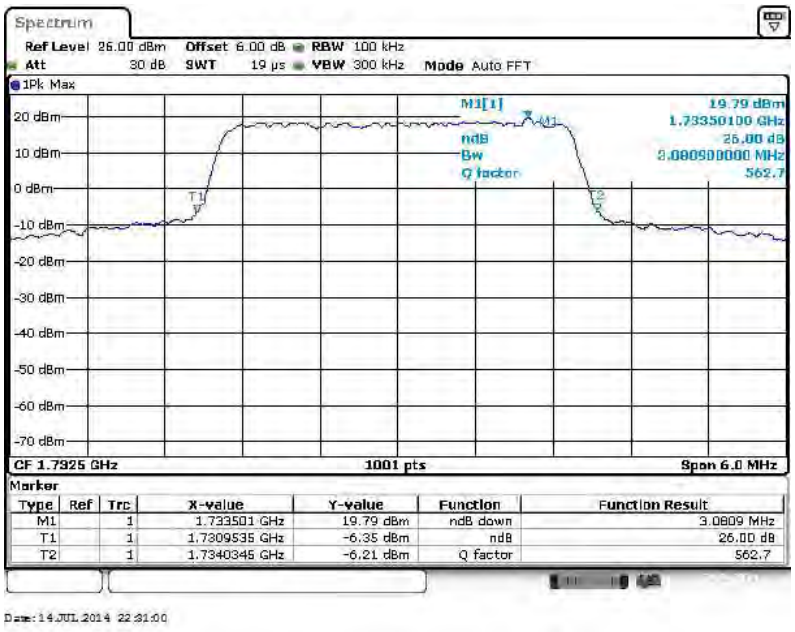


Band :	LTE Band 4	BW / Mod. :	3MHz / QPSK

99% Occupied Bandwidth Plot on Channel 20175

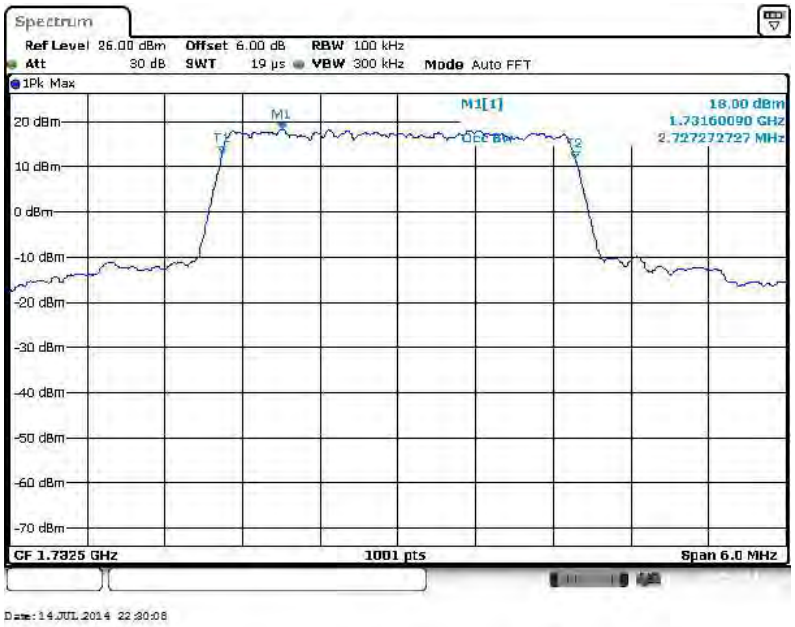


26dB Bandwidth Plot on Channel 20175

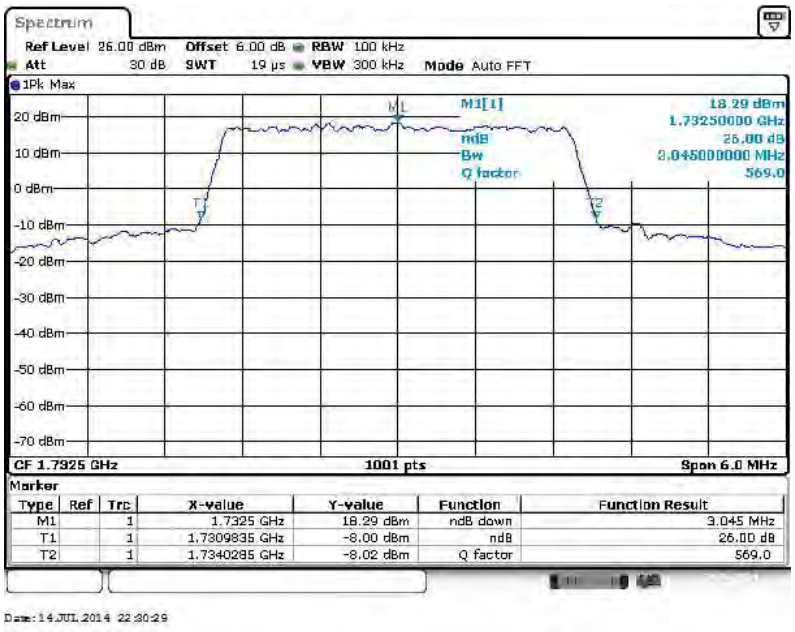


Band :	LTE Band 4	BW / Mod. :	3MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 20175

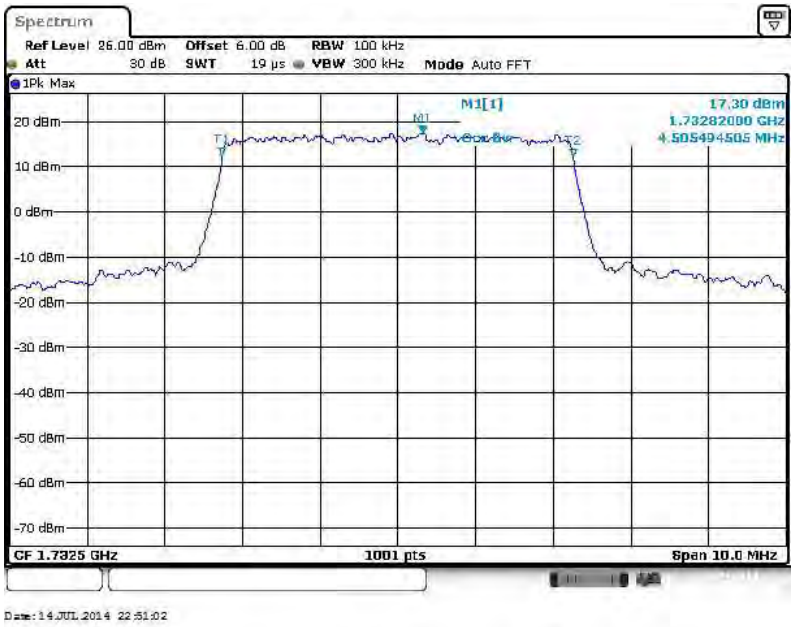


26dB Bandwidth Plot on Channel 20175

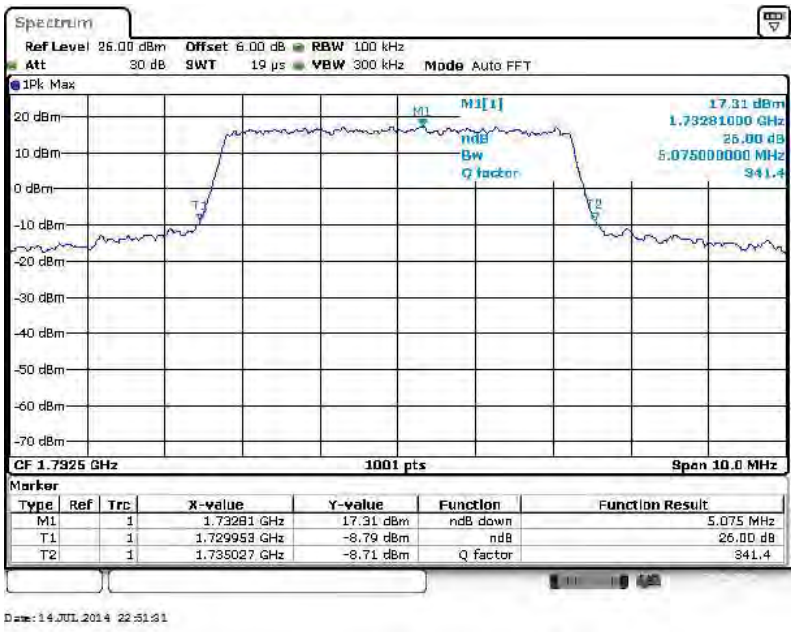


Band :	LTE Band 4	BW / Mod. :	5MHz / QPSK

99% Occupied Bandwidth Plot on Channel 20175

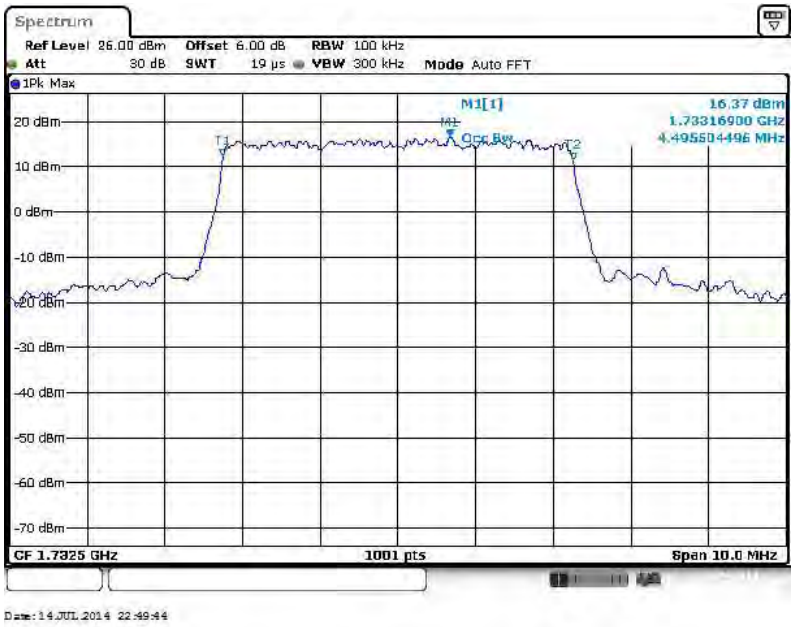


26dB Bandwidth Plot on Channel 20175

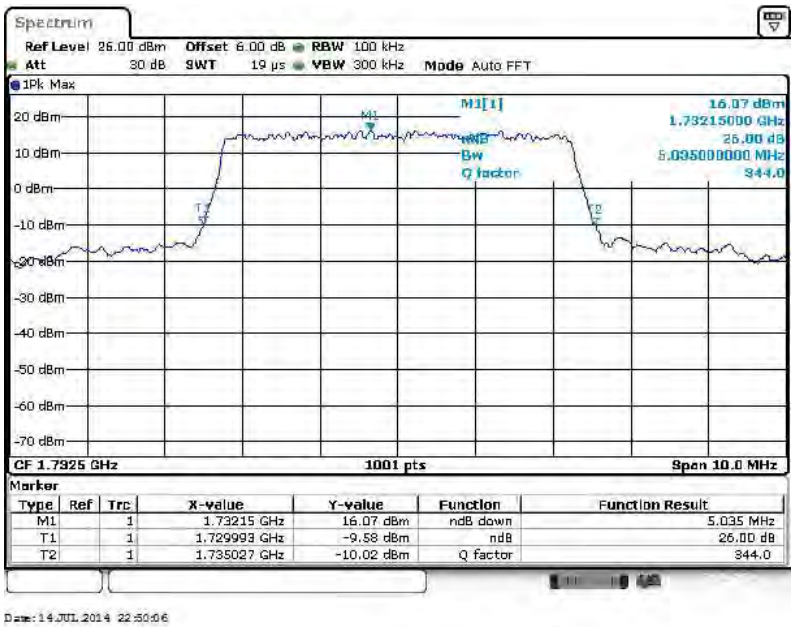


Band :	LTE Band 4	BW / Mod. :	5MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 20175

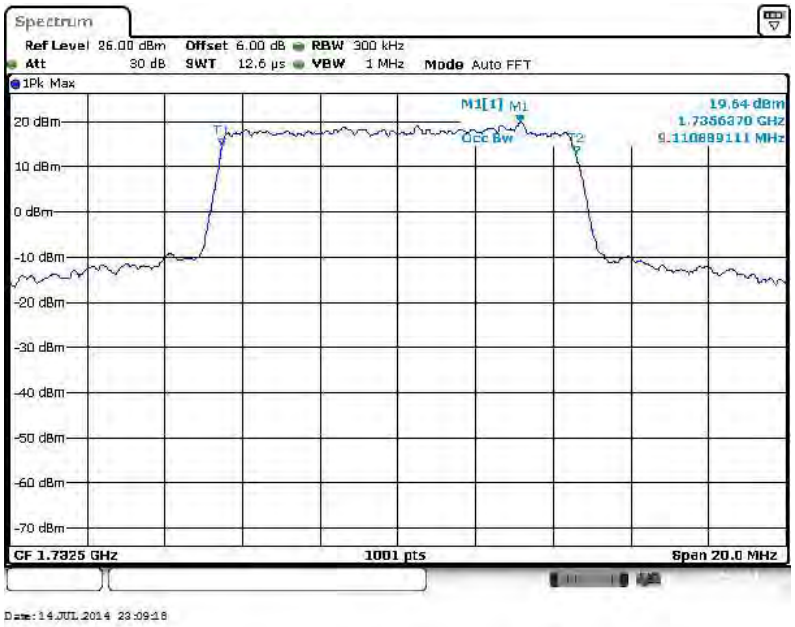


26dB Bandwidth Plot on Channel 20175

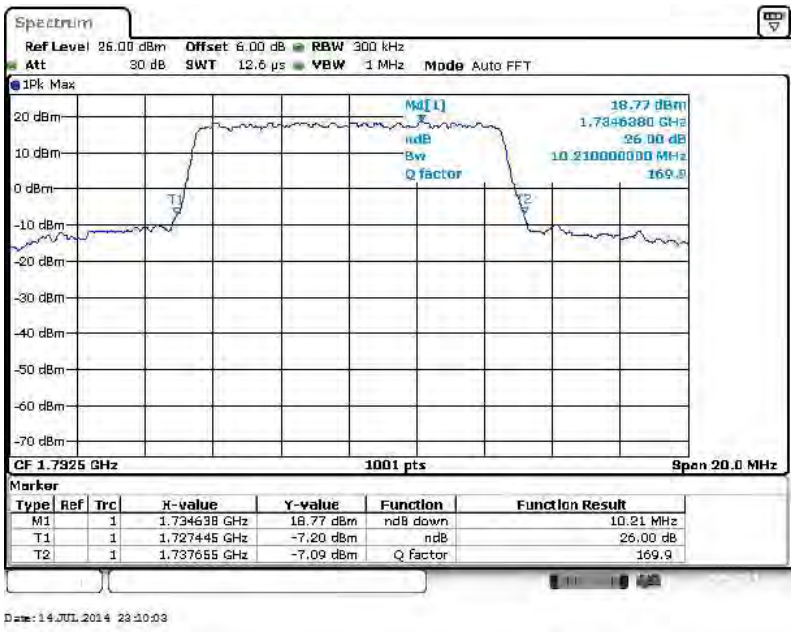


Band :	LTE Band 4	BW / Mod. :	10MHz / QPSK

99% Occupied Bandwidth Plot on Channel 20175

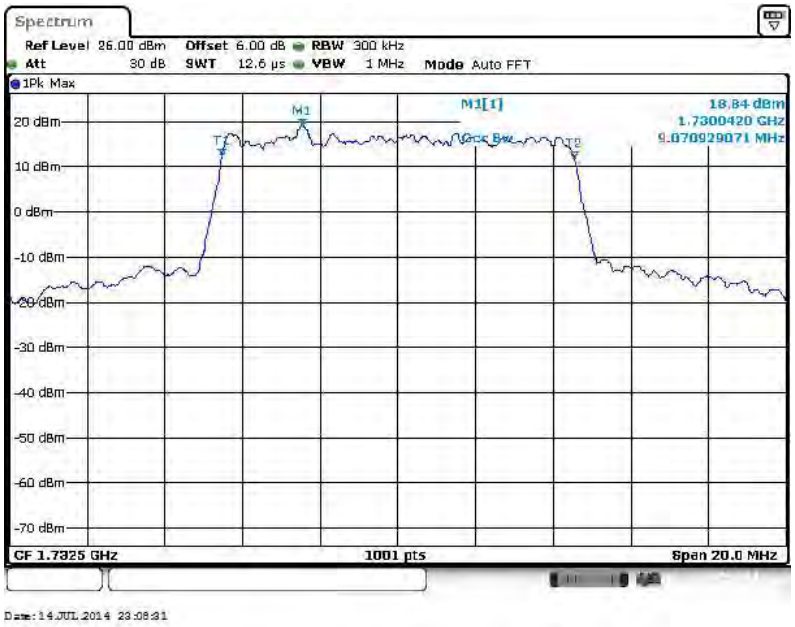


26dB Bandwidth Plot on Channel 20175

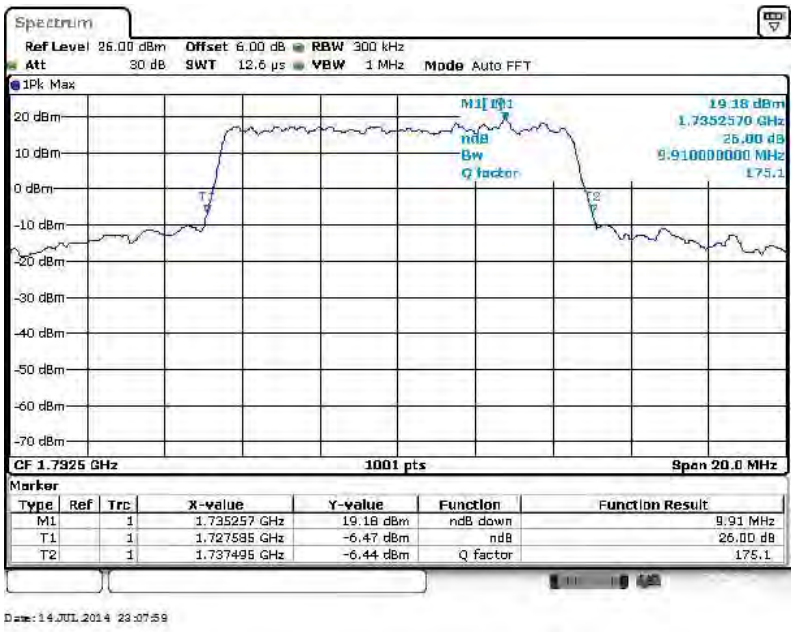


Band :	LTE Band 4	BW / Mod. :	10MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 20175

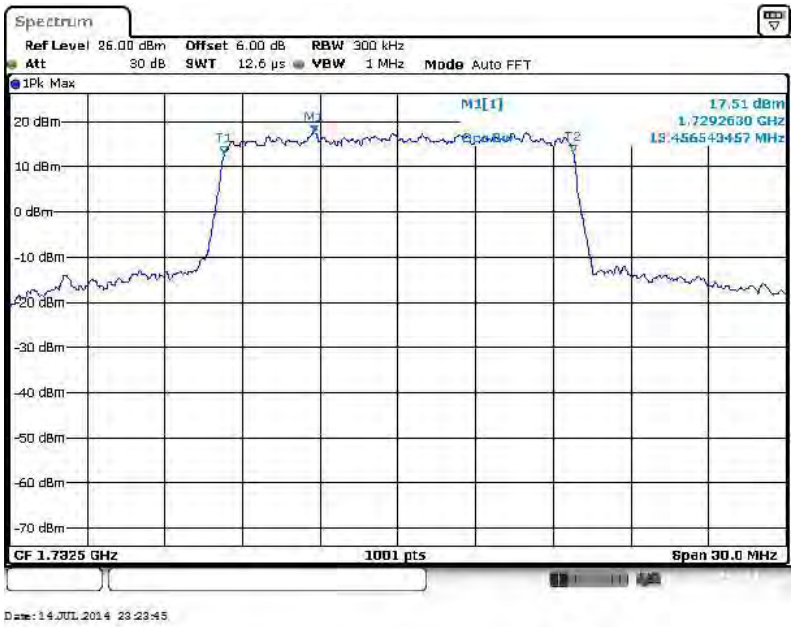


26dB Bandwidth Plot on Channel 20175

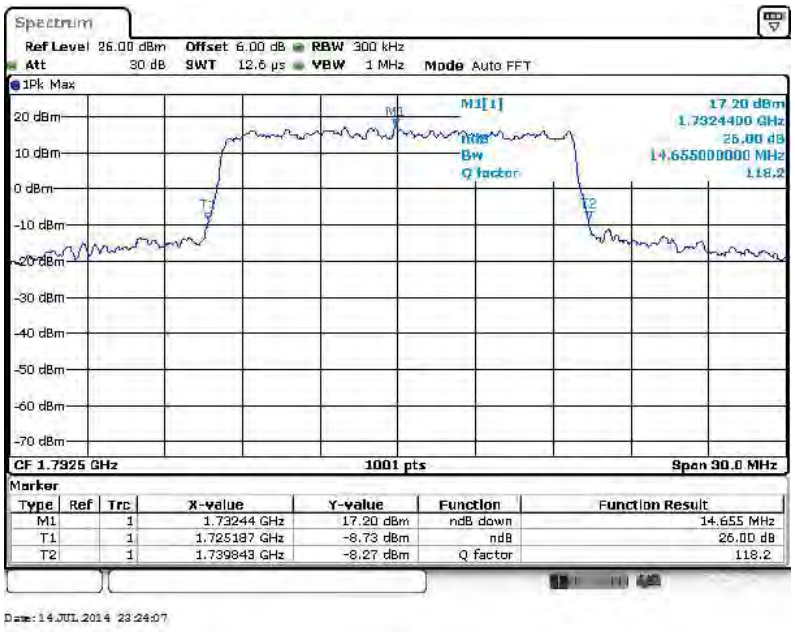


Band :	LTE Band 4	BW / Mod. :	15MHz / QPSK

99% Occupied Bandwidth Plot on Channel 20175

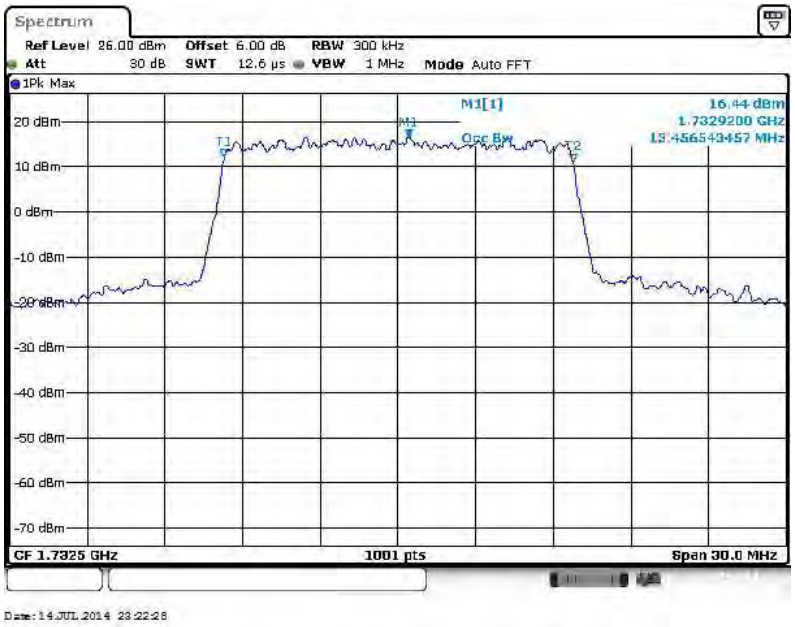


26dB Bandwidth Plot on Channel 20175

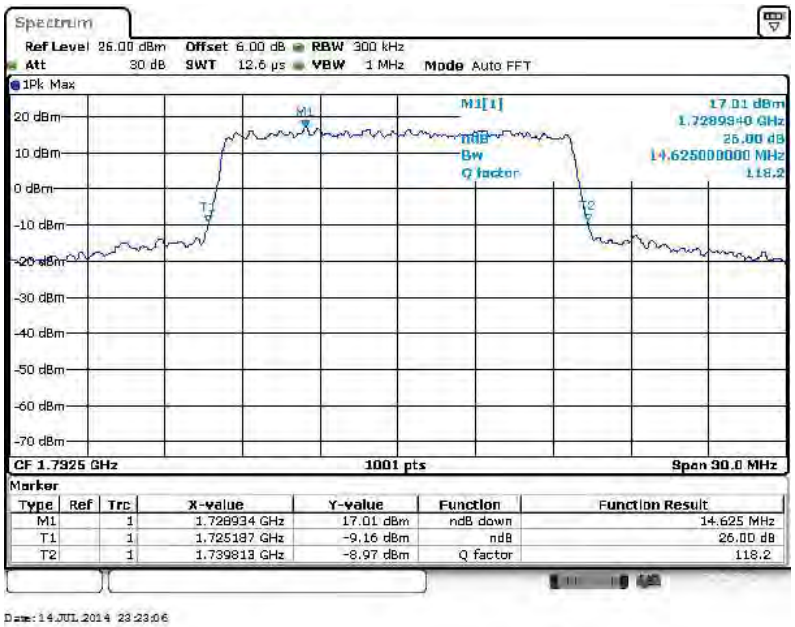


Band :	LTE Band 4	BW / Mod. :	15MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 20175

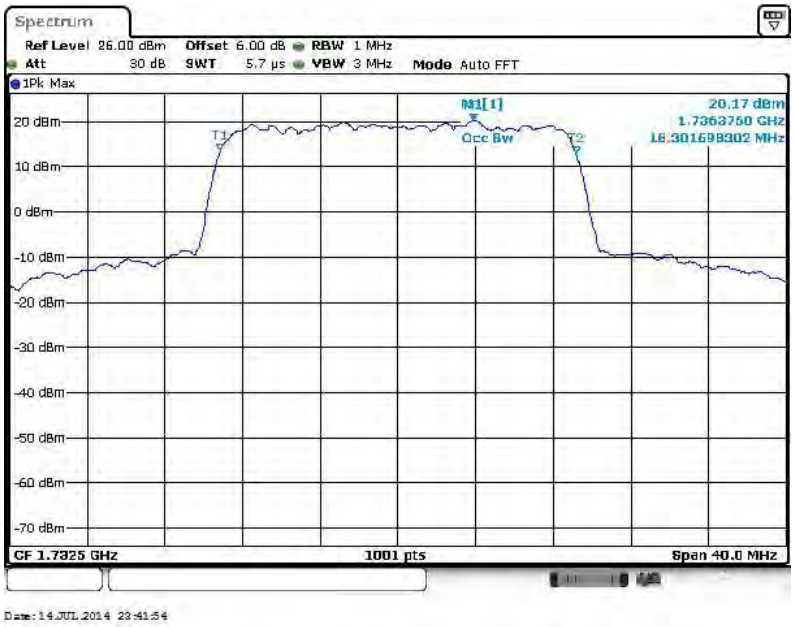


26dB Bandwidth Plot on Channel 20175

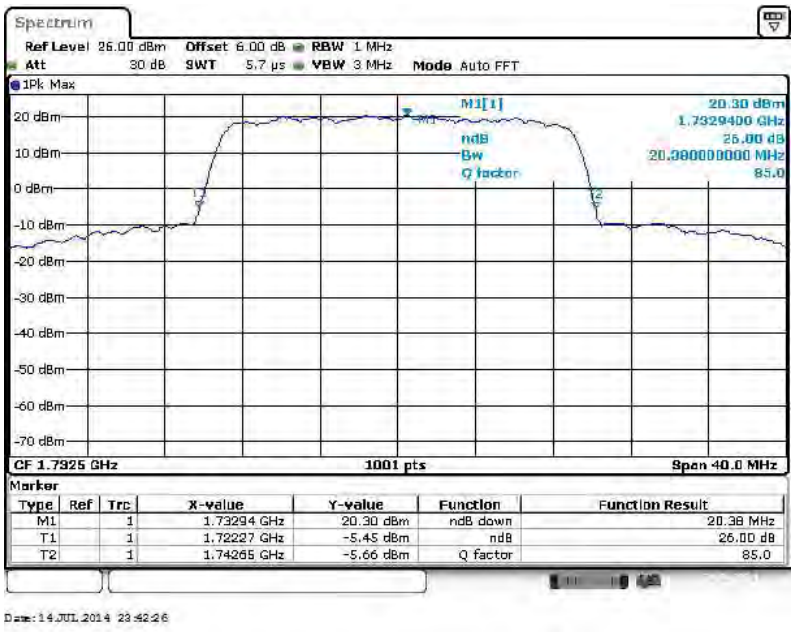


Band :	LTE Band 4	BW / Mod. :	20MHz / QPSK

99% Occupied Bandwidth Plot on Channel 20175

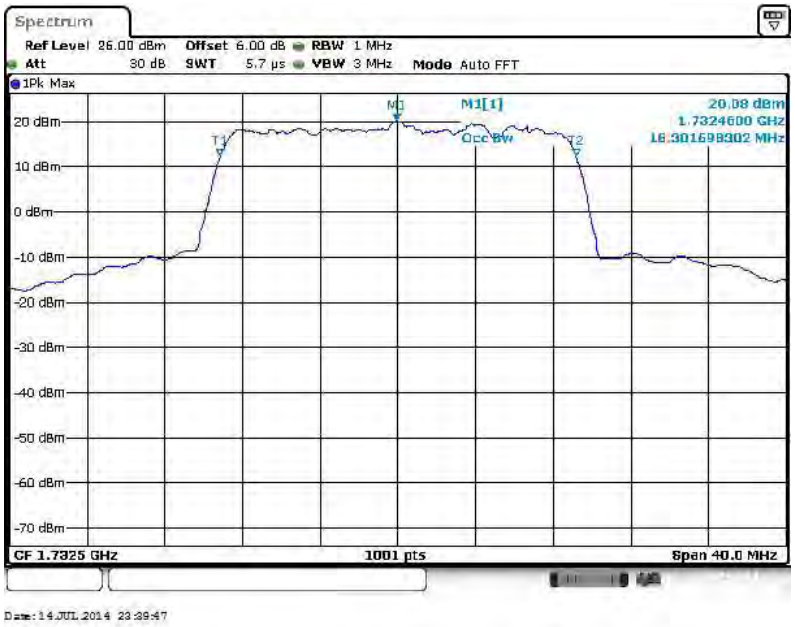


26dB Bandwidth Plot on Channel 20175

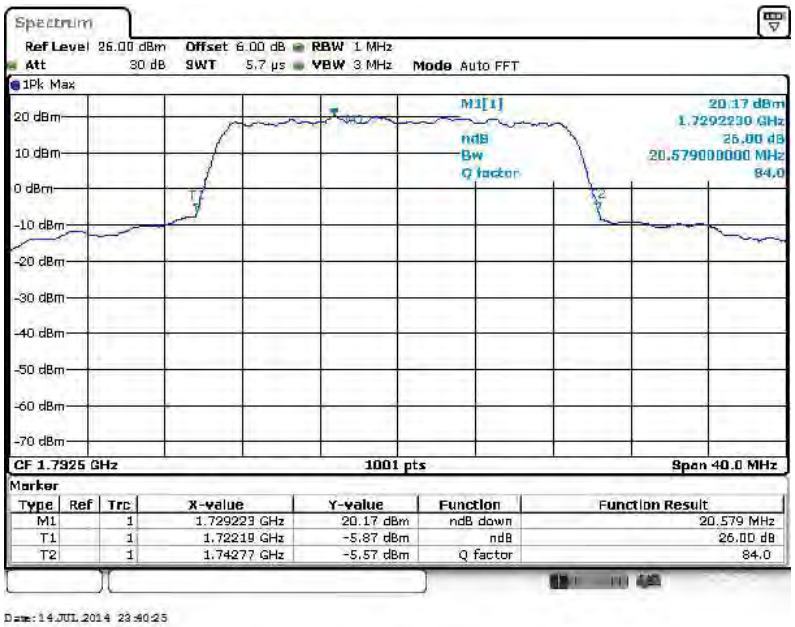


Band :	LTE Band 4	BW / Mod. :	20MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 20175

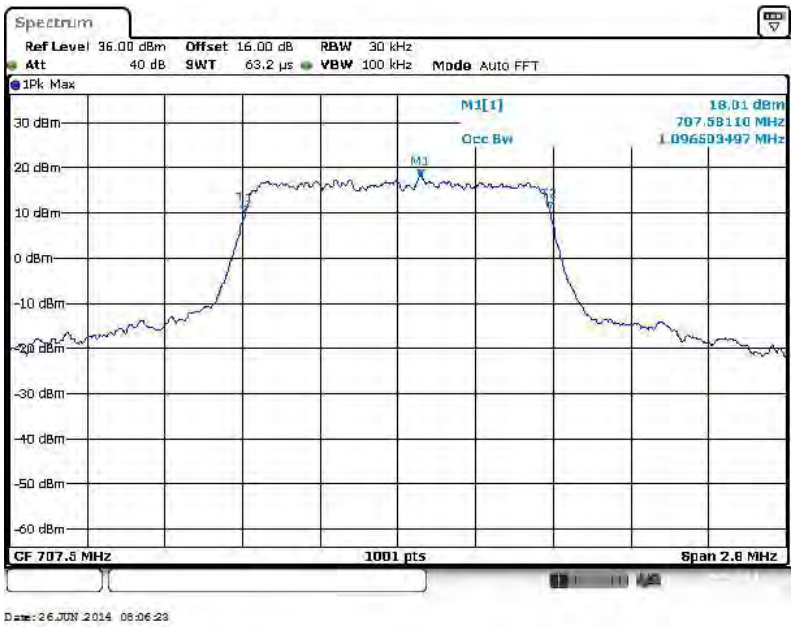


26dB Bandwidth Plot on Channel 20175

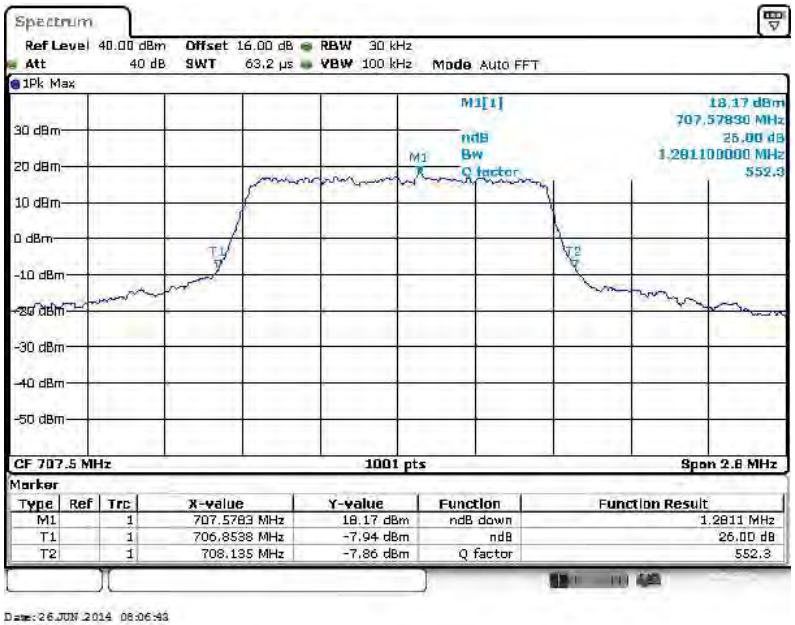


Band :	LTE Band 12	BW / Mod. :	1.4MHz / QPSK

99% Occupied Bandwidth Plot on Channel 23095

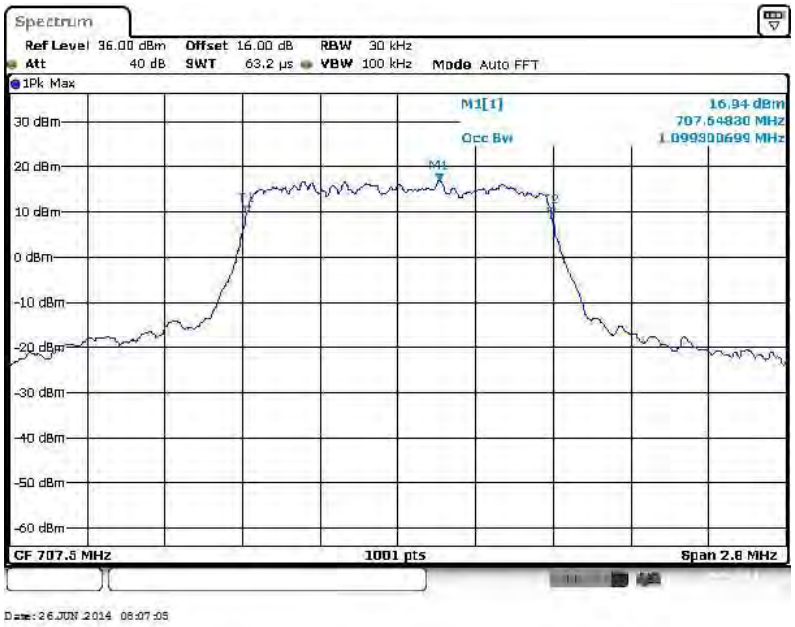


26dB Bandwidth Plot on Channel 23095

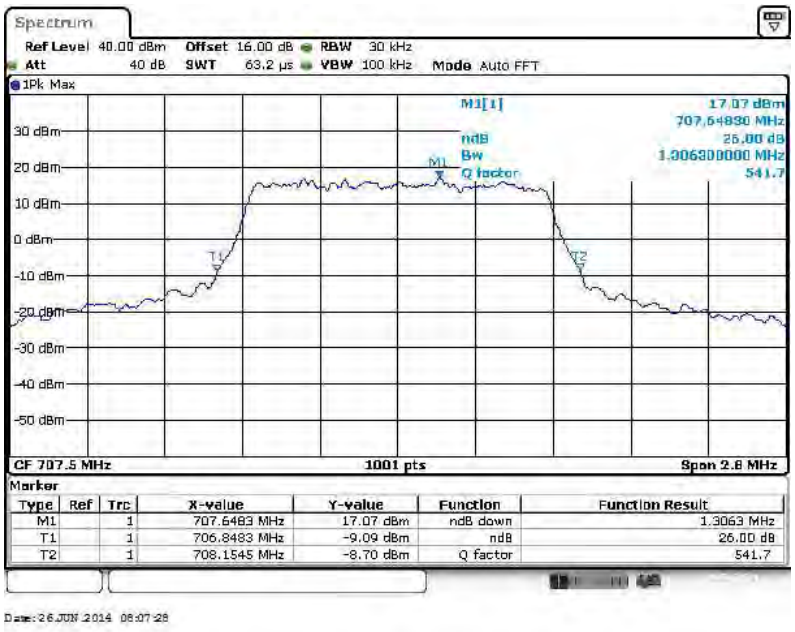


Band :	LTE Band 12	BW / Mod. :	1.4MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 23095

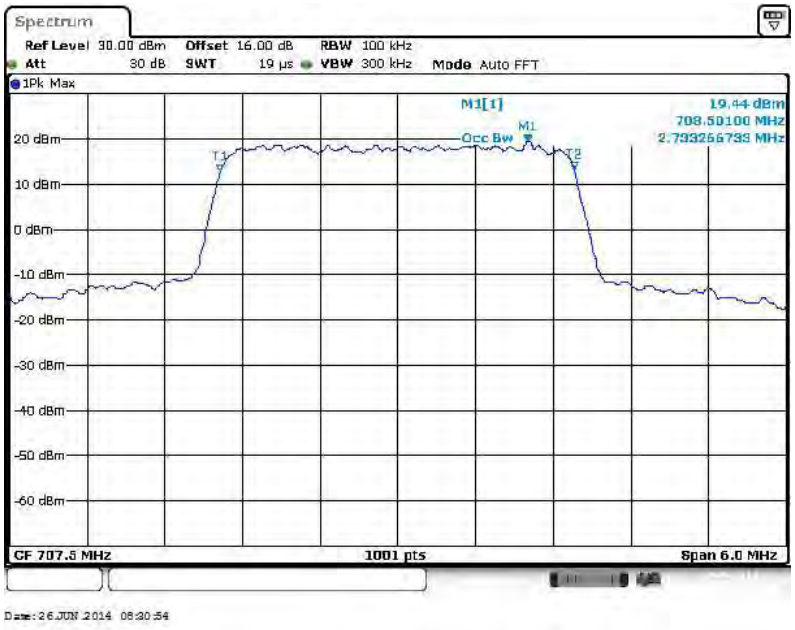


26dB Bandwidth Plot on Channel 23095

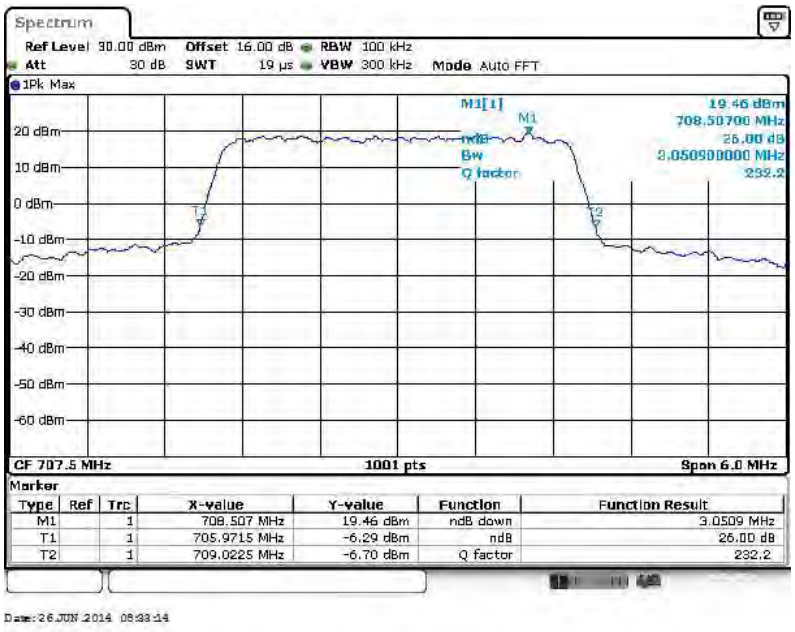


Band :	LTE Band 12	BW / Mod. :	3MHz / QPSK

99% Occupied Bandwidth Plot on Channel 23095

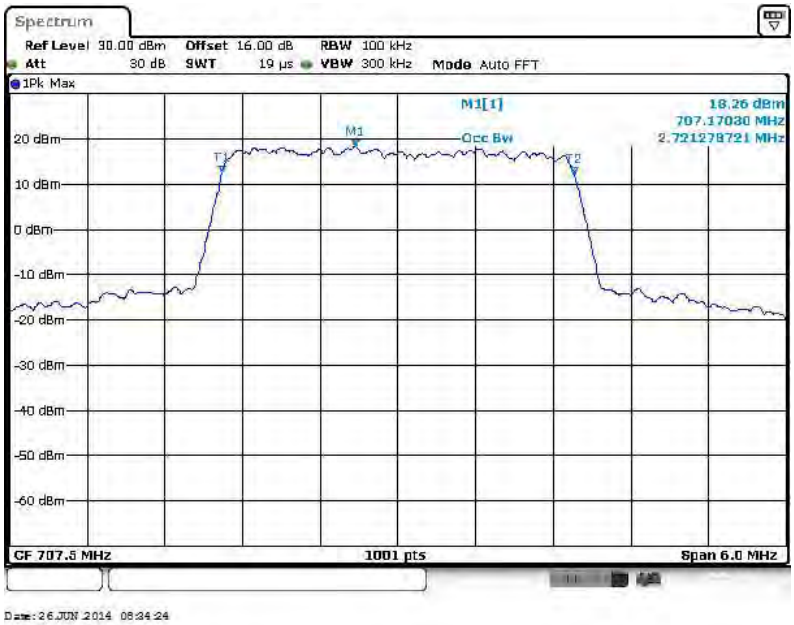


26dB Bandwidth Plot on Channel 23095

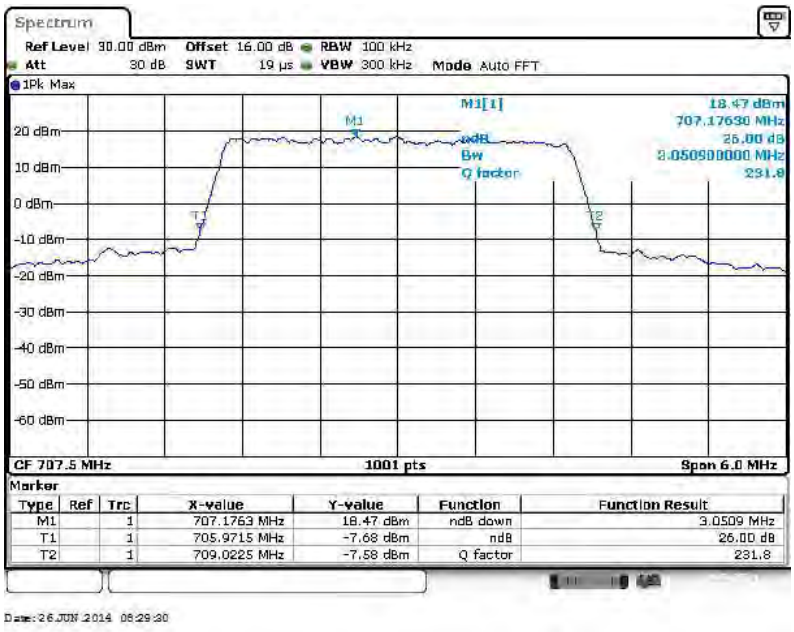


Band :	LTE Band 12	BW / Mod. :	3MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 23095

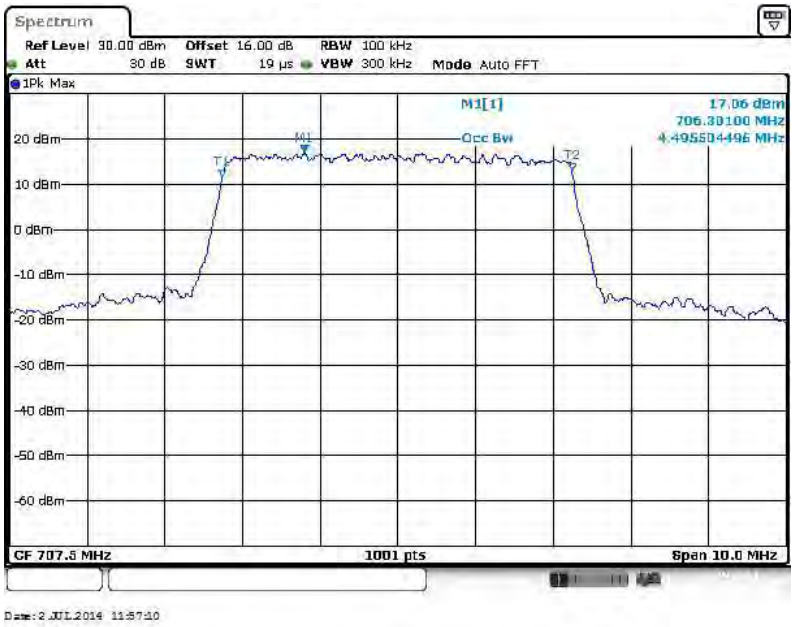


26dB Bandwidth Plot on Channel 23095

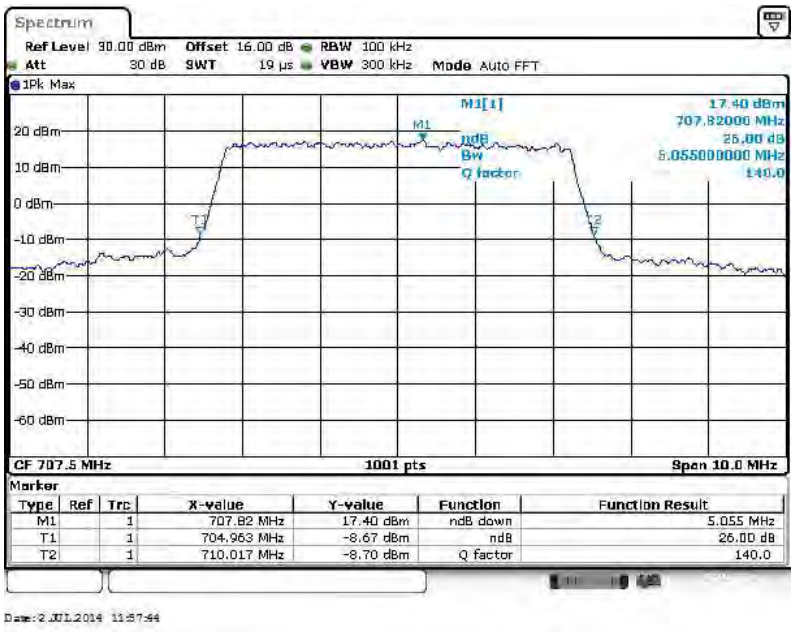


Band :	LTE Band 12	BW / Mod. :	5MHz / QPSK

99% Occupied Bandwidth Plot on Channel 23095

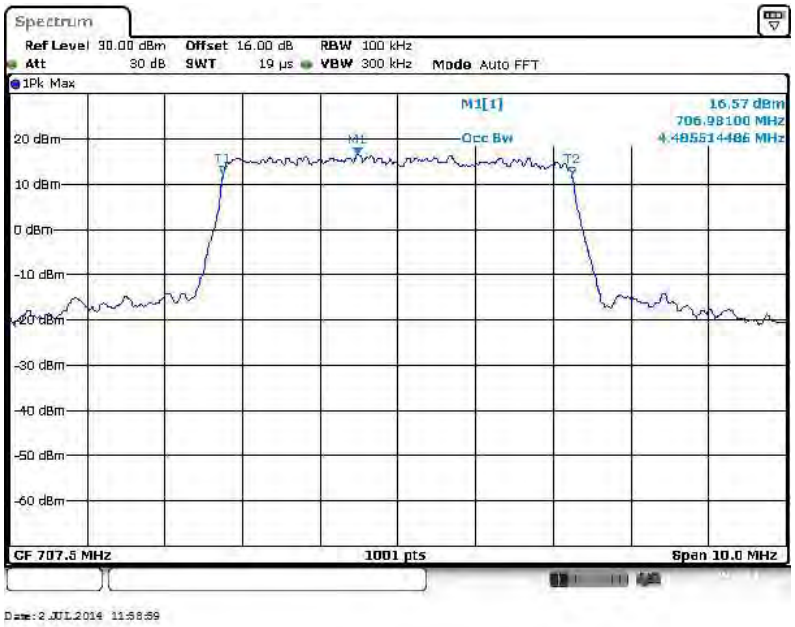


26dB Bandwidth Plot on Channel 23095

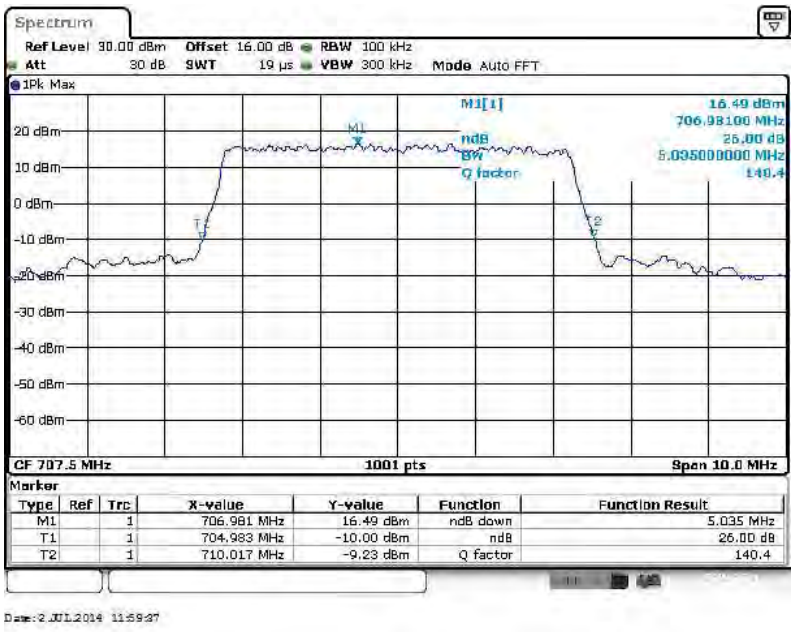


Band :	LTE Band 12	BW / Mod. :	5MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 23095

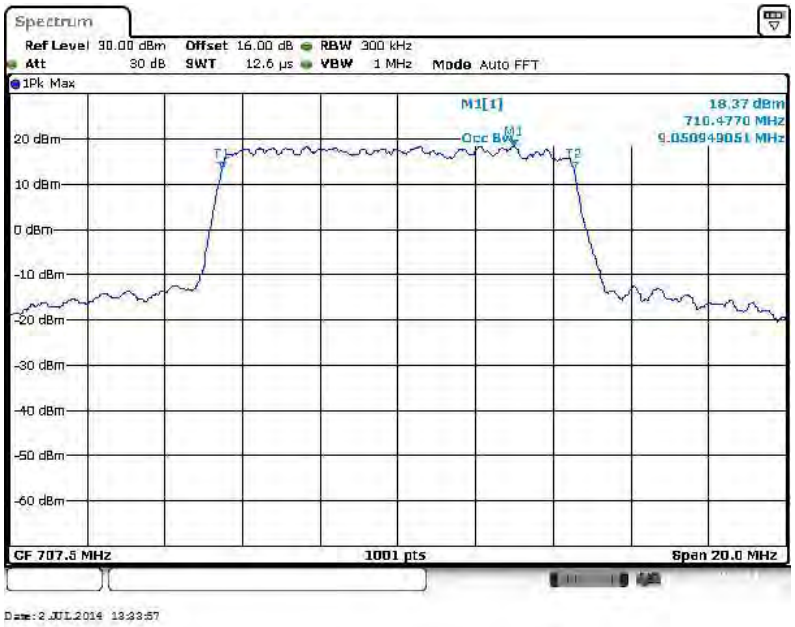


26dB Bandwidth Plot on Channel 23095

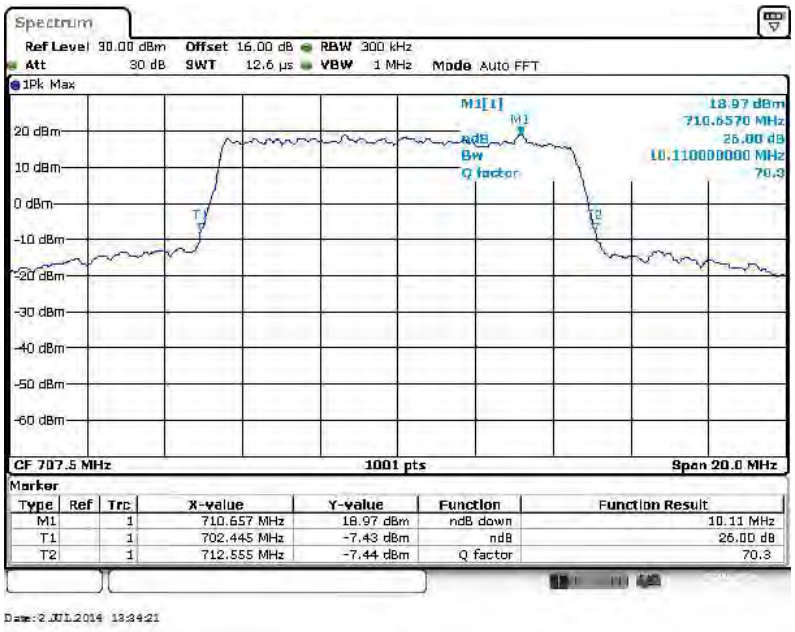


Band :	LTE Band 12	BW / Mod. :	10MHz / QPSK

99% Occupied Bandwidth Plot on Channel 23095

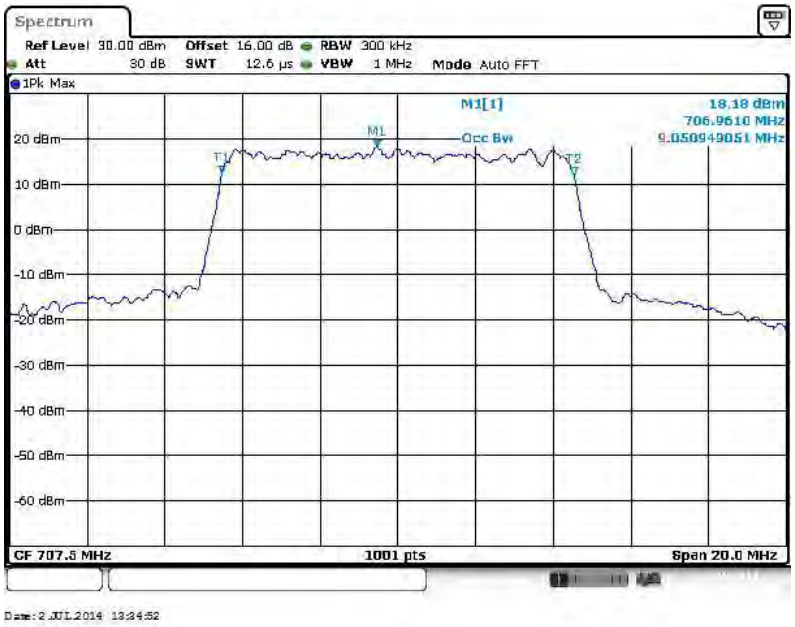


26dB Bandwidth Plot on Channel 23095

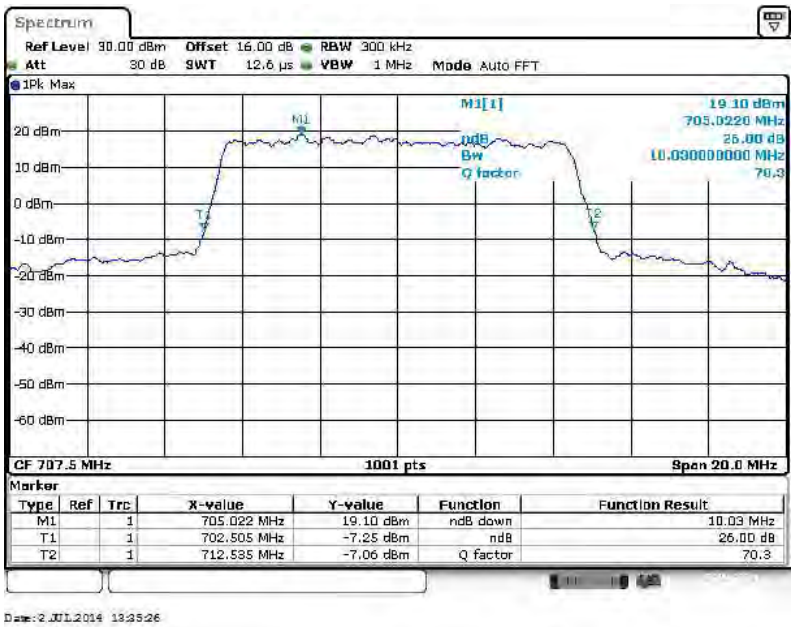


Band :	LTE Band 12	BW / Mod. :	10MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 23095

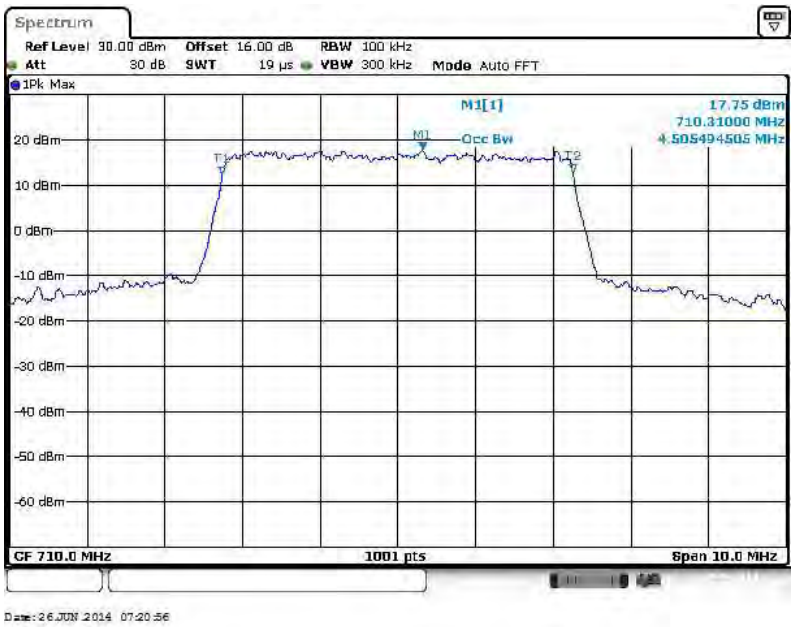


26dB Bandwidth Plot on Channel 23095

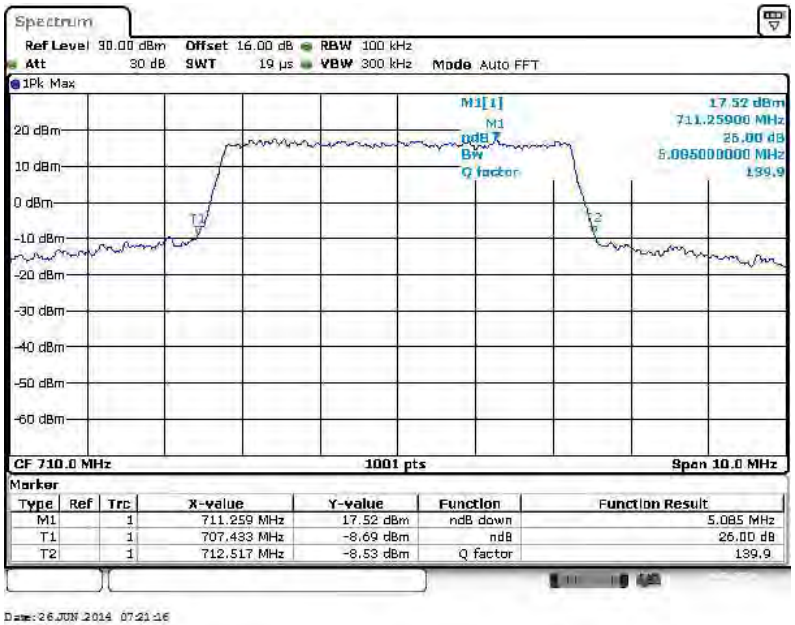


Band :	LTE Band 17	BW / Mod. :	5MHz / QPSK

99% Occupied Bandwidth Plot on Channel 23790

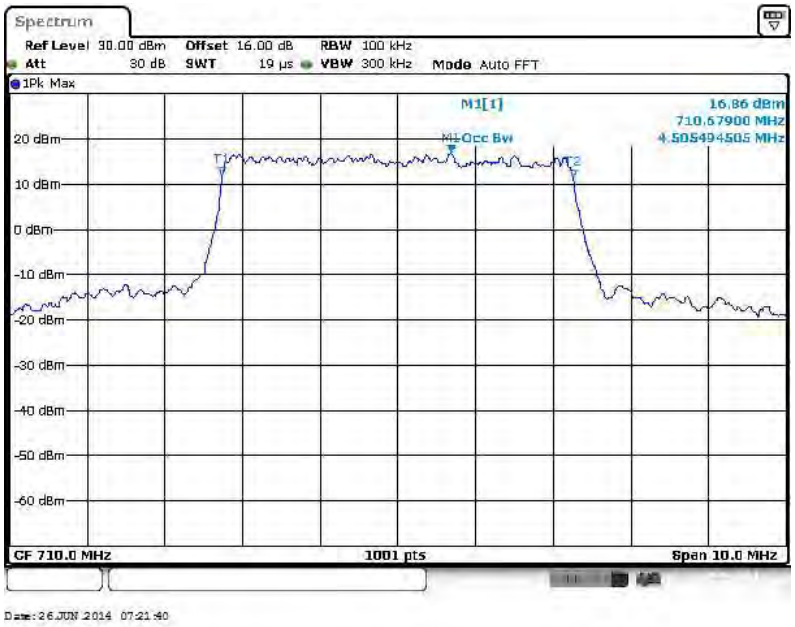


26dB Bandwidth Plot on Channel 23790

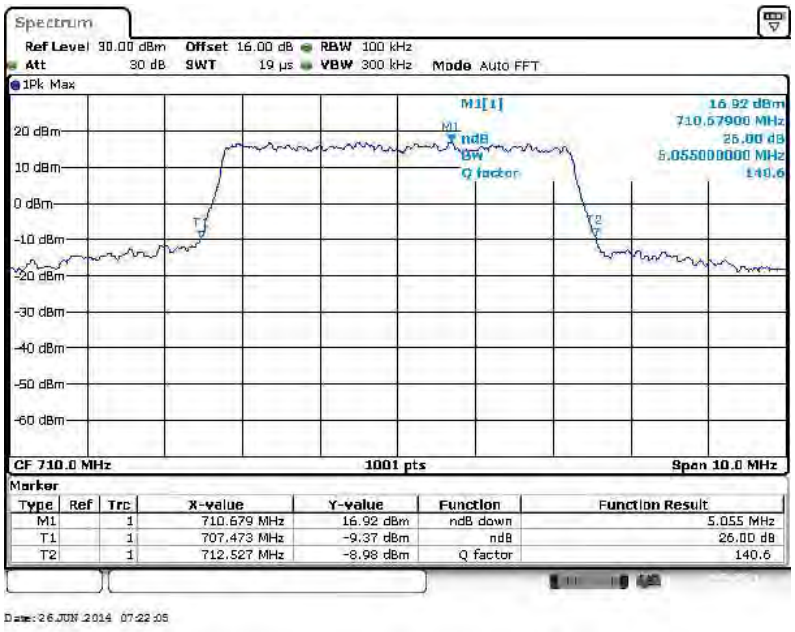


Band :	LTE Band 17	BW / Mod. :	5MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 23790

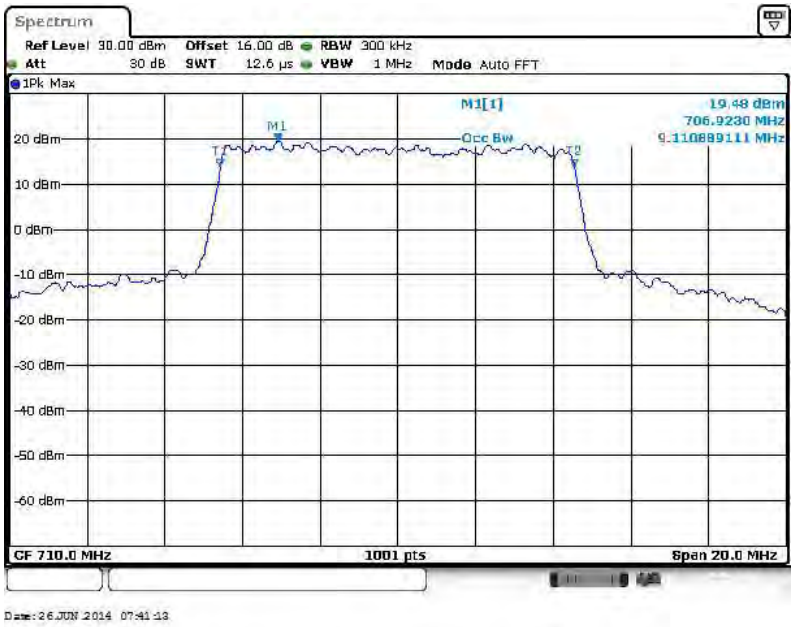


26dB Bandwidth Plot on Channel 23790

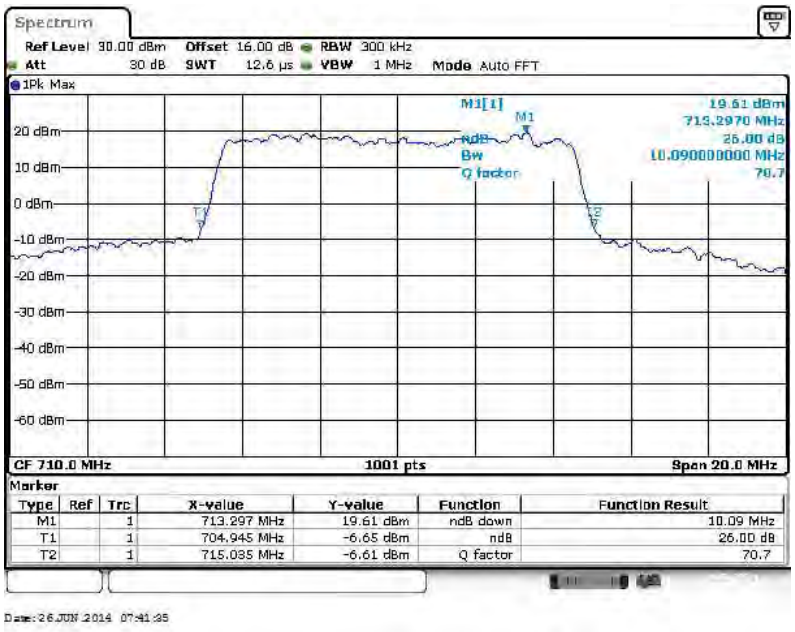


Band :	LTE Band 17	BW / Mod. :	10MHz / QPSK

99% Occupied Bandwidth Plot on Channel 23790

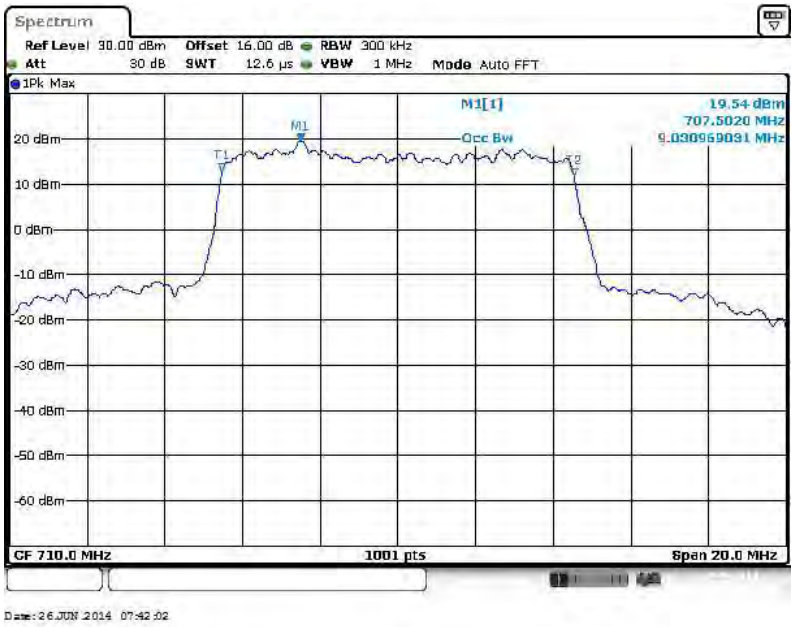


26dB Bandwidth Plot on Channel 23790

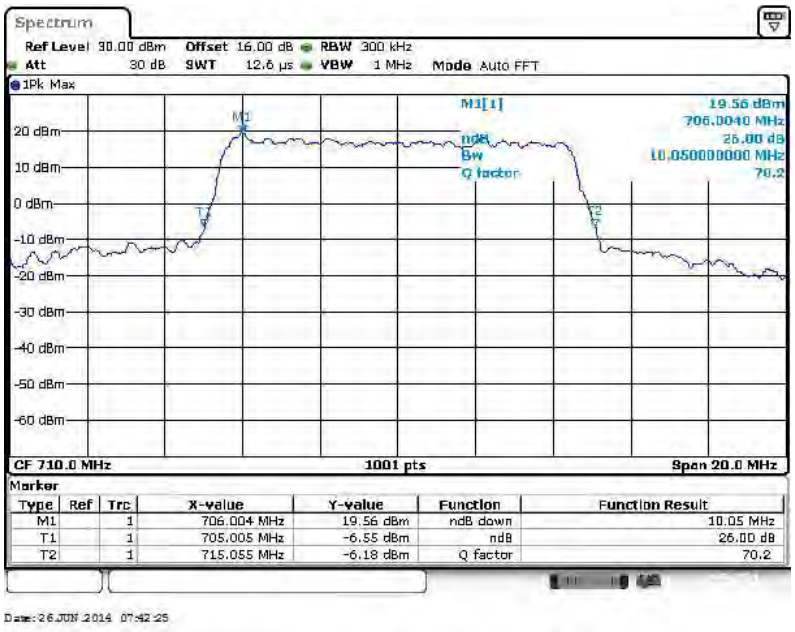


Band :	LTE Band 17	BW / Mod. :	10MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 23790



26dB Bandwidth Plot on Channel 23790



3.5 Conducted Band Edge Measurement

3.5.1 Description of Conducted Band Edge Measurement

22.917(a) for Band 5

For operations in the 824 – 849 MHz band, the FCC limit is 43 + $10\log_{10}$(P[Watts]) dB below the transmitter power P(Watts) in a 100kHz bandwidth. However, in the 1MHz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

24.238 (a) for Band 2

For operations in the 1850-1910 and 1930-1990 MHz band, the FCC limit is 43 + $10\log_{10}$(P[Watts]) dB below the transmitter power P(Watts) in a 1MHz bandwidth. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

27.53 (g) for Band 12,17

For operations in the 698 -746 MHz band, the FCC limit is 43 + 10log10(P[Watts]) dB below the transmitter power P(Watts) in a 100 kHz bandwidth. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

27.53 (h) for Band 4

For operations in the 1710 – 1755 MHz band, the FCC limit is 43 + $10\log_{10}$(P[Watts]) dB below the transmitter power P(Watts) in a 1 MHz bandwidth. However, in the 1MHz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

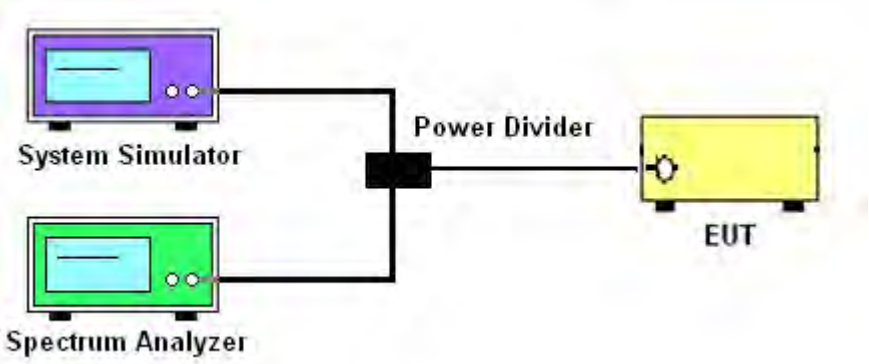
3.5.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.5.3 Test Procedures

1. The EUT was connected to spectrum analyzer and system simulator via a power divider.
2. The band edges of low and high channels for the highest RF powers were measured. Set RBW >= 1% EBW in the 1MHz band immediately outside and adjacent to the band edge.
3. Set spectrum analyzer with RMS detector.
4. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
5. The limit line is derived from 43 + 10log(P)dB below the transmitter power P(Watts)
   = P(W)- [43 + 10log(P)] (dB)
   = [30 + 10log(P)] (dBm) - [43 + 10log(P)] (dB)
   = -13dBm.

3.5.4 Test Setup



3.5.5 Test Result (Plots) of Conducted Band Edge

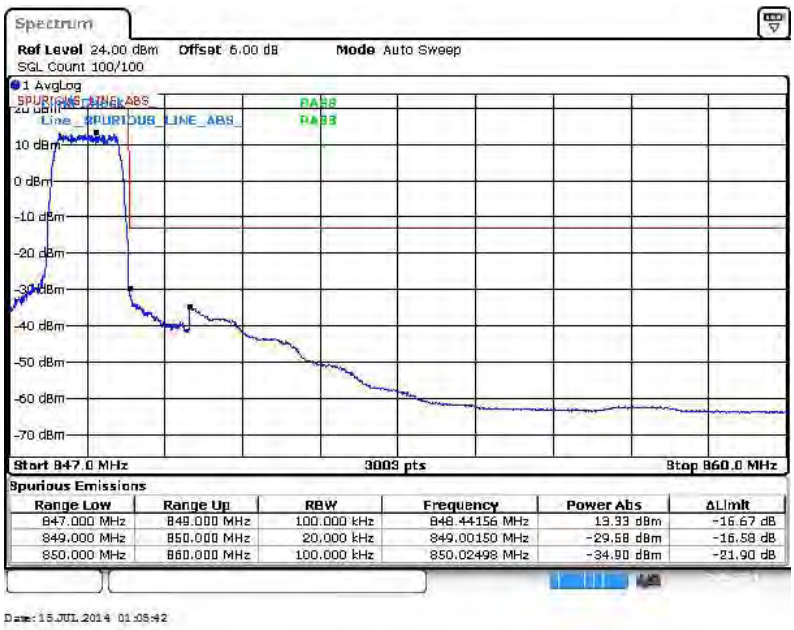
Band :	LTE Band 5	Band Width :	1.4MHz / QPSK

Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0

Lower Band Edge Plot for QPSK-RB Size 6, RB Offset 0

Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 5

Higher Band Edge Plot for QPSK-RB Size 6, RB Offset 0



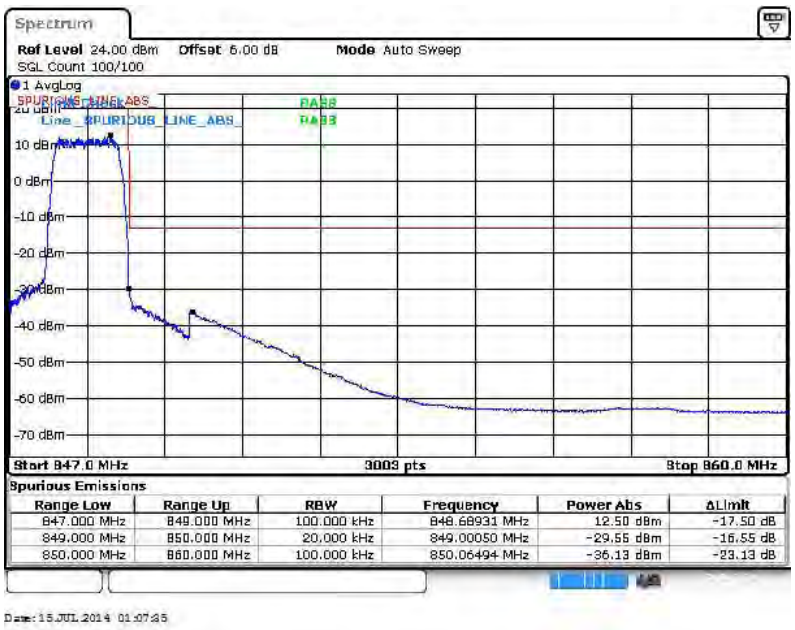
Band :	LTE Band 5	Band Width :	1.4MHz / 16QAM

Lower Band Edge Plot for 16QAM -RB Size 1, RB Offset 0

Lower Band Edge Plot for 16QAM -RB Size 6, RB Offset 0

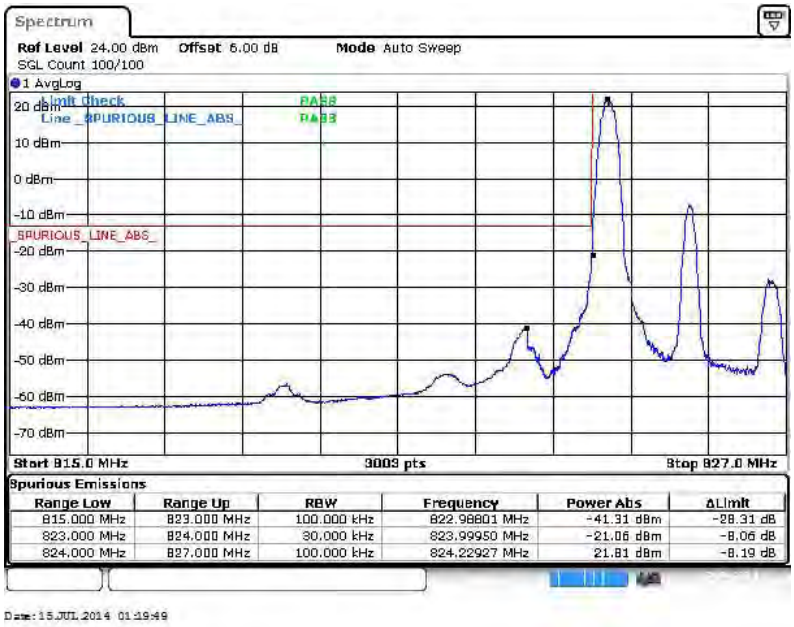
Higher Band Edge Plot for 16QAM -RB Size 1, RB Offset 5

Higher Band Edge Plot for 16QAM -RB Size 6, RB Offset 0

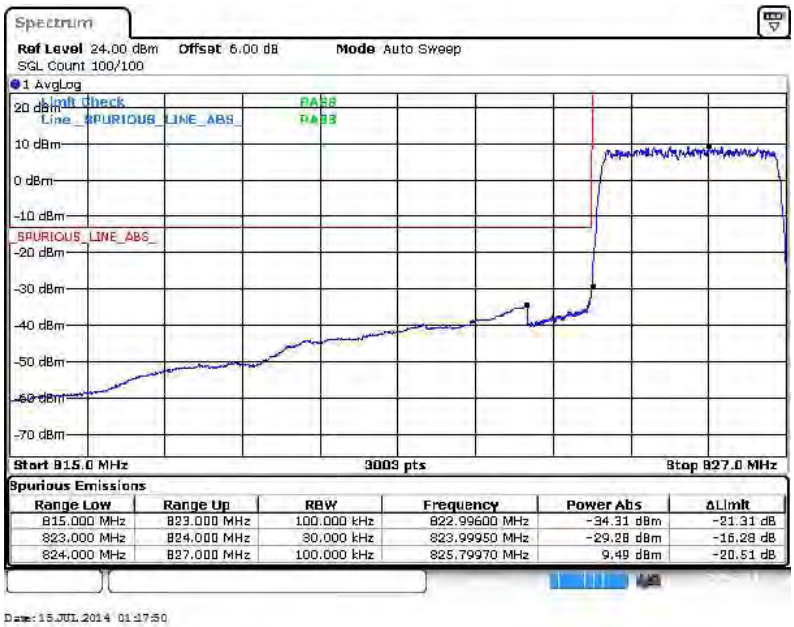


Band :	LTE Band 5	Band Width :	3MHz / QPSK

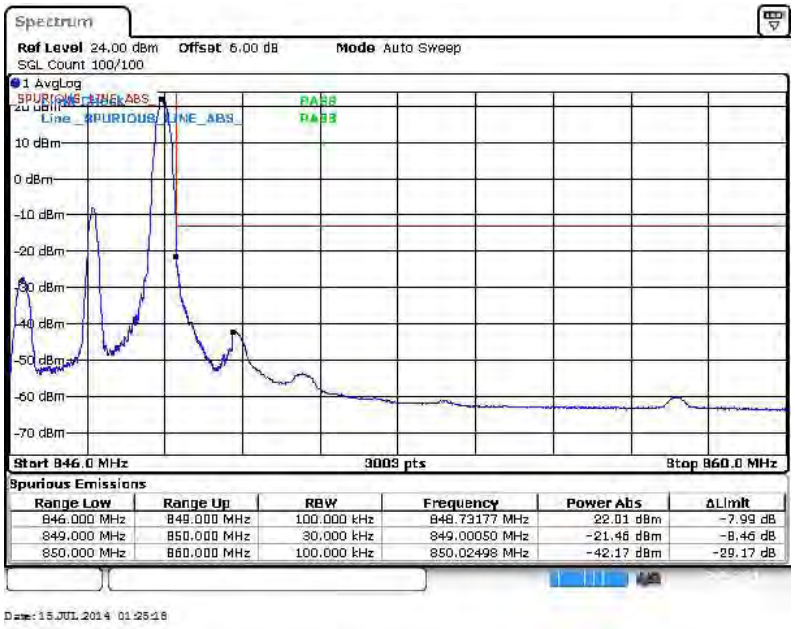
Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



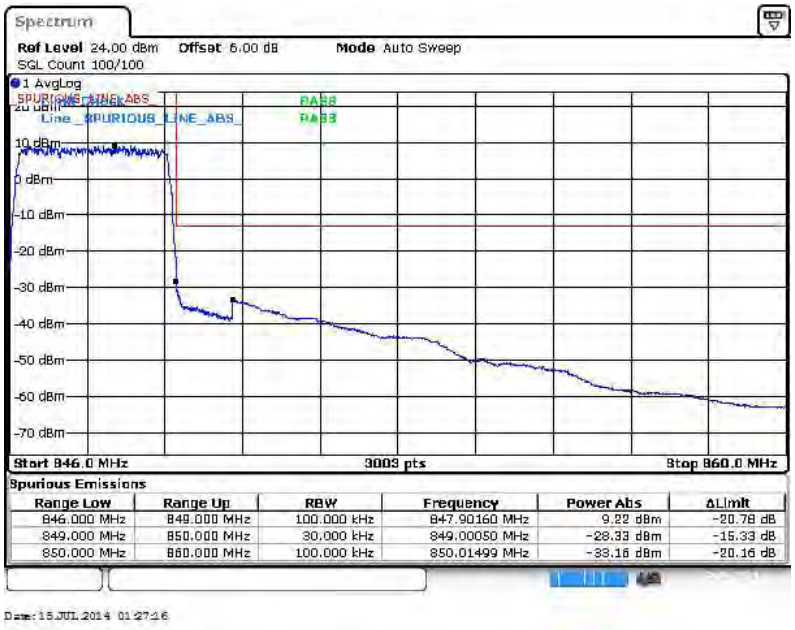
Lower Band Edge Plot for QPSK-RB Size 15, RB Offset 0



Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 14

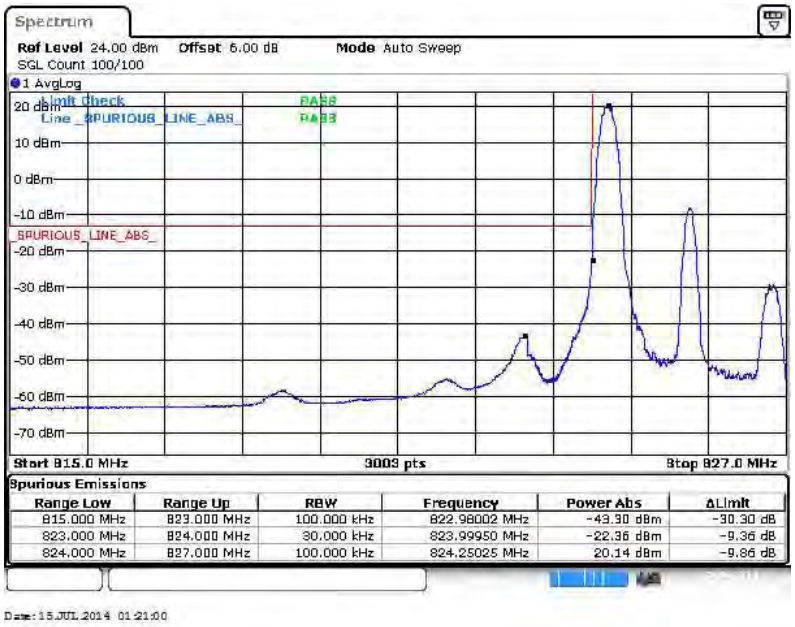


Higher Band Edge Plot for QPSK-RB Size 15, RB Offset 0

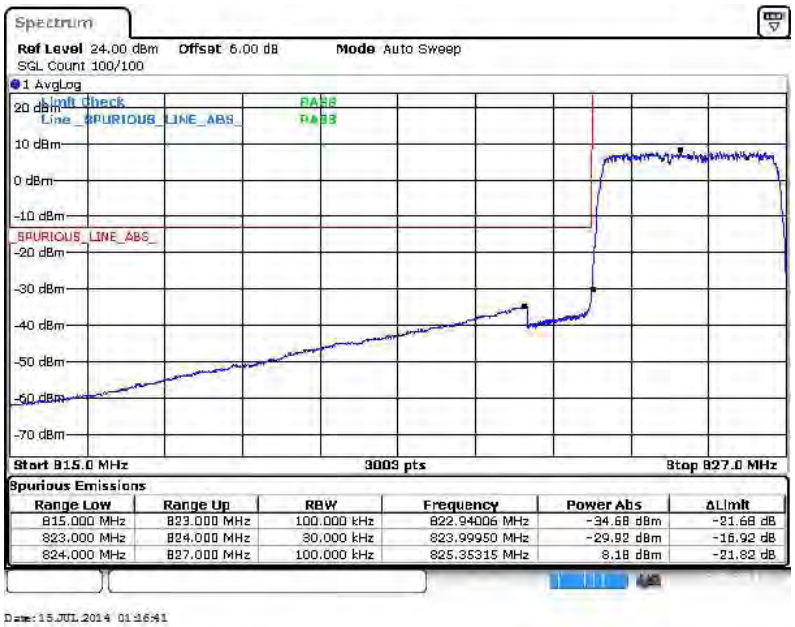


Band :	LTE Band 5	Band Width :	3MHz / 16QAM

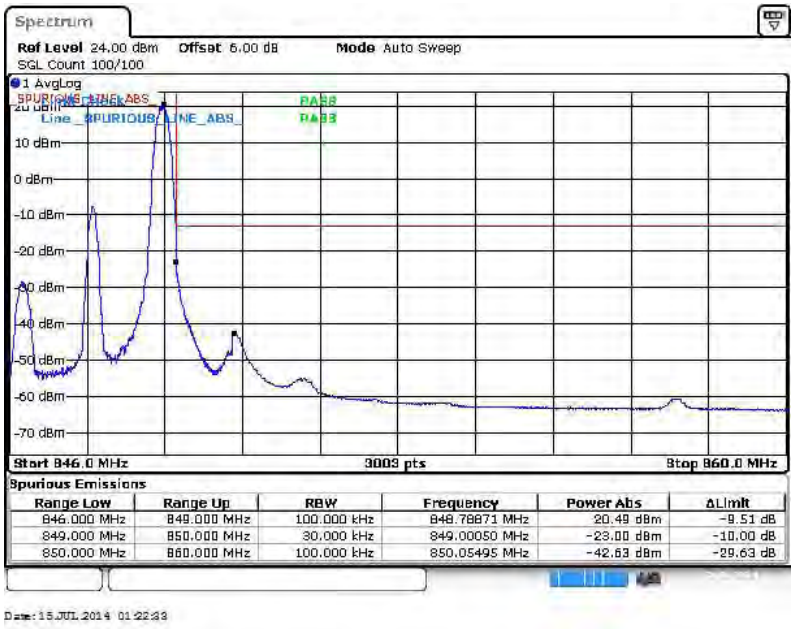
Lower Band Edge Plot for 16QAM -RB Size 1, RB Offset 0



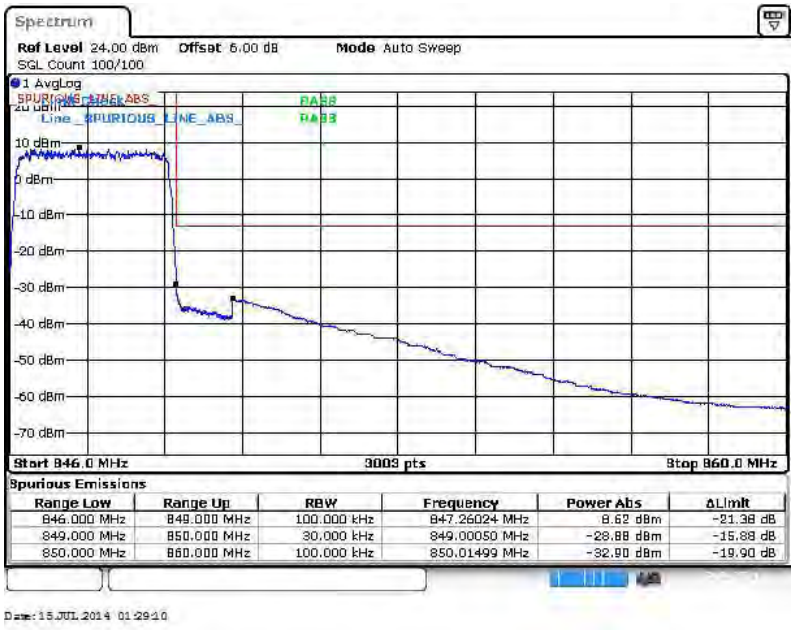
Lower Band Edge Plot for 16QAM -RB Size 15, RB Offset 0



Higher Band Edge Plot for 16QAM -RB Size 1, RB Offset 14

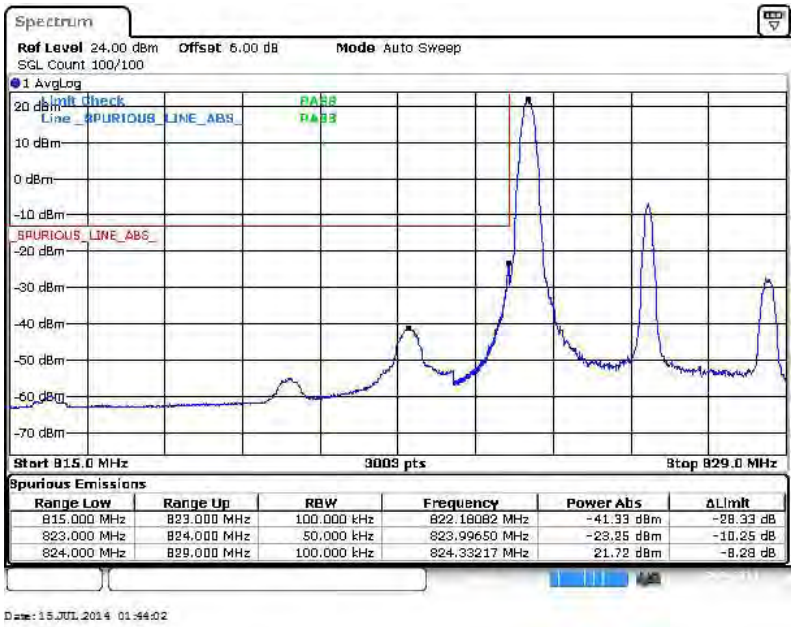


Higher Band Edge Plot for 16QAM -RB Size 15, RB Offset 0

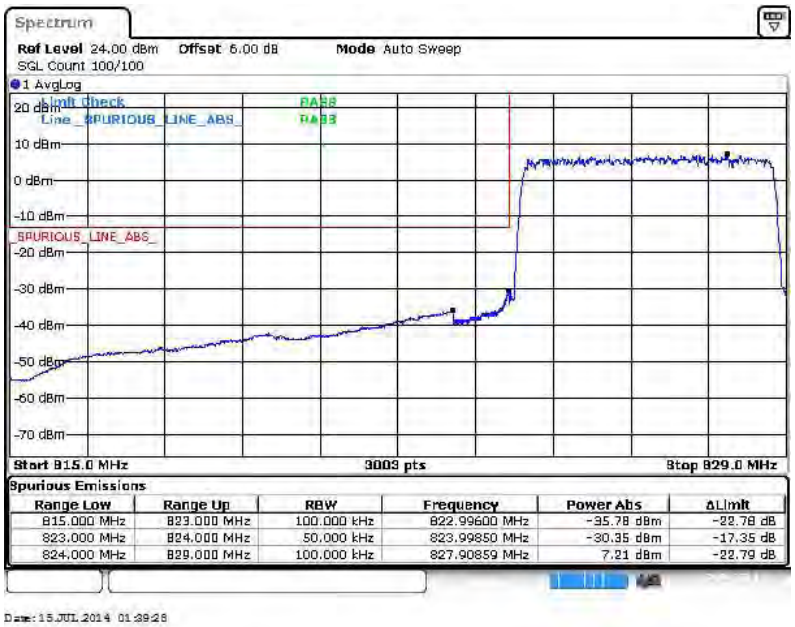


Band :	LTE Band 5	Band Width :	5MHz / QPSK

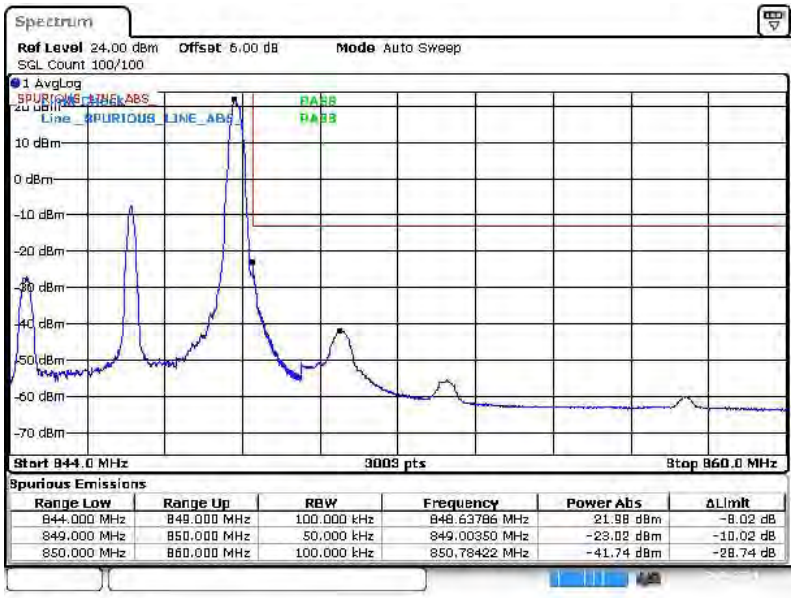
Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



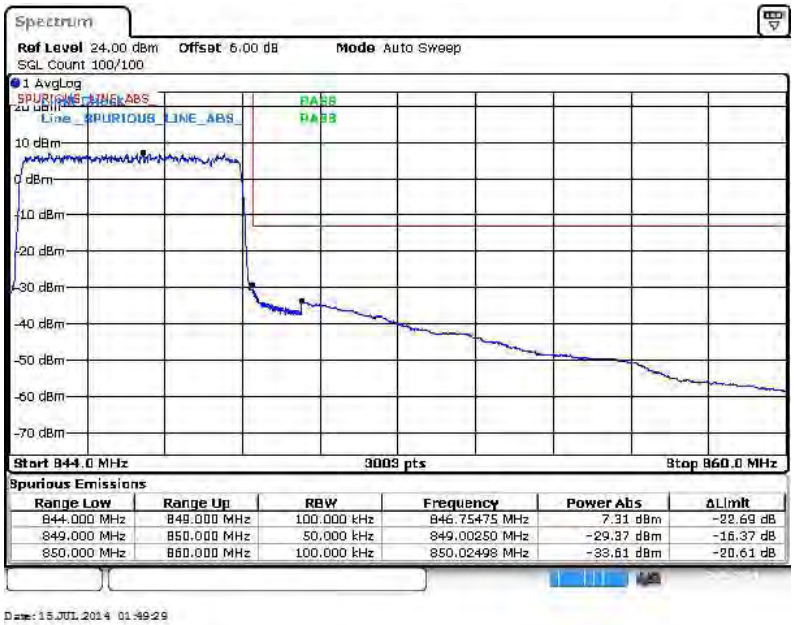
Lower Band Edge Plot for QPSK-RB Size 25, RB Offset 0



Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 24

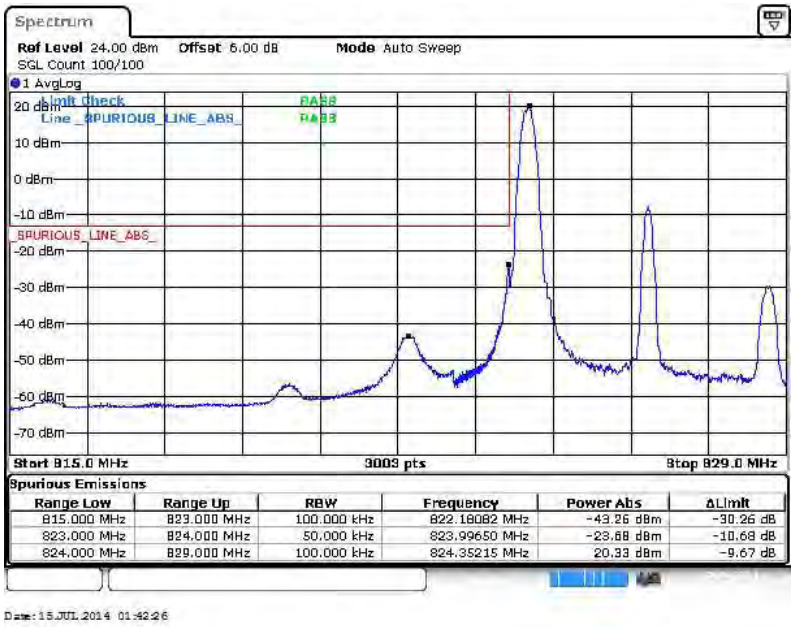


Higher Band Edge Plot for QPSK-RB Size 25, RB Offset 0

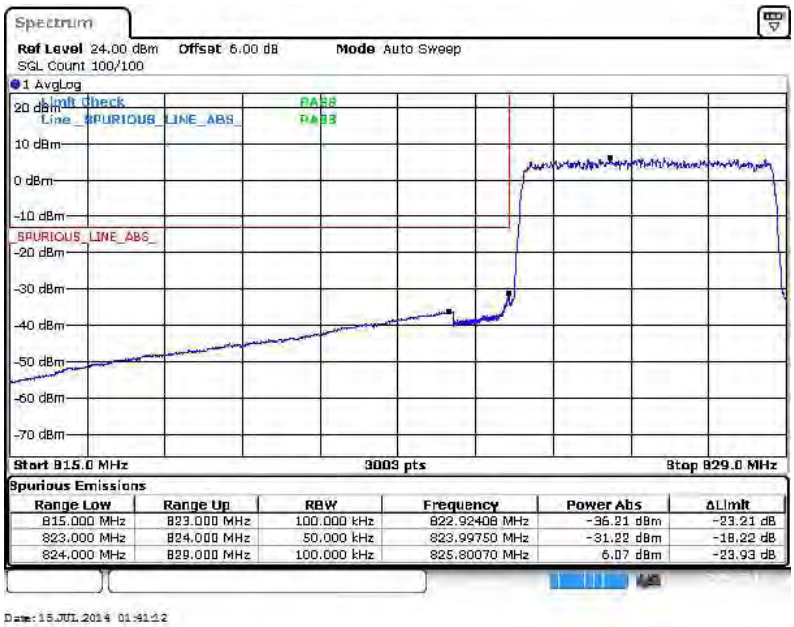


Band :	LTE Band 5	Band Width :	5MHz / 16QAM

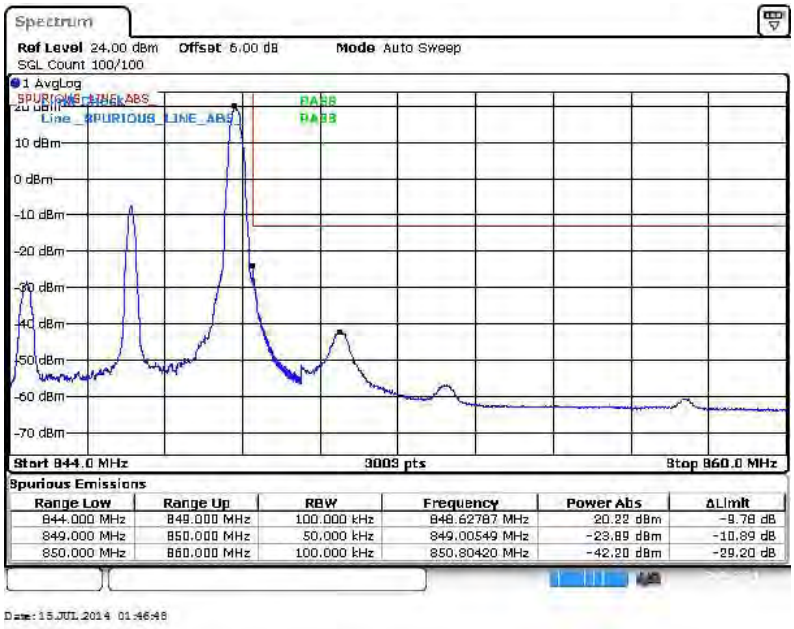
Lower Band Edge Plot for 16QAM -RB Size 1, RB Offset 0



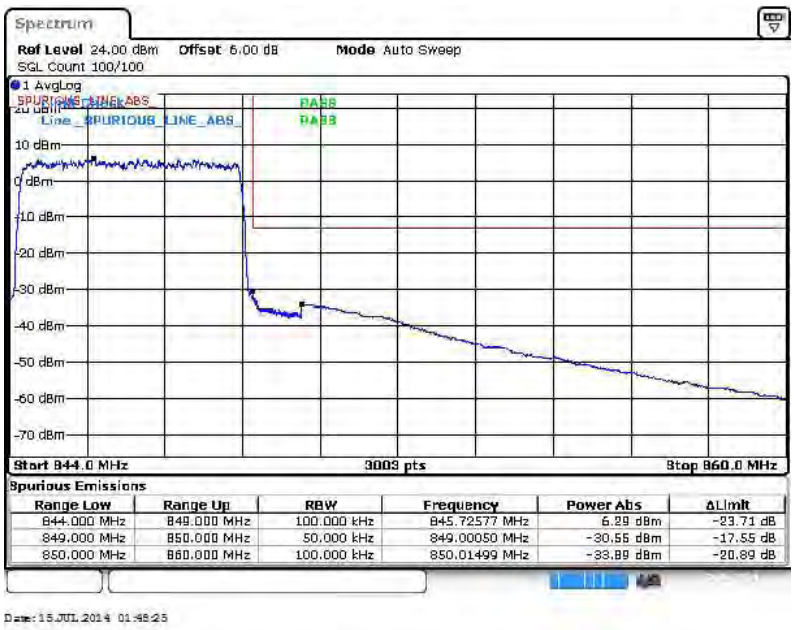
Lower Band Edge Plot for 16QAM -RB Size 25, RB Offset 0



Higher Band Edge Plot for 16QAM -RB Size 1, RB Offset 24

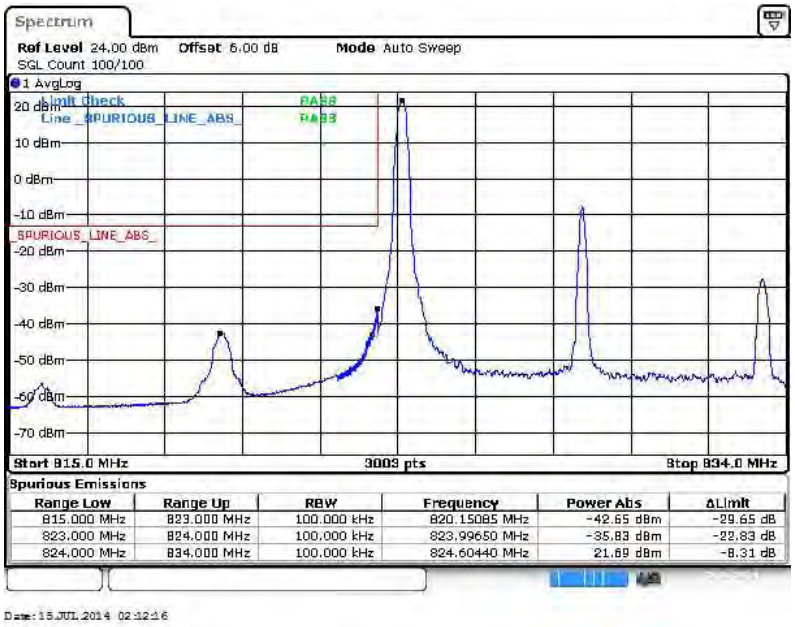


Higher Band Edge Plot for 16QAM -RB Size 25, RB Offset 0

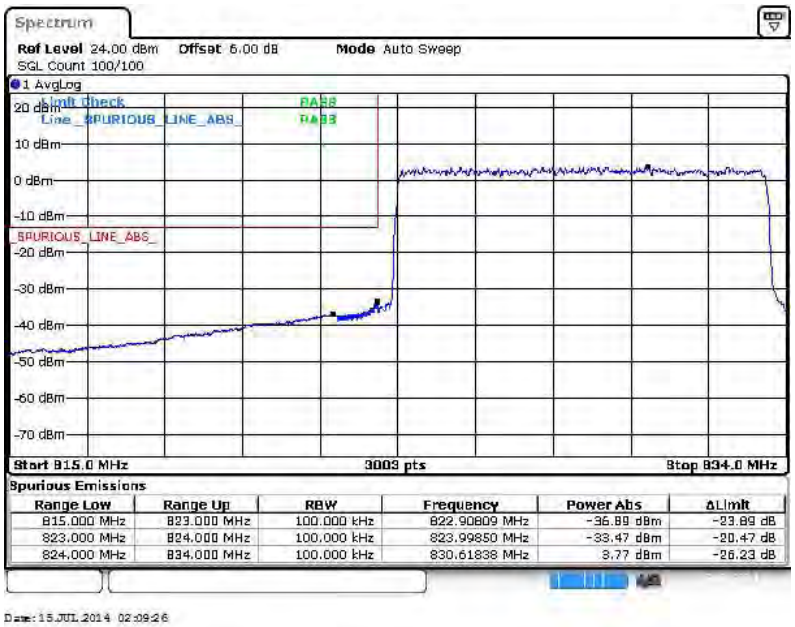


Band :	LTE Band 5	Band Width :	10MHz / QPSK

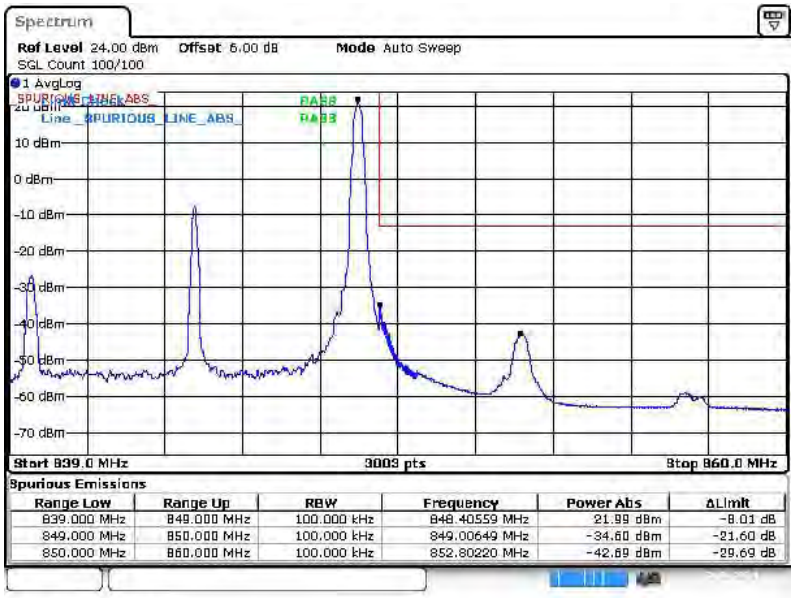
Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Lower Band Edge Plot for QPSK-RB Size 50, RB Offset 0



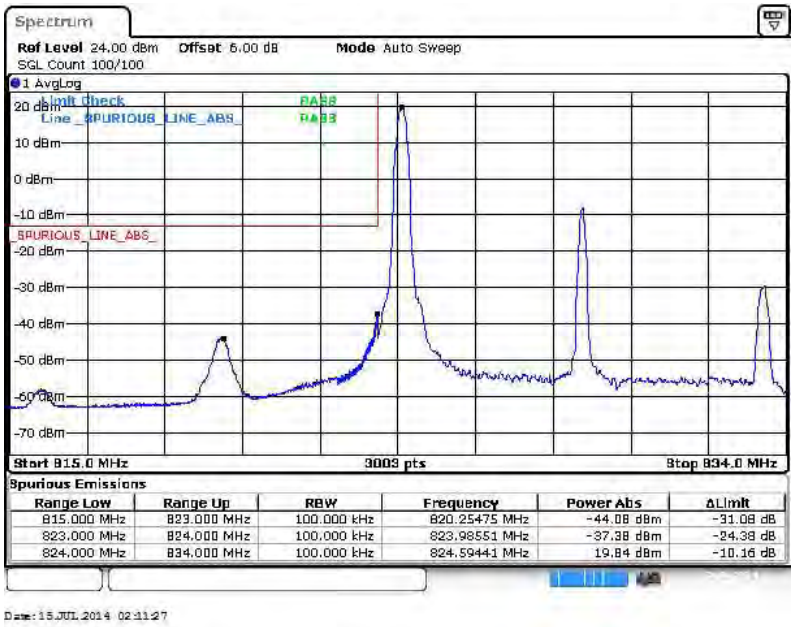
Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 49



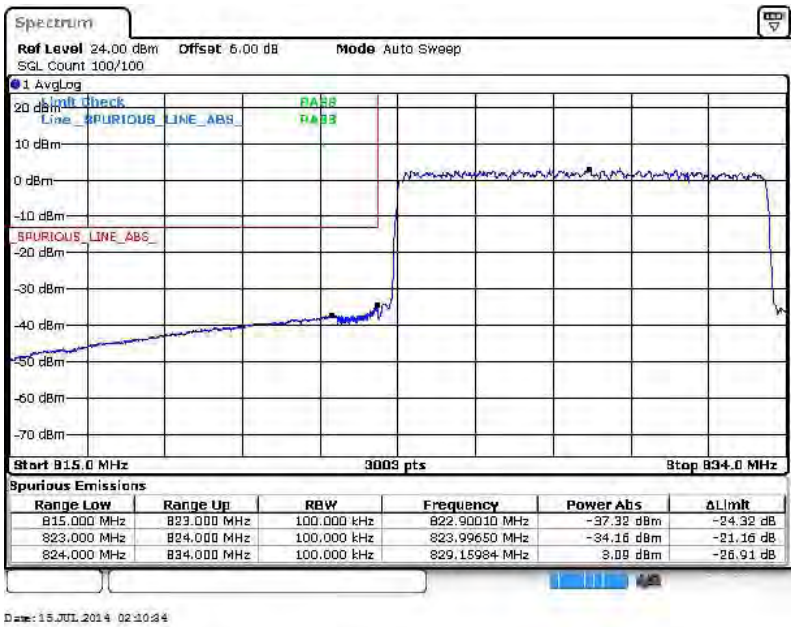
Higher Band Edge Plot for QPSK-RB Size 50, RB Offset 0

Band :	LTE Band 5	Band Width :	10MHz / 16QAM

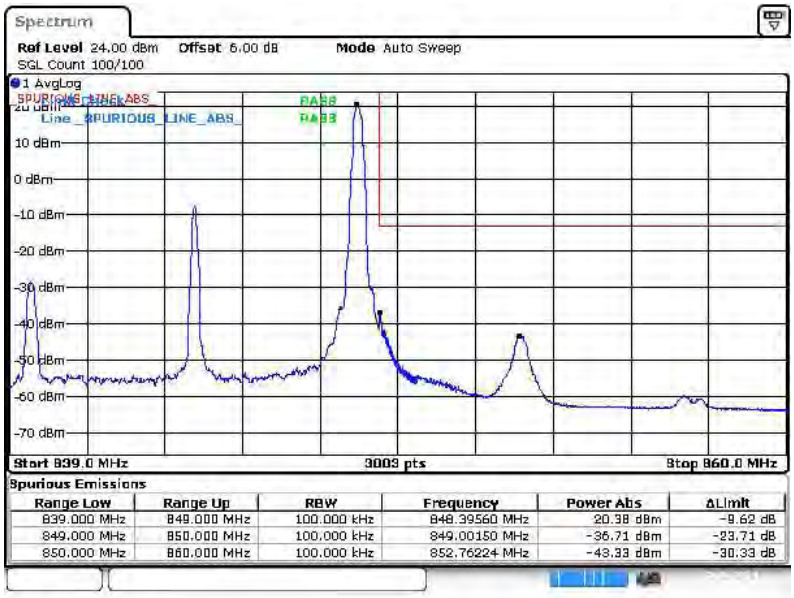
Lower Band Edge Plot for 16QAM -RB Size 1, RB Offset 0



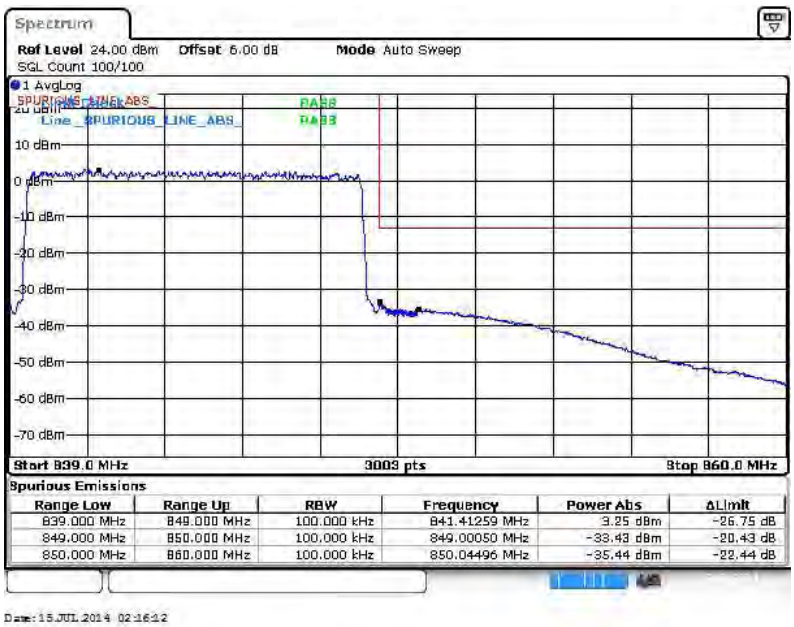
Lower Band Edge Plot for 16QAM -RB Size 50, RB Offset 0



Higher Band Edge Plot for 16QAM -RB Size 1, RB Offset 49

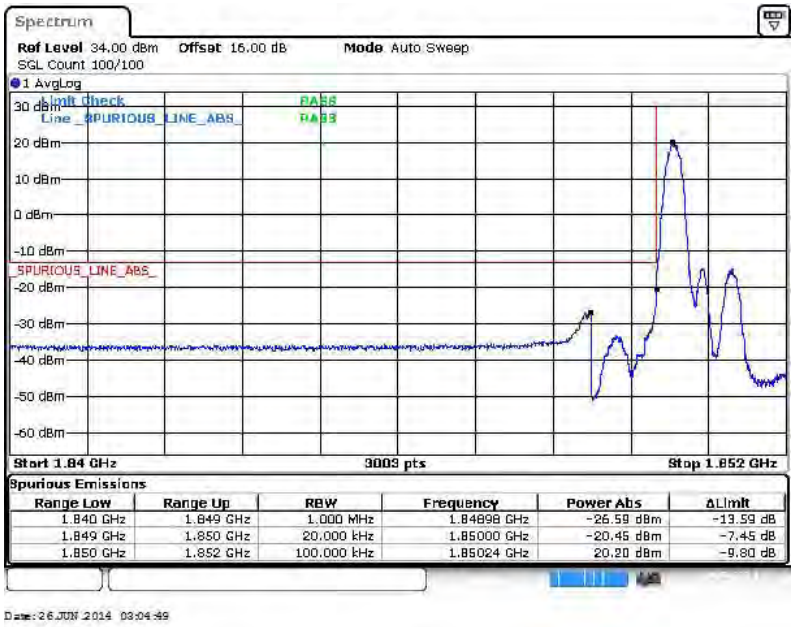


Higher Band Edge Plot for 16QAM -RB Size 50, RB Offset 0

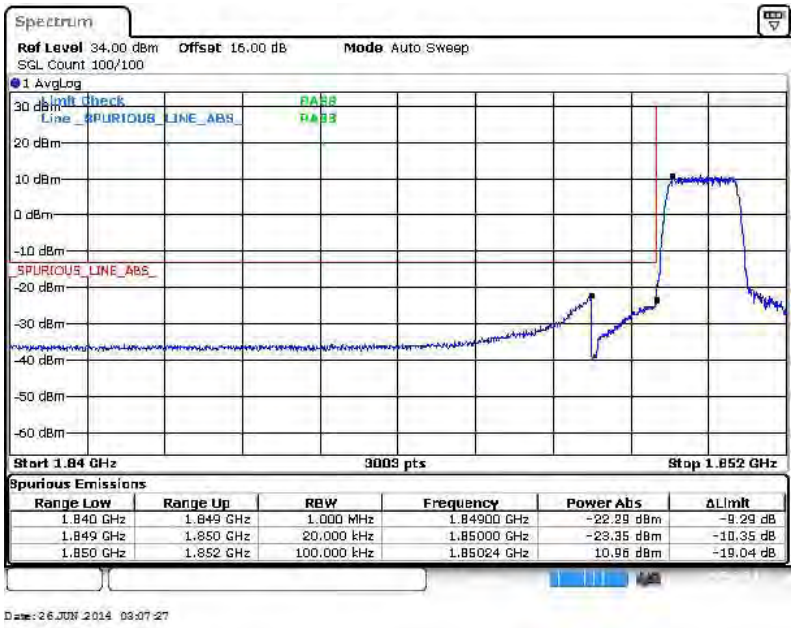


Band :	LTE Band 2	Band Width :	1.4MHz / QPSK

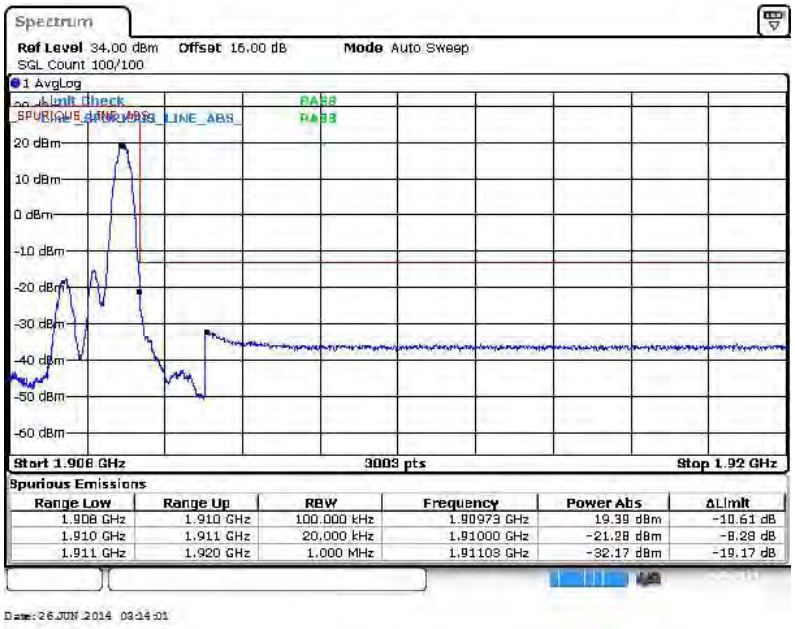
Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



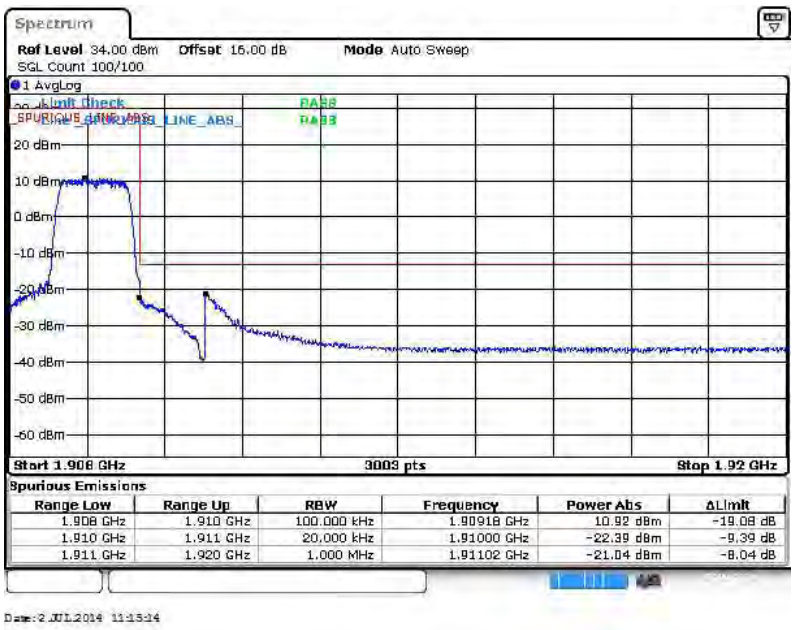
Lower Band Edge Plot for QPSK-RB Size 6, RB Offset 0



Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 5

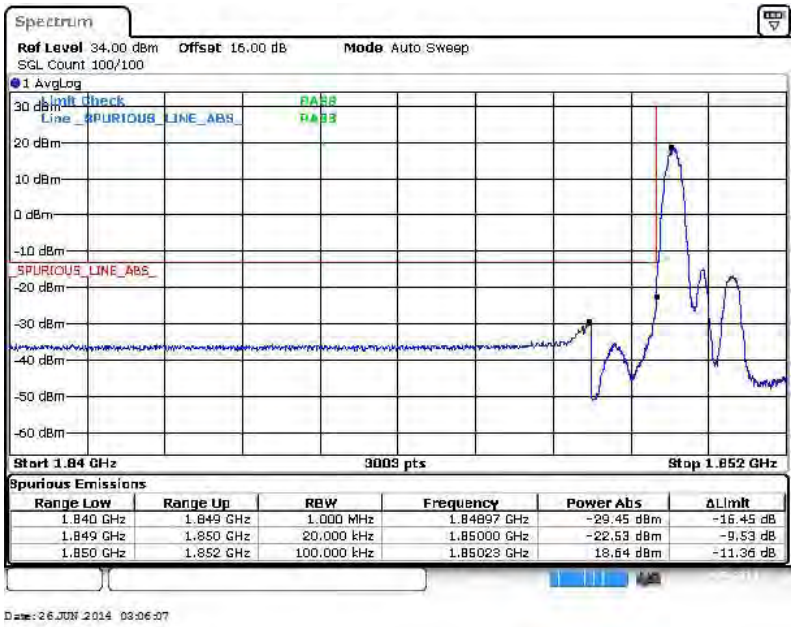


Higher Band Edge Plot for QPSK-RB Size 6, RB Offset 0

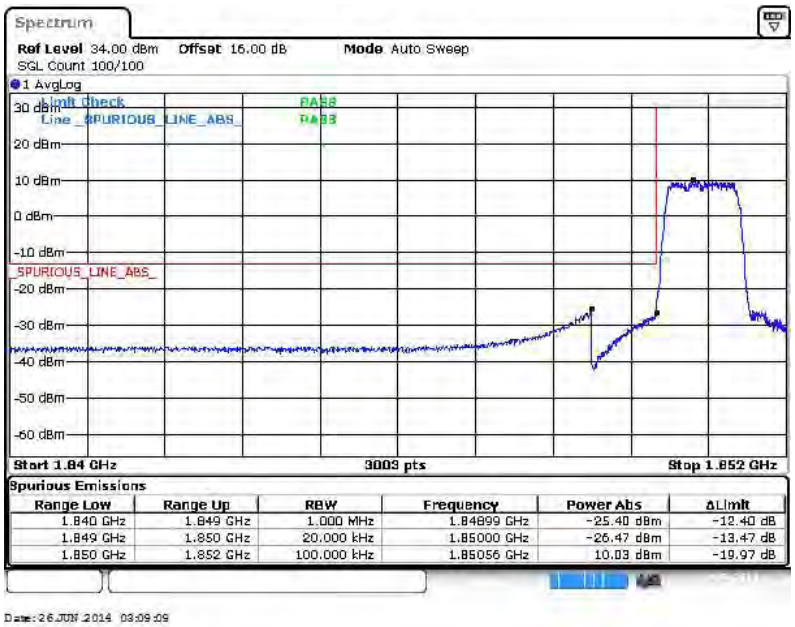


Band :	LTE Band 2	Band Width :	1.4MHz / 16QAM

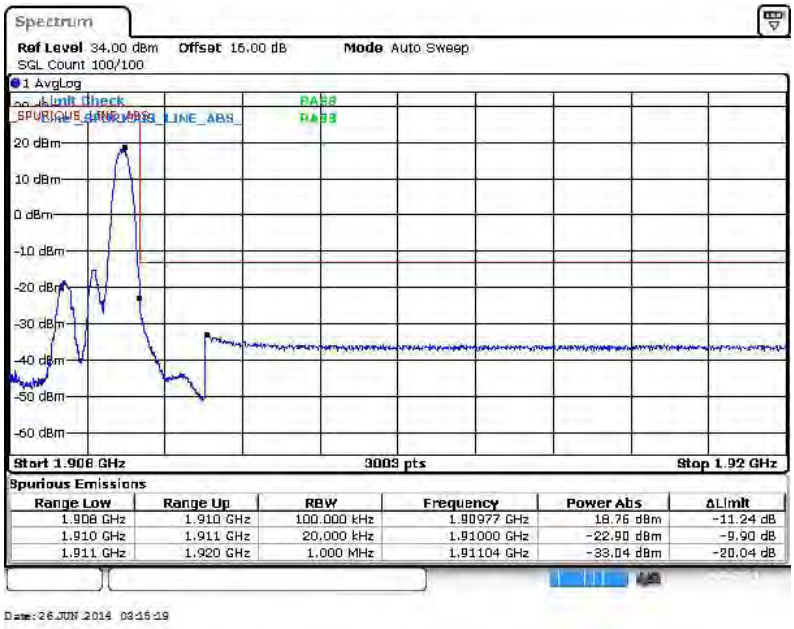
Lower Band Edge Plot for 16QAM -RB Size 1, RB Offset 0



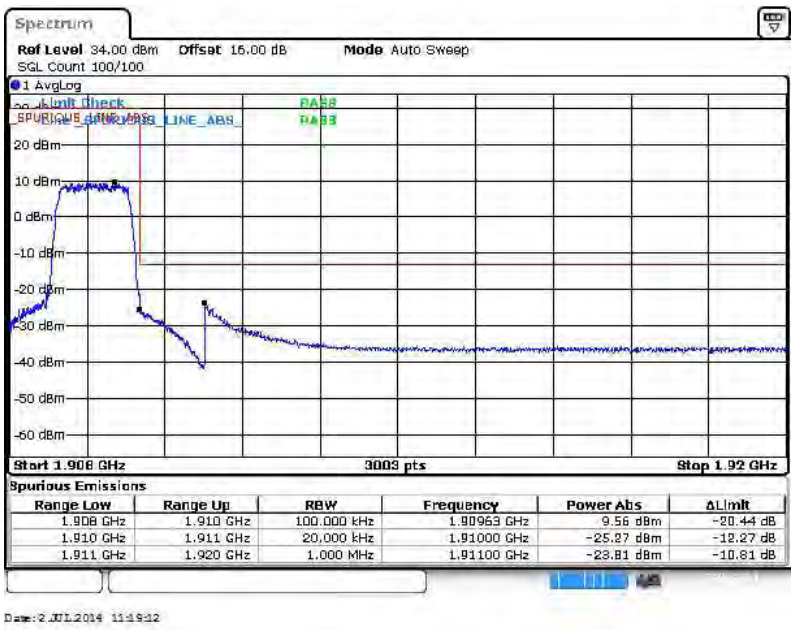
Lower Band Edge Plot for 16QAM -RB Size 6, RB Offset 0



Higher Band Edge Plot for 16QAM -RB Size 1, RB Offset 5

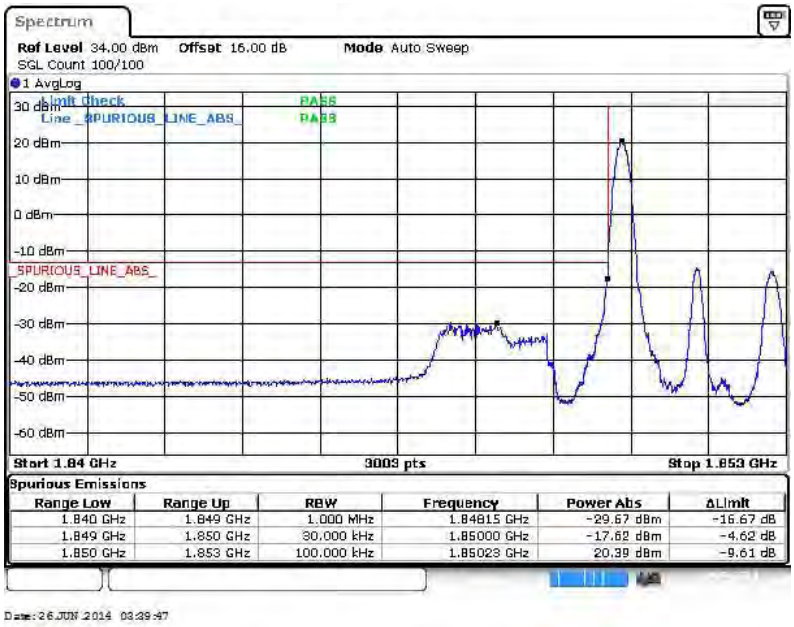


Higher Band Edge Plot for 16QAM -RB Size 6, RB Offset 0

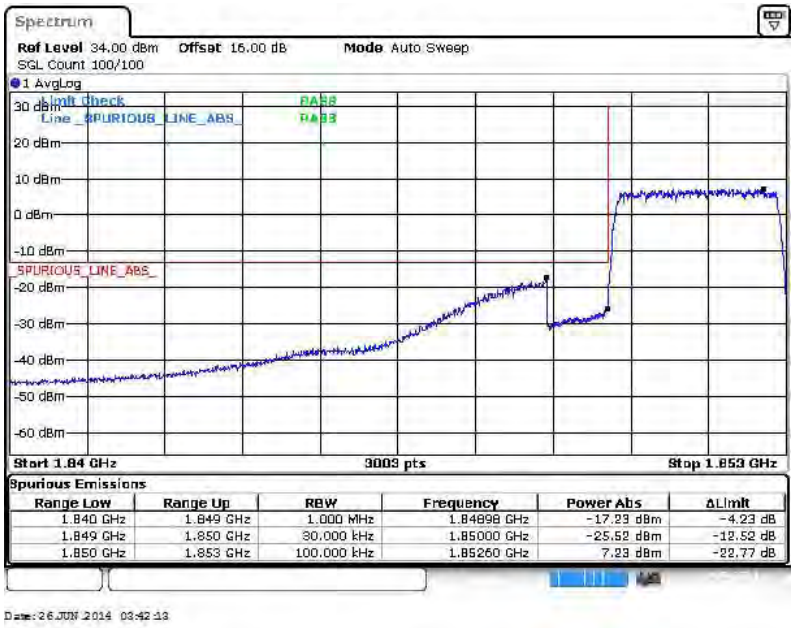


Band :	LTE Band 2	Band Width :	3MHz / QPSK

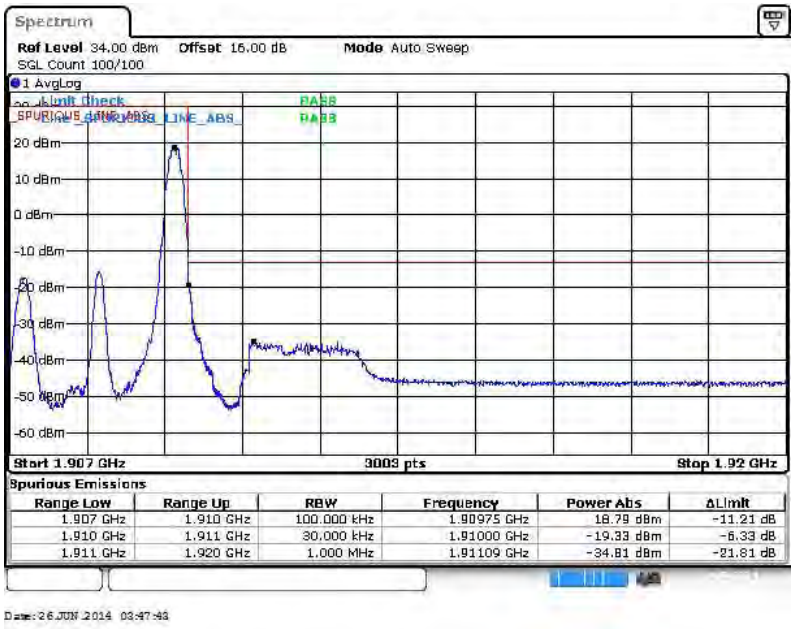
Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



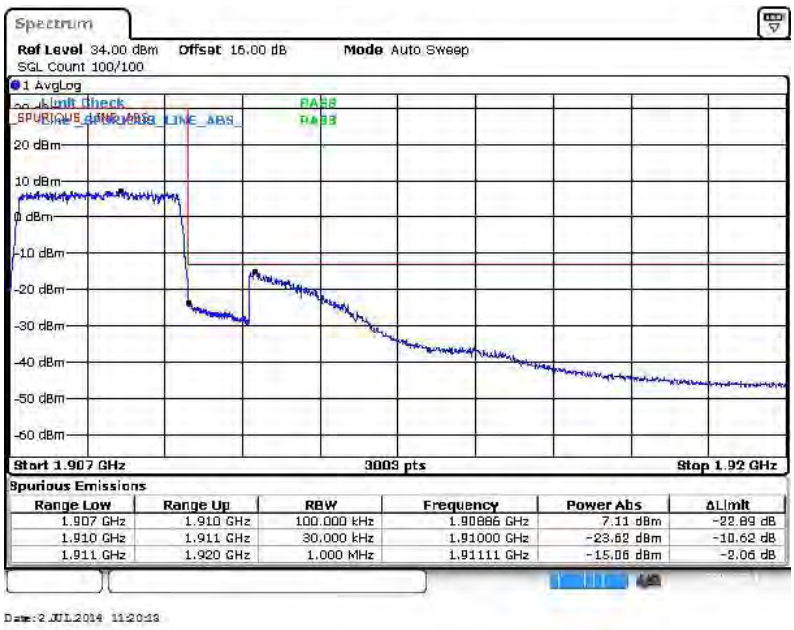
Lower Band Edge Plot for QPSK-RB Size 15, RB Offset 0



Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 14

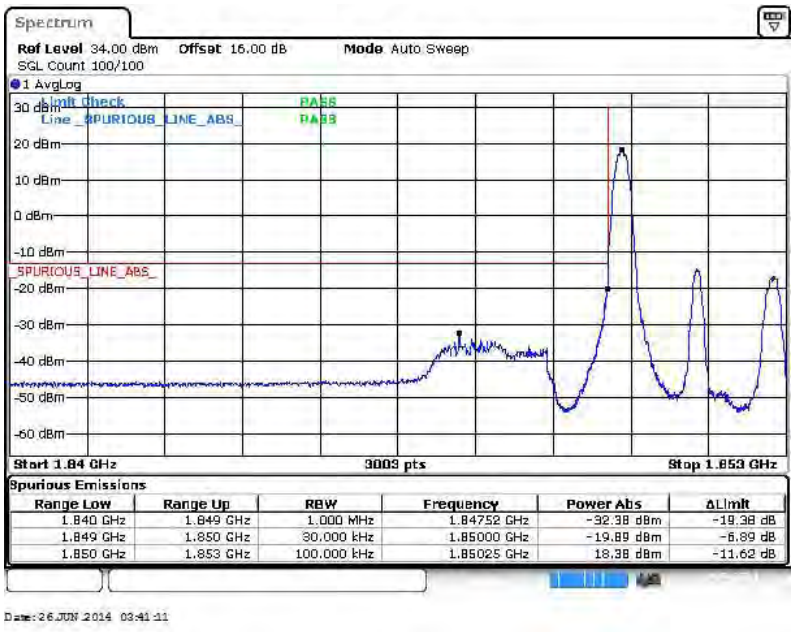


Higher Band Edge Plot for QPSK-RB Size 15, RB Offset 0

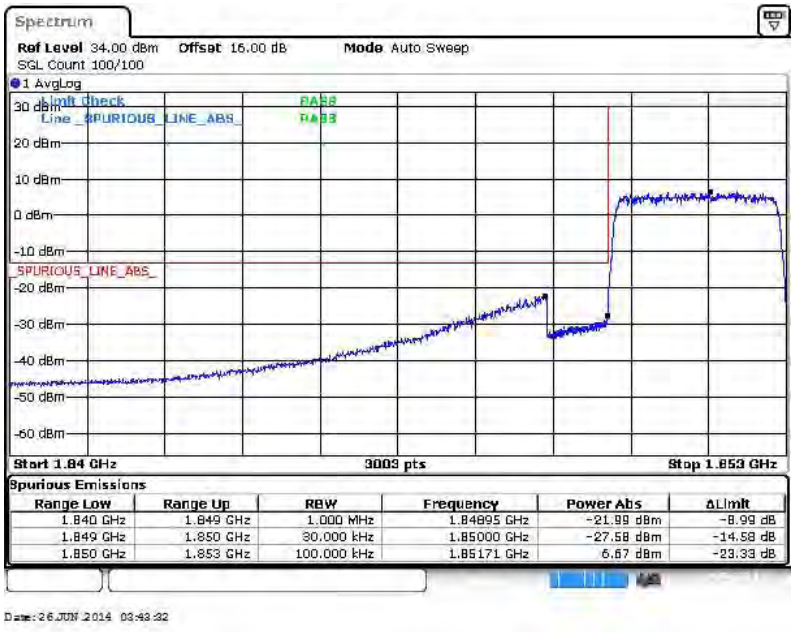


Band :	LTE Band 2	Band Width :	3MHz / 16QAM

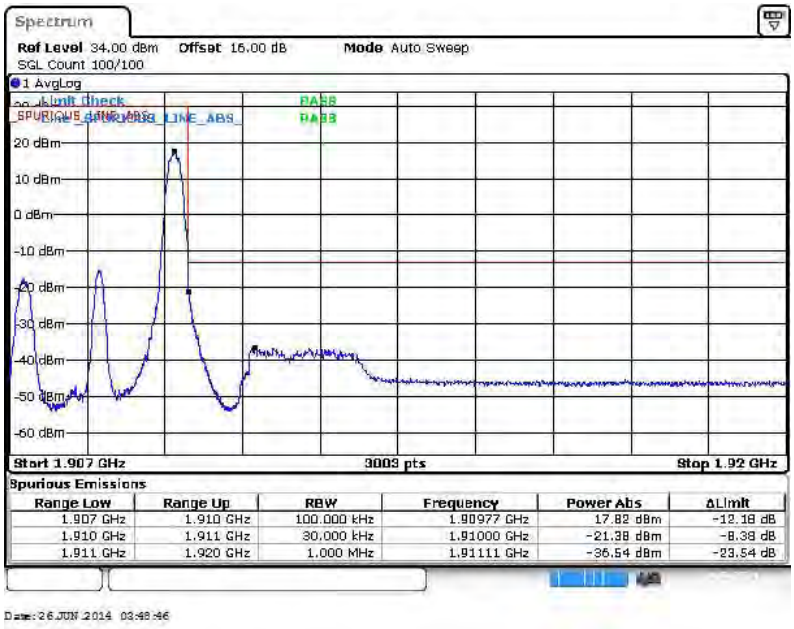
Lower Band Edge Plot for 16QAM -RB Size 1, RB Offset 0



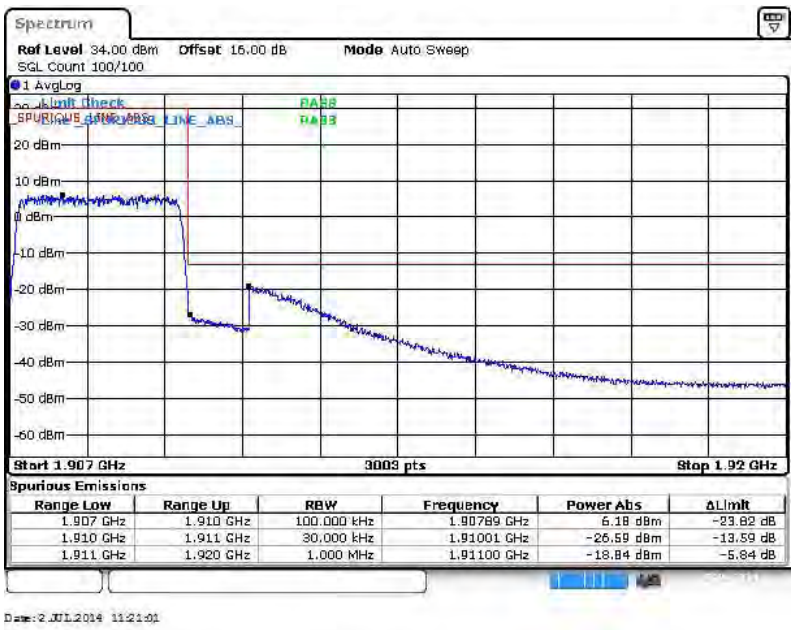
Lower Band Edge Plot for 16QAM -RB Size 15, RB Offset 0



Higher Band Edge Plot for 16QAM -RB Size 1, RB Offset 14

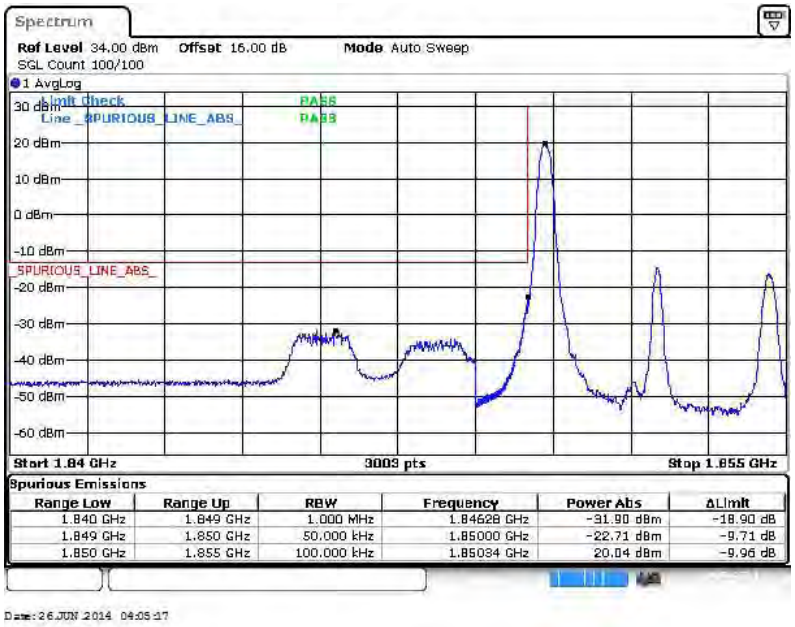


Higher Band Edge Plot for 16QAM -RB Size 15, RB Offset 0

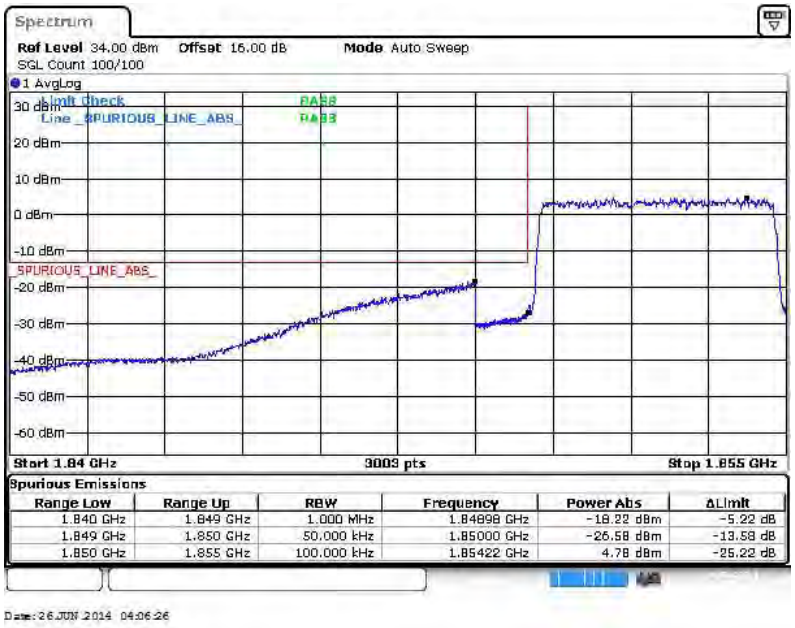


Band :	LTE Band 2	Band Width :	5MHz / QPSK

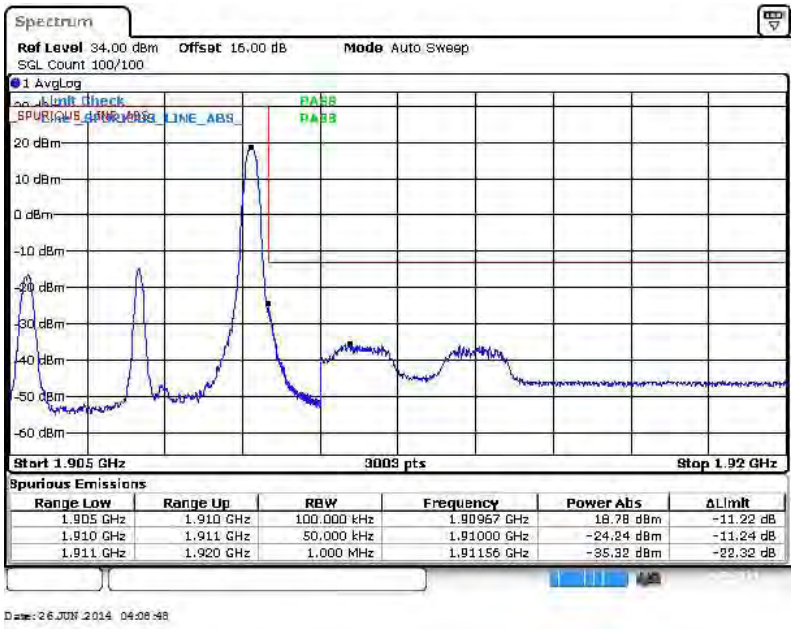
Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



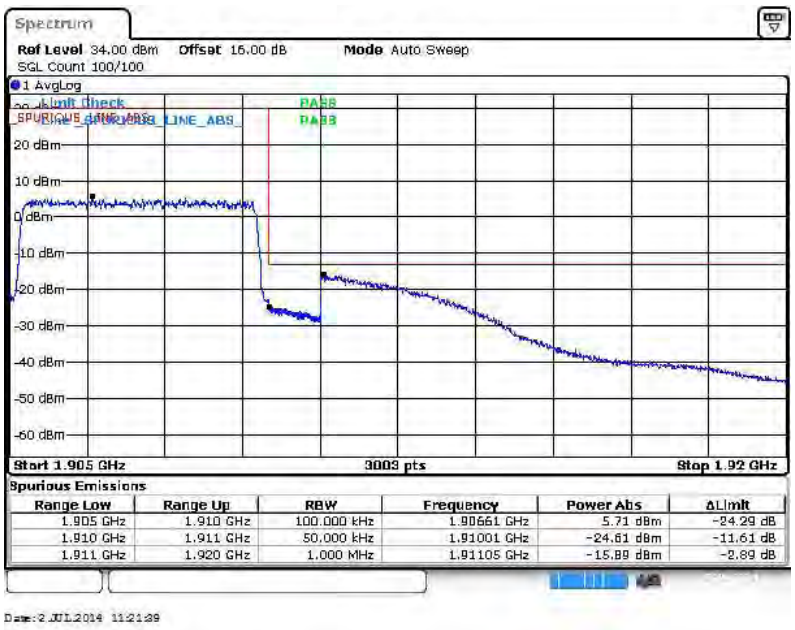
Lower Band Edge Plot for QPSK-RB Size 25, RB Offset 0



Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 24

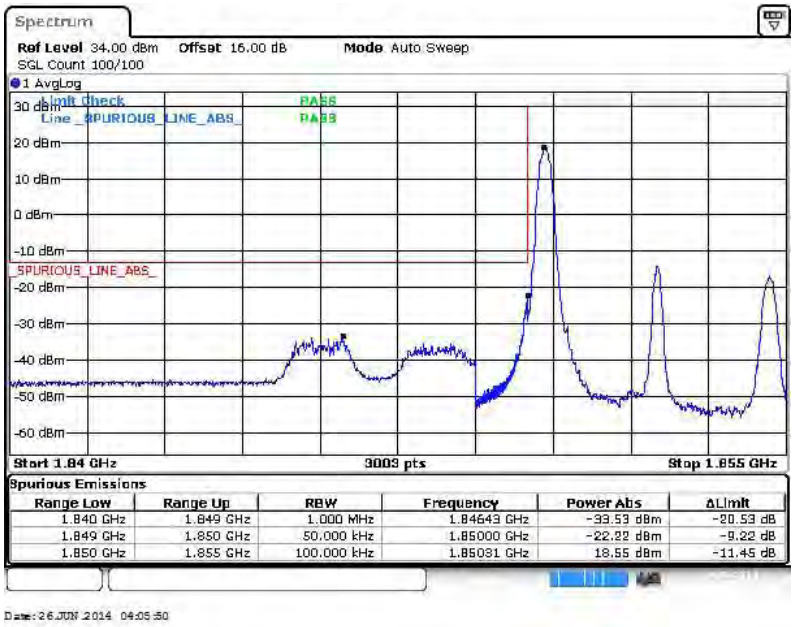


Higher Band Edge Plot for QPSK-RB Size 25, RB Offset 0

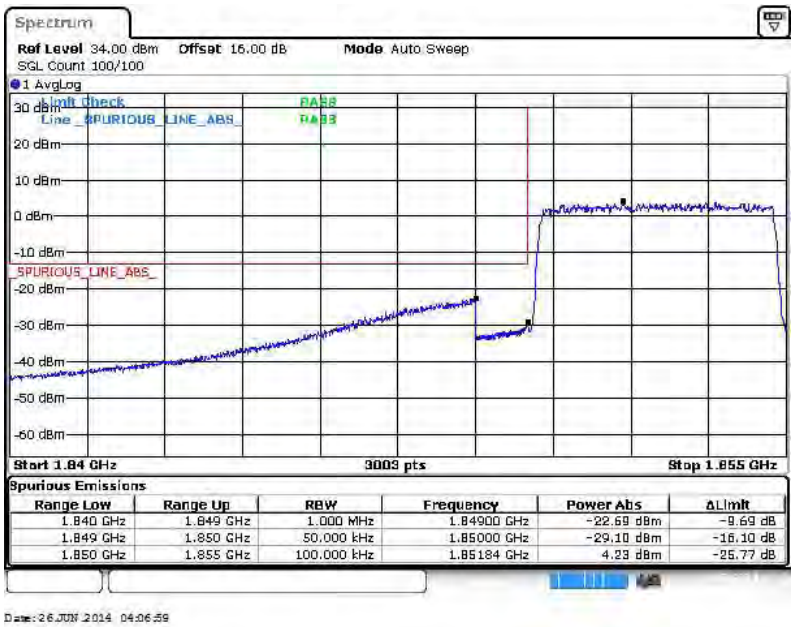


Band :	LTE Band 2	Band Width :	5MHz / 16QAM

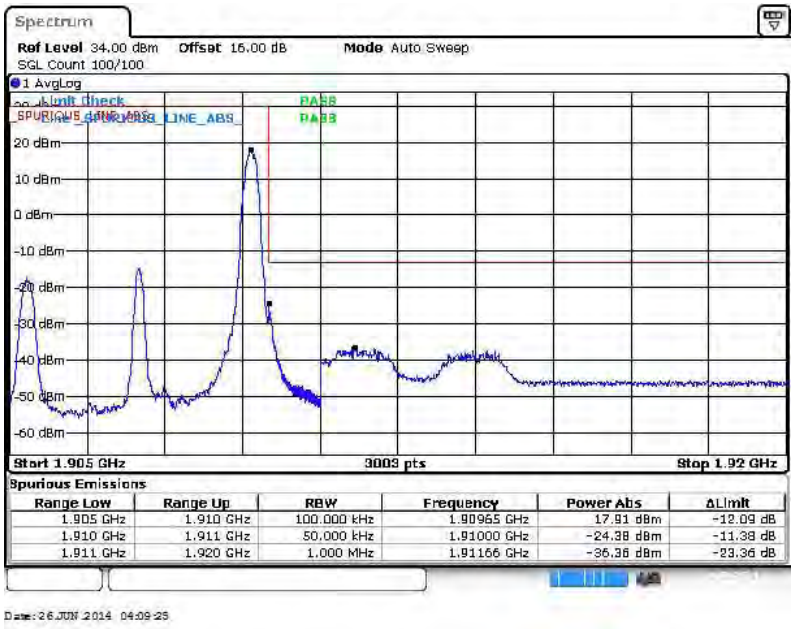
Lower Band Edge Plot for 16QAM-RB Size 1, RB Offset 0



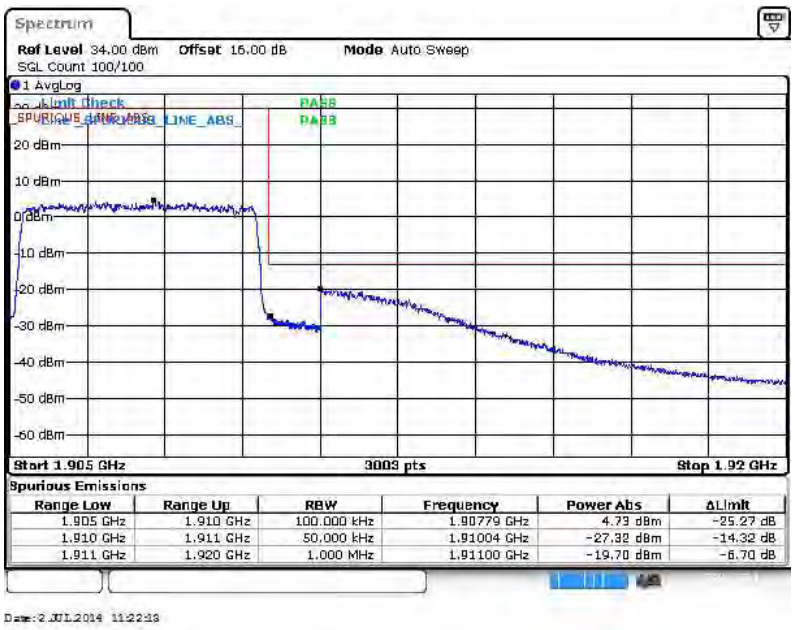
Lower Band Edge Plot for 16QAM-RB Size 25, RB Offset 0



Higher Band Edge Plot for 16QAM-RB Size 1, RB Offset 24

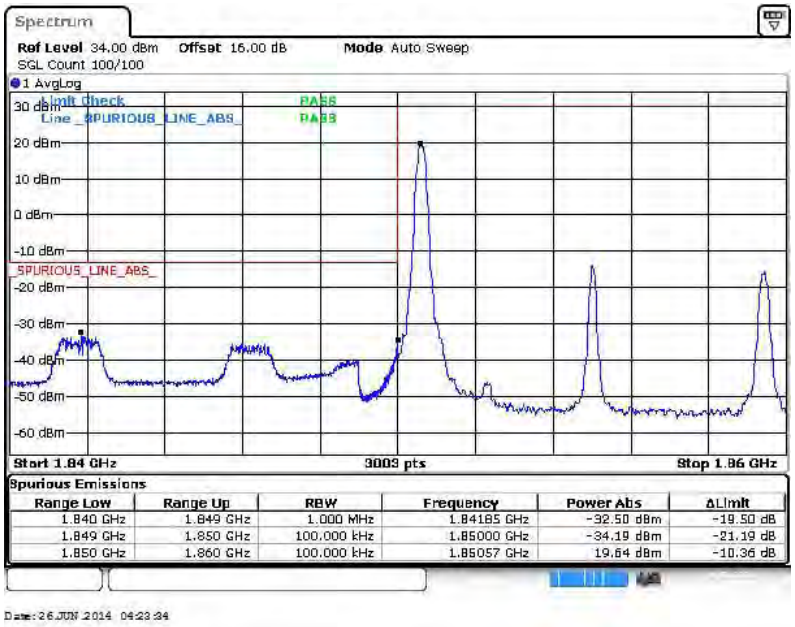


Higher Band Edge Plot for 16QAM-RB Size 25, RB Offset 0

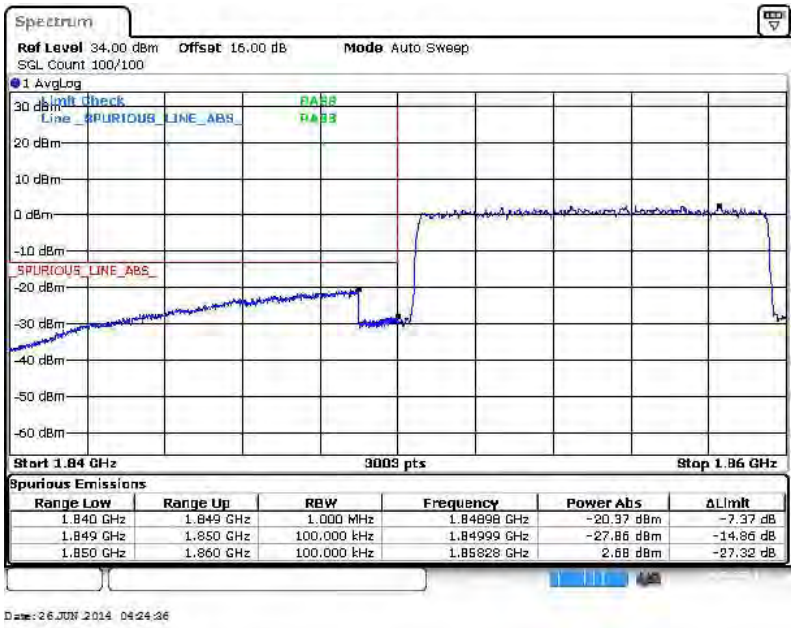


Band :	LTE Band 2	Band Width :	10MHz / QPSK

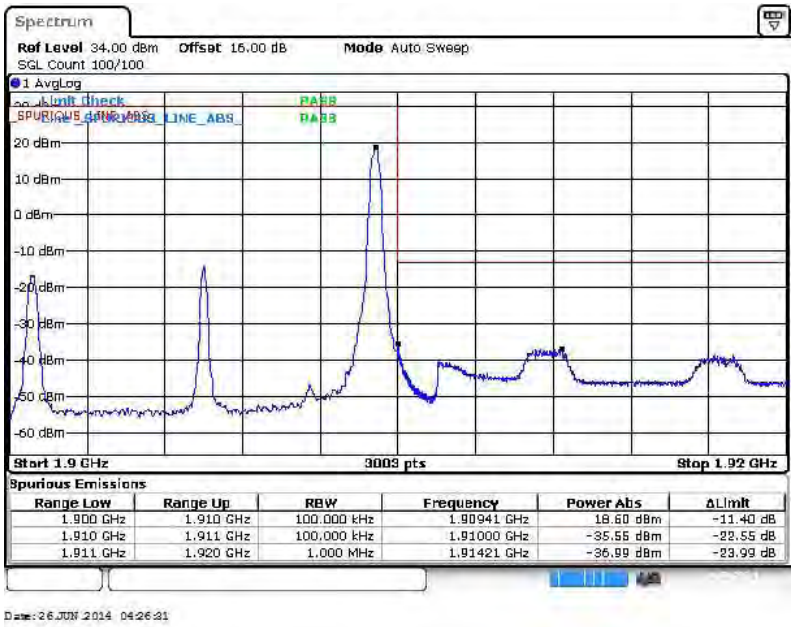
Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



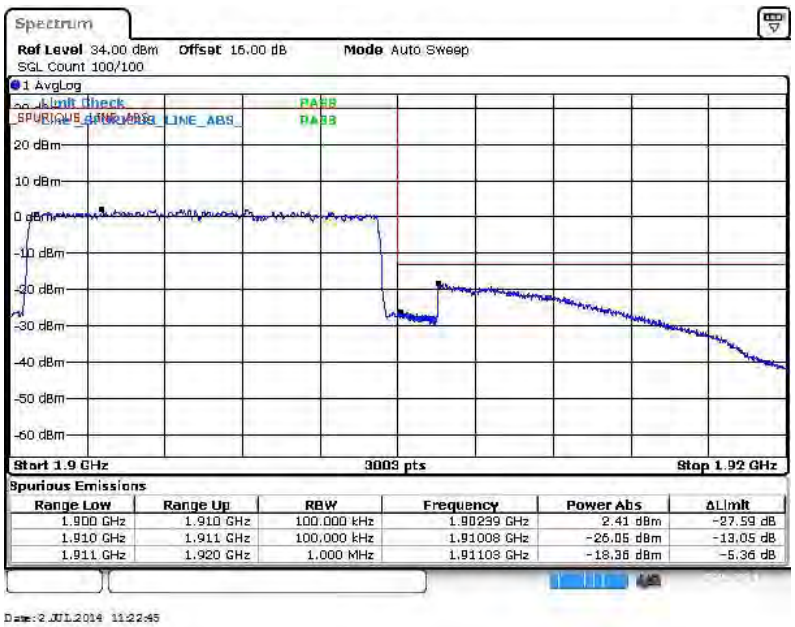
Lower Band Edge Plot for QPSK-RB Size 50, RB Offset 0



Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 49

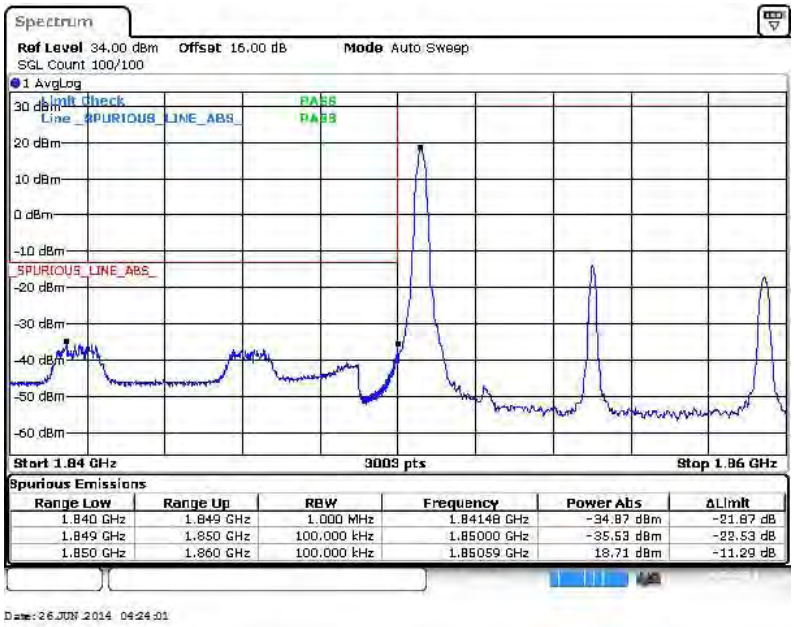


Higher Band Edge Plot for QPSK-RB Size 50, RB Offset 0

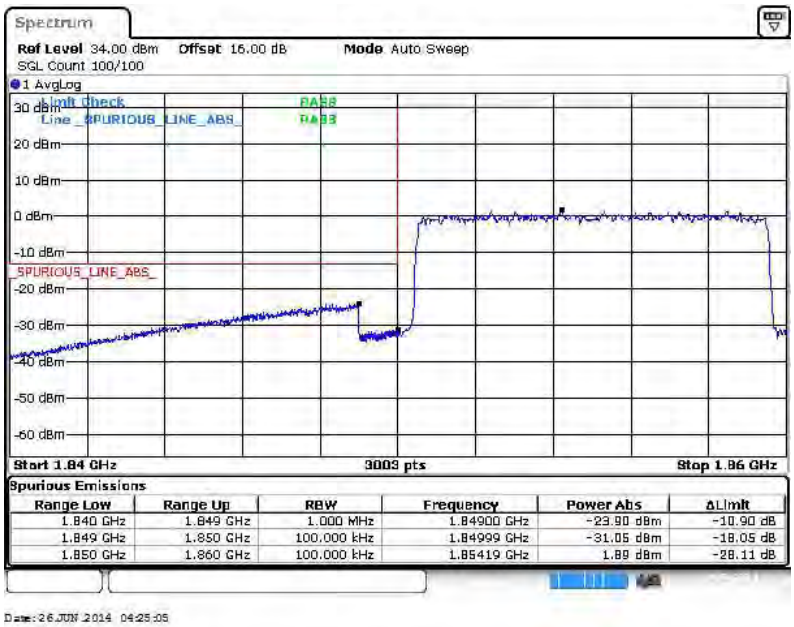


Band :	LTE Band 2	Band Width :	10MHz / 16QAM

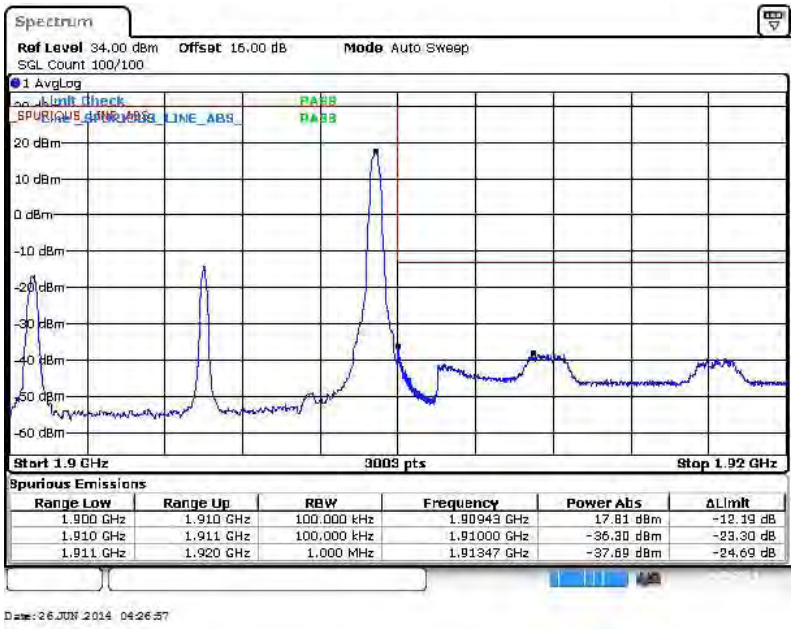
Lower Band Edge Plot for 16QAM-RB Size 1, RB Offset 0



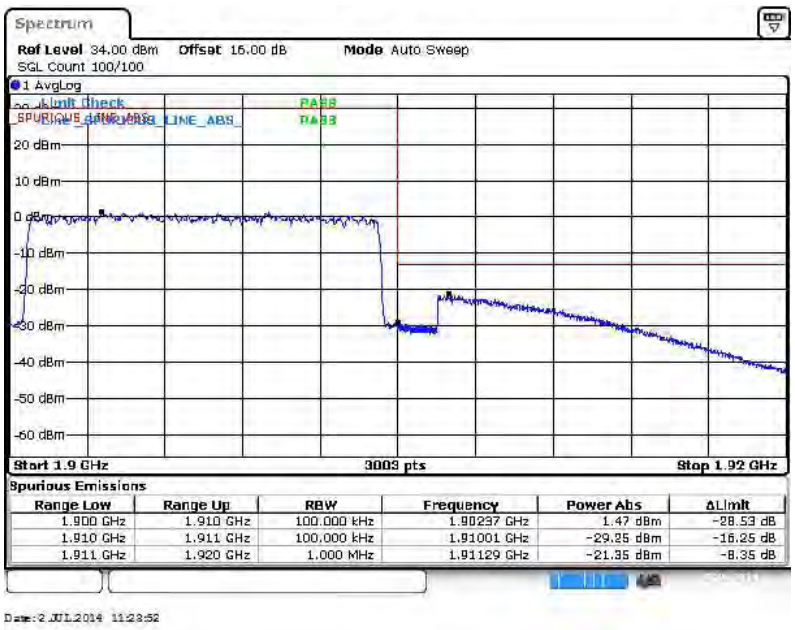
Lower Band Edge Plot for 16QAM-RB Size 50, RB Offset 0



Higher Band Edge Plot for 16QAM-RB Size 1, RB Offset 49

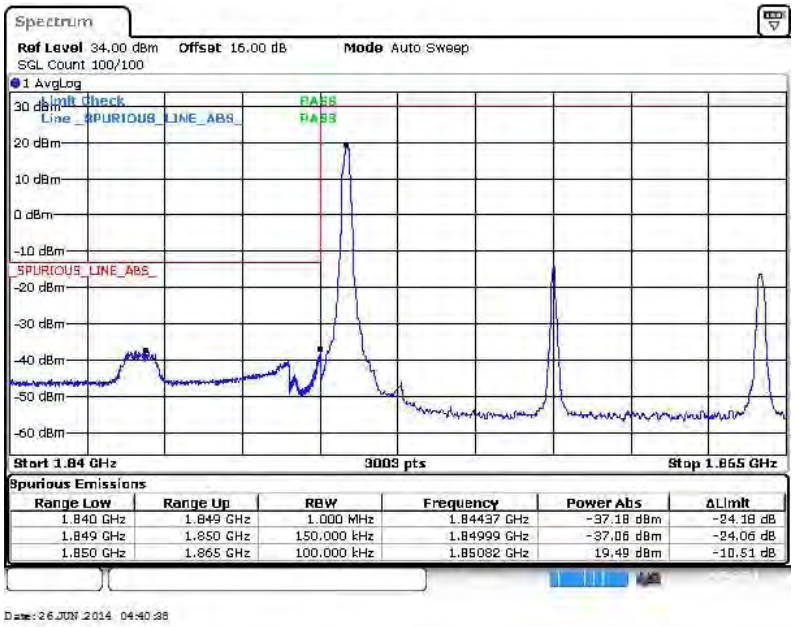


Higher Band Edge Plot for 16QAM-RB Size 50, RB Offset 0

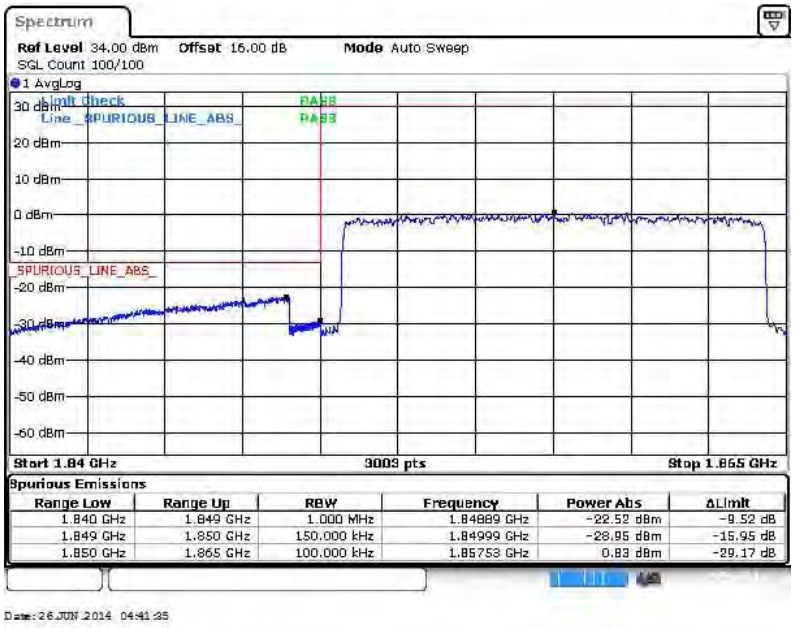


Band :	LTE Band 2	Band Width :	15MHz / QPSK

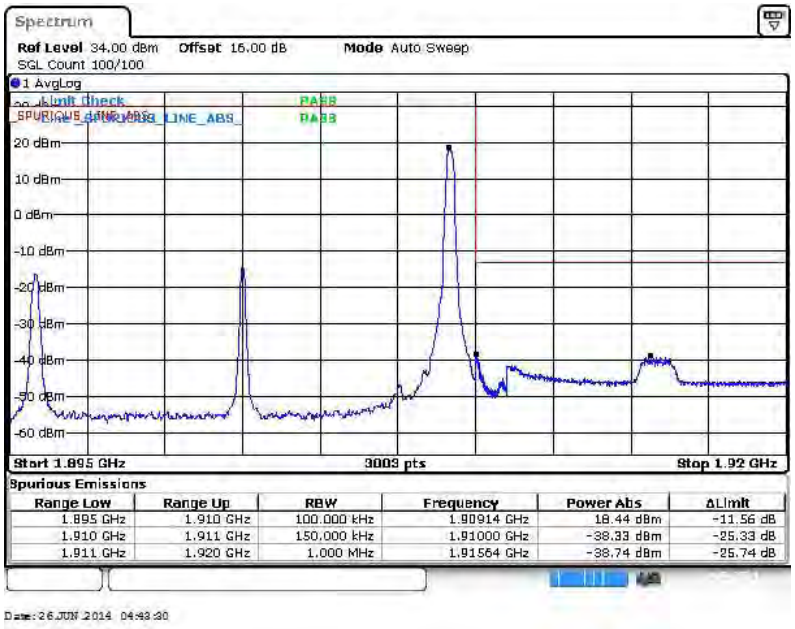
Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



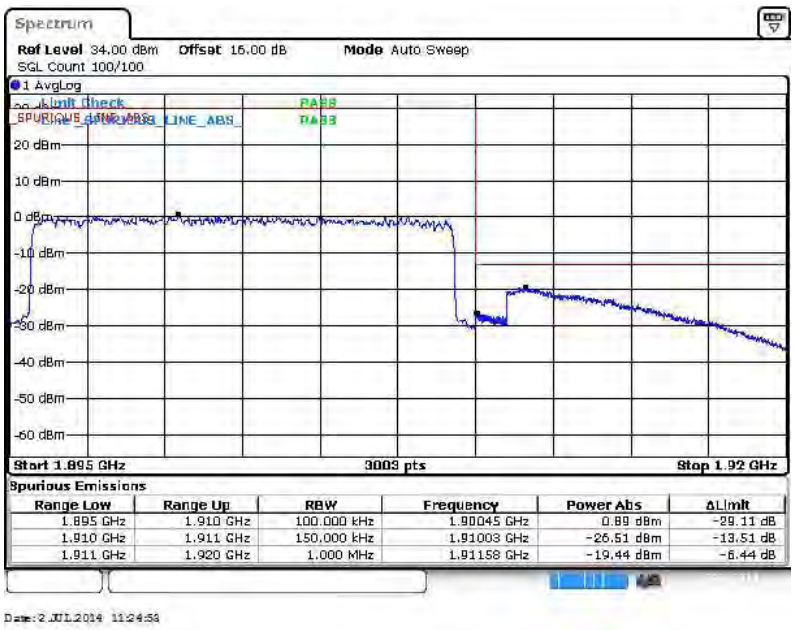
Lower Band Edge Plot for QPSK-RB Size 75, RB Offset 0



Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 74

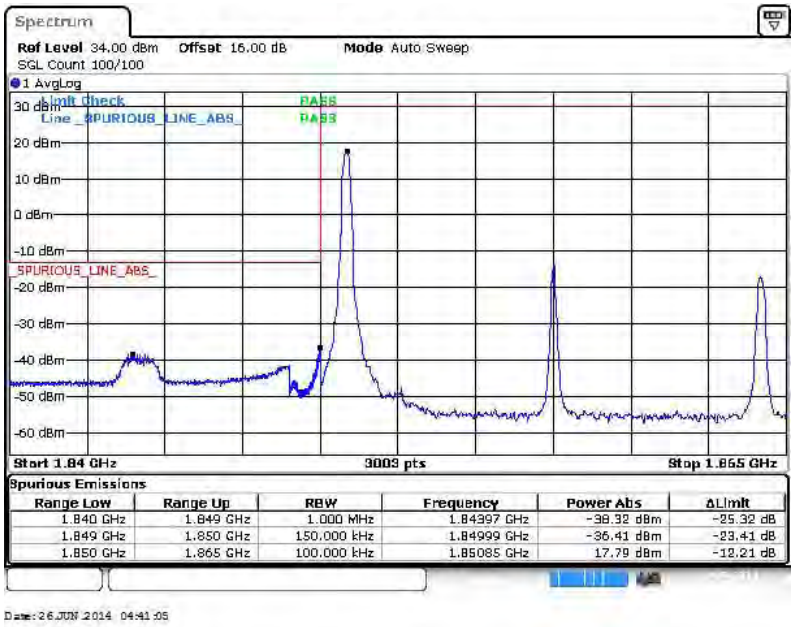


Higher Band Edge Plot for QPSK-RB Size 75, RB Offset 0

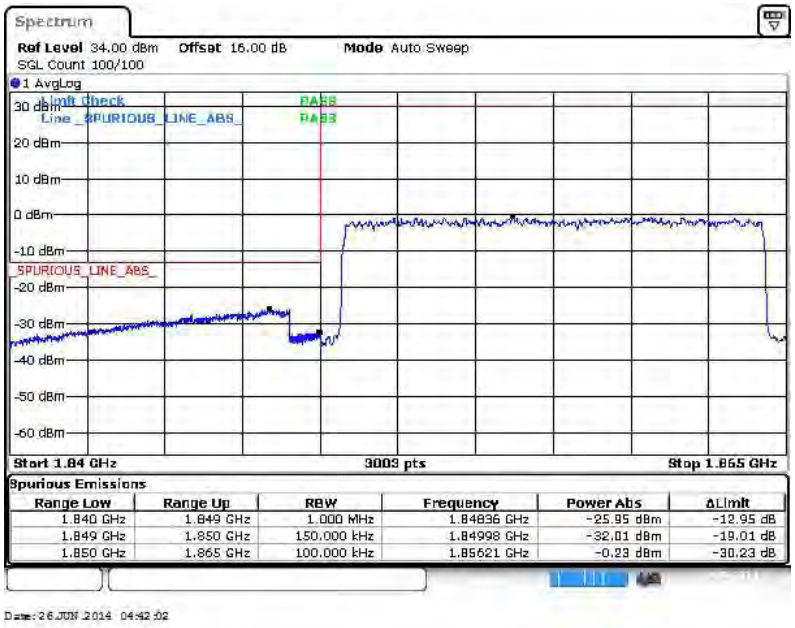


Band :	LTE Band 2	Band Width :	15MHz / 16QAM

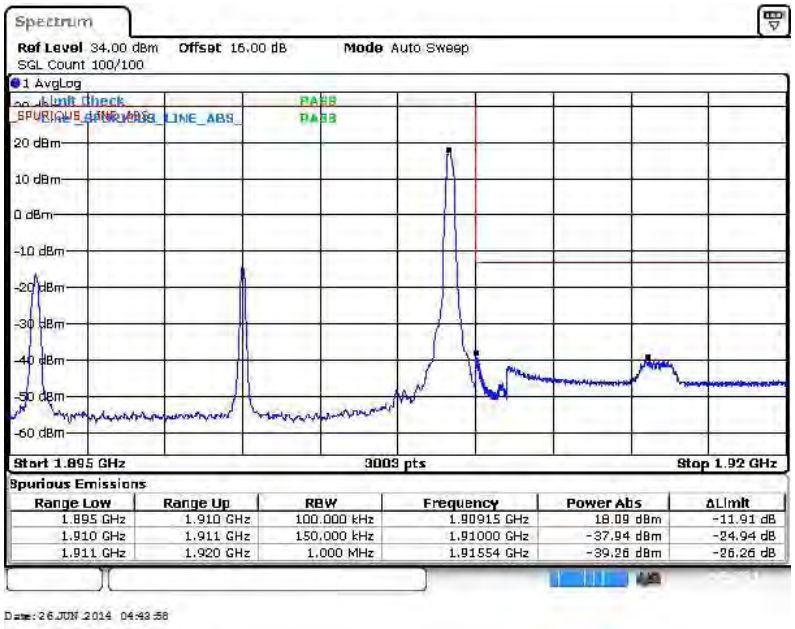
Lower Band Edge Plot for 16QAM-RB Size 1, RB Offset 0



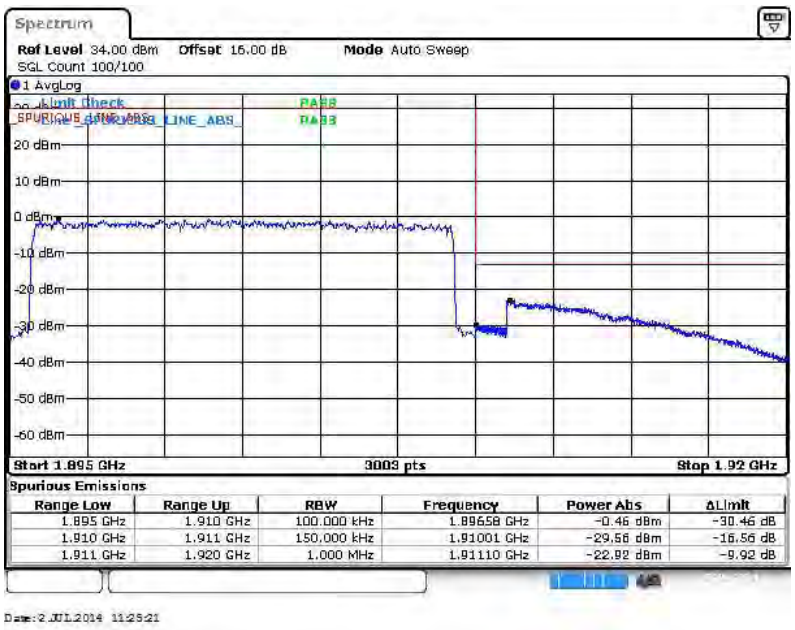
Lower Band Edge Plot for 16QAM-RB Size 75, RB Offset 0



Higher Band Edge Plot for 16QAM-RB Size 1, RB Offset 74

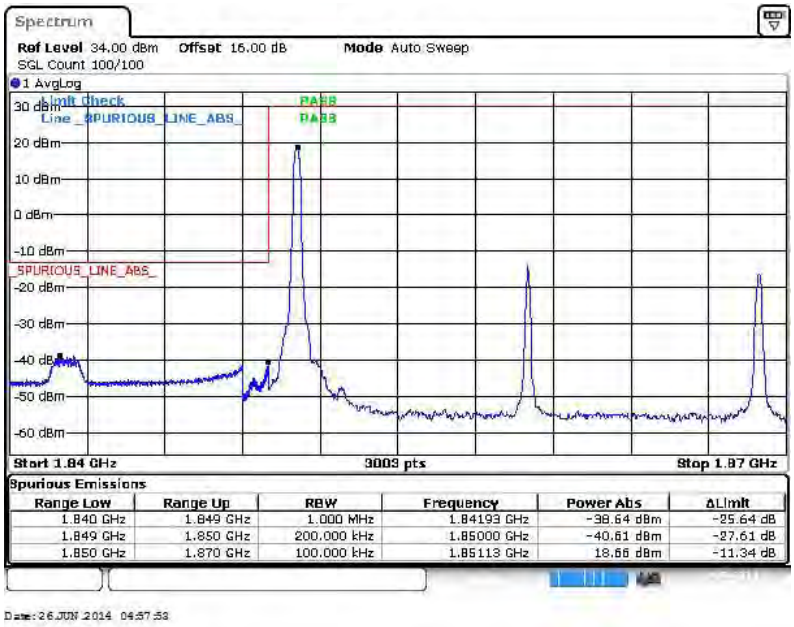


Higher Band Edge Plot for 16QAM-RB Size 75, RB Offset 0

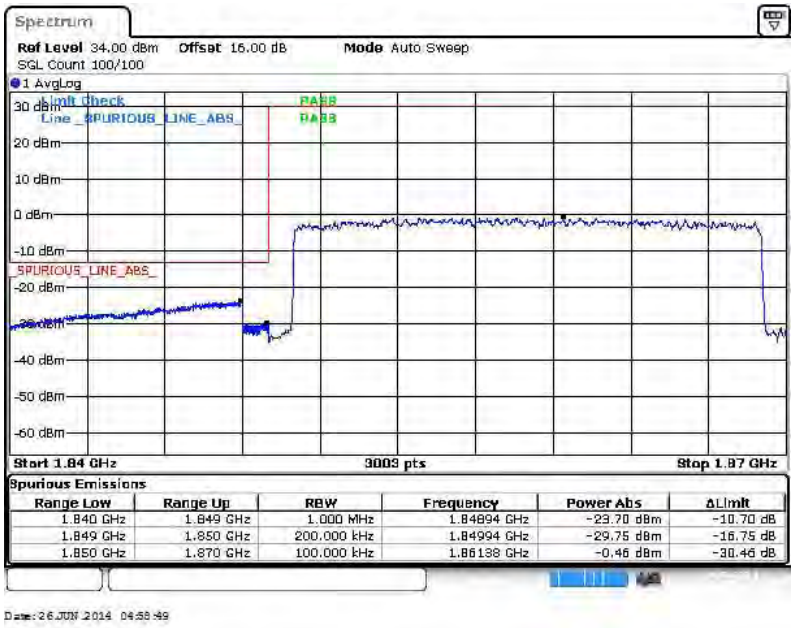


Band :	LTE Band 2	Band Width :	20MHz / QPSK

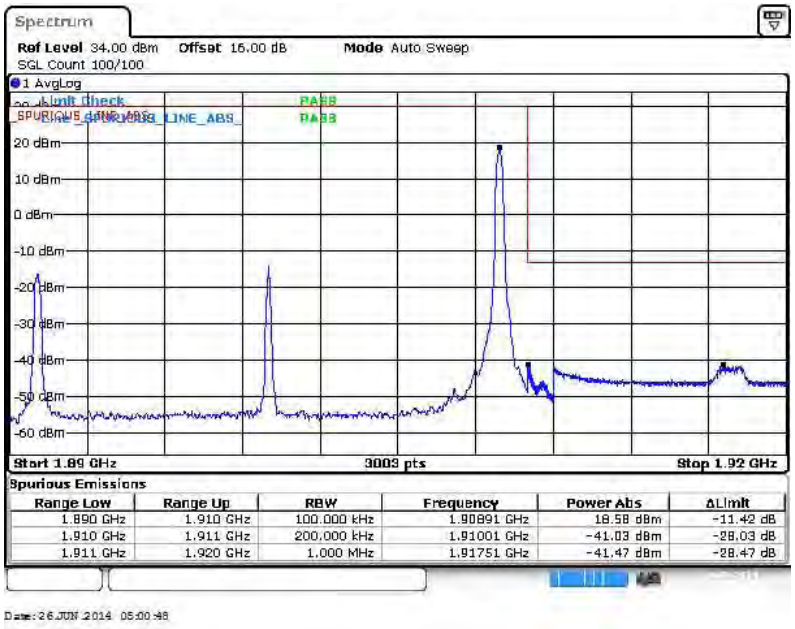
Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



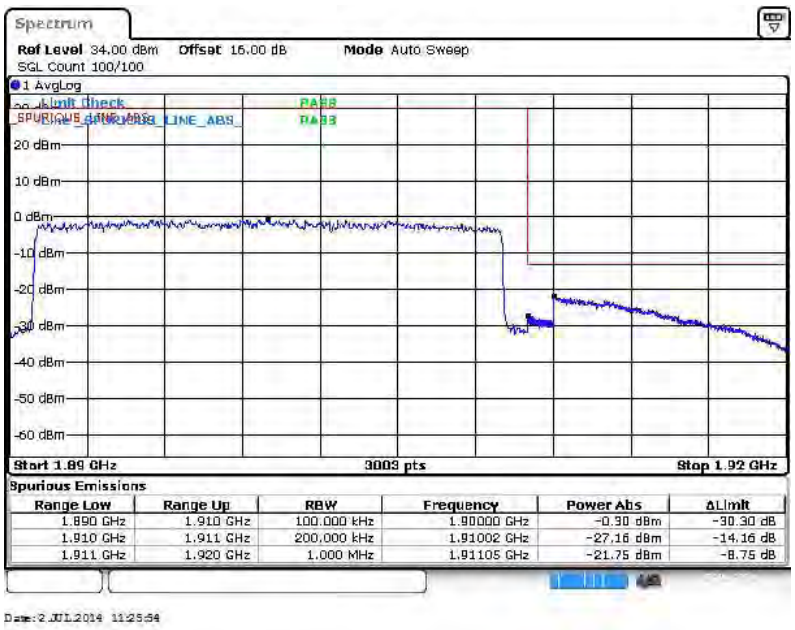
Lower Band Edge Plot for QPSK-RB Size 100, RB Offset 0



Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 99

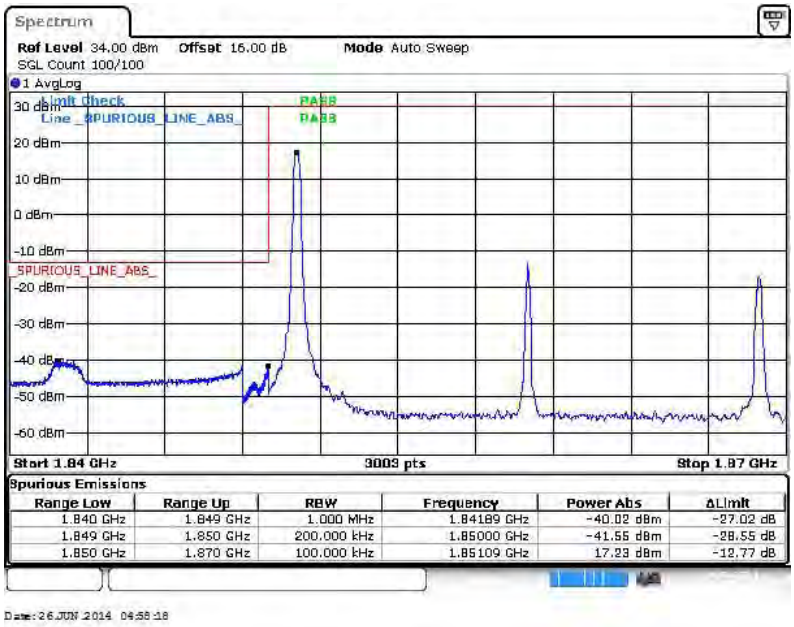


Higher Band Edge Plot for QPSK-RB Size 100, RB Offset 0

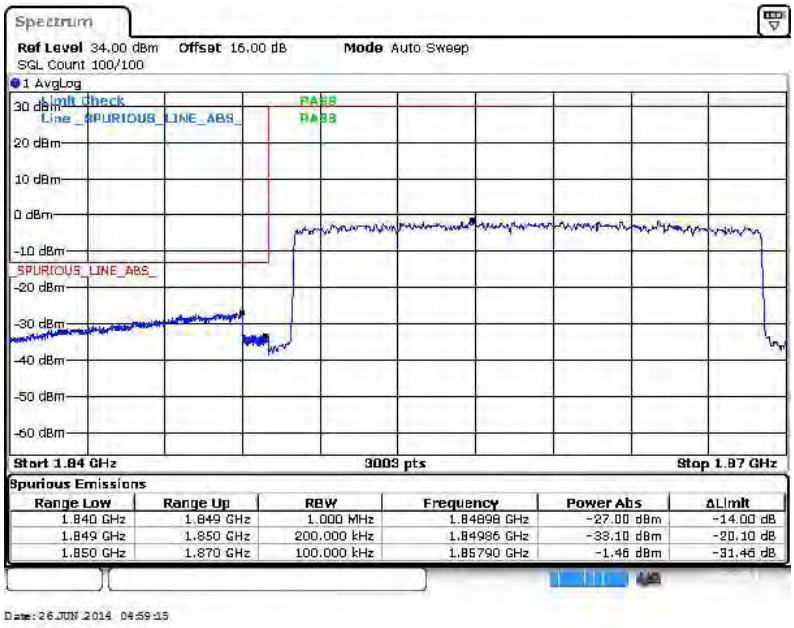


Band :	LTE Band 2	Band Width :	20MHz / 16QAM

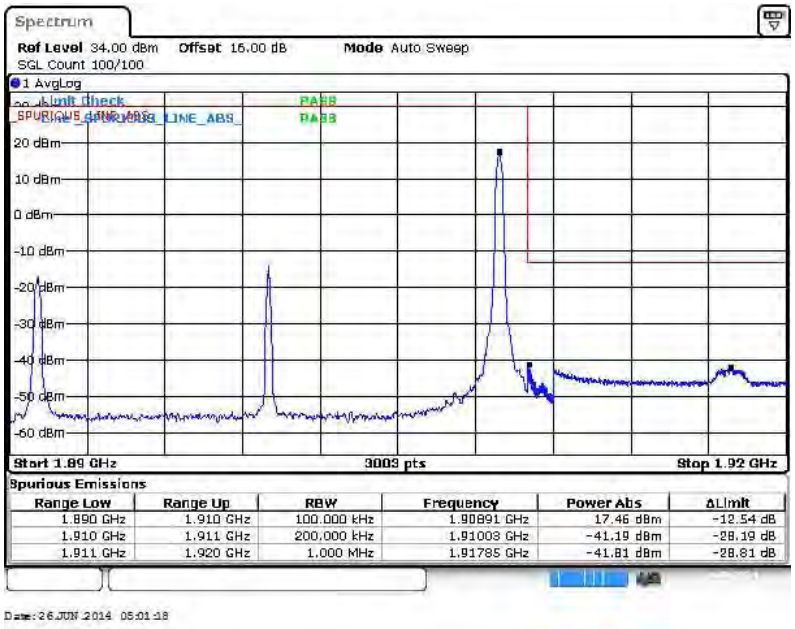
Lower Band Edge Plot for 16QAM-RB Size 1, RB Offset 0



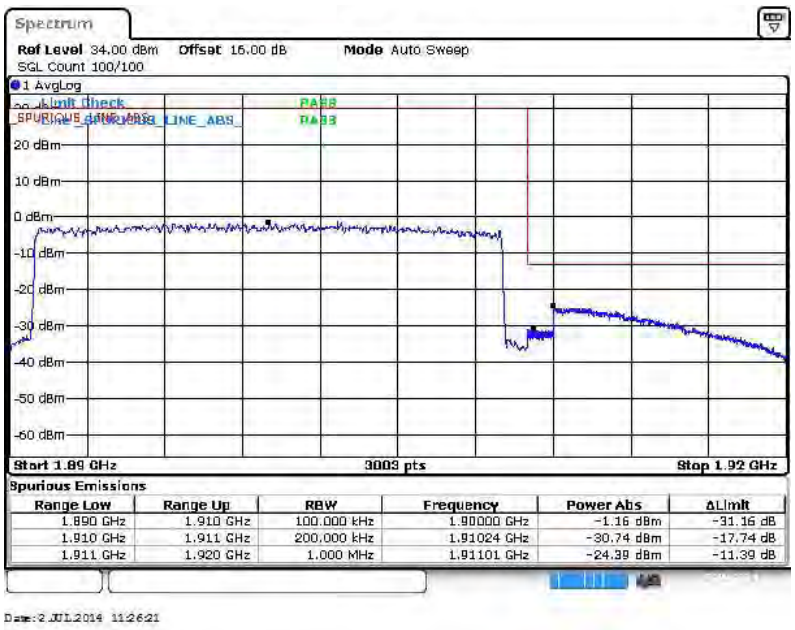
Lower Band Edge Plot for 16QAM-RB Size 100, RB Offset 0



Higher Band Edge Plot for 16QAM-RB Size 1, RB Offset 99

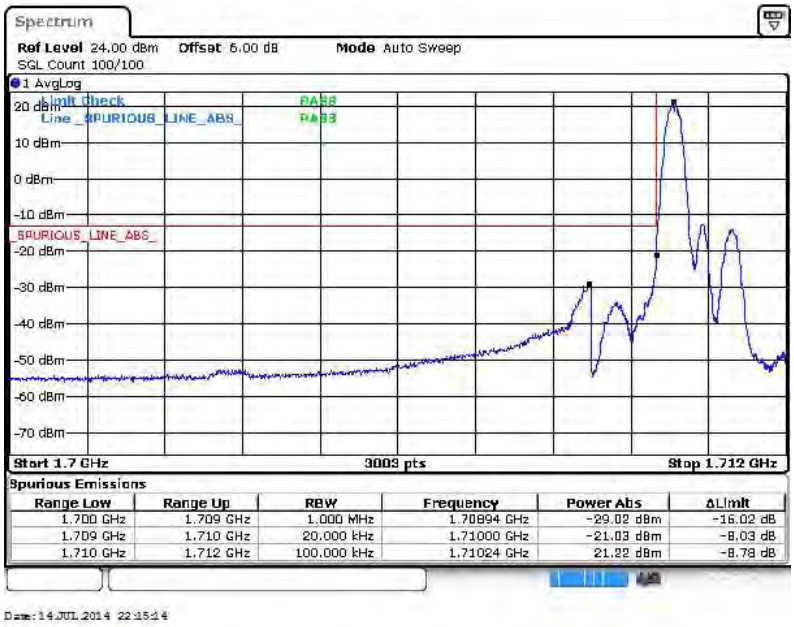


Higher Band Edge Plot for 16QAM-RB Size 100, RB Offset 0

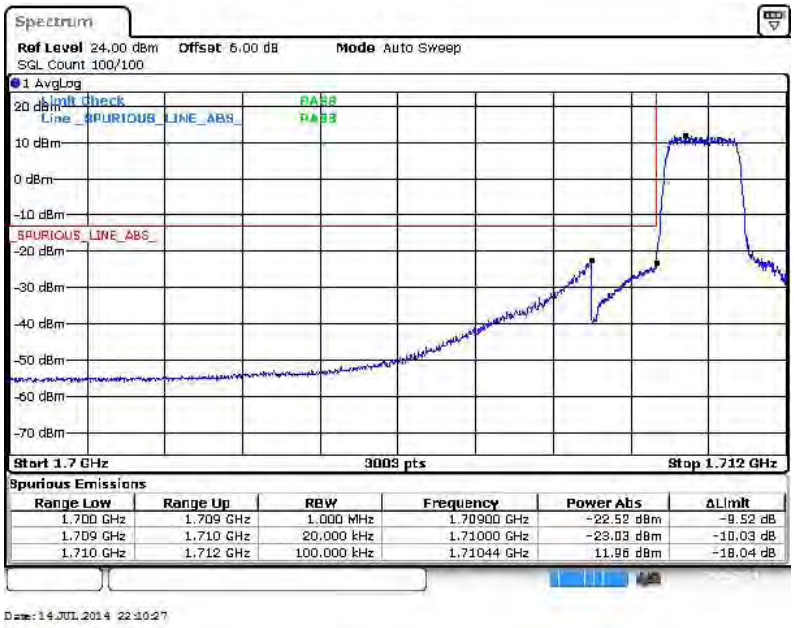


Band :	LTE Band 4	Band Width :	1.4MHz / QPSK

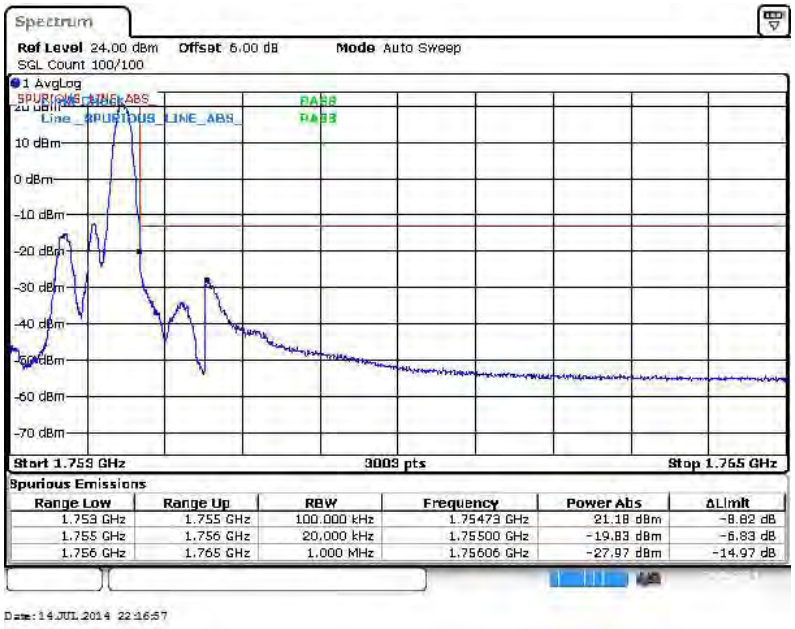
Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



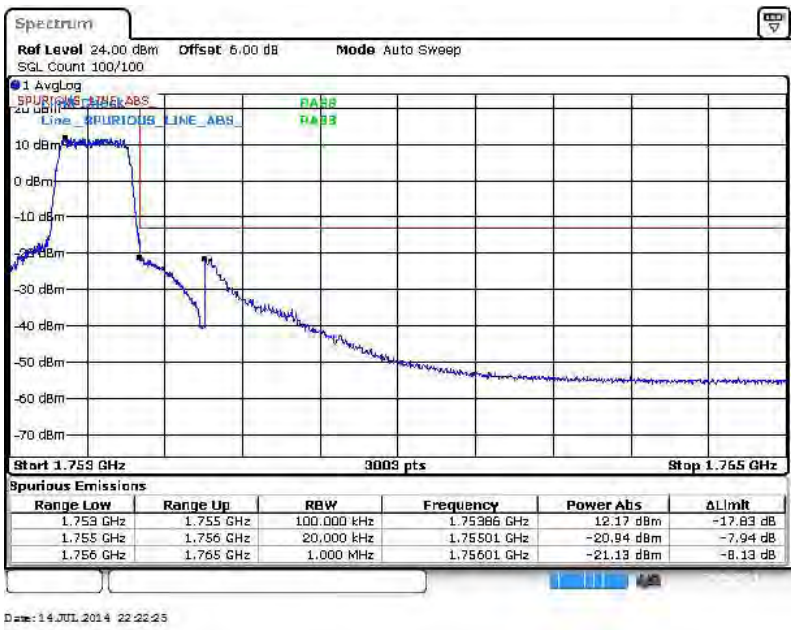
Lower Band Edge Plot for QPSK-RB Size 6, RB Offset 0



Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 5

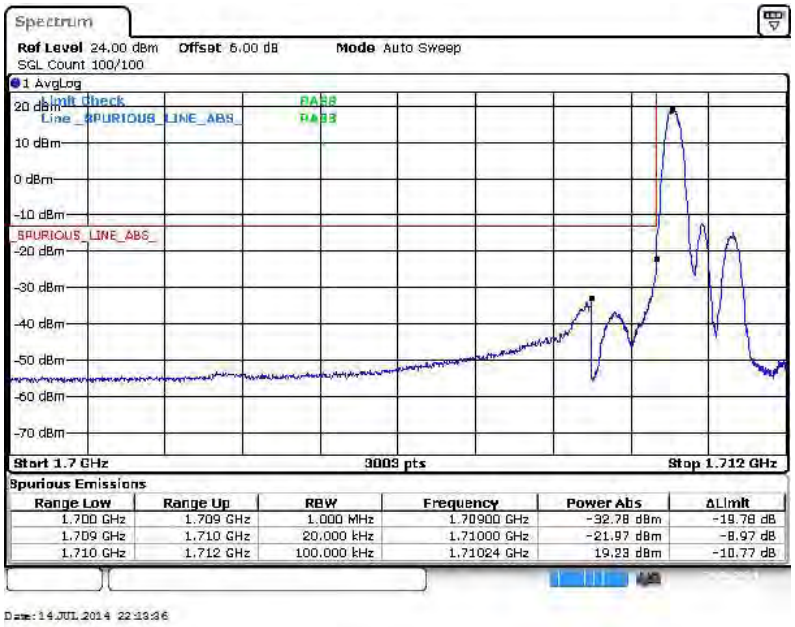


Higher Band Edge Plot for QPSK-RB Size 6, RB Offset 0

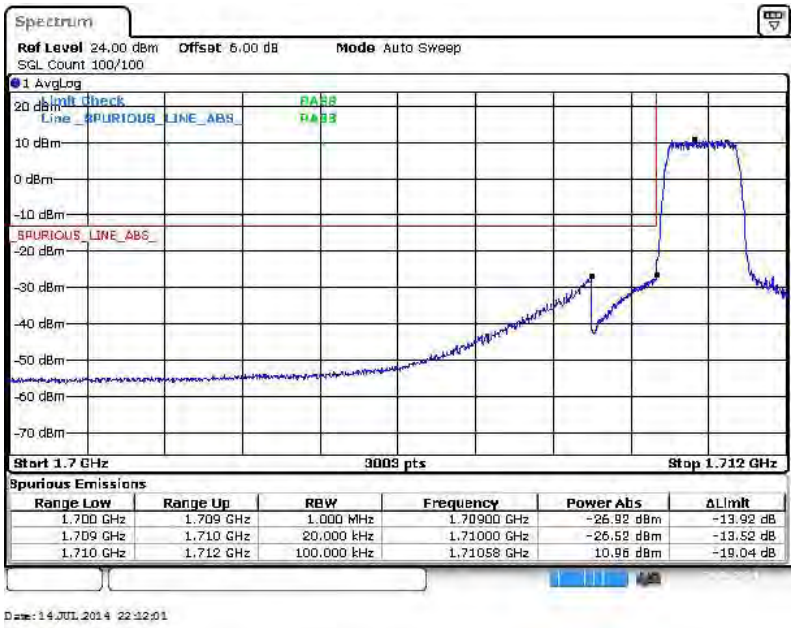


Band :	LTE Band 4	Band Width :	1.4MHz / 16QAM

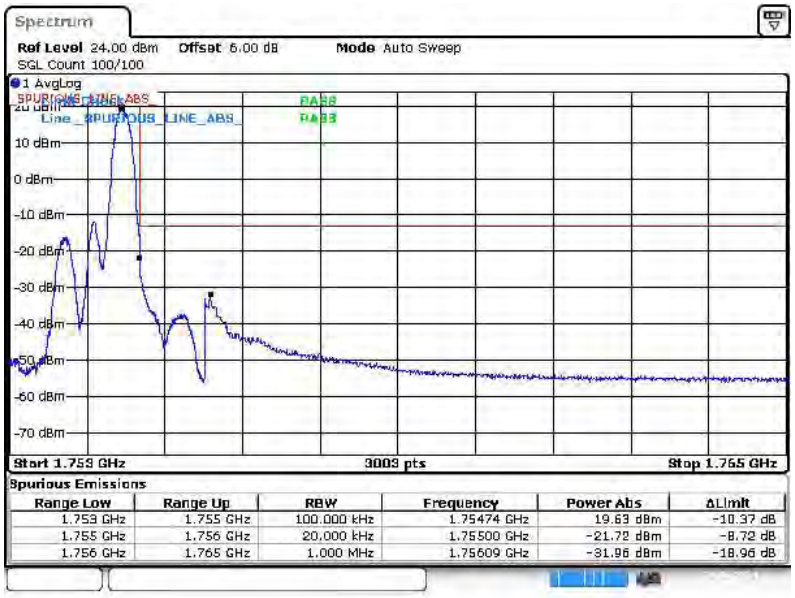
Lower Band Edge Plot for 16QAM -RB Size 1, RB Offset 0



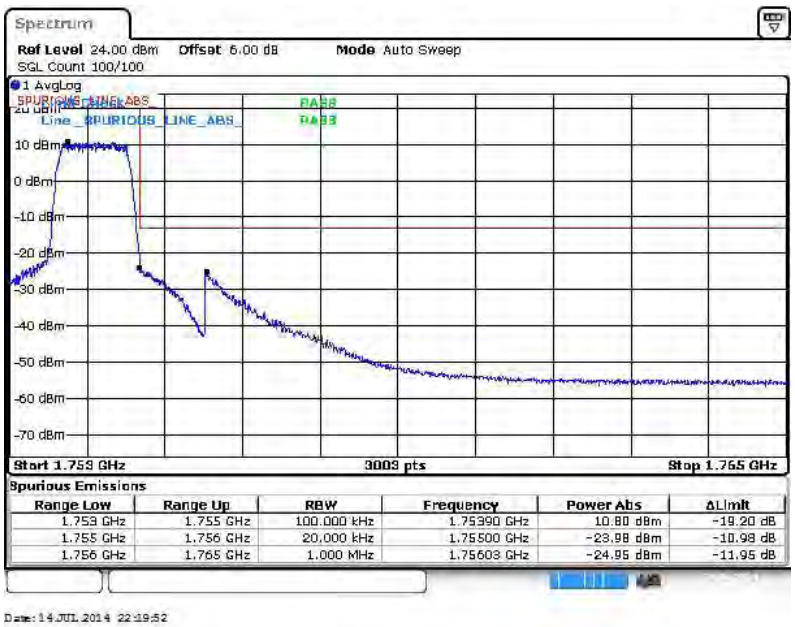
Lower Band Edge Plot for 16QAM-RB Size 6, RB Offset 0



Higher Band Edge Plot for 16QAM-RB Size 1, RB Offset 5

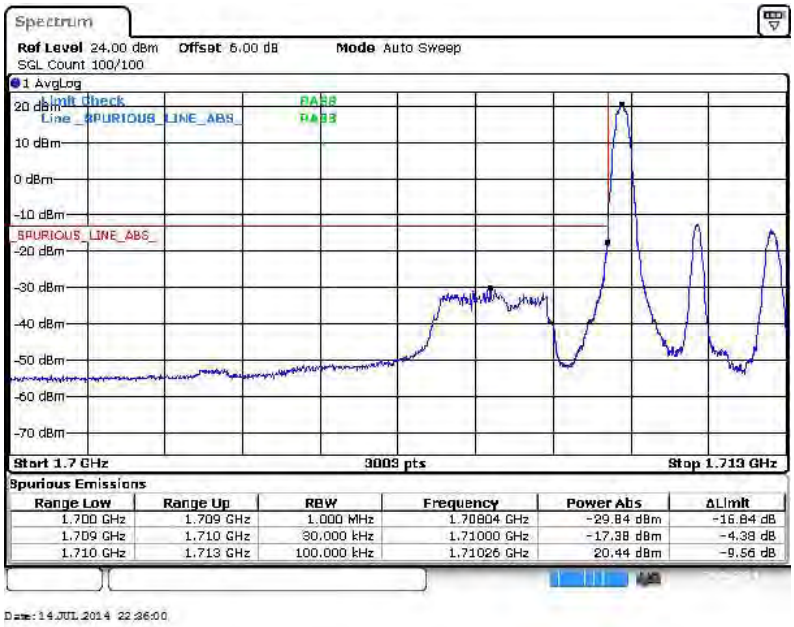
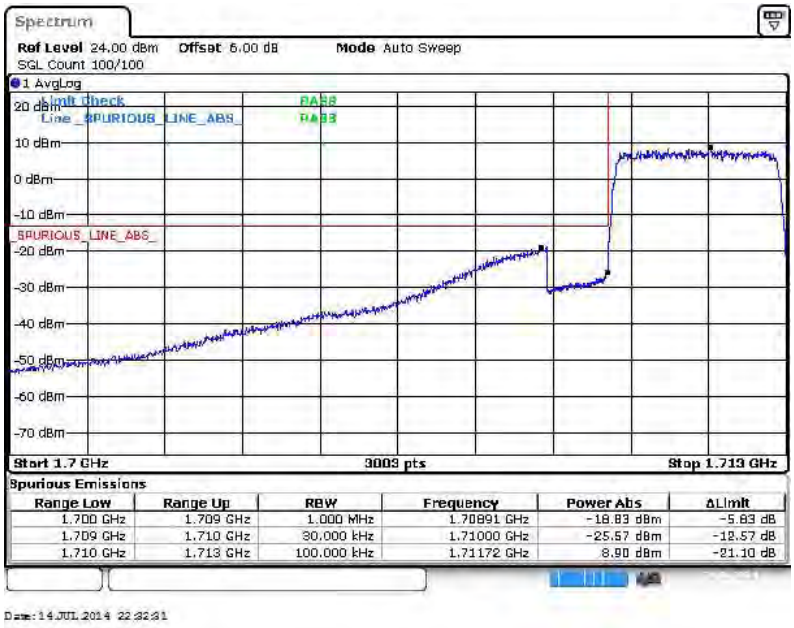


Higher Band Edge Plot for 16QAM-RB Size 6, RB Offset 0



Band :	LTE Band 4	Band Width :	3MHz / QPSK

Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Lower Band Edge Plot for QPSK-RB Size 15, RB Offset 0