



FCC PART 15E TEST REPORT No.23T04Z80937-17

for

TCL Communication Ltd.

GSM/UMTS/LTE/NR Mobile phone

T702W

FCC ID:2ACCJH181

with

Hardware Version: 03

Software Version: 5ES6

Issued Date: 2024-02-05

Note:

The test results in this test report relate only to the devices specified in this report. This report shall not be reproduced except in full without the written approval of CTTL.

Test Laboratory:

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REPORT HISTORY

Report Number	Revision	Description	Issue Date
23T04Z80937-17	Rev.0	1st edition	2024-02-05

Note: the latest revision of the test report supersedes all previous version.

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1. Test Laboratory

1.1. Introduction & Accreditation

Telecommunication Technology Labs, CAICT is an ISO/IEC 17025:2017 accredited test laboratory under American Association for Laboratory Accreditation (A2LA) with lab code 7049.01, and is also an FCC accredited test laboratory (CN1349), and ISED accredited test laboratory (CAB identifier:CN0066). The detail accreditation scope can be found on A2LA website.

1.2. Testing Location

Conducted testing Location: CTTL(Huayuan North Road)

Address: No. 52, Huayuan North Road, Haidian District, Beijing,
P. R. China100191

Radiated testing Location: CTTL(huayuan North Road)

Address: No. 52, Huayuan North Road, Haidian District, Beijing,
100191, P. R. China

1.3. Testing Environment

Normal Temperature: 15-35°C

Relative Humidity: 20-75%

1.4. Project date

Testing Start Date: 2023-12-22

Testing End Date: 2024-02-05

1.5. Signature

姚兴宇

Yao Xingyu
(Prepared this test report)

郑为

Zheng Wei
(Reviewed this test report)

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2. Client Information

2.1. Applicant Information

Company Name: TCL Communication Ltd.
Address: 5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science
Park, Shatin, NT, Hong Kong
City: Hong Kong
Postal Code: /
Country: China
Telephone: +86 755 3661 1621
Fax: +86 755 3661 2000-81722

2.2. Manufacturer Information

Company Name: TCL Communication Ltd.
Address: 5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science
Park, Shatin, NT, Hong Kong
City: Hong Kong
Postal Code: /
Country: China
Telephone: +86 755 3661 1621
Fax: +86 755 3661 2000-81722

3. Equipment Under Test (EUT) and Ancillary Equipment (AE)

3.1. About EUT

Description	GSM/UMTS/LTE/NR Mobile phone
Model name	T702W
FCC ID	2ACCJH181
WLAN Frequency Band	ISM Bands: -5150MHz~5250MHz -5250MHz~5350MHz -5470MHz~5725MHz
Type of modulation	OFDM
Antenna	Integral Antenna
Nominal Voltage	3.85V
Extreme High Voltage	4.4V
Extreme Low Voltage	3.6V

3.2. Internal Identification of EUT used during the test

EUT ID*	SN or IMEI	HW Version	SW Version	Date of receipt
UT11a	016519000204314/ 016519000204322	03	5ES6	2023-12-22
UT53a	016519000205113/ 016519000205121	03	5ES6	2024-01-02

*EUT ID: is used to identify the test sample in the lab internally.

UT11a is used for Conduction test, UT53a is used for Radiation test.

3.3. Internal Identification of AE used during the test

AE ID*	Description	Model	Manufacture
AE1	Battery	TLp049D7	VEKEN
AE2	Battery	TLp049DA	TMB
AE3	Charger	QC13US	PUAN
AE4	USB Cable1	CDA0000128C1	JUWEI
AE5	USB Cable2	CDA0000128C2	SHENGHUA

*AE ID: is used to identify the test sample in the lab internally.

3.4. General Description

The Equipment under Test (EUT) is a model of GSM/UMTS/LTE/NR Mobile phone with integrated antenna and inbuilt battery.

It consists of normal options: travel charger, USB cable.

Manual and specifications of the EUT were provided to fulfil the test.

Samples undergoing test were selected by the client.

3.5. Interpretation of the Test Environment

For the test methods, the test environment uncertainty figures correspond to an expansion factor $k=2$.

Measurement Uncertainty

Parameter	Uncertainty
temperature	0.48°C
humidity	2 %
DC voltages	0.003V

4. Reference Documents

4.1. Documents supplied by applicant

EUT feature information is supplied by the applicant or manufacturer, which is the basis of testing.

4.2. Reference Documents for testing

The following documents listed in this section are referred for testing.

FCC Part15	Title 47 of the Code of Federal Regulations; Chapter I Part 15 - Radio frequency devices	2021
ANSI C63.10	Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz	2013
UNII: KDB 789033 D02	General U-NII Test Procedures New Rules v02r01	2017-12

5. Laboratory Environment

Conducted RF performance testing is performed in shielding room.

EMC performance testing is performed in Semi-anechoic chamber.

6. Test Results

6.1. Summary of Test Results

SUMMARY OF MEASUREMENT RESULTS	Sub-clause of Part15E	Sub-clause of IC	Verdict
Maximum Output Power	15.407	/	P
Peak Power Spectral Density	15.407	/	P
Occupied 26dB Bandwidth	15.403	/	P
Radiated Unwanted Emission	15.407, 15.205, 15.209	/	P
AC Powerline Conducted Emission	15.107, 15.207	/	P
99% Occupied bandwidth	/	/	P
Transmit Power Control	15.407	/	NA

Please refer to **ANNEX A** for detail.

Terms used in Verdict column

P	Pass, The EUT complies with the essential requirements in the standard.
NM	Not measured, The test was not measured by CTTL
NA	Not Applicable, The test was not applicable
F	Fail, The EUT does not comply with the essential requirements in the standard

6.2. Statements

CTTL has evaluated the test cases as listed in section 6.1 of this report for the EUT specified in section 3 according to the standards or reference documents listed in section 4.

This report only deals with the WLAN function among the features described in section 3.

6.3. Test Conditions

For this report, all the test cases are tested under normal temperature and normal voltage, and also under norm humidity, the specific condition is shown as follows:

Temperature	26°C
Voltage	3.85V
Humidity	44%

7. Test Facilities Utilized

Conducted test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Period	Calibration Due date
1	Vector Signal Analyzer	FSQ40	200089	Rohde & Schwarz	1 year	2024-07-04
2	Vector Signal Analyzer	FSW67	104051	Rohde & Schwarz	1 year	2024-03-06
3	LISN	ENV216	101200	R&S	1 year	2024-06-05
4	Test Receiver	ESCI	100344	R&S	1 year	2024-02-21
5	Attenuator	10dB/2W	/	Rosenberger	/	/
6	Shielding Room	S81	/	ETS-Lindgren	/	/

Radiated emission test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Period	Calibration Due date
1	Test Receiver	ESW44	103023	R&S	1 year	2024-07-08
2	EMI Antenna	VULB 9163	01222	SCHWARZBECK	1 year	2024-02-28
3	EMI Antenna	3115	6914	ETS-Lindgren	1 year	2024-04-25
4	EMI Antenna	3116	2661	ETS-Lindgren	1 year	2024-01-30

※NOTE: The EMI Antenna with series number of 2661 did not exceed the CAL.DUE.DATE when used.

Test Software

Test Item	Test Software and Version	Software Vendor
Radiated Continuous Emission	EMC32 V11.50.00	R&S
Conducted Emission	EMC32 V8.53.0	R&S

8. Measurement Uncertainty

8.1 Transmitter Output Power

Measurement Uncertainty: 0.387dB,k=1.96

8.2 Peak Power Spectral Density

Measurement Uncertainty: 0.705dB,k=1.96

8.3 26dB Emission Bandwidth

Measurement Uncertainty: 60.80Hz,k=1.96

8.4 Band Edges Compliance

Measurement Uncertainty : 0.62dB,k=1.96

8.5 Spurious Emissions

Conducted (k=1.96)

Frequency Range	Uncertainty(dB)
$30\text{MHz} \leq f \leq 2\text{GHz}$	1.22
$2\text{GHz} \leq f \leq 3.6\text{GHz}$	1.22
$3.6\text{GHz} \leq f \leq 8\text{GHz}$	1.22
$8\text{GHz} \leq f \leq 12.75\text{GHz}$	1.51
$12.75\text{GHz} \leq f \leq 26\text{GHz}$	1.51
$26\text{GHz} \leq f \leq 40\text{GHz}$	1.59

8.6 Radiated Unwanted Emission

Frequency Range	Uncertainty(dB) (k=2)
9kHz-30MHz	4.92
$30\text{MHz} \leq f \leq 1\text{GHz}$	4.72
$1\text{GHz} \leq f \leq 18\text{GHz}$	4.84
$18\text{GHz} \leq f \leq 40\text{GHz}$	5.12

8.7 AC Power-line Conducted Emission

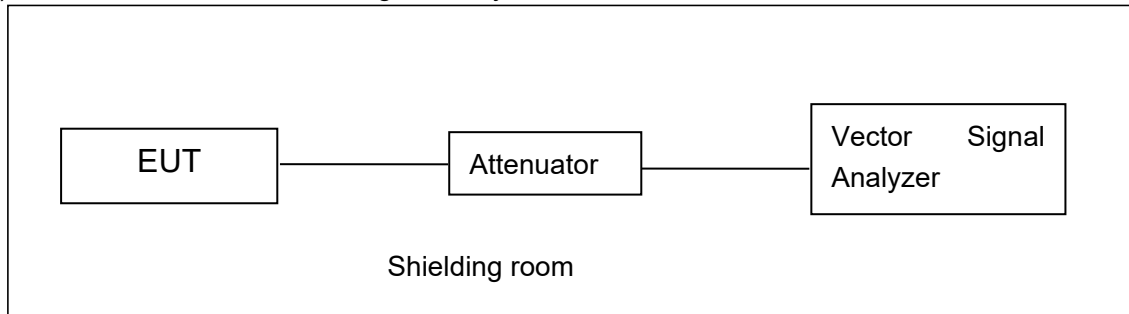
Measurement Uncertainty : 3.08dB,k=2

ANNEX A: Detailed Test Results

A.1. Measurement Method

A.1.1. Conducted Measurements

- 1). Connect the EUT to the test system correctly.
- 2). Set the EUT to the required work mode.
- 3). Set the EUT to the required channel.
- 4). Set the spectrum analyzer to start measurement.
- 5). Record the values. Vector Signal Analyzer



A.1.2. Radiated Emission Measurements

Measurement performed according to Clause 6.4, 6.5, 6.6 in ANSI C63.10-2013 and II.G.4, II.G.5, II.G.6 in KDB 789033.

The radiated emission test is performed in semi-anechoic chamber. The EUT was placed on a non-conductive table with 80cm above the ground plane for measurement below 1GHz and 1.5m above the ground plane for measurement above 1GHz. The measurement antenna was placed at a distance of 3 meters from the EUT. The test is carried out on both vertical and horizontal polarization and only maximization result of both polarizations is kept. During the test, the turntable is rotated from 0° to 360° and the measurement antenna is moved from 1m to 4m to get the maximization result. The maximization process was repeated with the EUT positioned in each of its three orthogonal orientations

A.2. Maximum output Power

Measurement Limit and Method:

Standard	Frequency (MHz)	Limit (dBm)
FCC CRF Part 15.407(a)	5150MHz~5250MHz	24dBm
	5250MHz~5350MHz	24dBm or 11+10logB
	5470MHz~5725MHz	24dBm or 11+10logB

Limit use the less value, and B is the 26dB bandwidth.

The measurement method SA-2 is made according to KDB 789033

A.2.1 Antenna Gain

Antenna gain is -1.2dBi and the value is supplied by the applicant or manufacturer.

A.2.2 Maximum output Power-Conducted

EUT ID: UT11a

Measurement Results:

802.11a mode

Mode	Frequency	Test Result (dBm)							
		Data Rate (Mbps)							
		6	9	12	18	24	36	48	54
802.11a	5180MHz	17.60	/	/	/	/	/	/	/
	5200MHz	17.72	/	/	/	/	/	/	/
	5240MHz	17.82	/	/	/	/	/	/	/
	5260MHz	17.91	/	/	/	/	/	/	/
	5280MHz	17.90	/	/	/	/	/	/	/
	5320MHz	17.85	/	/	/	/	/	/	/
	5500MHz	18.24	/	/	/	/	/	/	/
	5580MHz	17.51	/	/	/	/	/	/	/
	5700MHz	17.68	/	/	/	/	/	/	/
	5720MHz	17.55	/	/	/	/	/	/	/

The data rate 6Mbps is selected as worst condition, and the following cases are performed with this condition.

802.11n-HT20 mode

Mode	Frequency	Test Result (dBm)							
		Data Rate							
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
802.11n (HT20)	5180MHz	17.72	/	/	/	/	/	/	/
	5200MHz	17.83	/	/	/	/	/	/	/
	5240MHz	18.01	/	/	/	/	/	/	/
	5260MHz	17.87	/	/	/	/	/	/	/
	5280MHz	17.93	/	/	/	/	/	/	/
	5320MHz	17.91	/	/	/	/	/	/	/
	5500MHz	18.47	/	/	/	/	/	/	/

	5580MHz	17.85	/	/	/	/	/	/	/
	5700MHz	18.04	/	/	/	/	/	/	/
	5720MHz	18.00	/	/	/	/	/	/	/

The data rate MCS0 is selected as worst condition, and the following cases are performed with this condition.

802.11ac-VHT20 mode

Mode	Frequency	Test Result (dBm)								
		Data Rate								
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8
802.11ac (VHT20)	5180MHz	17.67	/	/	/	/	/	/	/	/
	5200MHz	17.90	/	/	/	/	/	/	/	/
	5240MHz	17.75	/	/	/	/	/	/	/	/
	5260MHz	17.73	/	/	/	/	/	/	/	/
	5280MHz	17.97	/	/	/	/	/	/	/	/
	5320MHz	17.88	/	/	/	/	/	/	/	/
	5500MHz	18.49	/	/	/	/	/	/	/	/
	5580MHz	17.95	/	/	/	/	/	/	/	/
	5700MHz	18.07	/	/	/	/	/	/	/	/
	5720MHz	17.82	/	/	/	/	/	/	/	/

The data rate MCS0 is selected as worst condition, and the following cases are performed with this condition.

802.11n-HT40 mode

Mode	Frequency	Test Result (dBm)							
		Data Rate							
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
802.11n (HT40)	5190MHz	15.80	/	/	/	/	/	/	/
	5230MHz	16.04	/	/	/	/	/	/	/
	5270MHz	15.97	/	/	/	/	/	/	/
	5310MHz	16.01	/	/	/	/	/	/	/
	5510MHz	16.49	/	/	/	/	/	/	/
	5550MHz	15.92	/	/	/	/	/	/	/
	5670MHz	15.98	/	/	/	/	/	/	/
	5710MHz	15.88	/	/	/	/	/	/	/

The data rate MCS0 is selected as worst condition, and the following cases are performed with this condition.

802.11ac-VHT40 mode

Mode	Frequency	Test Result (dBm)									
		Data Rate									
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9
802.11ac (VHT40)	5190MHz	15.85	/	/	/	/	/	/	/	/	/
	5230MHz	15.98	/	/	/	/	/	/	/	/	/
	5270MHz	15.89	/	/	/	/	/	/	/	/	/
	5310MHz	16.02	/	/	/	/	/	/	/	/	/
	5510MHz	16.65	/	/	/	/	/	/	/	/	/
	5550MHz	15.91	/	/	/	/	/	/	/	/	/
	5670MHz	16.07	/	/	/	/	/	/	/	/	/
	5710MHz	15.93	/	/	/	/	/	/	/	/	/

The data rate MCS0 is selected as worst condition, and the following cases are performed with this condition.

802.11ac-VHT80 mode

Mode	Frequency	Test Result (dBm)									
		Data Rate									
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9
802.11ac (VHT80)	5210MHz	15.10	/	/	/	/	/	/	/	/	/
	5290MHz	15.41	/	/	/	/	/	/	/	/	/
	5530MHz	15.96	/	/	/	/	/	/	/	/	/
	5610MHz	15.27	/	/	/	/	/	/	/	/	/
	5690MHz	15.30	/	/	/	/	/	/	/	/	/

The data rate MCS0 is selected as worst condition, and the following cases are performed with this condition.

The duty cycle of all mode are 100%



18:34:23 24.01.2024

Maximum output Power: 11ac CH100

Conclusion: PASS

A.3. Peak Power Spectral Density (conducted)

Measurement Limit:

Standard	Frequency (MHz)	Limit (dBm/MHz)
FCC CRF Part 15.407(a)	5150MHz~5250MHz	11
	5250MHz~5350MHz	11
	5470MHz~5725MHz	11

The output power measurement method Section F is made according to KDB 789033

EUT ID: UT11a

Measurement Results:

Mode	Frequency	Power Spectral Density (dBm/MHz)	Conclusion
802.11a	5180 MHz	7.40	P
	5200 MHz	7.42	P
	5240 MHz	7.49	P
	5260 MHz	7.55	P
	5280 MHz	7.59	P
	5320 MHz	7.59	P
	5500 MHz	8.19	P
	5580 MHz	7.68	P
	5700 MHz	7.53	P
	5720 MHz	7.43	P
802.11ac VHT20	5180 MHz	6.86	P
	5200 MHz	7.33	P
	5240 MHz	7.37	P
	5260 MHz	7.28	P
	5280 MHz	7.41	P
	5320 MHz	7.28	P
	5500 MHz	8.04	P
	5580 MHz	7.38	P
	5700 MHz	7.39	P
	5720 MHz	5.76	P
802.11ac VHT40	5190 MHz	2.66	P
	5230 MHz	2.37	P
	5270 MHz	2.64	P
	5310 MHz	2.66	P
	5510 MHz	3.19	P
	5550 MHz	2.50	P
	5670 MHz	2.86	P
	5710 MHz	2.47	P
802.11ac VHT80	5210 MHz	-1.14	P
	5290 MHz	-0.99	P

	5530 MHz	-0.60	P
	5610 MHz	-1.29	P
	5690 MHz	-1.28	P



Peak Power Spectral Density:11a CH100

Conclusion: PASS

A.4. 26dB Emission Bandwidth (conducted)

Measurement Limit:

Standard	Limit (kHz)
FCC 47 CFR Part 15.403 (i)	/

The measurement is made according to KDB 789033

Measurement Uncertainty:

Measurement Uncertainty	60.80Hz
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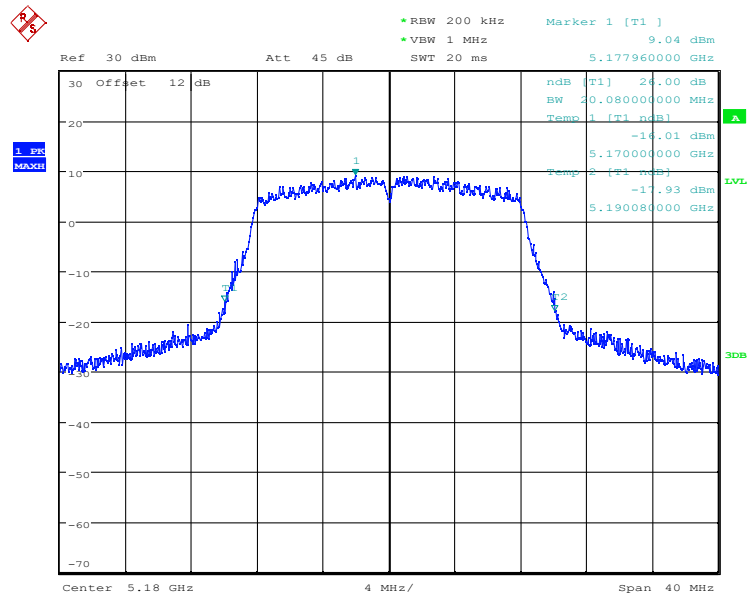
EUT ID: UT11a

Measurement Result:

Mode	Frequency	26dB Emission Bandwidth (MHz)		conclusion
802.11a	5180 MHz	Fig.1	20.04	P
	5200 MHz	Fig.2	20.04	P
	5240 MHz	Fig.3	20.00	P
	5260 MHz	Fig.4	19.88	P
	5280 MHz	Fig.5	20.08	P
	5320 MHz	Fig.6	19.96	P
	5500 MHz	Fig.7	19.88	P
	5580 MHz	Fig.8	19.96	P
	5700 MHz	Fig.9	20.16	P
	5720 MHz	Fig.10	21.04	P
802.11ac VHT20	5180 MHz	Fig.11	20.28	P
	5200 MHz	Fig.12	20.56	P
	5240 MHz	Fig.13	20.36	P
	5260 MHz	Fig.14	20.36	P
	5280 MHz	Fig.15	20.40	P
	5320 MHz	Fig.16	20.32	P
	5500 MHz	Fig.17	20.28	P
	5580 MHz	Fig.18	20.28	P
	5700 MHz	Fig.19	20.44	P
	5720 MHz	Fig.20	20.72	P
802.11ac VHT40	5190 MHz	Fig.21	40.88	P
	5230 MHz	Fig.22	40.56	P
	5270 MHz	Fig.23	40.56	P
	5310 MHz	Fig.24	41.04	P
	5510 MHz	Fig.25	40.88	P
	5550 MHz	Fig.26	41.20	P
	5670 MHz	Fig.27	40.48	P
	5710 MHz	Fig.28	41.28	P
802.11ac	5210MHz	Fig.29	81.28	P

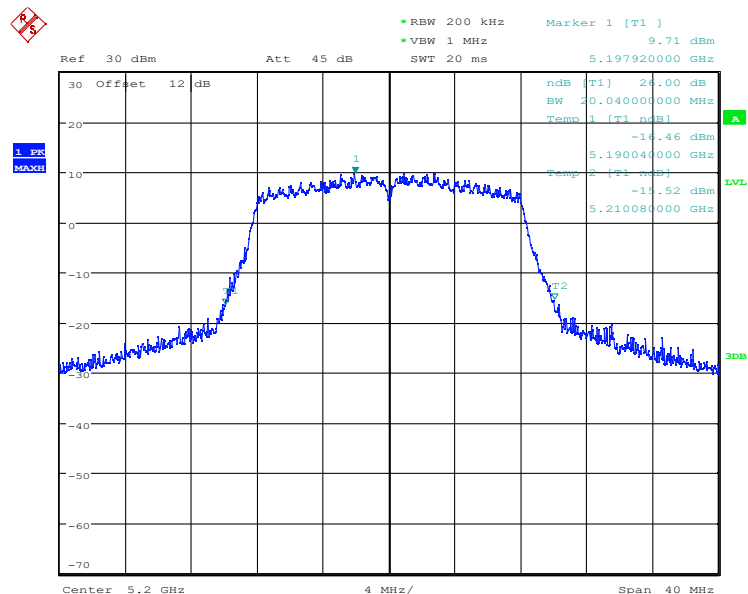
VHT80	5290MHz	Fig.30	81.44	P
	5530MHz	Fig.31	81.12	P
	5610 MHz	Fig.32	81.12	P
	5690MHz	Fig.33	81.12	P

Test graphs as below:



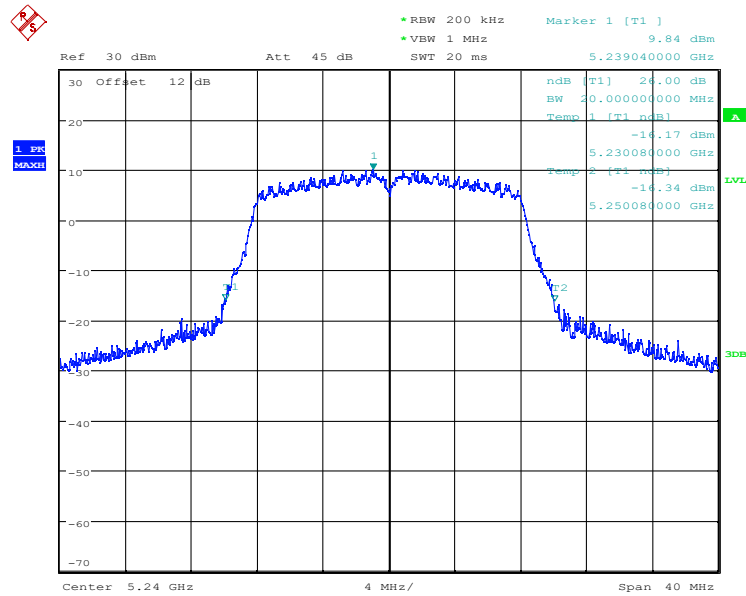
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Fig.1 26dB Emission Bandwidth (802.11a, 5180MHz)



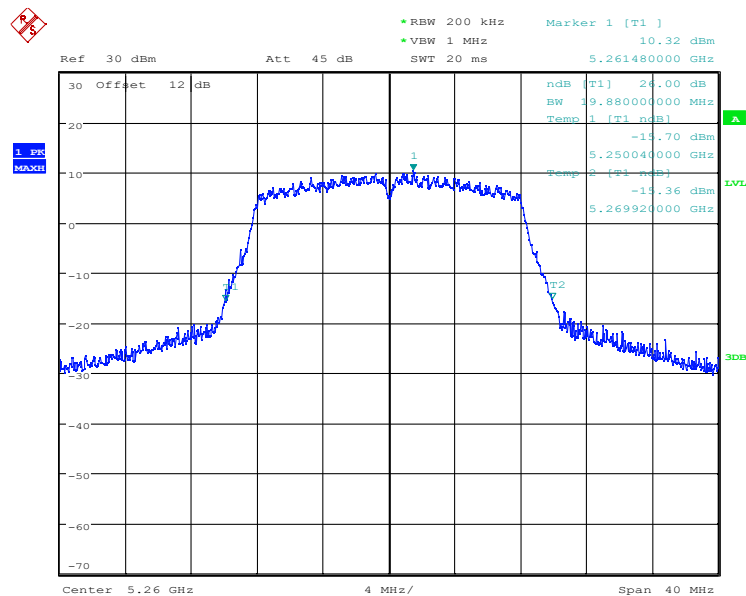
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Fig.2 26dB Emission Bandwidth (802.11a, 5200MHz)



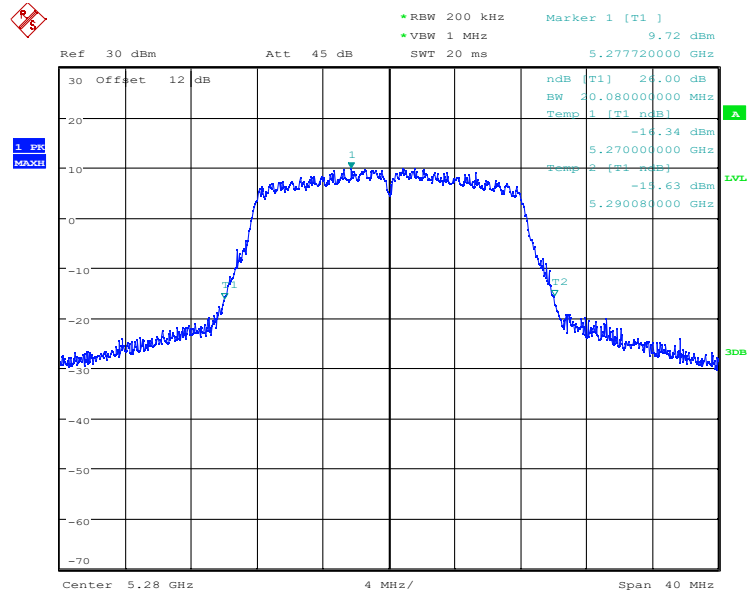
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Fig.3 26dB Emission Bandwidth (802.11a, 5240MHz)



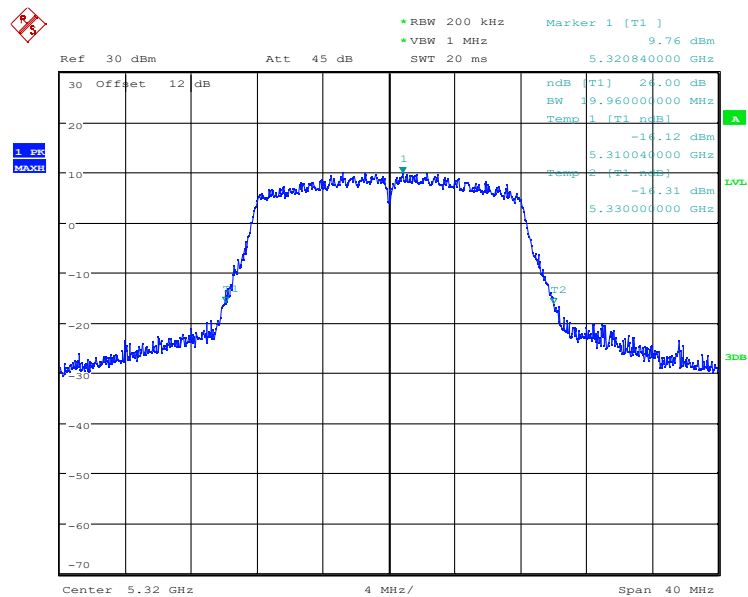
Date: 5.FEB.2024 10:38:47

Fig.4 26dB Emission Bandwidth (802.11a, 5260MHz)



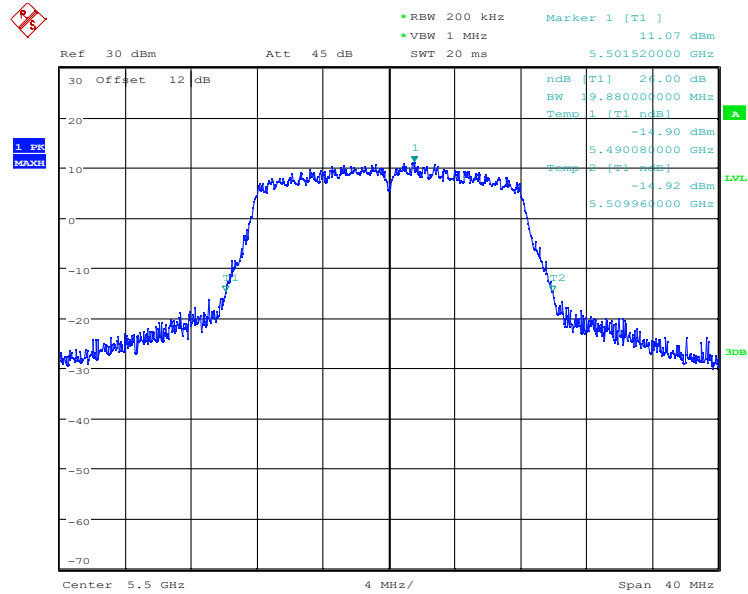
Date: 5.FEB.2024 10:39:25

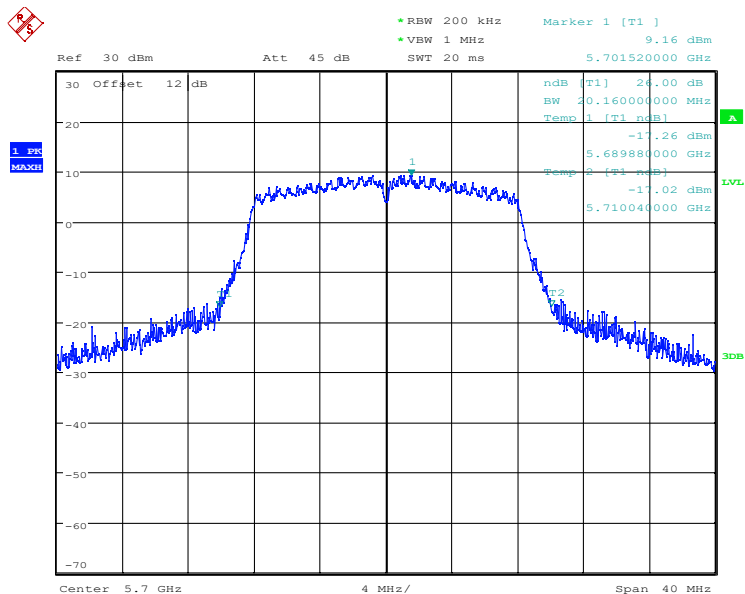
Fig.5 26dB Emission Bandwidth (802.11a, 5280MHz)



Date: 5.FEB.2024 10:39:44

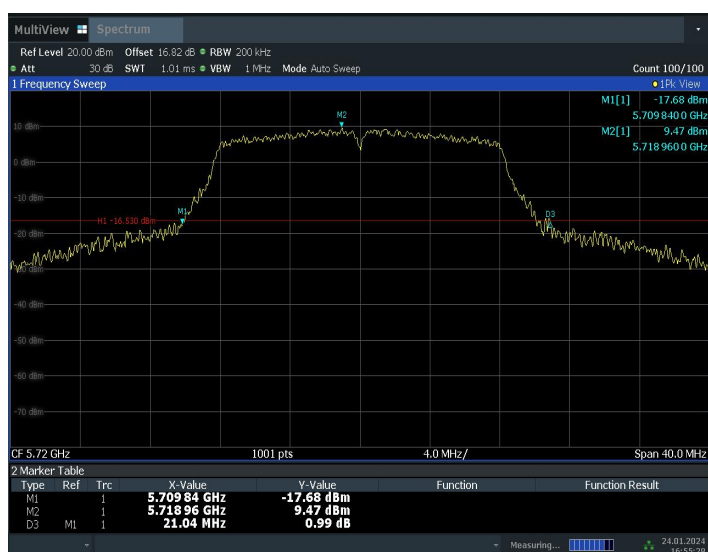
Fig.6 26dB Emission Bandwidth (802.11a, 5320MHz)





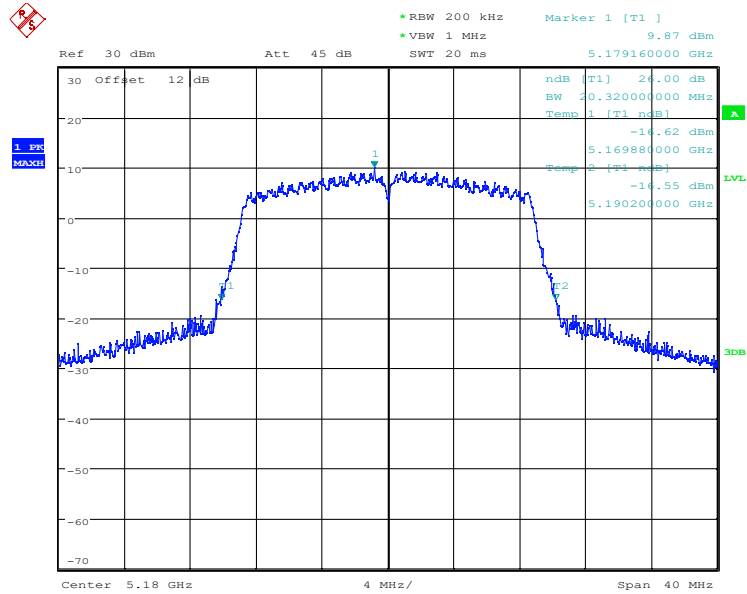
Date: 5.FEB.2024 10:40:26

Fig.9 26dB Emission Bandwidth (802.11a, 5700MHz)



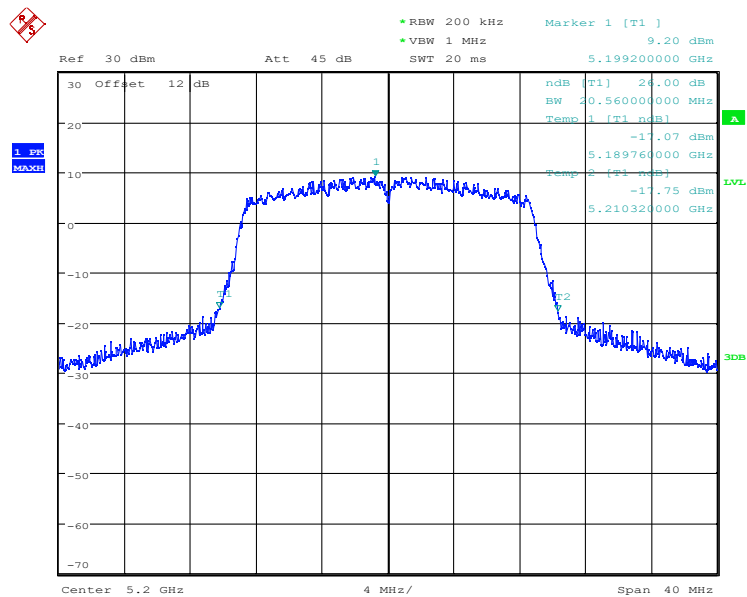
16:55:28 24.01.2024

Fig.10 26dB Emission Bandwidth (802.11a, 5720MHz)



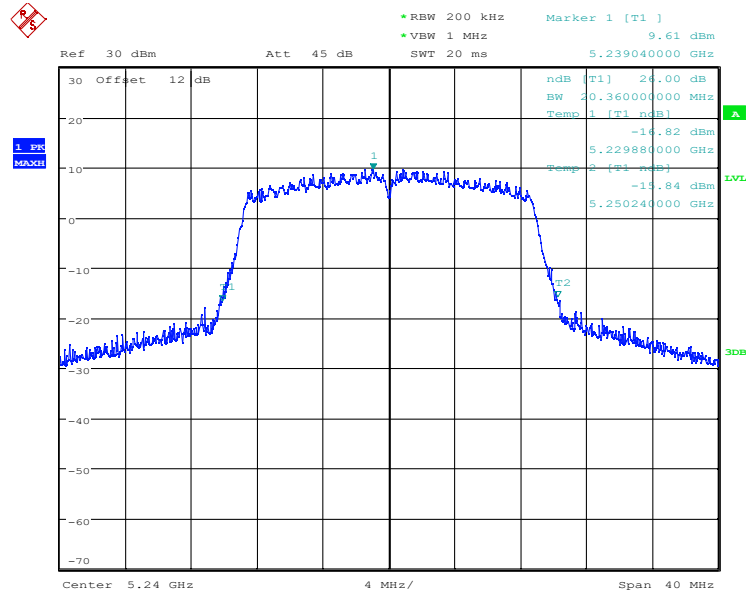
Date: 5.FEB.2024 10:40:50

Fig.11 26dB Emission Bandwidth (802.11ac-VHT20, 5180MHz)



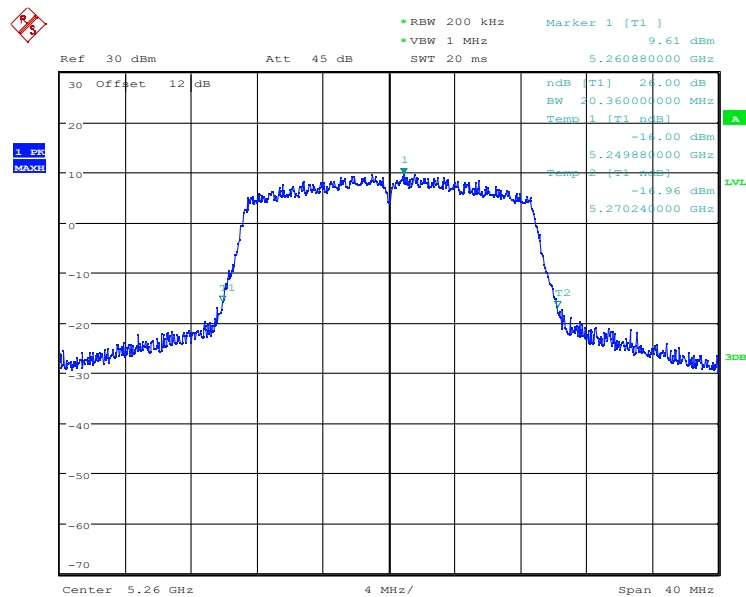
Date: 5.FEB.2024 10:41:09

Fig.12 26dB Emission Bandwidth (802.11ac-VHT20, 5200MHz)



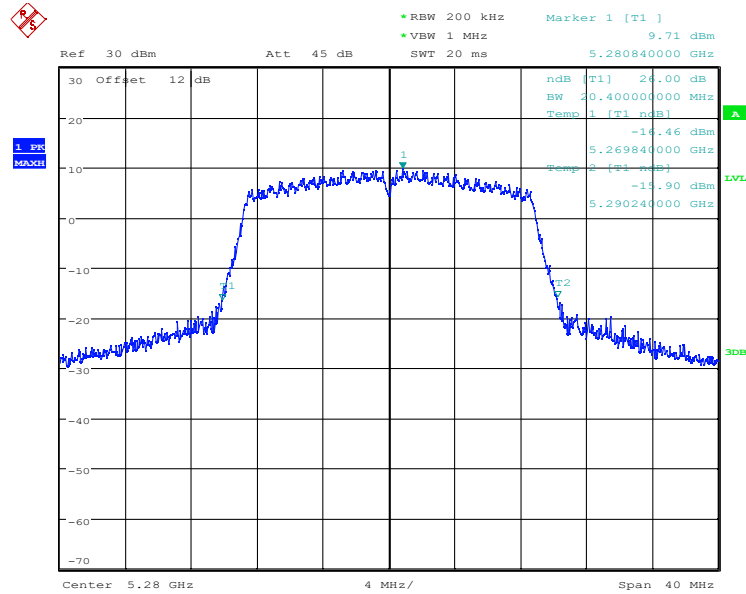
Date: 5.FEB.2024 10:41:29

Fig.13 26dB Emission Bandwidth (802.11ac-VHT20, 5240MHz)



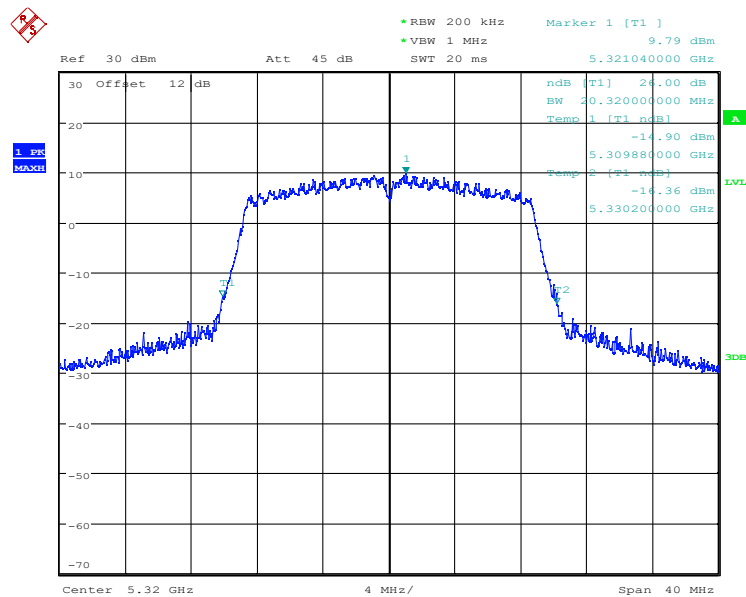
Date: 5.FEB.2024 10:41:49

Fig.14 26dB Emission Bandwidth (802.11ac-VHT20, 5260MHz)



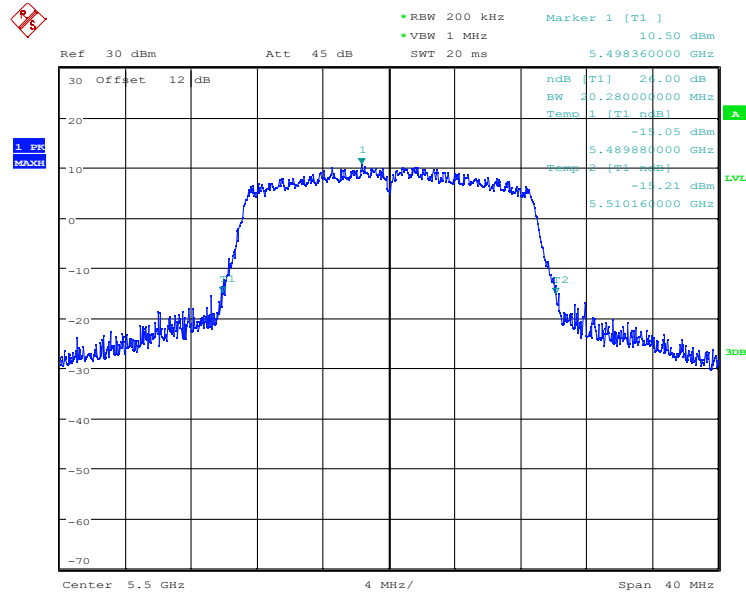
Date: 5.FEB.2024 10:42:09

Fig.15 26dB Emission Bandwidth (802.11ac-VHT20, 5280MHz)



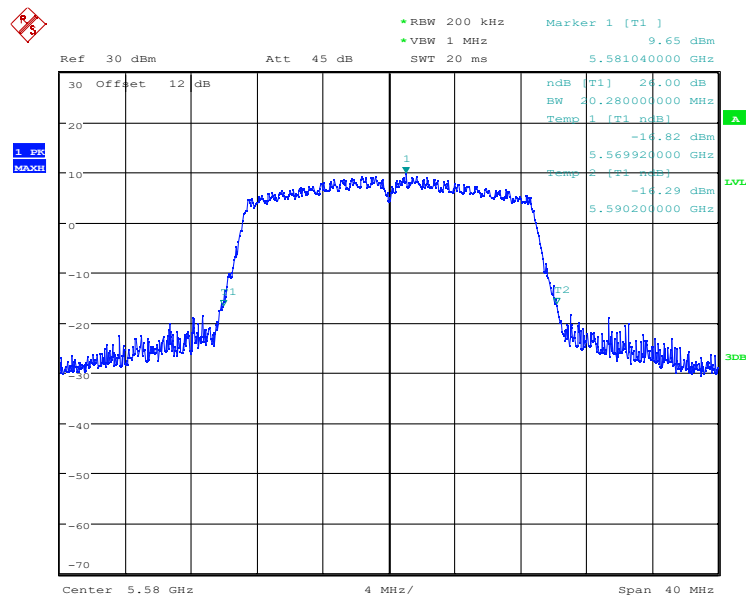
Date: 5.FEB.2024 10:42:29

Fig.16 26dB Emission Bandwidth (802.11ac-VHT20, 5320MHz)



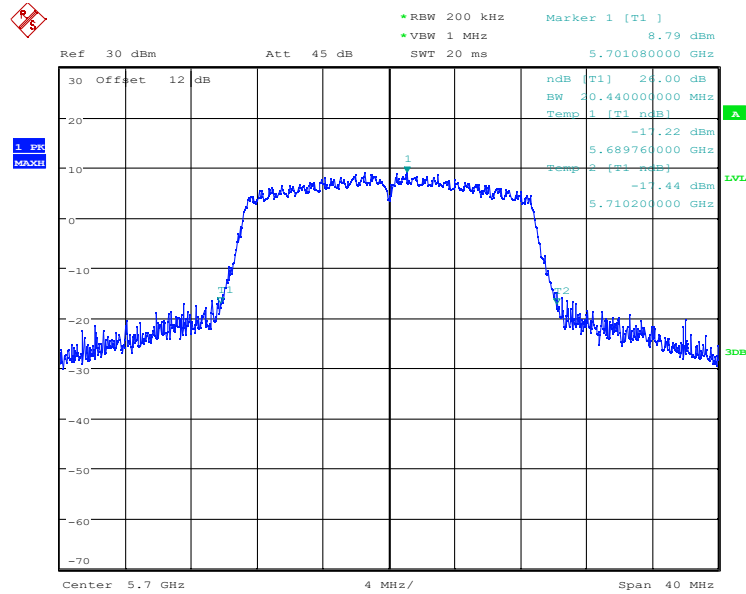
Date: 5.FEB.2024 10:42:48

Fig.17 26dB Emission Bandwidth (802.11ac-VHT20, 5500MHz)



Date: 5.FEB.2024 10:43:11

Fig.18 26dB Emission Bandwidth (802.11ac-VHT20, 5580MHz)



Date: 5.FEB.2024 10:43:32

Fig.19 26dB Emission Bandwidth (802.11ac-VHT20, 5700MHz)

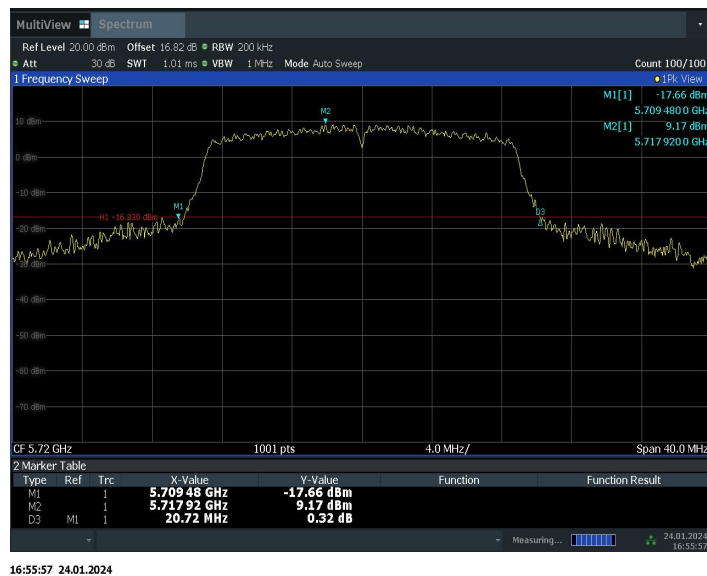


Fig.20 26dB Emission Bandwidth (802.11ac-VHT20, 5720MHz)

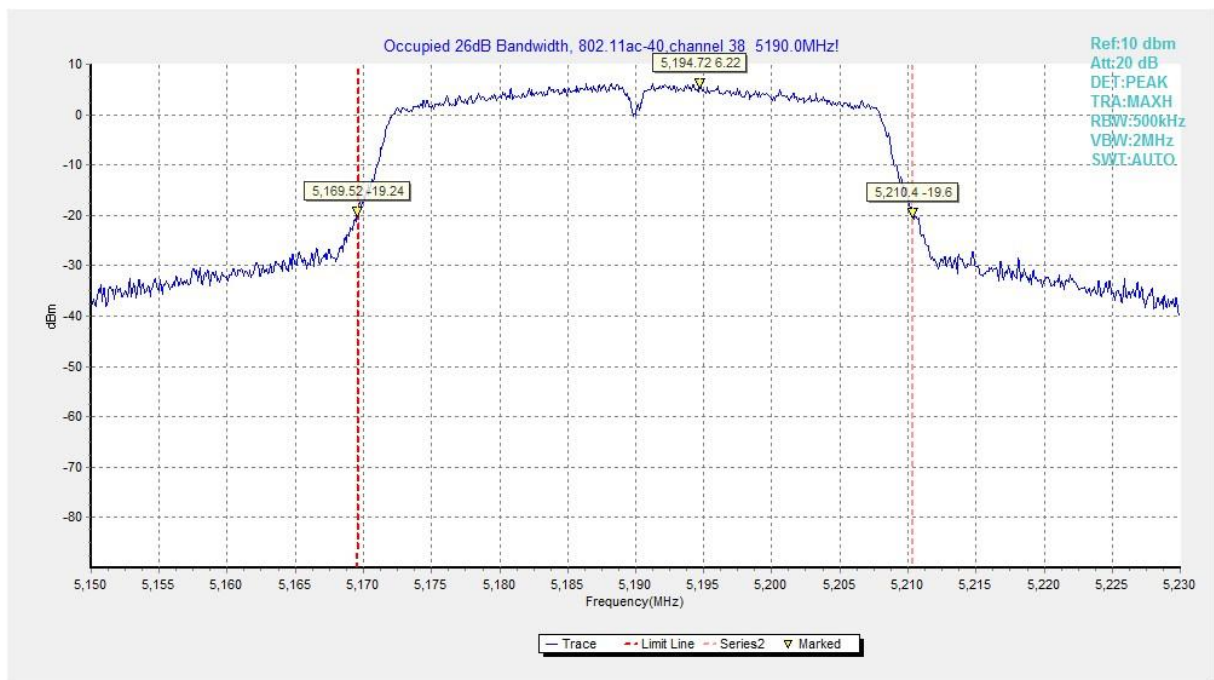


Fig.21 26dB Emission Bandwidth (802.11ac-VHT40, 5190MHz)

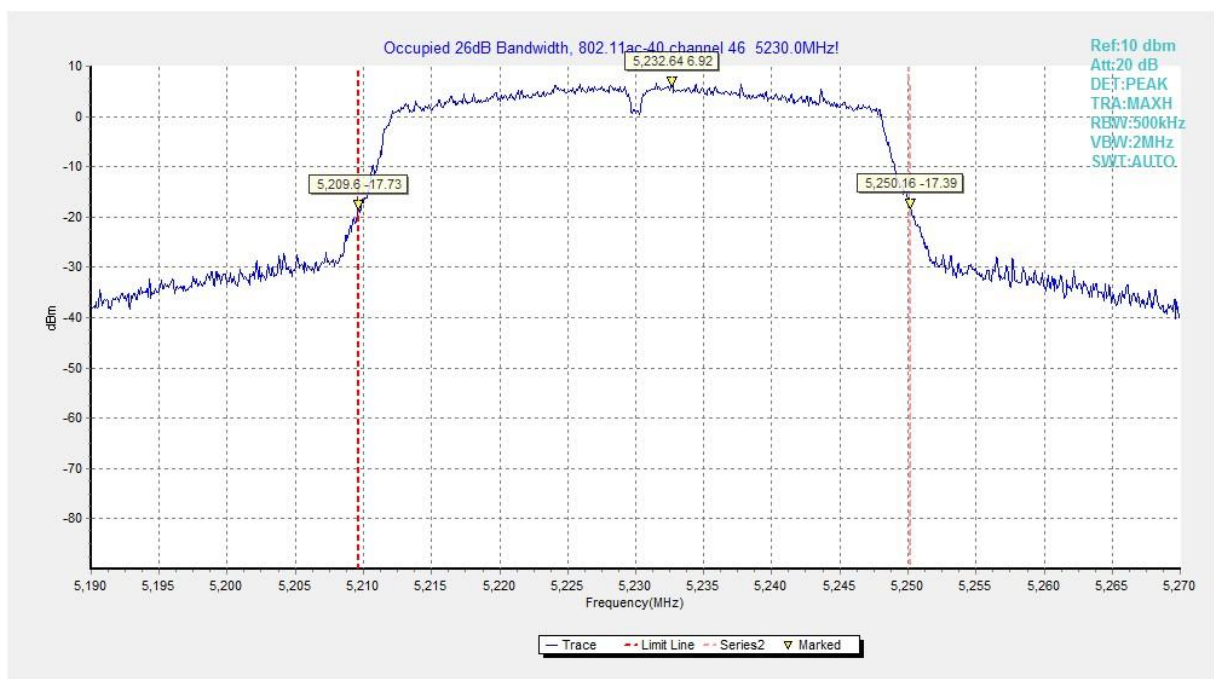


Fig.22 26dB Emission Bandwidth (802.11ac-VHT40, 5230MHz)

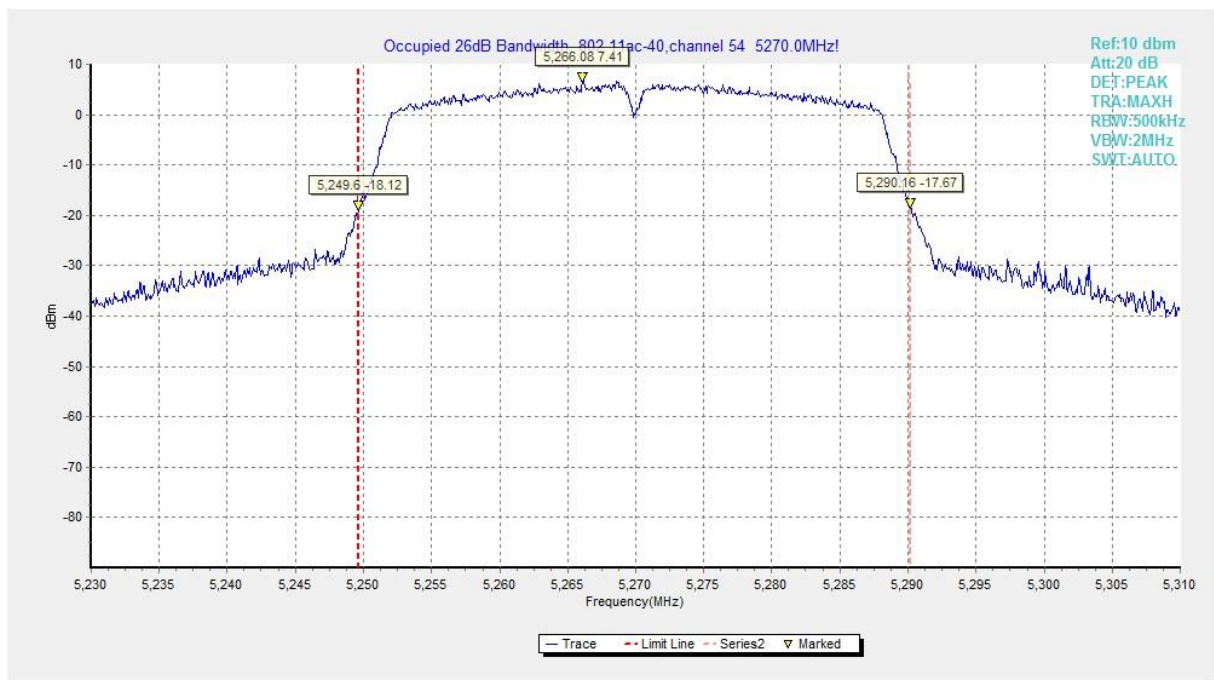


Fig.23 26dB Emission Bandwidth (802.11ac-VHT40, 5270MHz)

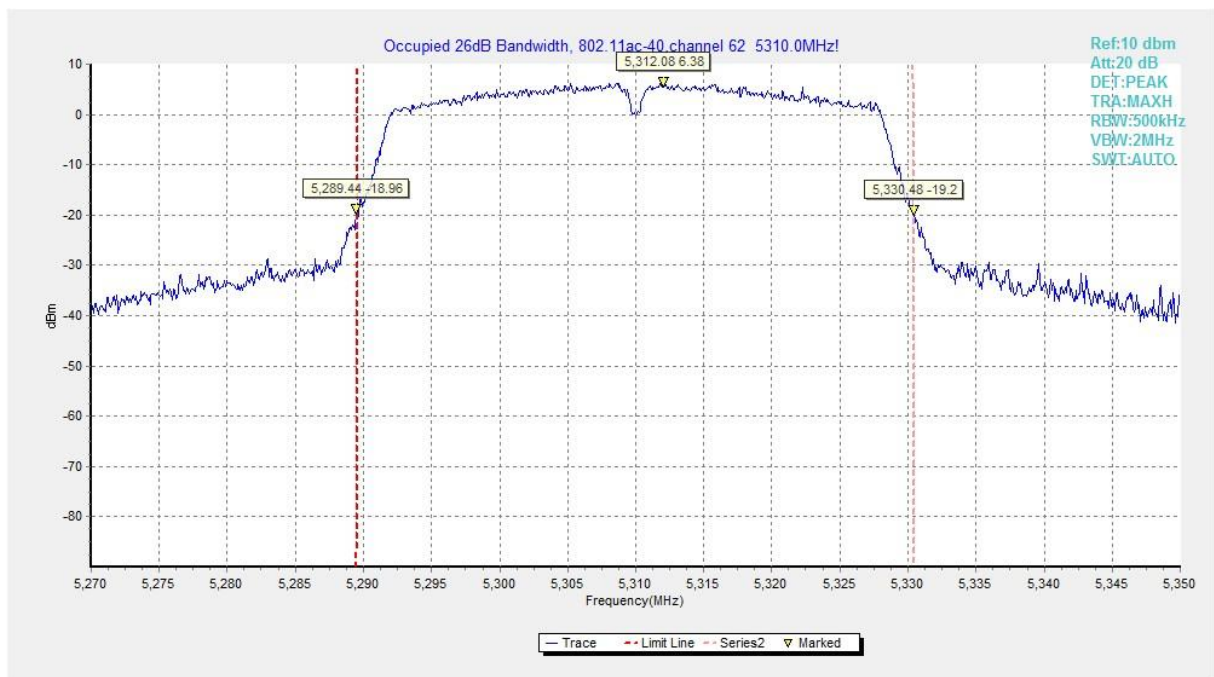


Fig.24 26dB Emission Bandwidth (802.11ac-VHT40, 5310MHz)

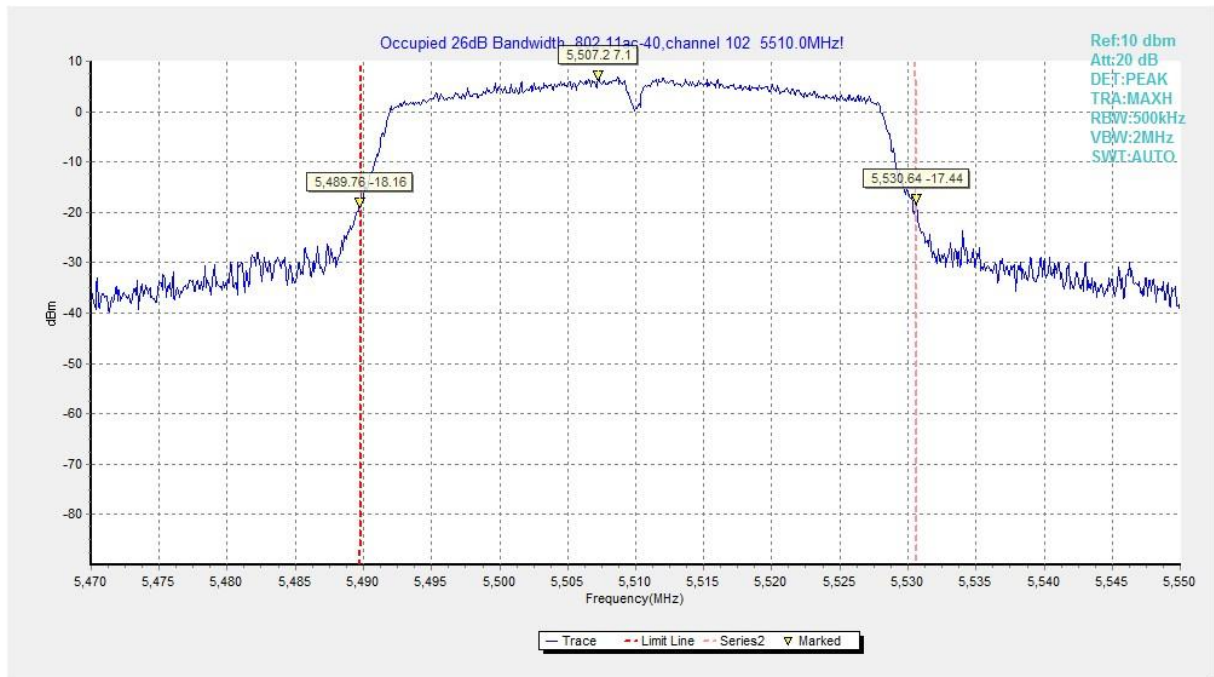


Fig.25 26dB Emission Bandwidth (802. 11ac-VHT40, 5510MHz)

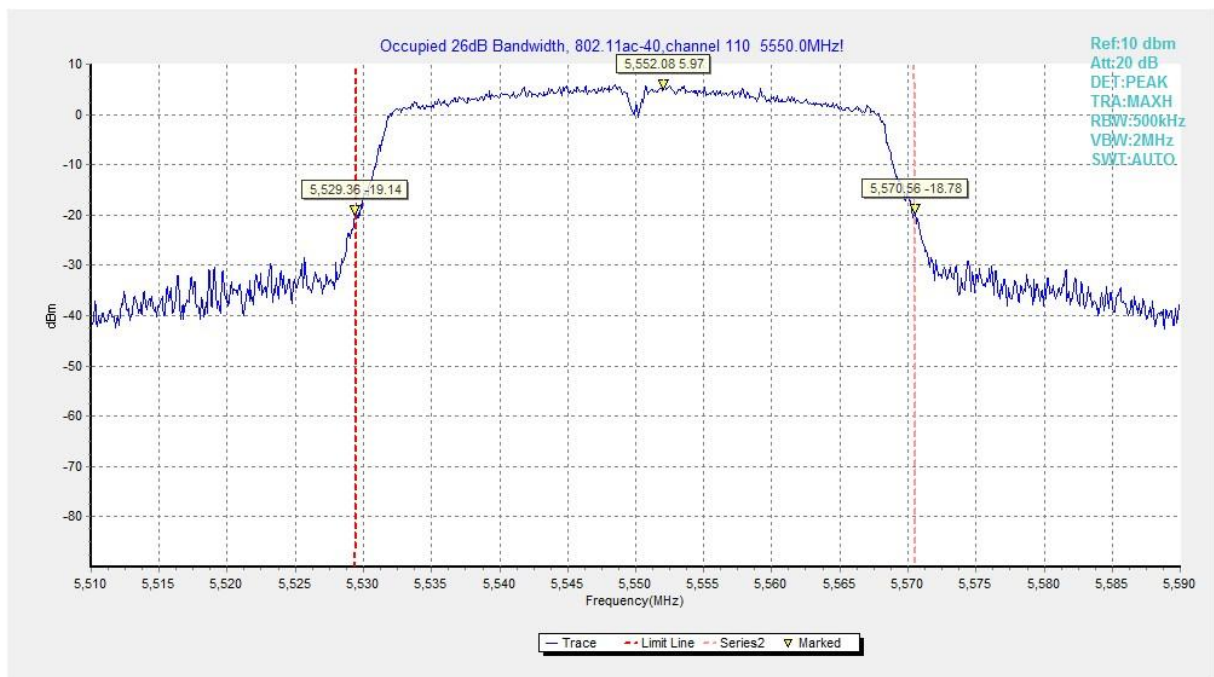


Fig.26 26dB Emission Bandwidth (802. 11ac-VHT40, 5550MHz)

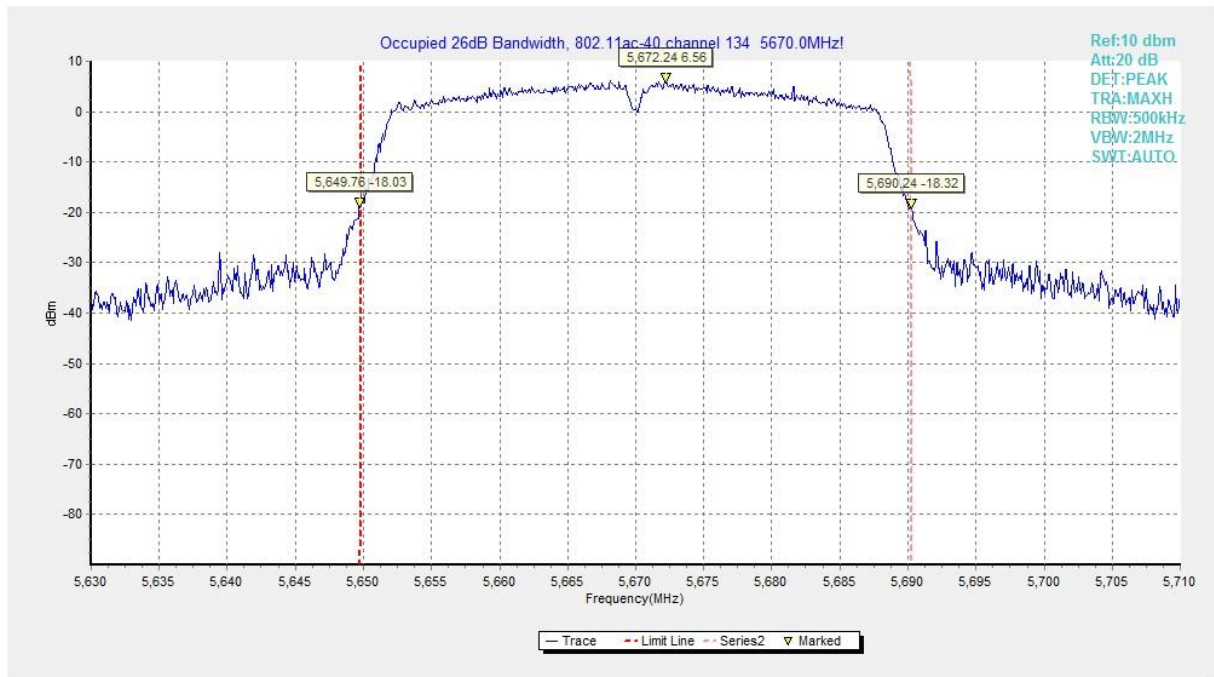


Fig.27 26dB Emission Bandwidth (802.11ac-VHT40, 5670MHz)

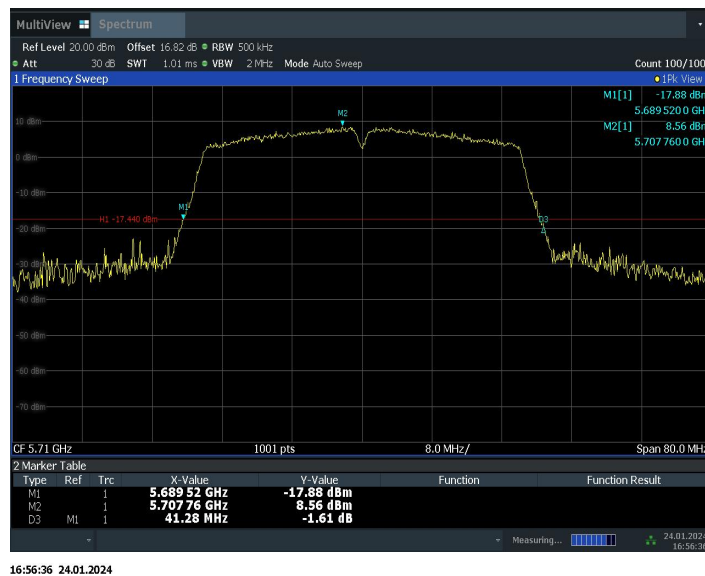


Fig.28 26dB Emission Bandwidth (802.11ac-VHT40, 5710MHz)

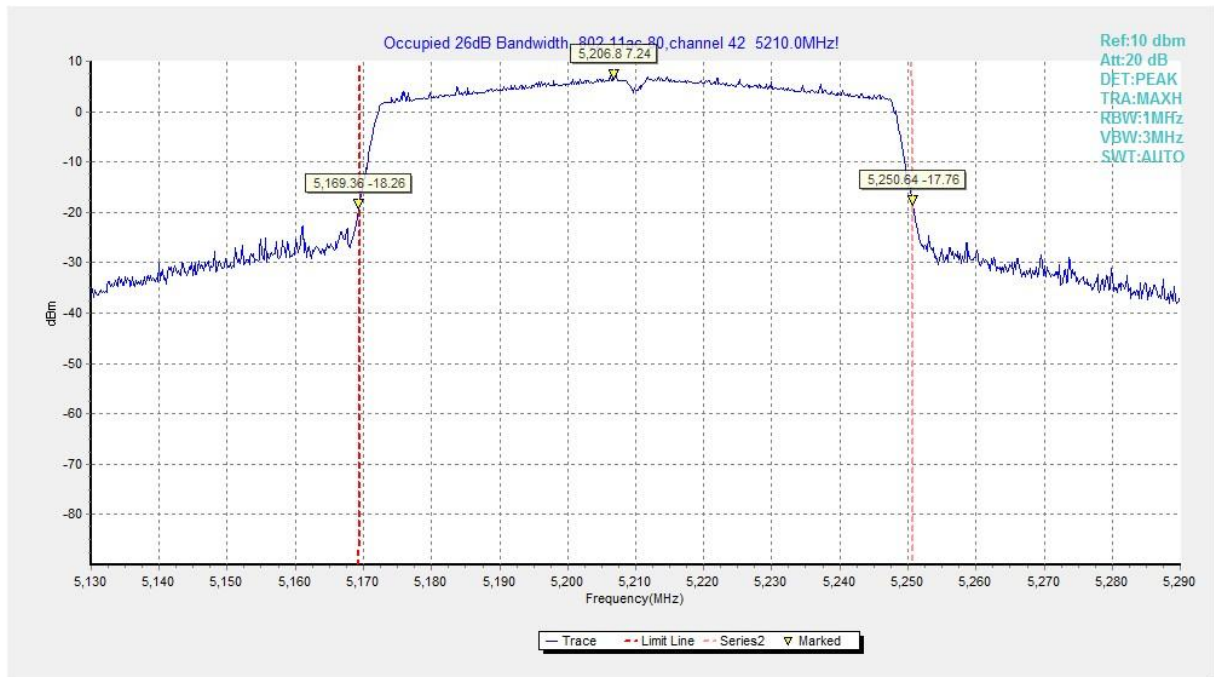


Fig.29 26dB Emission Bandwidth (802. 11ac-VHT80, 5210MHz)

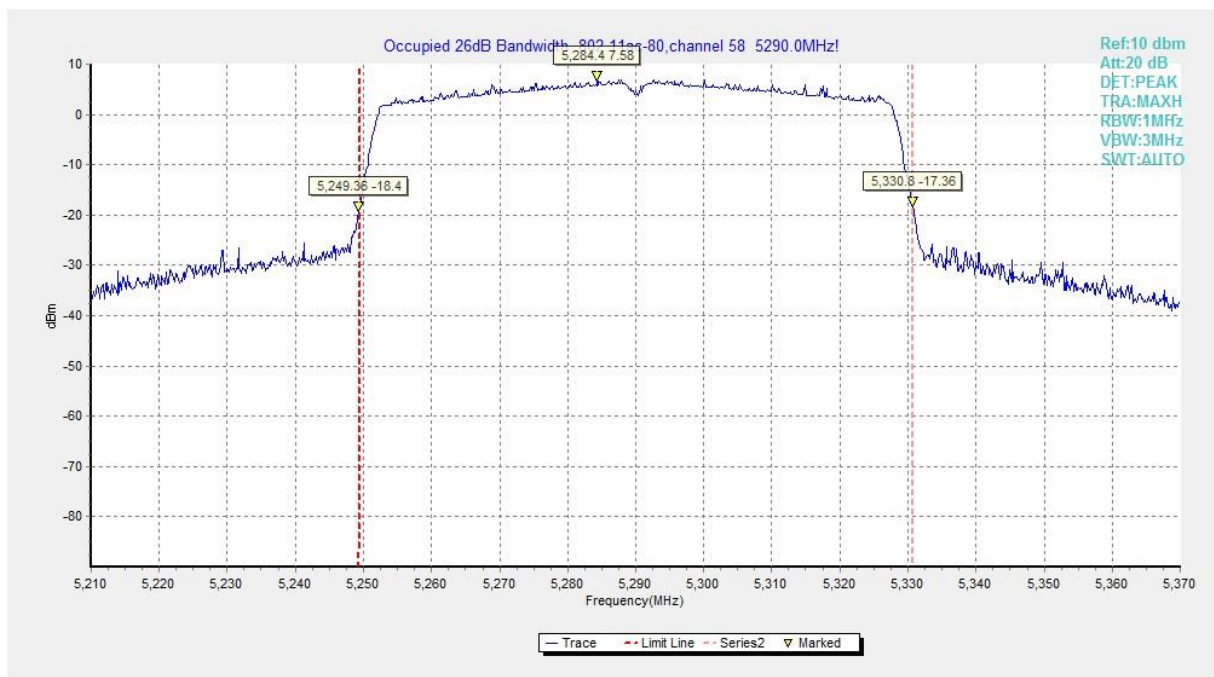


Fig.30 26dB Emission Bandwidth (802. 11ac-VHT80, 5290MHz)

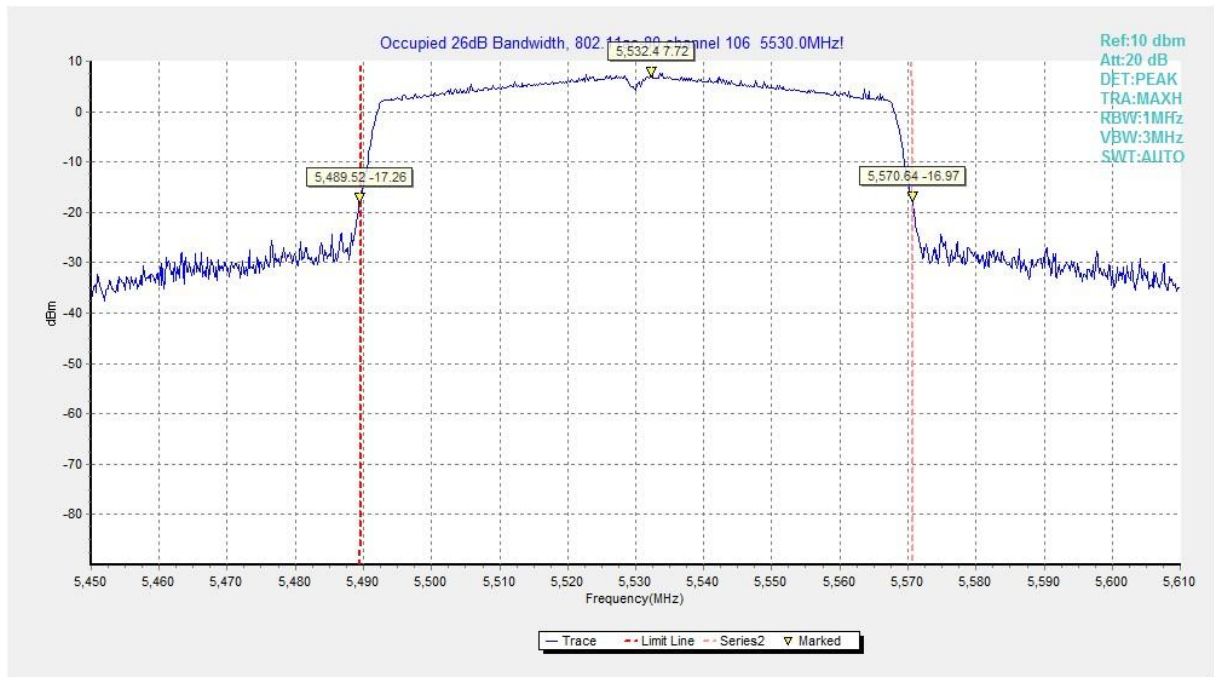


Fig.31 26dB Emission Bandwidth (802. 11ac-VHT80, 5530MHz)

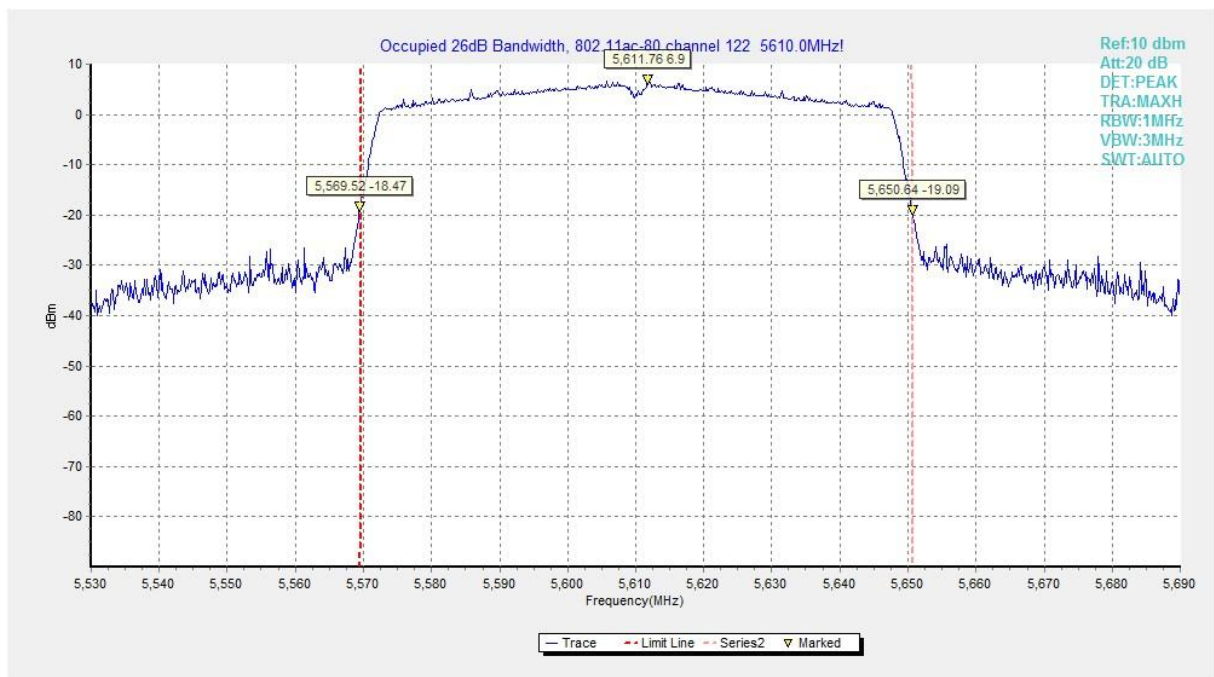


Fig.32 26dB Emission Bandwidth (802. 11ac-VHT80, 5610MHz)



Fig.33 26dB Emission Bandwidth (802. 11ac-VHT80, 5690MHz)

Conclusion: PASS

A.5. Radiated Unwanted Emission

A.5.1 Limits

Unwanted Emissions in the unrestricted bands shall not exceed the limits that shown in 15.407:

Standard	Limit
FCC 47 CFR Part 15.407	(1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz. (2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz. (3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

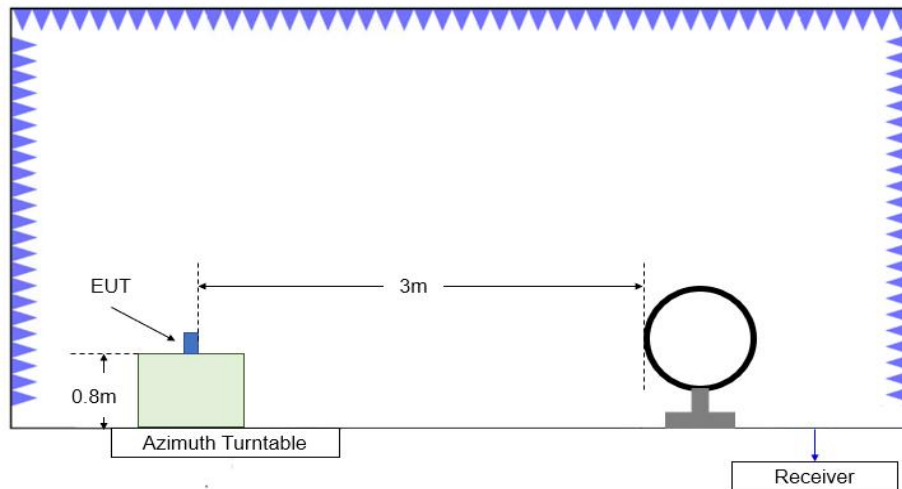
In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a) (see § 15.205(c))

Frequency (MHz)	Field strength(μ V/m)	Measurement distance (m)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 – 30.0	30	30

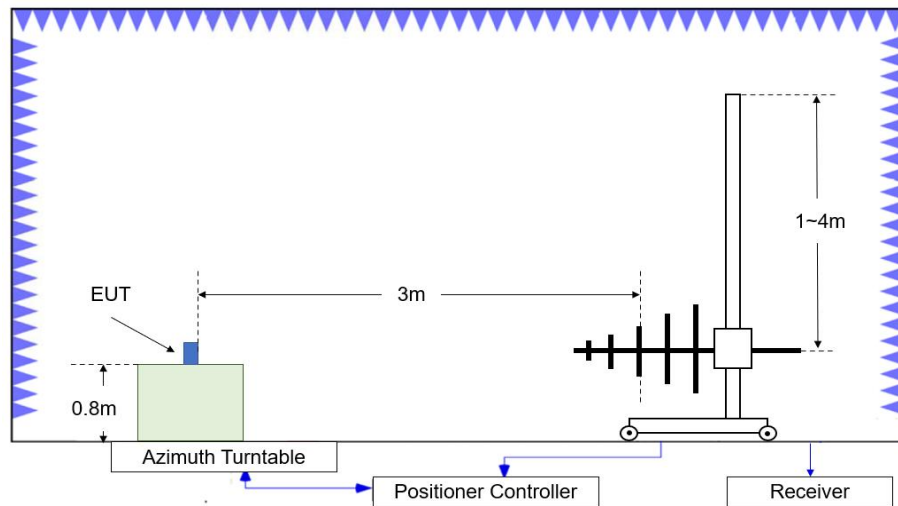
Frequency of emission (MHz)	Field strength (μ V/m)	Field strength (dBuV/m)	Measurement distance (m)
30-88	100	40	3
88-216	150	43.5	3
216-960	200	46	3
Above 960	500	54	3

Note: When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor (as defined in KDB 789033 II.G.2.d).

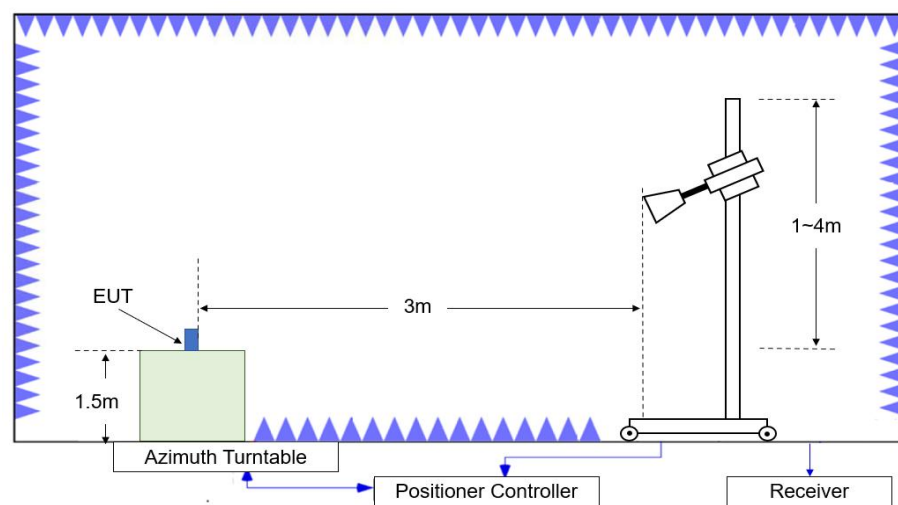
A.5.2 Test setup



Test Site Diagram (9kHz-30MHz)



Test Site Diagram (30MHz-1GHz)



Test Site Diagram (1GHz-40GHz)

A.5.3 Test Procedures

Radiated unwanted emissions from the EUT were measured according to ANSI C63.10 and KDB 789033 D02 v02r01.

Test setting

Frequency of emission (MHz)	RBW/VBW
30-1000	100kHz/300kHz
1000-4000	1MHz/3MHz
4000-18000	1MHz/3MHz
18000-26500	1MHz/3MHz
26500-40000	1MHz/3MHz

A.5.4 Calculation

1. The measurement results reported below is calculated by:

Measurement Results (dB μ V/m) = $P_{\text{measurement}}$ (dB μ V) + Cable Loss (dB) + Antenna Factor (dB/m)

Where: $P_{\text{measurement}}$ is the field strength recorded from the instrument

2. Convert the resultant EIRP level to an equivalent electric field strength using the following relationship:

$$E = \text{EIRP} - 20 \log(D) + 104.77$$

Where:

E is the field strength in dB μ V/m

D is the measurement distance in meters

EIRP is the equivalent isotropically radiated power in dBm

Test note

1. The EUT is operating at its maximum duty cycle and its maximum power control level.
2. Investigation has been done on all modes and modulations/data rates. Only the radiated emissions of the configuration that produced the worst case emissions are reported in this section.
3. Spurious emissions for all channels were investigated and almost the same below 1GHz. According to FCC 47 CFR §15.31, emission levels are not report much lower than the limit by over 20dB
4. The test is carried out on both vertical and horizontal polarization and only maximization result of both polarizations is kept.
5. EUT in each of three orthogonal axis emissions had been tested out only the worst case (axis data) recorded in the report.
6. Measurement frequencies were performed from 9 kHz to the 10th harmonic of highest fundamental frequency or 40GHz, whichever is lower.
7. No spurious emissions were detected within 20dB of the limit below 30MHz. OFS and semi-chamber comparison testing had been performed and the result came out very similar. (KDB 414788)

Average Results:
802.11a
Channel 36

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17941.700	39.81	-29.59	45.95	23.45	54.00	14.19	V
17956.550	38.77	-29.59	45.95	22.41	54.00	15.23	V
13308.500	34.23	-31.40	40.60	25.03	54.00	19.77	V
14498.150	34.21	-29.56	41.90	21.87	54.00	19.79	V
5147.250	45.30	-27.79	34.00	39.09	54.00	8.70	V
5149.470	45.27	-28.00	34.00	39.27	54.00	8.73	V

Channel 40

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17969.200	39.22	-29.59	45.95	22.86	54.00	14.78	V
17876.250	38.85	-29.59	45.95	22.49	54.00	15.15	V
14493.750	34.31	-29.56	41.90	21.97	54.00	19.69	V
14481.100	34.14	-29.56	41.90	21.80	54.00	19.86	V
11917.550	32.35	-32.53	39.10	25.78	54.00	21.65	V
11878.500	32.14	-32.73	39.15	25.72	54.00	21.86	V

Channel 48

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17952.150	40.01	-29.59	45.95	23.65	54.00	13.99	V
17954.900	39.77	-29.59	45.95	23.41	54.00	14.23	V
14470.100	34.82	-29.56	41.90	22.48	54.00	19.18	V
14478.900	34.67	-29.56	41.90	22.33	54.00	19.33	V
11918.650	33.08	-32.53	39.10	26.51	54.00	20.92	V
11866.950	32.75	-32.73	39.15	26.33	54.00	21.25	V

Channel 52

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17953.250	40.16	-29.59	45.95	23.80	54.00	13.84	V
17951.600	39.87	-29.59	45.95	23.51	54.00	14.13	V
14472.300	35.49	-29.56	41.90	23.15	54.00	18.51	V
14477.800	34.75	-29.56	41.90	22.41	54.00	19.25	V
11904.900	32.70	-32.53	39.10	26.13	54.00	21.30	V
11866.950	32.65	-32.73	39.15	26.23	54.00	21.35	V

Channel 56

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17953.250	40.16	-29.59	45.95	23.80	54.00	13.84	V
17961.500	40.10	-29.59	45.95	23.74	54.00	13.90	V
14480.000	35.02	-29.56	41.90	22.68	54.00	18.98	V
14499.800	34.98	-29.56	41.90	22.64	54.00	19.02	V
11865.300	33.13	-32.73	39.15	26.71	54.00	20.87	H
11391.200	33.06	-32.58	39.00	26.64	54.00	20.94	V

Channel 64

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17945.000	40.15	-29.59	45.95	23.79	54.00	13.85	V
17944.450	40.10	-29.59	45.95	23.74	54.00	13.90	V
14474.500	35.07	-29.56	41.90	22.73	54.00	18.93	V
14489.900	35.03	-29.56	41.90	22.69	54.00	18.97	V
5360.808	44.56	-27.82	34.20	38.18	54.00	9.44	V
5351.664	44.41	-27.82	34.20	38.03	54.00	9.59	V

Channel 100

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17950.500	40.67	-29.59	45.95	24.31	54.00	13.33	V
17956.550	40.45	-29.59	45.95	24.09	54.00	13.55	V
14494.300	35.28	-29.56	41.90	22.94	54.00	18.72	V
14475.050	35.23	-29.56	41.90	22.89	54.00	18.77	V
5440.083	42.74	-27.94	34.30	36.38	54.00	11.26	H
5444.080	42.66	-27.94	34.30	36.30	54.00	11.34	H

Channel 120

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17962.050	40.51	-29.59	45.95	24.15	54.00	13.49	V
17951.600	40.41	-29.59	45.95	24.05	54.00	13.59	V
14475.600	35.55	-29.56	41.90	23.21	54.00	18.45	V
14472.850	35.30	-29.56	41.90	22.96	54.00	18.70	V
11875.200	33.49	-32.73	39.15	27.07	54.00	20.51	V
11942.850	33.46	-32.42	39.05	26.83	54.00	20.54	V

Channel 140

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17951.050	40.40	-29.59	45.95	24.04	54.00	13.60	V
17949.400	40.32	-29.59	45.95	23.96	54.00	13.68	V
14470.100	35.51	-29.56	41.90	23.17	54.00	18.49	H
14470.650	35.34	-29.56	41.90	23.00	54.00	18.66	V
11886.750	33.52	-32.53	39.10	26.95	54.00	20.48	V
11915.350	33.38	-32.53	39.10	26.81	54.00	20.62	V

Channel 144

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17949.400	40.61	-29.59	45.95	24.25	54.00	13.39	V
17957.650	40.53	-29.59	45.95	24.17	54.00	13.47	V
14475.050	35.39	-29.56	41.90	23.05	54.00	18.61	V
14492.650	35.39	-29.56	41.90	23.05	54.00	18.61	V
11831.750	33.72	-32.73	39.15	27.30	54.00	20.28	V
10741.100	33.66	-33.62	38.40	28.88	54.00	20.34	V

802.11n-HT20
Channel 36

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17958.200	38.81	-29.59	45.95	22.45	54.00	15.19	V
17947.750	38.67	-29.59	45.95	22.31	54.00	15.33	V
13299.150	33.80	-31.40	40.60	24.60	54.00	20.20	V
14477.800	33.75	-29.56	41.90	21.41	54.00	20.25	V
5149.930	46.61	-28.00	34.00	40.61	54.00	7.39	V
5149.790	46.49	-28.00	34.00	40.49	54.00	7.51	H

Channel 40

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17936.750	39.49	-29.59	45.95	23.13	54.00	14.51	V
17959.300	39.48	-29.59	45.95	23.12	54.00	14.52	H
14493.750	34.34	-29.56	41.90	22.00	54.00	19.66	V
14477.800	34.18	-29.56	41.90	21.84	54.00	19.82	V
11880.150	32.05	-32.73	39.15	25.63	54.00	21.95	V
11845.500	32.01	-32.73	39.15	25.59	54.00	21.99	V

Channel 48

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17953.250	39.78	-29.59	45.95	23.42	54.00	14.22	V
17962.600	39.62	-29.59	45.95	23.26	54.00	14.38	H
14473.400	35.06	-29.56	41.90	22.72	54.00	18.94	H
14480.550	34.87	-29.56	41.90	22.53	54.00	19.13	V
11918.100	33.01	-32.53	39.10	26.44	54.00	20.99	V
11889.500	32.78	-32.53	39.10	26.21	54.00	21.22	V

Channel 52

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17952.700	40.14	-29.59	45.95	23.78	54.00	13.86	V
17951.600	39.82	-29.59	45.95	23.46	54.00	14.18	V
14484.400	34.95	-29.56	41.90	22.61	54.00	19.05	V
14473.400	34.87	-29.56	41.90	22.53	54.00	19.13	V
11860.350	33.09	-32.73	39.15	26.67	54.00	20.91	V
11907.650	32.95	-32.53	39.10	26.38	54.00	21.05	V

Channel 56

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17961.500	40.37	-29.59	45.95	24.01	54.00	13.63	V
17951.600	40.26	-29.59	45.95	23.90	54.00	13.74	V
14476.150	35.08	-29.56	41.90	22.74	54.00	18.92	V
14483.850	34.96	-29.56	41.90	22.62	54.00	19.04	V
11923.050	33.58	-32.53	39.10	27.01	54.00	20.42	V
11885.100	33.03	-32.53	39.10	26.46	54.00	20.97	V

Channel 64

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17938.400	40.62	-29.59	45.95	24.26	54.00	13.38	V
17961.500	40.62	-29.59	45.95	24.26	54.00	13.38	V
14472.300	35.43	-29.56	41.90	23.09	54.00	18.57	V
14471.750	35.16	-29.56	41.90	22.82	54.00	18.84	V
5356.656	44.67	-27.82	34.20	38.29	54.00	9.33	H
5350.408	44.60	-27.82	34.20	38.22	54.00	9.40	V

Channel 100

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17960.950	40.45	-29.59	45.95	24.09	54.00	13.55	H
17950.500	40.35	-29.59	45.95	23.99	54.00	13.65	V
14484.400	35.60	-29.56	41.90	23.26	54.00	18.40	V
14498.700	35.49	-29.56	41.90	23.15	54.00	18.51	H
5441.507	42.74	-27.94	34.30	36.38	54.00	11.26	H
5452.413	42.69	-27.49	34.20	35.98	54.00	11.31	V

Channel 120

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17942.800	40.82	-29.59	45.95	24.46	54.00	13.18	V
17950.500	40.66	-29.59	45.95	24.30	54.00	13.34	V
14470.100	35.36	-29.56	41.90	23.02	54.00	18.64	H
14473.400	35.34	-29.56	41.90	23.00	54.00	18.66	H
11912.050	33.70	-32.53	39.10	27.13	54.00	20.30	V
11865.850	33.65	-32.73	39.15	27.23	54.00	20.35	V

Channel 140

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17940.600	40.94	-29.59	45.95	24.58	54.00	13.06	V
17952.150	40.64	-29.59	45.95	24.28	54.00	13.36	V
14473.400	35.68	-29.56	41.90	23.34	54.00	18.32	V
14485.500	35.67	-29.56	41.90	23.33	54.00	18.33	V
11909.300	33.84	-32.53	39.10	27.27	54.00	20.16	V
11904.350	33.66	-32.53	39.10	27.09	54.00	20.34	V

Channel 144

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17940.600	40.83	-29.59	45.95	24.47	54.00	13.17	H
17947.200	40.78	-29.59	45.95	24.42	54.00	13.22	V
14473.950	35.83	-29.56	41.90	23.49	54.00	18.17	V
14475.050	35.60	-29.56	41.90	23.26	54.00	18.40	V
11920.300	34.16	-32.53	39.10	27.59	54.00	19.84	V
11870.250	33.84	-32.73	39.15	27.42	54.00	20.16	V

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Channel 38

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17932.350	39.54	-29.59	45.95	23.18	54.00	14.46	V
17937.850	39.33	-29.59	45.95	22.97	54.00	14.67	V
14472.850	34.23	-29.56	41.90	21.89	54.00	19.77	H
14472.300	34.15	-29.56	41.90	21.81	54.00	19.85	V
5148.990	45.99	-28.00	34.00	39.99	54.00	8.01	H
5149.740	45.92	-28.00	34.00	39.92	54.00	8.08	V

Channel 46

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17946.650	40.35	-29.59	45.95	23.99	54.00	13.65	V
17939.500	39.89	-29.59	45.95	23.53	54.00	14.11	V
14471.200	34.58	-29.56	41.90	22.24	54.00	19.42	V
14486.600	34.54	-29.56	41.90	22.20	54.00	19.46	V
11888.950	32.56	-32.53	39.10	25.99	54.00	21.44	V
11866.400	32.46	-32.73	39.15	26.04	54.00	21.54	V

Channel 54

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17962.600	40.29	-29.59	45.95	23.93	54.00	13.71	V
17951.050	40.21	-29.59	45.95	23.85	54.00	13.79	V
14474.500	35.22	-29.56	41.90	22.88	54.00	18.78	V
14482.750	35.08	-29.56	41.90	22.74	54.00	18.92	V
11399.450	33.21	-32.58	39.00	26.79	54.00	20.79	V
11898.850	33.18	-32.53	39.10	26.61	54.00	20.82	V

Channel 62

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17953.800	40.61	-29.59	45.95	24.25	54.00	13.39	V
17953.250	40.29	-29.59	45.95	23.93	54.00	13.71	V
14477.250	35.61	-29.56	41.90	23.27	54.00	18.39	V
14492.650	35.49	-29.56	41.90	23.15	54.00	18.51	H
5350.464	53.04	-27.82	34.20	46.66	54.00	0.96	V
5350.672	53.01	-27.82	34.20	46.63	54.00	0.99	H

Channel 102

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17959.850	40.80	-29.59	45.95	24.44	54.00	13.20	V
17949.400	40.61	-29.59	45.95	24.25	54.00	13.39	V
14470.650	35.75	-29.56	41.90	23.41	54.00	18.25	V
14473.950	35.63	-29.56	41.90	23.29	54.00	18.37	V
5388.557	42.38	-27.82	34.20	36.00	54.00	11.62	H
5431.435	42.18	-27.94	34.30	35.82	54.00	11.82	V

Channel 118

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17936.200	40.66	-29.59	45.95	24.30	54.00	13.34	V
17937.300	40.55	-29.59	45.95	24.19	54.00	13.45	H
14473.400	35.83	-29.56	41.90	23.49	54.00	18.17	V
14483.300	35.63	-29.56	41.90	23.29	54.00	18.37	V
11922.500	33.66	-32.53	39.10	27.09	54.00	20.34	V
11400.000	33.57	-32.58	39.00	27.15	54.00	20.43	H

Channel 134

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17936.750	40.52	-29.59	45.95	24.16	54.00	13.48	H
17953.800	40.44	-29.59	45.95	24.08	54.00	13.56	V
14480.550	35.67	-29.56	41.90	23.33	54.00	18.33	H
14497.050	35.63	-29.56	41.90	23.29	54.00	18.37	V
11392.850	33.68	-32.58	39.00	27.26	54.00	20.32	H
11913.700	33.68	-32.53	39.10	27.11	54.00	20.32	H

Channel 142

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17959.300	40.85	-29.59	45.95	24.49	54.00	13.15	V
17958.750	40.79	-29.59	45.95	24.43	54.00	13.21	V
14492.650	35.66	-29.56	41.90	23.32	54.00	18.34	V
14488.800	35.64	-29.56	41.90	23.30	54.00	18.36	V
11890.600	34.16	-32.53	39.10	27.59	54.00	19.84	V
11874.650	33.89	-32.73	39.15	27.47	54.00	20.11	V

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Channel 36

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17955.450	38.92	-29.59	45.95	22.56	54.00	15.08	V
17928.500	38.77	-29.59	45.95	22.41	54.00	15.23	V
14477.250	34.36	-29.56	41.90	22.02	54.00	19.64	V
14479.450	34.19	-29.56	41.90	21.85	54.00	19.81	V
5148.800	47.26	-28.00	34.00	41.26	54.00	6.74	V
5148.910	47.21	-28.00	34.00	41.21	54.00	6.79	H

Channel 40

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17941.700	39.34	-29.59	45.95	22.98	54.00	14.66	V
17937.850	39.28	-29.59	45.95	22.92	54.00	14.72	V
14476.700	34.16	-29.56	41.90	21.82	54.00	19.84	V
14470.100	34.09	-29.56	41.90	21.75	54.00	19.91	V
11925.250	32.12	-32.53	39.10	25.55	54.00	21.88	V
11896.100	32.10	-32.53	39.10	25.53	54.00	21.90	V

Channel 48

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17947.200	39.92	-29.59	45.95	23.56	54.00	14.08	V
17944.450	39.90	-29.59	45.95	23.54	54.00	14.10	V
14471.200	34.54	-29.56	41.90	22.20	54.00	19.46	V
14477.800	34.49	-29.56	41.90	22.15	54.00	19.51	V
11924.150	32.71	-32.53	39.10	26.14	54.00	21.29	V
11390.100	32.62	-32.58	39.00	26.20	54.00	21.38	H

Channel 52

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17950.500	39.95	-29.59	45.95	23.59	54.00	14.05	V
17942.800	39.88	-29.59	45.95	23.52	54.00	14.12	V
14474.500	34.83	-29.56	41.90	22.49	54.00	19.17	V
14484.400	34.83	-29.56	41.90	22.49	54.00	19.17	V
11906.550	32.90	-32.53	39.10	26.33	54.00	21.10	V
11888.400	32.70	-32.53	39.10	26.13	54.00	21.30	V

Channel 56

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17954.350	40.06	-29.59	45.95	23.70	54.00	13.94	V
17978.000	39.98	-29.59	45.95	23.62	54.00	14.02	V
14479.450	35.20	-29.56	41.90	22.86	54.00	18.80	V
14470.650	35.08	-29.56	41.90	22.74	54.00	18.92	V
11908.750	33.16	-32.53	39.10	26.59	54.00	20.84	V
11608.450	33.05	-32.72	39.20	26.57	54.00	20.95	V

Channel 64

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17941.150	40.22	-29.59	45.95	23.86	54.00	13.78	V
17956.000	40.09	-29.59	45.95	23.73	54.00	13.91	H
14482.200	35.04	-29.56	41.90	22.70	54.00	18.96	V
14483.300	35.04	-29.56	41.90	22.70	54.00	18.96	V
5358.312	45.57	-27.82	34.20	39.19	54.00	8.43	V
5351.768	45.44	-27.82	34.20	39.06	54.00	8.56	H

Channel 100

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17947.200	40.63	-29.59	45.95	24.27	54.00	13.37	V
17924.100	40.36	-29.59	45.95	24.00	54.00	13.64	V
14480.000	35.59	-29.56	41.90	23.25	54.00	18.41	V
14475.600	35.46	-29.56	41.90	23.12	54.00	18.54	V
5445.962	43.02	-27.49	34.20	36.31	54.00	10.98	H
5452.083	42.74	-27.49	34.20	36.03	54.00	11.26	V

Channel 120

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17969.750	40.52	-29.59	45.95	24.16	54.00	13.48	V
17952.700	40.42	-29.59	45.95	24.06	54.00	13.58	V
14494.850	35.43	-29.56	41.90	23.09	54.00	18.57	V
14493.750	35.26	-29.56	41.90	22.92	54.00	18.74	H
11914.250	33.93	-32.53	39.10	27.36	54.00	20.07	H
11865.850	33.56	-32.73	39.15	27.14	54.00	20.44	V

Channel 140

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17937.300	40.43	-29.59	45.95	24.07	54.00	13.57	H
17959.300	40.29	-29.59	45.95	23.93	54.00	13.71	V
14483.300	35.60	-29.56	41.90	23.26	54.00	18.40	V
14473.950	35.48	-29.56	41.90	23.14	54.00	18.52	V
11884.000	33.41	-32.53	39.10	26.84	54.00	20.59	H
11393.400	33.31	-32.58	39.00	26.89	54.00	20.69	H

Channel 144

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17949.400	40.80	-29.59	45.95	24.44	54.00	13.20	V
17954.350	40.80	-29.59	45.95	24.44	54.00	13.20	V
13327.200	35.64	-31.19	40.65	26.18	54.00	18.36	V
14473.950	35.61	-29.56	41.90	23.27	54.00	18.39	V
11926.900	34.03	-32.53	39.10	27.46	54.00	19.97	V
11398.900	33.75	-32.58	39.00	27.33	54.00	20.25	V

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Channel 38

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17899.350	39.62	-29.59	45.95	23.26	54.00	14.38	V
17957.100	39.50	-29.59	45.95	23.14	54.00	14.50	V
14486.050	34.42	-29.56	41.90	22.08	54.00	19.58	V
14479.450	34.35	-29.56	41.90	22.01	54.00	19.65	V
5149.210	46.92	-28.00	34.00	40.92	54.00	7.08	V
5149.510	46.70	-28.00	34.00	40.70	54.00	7.30	H

Channel 46

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17947.750	39.76	-29.59	45.95	23.40	54.00	14.24	V
17949.950	39.55	-29.59	45.95	23.19	54.00	14.45	V
14475.600	34.81	-29.56	41.90	22.47	54.00	19.19	V
14478.350	34.54	-29.56	41.90	22.20	54.00	19.46	V
11932.950	32.39	-32.42	39.05	25.76	54.00	21.61	V
11417.050	32.28	-32.58	39.00	25.86	54.00	21.72	V

Channel 54

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17947.750	40.51	-29.59	45.95	24.15	54.00	13.49	V
17931.250	40.23	-29.59	45.95	23.87	54.00	13.77	V
14471.200	35.48	-29.56	41.90	23.14	54.00	18.52	H
14478.900	35.47	-29.56	41.90	23.13	54.00	18.53	V
11870.800	33.72	-32.73	39.15	27.30	54.00	20.28	V
11904.900	33.72	-32.53	39.10	27.15	54.00	20.28	V

Channel 62

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17956.000	40.37	-29.59	45.95	24.01	54.00	13.63	H
17954.350	40.29	-29.59	45.95	23.93	54.00	13.71	V
14480.550	35.55	-29.56	41.90	23.21	54.00	18.45	V
13307.950	35.37	-31.40	40.60	26.17	54.00	18.63	V
5350.720	53.95	-27.82	34.20	47.57	54.00	0.05	V
5350.360	53.72	-27.82	34.20	47.34	54.00	0.28	H

Channel 102

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17953.800	40.89	-29.59	45.95	24.53	54.00	13.11	V
17954.350	40.83	-29.59	45.95	24.47	54.00	13.17	V
14483.300	35.92	-29.56	41.90	23.58	54.00	18.08	V
14497.600	35.57	-29.56	41.90	23.23	54.00	18.43	H
5442.835	42.22	-27.94	34.30	35.86	54.00	11.78	H
5454.970	42.08	-27.49	34.20	35.37	54.00	11.92	V

Channel 118

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17942.250	40.94	-29.59	45.95	24.58	54.00	13.06	V
17945.550	40.62	-29.59	45.95	24.26	54.00	13.38	V
14497.050	35.74	-29.56	41.90	23.40	54.00	18.26	H
13301.350	35.57	-31.40	40.60	26.37	54.00	18.43	V
11886.200	33.83	-32.53	39.10	27.26	54.00	20.17	H
11899.400	33.82	-32.53	39.10	27.25	54.00	20.18	V

Channel 134

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17962.600	41.09	-29.59	45.95	24.73	54.00	12.91	V
17953.800	40.94	-29.59	45.95	24.58	54.00	13.06	V
14481.100	36.08	-29.56	41.90	23.74	54.00	17.92	V
14496.500	35.88	-29.56	41.90	23.54	54.00	18.12	V
11379.100	33.60	-33.31	38.85	28.06	54.00	20.40	V
11901.050	33.57	-32.53	39.10	27.00	54.00	20.43	V

Channel 142

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17959.300	40.63	-29.59	45.95	24.27	54.00	13.37	V
17954.350	40.58	-29.59	45.95	24.22	54.00	13.42	V
14498.700	35.64	-29.56	41.90	23.30	54.00	18.36	H
14488.800	35.51	-29.56	41.90	23.17	54.00	18.49	V
11855.400	34.11	-32.73	39.15	27.69	54.00	19.89	V
11854.850	33.76	-32.73	39.15	27.34	54.00	20.24	V

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Channel 42

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17940.050	40.13	-29.59	45.95	23.77	54.00	13.87	V
17941.700	40.12	-29.59	45.95	23.76	54.00	13.88	H
14471.750	35.73	-29.56	41.90	23.39	54.00	18.27	V
14482.200	35.73	-29.56	41.90	23.39	54.00	18.27	V
5147.360	48.57	-27.79	34.00	42.36	54.00	5.43	V
5149.460	48.16	-28.00	34.00	42.16	54.00	5.84	H

Channel 58

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17958.750	40.85	-29.59	45.95	24.49	54.00	13.15	V
17941.700	40.61	-29.59	45.95	24.25	54.00	13.39	V
14498.700	35.74	-29.56	41.90	23.40	54.00	18.26	H
14482.750	35.46	-29.56	41.90	23.12	54.00	18.54	V
5350.432	46.06	-27.82	34.20	39.68	54.00	7.94	V
5350.064	45.96	-27.82	34.20	39.58	54.00	8.04	V

Channel 106

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17973.050	40.83	-29.59	45.95	24.47	54.00	13.17	V
17954.350	40.82	-29.59	45.95	24.46	54.00	13.18	V
14483.850	35.71	-29.56	41.90	23.37	54.00	18.29	V
14478.350	35.66	-29.56	41.90	23.32	54.00	18.34	V
5457.055	43.40	-27.49	34.20	36.69	54.00	10.60	H
5457.693	43.36	-27.49	34.20	36.65	54.00	10.64	H

Channel 122

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17959.300	40.77	-29.59	45.95	24.41	54.00	13.23	V
17934.550	40.55	-29.59	45.95	24.19	54.00	13.45	V
14496.500	35.93	-29.56	41.90	23.59	54.00	18.07	V
14475.600	35.77	-29.56	41.90	23.43	54.00	18.23	H
11912.050	33.55	-32.53	39.10	26.98	54.00	20.45	V
11910.950	33.54	-32.53	39.10	26.97	54.00	20.46	V

Channel 138

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17953.250	40.70	-29.59	45.95	24.34	54.00	13.30	V
17957.650	40.65	-29.59	45.95	24.29	54.00	13.35	V
14494.850	35.97	-29.56	41.90	23.63	54.00	18.03	V
14471.750	35.86	-29.56	41.90	23.52	54.00	18.14	V
11396.150	34.02	-32.58	39.00	27.60	54.00	19.98	V

11871.900	33.96	-32.73	39.15	27.54	54.00	20.04	H
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PEAK Results:

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Channel 36

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17974.150	50.04	-29.59	45.95	33.68	74.00	23.96	V
17948.300	49.44	-29.59	45.95	33.08	74.00	24.56	V
14077.950	45.65	-30.20	41.70	34.15	68.20	22.55	V
14273.200	45.49	-30.12	41.80	33.81	68.20	22.71	V
5149.770	55.40	-28.00	34.00	49.40	74.00	18.60	V
5149.300	54.90	-28.00	34.00	48.90	74.00	19.10	V

Channel 40

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17954.900	49.47	-29.59	45.95	33.11	74.00	24.53	V
17956.000	49.29	-29.59	45.95	32.93	74.00	24.71	V
14079.600	45.93	-30.20	41.70	34.43	68.20	22.27	V
14661.500	45.91	-30.04	41.50	34.45	68.20	22.29	V
11802.050	42.99	-32.09	39.20	35.88	74.00	31.01	V
11391.200	42.88	-32.58	39.00	36.46	74.00	31.12	V

Channel 48

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17947.200	50.44	-29.59	45.95	34.08	74.00	23.56	V
17955.450	49.90	-29.59	45.95	33.54	74.00	24.10	H
14682.950	46.88	-30.04	41.50	35.42	68.20	21.32	V
14026.250	46.19	-31.31	41.60	35.90	68.20	22.01	V
11874.650	43.79	-32.73	39.15	37.37	74.00	30.21	V
10738.350	43.74	-33.62	38.40	38.96	74.00	30.26	V

Channel 52

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17937.850	50.29	-29.59	45.95	33.93	74.00	23.71	V
17960.950	50.16	-29.59	45.95	33.80	74.00	23.84	H
14692.850	46.79	-30.04	41.50	35.33	68.20	21.41	V
14693.950	46.32	-30.04	41.50	34.86	68.20	21.88	V
11412.650	43.53	-32.58	39.00	37.11	74.00	30.47	H
11888.950	43.34	-32.53	39.10	36.77	74.00	30.66	V

Channel 56

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17942.250	51.24	-29.59	45.95	34.88	74.00	22.76	H
17960.400	50.56	-29.59	45.95	34.20	74.00	23.44	H
14259.450	47.09	-30.12	41.80	35.41	68.20	21.11	V
14701.100	46.90	-30.04	41.50	35.44	68.20	21.30	H
11890.050	44.54	-32.53	39.10	37.97	74.00	29.46	V
11924.150	43.60	-32.53	39.10	37.03	74.00	30.40	V

Channel 64

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17977.450	50.77	-29.59	45.95	34.41	74.00	23.23	V
17971.950	50.45	-29.59	45.95	34.09	74.00	23.55	V
14575.700	47.21	-29.14	41.90	34.45	68.20	20.99	V
14614.200	46.78	-30.67	41.70	35.75	68.20	21.42	V
5351.552	55.67	-27.82	34.20	49.29	74.00	18.33	H
5360.864	54.35	-27.82	34.20	47.97	74.00	19.65	V

Channel 100

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17967.550	51.05	-29.59	45.95	34.69	74.00	22.95	H
17951.600	50.67	-29.59	45.95	34.31	74.00	23.33	V
14452.500	46.93	-30.03	41.90	35.06	68.20	21.27	V
13978.400	46.87	-30.64	41.50	36.01	68.20	21.33	V
5448.085	52.49	-27.49	34.20	45.78	74.00	21.51	H
5466.783	52.19	-27.49	34.20	45.48	68.20	16.01	H

Channel 120

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17891.100	50.81	-29.59	45.95	34.45	74.00	23.19	V
17949.950	50.70	-29.59	45.95	34.34	74.00	23.30	V
14112.050	47.39	-30.93	41.70	36.61	68.20	20.81	V
14588.900	47.23	-29.14	41.90	34.47	68.20	20.97	V
11873.000	44.54	-32.73	39.15	38.12	74.00	29.46	V
11923.050	44.13	-32.53	39.10	37.56	74.00	29.87	H

Channel 140

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17959.300	51.05	-29.59	45.95	34.69	74.00	22.95	V
17995.600	50.52	-29.59	45.95	34.16	74.00	23.48	V
14692.300	47.78	-30.04	41.50	36.32	68.20	20.42	V
14684.600	47.45	-30.04	41.50	35.99	68.20	20.75	H
5756.164	53.11	-27.21	34.00	46.32	68.20	15.09	H
5752.331	52.59	-27.21	34.00	45.80	68.20	15.61	V

Channel 144

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17932.350	51.46	-29.59	45.95	35.10	74.00	22.54	V
17960.400	51.26	-29.59	45.95	34.90	74.00	22.74	H
14677.450	47.66	-30.04	41.50	36.20	68.20	20.54	V
14091.700	47.52	-30.20	41.70	36.02	68.20	20.68	V
11524.300	45.15	-32.80	39.10	38.85	74.00	28.85	V
11890.600	44.63	-32.53	39.10	38.06	74.00	29.37	V

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Channel 36

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17986.250	49.08	-29.59	45.95	32.72	74.00	24.92	V
17951.600	48.93	-29.59	45.95	32.57	74.00	25.07	V
14667.550	46.57	-30.04	41.50	35.11	68.20	21.63	V
14685.700	45.51	-30.04	41.50	34.05	68.20	22.69	V
5148.910	59.07	-28.00	34.00	53.07	74.00	14.93	H
5149.570	58.15	-28.00	34.00	52.15	74.00	15.85	H

Channel 40

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17941.700	50.29	-29.59	45.95	33.93	74.00	23.71	V
17894.950	49.40	-29.59	45.95	33.04	74.00	24.60	V
14596.050	45.97	-29.14	41.90	33.21	68.20	22.23	V
14091.150	45.94	-30.20	41.70	34.44	68.20	22.26	V
11882.900	43.00	-32.53	39.10	36.43	74.00	31.00	V
11535.850	42.99	-32.86	39.15	36.70	74.00	31.01	V

Channel 48

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17959.850	50.46	-29.59	45.95	34.10	74.00	23.54	H
17963.150	50.34	-29.59	45.95	33.98	74.00	23.66	V
14722.550	46.81	-30.13	41.35	35.59	68.20	21.39	V
14705.500	46.59	-30.13	41.35	35.37	68.20	21.61	V
11880.150	43.22	-32.73	39.15	36.80	74.00	30.78	H
9482.700	43.11	-34.40	37.70	39.81	74.00	30.89	V

Channel 52

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17874.600	50.22	-29.59	45.95	33.86	74.00	23.78	V
17925.750	50.06	-29.59	45.95	33.70	74.00	23.94	V
14696.150	46.50	-30.04	41.50	35.04	68.20	21.70	V
14700.000	46.37	-30.04	41.50	34.91	68.20	21.83	V
8705.550	43.43	-34.53	37.70	40.26	68.20	24.77	V
10857.150	43.33	-33.07	38.50	37.90	74.00	30.67	V

Channel 56

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17954.900	50.58	-29.59	45.95	34.22	74.00	23.42	V
17945.550	50.09	-29.59	45.95	33.73	74.00	23.91	V
14105.450	46.55	-30.20	41.70	35.05	68.20	21.65	V
14334.250	46.47	-30.44	41.85	35.06	68.20	21.73	H
11872.450	43.88	-32.73	39.15	37.46	74.00	30.12	V
11882.900	43.81	-32.53	39.10	37.24	74.00	30.19	V

Channel 64

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17946.100	50.81	-29.59	45.95	34.45	74.00	23.19	V
17963.700	50.62	-29.59	45.95	34.26	74.00	23.38	V
14465.150	46.93	-29.56	41.90	34.59	68.20	21.27	H
14669.750	46.60	-30.04	41.50	35.14	68.20	21.60	H
5352.328	56.61	-27.82	34.20	50.23	74.00	17.39	V
5350.408	55.59	-27.82	34.20	49.21	74.00	18.41	V

Channel 100

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17953.800	51.53	-29.59	45.95	35.17	74.00	22.47	V
17944.450	50.91	-29.59	45.95	34.55	74.00	23.09	V
14699.450	47.58	-30.04	41.50	36.12	68.20	20.62	V
14568.550	47.23	-29.14	41.90	34.47	68.20	20.97	H
5453.260	52.34	-27.49	34.20	45.63	74.00	21.66	H
5461.727	52.37	-27.49	34.20	45.66	68.20	15.83	V

Channel 120

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17955.450	50.91	-29.59	45.95	34.55	74.00	23.09	V
17942.250	50.83	-29.59	45.95	34.47	74.00	23.17	H
14580.650	47.22	-29.14	41.90	34.46	68.20	20.98	V
14667.000	47.04	-30.04	41.50	35.58	68.20	21.16	V
11883.450	44.35	-32.53	39.10	37.78	74.00	29.65	H
11995.100	44.06	-32.66	39.00	37.72	74.00	29.94	V

Channel 140

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17921.350	51.68	-29.59	45.95	35.32	74.00	22.32	V
17944.450	50.88	-29.59	45.95	34.52	74.00	23.12	V
14711.550	47.58	-30.13	41.35	36.36	68.20	20.62	V
14699.450	47.29	-30.04	41.50	35.83	68.20	20.91	H
5742.243	53.79	-27.47	34.10	47.16	68.20	14.41	V
5732.854	53.00	-27.47	34.10	46.37	68.20	15.20	H

Channel 144

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17962.050	51.33	-29.59	45.95	34.97	74.00	22.67	V
17825.100	51.17	-29.59	45.95	34.81	74.00	22.83	V
14581.200	47.37	-29.14	41.90	34.61	68.20	20.83	V
14702.750	47.10	-30.04	41.50	35.64	68.20	21.10	V
11877.400	44.20	-32.73	39.15	37.78	74.00	29.80	V
11947.250	44.18	-32.42	39.05	37.55	74.00	29.82	H

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Channel 38

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17982.400	50.23	-29.59	45.95	33.87	74.00	23.77	H
17954.900	50.22	-29.59	45.95	33.86	74.00	23.78	V
14715.950	46.38	-30.13	41.35	35.16	68.20	21.82	H
14692.300	46.23	-30.04	41.50	34.77	68.20	21.97	V
5147.110	57.91	-27.79	34.00	51.70	74.00	16.09	H
5149.760	57.60	-28.00	34.00	51.60	74.00	16.40	H

Channel 46

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17958.200	50.06	-29.59	45.95	33.70	74.00	23.94	V
17959.850	49.88	-29.59	45.95	33.52	74.00	24.12	H
14708.250	46.73	-30.13	41.35	35.51	68.20	21.47	H
14562.500	46.36	-29.14	41.90	33.60	68.20	21.84	V
11290.000	43.15	-32.41	38.70	36.86	74.00	30.85	V
11394.500	43.07	-32.58	39.00	36.65	74.00	30.93	V

Channel 54

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17937.300	50.71	-29.59	45.95	34.35	74.00	23.29	V
17969.200	50.50	-29.59	45.95	34.14	74.00	23.50	V
14692.850	47.47	-30.04	41.50	36.01	68.20	20.73	V
14696.150	47.09	-30.04	41.50	35.63	68.20	21.11	H
11910.400	44.02	-32.53	39.10	37.45	74.00	29.98	H
11620.550	43.85	-32.72	39.20	37.37	74.00	30.15	H

Channel 62

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17995.600	51.03	-29.59	45.95	34.67	74.00	22.97	V
17937.300	50.43	-29.59	45.95	34.07	74.00	23.57	V
14070.250	47.42	-30.20	41.70	35.92	68.20	20.78	V
14701.650	47.18	-30.04	41.50	35.72	68.20	21.02	H
5350.464	68.89	-27.82	34.20	62.51	74.00	5.11	V
5350.424	68.57	-27.82	34.20	62.19	74.00	5.43	H

Channel 102

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17943.350	51.25	-29.59	45.95	34.89	74.00	22.75	V
17962.600	50.99	-29.59	45.95	34.63	74.00	23.01	V
14686.800	47.70	-30.04	41.50	36.24	68.20	20.50	V
14702.200	47.15	-30.04	41.50	35.69	68.20	21.05	V
5439.302	52.41	-27.94	34.30	46.05	74.00	21.59	V
5469.955	55.47	-27.49	34.20	48.76	68.20	12.73	H

Channel 118

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17932.350	51.12	-29.59	45.95	34.76	74.00	22.88	V
17970.850	50.89	-29.59	45.95	34.53	74.00	23.11	H
14185.750	47.37	-30.42	41.70	36.09	68.20	20.83	H
14203.350	47.23	-30.42	41.70	35.95	68.20	20.97	V
11861.450	44.92	-32.73	39.15	38.50	74.00	29.08	V
11851.550	44.43	-32.73	39.15	38.01	74.00	29.57	V

Channel 134

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17989.000	51.33	-29.59	45.95	34.97	74.00	22.67	H
17943.350	50.93	-29.59	45.95	34.57	74.00	23.07	V
14697.250	47.74	-30.04	41.50	36.28	68.20	20.46	V
14700.550	47.43	-30.04	41.50	35.97	68.20	20.77	V
5728.802	52.59	-27.47	34.10	45.96	68.20	15.61	V
5737.203	52.37	-27.47	34.10	45.74	68.20	15.83	H

Channel 142

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17906.500	51.03	-29.59	45.95	34.67	74.00	22.97	V
17953.800	50.86	-29.59	45.95	34.50	74.00	23.14	V
14674.150	47.72	-30.04	41.50	36.26	68.20	20.48	V
14683.500	47.30	-30.04	41.50	35.84	68.20	20.90	V
11778.950	44.88	-32.71	39.20	38.39	74.00	29.12	V
11840.000	44.66	-32.73	39.15	38.24	74.00	29.34	V

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Channel 36

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17896.600	48.97	-29.59	45.95	32.61	74.00	25.03	V
17920.800	48.95	-29.59	45.95	32.59	74.00	25.05	V
13927.800	45.81	-30.81	41.40	35.22	68.20	22.39	V
14694.500	45.76	-30.04	41.50	34.30	68.20	22.44	H
5148.910	59.40	-28.00	34.00	53.40	74.00	14.60	H
5149.970	58.48	-28.00	34.00	52.48	74.00	15.52	V

Channel 40

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17967.550	49.72	-29.59	45.95	33.36	74.00	24.28	V
17952.150	49.05	-29.59	45.95	32.69	74.00	24.95	H
14581.750	46.18	-29.14	41.90	33.42	68.20	22.02	V
14502.550	46.09	-29.56	41.90	33.75	68.20	22.11	H
11874.650	43.44	-32.73	39.15	37.02	74.00	30.56	H
11846.600	42.75	-32.73	39.15	36.33	74.00	31.25	V

Channel 48

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17943.350	50.47	-29.59	45.95	34.11	74.00	23.53	V
17984.050	50.03	-29.59	45.95	33.67	74.00	23.97	V
14695.600	46.48	-30.04	41.50	35.02	68.20	21.72	H
14171.450	45.98	-30.42	41.70	34.70	68.20	22.22	H
9312.200	43.48	-34.04	37.80	39.72	74.00	30.52	V
11281.750	43.40	-32.99	38.65	37.74	74.00	30.60	V

Channel 52

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17934.000	50.28	-29.59	45.95	33.92	74.00	23.72	V
17945.550	50.03	-29.59	45.95	33.67	74.00	23.97	H
14060.900	46.95	-30.20	41.70	35.45	68.20	21.25	V
14706.600	46.63	-30.13	41.35	35.41	68.20	21.57	V
11434.650	43.97	-32.58	39.00	37.55	74.00	30.03	V
11416.500	43.74	-32.58	39.00	37.32	74.00	30.26	V

Channel 56

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17978.550	50.22	-29.59	45.95	33.86	74.00	23.78	V
17928.500	50.19	-29.59	45.95	33.83	74.00	23.81	V
14563.600	46.78	-29.14	41.90	34.02	68.20	21.42	V
14645.000	46.70	-30.67	41.70	35.67	68.20	21.50	V
11418.700	44.08	-32.58	39.00	37.66	74.00	29.92	V
11409.350	43.99	-32.58	39.00	37.57	74.00	30.01	V

Channel 64

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17918.600	51.38	-29.59	45.95	35.02	74.00	22.62	H
17954.900	50.87	-29.59	45.95	34.51	74.00	23.13	V
14616.950	46.98	-30.67	41.70	35.95	68.20	21.22	V
14797.350	46.67	-30.23	41.20	35.70	68.20	21.53	V
5350.728	56.58	-27.82	34.20	50.20	74.00	17.42	H
5351.576	55.34	-27.82	34.20	48.96	74.00	18.66	V

Channel 100

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17945.000	51.38	-29.59	45.95	35.02	74.00	22.62	H
17976.350	50.68	-29.59	45.95	34.32	74.00	23.32	V
14681.850	47.21	-30.04	41.50	35.75	68.20	20.99	V
14673.600	46.97	-30.04	41.50	35.51	68.20	21.23	H
5450.935	52.96	-27.49	34.20	46.25	74.00	21.04	V
5460.490	52.43	-27.49	34.20	45.72	68.20	15.77	H

Channel 120

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17929.600	51.04	-29.59	45.95	34.68	74.00	22.96	V
17957.100	51.04	-29.59	45.95	34.68	74.00	22.96	V
14689.550	47.70	-30.04	41.50	36.24	68.20	20.50	V
14704.950	47.53	-30.13	41.35	36.31	68.20	20.67	V
11870.250	44.31	-32.73	39.15	37.89	74.00	29.69	V
11654.650	44.07	-32.62	39.20	37.49	74.00	29.93	V

Channel 140

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17947.200	51.46	-29.59	45.95	35.10	74.00	22.54	V
17949.950	51.45	-29.59	45.95	35.09	74.00	22.55	V
14669.750	47.59	-30.04	41.50	36.13	68.20	20.61	V
14690.650	47.09	-30.04	41.50	35.63	68.20	21.11	H
5745.410	52.95	-27.21	34.00	46.16	68.20	15.25	V
5791.689	52.72	-27.21	34.00	45.93	68.20	15.48	V

Channel 144

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17959.850	51.46	-29.59	45.95	35.10	74.00	22.54	V
17926.300	50.75	-29.59	45.95	34.39	74.00	23.25	V
14574.600	47.83	-29.14	41.90	35.07	68.20	20.37	H
14682.400	47.27	-30.04	41.50	35.81	68.20	20.93	V
11604.600	44.55	-32.72	39.20	38.07	74.00	29.45	V
11046.900	44.51	-32.60	38.60	38.51	74.00	29.49	V

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Channel 38

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17983.500	49.84	-29.59	45.95	33.48	74.00	24.16	V
17916.950	49.72	-29.59	45.95	33.36	74.00	24.28	V
14689.000	46.71	-30.04	41.50	35.25	68.20	21.49	V
14685.700	46.27	-30.04	41.50	34.81	68.20	21.93	V
5149.730	59.67	-28.00	34.00	53.67	74.00	14.33	H
5149.400	58.51	-28.00	34.00	52.51	74.00	15.49	H

Channel 46

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17951.050	50.20	-29.59	45.95	33.84	74.00	23.80	V
17931.250	50.15	-29.59	45.95	33.79	74.00	23.85	H
14201.150	46.09	-30.42	41.70	34.81	68.20	22.11	V
14603.750	45.82	-29.14	41.90	33.06	68.20	22.38	V
11942.300	43.59	-32.42	39.05	36.96	74.00	30.41	V
11391.200	43.28	-32.58	39.00	36.86	74.00	30.72	V

Channel 54

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17936.750	51.13	-29.59	45.95	34.77	74.00	22.87	H
17940.600	50.41	-29.59	45.95	34.05	74.00	23.59	H
14696.700	47.80	-30.04	41.50	36.34	68.20	20.40	H
14211.600	46.83	-30.75	41.75	35.83	68.20	21.37	V
11398.350	44.19	-32.58	39.00	37.77	74.00	29.81	V
11904.900	44.19	-32.53	39.10	37.62	74.00	29.81	V

Channel 62

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17949.950	50.93	-29.59	45.95	34.57	74.00	23.07	V
17964.800	50.83	-29.59	45.95	34.47	74.00	23.17	V
14770.950	47.78	-30.23	41.20	36.81	68.20	20.42	V
14698.350	47.10	-30.04	41.50	35.64	68.20	21.10	V
5350.312	69.05	-27.82	34.20	62.67	74.00	4.95	V
5351.104	68.37	-27.82	34.20	61.99	74.00	5.63	V

Channel 102

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17940.600	51.00	-29.59	45.95	34.64	74.00	23.00	V
17953.800	50.93	-29.59	45.95	34.57	74.00	23.07	V
14334.250	47.63	-30.44	41.85	36.22	68.20	20.57	V
14619.150	47.40	-30.67	41.70	36.37	68.20	20.80	V
5402.845	52.02	-27.94	34.30	45.66	74.00	21.98	H
5468.485	54.94	-27.49	34.20	48.23	68.20	13.26	V

Channel 118

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17909.800	51.44	-29.59	45.95	35.08	74.00	22.56	V
17941.700	51.24	-29.59	45.95	34.88	74.00	22.76	V
13972.350	47.34	-30.64	41.50	36.48	68.20	20.86	V
14587.800	47.34	-29.14	41.90	34.58	68.20	20.86	V
11945.600	44.37	-32.42	39.05	37.74	74.00	29.63	V
11924.700	44.29	-32.53	39.10	37.72	74.00	29.71	V

Channel 134

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17816.300	50.89	-29.59	45.95	34.53	74.00	23.11	V
17991.200	50.87	-29.59	45.95	34.51	74.00	23.13	V
14708.800	47.86	-30.13	41.35	36.64	68.20	20.34	V
14677.450	47.84	-30.04	41.50	36.38	68.20	20.36	V
5779.859	52.32	-27.21	34.00	45.53	68.20	15.88	H
5761.519	52.19	-27.21	34.00	45.40	68.20	16.01	V

Channel 142

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17921.900	51.18	-29.59	45.95	34.82	74.00	22.82	V
17968.650	51.14	-29.59	45.95	34.78	74.00	22.86	V
14612.000	47.46	-30.67	41.70	36.43	68.20	20.74	V
14718.150	47.10	-30.13	41.35	35.88	68.20	21.10	V
11407.150	45.34	-32.58	39.00	38.92	74.00	28.66	V
11909.300	45.28	-32.53	39.10	38.71	74.00	28.72	V

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Channel 42

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17941.150	52.16	-29.59	45.95	35.80	74.00	21.84	V
17954.900	51.08	-29.59	45.95	34.72	74.00	22.92	V
14582.850	47.75	-29.14	41.90	34.99	68.20	20.45	V
14093.900	47.28	-30.20	41.70	35.78	68.20	20.92	V
5149.960	59.85	-28.00	34.00	53.85	74.00	14.15	V
5149.340	59.57	-28.00	34.00	53.57	74.00	14.43	H

Channel 58

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17950.500	50.59	-29.59	45.95	34.23	74.00	23.41	V
17941.700	50.51	-29.59	45.95	34.15	74.00	23.49	V
14233.600	47.52	-30.75	41.75	36.52	68.20	20.68	H
14676.350	47.40	-30.04	41.50	35.94	68.20	20.80	V
5350.784	57.40	-27.82	34.20	51.02	74.00	16.60	V
5350.312	56.49	-27.82	34.20	50.11	74.00	17.51	V

Channel 106

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17941.150	51.68	-29.59	45.95	35.32	74.00	22.32	V
17937.850	51.02	-29.59	45.95	34.66	74.00	22.98	H
14671.400	47.86	-30.04	41.50	36.40	68.20	20.34	V
14699.450	47.81	-30.04	41.50	36.35	68.20	20.39	V
5459.650	54.92	-27.49	34.20	48.21	74.00	19.08	V
5469.160	57.81	-27.49	34.20	51.10	68.20	10.39	V

Channel 122

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17904.850	51.15	-29.59	45.95	34.79	74.00	22.85	H
17948.850	50.88	-29.59	45.95	34.52	74.00	23.12	V
14693.950	47.82	-30.04	41.50	36.36	68.20	20.38	V
13941.000	47.14	-30.81	41.40	36.55	68.20	21.06	H
5741.438	51.94	-27.47	34.10	45.31	68.20	16.26	H
5786.273	51.93	-27.21	34.00	45.14	68.20	16.27	H

Channel 138

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17967.000	51.75	-29.59	45.95	35.39	74.00	22.25	V
17960.400	51.61	-29.59	45.95	35.25	74.00	22.39	H
14737.950	48.09	-30.13	41.35	36.87	68.20	20.11	V
14555.900	47.65	-29.14	41.90	34.89	68.20	20.55	V
10380.300	45.08	-33.64	38.10	40.62	68.20	23.12	V
11396.700	44.70	-32.58	39.00	38.28	74.00	29.30	V

Conclusion: PASS

Band edge compliance

Mode	Channel	Test Results	Conclusion
802.11a	5180 MHz	Fig.34	P
	5320 MHz	Fig.35	P
	5500 MHz	Fig.36	P
	5700 MHz	Fig.37	P
802.11n HT20	5180 MHz	Fig.38	P
	5320 MHz	Fig.39	P
	5500 MHz	Fig.40	P
	5700 MHz	Fig.41	P
802.11n HT40	5190 MHz	Fig.42	P
	5310 MHz	Fig.43	P
	5510 MHz	Fig.44	P
	5670 MHz	Fig.45	P
802.11ac HT20	5180 MHz	Fig.46	P
	5320 MHz	Fig.47	P
	5500 MHz	Fig.48	P
	5700 MHz	Fig.49	P
802.11ac HT40	5190 MHz	Fig.50	P
	5310 MHz	Fig.51	P
	5510 MHz	Fig.52	P
	5670 MHz	Fig.53	P
802.11ac HT80	5210MHz	Fig.54	P
	5290MHz	Fig.55	P
	5530MHz	Fig.56	P
	5610MHz	Fig.57	P

Conclusion: PASS

Test graphs as below:

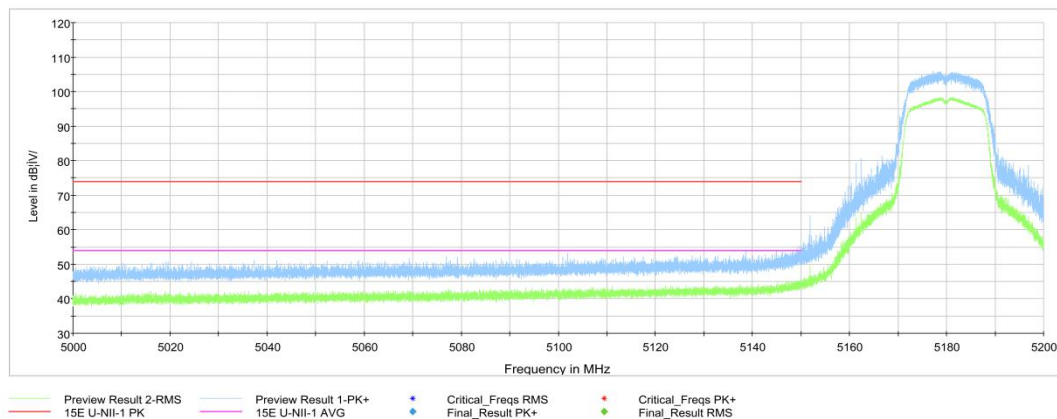


Fig. 34 Band Edges (802.11a Ch36, 5180MHz)

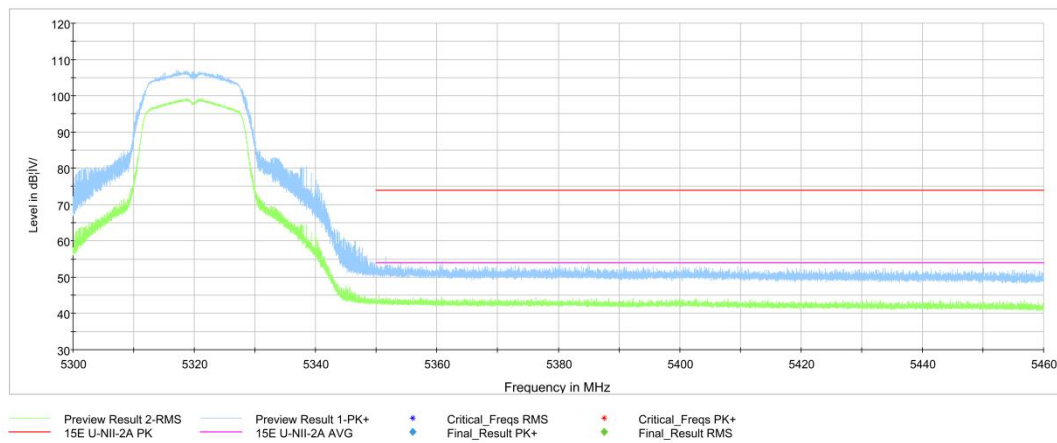


Fig. 35 Band Edges (802.11a Ch64, 5320MHz)

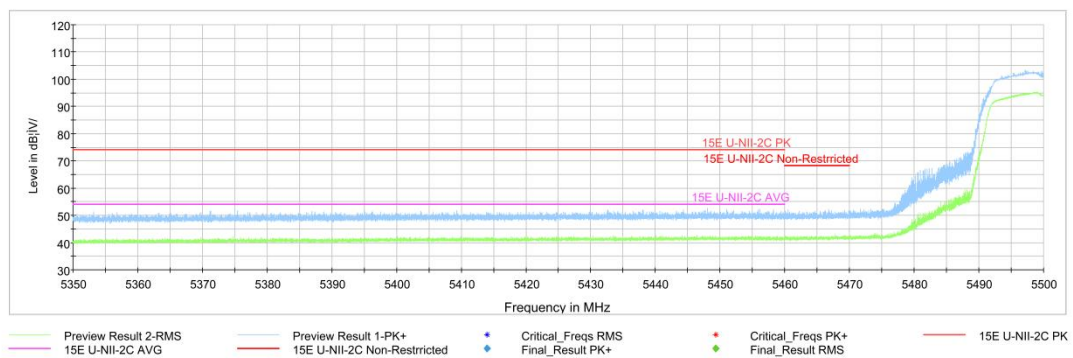


Fig. 36 Band Edges (802.11a Ch100, 5500MHz)

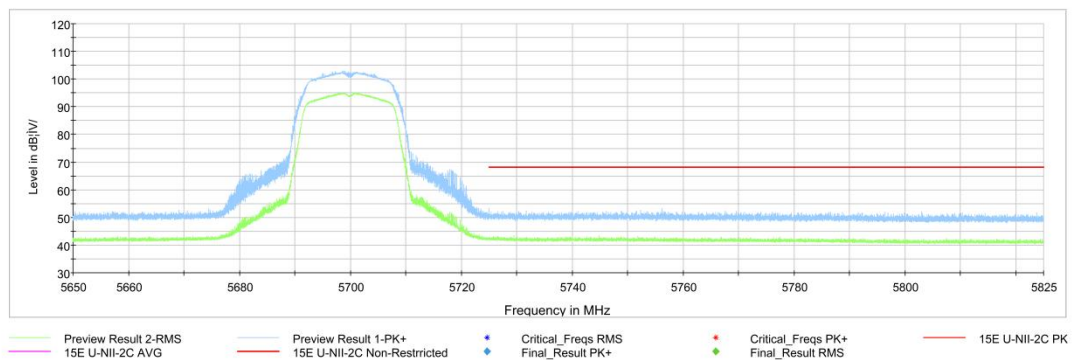


Fig. 37 Band Edges (802.11a Ch140, 5700MHz)

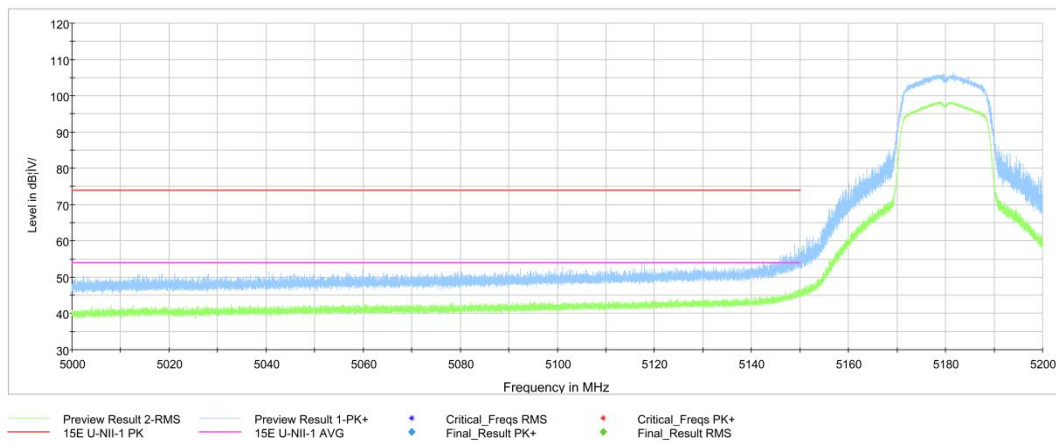


Fig. 38 Band Edges (802.11n-HT20 Ch36, 5180MHz)

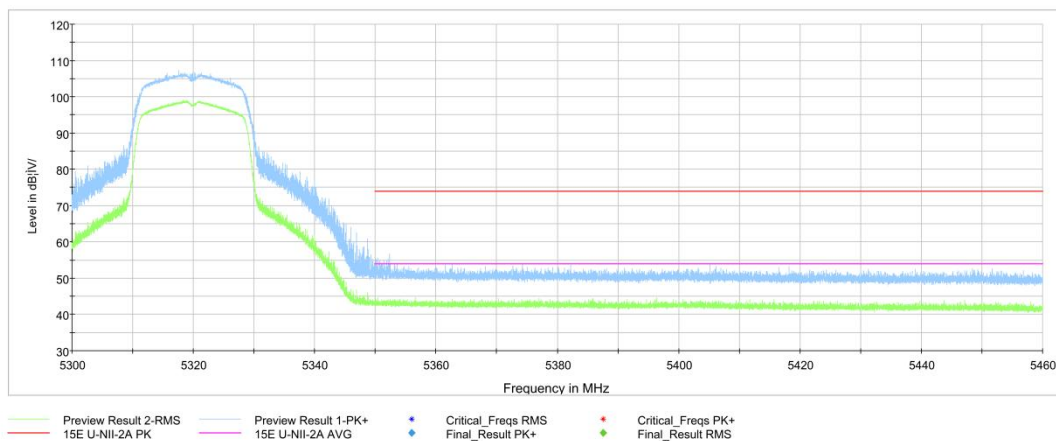


Fig. 39 Band Edges (802.11n-HT20 Ch64, 5320MHz)

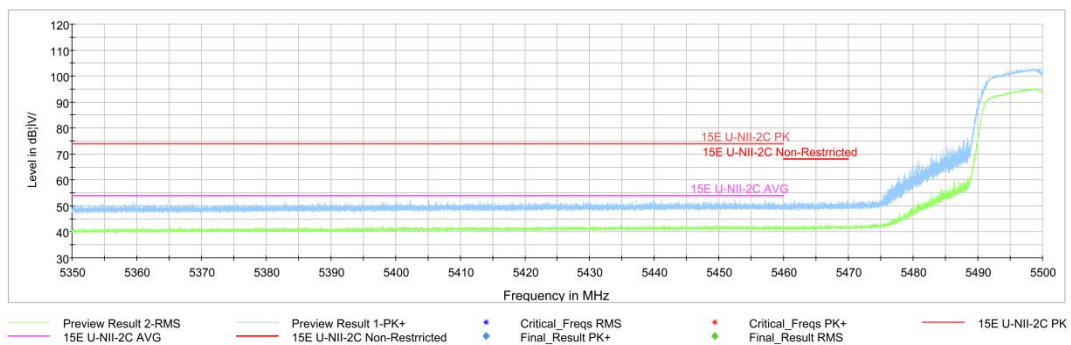


Fig. 40 Band Edges (802.11n-HT20 Ch100, 5500MHz)

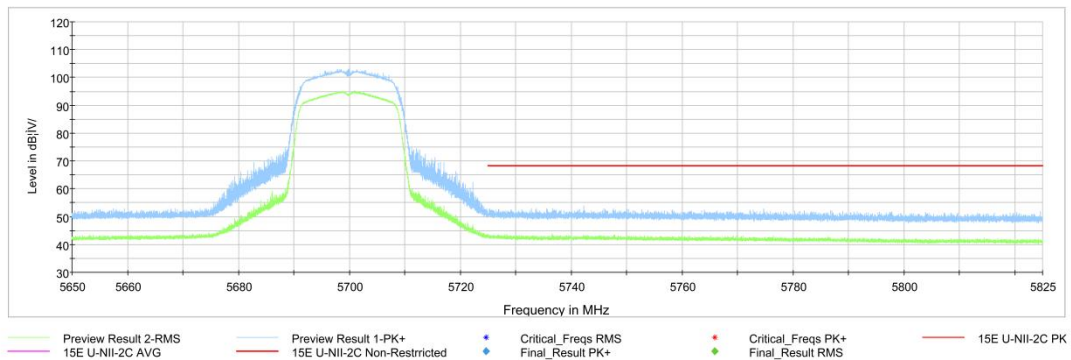


Fig. 41 Band Edges (802.11n-HT20 Ch140, 5700MHz)

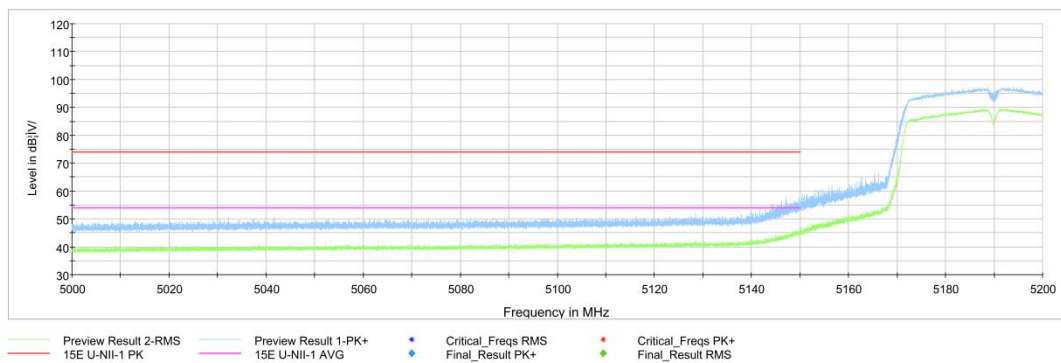


Fig. 42 Band Edges (802.11n-HT40 Ch38, 5190MHz)

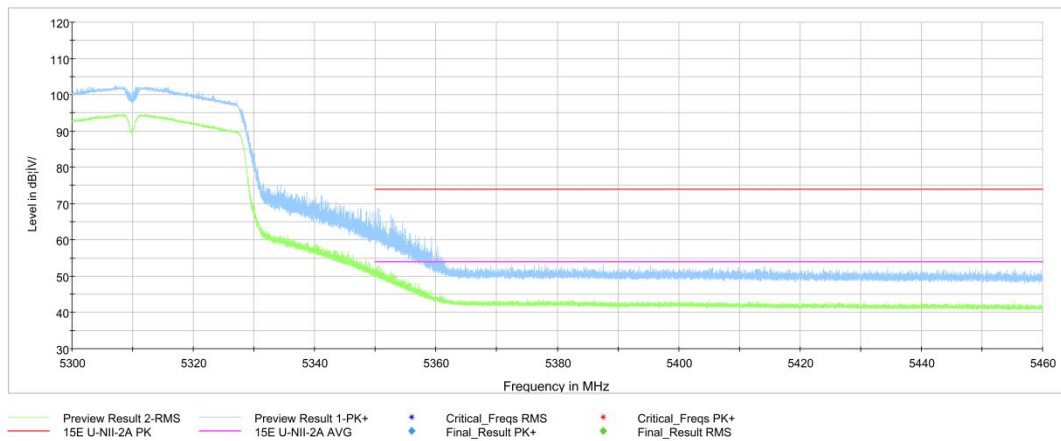


Fig. 43 Band Edges (802.11n-HT40 Ch62, 5310MHz)

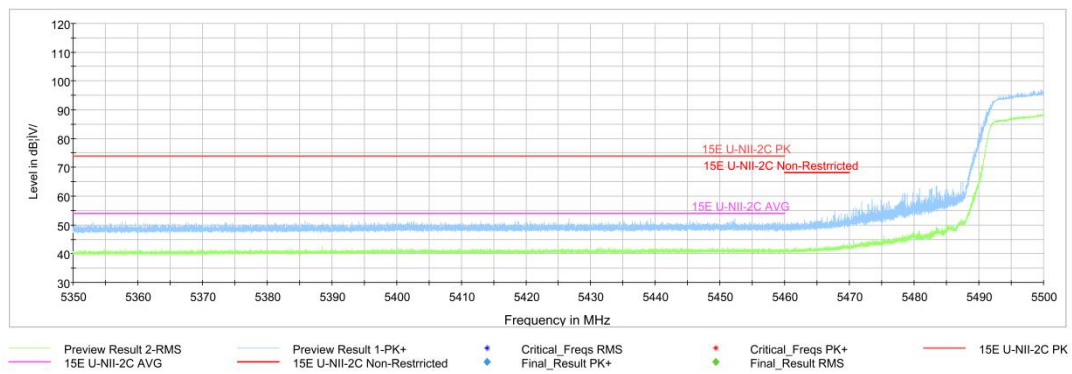


Fig. 44 Band Edges (802.11n-HT40 Ch102, 5510MHz)

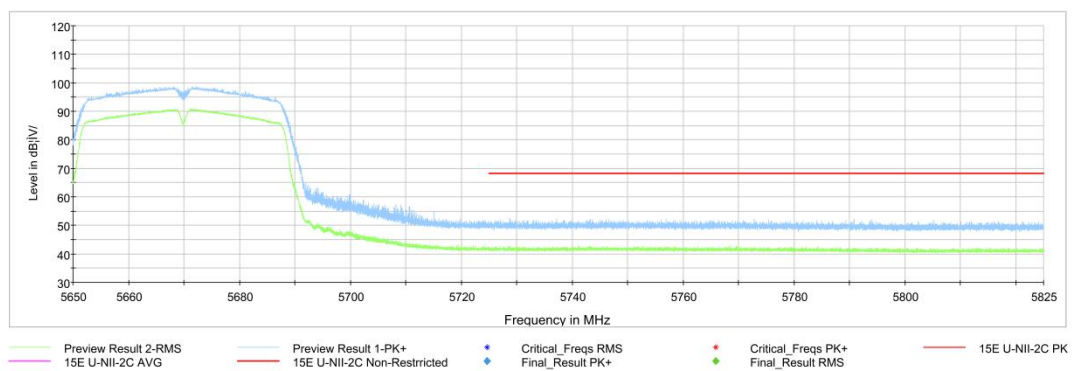


Fig. 45 Band Edges (802.11n-HT40 Ch134, 5670MHz)

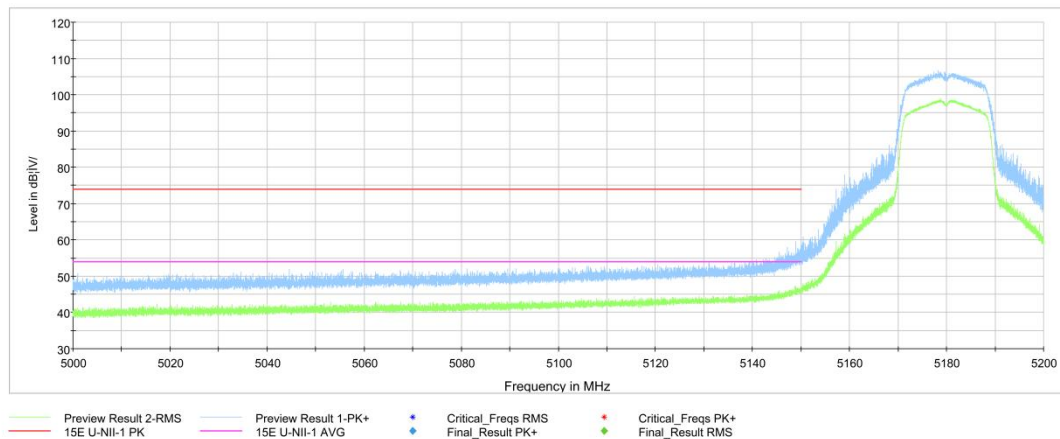


Fig. 46 Band Edges (802.11ac-HT20 Ch36, 5180MHz)

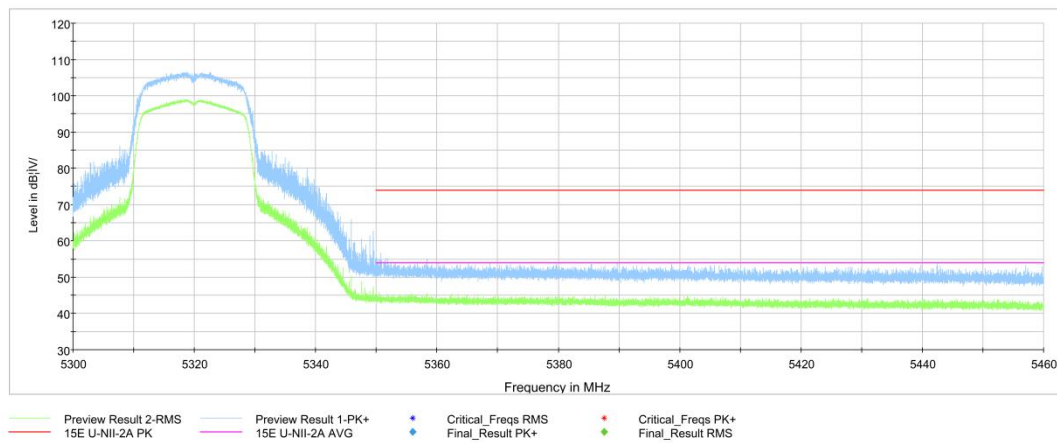


Fig. 47 Band Edges (802.11ac-HT20 Ch64, 5320MHz)

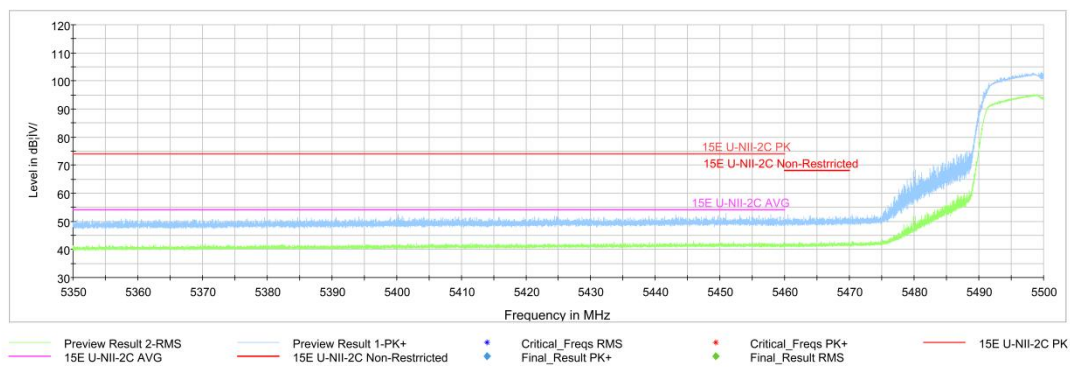


Fig. 48 Band Edges (802.11ac-HT20 Ch100, 5500MHz)

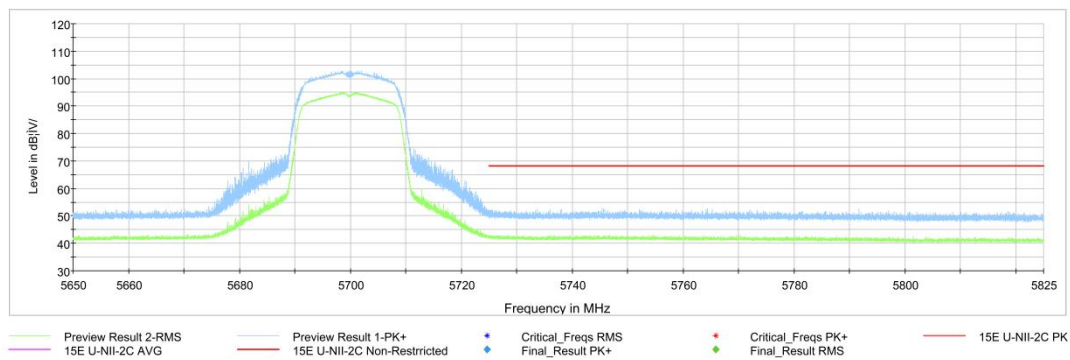


Fig. 49 Band Edges (802.11ac-HT20 Ch140, 5700MHz)

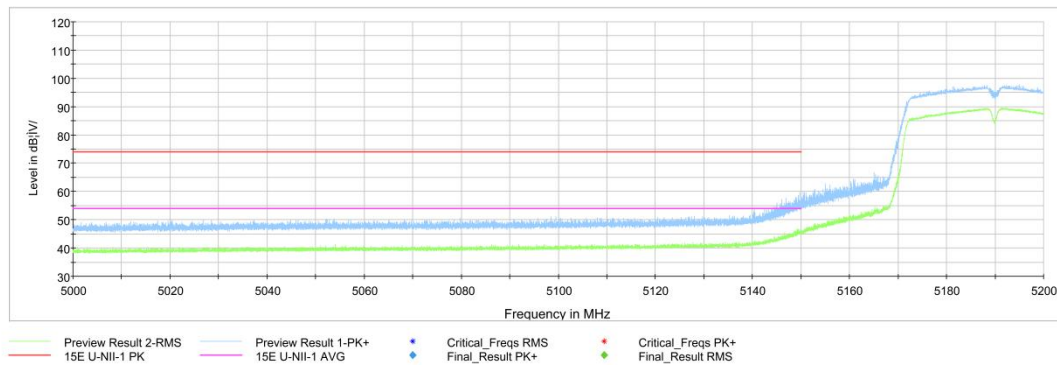


Fig. 50 Band Edges (802.11ac-HT40 Ch38, 5190MHz)

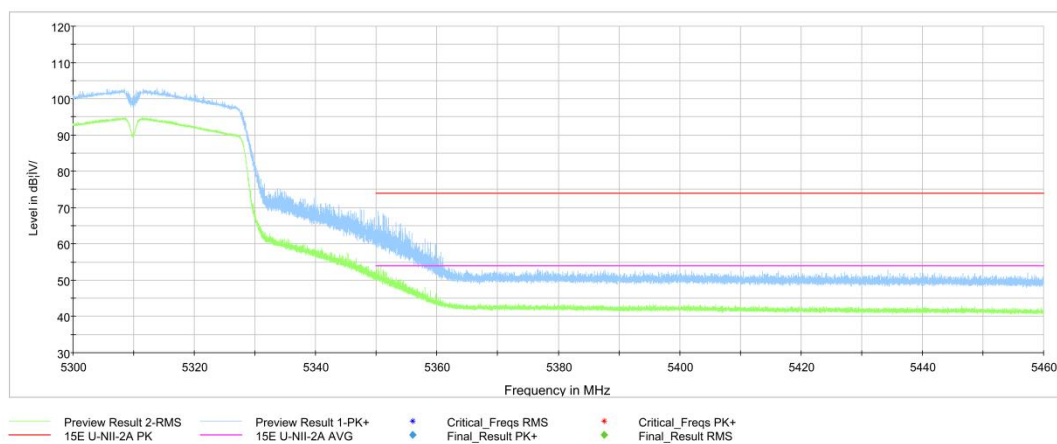


Fig. 51 Band Edges (802.11ac-HT40 Ch62, 5310MHz)

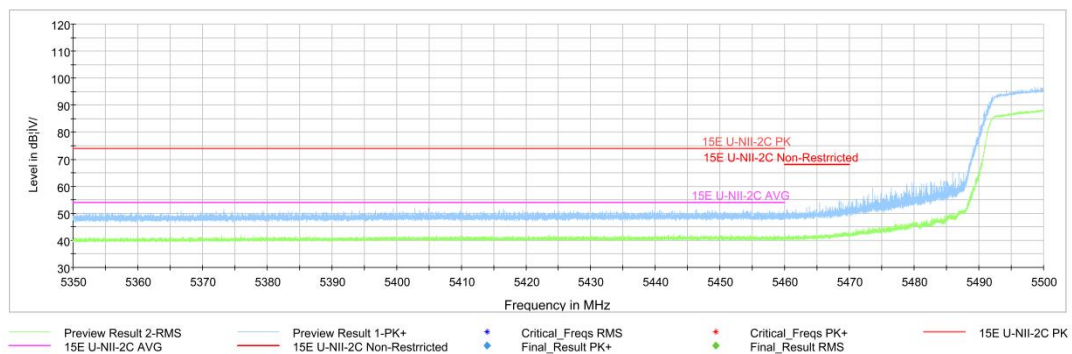


Fig. 52 Band Edges (802.11ac-HT40 Ch102, 5510MHz)

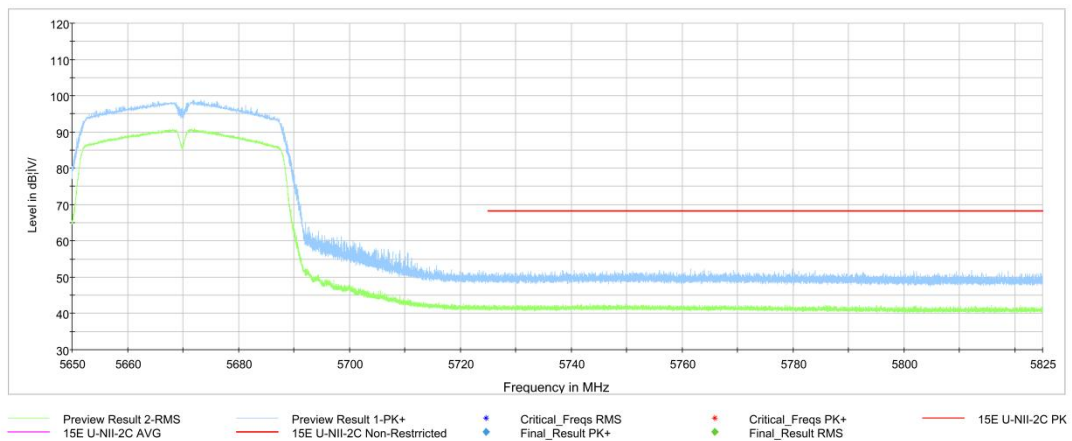


Fig. 53 Band Edges (802.11ac-HT40 Ch134, 5670MHz)

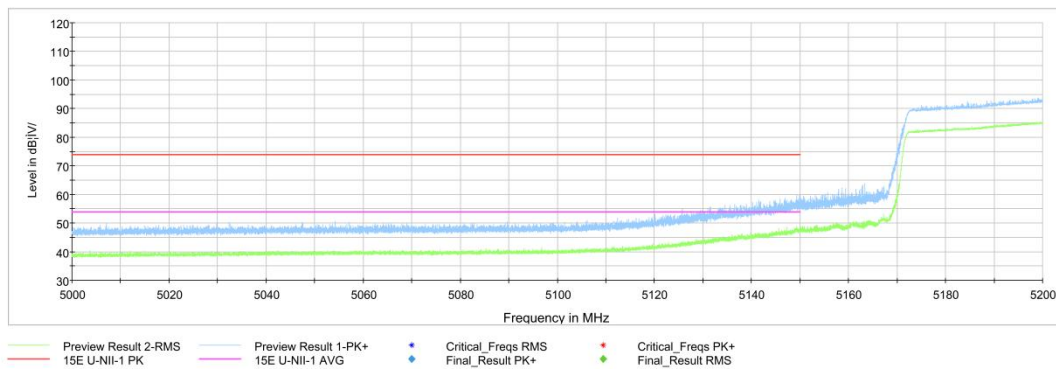


Fig. 54 Band Edges (802.11ac-HT80 Ch42, 5210MHz)

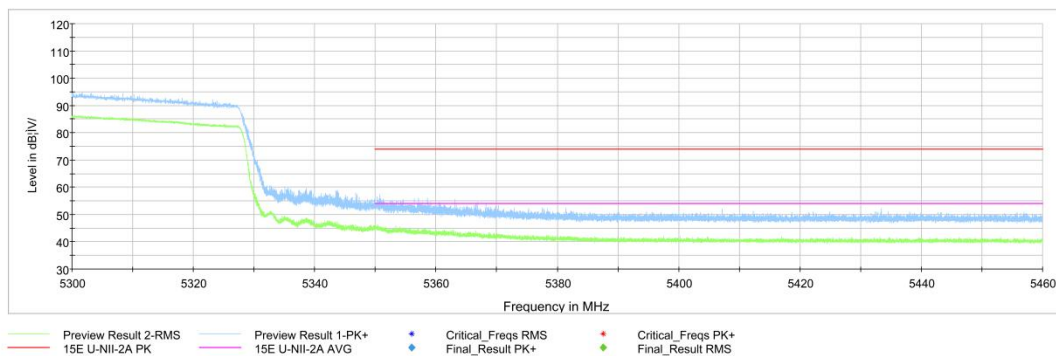


Fig. 55 Band Edges (802.11ac-HT80 Ch58, 5290MHz)

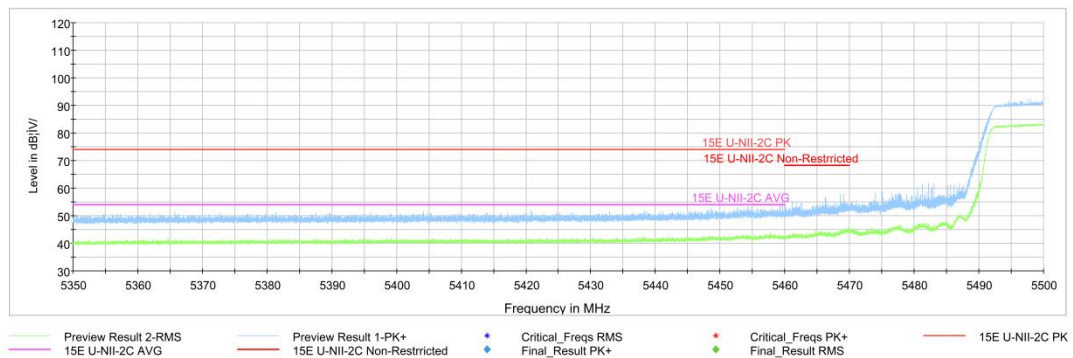


Fig. 56 Band Edges (802.11ac-HT80 Ch106, 5530MHz)

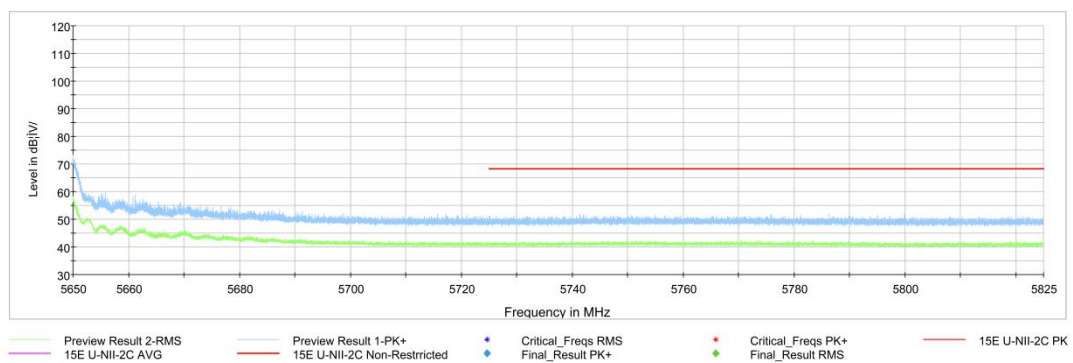


Fig. 57 Band Edges (802.11ac-HT80 Ch122, 5610MHz)

A.6. AC Powerline Conducted Emission (150kHz- 30MHz)

A.6.1 Summary

All AC line conducted spurious emissions are measured with a receiver connected to a grounded LISN while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies. All data rates and modes were investigated for conducted spurious emissions. Only the conducted emissions of the configuration that produced the worst case emissions are reported in this section

A.6.2 Method of Measurement

See Clause 6.2 of ANSI C63.10 specifically.

See Clause 4 and Clause 5 of ANSI C63.10 generally.

The conducted emissions from the AC port of the EUT are measured in a shielding room. The EUT is connected to a Line Impedance Stabilization Network (LISN). An overview sweep with peak detection was performed. The measurements were performed with a quasi-peak detector and if required, an average detector.

The conducted emission measurements were made with the following detector of the test receiver:
Quasi-Peak / Average Detector.

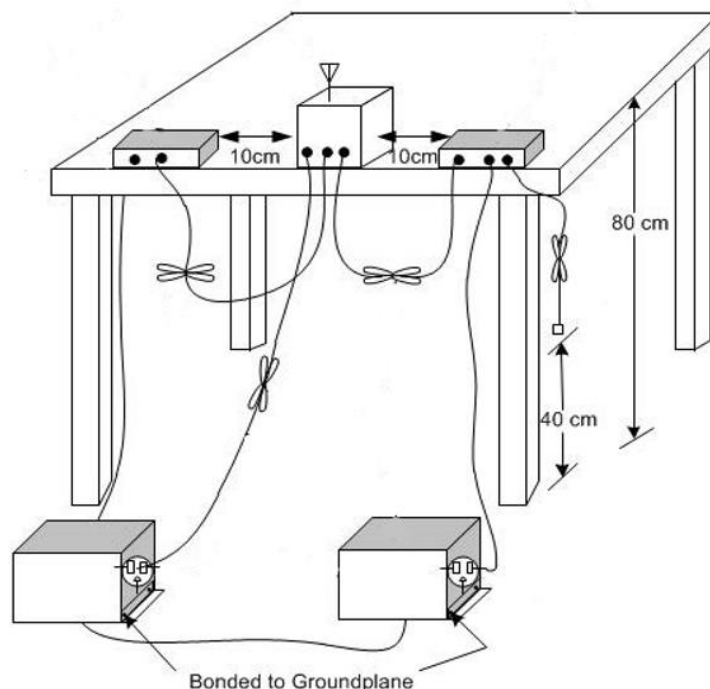
The measurement bandwidth is:

Frequency of Emission (MHz)	RBW/IF bandwidth
0.15-30	9kHz

A.6.3 Test Condition

Voltage (V)	Frequency (Hz)
120	60

A.6.4 Test setup



Measurement Result and limit:

WLAN (Quasi-peak Limit)

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Result (dBμV)		Conclusion
		With charger		
		11a mode	Idle	
0.15 to 0.5	66 to 56	Fig.58	Fig.59	P
0.5 to 5	56			
5 to 30	60			

NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.

WLAN (Average Limit)

Frequency range (MHz)	Average Limit (dBμV)	Result (dBμV)		Conclusion
		With charger		
		11a mode	Idle	
0.15 to 0.5	56 to 46	Fig.58	Fig.59	P
0.5 to 5	46			
5 to 30	50			

NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.

Conclusion: PASS

Test graphs as below:

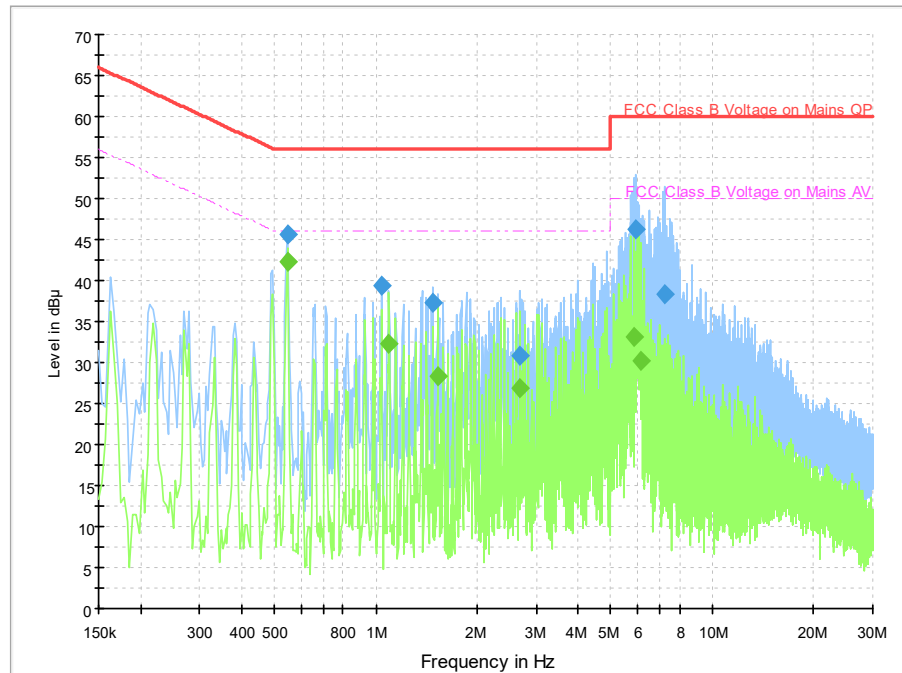


Fig.58 Conducted Emission(802.11a, Ch36, TX)

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	Meas. Time	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)	Comment
0.546000	45.7	2000.0	9.000	On	L1	19.7	10.3	56.0	
1.042000	39.4	2000.0	9.000	On	L1	19.7	16.6	56.0	
1.478000	37.3	2000.0	9.000	On	L1	19.6	18.7	56.0	
2.682000	30.9	2000.0	9.000	On	N	19.6	25.1	56.0	
5.890000	46.2	2000.0	9.000	On	L1	19.6	13.8	60.0	
7.186000	38.4	2000.0	9.000	On	L1	19.7	21.6	60.0	

Final Result 2

Frequency (MHz)	CAverage (dBμV)	Meas. Time	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)	Comment
0.546000	42.3	2000.0	9.000	On	L1	19.7	3.7	46.0	
1.094000	32.3	2000.0	9.000	On	L1	19.7	13.7	46.0	
1.530000	28.3	2000.0	9.000	On	L1	19.6	17.7	46.0	
2.682000	26.9	2000.0	9.000	On	L1	19.6	19.1	46.0	
5.834000	33.1	2000.0	9.000	On	L1	19.6	16.9	50.0	
6.130000	30.3	2000.0	9.000	On	N	19.6	19.7	50.0	

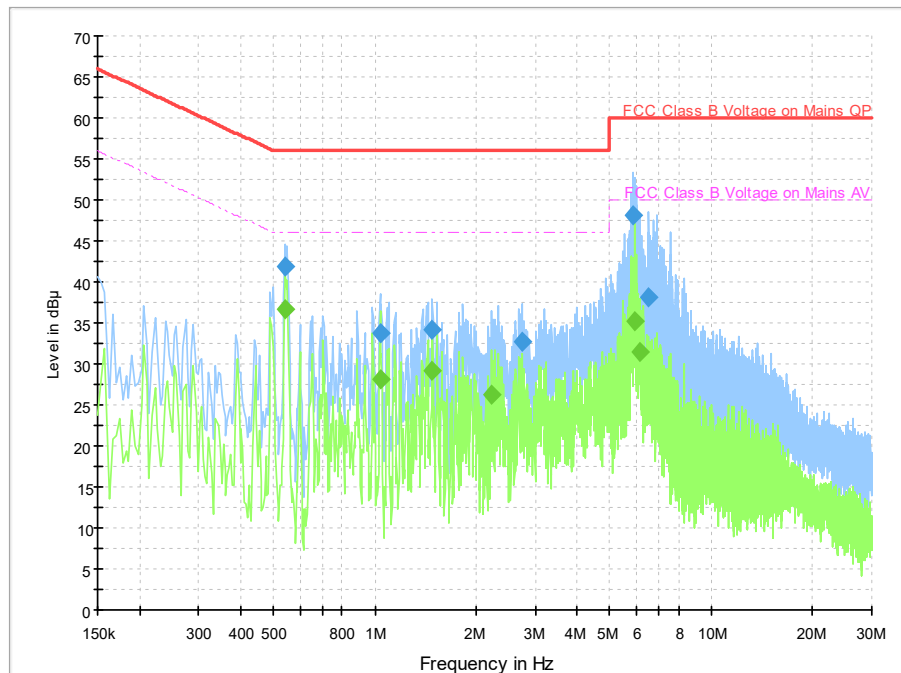


Fig.59 Conducted Emission(802.11a, IDLE)

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	Meas. Time	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)	Comment
0.542000	41.8	2000.0	9.000	On	L1	19.7	14.2	56.0	
1.038000	33.8	2000.0	9.000	On	L1	19.7	22.2	56.0	
1.486000	34.1	2000.0	9.000	On	L1	19.6	21.9	56.0	
2.734000	32.8	2000.0	9.000	On	L1	19.6	23.2	56.0	
5.870000	48.1	2000.0	9.000	On	L1	19.6	11.9	60.0	
6.538000	38.1	2000.0	9.000	On	N	19.6	21.9	60.0	

Final Result 2

Frequency (MHz)	CAverage (dBμV)	Meas. Time	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)	Comment
0.542000	36.6	2000.0	9.000	On	L1	19.7	9.4	46.0	
1.038000	28.0	2000.0	9.000	On	L1	19.7	18.0	46.0	
1.486000	29.2	2000.0	9.000	On	L1	19.6	16.8	46.0	
2.226000	26.2	2000.0	9.000	On	L1	19.6	19.8	46.0	
5.930000	35.1	2000.0	9.000	On	L1	19.6	14.9	50.0	
6.150000	31.5	2000.0	9.000	On	L1	19.6	18.5	50.0	

A.7. 99% Occupied bandwidth

Method of Measurement: See ANSI C63.10-2013-clause 12.4.2.

- a) The instrument center frequency is set to the nominal EUT channel center frequency. The frequency span for the spectrum analyzer shall be between 1.5 times and 5.0 times the OBW.
- b) The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% to 5% of the OBW, and VBW shall be approximately three times the RBW, unless otherwise specified by the applicable requirement.
- c) Set the reference level of the instrument as required, keeping the signal from exceeding the maximum input mixer level for linear operation. In general, the peak of the spectral envelope shall be more than $[10 \log (OBW/RBW)]$ below the reference level. Specific guidance is given in 4.1.5.2.
- d) Step a) through step c) might require iteration to adjust within the specified range.
- e) Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.
- f) Use the 99% power bandwidth function of the instrument (if available) and report the measured bandwidth.
- g) If the instrument does not have a 99% power bandwidth function, then the trace data points are recovered and directly summed in linear power terms. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5% of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5% of the total is reached; that frequency is recorded as the upper frequency. The 99% power bandwidth is the difference between these two frequencies.
- h) The occupied bandwidth shall be reported by providing plot(s) of the measuring instrument display; the plot axes and the scale units per division shall be clearly labeled. Tabular data may be reported in addition to the plot(s).

Measurement Uncertainty:

Measurement Uncertainty	60.80Hz
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EUT ID: UT11a

Measurement Result:

Mode	Frequency	99% Occupied bandwidth (MHz)		conclusion
802.11a	5180 MHz	Fig.60	17.24	P
	5200 MHz	Fig.61	17.20	P
	5240 MHz	Fig.62	17.17	P
802.11ac (VHT20)	5180 MHz	Fig.63	18.05	P
	5200 MHz	Fig.64	18.06	P
	5240 MHz	Fig.65	18.06	P
802.11ac (VHT40)	5190 MHz	Fig.66	36.11	P
	5230 MHz	Fig.67	36.10	P
802.11ac (VHT80)	5210 MHz	Fig.68	75.22	P

Test graphs as below:

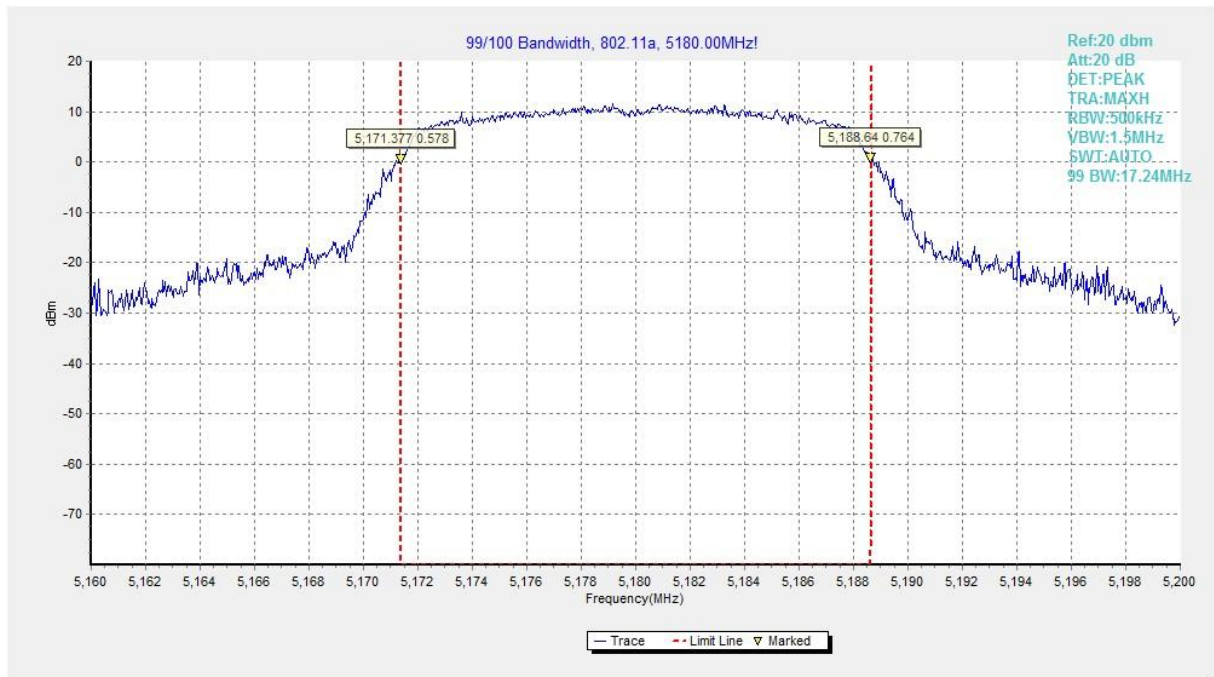


Fig.60 99% Occupied bandwidth (802.11a, 5180MHz)

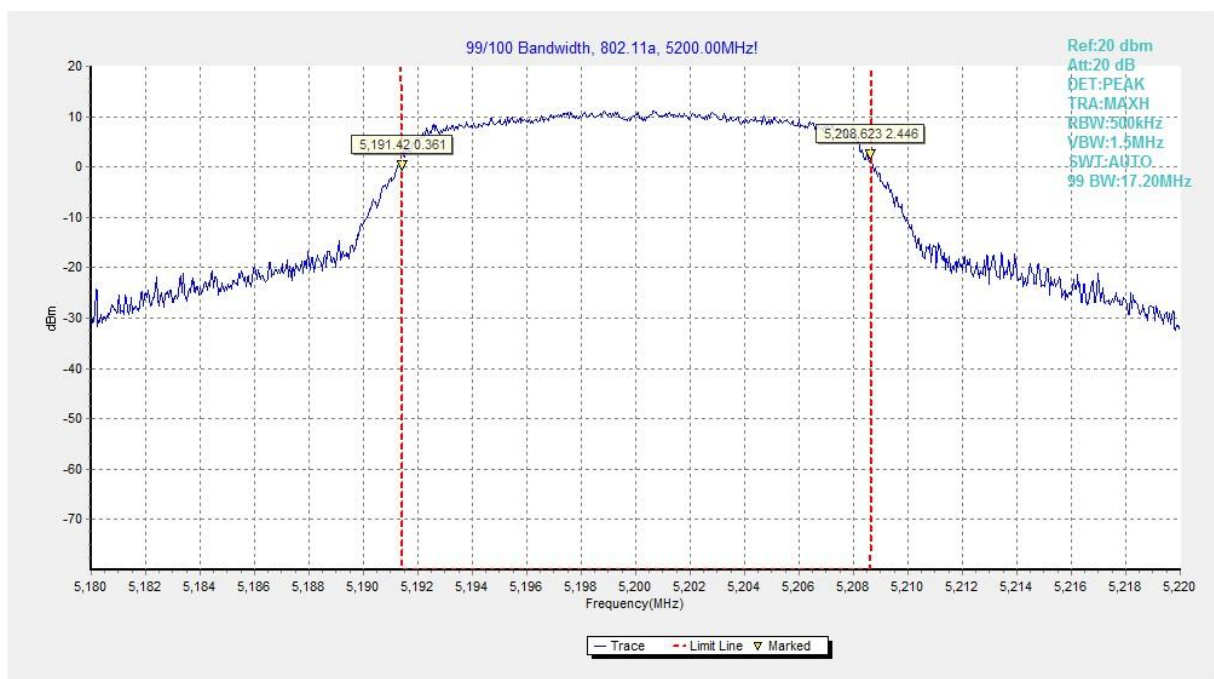


Fig.61 99% Occupied bandwidth (802.11a, 5200MHz)

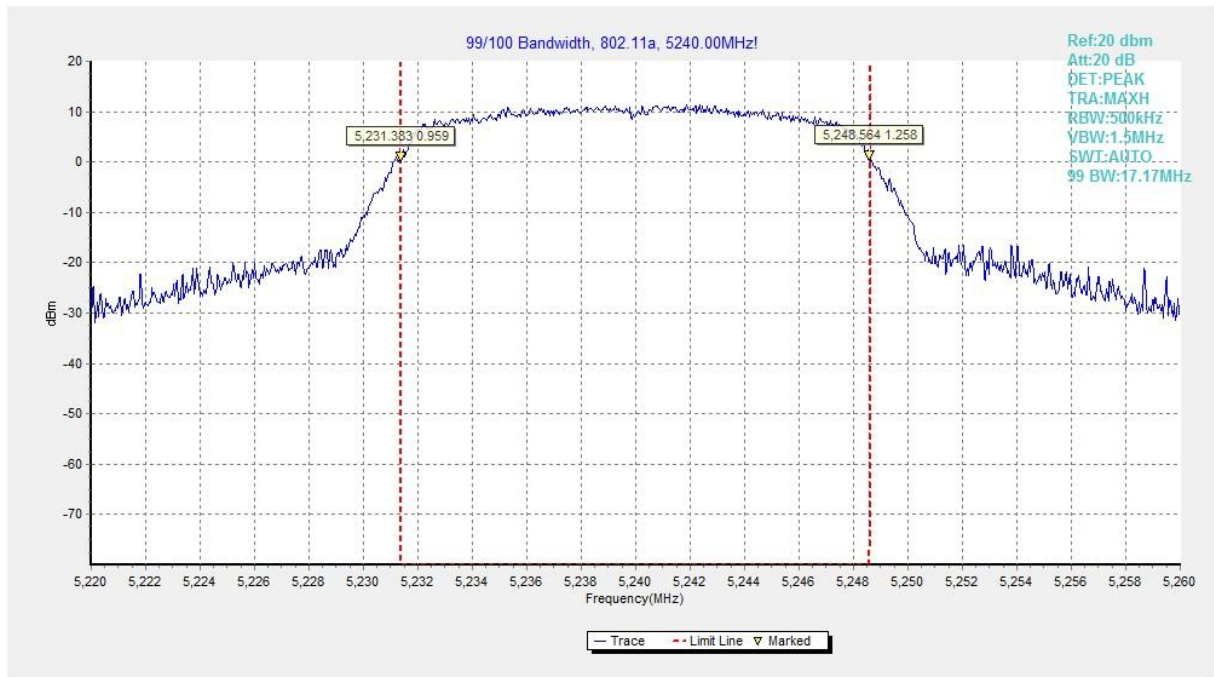


Fig.62 99% Occupied bandwidth (802.11a, 5240MHz)

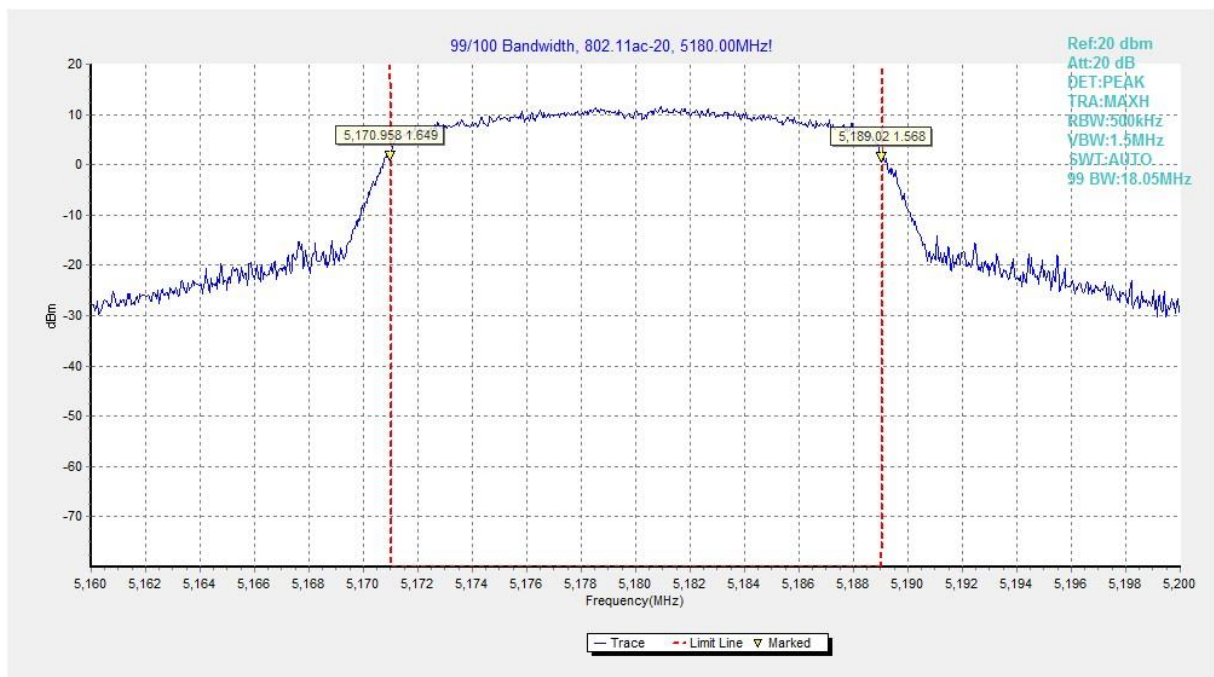


Fig.63 99% Occupied bandwidth (802.11ac-VHT20, 5180MHz)

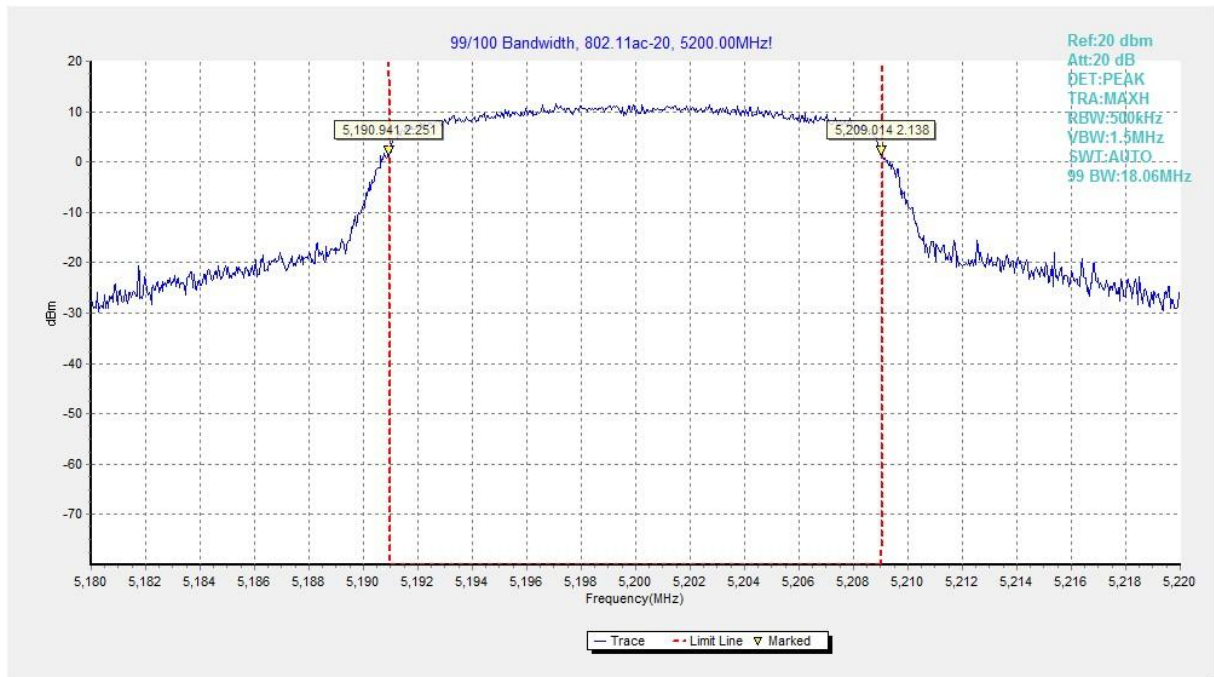


Fig.64 99% Occupied bandwidth (802.11ac-VHT20, 5200MHz)

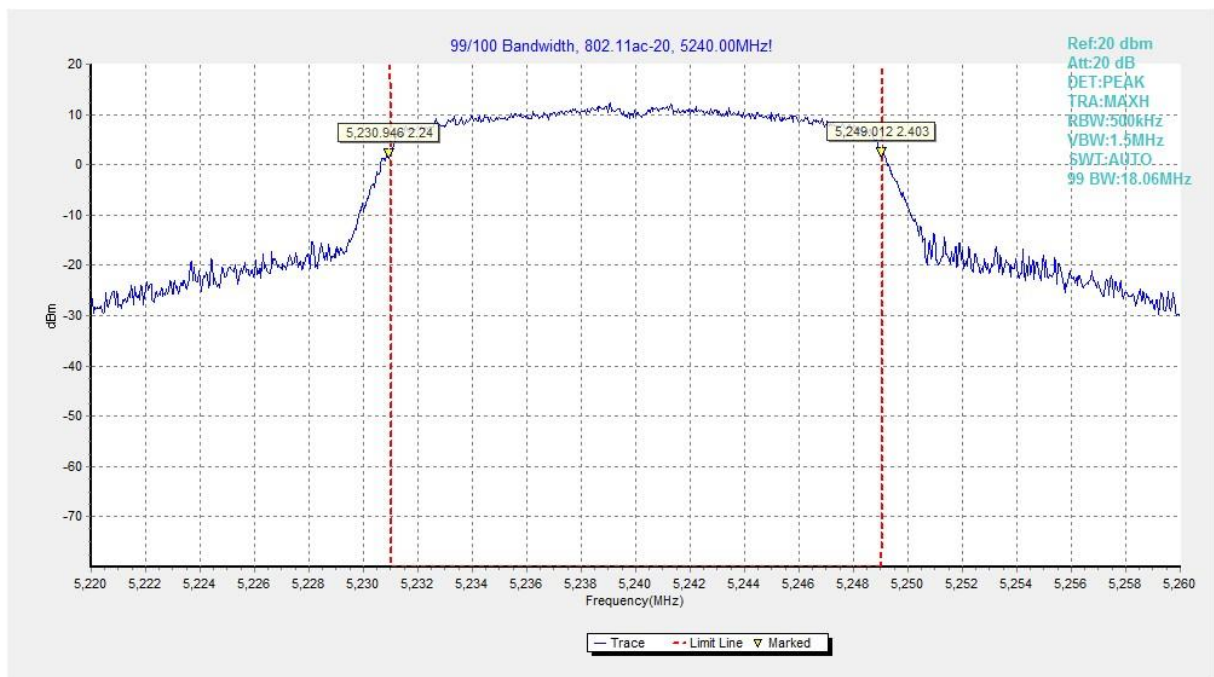


Fig.65 99% Occupied bandwidth (802.11ac-VHT20, 5240MHz)

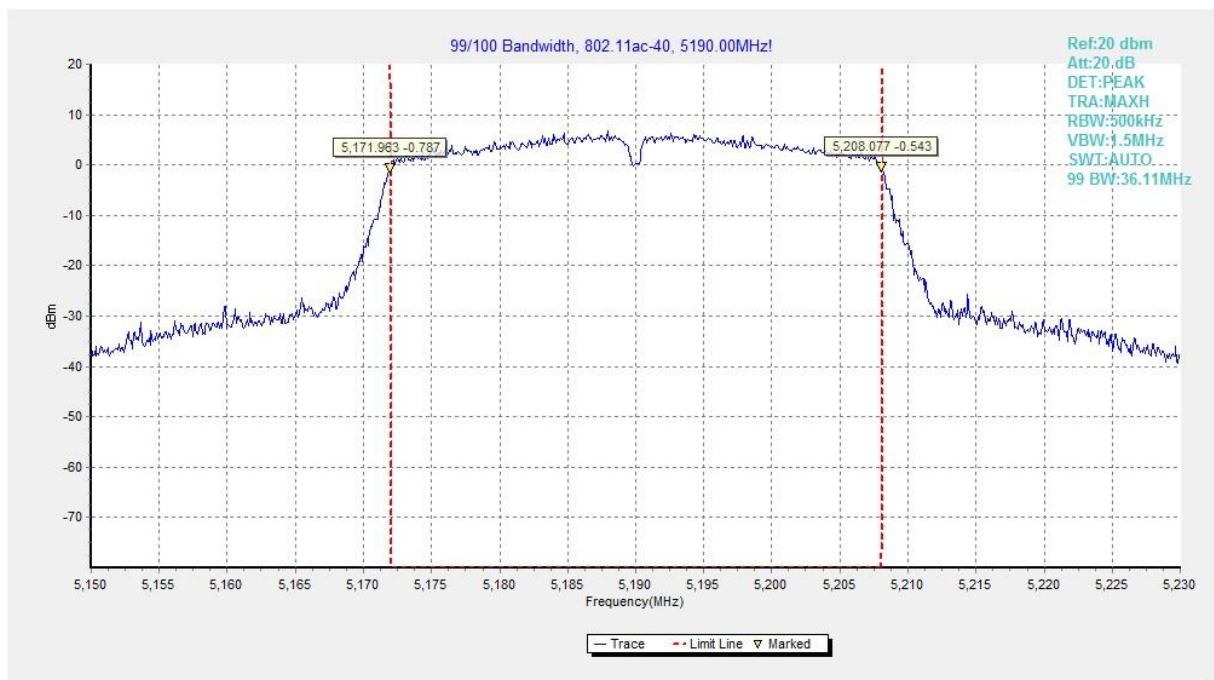


Fig.66 99% Occupied bandwidth (802.11ac-VHT40, 5190MHz)

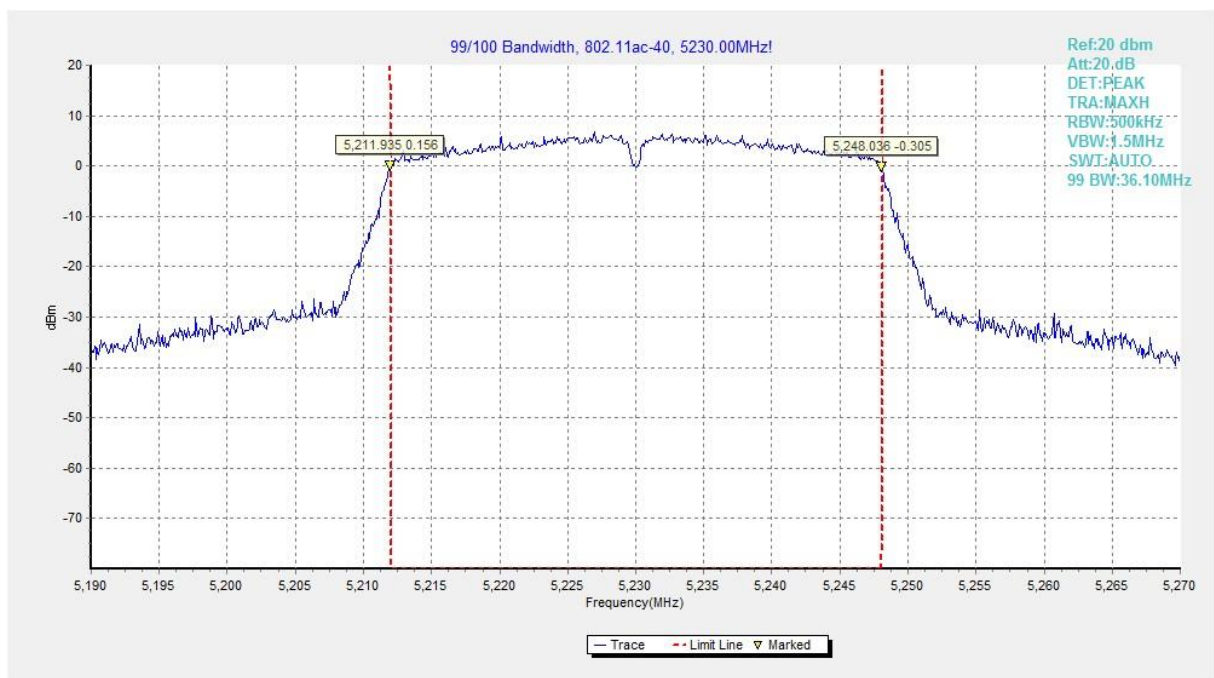


Fig.67 99% Occupied bandwidth (802.11ac-VHT40, 5230MHz)

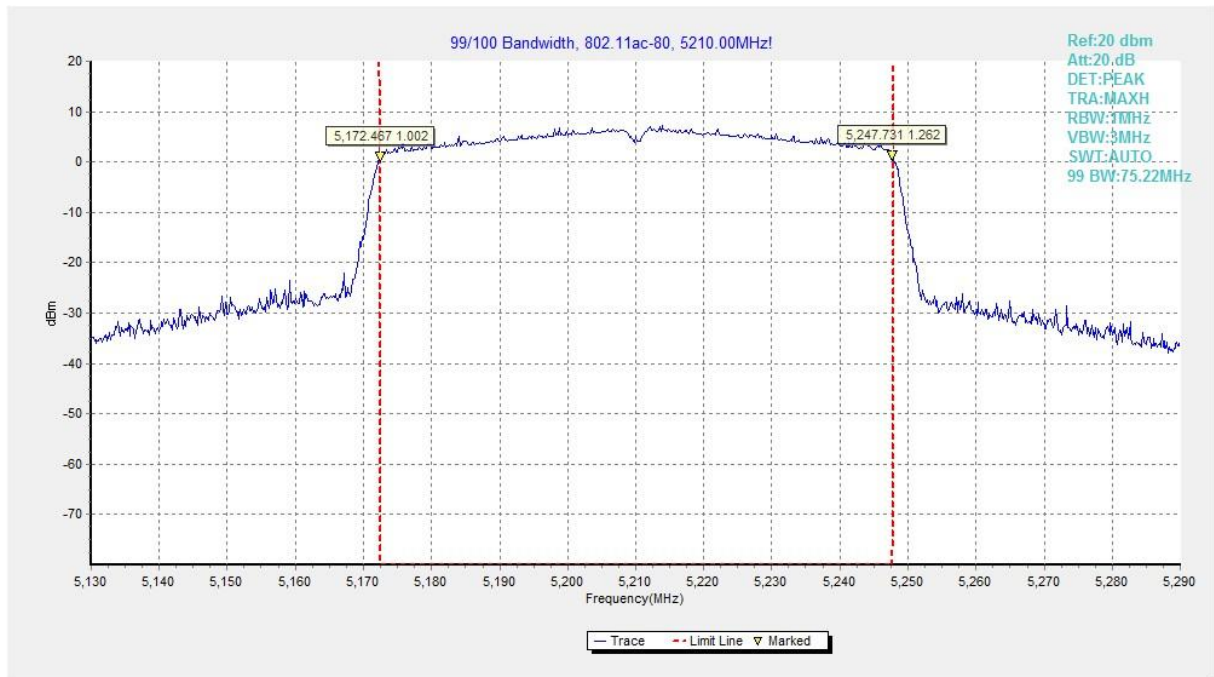


Fig.68 99% Occupied bandwidth (802.11ac-VHT80, 5210MHz)

Conclusion: PASS

A.9. Power control

A Transmission Power Control mechanism is not required for systems with an e.i.r.p. of less than 27dBm (500 mW).

ANNEX B: EUT parameters

Disclaimer: The antenna gain and worse case provided by the client may affect the validity of the measurement results in this report, and the client shall bear the impact and consequences arising therefrom.

ANNEX C: Accreditation Certificate



*** END OF REPORT BODY ***