



RADIO TEST REPORT

Report No.:STS2112238W06

Issued for

DZS Inc.

5700 Tennyson Parkway Suite 400 Plano Texas United States

Product Name:	Wi-Fi 6 MESH AP
Brand Name:	
Model Name:	1764WC
Series Model:	N/A
FCC ID:	PJZ1764WC
Test Standard:	FCC Part 15.407

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TEST RESULT CERTIFICATION

Applicant's Name..... : DZS Inc.

Address : 5700 Tennyson Parkway Suite 400 Plano Texas United States

Manufacturer's Name : TDG Technology Co., Ltd

Address : No.1 Yatai Road, Jiaxing City, Zhejiang Province, P.R.C.

Product Description

Product Name..... : Wi-Fi 6 MESH AP

Brand Name : 

Model Name : 1764WC

Series Model..... : N/A

Test Standards : FCC Part15.407

Test Procedure..... ANSI C63.10-2013

This device described above has been tested by STS, the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

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Date of Test..... :

Date of receipt of test item : 17 Dec. 2021

Date (s) of performance of tests..... : 17 Dec. 2021 ~ 21 Mar. 2022

Date of Issue..... : 21 Mar. 2022

Test Result..... : **Pass**

Testing Engineer :



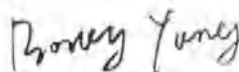
(Chris Chen)

Technical Manager :



(Sean she)

Authorized Signatory :



(Bovey Yang)





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**Revision History**

Rev.	Issue Date	Report NO.	Effect Page	Contents
00	21 Mar. 2022	STS2112238W06	ALL	Initial Issue





1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

§ 15.407, KDB 789033 D02 General U-NII Test Procedures New Rules v02r01

FCC Part 15.407		
FCC standard	Test Item	Results
15.207	AC Conducted Emission	PASS
15.407 (a) /15.407 (e)	26dB/6dB &99% Bandwidth	PASS
15.407(a)	Maximum Conducted Output Power	PASS
15.407(b)/15.205/15.209	Radiated Emission And (bandedge Emissions) Measurement	PASS
15.407(a)	Power Spectral Density	PASS
15.407(c)	Automatically Discontinue Transmission	PASS
15.203/15.204	Antenna Requirement	PASS

NOTE:

- (1) 'N/A' denotes test is not applicable in this Test Report.
- (2) All tests are according to ANSI C63.10-2013.



1.1 TEST FACTORY

SHENZHEN STS TEST SERVICES CO., LTD

Add. : A 1/F, Building B, Zhuoke Science Park, No.190 Chongqing Road, HepingShequ, Fuyong Sub-District, Bao'an District, Shenzhen, Guang Dong, China

FCC test Firm Registration Number: 625569

IC test Firm Registration Number: 12108A

A2LA Certificate No.: 4338.01

1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement $y \pm U$, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately **95 %**.

No.	Item	Uncertainty
1	RF output power, conducted	$\pm 0.87\text{dB}$
2	Unwanted Emissions, conducted	$\pm 2.895\text{dB}$
3	All emissions, radiated 9K-30MHz	$\pm 3.80\text{dB}$
4	All emissions, radiated 30M-1GHz	$\pm 4.09\text{dB}$
5	All emissions, radiated 1G-6GHz	$\pm 4.92\text{dB}$
6	All emissions, radiated >6G	$\pm 5.49\text{dB}$
7	Conducted Emission (9KHz-30MHz)	$\pm 2.73\text{dB}$



2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF THE EUT

Product Name	Wi-Fi 6 MESH AP	
Trade Name		
Model Name	1764WC	
Series Model	N/A	
Model Difference	N/A	
Product Description	The EUT is a Wi-Fi 6 MESH AP	
	Operation Frequency:	IEEE 802.11a/n(HT20)/ac(VHT20)/ax(HE20): 5.180GHz-5.240GHz IEEE 802.11n(HT40)/ac(VHT40)/ax(HE40): 5.190GHz-5.230GHz IEEE 802.11ac(VHT80)/ax(HE80): 5.210GHz
		IEEE 802.11a/ n(HT20)/ac(VHT20)/ax(HE20): 5.260GHz-5.320GHz IEEE 802.11 n(HT40)/ac(VHT40)/ax(HE40): 5.270GHz-5.310GHz IEEE 802.11ac(VHT80)/ax(HE80): 5.290GHz
		IEEE 802.11ax(HE160): 5.250GHz
		IEEE 802.11a/ n(HT20)/ac(VHT20)/ax(HE20): 5.500GHz-5.700GHz IEEE 802.11 n(HT40)/ac(VHT40)/ax(HE40): 5.510GHz-5.670GHz IEEE 802.11ac(VHT80)/ax(HE80): 5.530GHz-5.610GHz
		IEEE 802.11ax(HE160): 5.570GHz
		IEEE 802.11a/ n(HT20)/ac(VHT20)/ax(HE20): 5.745GHz-5.825GHz IEEE 802.11a/ n(HT40)/ac(VHT40)/ax(HE40): 5.755GHz-5.795GHz IEEE 802.11ac(VHT80)/ax(H80): 5.775GHz
	Modulation Type:	802.11a(OFDM):BPSK,QPSK,16-QAM,64-QAM 802.11n(OFDM):BPSK,QPSK,16-QAM,64-QAM 802.11ac(OFDM):BPSK,QPSK,16-QAM,64-QAM,256-QAM 802.11ax(OFDM, OFDMA):BPSK,QPSK,16-QAM,64-QAM,256-QAM,1024QAM
	Antenna Designation:	Please refer to the Note 3.
	Max.Output Power(Conducted):	29.19 dBm
	More details of EUT technical specification, please refer to the User Manual.	
Test Channel	Please refer to the Note 2.	
Adapter	Model: RD1201500-C55-153MG Input: 100-240V AC, 50/60Hz,0.6A Output: DC 12V 1.5A	
Hardware version number	V1.0.0	
Software version number	LAZV1.0.0R00	
Connecting I/O Port(s)	Please refer to the Note 1.	



Note

1. For a more detailed features description, please refer to the manufacturer's specifications or the User Manual.

2.

Operation Frequency of channel			
5.180GHz-5.240GHz		5.500GHz-5.720GHz	
Channel	Frequency	Channel	Frequency
36	5180	100	5500
38	5190	102	5510
40	5200	104	5520
42	5210	106	5530
44	5220	108	5540
46	5230	110	5550
48	5240	112	5560
		114	5570
		116	5580
5.260GHz-5.320GHz		118	5590
Channel	Frequency	120	5600
50	5250	122	5610
52	5260	124	5620
54	5270	126	5630
56	5280	128	5640
58	5290	132	5660
60	5300	134	5670
62	5310	136	5680
64	5320	140	5700
5.745GHz-5.825GHz			
Channel	Frequency		
149	5745		
151	5755		
153	5765		
155	5775		
157	5785		
159	5795		
161	5805		
165	5825		

Note:

In section 15.31(m), regards to the operating frequency range over 10 MHz, the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, and the selected channel see below:

Carrier Frequency Channel

5GHz:

For 802.11a/n(HT20)/ac(VHT20)/ax (HE20)			
Channel	Freq.(MHz)	Channel	Freq.(MHz)
36	5180	52	5260
40	5200	60	5300
48	5240	64	5320



For 802.11a/n(HT20)/ac(VHT20)/ax (HE20)

Channel	Freq.(MHz)	Channel	Freq.(MHz)
100	5500	149	5745
116	5580	157	5785
140	5700	165	5825

For 802.11 n(HT40)/ac(VHT40)/ax (HE40)

Channel	Freq.(MHz)	Channel	Freq.(MHz)
38	5190	54	5270
46	5230	62	5310

For 802.11 n(HT40)/ac(VHT40)/ax (HE40)

Channel	Freq.(MHz)	Channel	Freq.(MHz)
102	5510	151	5755
110	5550	159	5795
134	5670		

For 802.11ac (VHT80)/ax (HE80)

Channel	Freq.(MHz)	Channel	Freq.(MHz)
42	5210	58	5290

For 802.11ac (VHT80)/ax (HE80)

Channel	Freq.(MHz)	Channel	Freq.(MHz)
106	5530	155	5775
122	5610		

For 802.11ax(VHT160)

Channel	Freq.(MHz)	Channel	Freq.(MHz)
50	5250	114	5570



3. KDB 662911 D01 Multiple Transmitter Output v02r01

2) Directional Gain Calculations for In-Band Measurements

a) Basic methodology with NANT transmit antennas, each with the same directional gain G_{ANT} dBi, being driven by NANT transmitter outputs of equal power. Directional gain is to be computed as follows:

(i) If any transmit signals are correlated with each other,

Directional gain = $G_{ANT} + 10 \log(NANT)$ dBi

(ii) If all transmit signals are completely uncorrelated with each other,

Directional gain = G_{ANT}

Antenna number: 2

Antenna A gain : 5.8dBi

Antenna B gain : 5.8dBi

$G_{ANT} + 10 \log(NANT)$ dBi

Directional gain= $4.5 + 10 \log 2 = 8.81$ dBi

Ant	Brand	Model Name	Ant Type	Connector	Gain (dBi)	NOTE
A		1764WC	PIFA Antenna	N/A	ANT A: 5.8 ANT B: 5.8 MIMO A+B: 8.81	WLAN Ant

Note: The antenna information refer the manufacturer provide report, applicable only to the tested sample identified in the report.



2.2 DESCRIPTION OF TEST MODES

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Worst Mode	Description	Data Rate
Mode 1	TX IEEE 802.11a HT20 CH36&CH40&CH48	6 Mbps
Mode 2	TX IEEE 802.11a HT20 CH52&CH60&CH64	6 Mbps
Mode 3	TX IEEE 802.11a HT20 CH100&CH116&CH140	6 Mbps
Mode 4	TX IEEE 802.11a HT20 CH149&CH157&CH165	6 Mbps
Mode 5	TX IEEE 802.11n HT20 CH36&CH40&CH48	MCS 0
Mode 6	TX IEEE 802.11ac HT20 CH36&CH40&CH48	NSS1 MCS0
Mode 7	TX IEEE 802.11ax HE20 CH36&CH40&CH48	NSS1 MCS0
Mode 8	TX IEEE 802.11n HT20 CH52&CH60&CH64	MCS 0
Mode 9	TX IEEE 802.11ac HT20 CH52&CH60&CH64	NSS1 MCS0
Mode 10	TX IEEE 802.11ax HE20 CH52&CH60&CH64	NSS1 MCS0
Mode 11	TX IEEE 802.11n HT20 CH100&CH116&CH140	MCS 0
Mode 12	TX IEEE 802.11ac HT20 CH100&CH116&CH140	NSS1 MCS0
Mode 13	TX IEEE 802.11ax HE20 CH100&CH116&CH140	NSS1 MCS0
Mode 14	TX IEEE 802.11n HT20 CH149&CH157&CH165	MCS 0
Mode 15	TX IEEE 802.11ac HT20 CH149&CH157&CH165	NSS1 MCS0
Mode 16	TX IEEE 802.11ax HE20 CH149&CH157&CH165	NSS1 MCS0
Mode 17	TX IEEE 802.11n HT40 CH38&CH46	MCS 0
Mode 18	TX IEEE 802.11ac HT40 CH38&CH46	NSS1 MCS0
Mode 19	TX IEEE 802.11ax HE40 CH38&CH46	NSS1 MCS0
Mode 20	TX IEEE 802.11n HT40 CH54 &CH62	MCS 0
Mode 21	TX IEEE 802.11ac HT40 CH54 &CH62	NSS1 MCS0
Mode 22	TX IEEE 802.11ax HE 40 CH54 &CH62	NSS1 MCS0
Mode 23	TX IEEE 802.11n HT40 CH102&CH110&CH134	MCS 0
Mode 24	TX IEEE 802.11ac HT40 CH102&CH110&CH134	NSS1 MCS0
Mode 25	TX IEEE 802.11ax HE40 CH102&CH110&CH134	NSS1 MCS0
Mode 26	TX IEEE 802.11n HT40 CH151&CH159	MCS 0
Mode 27	TX IEEE 802.11ac HT40 CH151&CH159	NSS1 MCS0
Mode 28	TX IEEE 802.11ax HE40 CH151&CH159	NSS1 MCS0



Mode 29	TX IEEE 802.11ac HT80 CH42	NSS1 MCS0
Mode 30	TX IEEE 802.11ac HT80 CH58	NSS1 MCS0
Mode 31	TX IEEE 802.11ac HT80 CH106&122	NSS1 MCS0
Mode 32	TX IEEE 802.11ac HT80 CH155	NSS1 MCS0
Mode 33	TX IEEE 802.11ax HE160 CH50	NSS1 MCS0
Mode 34	TX IEEE 802.11ax HE160 CH114	NSS1 MCS0

- Note: (1) The measurements are performed at the highest, middle, lowest available channels.
 (2) The measurements are performed at all Bit Rate of Transmitter, the worst data was reported.
 (3) We have be tested for all avaiable U.S. voltage and frequencies(For 120V,50/60Hz and 240V, 50/60Hz) for which the device is capable of operation.
 (4) The battery is fully-charged during the radited and RF conducted test.

AC Conducted Emission

Test Case	
AC Conducted Emission	Mode 35: Keeping TX + WLAN Link

2.3 TEST SOFTWARE AND POWER LEVEL

During testing channel & power controlling software provided by the customer was used to control the operating channel as well as the output power level.

RF Function	Type	Mode Or Modulation type	ANT Gain(dBi)	ANT_A Power Class	ANT_B Power Class	Software For Testing
WIFI(5G)	U-NII-1 (5150MHz-5250MHz)	802.11a	ANT A: 5.8 ANT B: 5.8 MIMO A+B: 8.81	120	120	accessMTool_REL_3_2_0_2
		802.11n(HT20)		110	110	
		802.11n(HT40)		110	110	
		802.11ac(VHT20)		110	110	
		802.11ac(VHT40)		110	110	
		802.11ac(VHT80)		110	110	
		802.11ax(HE20)		110	110	
		802.11ax(HE40)		110	110	
		802.11ax(HE80)		110	110	



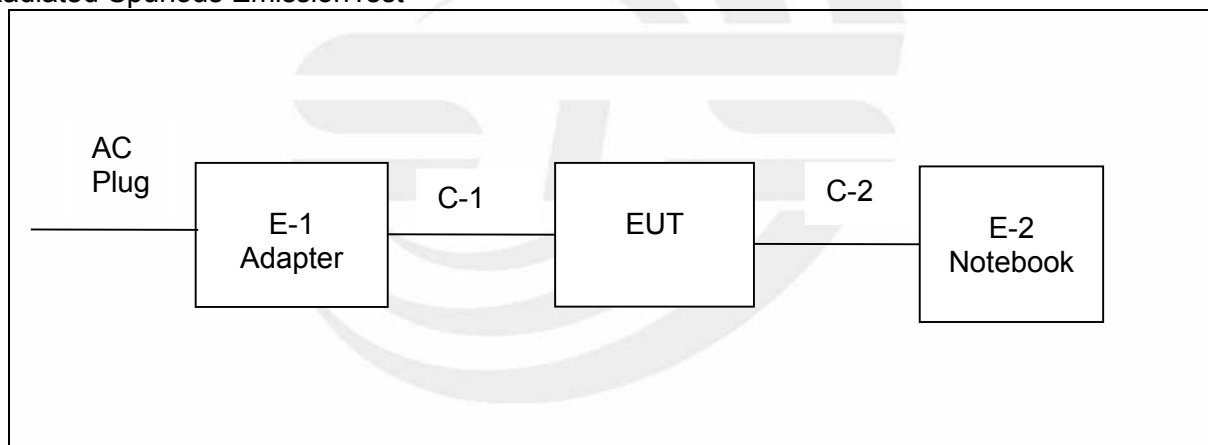
RF Function	Type	Mode Or Modulation type	ANT Gain(dBi)	ANT_A Power Class	ANT_B Power Class	Software For Testing
WIFI(5G)	U-NII-2A (5250MHz-5350MHz)	802.11a	ANT A: 5.8 ANT B: 5.8 MIMO A+B: 8.81	90	90	accessMTool_ REL_3_2_0_2
		802.11n(HT20)		85	85	
		802.11n(HT40)		85	85	
		802.11ac(VHT20)		85	85	
		802.11ac(VHT40)		85	85	
		802.11ac(VHT80)		85	85	
		802.11ax(HE20)		85	85	
		802.11ax(HE40)		85	85	
		802.11ax(HE80)		85	85	
		802.11ax(HE160)		85	85	
RF Function	Type	Mode Or Modulation type	ANT Gain(dBi)	ANT_A Power Class	ANT_B Power Class	Software For Testing
WIFI(5G)	U-NII-3 (5725MHz-5895MHz)	802.11a	ANT A: 5.8 ANT B: 5.8 MIMO A+B: 8.81	90	90	accessMTool_ REL_3_2_0_2
		802.11n(HT20)		85	85	
		802.11n(HT40)		85	85	
		802.11ac(VHT20)		85	85	
		802.11ac(VHT40)		85	85	
		802.11ac(VHT80)		85	85	
		802.11ax(HE20)		85	85	
		802.11ax(HE40)		85	85	
		802.11ax(HE80)		85	85	
		802.11ax(HE160)		85	85	



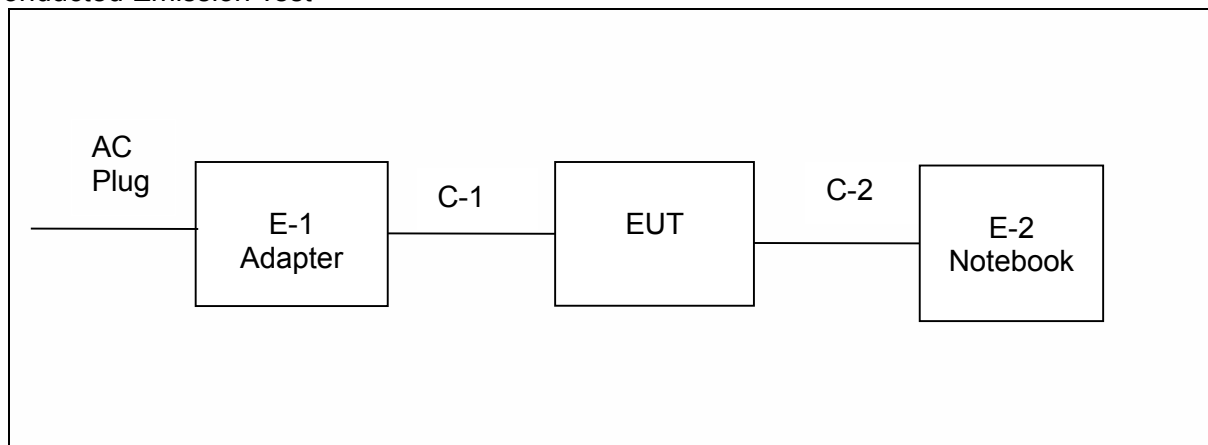
RF Function	Type	Mode Or Modulation type	ANT Gain(dBi)	ANT_A Power Class	ANT_B Power Class	Software For Testing
WIFI(5G)	U-NII-2C (5470MHz-5725MHz)	802.11a	ANT A: 5.8 ANT B: 5.8 MIMO A+B: 8.81	110	110	accessMTool_ REL_3_2_0_2
		802.11n(HT20)		100	100	
		802.11n(HT40)		100	100	
		802.11ac(VHT20)		100	100	
		802.11ac(VHT40)		100	100	
		802.11ac(VHT80)		100	100	
		802.11ax(HE20)		100	100	
		802.11ax(HE40)		100	100	
		802.11ax(HE80)		100	100	

2.4 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

Radiated Spurious EmissionTest



Conducted Emission Test





2.5 DESCRIPTION OF NECESSARY ACCESSORIES AND SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Necessary accessories

Item	Equipment	Mfr/Brand	Model/Type No.	Length	Note
E-1	Adapter	N/A	RD1201500-C55-153MG	N/A	N/A
C-1	DC Cable	N/A	N/A	150cm	NO

Support units

Item	Equipment	Mfr/Brand	Model/Type No.	Length	Note
C-2	LAN Cable	N/A	N/A	120cm	NO
E-2	Notebook	LENOVO	ThinkPad E470	N/A	N/A

Note:

(1) For detachable type I/O cable should be specified the length in cm in 『Length』 column.



2.6 EQUIPMENTS LIST FOR ALL TEST ITEMS

Radiation Test equipment

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
Test Receiver	R&S	ESCI	101427	2021.09.30	2022.09.29
Signal Analyzer	R&S	FSV 40-N	101823	2021.09.30	2022.09.29
Active loop Antenna	ZHINAN	ZN30900C	16035	2021.04.11	2023.04.10
Bilog Antenna	TESEQ	CBL6111D	34678	2020.10.12	2022.10.11
Horn Antenna	SCHWARZBECK	BBHA 9120D	02014	2021.10.11	2023.10.10
SHF-EHF Horn Antenna (18G-40GHz)	A-INFO	LB-180400-KF	J211020657	2020.10.12	2022.10.11
Pre-Amplifier (0.1M-3GHz)	EM	EM330	060665	2021.10.08	2022.10.07
Pre-Amplifier (1G-18GHz)	SKET	LNPA-01018G-45	SK2018080901	2021.09.30	2022.09.29
Pre-Amplifier (18G-40GHz)	SKET	LNPA-1840-50	SK2018101801	2021.09.28	2022.09.27
Temperature & Humidity	HH660	Mieo	N/A	2021.10.09	2022.10.08
Turn table	EM	SC100_1	60531	N/A	N/A
Antenna mast	EM	SC100	N/A	N/A	N/A
Test SW	FARAD	EZ-EMC(Ver.STSLAB-03A1 RE)			

Conduction Test equipment

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
Test Receiver	R&S	ESCI	101427	2021.09.30	2022.09.29
LISN	R&S	ENV216	101242	2021.09.30	2022.09.29
LISN	EMCO	3810/2NM	23625	2021.09.30	2022.09.29
Temperature & Humidity	HH660	Mieo	N/A	2021.10.09	2022.10.08
Test SW	FARAD	EZ-EMC(Ver.STSLAB-03A1 CE)			



RF Connected Test

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
Power Sensor	Keysight	U2021XA	MY55520005	2021.09.30	2022.09.29
			MY55520006	2021.09.30	2022.09.29
			MY56120038	2021.09.30	2022.09.29
			MY56280002	2021.09.30	2022.09.29
Signal Analyzer	Agilent	N9020A	MY51110105	2022.03.01	2023.02.28
Temperature & Humidity	HH660	Mieo	N/A	2021.10.09	2022.10.08
Test SW	FARAD	LZ-RF /LzRf-3A3			





3. EMC EMISSION TEST

3.1 CONDUCTED EMISSION MEASUREMENT

3.1.1 POWER LINE CONDUCTED EMISSION Limits (Frequency Range 150KHz-30MHz)

FREQUENCY (MHz)	Class B (dBuV)		Standard
	Quasi-peak	Average	
0.15 -0.5	66 - 56 *	56 - 46 *	CISPR
0.50 -5.0	56.00	46.00	CISPR
5.0 -30.0	60.00	50.00	CISPR

0.15 -0.5	66 - 56 *	56 - 46 *	FCC
0.50 -5.0	56.00	46.00	FCC
5.0 -30.0	60.00	50.00	FCC

Note:

- (1) The tighter limit applies at the band edges.
- (2) The limit of “ * ” marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

The following table is the setting of the receiver

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

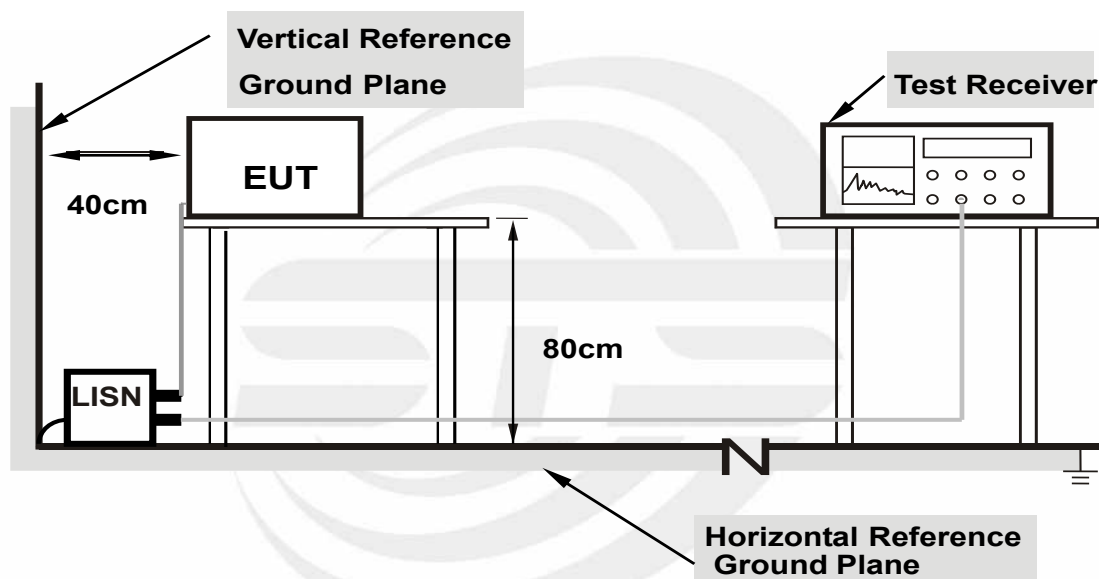
3.1.2 TEST PROCEDURE

- The EUT is 0.8 m from the horizontal ground plane and 0.4 m from the vertical ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments are powered from additional LISN(s). The LISN provides 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- LISN is at least 80 cm from the nearest part of EUT chassis.
- For the actual test configuration, please refer to the related Item –EUT Test Photos.

3.1.3 DEVIATION FROM TEST STANDARD

No deviation

3.1.4 TEST SETUP



Note: 1. Support units were connected to second LISN.

2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes support units.

3.1.5 EUT OPERATING CONDITIONS

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.



3.1.6 TEST RESULTS

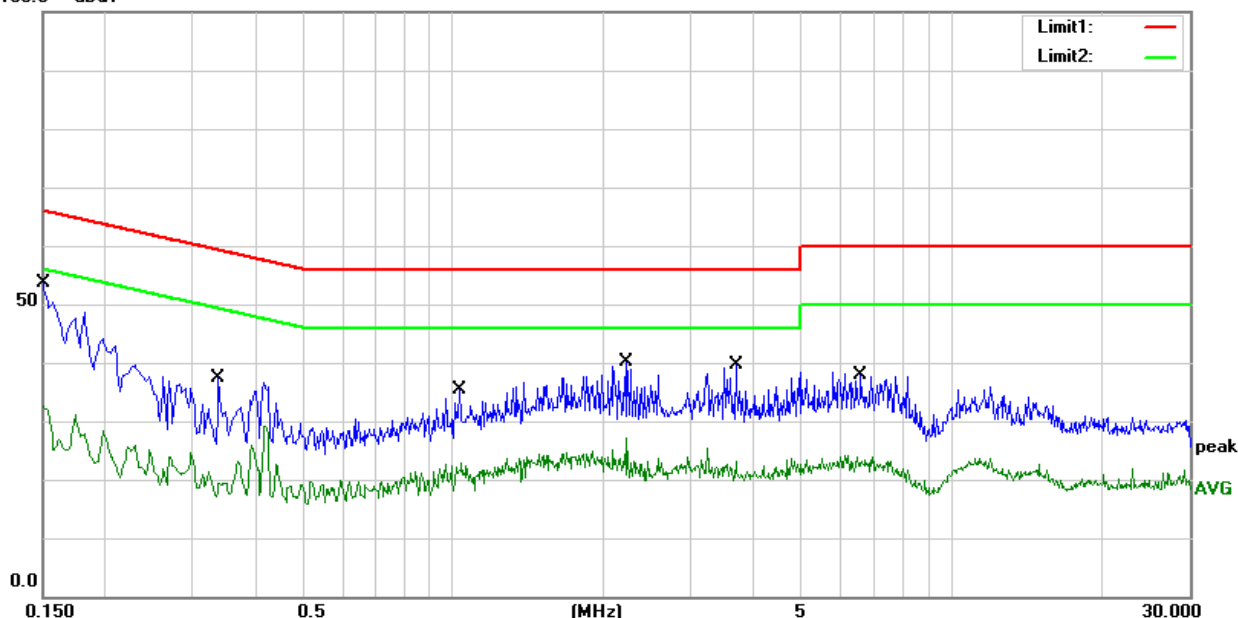
Temperature:	23.6(C)	Relative Humidity:	40%RH
Test Voltage:	AC 120V/60Hz	Phase:	L
Test Mode :	Mode 35		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1500	33.33	20.29	53.62	66.00	-12.38	QP
2	0.1500	12.24	20.29	32.53	56.00	-23.47	AVG
3	0.3380	16.59	20.71	37.30	59.25	-21.95	QP
4	0.3380	8.50	20.71	29.21	49.25	-20.04	AVG
5	1.0300	15.13	20.30	35.43	56.00	-20.57	QP
6	1.0300	2.46	20.30	22.76	46.00	-23.24	AVG
7	2.2260	19.77	20.41	40.18	56.00	-15.82	QP
8	2.2260	6.75	20.41	27.16	46.00	-18.84	AVG
9	3.6900	19.08	20.49	39.57	56.00	-16.43	QP
10	3.6900	4.87	20.49	25.36	46.00	-20.64	AVG
11	6.5860	17.38	20.57	37.95	60.00	-22.05	QP
12	6.5860	3.54	20.57	24.11	50.00	-25.89	AVG

Remark:

1. All readings are Quasi-Peak and Average values
2. Margin = Result (Result = Reading + Factor) – Limit
3. Factor=LISN factor+Cable loss+Limiter (10dB)

100.0 dBuV



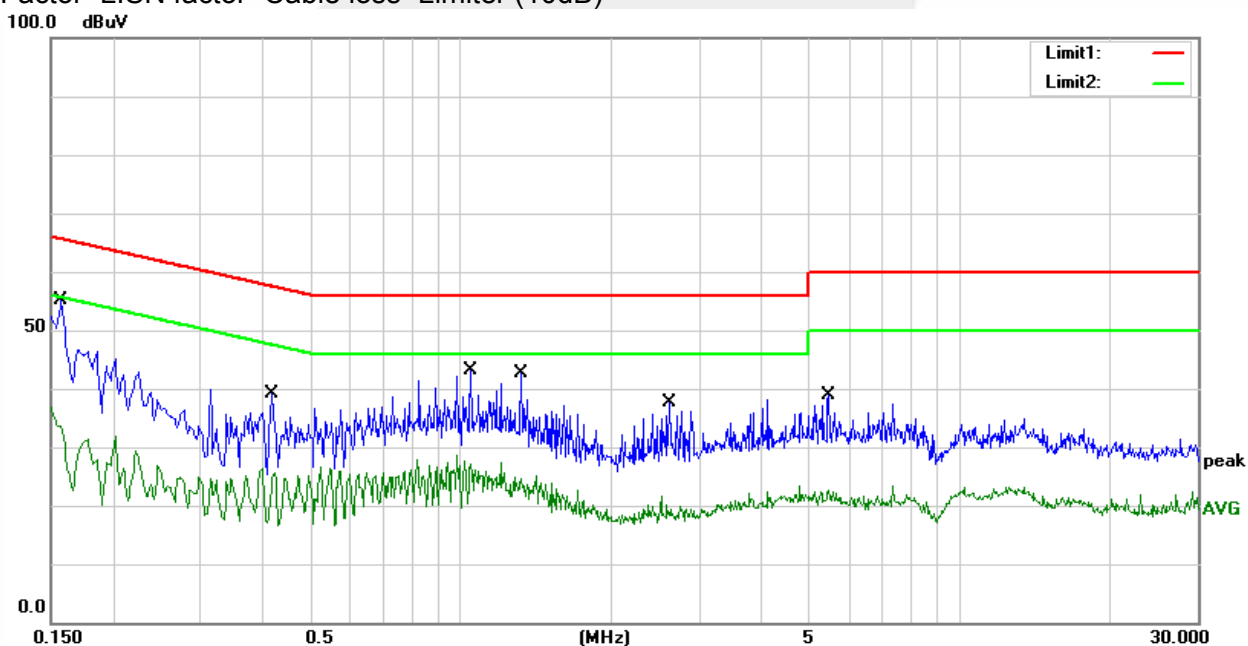


Temperature:	23.6(C)	Relative Humidity:	40%RH
Test Voltage	AC 120V/60Hz	Phase:	N
Test Mode	Mode 35		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1580	34.88	20.31	55.19	65.57	-10.38	QP
2	0.1580	16.68	20.31	36.99	55.57	-18.58	AVG
3	0.4180	18.67	20.56	39.23	57.49	-18.26	QP
4	0.4180	5.84	20.56	26.40	47.49	-21.09	AVG
5	1.0460	22.76	20.30	43.06	56.00	-12.94	QP
6	1.0460	8.25	20.30	28.55	46.00	-17.45	AVG
7	1.3220	22.41	20.33	42.74	56.00	-13.26	QP
8	1.3220	7.07	20.33	27.40	46.00	-18.60	AVG
9	2.6220	17.14	20.43	37.57	56.00	-18.43	QP
10	2.6220	1.31	20.43	21.74	46.00	-24.26	AVG
11	5.4580	18.23	20.54	38.77	60.00	-21.23	QP
12	5.4580	2.06	20.54	22.60	50.00	-27.40	AVG

Remark:

1. All readings are Quasi-Peak and Average values
2. Margin = Result (Result = Reading + Factor) - Limit
3. Factor = LISN factor + Cable loss + Limiter (10dB)





3.2 RADIATED EMISSION AND (BANDEDGE) MEASUREMENT

3.2.1 RADIATED EMISSION LIMITS (Frequency Range 9kHz-1000MHz)

In case the emission fall within the restricted band specified on 15.407(b)7&15.205/209(a), then the limit in the table below has to be followed.

Frequencies (MHz)	Field Strength (microvolt/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000MHz)

FREQUENCY (MHz)	Class B (dBuV/m) (at 3M)	
	PEAK	AVERAGE
Above 1000	68.2	54

Notes:

- (1) The limit for radiated test was performed according to FCC PART 15E.
- (2) The tighter limit applies at the band edges.
- (3) Emission level (dBuV/m)=20log Emission level (uV/m).

LIMITS OF RESTRICTED FREQUENCY BANDS

FREQUENCY (MHz)	FREQUENCY (MHz)	FREQUENCY (MHz)	FREQUENCY (GHz)
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	Above 38.6
13.36-13.41			

Note: In case the emission radiated emission above 1000MHz fall within the restricted band the restricted frequency bands, the peak limit is 74 dBuV/m.

**LIMITS OF EMISSIONS OUTSIDE OF THE FREQUENCY BANDS**

Undesirable emission limits. Except as shown in paragraph (b)(7) of this section, the maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

- (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.
- (4) For transmitters operating in the 5.725-5.85 GHz band:
 - (i) All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

Note: dBuV/m(at 3M) = EIRP(dBm) + 95.2.

Peak Limit = -27dBm/MHz + 95.2 = 68.2 dBuV/m.

Spectrum Parameter	Setting
Attenuation	Auto
Detector	Peak
Start Frequency	1000 MHz(Peak/AV)
Stop Frequency	10th carrier harmonic (Peak/AV)
RB / VB (emission in restricted band)	1 MHz / 1 MHz, AV=1 MHz /3 MHz

For Band edge

Spectrum Parameter	Setting
Detector	Peak
RB / VB (emission in restricted band)	1 MHz / 1 MHz, AV=1 MHz /3 MHz

Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~90kHz / RB 200Hz for PK & AV
Start ~ Stop Frequency	90kHz~110kHz / RB 200Hz for QP
Start ~ Stop Frequency	110kHz~490kHz / RB 200Hz for PK & AV
Start ~ Stop Frequency	490kHz~30MHz / RB 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RB 120kHz for QP



3.2.2 TEST PROCEDURE

- a. The measuring distance at 3 m shall be used for measurements at frequency 0.009MHz up to 1GHz, and above 1GHz.
- b. The EUT was placed on the top of a rotating table 0.8 m (above 1GHz is 1.5 m) above the ground at a 3 m anechoic chamber test site. The table was rotated 360 degree to determine the position of the highest radiation.
- c. The height of the equipment shall be 0.8 m (above 1GHz is 1.5 m); the height of the test antenna shall vary between 1 m to 4 m. Horizontal and vertical polarization of the antenna are set to make the measurement.
- d. The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and QuasiPeak detector mode will be re-measured.
- e. If the Peak Mode measured value is compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and no additional QP Mode measurement was performed.
- f. For the actual test configuration, please refer to the related Item –EUT Test Photos.

Note:

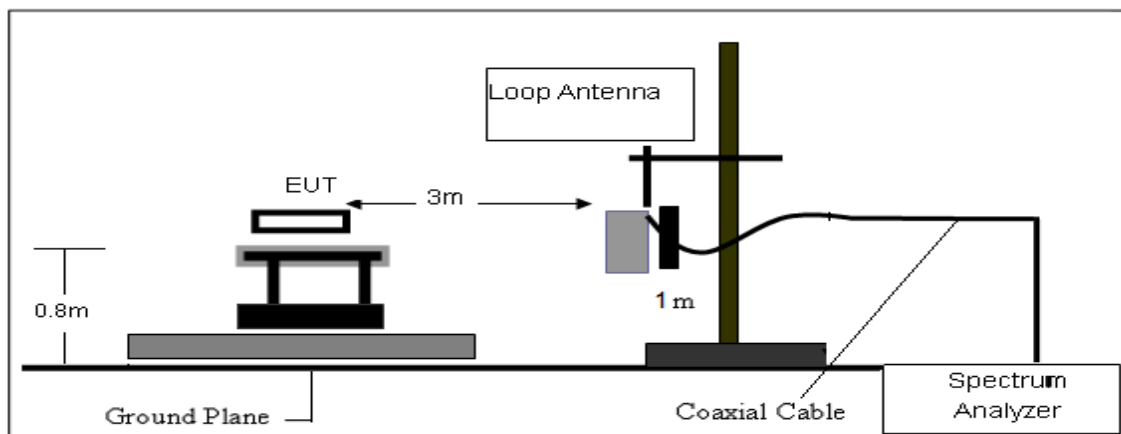
Both horizontal and vertical antenna polarities were tested and performed pretest to three orthogonal axis. The worst case emissions were reported.

3.2.2 DEVIATION FROM TEST STANDARD

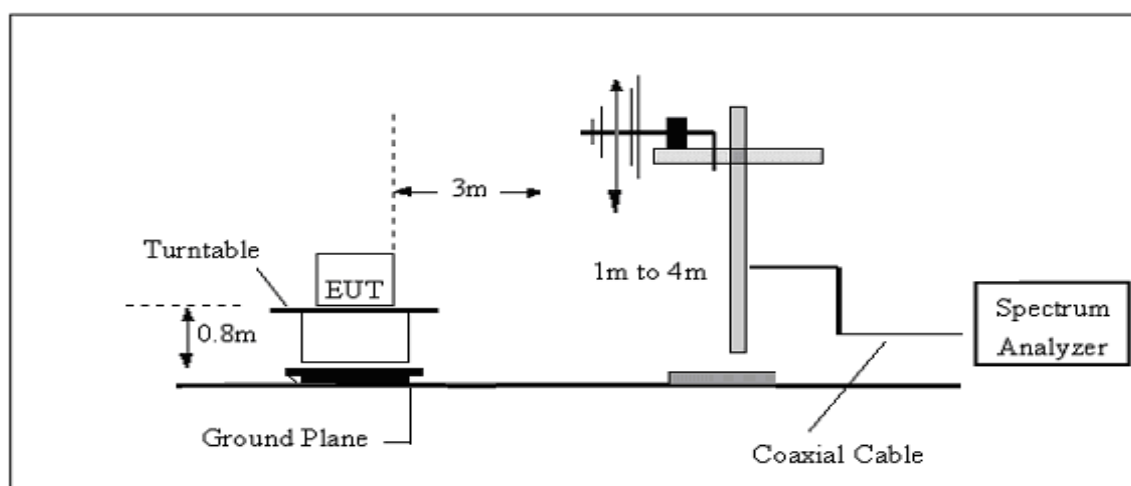
No deviation

3.2.3 TEST SETUP

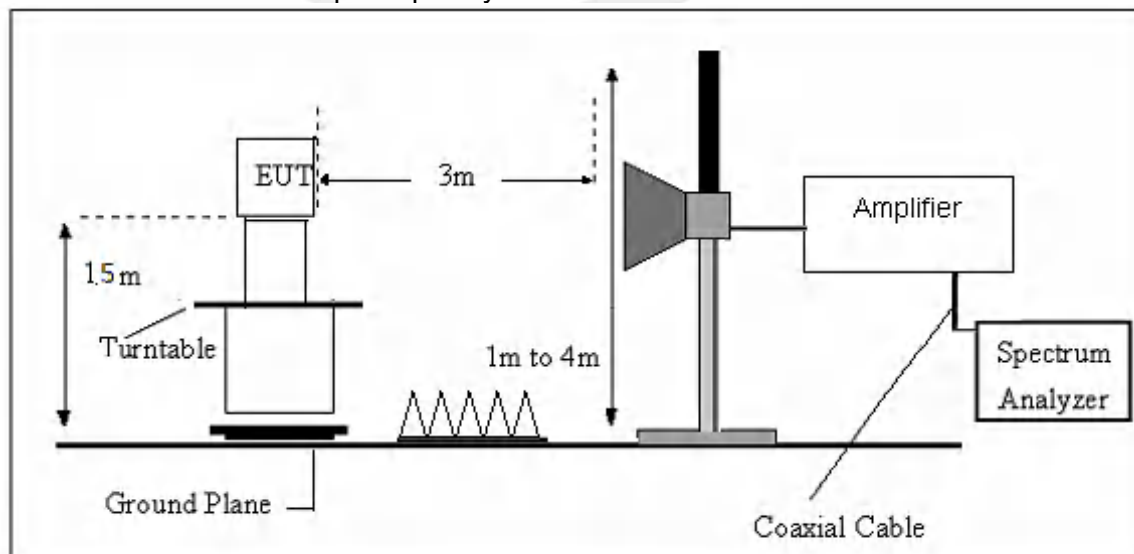
(A) Radiated Emission Test-Up Frequency Below 30MHz



(B) Radiated Emission Test-Up Frequency 30MHz~1GHz



(C) Radiated Emission Test-Up Frequency Above 1GHz





3.2.4 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

3.2.5 FIELD STRENGTH CALCULATION

The field strength is calculated by adding the Antenna Factor and Cable Factor and subtracting the Amplifier Gain and Duty Cycle Correction Factor (if any) from the measured reading. The basic equation with a sample calculation is as follows:

$$FS = RA + AF + CL - AG$$

Where

FS = Field Strength

CL = Cable Attenuation Factor (Cable Loss)

RA = Reading Amplitude

AG = Amplifier Gain

AF = Antenna Factor

For example

Frequency	FS	RA	AF	CL	AG	Factor
(MHz)	(dBμV/m)	(dBμV/m)	(dB)	(dB)	(dB)	(dB)
300	40	58.1	12.2	1.6	31.9	-18.1

$$\text{Factor} = \text{AF} + \text{CL} - \text{AG}$$

**3.2.6 TEST RESULTS (Between 9KHz – 30 MHz)**

Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	AC 120V/60Hz	Polarization :	--
Test Mode:	TX Mode		

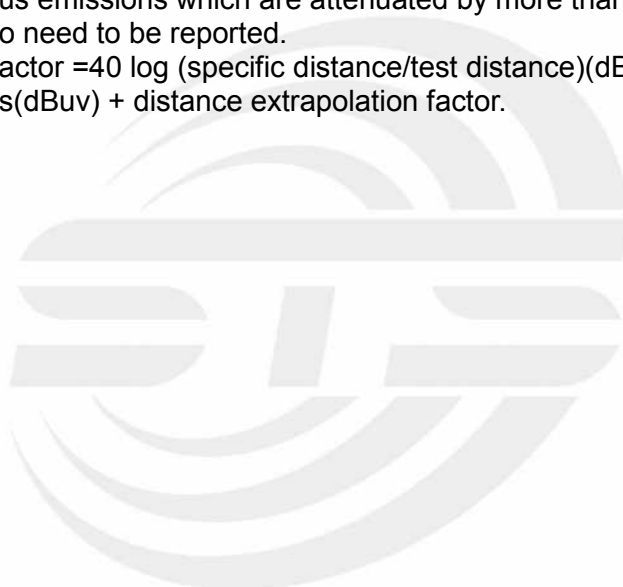
Freq.	Reading	Limit	Margin	State
(MHz)	(dBuV/m)	(dBuV/m)	(dB)	P/F
--	--	--	--	PASS
--	--	--	--	PASS

Note:

The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

Distance extrapolation factor = $40 \log (\text{specific distance/test distance})(\text{dB})$;

Limit line = specific limits(dBuV) + distance extrapolation factor.





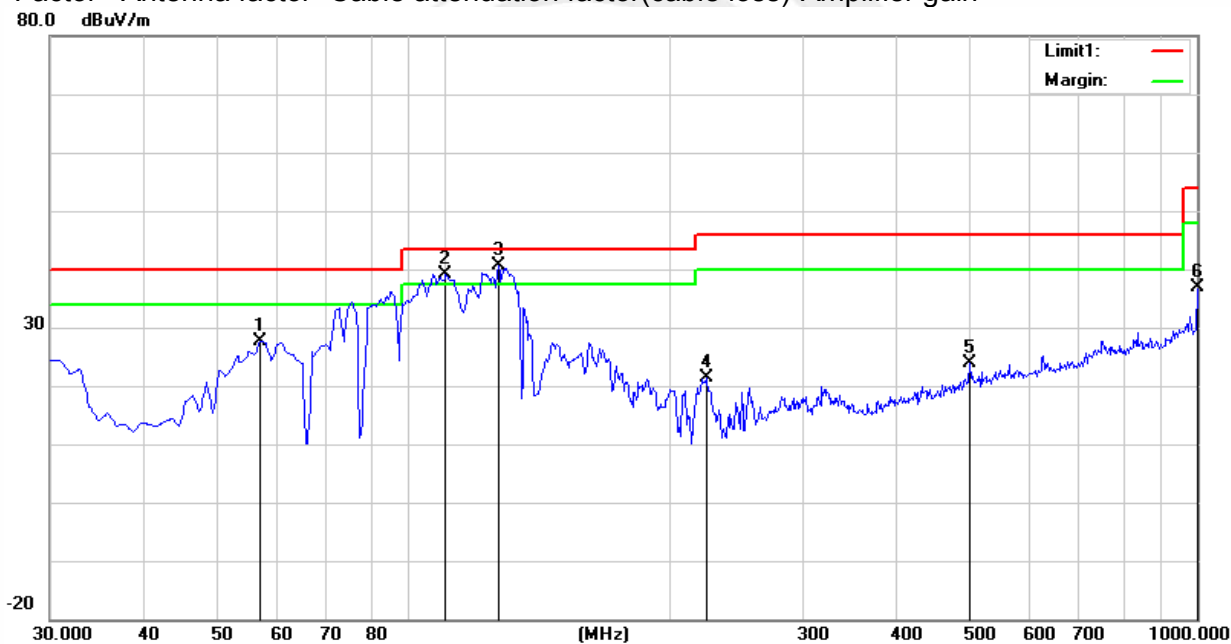
3.2.7 TEST RESULTS (Between 30MHz – 1GHz)

Temperature	23.1(C)	Relative Humidity:	60%RH
Test Voltage	AC 120V/60Hz	Polarization:	Horizontal
Test Mode	Mode 1~35(Mode 1 worst mode)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	57.1600	53.10	-25.45	27.65	40.00	-12.35	peak
2	100.8100	59.14	-20.04	39.10	43.50	-4.40	peak
3	118.2700	59.07	-18.43	40.64	43.50	-2.86	peak
4	223.0300	40.92	-19.42	21.50	46.00	-24.50	peak
5	499.4800	31.78	-8.02	23.76	46.00	-22.24	peak
6	1000.0000	34.86	2.04	36.90	54.00	-17.10	peak

Remark:

1. Margin = Result (Result = Reading + Factor) – Limit
2. Factor = Antenna factor + Cable attenuation factor (cable loss) – Amplifier gain





Temperature	23.1(C)	Relative Humidity:	60%RH
Test Voltage	AC 120V/60Hz	Polarization:	Vertical
Test Mode	Mode 1~35(Mode 1 worst mode)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	30.0000	49.32	-12.85	36.47	40.00	-3.53	peak
2	61.0400	62.68	-25.80	36.88	40.00	-3.12	peak
3	123.1200	57.07	-18.27	38.80	43.50	-4.70	peak
4	262.8000	37.38	-14.76	22.62	46.00	-23.38	peak
5	437.4000	34.98	-10.10	24.88	46.00	-21.12	peak
6	869.0500	40.92	-0.52	40.40	46.00	-5.60	peak

Remark:

1. Margin = Result (Result =Reading + Factor)-Limit
2. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain



**3.2.8 TEST RESULTS (Above 1000 MHz)****Band I 5150-5250MHz**

Frequency (MHz)	Reading (dBuV)	Amplifier (dB)	Loss (dB)	Antenna Factor (dB/m)	Corrected Factor (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Comment
Low Channel (802.11a20/ 5180 MHz)										
3264.96	44.52	44.70	6.70	28.20	-9.80	34.72	74.00	-39.28	Pk	Vertical
3264.96	41.96	44.70	6.70	28.20	-9.80	32.16	54.00	-21.84	AV	Vertical
3253.83	45.15	44.70	6.70	28.20	-9.80	35.35	68.20	-32.85	Pk	Horizontal
3253.83	41.67	44.70	6.70	28.20	-9.80	31.87	54.00	-22.13	AV	Horizontal
3986.07	38.64	44.20	7.90	29.70	-6.60	32.04	74.00	-41.96	Pk	Vertical
3986.07	35.83	44.20	7.90	29.70	-6.60	29.23	54.00	-24.77	AV	Vertical
3983.09	39.00	44.20	7.90	29.70	-6.60	32.40	74.00	-41.60	Pk	Horizontal
3983.09	36.60	44.20	7.90	29.70	-6.60	30.00	54.00	-24.00	AV	Horizontal
7235.20	37.51	43.50	11.40	35.50	3.40	40.91	68.20	-27.29	Pk	Vertical
7235.20	34.81	43.50	11.40	35.50	3.40	38.21	54.00	-15.79	AV	Vertical
7229.40	37.47	43.50	11.40	35.50	3.40	40.87	68.20	-27.33	Pk	Horizontal
7229.40	34.01	43.50	11.40	35.50	3.40	37.41	54.00	-16.59	AV	Horizontal
10360.13	39.85	44.50	13.80	38.80	8.10	47.95	68.20	-20.25	Pk	Vertical
10360.13	36.66	44.50	13.80	38.80	8.10	44.76	54.00	-9.24	AV	Vertical
10360.31	39.14	44.50	13.80	38.80	8.10	47.24	68.20	-20.96	Pk	Horizontal
10360.31	36.03	44.50	13.80	38.80	8.10	44.13	54.00	-9.87	AV	Horizontal
11032.00	32.82	43.60	14.30	39.50	10.20	43.02	74.00	-30.98	Pk	Vertical
11032.00	30.41	43.60	14.30	39.50	10.20	40.61	54.00	-13.39	AV	Vertical
11033.26	33.07	43.60	14.30	39.50	10.20	43.27	74.00	-30.73	Pk	Horizontal
11033.26	31.01	43.60	14.30	39.50	10.20	41.21	54.00	-12.79	AV	Horizontal
13299.87	32.56	42.60	15.90	38.90	12.20	44.76	74.00	-29.24	Pk	Vertical
13299.87	29.22	42.60	15.90	38.90	12.20	41.42	54.00	-12.58	AV	Vertical
13299.77	32.36	42.60	15.90	38.90	12.20	44.56	74.00	-29.44	Pk	Horizontal
13299.77	29.59	42.60	15.90	38.90	12.20	41.79	54.00	-12.21	AV	Horizontal
Mid Channel (802.11a20/ 5200 MHz)										
3248.40	44.94	44.70	6.70	28.20	-9.80	35.14	68.20	-33.06	Pk	Vertical
3248.40	40.76	44.70	6.70	28.20	-9.80	30.96	54.00	-23.04	AV	Vertical
3255.67	44.14	44.70	6.70	28.20	-9.80	34.34	68.20	-33.86	Pk	Horizontal
3255.67	42.08	44.70	6.70	28.20	-9.80	32.28	54.00	-21.72	AV	Horizontal
3988.76	39.62	44.20	7.90	29.70	-6.60	33.02	74.00	-40.98	Pk	Vertical
3988.76	36.67	44.20	7.90	29.70	-6.60	30.07	54.00	-23.93	AV	Vertical
3991.08	39.15	44.20	7.90	29.70	-6.60	32.55	74.00	-41.45	Pk	Horizontal
3991.08	37.01	44.20	7.90	29.70	-6.60	30.41	54.00	-23.59	AV	Horizontal
7231.38	37.89	43.50	11.40	35.50	3.40	41.29	68.20	-26.91	Pk	Vertical
7231.38	34.41	43.50	11.40	35.50	3.40	37.81	54.00	-16.19	AV	Vertical
7222.51	37.04	43.50	11.40	35.50	3.40	40.44	68.20	-27.76	Pk	Horizontal
7222.51	33.52	43.50	11.40	35.50	3.40	36.92	54.00	-17.08	AV	Horizontal
10400.02	39.24	44.50	13.80	38.80	8.10	47.34	68.20	-20.86	Pk	Vertical
10400.02	35.69	44.50	13.80	38.80	8.10	43.79	54.00	-10.21	AV	Vertical
10400.20	38.74	44.50	13.80	38.80	8.10	46.84	68.20	-21.36	Pk	Horizontal
10400.20	37.07	44.50	13.80	38.80	8.10	45.17	54.00	-8.83	AV	Horizontal
11018.49	33.17	43.60	14.30	39.50	10.20	43.37	74.00	-30.63	Pk	Vertical
11018.49	30.61	43.60	14.30	39.50	10.20	40.81	54.00	-13.19	AV	Vertical
11023.35	33.55	43.60	14.30	39.50	10.20	43.75	74.00	-30.25	Pk	Horizontal
11023.35	30.11	43.60	14.30	39.50	10.20	40.31	54.00	-13.69	AV	Horizontal
13284.92	31.64	42.60	15.90	38.90	12.20	43.84	74.00	-30.16	Pk	Vertical
13284.92	28.89	42.60	15.90	38.90	12.20	41.09	54.00	-12.91	AV	Vertical
13294.60	32.98	42.60	15.90	38.90	12.20	45.18	74.00	-28.82	Pk	Horizontal
13294.60	29.51	42.60	15.90	38.90	12.20	41.71	54.00	-12.29	AV	Horizontal



High Channel (802.11a20/ 5240 MHz)										
3255.65	44.32	44.70	6.70	28.20	-9.80	34.52	68.20	-33.68	Pk	Vertical
3255.65	41.03	44.70	6.70	28.20	-9.80	31.23	54.00	-22.77	AV	Vertical
3248.20	44.80	44.70	6.70	28.20	-9.80	35.00	68.20	-33.20	Pk	Horizontal
3248.20	41.91	44.70	6.70	28.20	-9.80	32.11	54.00	-21.89	AV	Horizontal
3987.84	39.27	44.20	7.90	29.70	-6.60	32.67	74.00	-41.33	Pk	Vertical
3987.84	36.23	44.20	7.90	29.70	-6.60	29.63	54.00	-24.37	AV	Vertical
3982.94	39.13	44.20	7.90	29.70	-6.60	32.53	74.00	-41.47	Pk	Horizontal
3982.94	36.35	44.20	7.90	29.70	-6.60	29.75	54.00	-24.25	AV	Horizontal
7217.34	37.49	43.50	11.40	35.50	3.40	40.89	68.20	-27.31	Pk	Vertical
7217.34	34.03	43.50	11.40	35.50	3.40	37.43	54.00	-16.57	AV	Vertical
7227.88	36.78	43.50	11.40	35.50	3.40	40.18	68.20	-28.02	Pk	Horizontal
7227.88	34.77	43.50	11.40	35.50	3.40	38.17	54.00	-15.83	AV	Horizontal
10480.38	38.90	44.50	13.80	38.80	8.10	47.00	68.20	-21.20	Pk	Vertical
10480.38	37.13	44.50	13.80	38.80	8.10	45.23	54.00	-8.77	AV	Vertical
10480.13	40.13	44.50	13.80	38.80	8.10	48.23	68.20	-19.97	Pk	Horizontal
10480.13	37.02	44.50	13.80	38.80	8.10	45.12	54.00	-8.88	AV	Horizontal
11027.03	33.17	43.60	14.30	39.50	10.20	43.37	74.00	-30.63	Pk	Vertical
11027.03	30.07	43.60	14.30	39.50	10.20	40.27	54.00	-13.73	AV	Vertical
11027.16	33.14	43.60	14.30	39.50	10.20	43.34	74.00	-30.66	Pk	Horizontal
11027.16	30.85	43.60	14.30	39.50	10.20	41.05	54.00	-12.95	AV	Horizontal
13288.65	32.81	42.60	15.90	38.90	12.20	45.01	74.00	-28.99	Pk	Vertical
13288.65	29.41	42.60	15.90	38.90	12.20	41.61	54.00	-12.39	AV	Vertical
13296.63	32.90	42.60	15.90	38.90	12.20	45.10	74.00	-28.90	Pk	Horizontal
13296.63	29.62	42.60	15.90	38.90	12.20	41.82	54.00	-12.18	AV	Horizontal

Remark:

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.
2. Scan with 802.11a, 802.11n (HT-20), 802.11n (HT-40), 802.11ac (VHT-20), 802.11ac (VHT-40), 802.11ac (VHT-80), 802.11ax (HE-20), 802.11ax (HE-40), 802.11ax (HE-80) the worst case is 802.11a.
3. The frequency emission of peak points that did not show above the forms are at least 20dB below the limit, the frequency emission is mainly from the environment noise.



Band II 5250-5350MHz

Frequency (MHz)	Reading (dBuV)	Amplifier (dB)	Loss (dB)	Antenna Factor (dB/m)	Corrected Factor (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Comment
Low Channel (802.11a20/ 5260 MHz)										
3245.67	44.86	44.70	6.70	28.20	-9.80	35.06	68.20	-33.14	Pk	Vertical
3245.67	41.61	44.70	6.70	28.20	-9.80	31.81	54.00	-22.19	AV	Vertical
3258.13	44.76	44.70	6.70	28.20	-9.80	34.96	68.20	-33.24	Pk	Horizontal
3258.13	40.80	44.70	6.70	28.20	-9.80	31.00	54.00	-23.00	AV	Horizontal
3987.45	39.92	44.20	7.90	29.70	-6.60	33.32	74.00	-40.68	Pk	Vertical
3987.45	36.19	44.20	7.90	29.70	-6.60	29.59	54.00	-24.41	AV	Vertical
3992.24	38.78	44.20	7.90	29.70	-6.60	32.18	74.00	-41.82	Pk	Horizontal
3992.24	36.70	44.20	7.90	29.70	-6.60	30.10	54.00	-23.90	AV	Horizontal
7234.62	36.55	43.50	11.40	35.50	3.40	39.95	68.20	-28.25	Pk	Vertical
7234.62	33.45	43.50	11.40	35.50	3.40	36.85	54.00	-17.15	AV	Vertical
7222.83	36.46	43.50	11.40	35.50	3.40	39.86	68.20	-28.34	Pk	Horizontal
7222.83	34.67	43.50	11.40	35.50	3.40	38.07	54.00	-15.93	AV	Horizontal
10360.31	40.07	44.50	13.80	38.80	8.10	48.17	68.20	-20.03	Pk	Vertical
10360.31	35.80	44.50	13.80	38.80	8.10	43.90	54.00	-10.10	AV	Vertical
10360.05	39.48	44.50	13.80	38.80	8.10	47.58	68.20	-20.62	Pk	Horizontal
10360.05	35.79	44.50	13.80	38.80	8.10	43.89	54.00	-10.11	AV	Horizontal
11027.60	32.70	43.60	14.30	39.50	10.20	42.90	74.00	-31.10	Pk	Vertical
11027.60	30.91	43.60	14.30	39.50	10.20	41.11	54.00	-12.89	AV	Vertical
11027.71	33.73	43.60	14.30	39.50	10.20	43.93	74.00	-30.07	Pk	Horizontal
11027.71	29.96	43.60	14.30	39.50	10.20	40.16	54.00	-13.84	AV	Horizontal
13299.16	31.60	42.60	15.90	38.90	12.20	43.80	74.00	-30.20	Pk	Vertical
13299.16	29.75	42.60	15.90	38.90	12.20	41.95	54.00	-12.05	AV	Vertical
13295.50	32.99	42.60	15.90	38.90	12.20	45.19	74.00	-28.81	Pk	Horizontal
13295.50	28.70	42.60	15.90	38.90	12.20	40.90	54.00	-13.10	AV	Horizontal
Mid Channel (802.11a20/ 5300 MHz)										
3262.84	44.44	44.70	6.70	28.20	-9.80	34.64	74.00	-39.36	Pk	Vertical
3262.84	40.75	44.70	6.70	28.20	-9.80	30.95	54.00	-23.05	AV	Vertical
3263.10	44.73	44.70	6.70	28.20	-9.80	34.93	74.00	-39.07	Pk	Horizontal
3263.10	42.19	44.70	6.70	28.20	-9.80	32.39	54.00	-21.61	AV	Horizontal
3980.75	39.08	44.20	7.90	29.70	-6.60	32.48	74.00	-41.52	Pk	Vertical
3980.75	36.19	44.20	7.90	29.70	-6.60	29.59	54.00	-24.41	AV	Vertical
3986.81	38.98	44.20	7.90	29.70	-6.60	32.38	74.00	-41.62	Pk	Horizontal
3986.81	36.24	44.20	7.90	29.70	-6.60	29.64	54.00	-24.36	AV	Horizontal
7219.50	37.24	43.50	11.40	35.50	3.40	40.64	68.20	-27.56	Pk	Vertical
7219.50	34.57	43.50	11.40	35.50	3.40	37.97	54.00	-16.03	AV	Vertical
7222.53	37.33	43.50	11.40	35.50	3.40	40.73	68.20	-27.47	Pk	Horizontal
7222.53	34.55	43.50	11.40	35.50	3.40	37.95	54.00	-16.05	AV	Horizontal
10400.25	39.36	44.50	13.80	38.80	8.10	47.46	68.20	-20.74	Pk	Vertical
10400.25	36.67	44.50	13.80	38.80	8.10	44.77	54.00	-9.23	AV	Vertical
10400.01	40.03	44.50	13.80	38.80	8.10	48.13	68.20	-20.07	Pk	Horizontal
10400.01	36.94	44.50	13.80	38.80	8.10	45.04	54.00	-8.96	AV	Horizontal
11017.98	33.79	43.60	14.30	39.50	10.20	43.99	74.00	-30.01	Pk	Vertical
11017.98	31.13	43.60	14.30	39.50	10.20	41.33	54.00	-12.67	AV	Vertical
11026.12	33.83	43.60	14.30	39.50	10.20	44.03	74.00	-29.97	Pk	Horizontal
11026.12	30.92	43.60	14.30	39.50	10.20	41.12	54.00	-12.88	AV	Horizontal
13282.79	31.90	42.60	15.90	38.90	12.20	44.10	74.00	-29.90	Pk	Vertical
13282.79	28.75	42.60	15.90	38.90	12.20	40.95	54.00	-13.05	AV	Vertical
13280.02	32.18	42.60	15.90	38.90	12.20	44.38	74.00	-29.62	Pk	Horizontal
13280.02	28.83	42.60	15.90	38.90	12.20	41.03	54.00	-12.97	AV	Horizontal



High Channel (802.11a20/ 5320 MHz)										
3257.58	43.84	44.70	6.70	28.20	-9.80	34.04	68.20	-34.16	Pk	Vertical
3257.58	41.27	44.70	6.70	28.20	-9.80	31.47	54.00	-22.53	AV	Vertical
3262.00	44.35	44.70	6.70	28.20	-9.80	34.55	74.00	-39.45	Pk	Horizontal
3262.00	41.13	44.70	6.70	28.20	-9.80	31.33	54.00	-22.67	AV	Horizontal
3989.19	38.75	44.20	7.90	29.70	-6.60	32.15	74.00	-41.85	Pk	Vertical
3989.19	36.86	44.20	7.90	29.70	-6.60	30.26	54.00	-23.74	AV	Vertical
3980.36	38.90	44.20	7.90	29.70	-6.60	32.30	74.00	-41.70	Pk	Horizontal
3980.36	35.92	44.20	7.90	29.70	-6.60	29.32	54.00	-24.68	AV	Horizontal
7217.61	36.99	43.50	11.40	35.50	3.40	40.39	68.20	-27.81	Pk	Vertical
7217.61	33.88	43.50	11.40	35.50	3.40	37.28	54.00	-16.72	AV	Vertical
7219.17	37.75	43.50	11.40	35.50	3.40	41.15	68.20	-27.05	Pk	Horizontal
7219.17	33.66	43.50	11.40	35.50	3.40	37.06	54.00	-16.94	AV	Horizontal
10480.36	39.44	44.50	13.80	38.80	8.10	47.54	68.20	-20.66	Pk	Vertical
10480.36	36.07	44.50	13.80	38.80	8.10	44.17	54.00	-9.83	AV	Vertical
10480.00	39.21	44.50	13.80	38.80	8.10	47.31	68.20	-20.89	Pk	Horizontal
10480.00	36.69	44.50	13.80	38.80	8.10	44.79	54.00	-9.21	AV	Horizontal
11025.19	32.92	43.60	14.30	39.50	10.20	43.12	74.00	-30.88	Pk	Vertical
11025.19	30.24	43.60	14.30	39.50	10.20	40.44	54.00	-13.56	AV	Vertical
11035.93	33.82	43.60	14.30	39.50	10.20	44.02	74.00	-29.98	Pk	Horizontal
11035.93	30.75	43.60	14.30	39.50	10.20	40.95	54.00	-13.05	AV	Horizontal
13288.90	32.81	42.60	15.90	38.90	12.20	45.01	74.00	-28.99	Pk	Vertical
13288.90	29.57	42.60	15.90	38.90	12.20	41.77	54.00	-12.23	AV	Vertical
13291.98	32.25	42.60	15.90	38.90	12.20	44.45	74.00	-29.55	Pk	Horizontal
13291.98	29.65	42.60	15.90	38.90	12.20	41.85	54.00	-12.15	AV	Horizontal

Remark:

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.
2. Scan with 802.11a, 802.11n (HT-20), 802.11n (HT-40), 802.11ac (VHT-20), 802.11ac (VHT-40), 802.11ac (VHT-80), 802.11ax (HE-20), 802.11ax (HE-40), 802.11ax (HE-80) the worst case is 802.11a.
3. The frequency emission of peak points that did not show above the forms are at least 20dB below the limit, the frequency emission is mainly from the environment noise.

**Band III 5470-5725MHz**

Frequency (MHz)	Reading (dBuV)	Amplifier (dB)	Loss (dB)	Antenna Factor (dB/m)	Corrected Factor (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Comment
Low Channel (802.11a20/ 5500 MHz)										
3249.14	45.24	44.70	6.70	28.20	-9.80	35.44	68.20	-32.76	Pk	Vertical
3249.14	41.74	44.70	6.70	28.20	-9.80	31.94	54.00	-22.06	AV	Vertical
3258.80	44.62	44.70	6.70	28.20	-9.80	34.82	68.20	-33.38	Pk	Horizontal
3258.80	41.84	44.70	6.70	28.20	-9.80	32.04	54.00	-21.96	AV	Horizontal
3995.00	38.94	44.20	7.90	29.70	-6.60	32.34	74.00	-41.66	Pk	Vertical
3995.00	36.18	44.20	7.90	29.70	-6.60	29.58	54.00	-24.42	AV	Vertical
3986.93	40.12	44.20	7.90	29.70	-6.60	33.52	74.00	-40.48	Pk	Horizontal
3986.93	36.86	44.20	7.90	29.70	-6.60	30.26	54.00	-23.74	AV	Horizontal
7225.05	36.46	43.50	11.40	35.50	3.40	39.86	68.20	-28.34	Pk	Vertical
7225.05	34.08	43.50	11.40	35.50	3.40	37.48	54.00	-16.52	AV	Vertical
7232.17	36.53	43.50	11.40	35.50	3.40	39.93	68.20	-28.27	Pk	Horizontal
7232.17	33.83	43.50	11.40	35.50	3.40	37.23	54.00	-16.77	AV	Horizontal
10360.34	39.72	44.50	13.80	38.80	8.10	47.82	68.20	-20.38	Pk	Vertical
10360.34	36.90	44.50	13.80	38.80	8.10	45.00	54.00	-9.00	AV	Vertical
10360.41	39.77	44.50	13.80	38.80	8.10	47.87	68.20	-20.33	Pk	Horizontal
10360.41	37.01	44.50	13.80	38.80	8.10	45.11	54.00	-8.89	AV	Horizontal
11031.93	34.12	43.60	14.30	39.50	10.20	44.32	74.00	-29.68	Pk	Vertical
11031.93	30.91	43.60	14.30	39.50	10.20	41.11	54.00	-12.89	AV	Vertical
11024.64	33.90	43.60	14.30	39.50	10.20	44.10	74.00	-29.90	Pk	Horizontal
11024.64	30.27	43.60	14.30	39.50	10.20	40.47	54.00	-13.53	AV	Horizontal
13281.84	32.21	42.60	15.90	38.90	12.20	44.41	74.00	-29.59	Pk	Vertical
13281.84	28.90	42.60	15.90	38.90	12.20	41.10	54.00	-12.90	AV	Vertical
13295.72	31.78	42.60	15.90	38.90	12.20	43.98	74.00	-30.02	Pk	Horizontal
13295.72	29.02	42.60	15.90	38.90	12.20	41.22	54.00	-12.78	AV	Horizontal
Mid Channel (802.11a20/ 5580 MHz)										
3262.89	44.97	44.70	6.70	28.20	-9.80	35.17	74.00	-38.83	Pk	Vertical
3262.89	40.90	44.70	6.70	28.20	-9.80	31.10	54.00	-22.90	AV	Vertical
3247.63	43.77	44.70	6.70	28.20	-9.80	33.97	68.20	-34.23	Pk	Horizontal
3247.63	40.94	44.70	6.70	28.20	-9.80	31.14	54.00	-22.86	AV	Horizontal
3982.03	39.85	44.20	7.90	29.70	-6.60	33.25	74.00	-40.75	Pk	Vertical
3982.03	35.89	44.20	7.90	29.70	-6.60	29.29	54.00	-24.71	AV	Vertical
3986.06	38.70	44.20	7.90	29.70	-6.60	32.10	74.00	-41.90	Pk	Horizontal
3986.06	36.39	44.20	7.90	29.70	-6.60	29.79	54.00	-24.21	AV	Horizontal
7225.91	37.10	43.50	11.40	35.50	3.40	40.50	68.20	-27.70	Pk	Vertical
7225.91	33.48	43.50	11.40	35.50	3.40	36.88	54.00	-17.12	AV	Vertical
7228.15	37.37	43.50	11.40	35.50	3.40	40.77	68.20	-27.43	Pk	Horizontal
7228.15	34.57	43.50	11.40	35.50	3.40	37.97	54.00	-16.03	AV	Horizontal
10400.07	39.22	44.50	13.80	38.80	8.10	47.32	68.20	-20.88	Pk	Vertical
10400.07	36.15	44.50	13.80	38.80	8.10	44.25	54.00	-9.75	AV	Vertical
10400.26	38.94	44.50	13.80	38.80	8.10	47.04	68.20	-21.16	Pk	Horizontal
10400.26	36.51	44.50	13.80	38.80	8.10	44.61	54.00	-9.39	AV	Horizontal
11034.94	33.70	43.60	14.30	39.50	10.20	43.90	74.00	-30.10	Pk	Vertical
11034.94	30.41	43.60	14.30	39.50	10.20	40.61	54.00	-13.39	AV	Vertical
11023.64	32.75	43.60	14.30	39.50	10.20	42.95	74.00	-31.05	Pk	Horizontal
11023.64	31.16	43.60	14.30	39.50	10.20	41.36	54.00	-12.64	AV	Horizontal
13283.55	32.62	42.60	15.90	38.90	12.20	44.82	74.00	-29.18	Pk	Vertical
13283.55	28.98	42.60	15.90	38.90	12.20	41.18	54.00	-12.82	AV	Vertical
13292.70	32.16	42.60	15.90	38.90	12.20	44.36	74.00	-29.64	Pk	Horizontal
13292.70	29.70	42.60	15.90	38.90	12.20	41.90	54.00	-12.10	AV	Horizontal



High Channel (802.11a20/ 5700 MHz)										
3246.31	44.67	44.70	6.70	28.20	-9.80	34.87	68.20	-33.33	Pk	Vertical
3246.31	41.08	44.70	6.70	28.20	-9.80	31.28	54.00	-22.72	AV	Vertical
3261.18	44.12	44.70	6.70	28.20	-9.80	34.32	74.00	-39.68	Pk	Horizontal
3261.18	41.63	44.70	6.70	28.20	-9.80	31.83	54.00	-22.17	AV	Horizontal
3995.84	38.74	44.20	7.90	29.70	-6.60	32.14	74.00	-41.86	Pk	Vertical
3995.84	35.89	44.20	7.90	29.70	-6.60	29.29	54.00	-24.71	AV	Vertical
3997.95	39.05	44.20	7.90	29.70	-6.60	32.45	74.00	-41.55	Pk	Horizontal
3997.95	35.64	44.20	7.90	29.70	-6.60	29.04	54.00	-24.96	AV	Horizontal
7226.07	37.54	43.50	11.40	35.50	3.40	40.94	68.20	-27.26	Pk	Vertical
7226.07	33.65	43.50	11.40	35.50	3.40	37.05	54.00	-16.95	AV	Vertical
7227.35	36.84	43.50	11.40	35.50	3.40	40.24	68.20	-27.96	Pk	Horizontal
7227.35	34.36	43.50	11.40	35.50	3.40	37.76	54.00	-16.24	AV	Horizontal
10480.00	39.15	44.50	13.80	38.80	8.10	47.25	68.20	-20.95	Pk	Vertical
10480.00	36.65	44.50	13.80	38.80	8.10	44.75	54.00	-9.25	AV	Vertical
10480.08	38.99	44.50	13.80	38.80	8.10	47.09	68.20	-21.11	Pk	Horizontal
10480.08	36.96	44.50	13.80	38.80	8.10	45.06	54.00	-8.94	AV	Horizontal
11025.50	33.97	43.60	14.30	39.50	10.20	44.17	74.00	-29.83	Pk	Vertical
11025.50	30.69	43.60	14.30	39.50	10.20	40.89	54.00	-13.11	AV	Vertical
11021.06	33.49	43.60	14.30	39.50	10.20	43.69	74.00	-30.31	Pk	Horizontal
11021.06	31.13	43.60	14.30	39.50	10.20	41.33	54.00	-12.67	AV	Horizontal
13288.16	31.83	42.60	15.90	38.90	12.20	44.03	74.00	-29.97	Pk	Vertical
13288.16	28.81	42.60	15.90	38.90	12.20	41.01	54.00	-12.99	AV	Vertical
13280.65	32.29	42.60	15.90	38.90	12.20	44.49	74.00	-29.51	Pk	Horizontal
13280.65	28.54	42.60	15.90	38.90	12.20	40.74	54.00	-13.26	AV	Horizontal

Remark:

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.
2. Scan with 802.11a, 802.11n (HT-20), 802.11n (HT-40), 802.11ac (VHT-20), 802.11ac (VHT-40), 802.11ac (VHT-80), 802.11ax (HE-20), 802.11ax (HE-40), 802.11ax (HE-80) the worst case is 802.11a.
3. The frequency emission of peak points that did not show above the forms are at least 20dB below the limit, the frequency emission is mainly from the environment noise.



Band IV(5.725-5.850) GHz

Frequency (MHz)	Reading (dBuV)	Amplifier (dB)	Loss (dB)	Antenna Factor (dB/m)	Corrected Factor (dB)	Emission Level (dBμV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Comment
Low Channel (802.11a20/ 5745 MHz)										
3256.48	44.24	44.70	6.70	28.20	-9.80	34.44	68.20	-33.76	Pk	Vertical
3256.48	41.05	44.70	6.70	28.20	-9.80	31.25	54.00	-22.75	AV	Vertical
3249.09	44.02	44.70	6.70	28.20	-9.80	34.22	68.20	-33.98	Pk	Horizontal
3249.09	42.23	44.70	6.70	28.20	-9.80	32.43	54.00	-21.57	AV	Horizontal
3993.31	39.03	44.20	7.90	29.70	-6.60	32.43	74.00	-41.57	Pk	Vertical
3993.31	36.50	44.20	7.90	29.70	-6.60	29.90	54.00	-24.10	AV	Vertical
3998.51	39.73	44.20	7.90	29.70	-6.60	33.13	74.00	-40.87	Pk	Horizontal
3998.51	37.00	44.20	7.90	29.70	-6.60	30.40	54.00	-23.60	AV	Horizontal
7219.25	36.90	43.50	11.40	35.50	3.40	40.30	68.20	-27.90	Pk	Vertical
7219.25	34.63	43.50	11.40	35.50	3.40	38.03	54.00	-15.97	AV	Vertical
7229.31	37.88	43.50	11.40	35.50	3.40	41.28	68.20	-26.92	Pk	Horizontal
7229.31	34.14	43.50	11.40	35.50	3.40	37.54	54.00	-16.46	AV	Horizontal
10359.98	39.57	44.50	13.80	38.80	8.10	47.67	68.20	-20.53	Pk	Vertical
10359.98	36.73	44.50	13.80	38.80	8.10	44.83	54.00	-9.17	AV	Vertical
10360.09	39.63	44.50	13.80	38.80	8.10	47.73	68.20	-20.47	Pk	Horizontal
10360.09	36.11	44.50	13.80	38.80	8.10	44.21	54.00	-9.79	AV	Horizontal
11036.00	33.96	43.60	14.30	39.50	10.20	44.16	74.00	-29.84	Pk	Vertical
11036.00	29.84	43.60	14.30	39.50	10.20	40.04	54.00	-13.96	AV	Vertical
11027.98	34.03	43.60	14.30	39.50	10.20	44.23	74.00	-29.77	Pk	Horizontal
11027.98	29.68	43.60	14.30	39.50	10.20	39.88	54.00	-14.12	AV	Horizontal
13294.25	32.60	42.60	15.90	38.90	12.20	44.80	74.00	-29.20	Pk	Vertical
13294.25	29.13	42.60	15.90	38.90	12.20	41.33	54.00	-12.67	AV	Vertical
13284.13	31.95	42.60	15.90	38.90	12.20	44.15	74.00	-29.85	Pk	Horizontal
13284.13	29.59	42.60	15.90	38.90	12.20	41.79	54.00	-12.21	AV	Horizontal
Mid Channel (802.11a20/ 5785MHz)										
3256.49	44.40	44.70	6.70	28.20	-9.80	34.60	68.20	-33.60	Pk	Vertical
3256.49	41.13	44.70	6.70	28.20	-9.80	31.33	54.00	-22.67	AV	Vertical
3251.49	44.27	44.70	6.70	28.20	-9.80	34.47	68.20	-33.73	Pk	Horizontal
3251.49	40.82	44.70	6.70	28.20	-9.80	31.02	54.00	-22.98	AV	Horizontal
3981.80	39.53	44.20	7.90	29.70	-6.60	32.93	74.00	-41.07	Pk	Vertical
3981.80	36.00	44.20	7.90	29.70	-6.60	29.40	54.00	-24.60	AV	Vertical
3991.60	39.96	44.20	7.90	29.70	-6.60	33.36	74.00	-40.64	Pk	Horizontal
3991.60	35.73	44.20	7.90	29.70	-6.60	29.13	54.00	-24.87	AV	Horizontal
7226.16	37.82	43.50	11.40	35.50	3.40	41.22	68.20	-26.98	Pk	Vertical
7226.16	33.45	43.50	11.40	35.50	3.40	36.85	54.00	-17.15	AV	Vertical
7224.78	37.17	43.50	11.40	35.50	3.40	40.57	68.20	-27.63	Pk	Horizontal
7224.78	34.00	43.50	11.40	35.50	3.40	37.40	54.00	-16.60	AV	Horizontal
10400.06	39.57	44.50	13.80	38.80	8.10	47.67	68.20	-20.53	Pk	Vertical
10400.06	35.81	44.50	13.80	38.80	8.10	43.91	54.00	-10.09	AV	Vertical
10399.96	39.45	44.50	13.80	38.80	8.10	47.55	68.20	-20.65	Pk	Horizontal
10399.96	36.52	44.50	13.80	38.80	8.10	44.62	54.00	-9.38	AV	Horizontal
11021.29	33.61	43.60	14.30	39.50	10.20	43.81	74.00	-30.19	Pk	Vertical
11021.29	30.56	43.60	14.30	39.50	10.20	40.76	54.00	-13.24	AV	Vertical
11019.12	33.29	43.60	14.30	39.50	10.20	43.49	74.00	-30.51	Pk	Horizontal
11019.12	29.94	43.60	14.30	39.50	10.20	40.14	54.00	-13.86	AV	Horizontal
13294.55	31.98	42.60	15.90	38.90	12.20	44.18	74.00	-29.82	Pk	Vertical
13294.55	29.37	42.60	15.90	38.90	12.20	41.57	54.00	-12.43	AV	Vertical
13290.06	32.13	42.60	15.90	38.90	12.20	44.33	74.00	-29.67	Pk	Horizontal
13290.06	29.37	42.60	15.90	38.90	12.20	41.57	54.00	-12.43	AV	Horizontal



High Channel (802.11a20/ 5825 MHz)										
3251.40	44.46	44.70	6.70	28.20	-9.80	34.66	68.20	-33.54	Pk	Vertical
3251.40	41.99	44.70	6.70	28.20	-9.80	32.19	54.00	-21.81	AV	Vertical
3265.02	43.96	44.70	6.70	28.20	-9.80	34.16	74.00	-39.84	Pk	Horizontal
3265.02	41.54	44.70	6.70	28.20	-9.80	31.74	54.00	-22.26	AV	Horizontal
3993.92	38.97	44.20	7.90	29.70	-6.60	32.37	74.00	-41.63	Pk	Vertical
3993.92	36.65	44.20	7.90	29.70	-6.60	30.05	54.00	-23.95	AV	Vertical
3988.89	39.78	44.20	7.90	29.70	-6.60	33.18	74.00	-40.82	Pk	Horizontal
3988.89	36.98	44.20	7.90	29.70	-6.60	30.38	54.00	-23.62	AV	Horizontal
7219.09	37.26	43.50	11.40	35.50	3.40	40.66	68.20	-27.54	Pk	Vertical
7219.09	33.43	43.50	11.40	35.50	3.40	36.83	54.00	-17.17	AV	Vertical
7234.87	36.84	43.50	11.40	35.50	3.40	40.24	68.20	-27.96	Pk	Horizontal
7234.87	34.52	43.50	11.40	35.50	3.40	37.92	54.00	-16.08	AV	Horizontal
10480.06	40.04	44.50	13.80	38.80	8.10	48.14	68.20	-20.06	Pk	Vertical
10480.06	35.91	44.50	13.80	38.80	8.10	44.01	54.00	-9.99	AV	Vertical
10479.96	38.94	44.50	13.80	38.80	8.10	47.04	68.20	-21.16	Pk	Horizontal
10479.96	36.69	44.50	13.80	38.80	8.10	44.79	54.00	-9.21	AV	Horizontal
11030.24	34.15	43.60	14.30	39.50	10.20	44.35	74.00	-29.65	Pk	Vertical
11030.24	30.97	43.60	14.30	39.50	10.20	41.17	54.00	-12.83	AV	Vertical
11022.67	32.78	43.60	14.30	39.50	10.20	42.98	74.00	-31.02	Pk	Horizontal
11022.67	30.44	43.60	14.30	39.50	10.20	40.64	54.00	-13.36	AV	Horizontal
13299.89	32.52	42.60	15.90	38.90	12.20	44.72	74.00	-29.28	Pk	Vertical
13299.89	29.22	42.60	15.90	38.90	12.20	41.42	54.00	-12.58	AV	Vertical
13285.42	32.60	42.60	15.90	38.90	12.20	44.80	74.00	-29.20	Pk	Horizontal
13285.42	28.91	42.60	15.90	38.90	12.20	41.11	54.00	-12.89	AV	Horizontal

Remark:

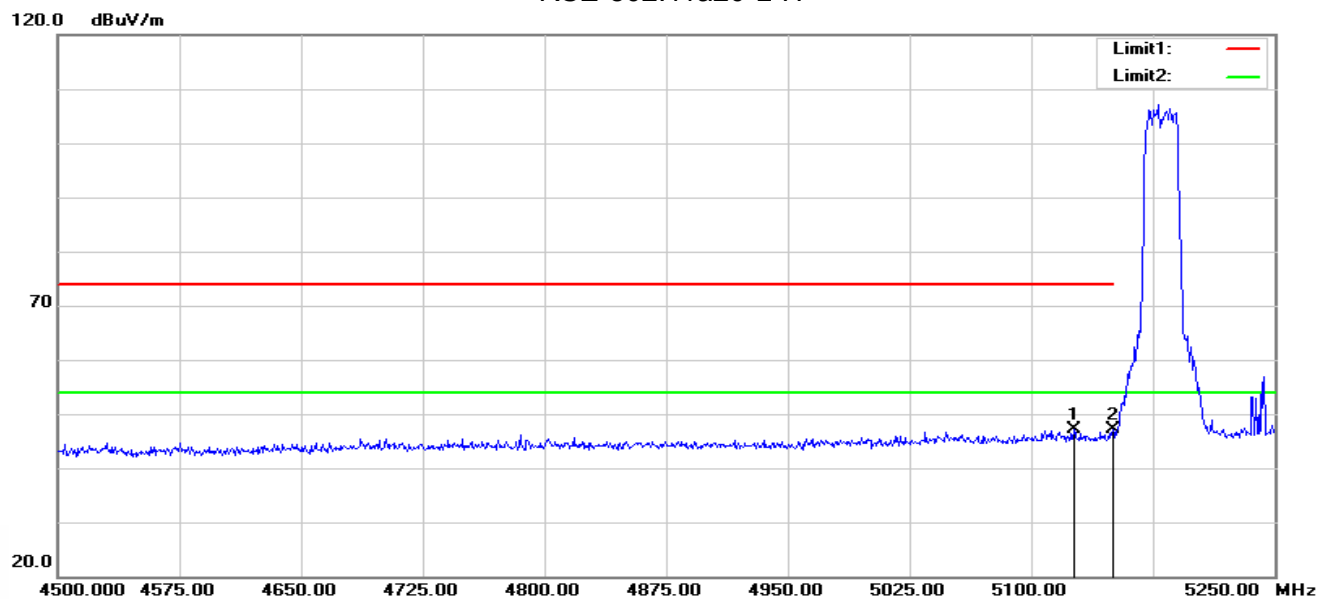
1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.
2. Scan with 802.11a, 802.11n (HT-20), 802.11n (HT-40), 802.11ac (VHT-20), 802.11ac (VHT-40), 802.11ac (VHT-80), 802.11ax (HE-20), 802.11ax (HE-40), 802.11ax (HE-80) the worst case is 802.11a.
3. The frequency emission of peak points that did not show above the forms are at least 20dB below the limit, the frequency emission is mainly from the environment noise.



3.2.9 RESTRICTED FREQUENCY BANDS AND BAND EDGE

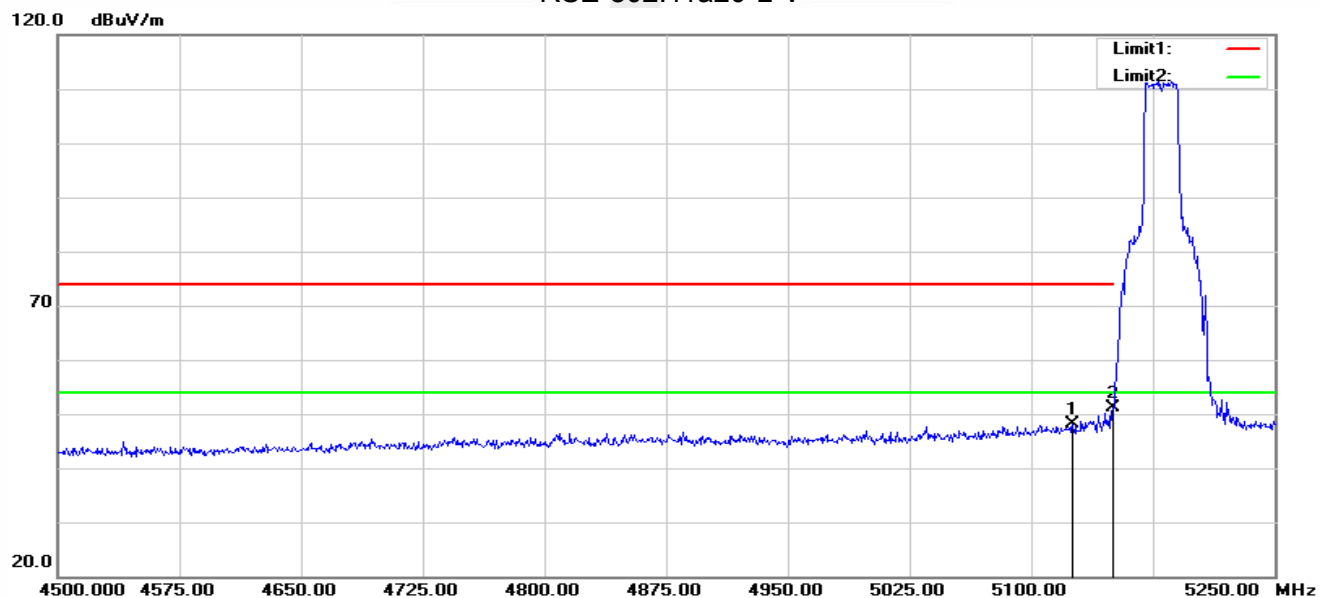
Band I 5150-5250MHz

RSE-802.11a20-L-H



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5126.250	52.77	-5.74	47.03	74.00	-26.97	peak
2	5150.000	52.96	-5.73	47.23	74.00	-26.77	peak

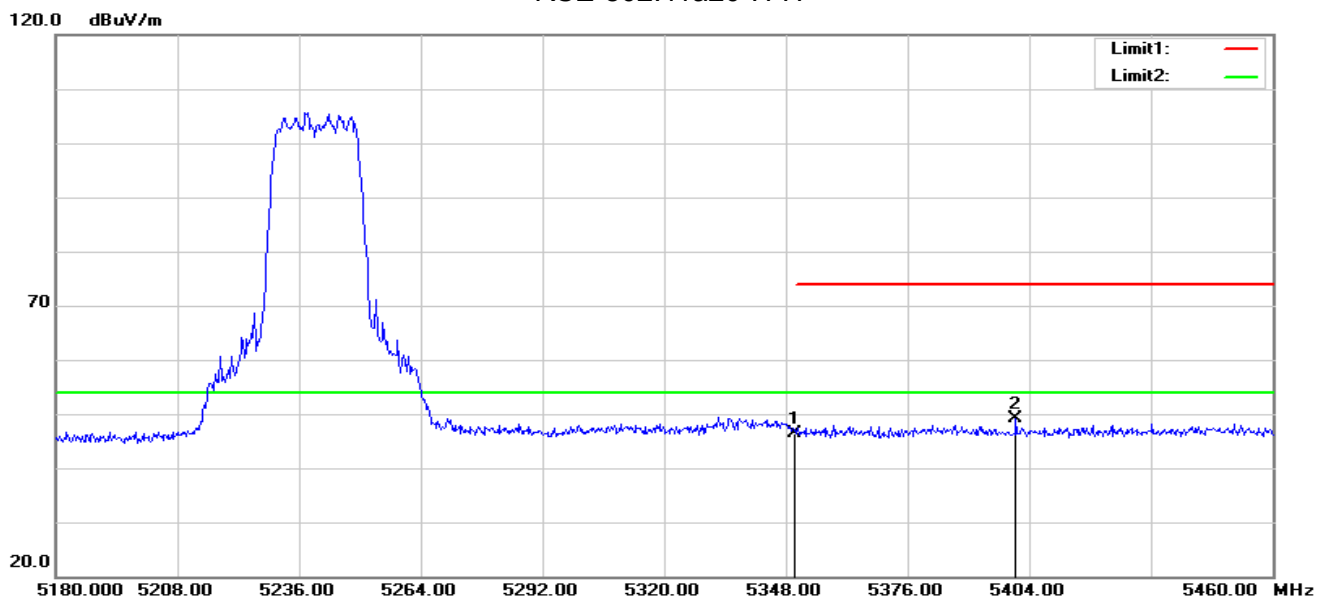
RSE-802.11a20-L-V



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5125.500	53.93	-5.74	48.19	74.00	-25.81	peak
2	5150.000	56.90	-5.73	51.17	74.00	-22.83	peak

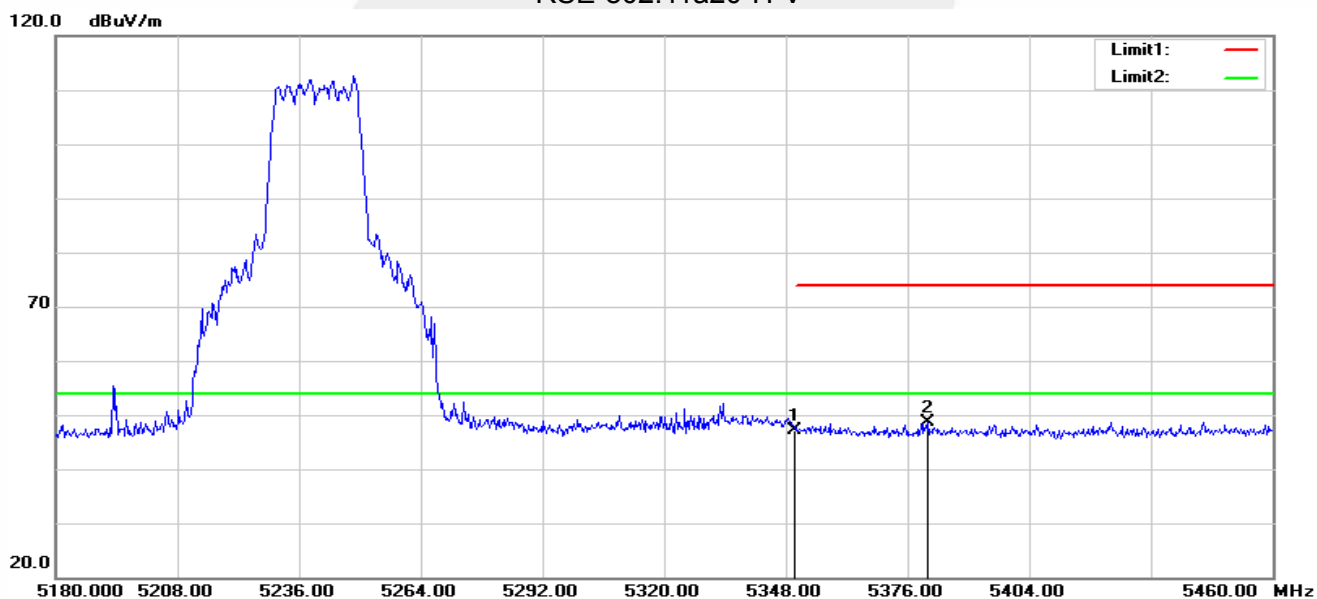


RSE-802.11a20-H-H



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5350.000	51.60	-5.23	46.37	74.00	-27.63	peak
2	5400.920	54.48	-5.25	49.23	74.00	-24.77	peak

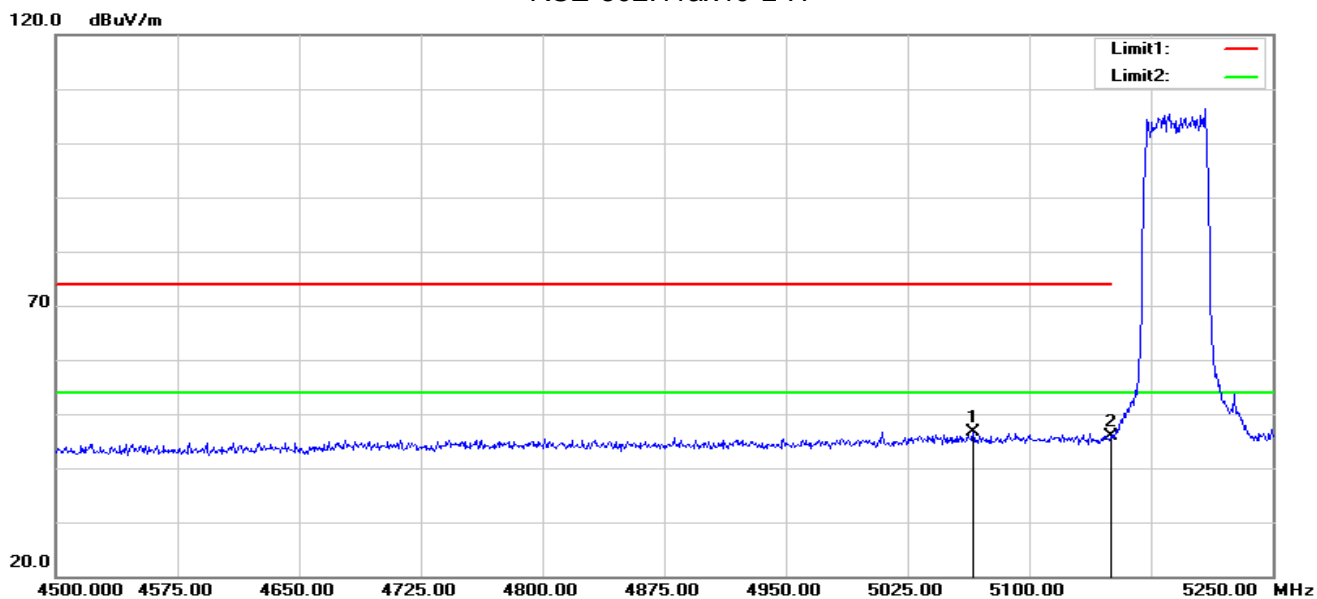
RSE-802.11a20-H-V



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5350.000	52.36	-5.23	47.13	74.00	-26.87	peak
2	5380.760	53.85	-5.25	48.60	74.00	-25.40	peak

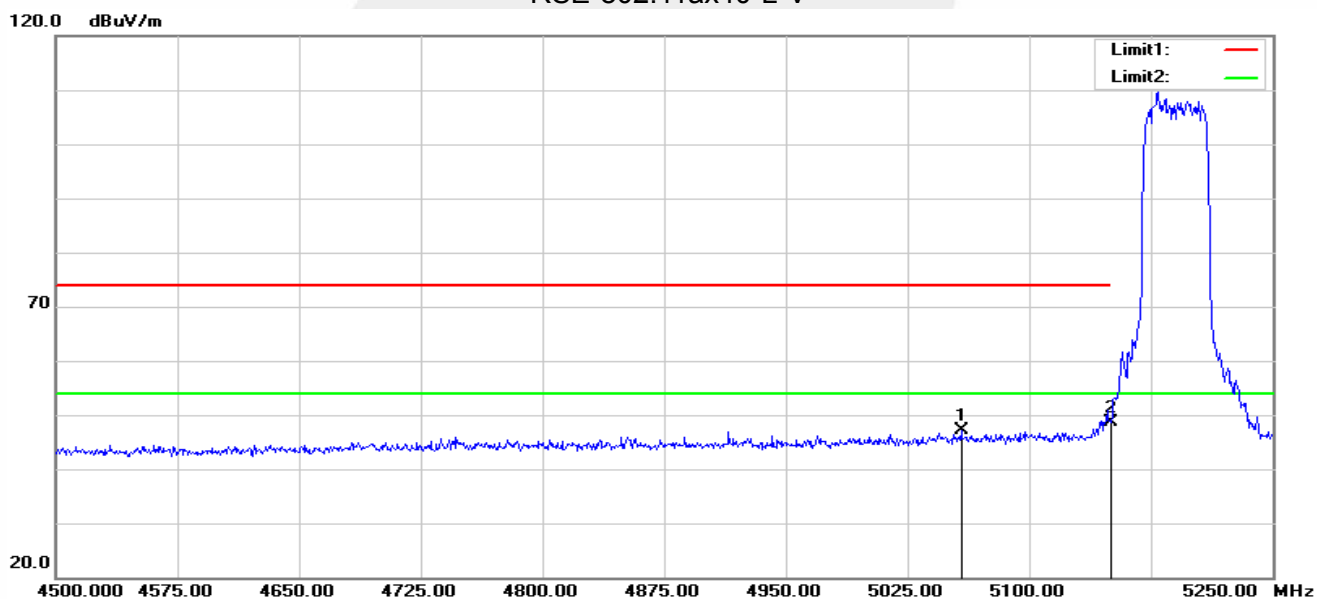


RSE-802.11ax40-L-H



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5065.500	52.52	-5.90	46.62	74.00	-27.38	peak
2	5150.000	51.61	-5.73	45.88	74.00	-28.12	peak

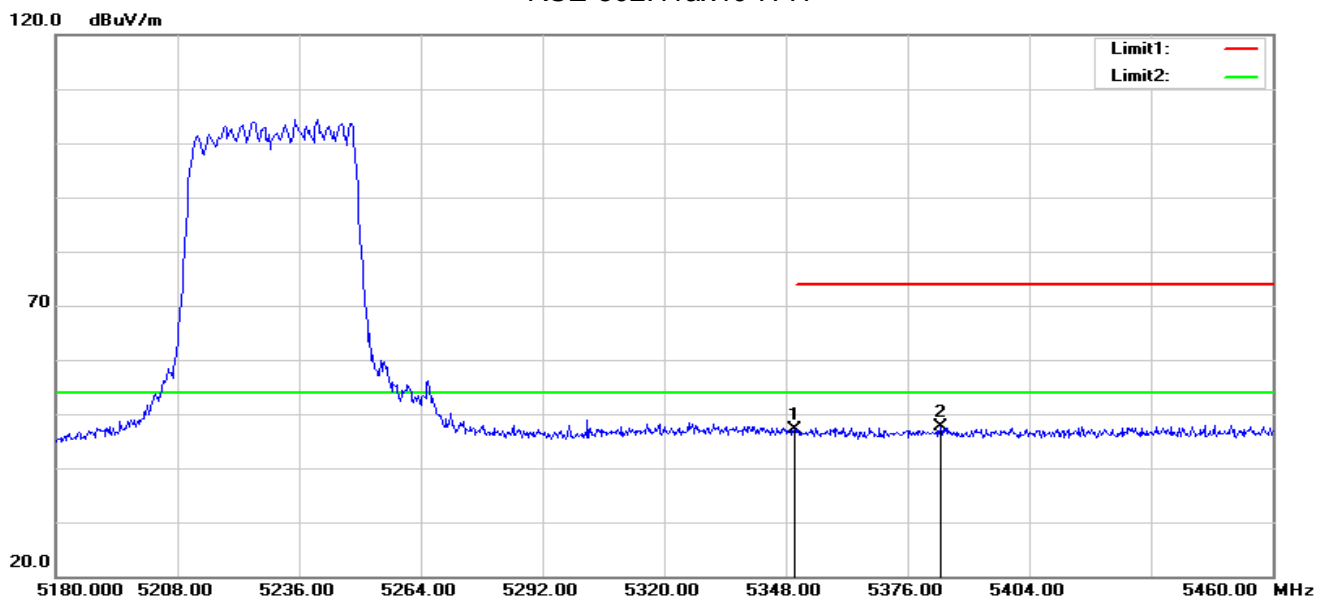
RSE-802.11ax40-L-V



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5058.000	53.01	-5.93	47.08	74.00	-26.92	peak
2	5150.000	54.44	-5.73	48.71	74.00	-25.29	peak

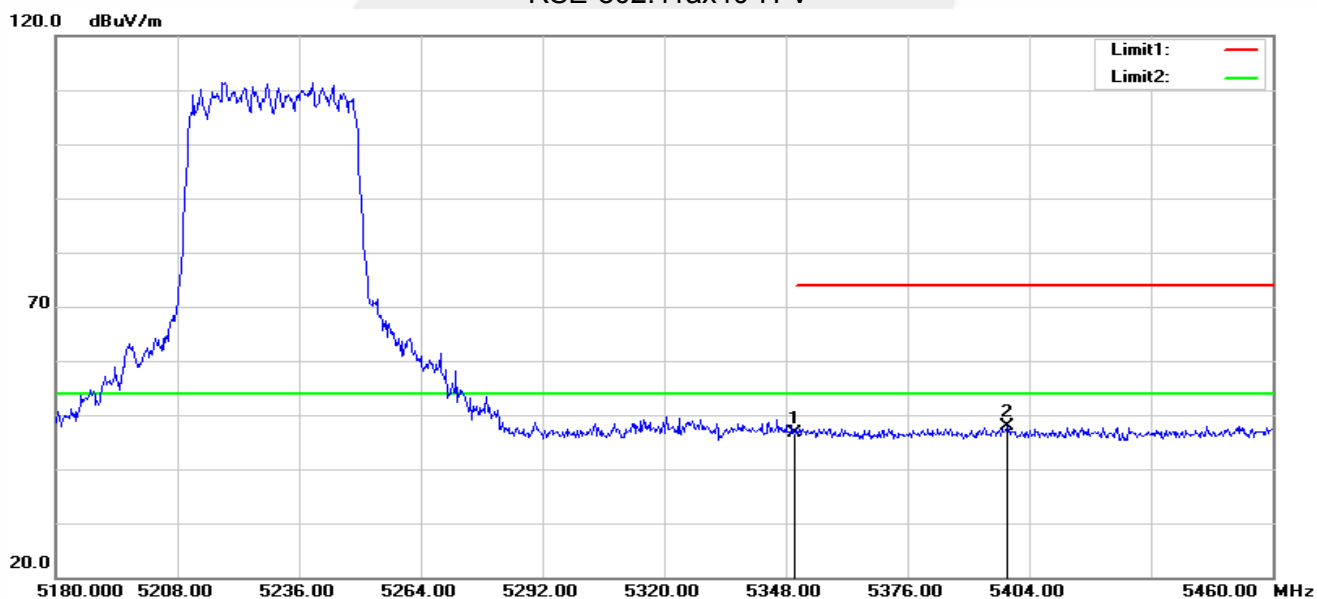


RSE-802.11ax40-H-H



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5350.000	52.33	-5.23	47.10	74.00	-26.90	peak
2	5383.560	52.93	-5.24	47.69	74.00	-26.31	peak

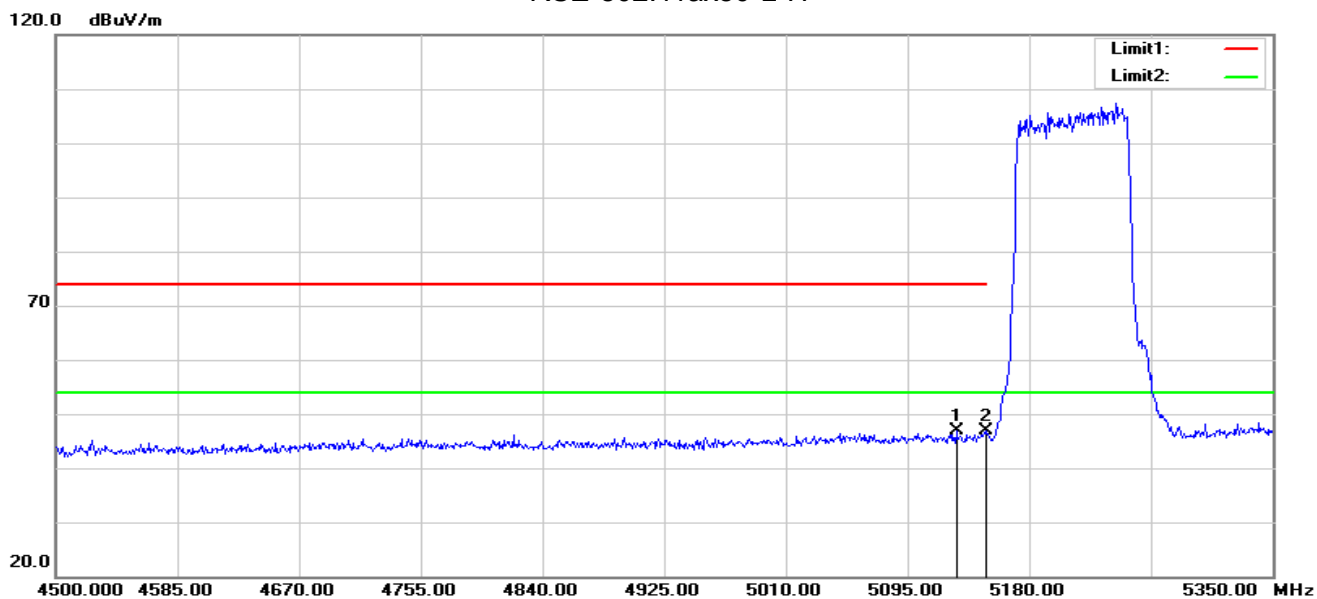
RSE-802.11ax40-H-V



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5350.000	51.81	-5.23	46.58	74.00	-27.42	peak
2	5398.960	53.09	-5.25	47.84	74.00	-26.16	peak

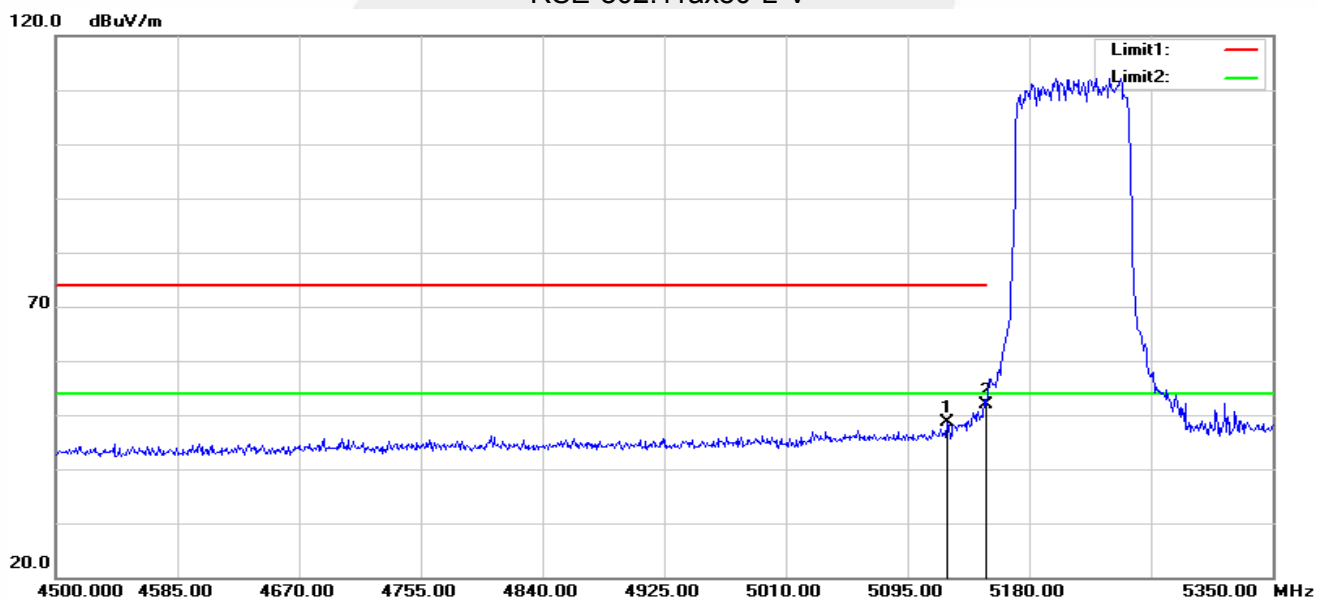


RSE-802.11ax80-L-H



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5129.000	52.60	-5.74	46.86	74.00	-27.14	peak
2	5150.000	52.49	-5.73	46.76	74.00	-27.24	peak

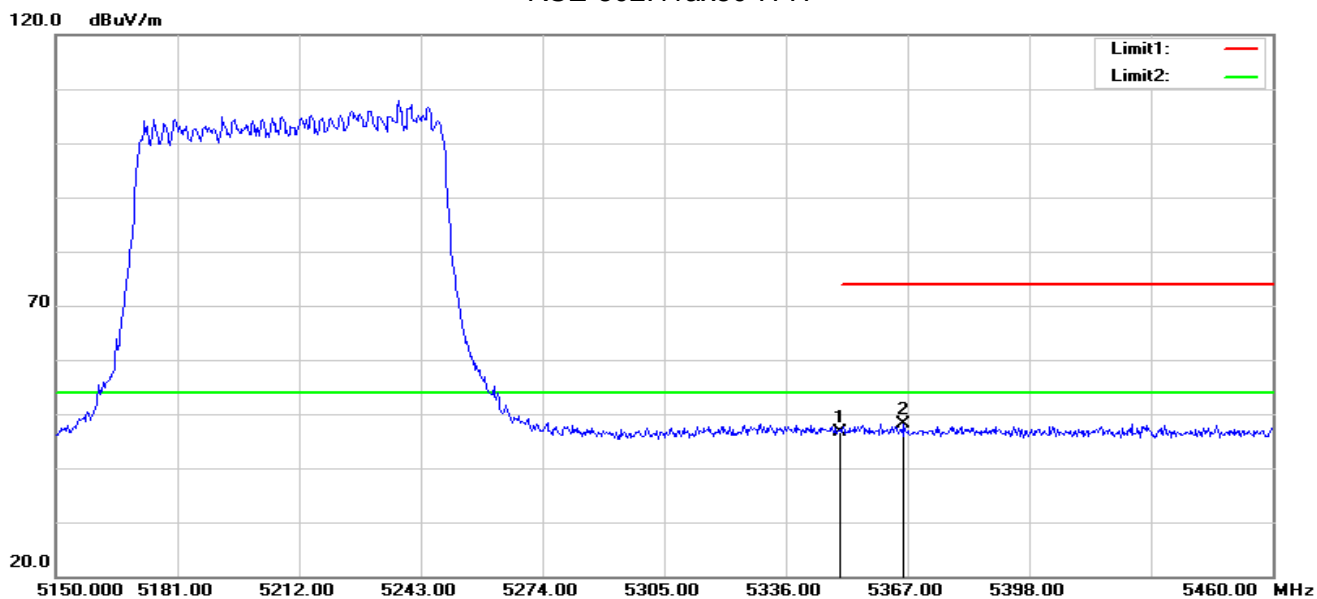
RSE-802.11ax80-L-V



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5123.050	54.26	-5.74	48.52	74.00	-25.48	peak
2	5150.000	57.68	-5.73	51.95	74.00	-22.05	peak

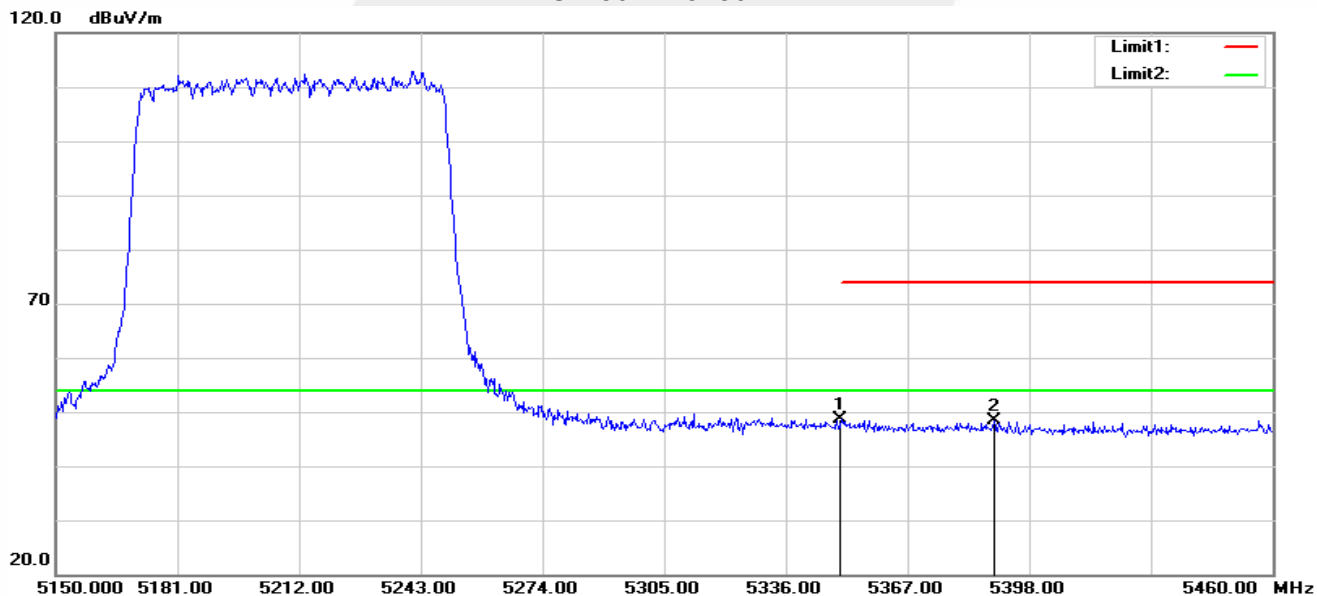


RSE-802.11ax80-H-H



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5350.000	51.85	-5.23	46.62	74.00	-27.38	peak
2	5366.070	53.41	-5.24	48.17	74.00	-25.83	peak

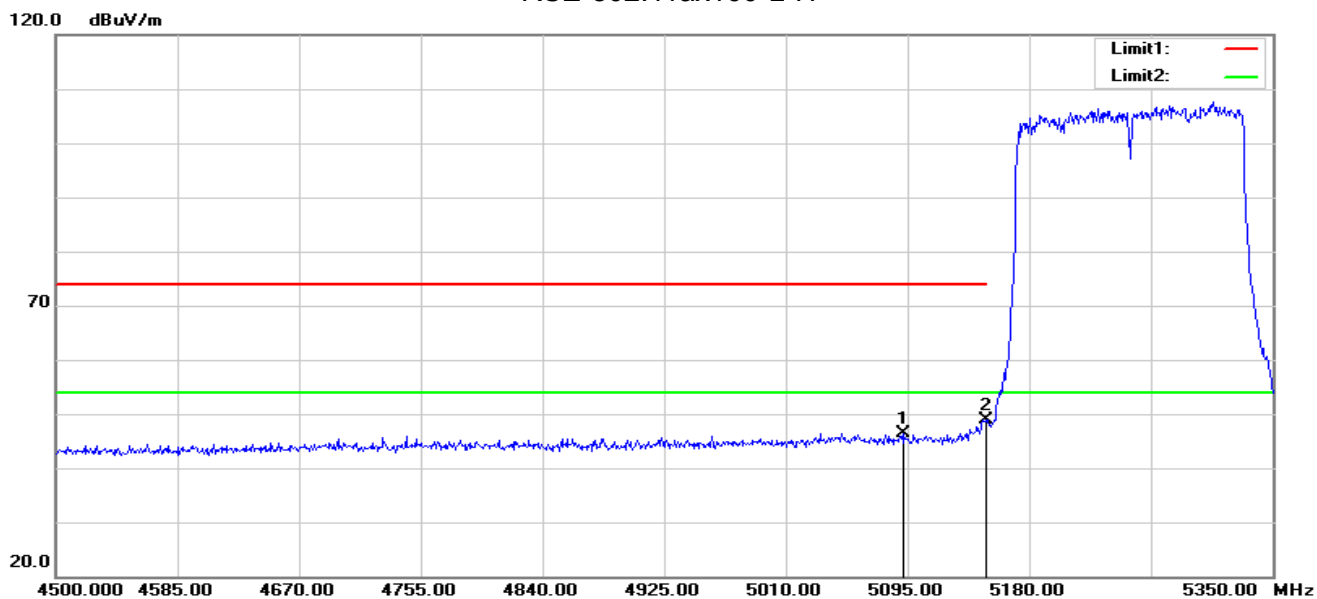
RSE-802.11ax80-H-V



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5350.000	53.85	-5.23	48.62	74.00	-25.38	peak
2	5389.010	53.64	-5.25	48.39	74.00	-25.61	peak

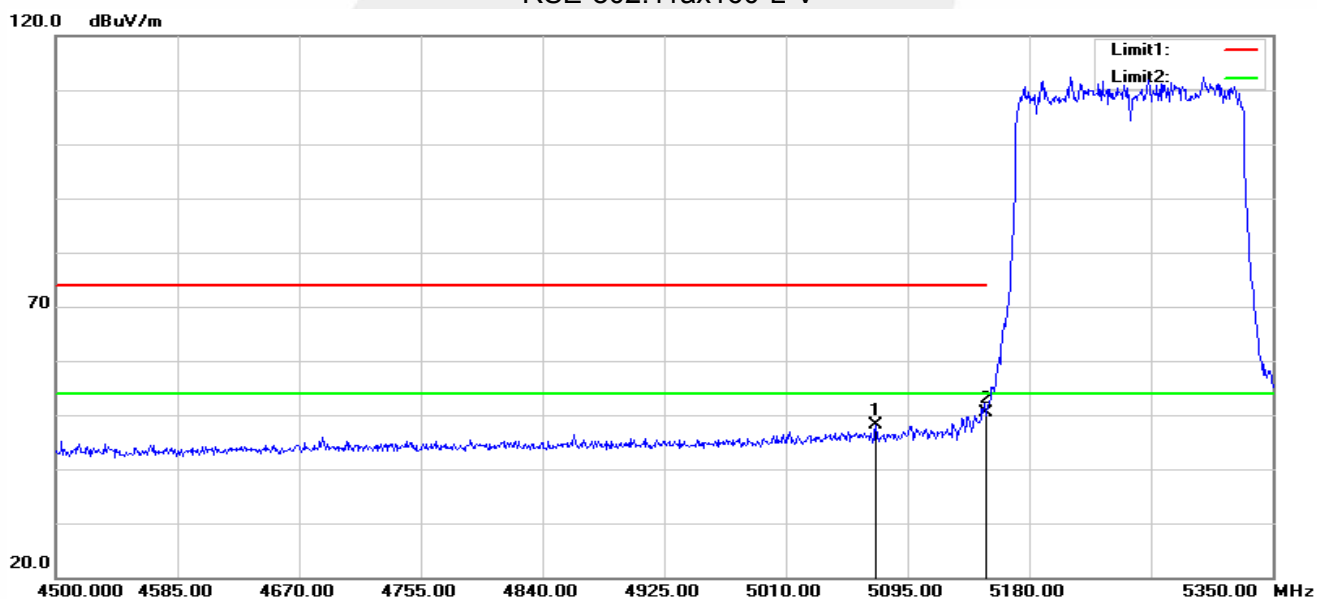


RSE-802.11ax160-L-H



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5092.450	52.22	-5.78	46.44	74.00	-27.56	peak
2	5150.000	54.54	-5.73	48.81	74.00	-25.19	peak

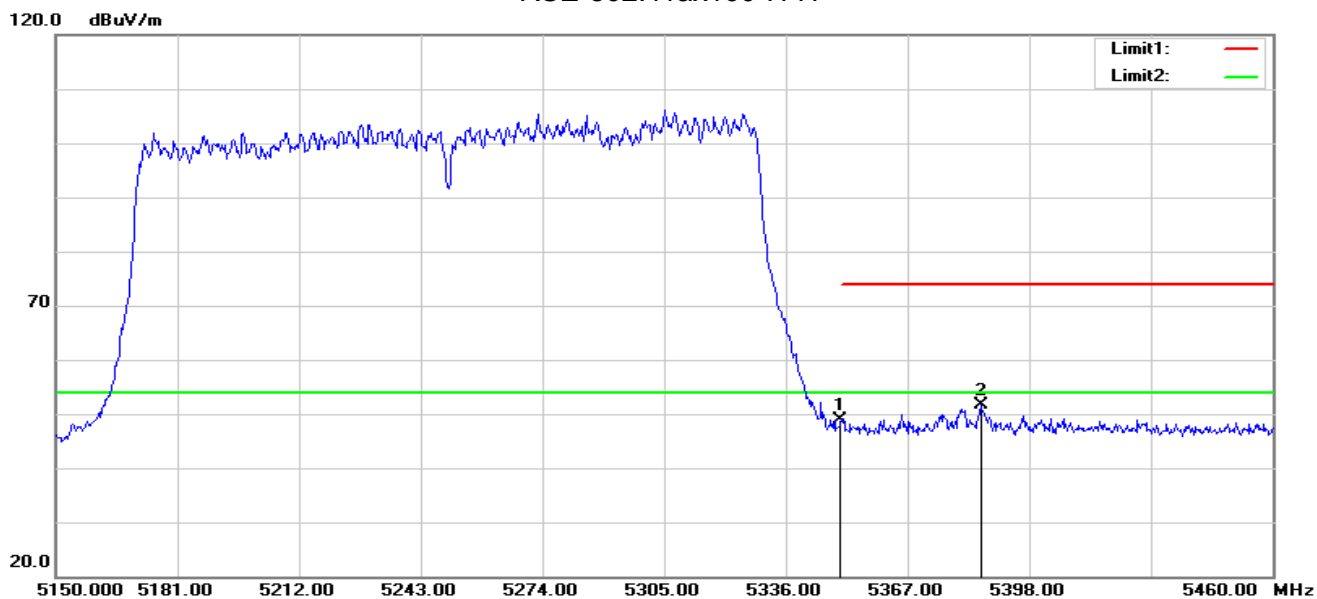
RSE-802.11ax160-L-V



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5072.900	53.87	-5.86	48.01	74.00	-25.99	peak
2	5150.000	56.05	-5.73	50.32	74.00	-23.68	peak

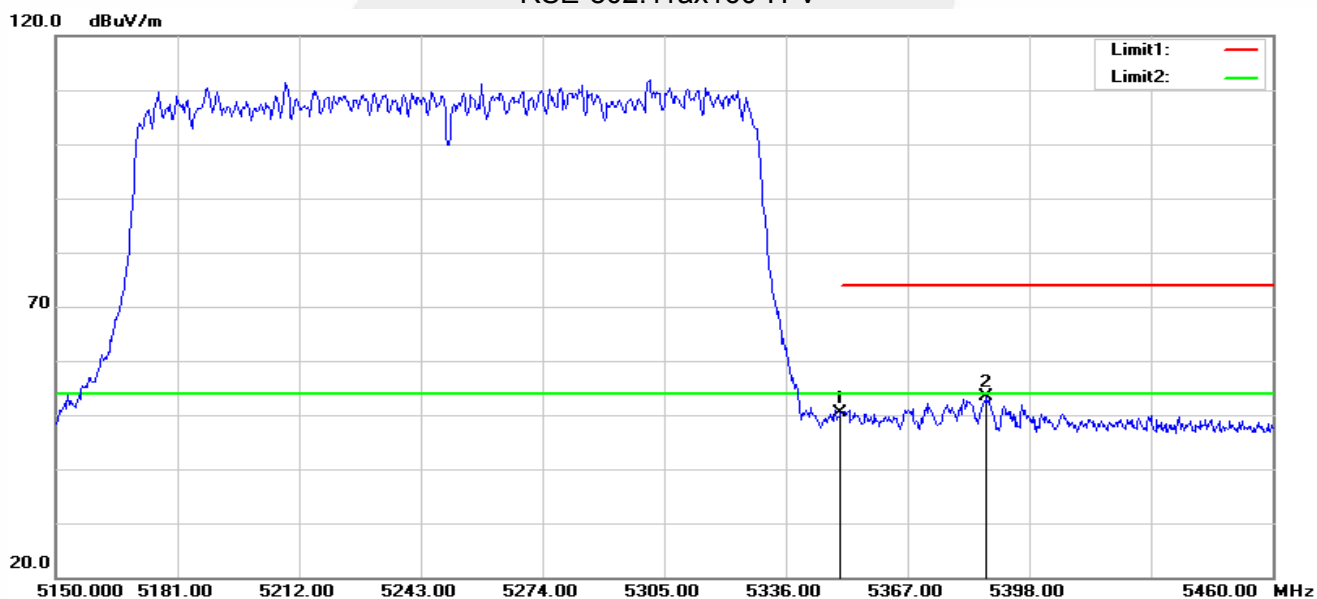


RSE-802.11ax160-H-H



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5350.000	54.06	-5.23	48.83	74.00	-25.17	peak
2	5385.600	56.87	-5.24	51.63	74.00	-22.37	peak

RSE-802.11ax160-H-V



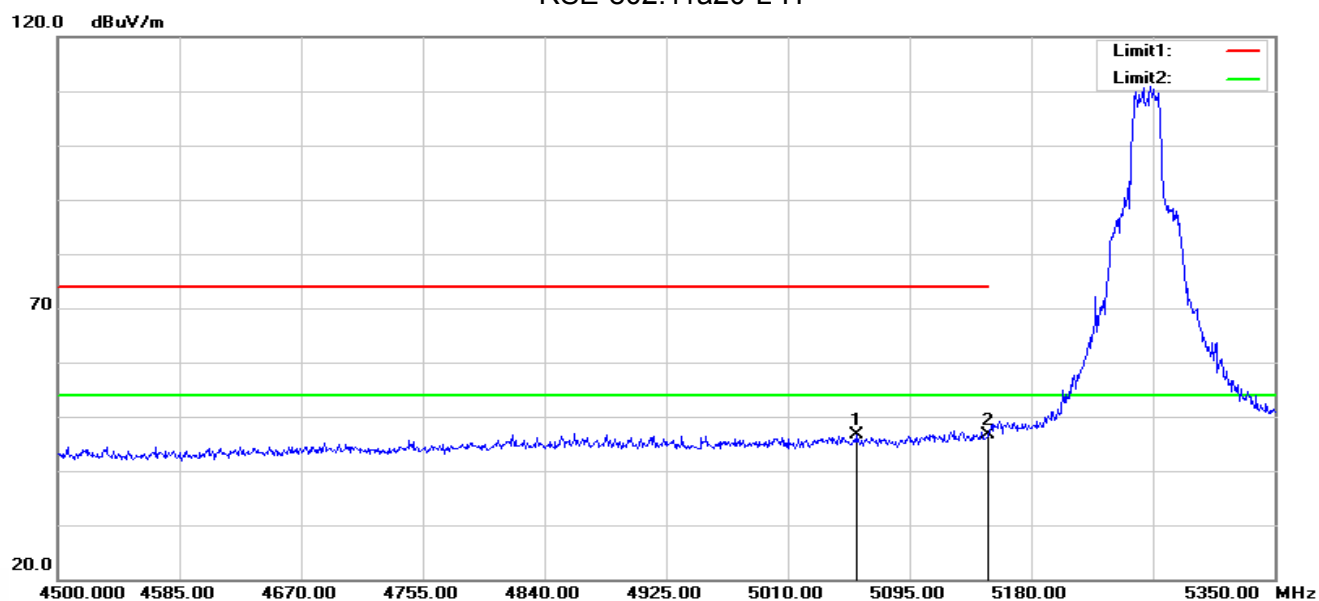
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5350.000	55.63	-5.23	50.40	74.00	-23.60	peak
2	5387.150	58.73	-5.24	53.49	74.00	-20.51	peak

Note: All modes have been tested. Only the worst mode shown in the report.



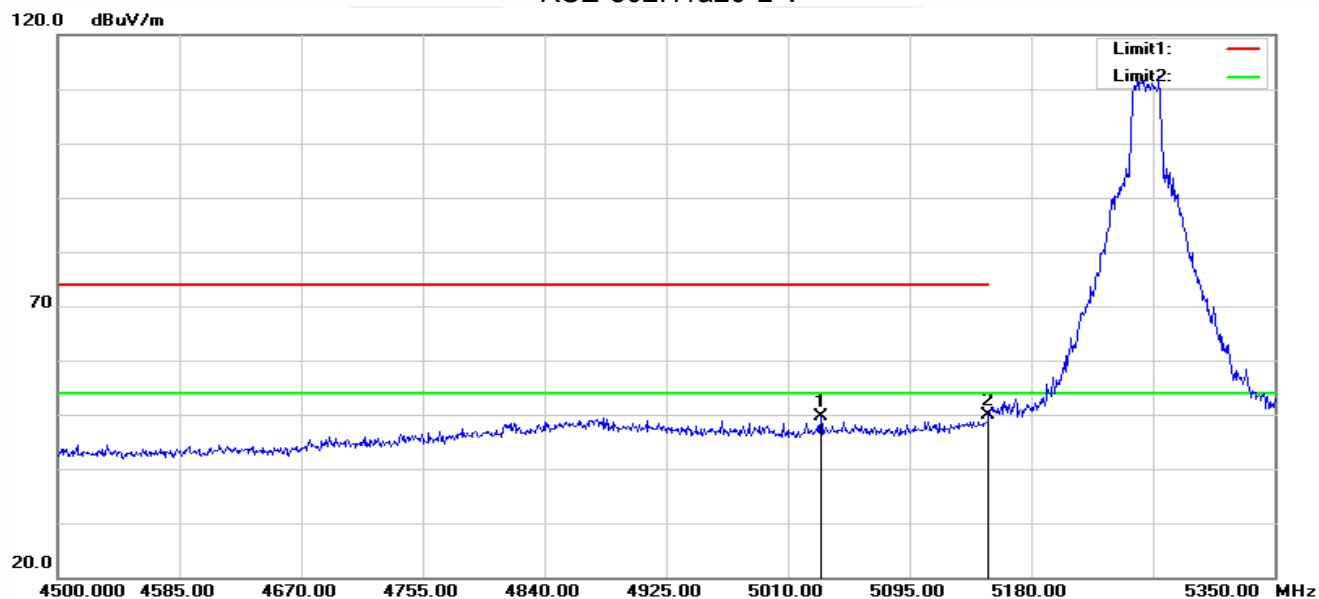
Band II 5250-5350MHz

RSE-802.11a20-L-H



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5057.600	52.61	-5.93	46.68	74.00	-27.32	peak
2	5150.000	52.34	-5.73	46.61	74.00	-27.39	peak

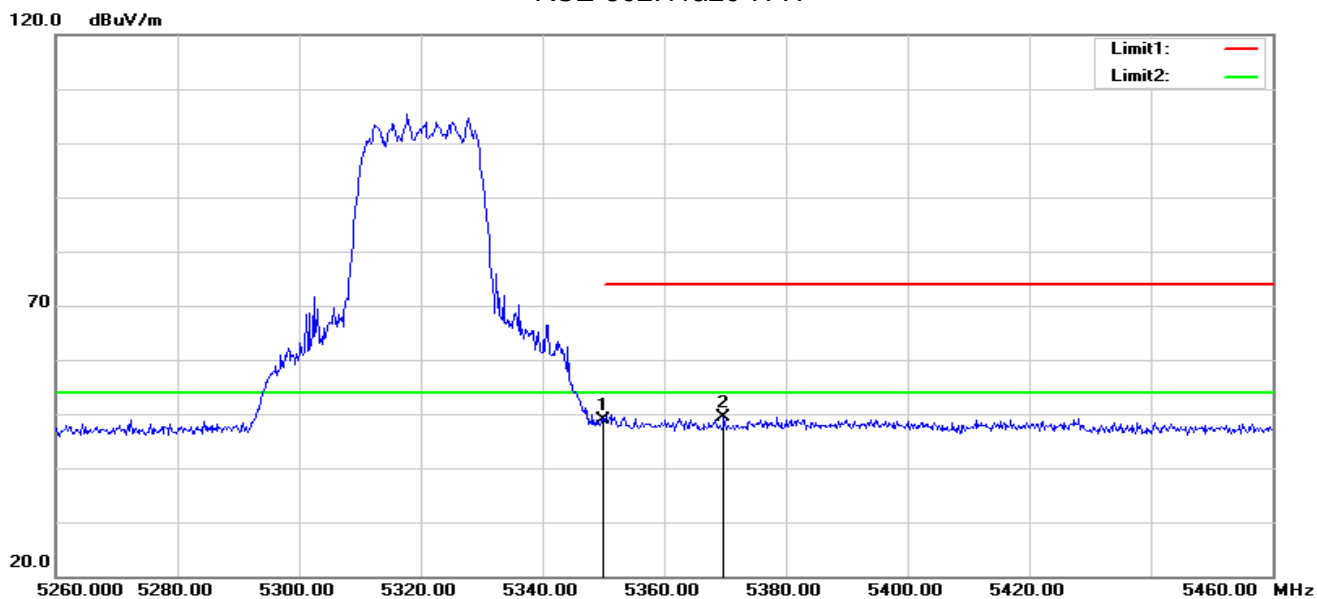
RSE-802.11a20-L-V



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5032.950	55.70	-6.04	49.66	74.00	-24.34	peak
2	5150.000	55.55	-5.73	49.82	74.00	-24.18	peak

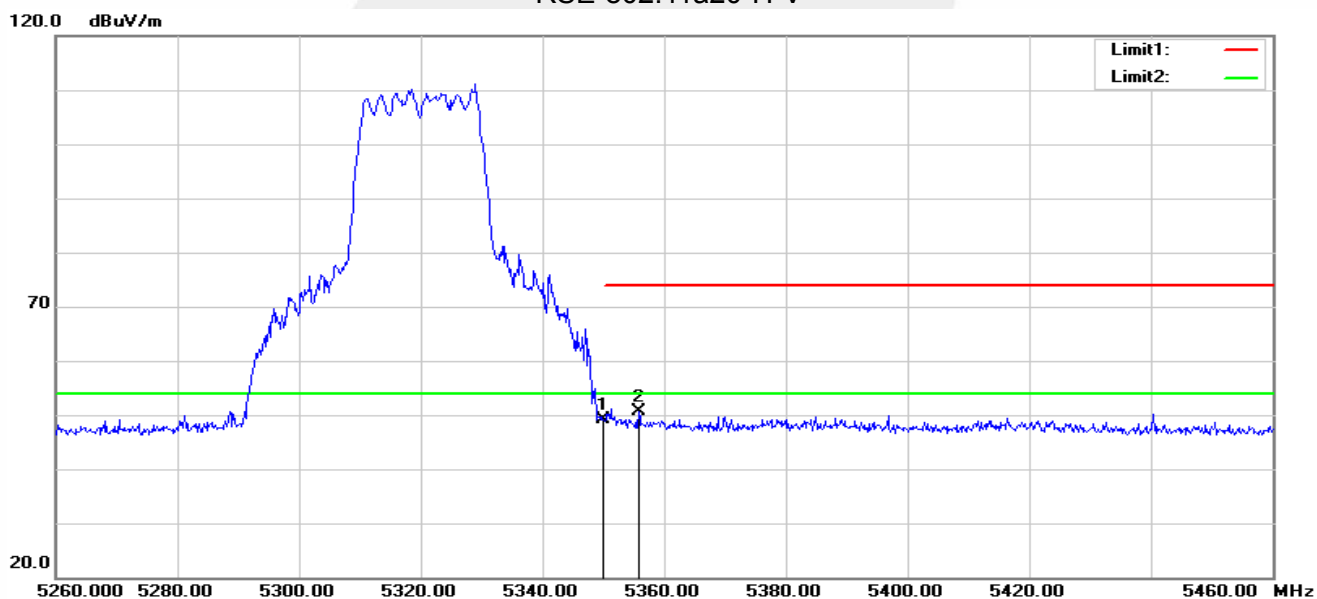


RSE-802.11a20-H-H



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5350.000	54.16	-5.23	48.93	74.00	-25.07	peak
2	5369.800	54.65	-5.23	49.42	74.00	-24.58	peak

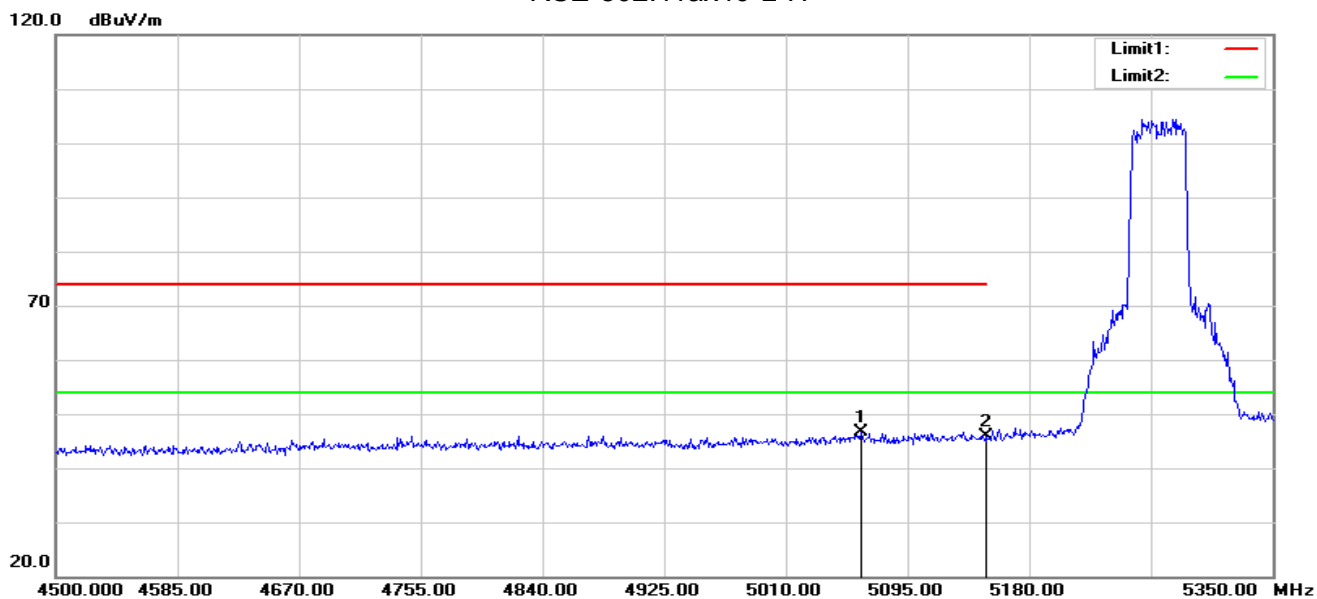
RSE-802.11a20-H-V



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5350.000	54.39	-5.23	49.16	74.00	-24.84	peak
2	5355.800	55.98	-5.24	50.74	74.00	-23.26	peak

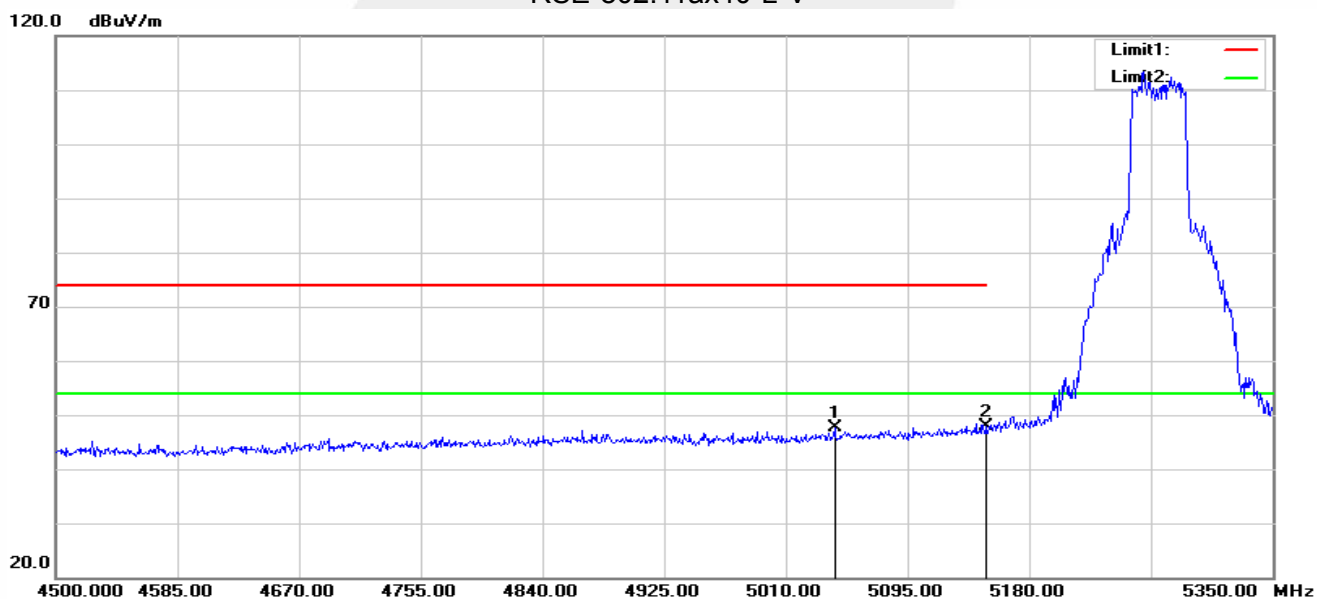


RSE-802.11ax40-L-H



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5062.700	52.57	-5.91	46.66	74.00	-27.34	peak
2	5150.000	51.53	-5.73	45.80	74.00	-28.20	peak

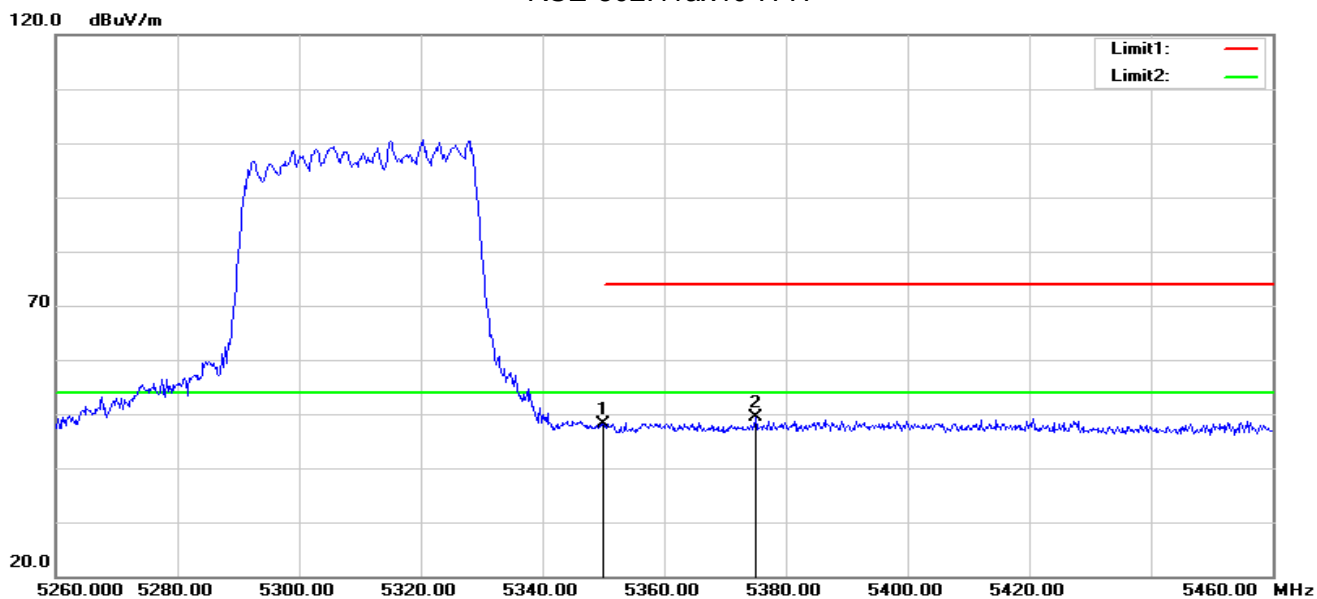
RSE-802.11ax40-L-V



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5044.000	53.73	-5.99	47.74	74.00	-26.26	peak
2	5150.000	53.62	-5.73	47.89	74.00	-26.11	peak

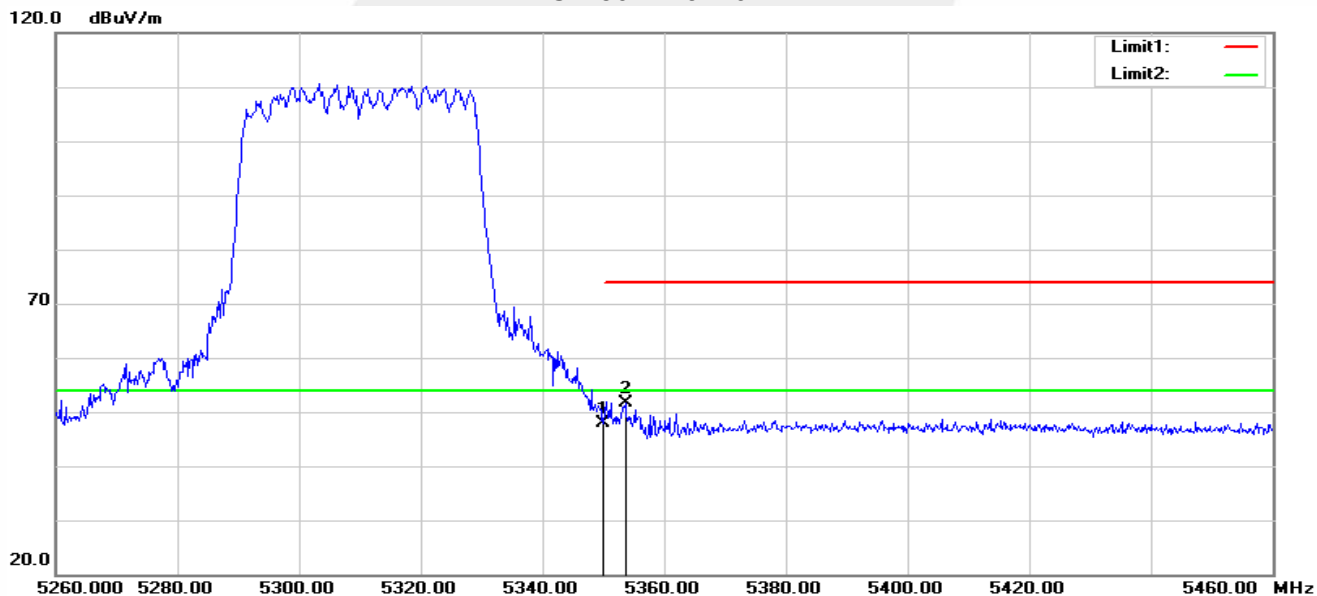


RSE-802.11ax40-H-H



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5350.000	53.29	-5.23	48.06	74.00	-25.94	peak
2	5375.000	54.55	-5.24	49.31	74.00	-24.69	peak

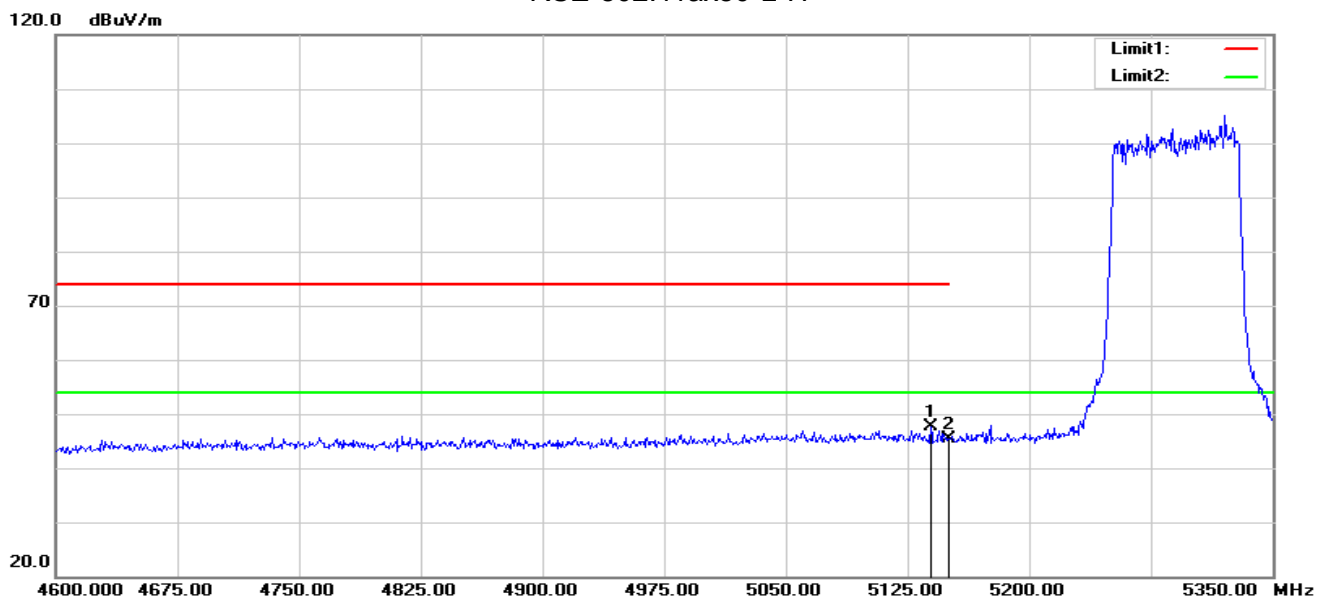
RSE-802.11ax40-H-V



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5350.000	53.05	-5.23	47.82	74.00	-26.18	peak
2	5353.600	56.90	-5.23	51.67	74.00	-22.33	peak

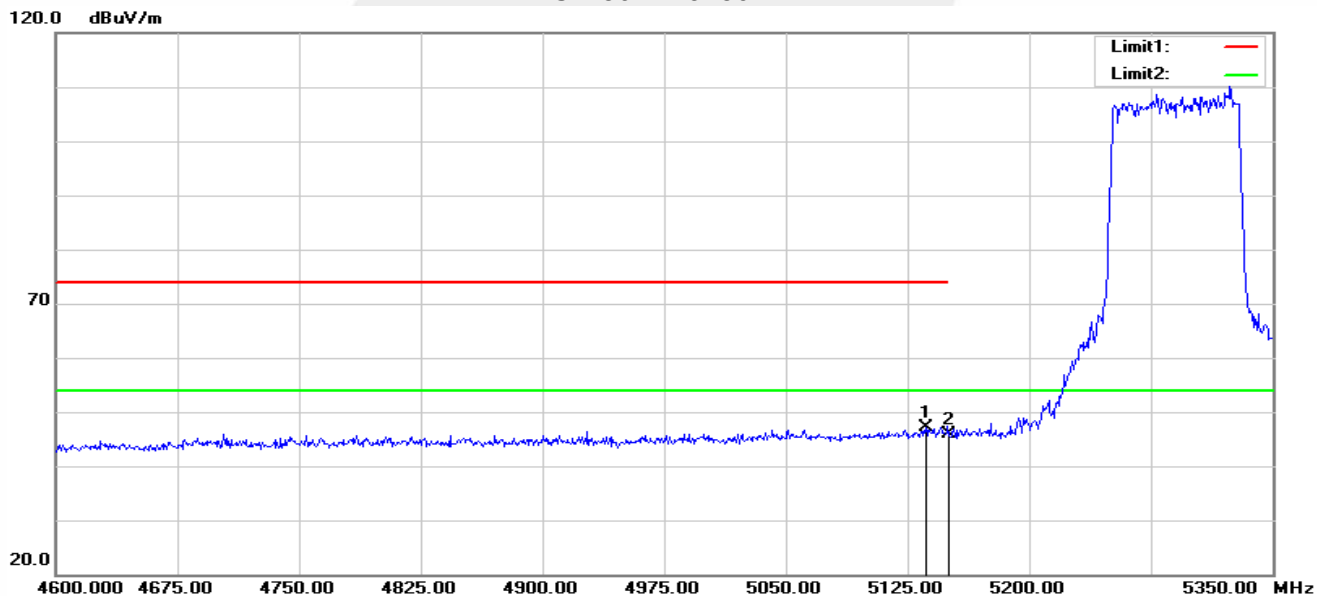


RSE-802.11ax80-L-H



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5139.250	53.26	-5.74	47.52	74.00	-26.48	peak
2	5150.000	51.08	-5.73	45.35	74.00	-28.65	peak

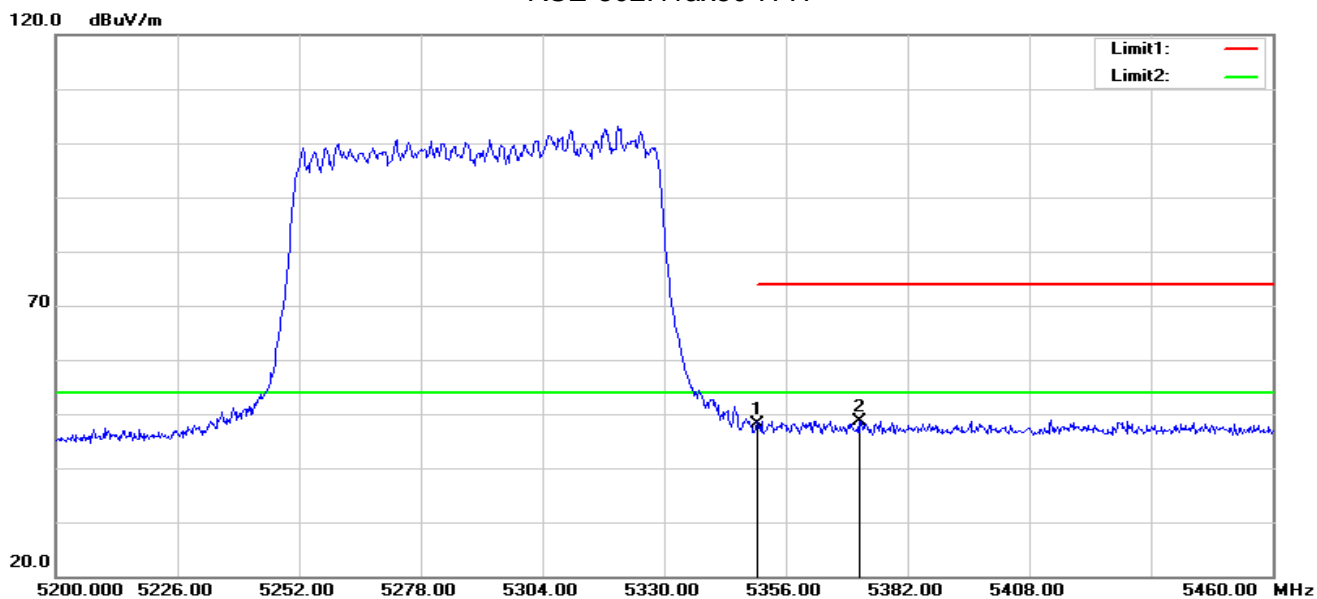
RSE-802.11ax80-L-V



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5136.250	52.81	-5.74	47.07	74.00	-26.93	peak
2	5150.000	51.57	-5.73	45.84	74.00	-28.16	peak

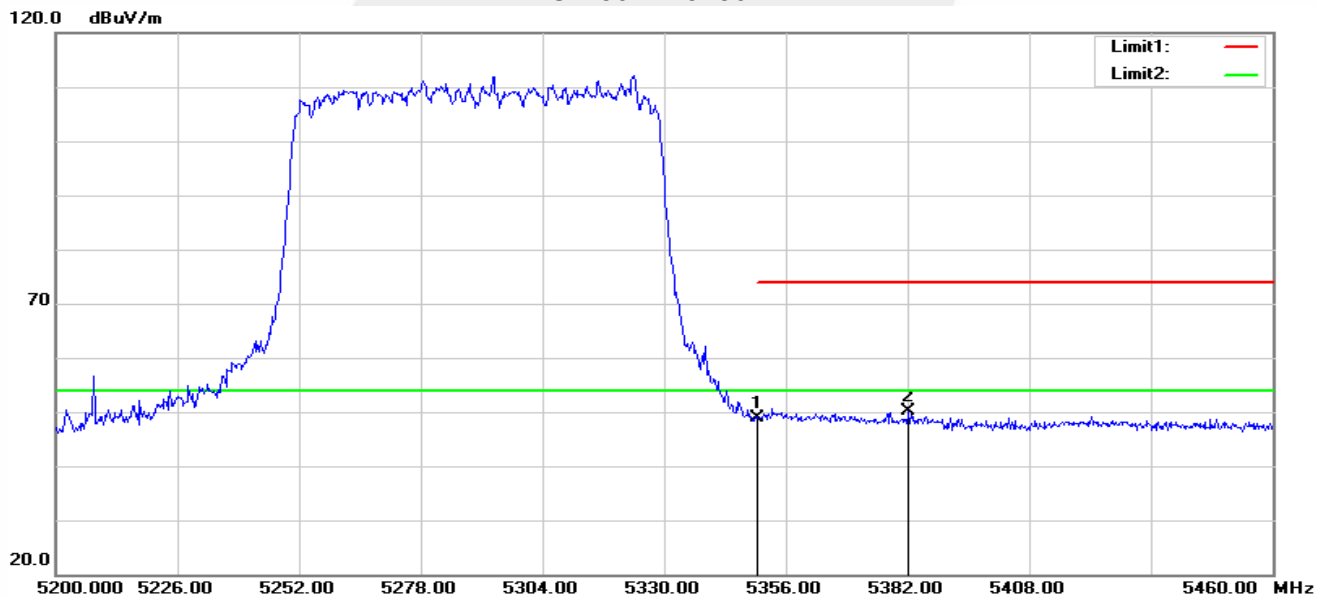


RSE-802.11ax80-H-H



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5350.000	53.45	-5.23	48.22	74.00	-25.78	peak
2	5371.600	53.89	-5.24	48.65	74.00	-25.35	peak

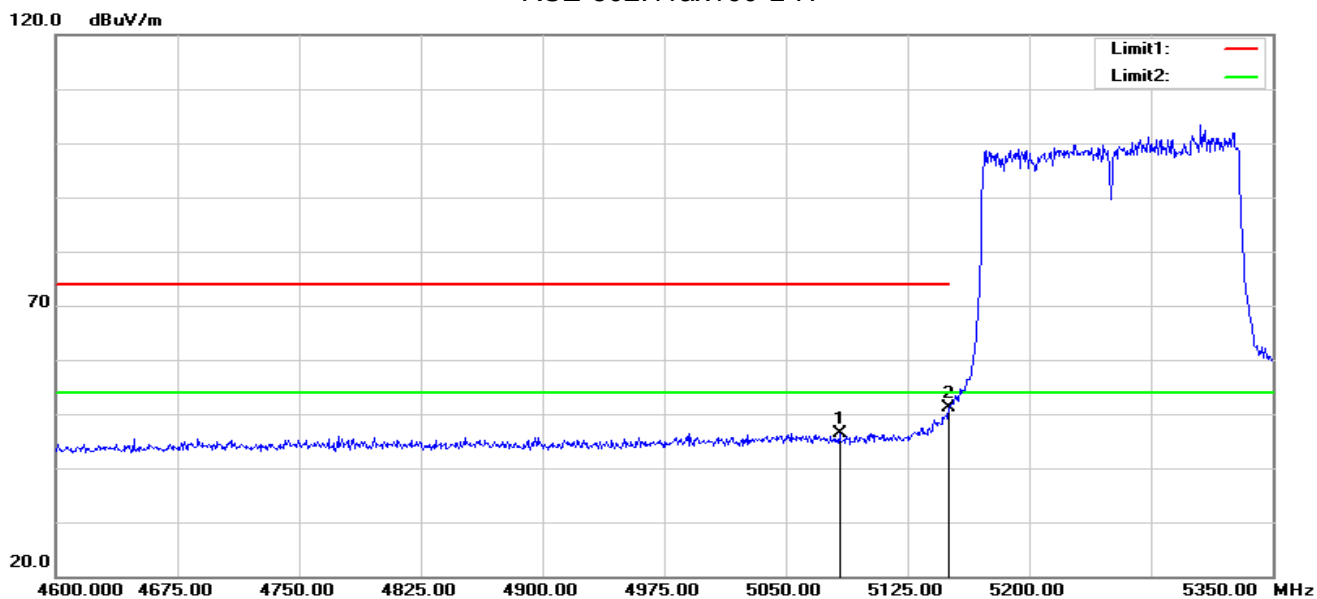
RSE-802.11ax80-H-V



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5350.000	54.21	-5.23	48.98	74.00	-25.02	peak
2	5382.260	55.44	-5.24	50.20	74.00	-23.80	peak

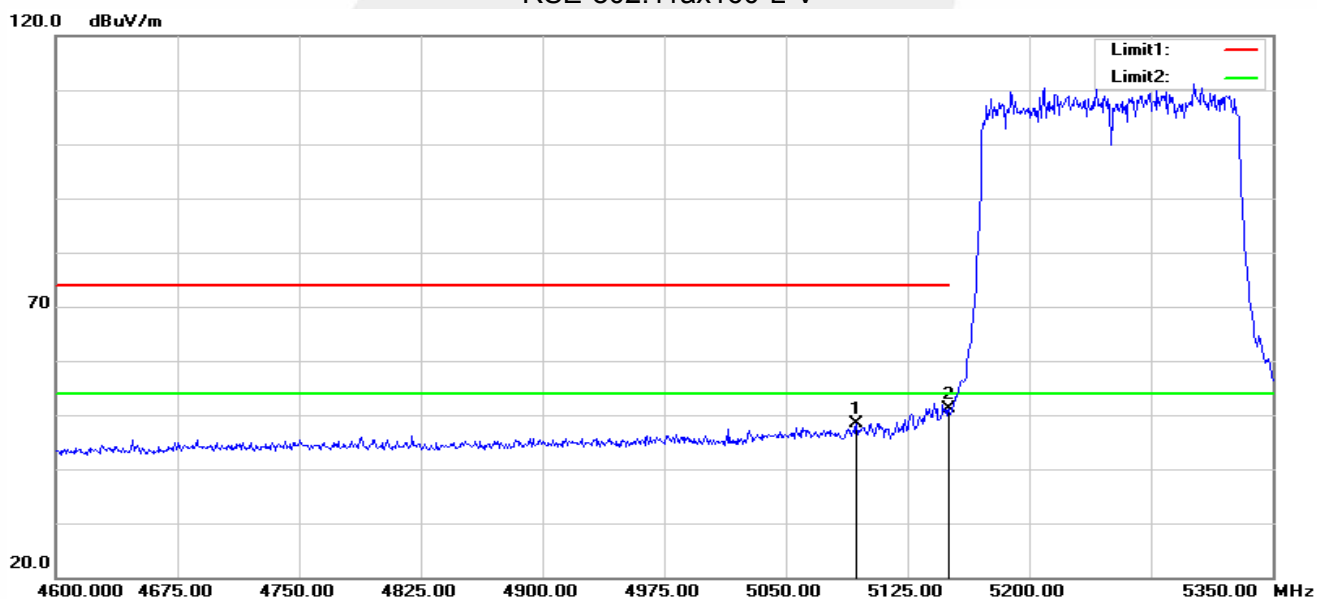


RSE-802.11ax160-L-H



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5083.000	52.22	-5.81	46.41	74.00	-27.59	peak
2	5150.000	56.93	-5.73	51.20	74.00	-22.80	peak

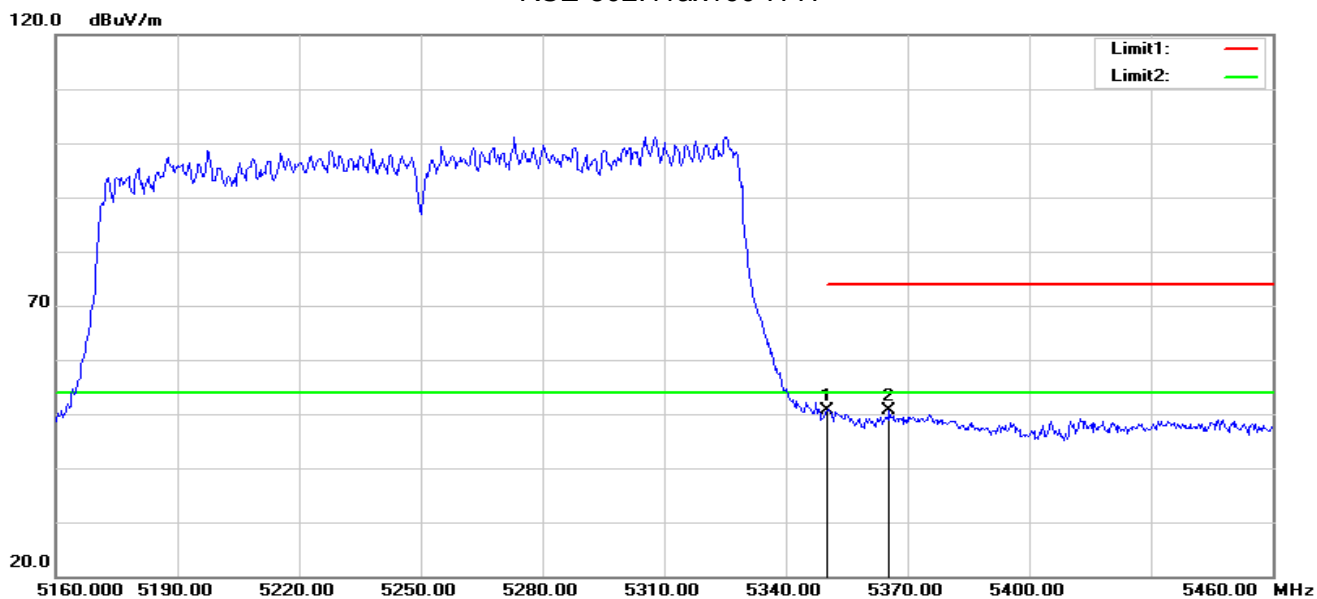
RSE-802.11ax160-L-V



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5093.500	54.19	-5.77	48.42	74.00	-25.58	peak
2	5150.000	56.75	-5.73	51.02	74.00	-22.98	peak

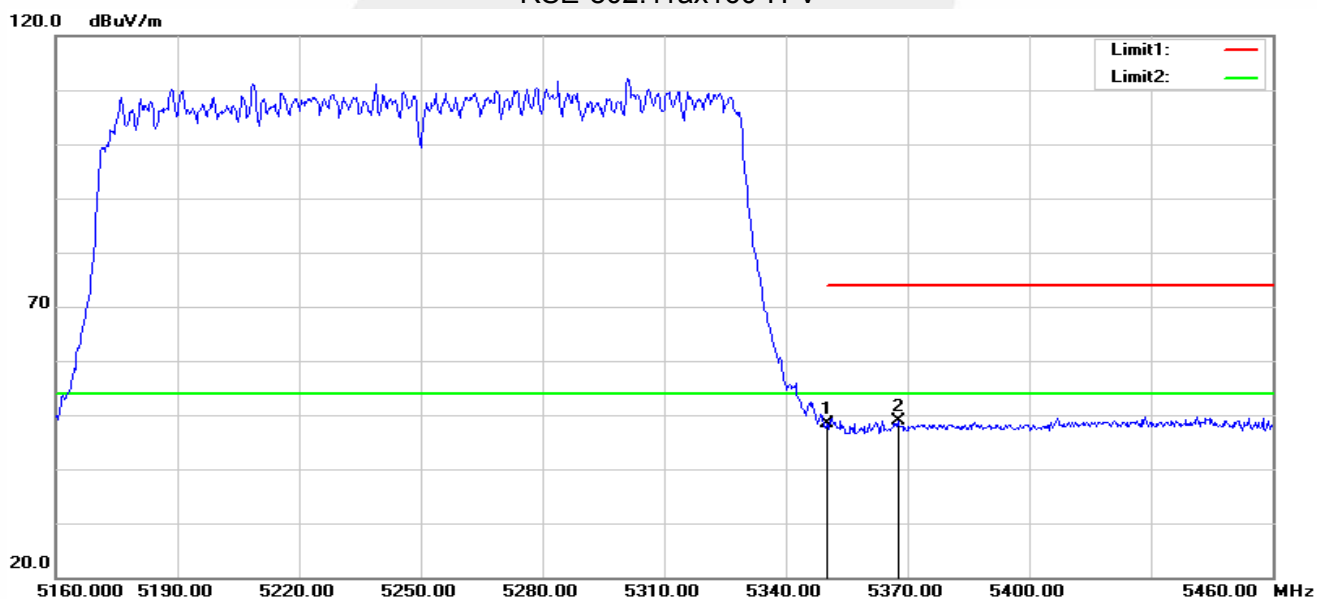


RSE-802.11ax160-H-H



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5350.000	55.94	-5.23	50.71	74.00	-23.29	peak
2	5365.500	55.83	-5.24	50.59	74.00	-23.41	peak

RSE-802.11ax160-H-V



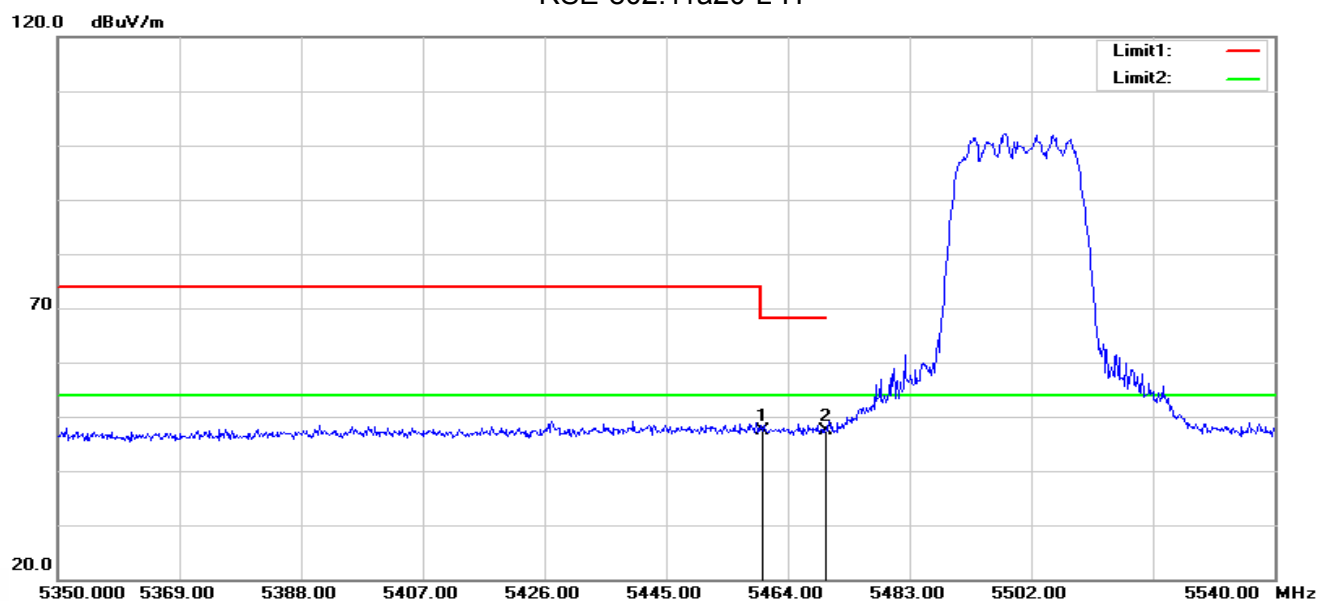
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5350.000	53.58	-5.23	48.35	74.00	-25.65	peak
2	5367.600	54.06	-5.24	48.82	74.00	-25.18	peak

Note: All modes have been tested. Only the worst mode shown in the report.



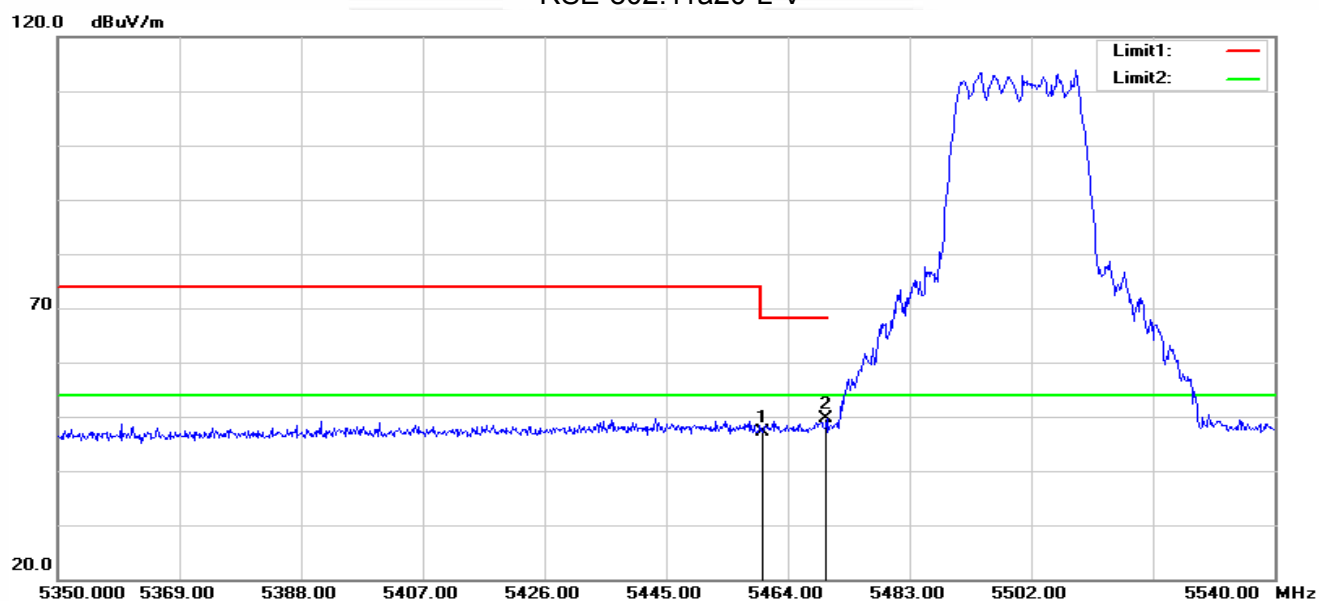
Band III 5470-5725MHz

RSE-802.11a20-L-H



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5460.000	52.47	-5.11	47.36	68.20	-20.84	peak
2	5470.000	52.39	-5.09	47.30	68.20	-20.90	peak

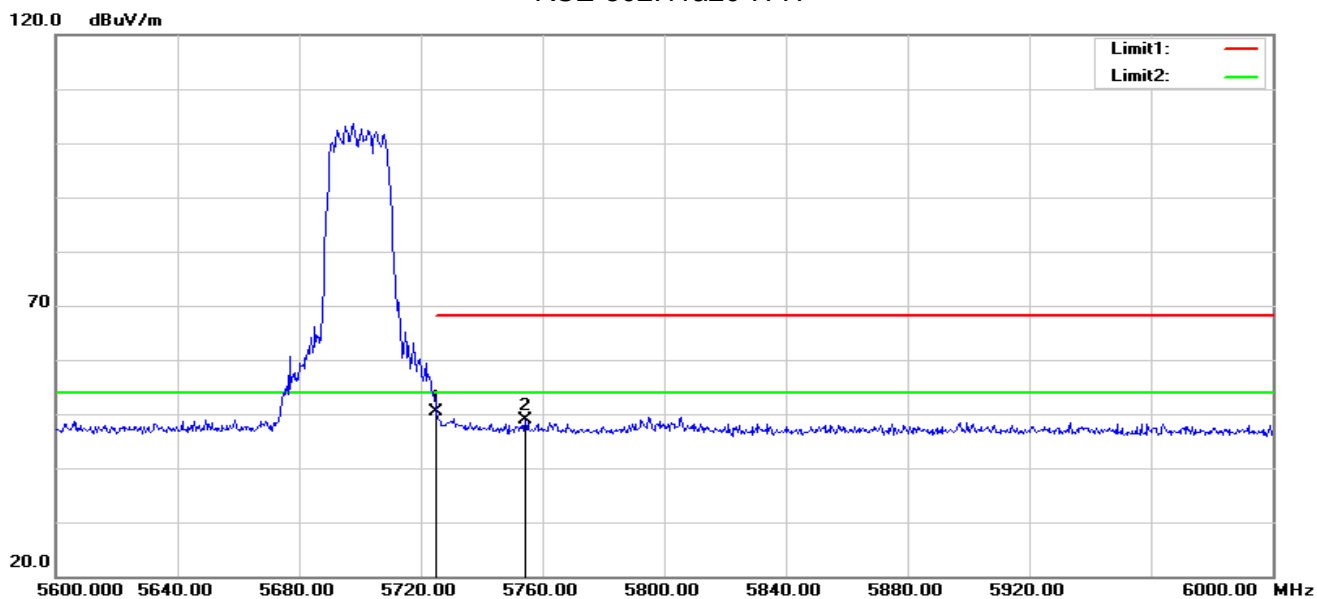
RSE-802.11a20-L-V



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5460.000	52.30	-5.11	47.19	68.20	-21.01	peak
2	5470.000	54.64	-5.09	49.55	68.20	-18.65	peak

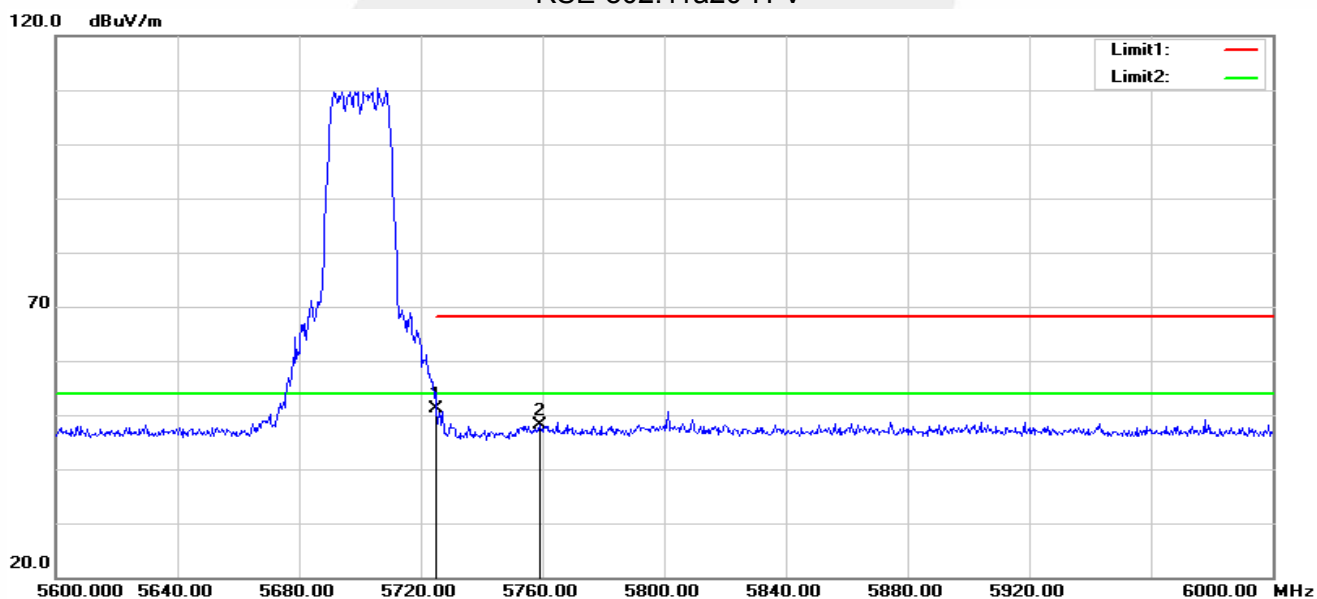


RSE-802.11a20-H-H



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5725.000	54.90	-4.57	50.33	68.20	-17.87	peak
2	5754.400	53.29	-4.47	48.82	68.20	-19.38	peak

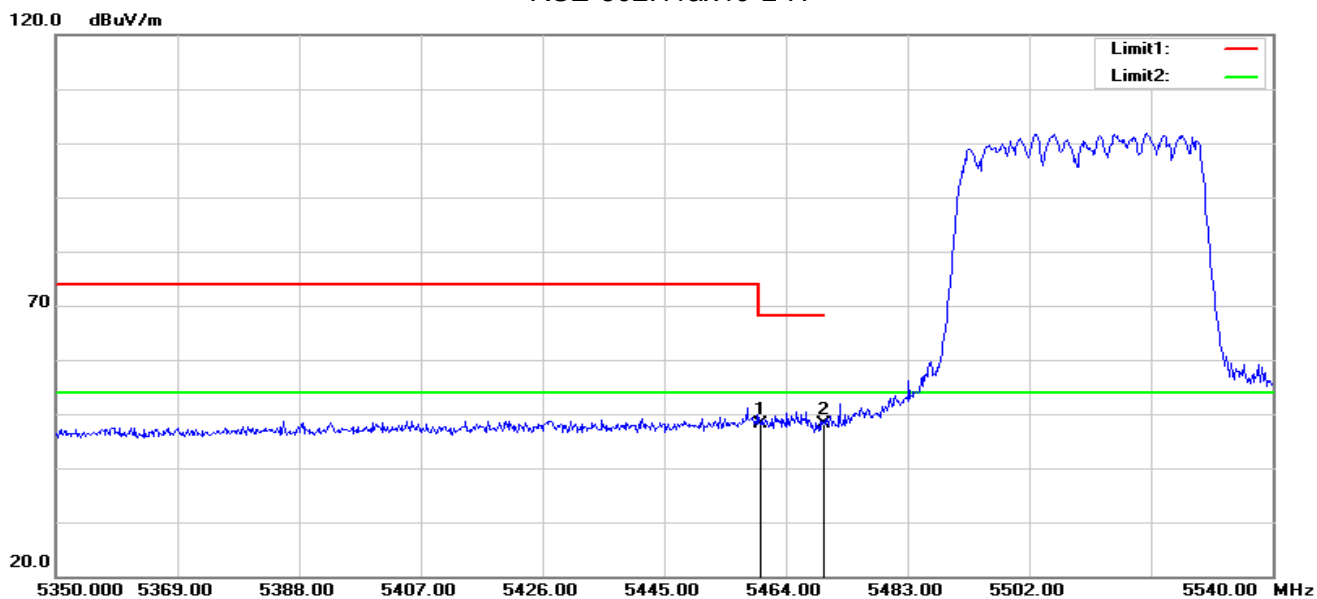
RSE-802.11a20-H-V



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5725.000	55.73	-4.57	51.16	68.20	-17.04	peak
2	5759.200	52.54	-4.46	48.08	68.20	-20.12	peak

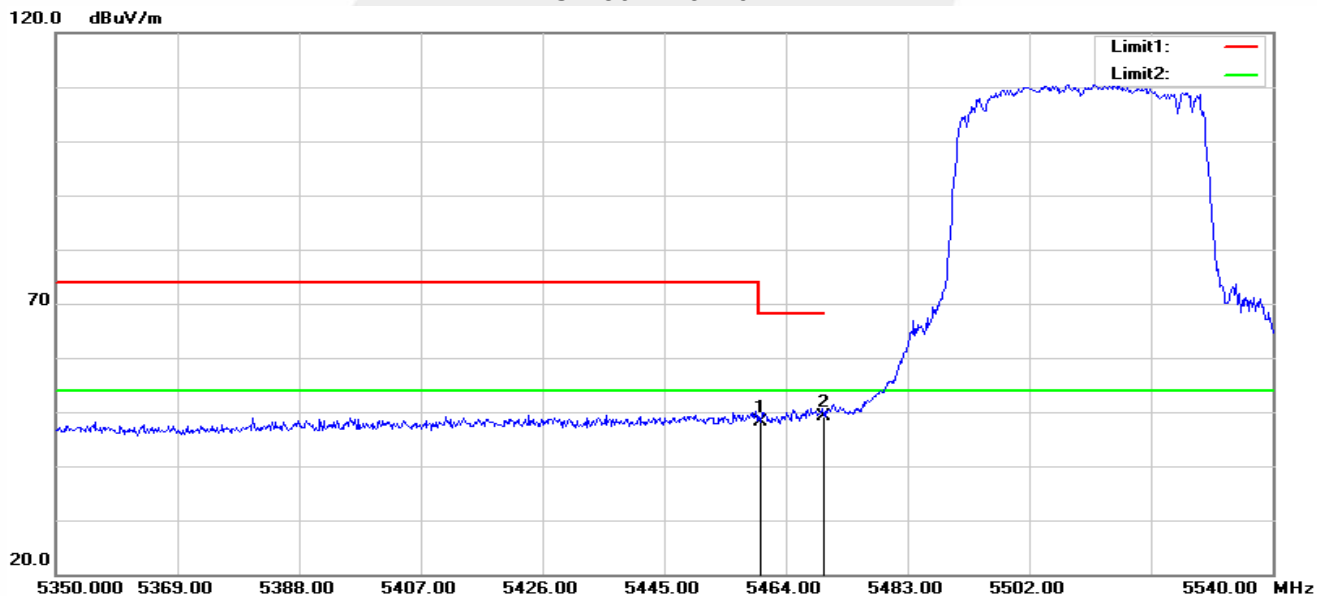


RSE-802.11ax40-L-H



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5460.000	53.30	-5.11	48.19	68.20	-20.01	peak
2	5470.000	53.12	-5.09	48.03	68.20	-20.17	peak

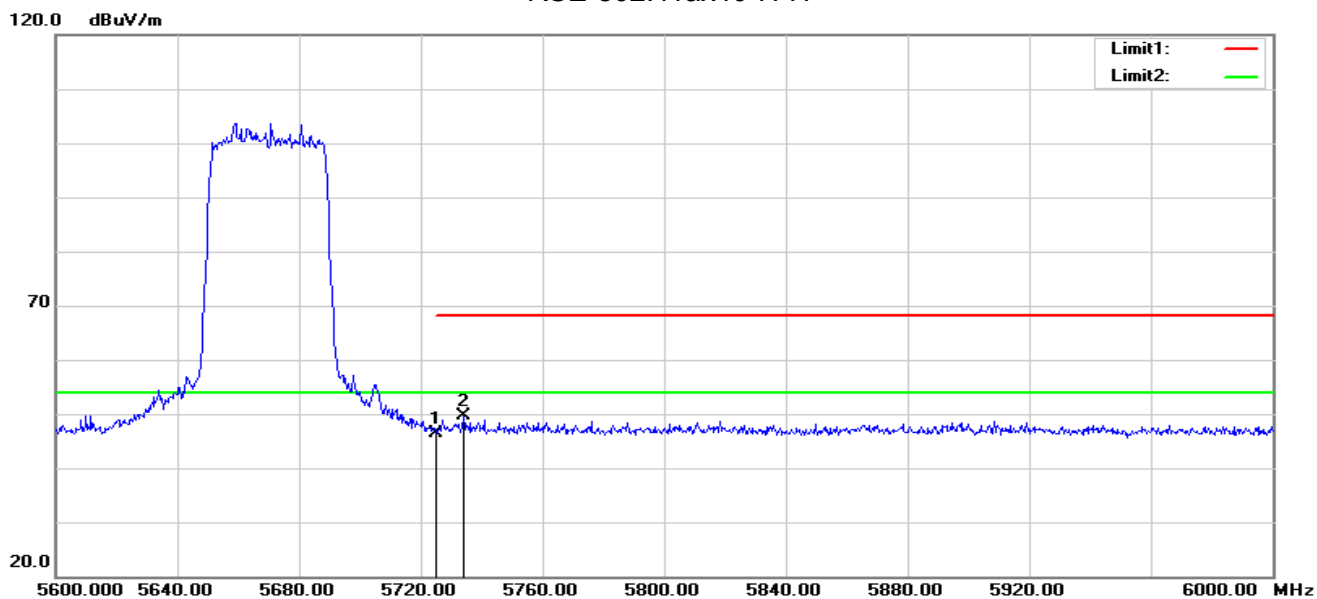
RSE-802.11ax40-L-V



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5460.000	53.29	-5.11	48.18	68.20	-20.02	peak
2	5470.000	54.28	-5.09	49.19	68.20	-19.01	peak

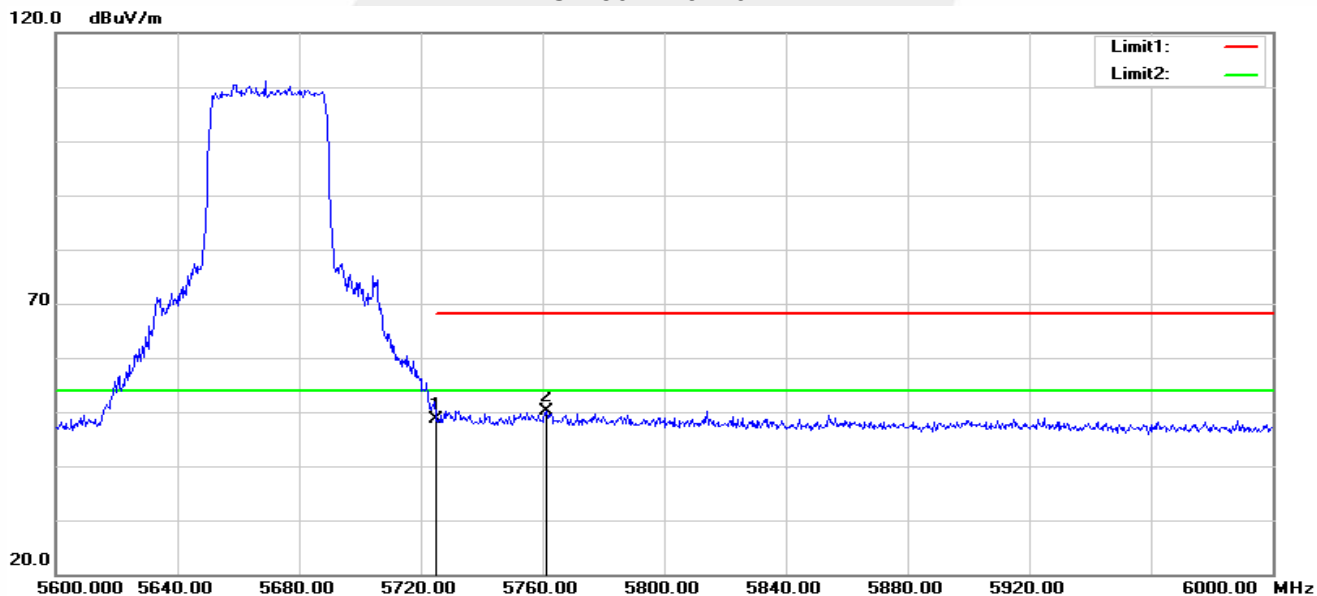


RSE-802.11ax40-H-H



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5725.000	50.89	-4.57	46.32	68.20	-21.88	peak
2	5734.000	54.22	-4.55	49.67	68.20	-18.53	peak

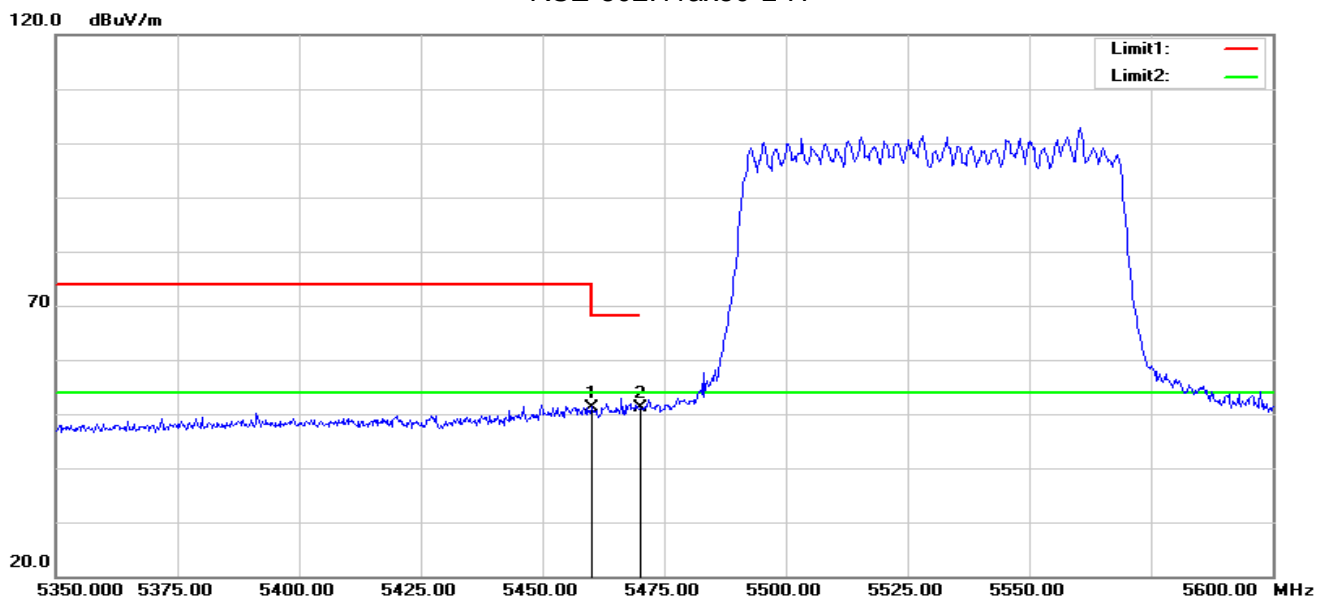
RSE-802.11ax40-H-V



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5725.000	53.08	-4.57	48.51	68.20	-19.69	peak
2	5761.200	54.59	-4.45	50.14	68.20	-18.06	peak

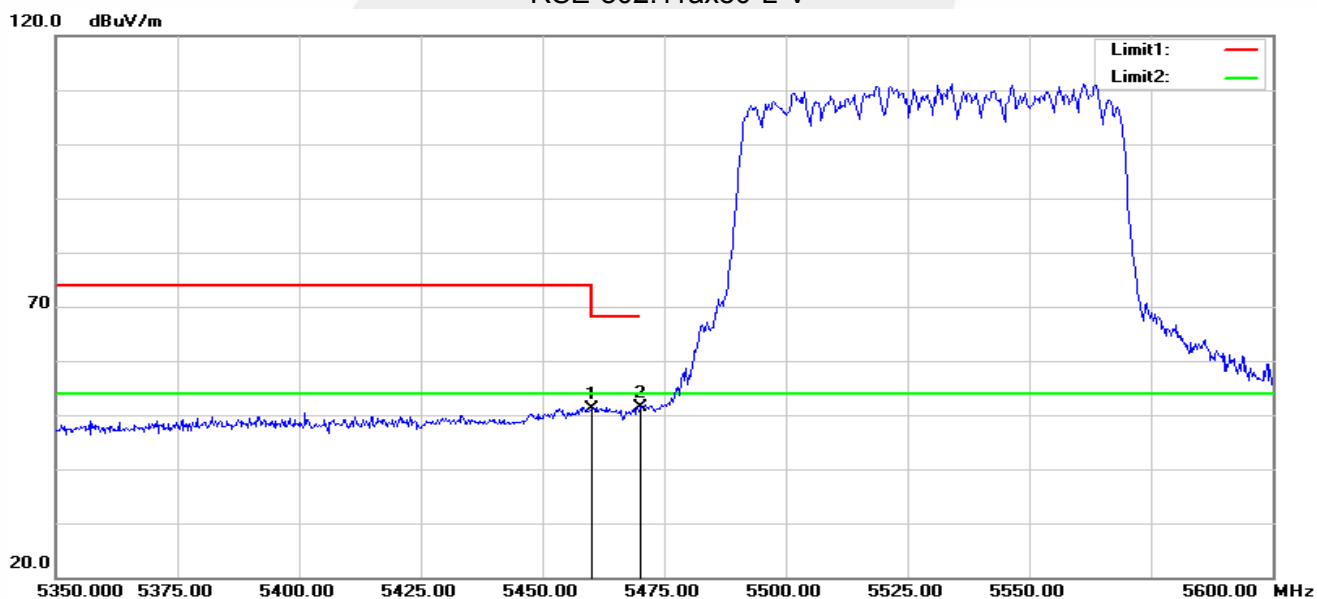


RSE-802.11ax80-L-H



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5460.000	56.24	-5.11	51.13	68.20	-17.07	peak
2	5470.000	56.33	-5.09	51.24	68.20	-16.96	peak

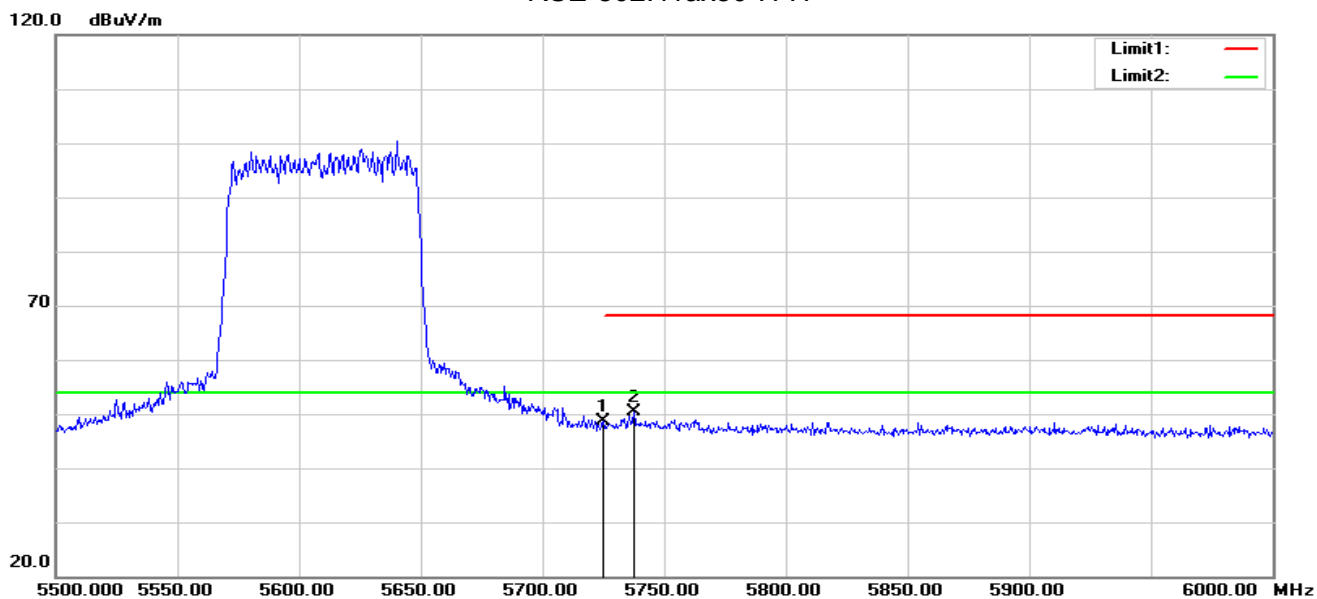
RSE-802.11ax80-L-V



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5460.000	56.28	-5.11	51.17	68.20	-17.03	peak
2	5470.000	56.52	-5.09	51.43	68.20	-16.77	peak

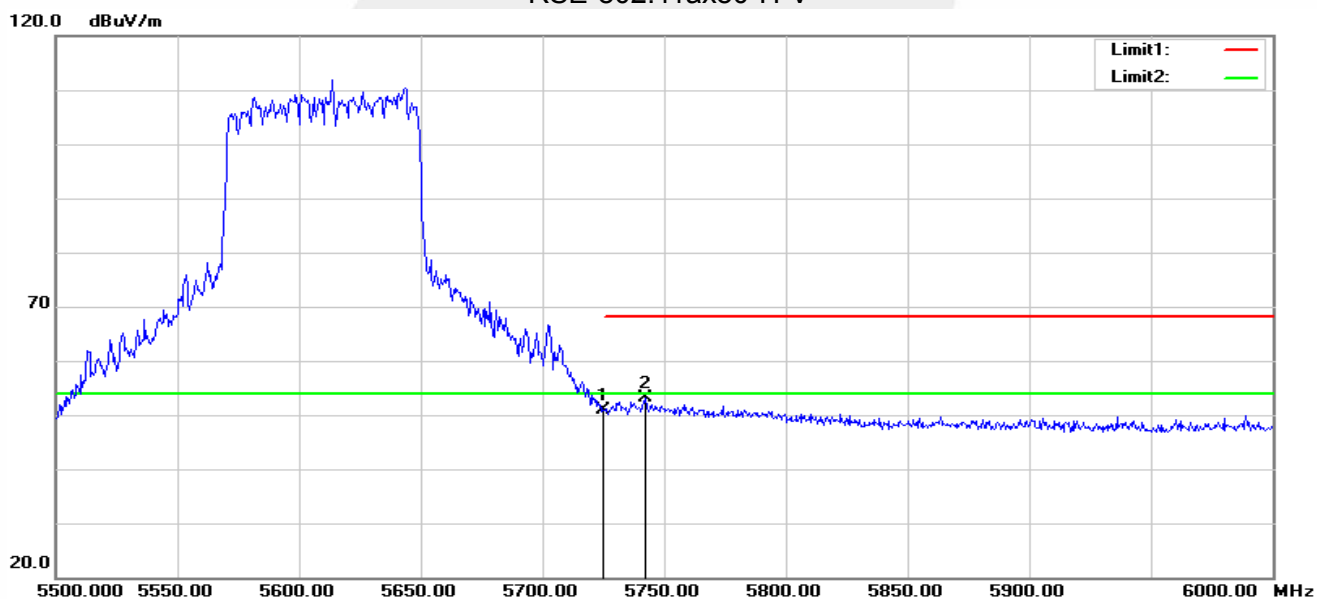


RSE-802.11ax80-H-H



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5725.000	53.16	-4.57	48.59	68.20	-19.61	peak
2	5737.500	54.79	-4.53	50.26	68.20	-17.94	peak

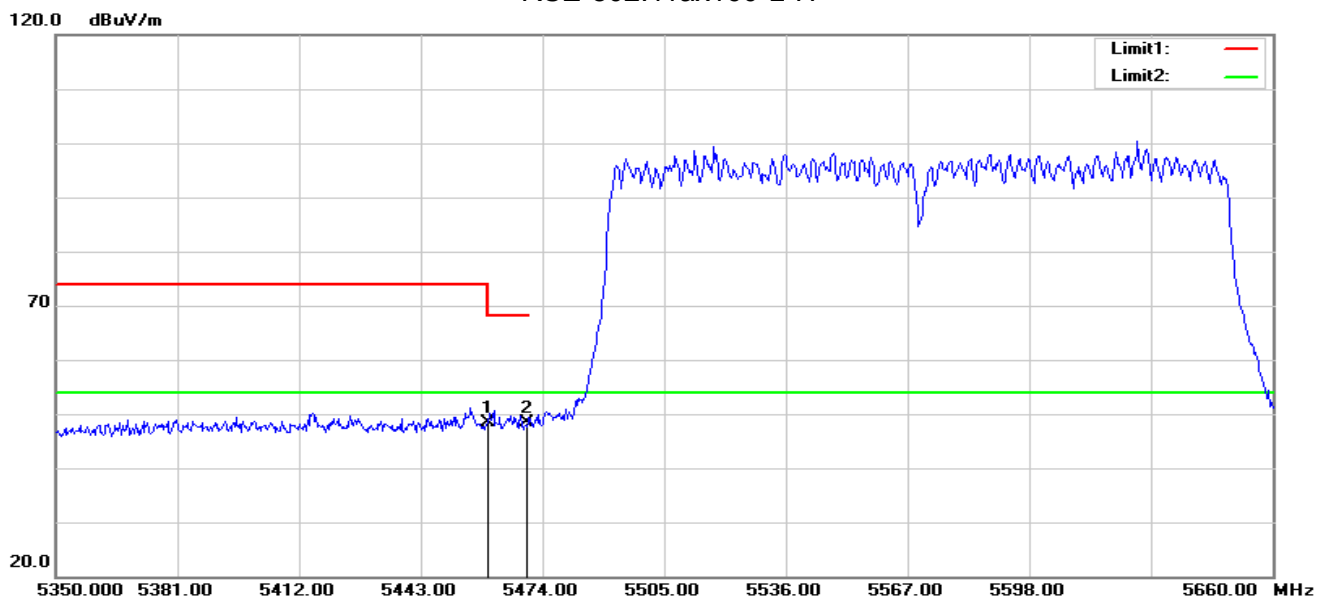
RSE-802.11ax80-H-V



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5725.000	55.56	-4.57	50.99	68.20	-17.21	peak
2	5742.500	57.68	-4.51	53.17	68.20	-15.03	peak

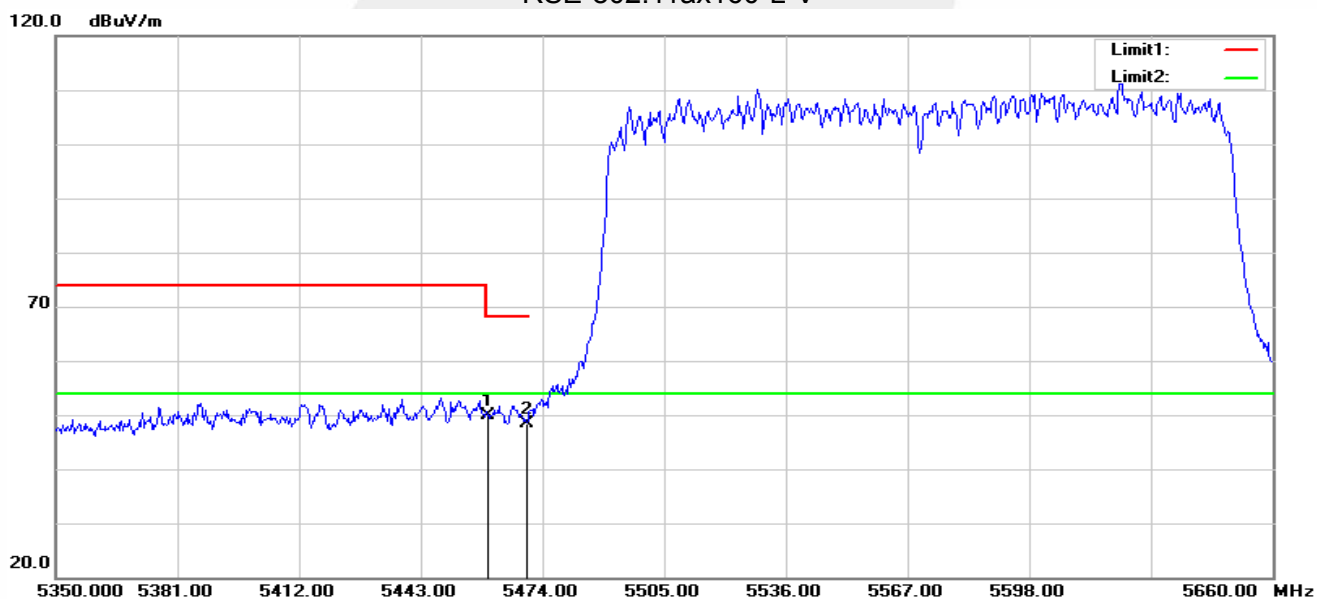


RSE-802.11ax160-L-H



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5460.000	53.45	-5.11	48.34	68.20	-19.86	peak
2	5470.000	53.42	-5.09	48.33	68.20	-19.87	peak

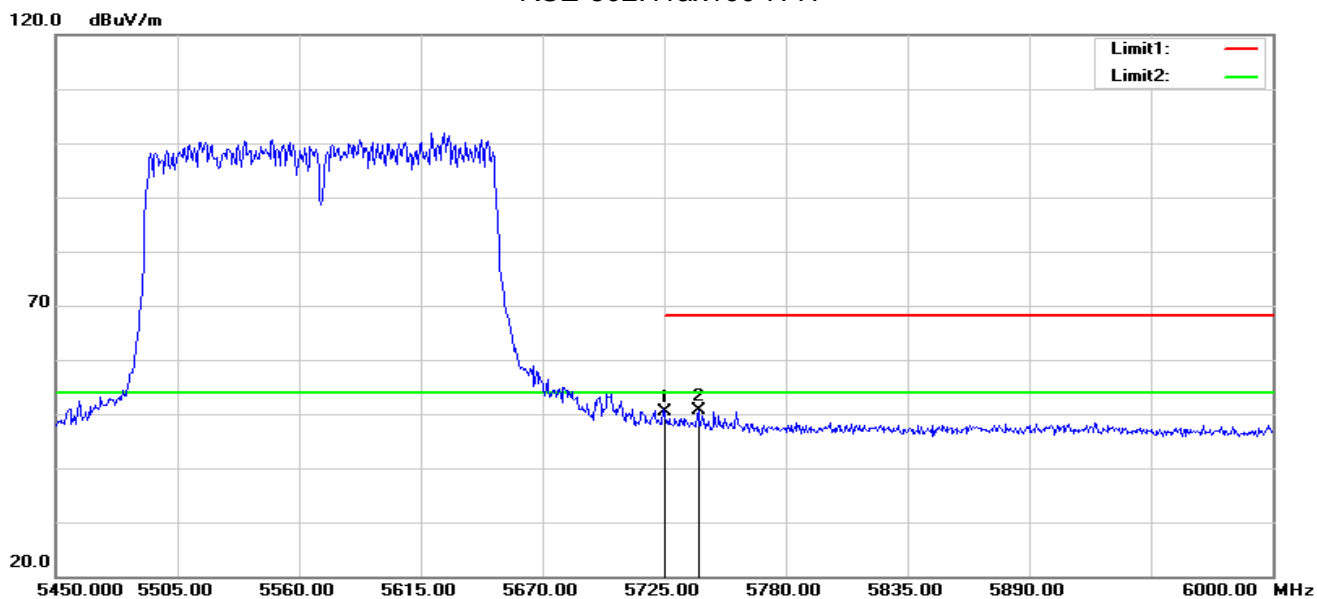
RSE-802.11ax160-L-V



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5460.000	54.88	-5.11	49.77	68.20	-18.43	peak
2	5470.000	53.54	-5.09	48.45	68.20	-19.75	peak

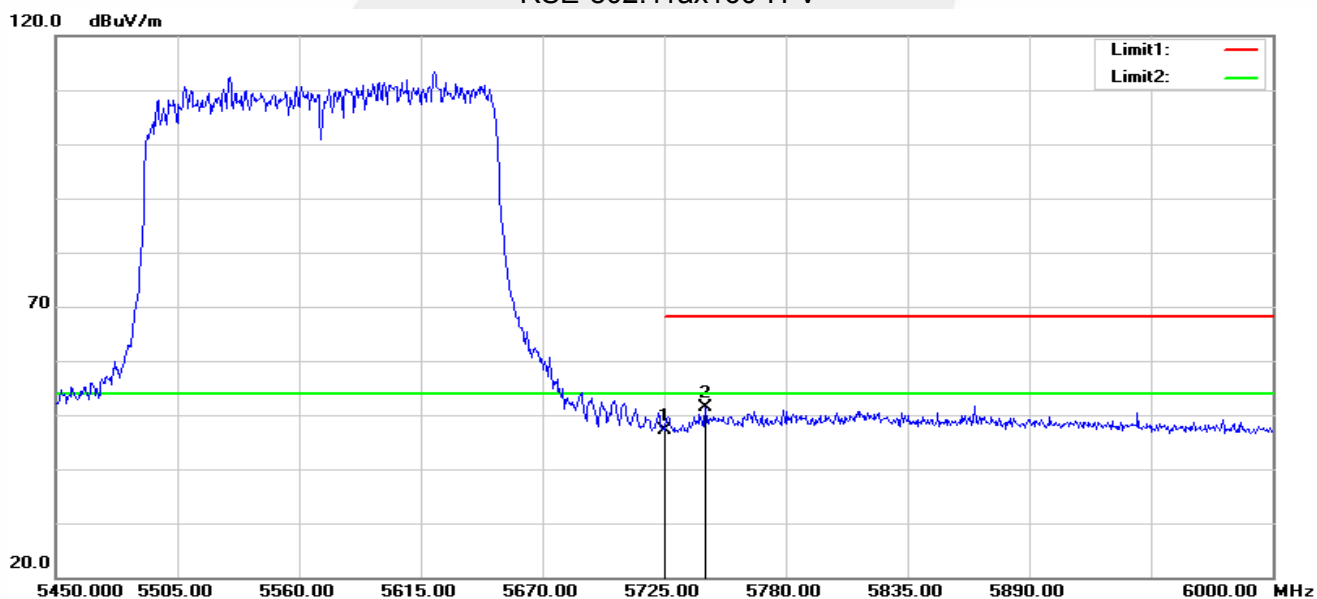


RSE-802.11ax160-H-H



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5725.000	54.90	-4.57	50.33	68.20	-17.87	peak
2	5740.400	55.27	-4.53	50.74	68.20	-17.46	peak

RSE-802.11ax160-H-V



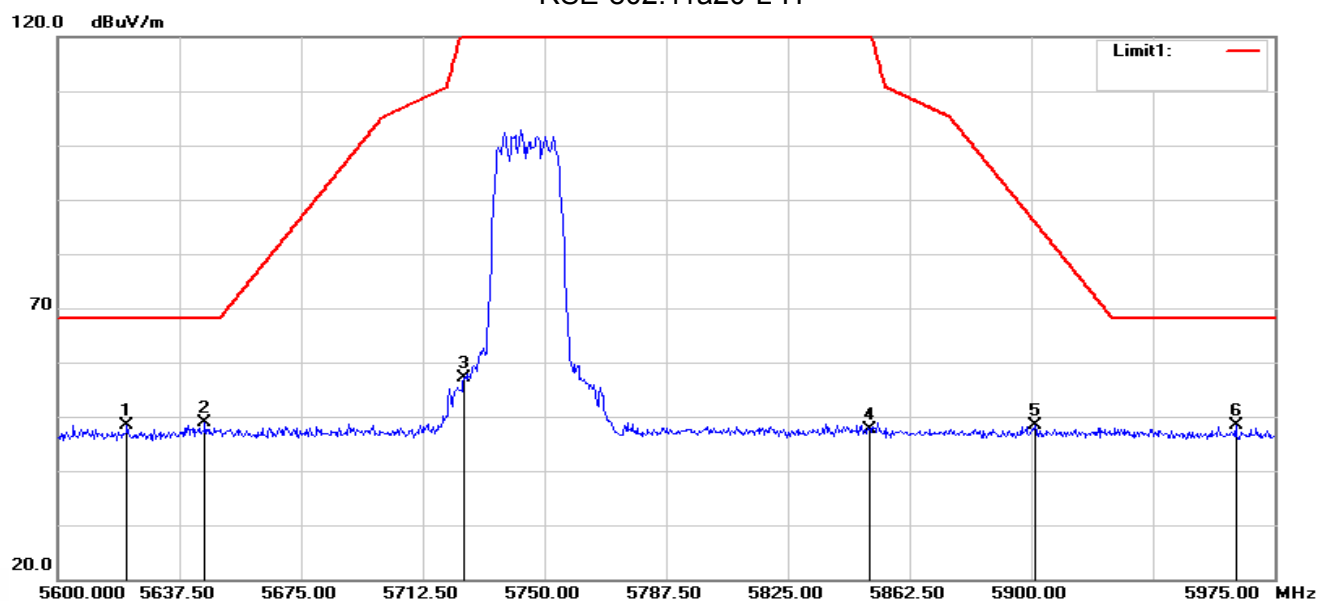
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5725.000	51.62	-4.57	47.05	68.20	-21.15	peak
2	5743.700	55.95	-4.51	51.44	68.20	-16.76	peak

Note: All modes have been tested. Only the worst mode shown in the report.



Band IV(5.725-5.85 GHz)

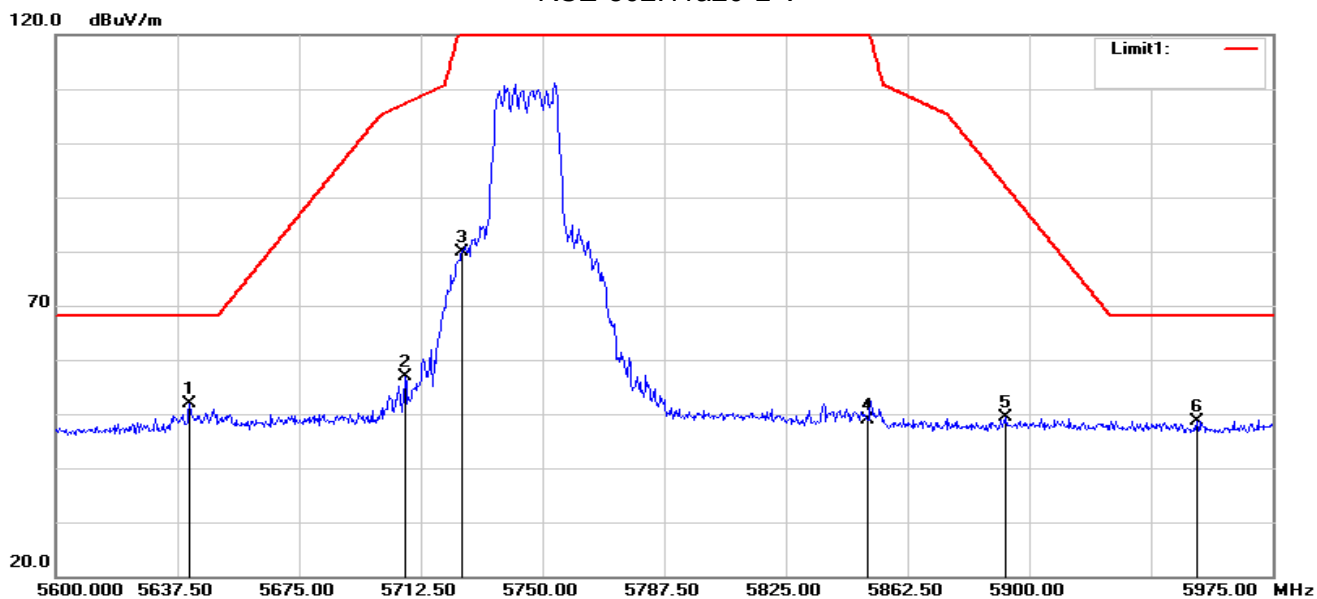
RSE-802.11a20-L-H



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5621.375	53.05	-4.70	48.35	68.20	-19.85	peak
2	5645.375	53.65	-4.68	48.97	68.20	-19.23	peak
3	5725.000	61.81	-4.57	57.24	122.20	-64.96	peak
4	5850.000	51.67	-4.10	47.57	122.20	-74.63	peak
5	5901.125	52.16	-3.88	48.28	85.87	-37.59	peak
6	5963.000	52.40	-3.99	48.41	68.20	-19.79	peak



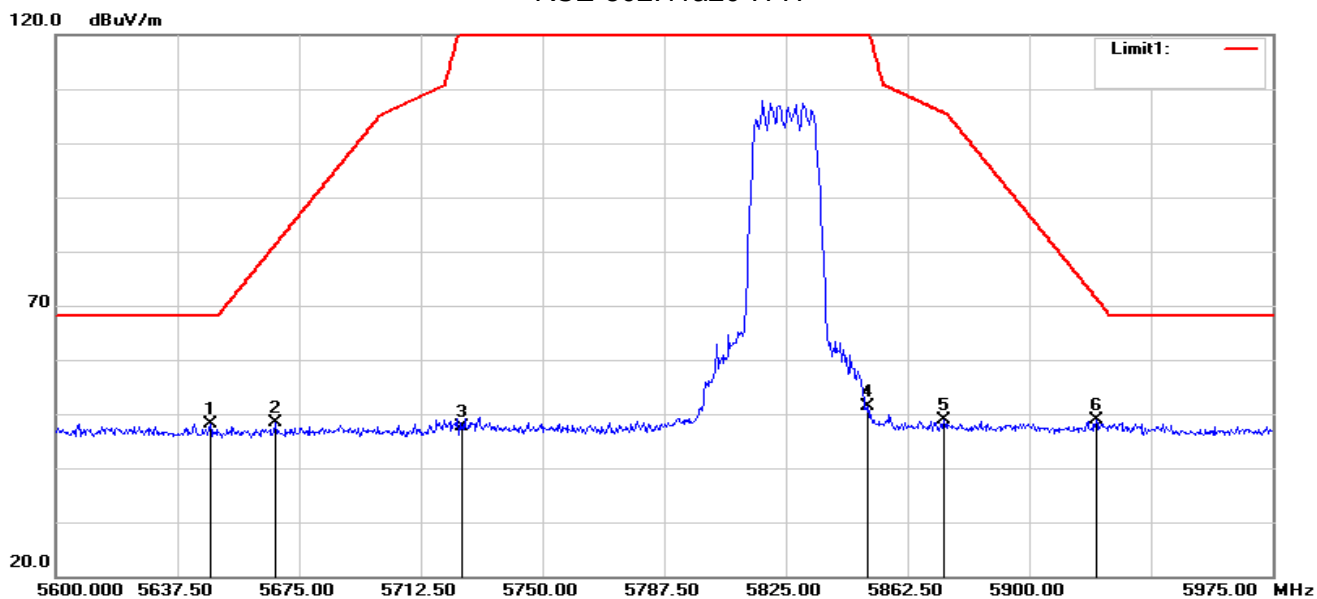
RSE-802.11a20-L-V



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5641.250	56.65	-4.68	51.97	68.20	-16.23	peak
2	5707.625	61.55	-4.64	56.91	107.33	-50.42	peak
3	5725.000	84.47	-4.57	79.90	122.20	-42.30	peak
4	5850.000	52.86	-4.10	48.76	122.20	-73.44	peak
5	5892.875	53.19	-3.91	49.28	91.97	-42.69	peak
6	5951.750	52.71	-3.97	48.74	68.20	-19.46	peak



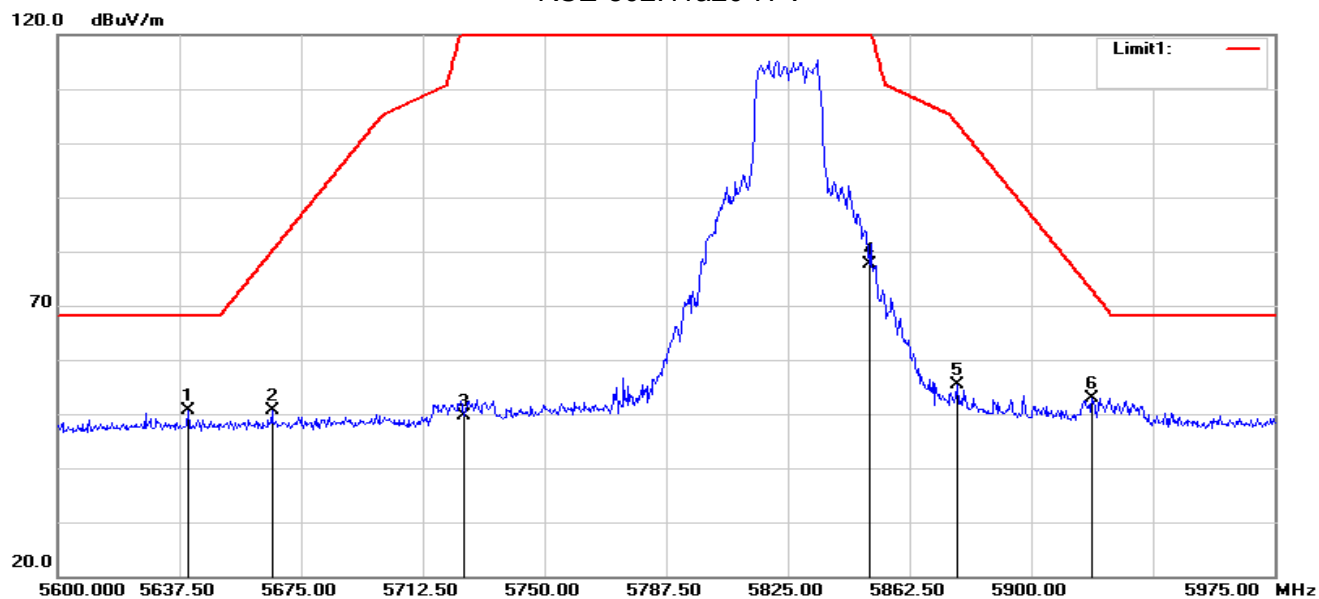
RSE-802.11a20-H-H



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5647.625	52.80	-4.68	48.12	68.20	-20.08	peak
2	5667.500	53.10	-4.67	48.43	81.15	-32.72	peak
3	5725.000	52.22	-4.57	47.65	122.20	-74.55	peak
4	5850.000	55.40	-4.10	51.30	122.20	-70.90	peak
5	5873.750	52.92	-3.99	48.93	105.55	-56.62	peak
6	5920.625	52.72	-3.92	48.80	71.44	-22.64	peak



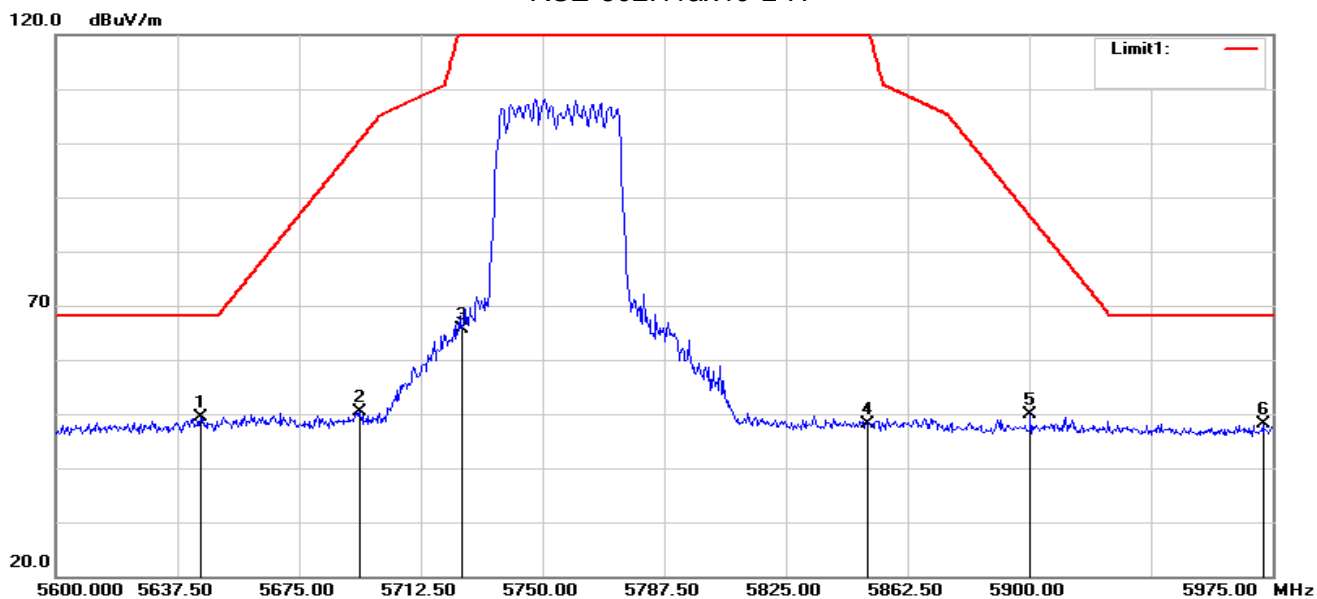
RSE-802.11a20-H-V



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5640.125	55.27	-4.69	50.58	68.20	-17.62	peak
2	5666.000	55.41	-4.67	50.74	80.04	-29.30	peak
3	5725.000	54.09	-4.57	49.52	122.20	-72.68	peak
4	5850.000	81.84	-4.10	77.74	122.20	-44.46	peak
5	5877.125	59.29	-3.98	55.31	103.63	-48.32	peak
6	5918.750	56.78	-3.91	52.87	72.83	-19.96	peak



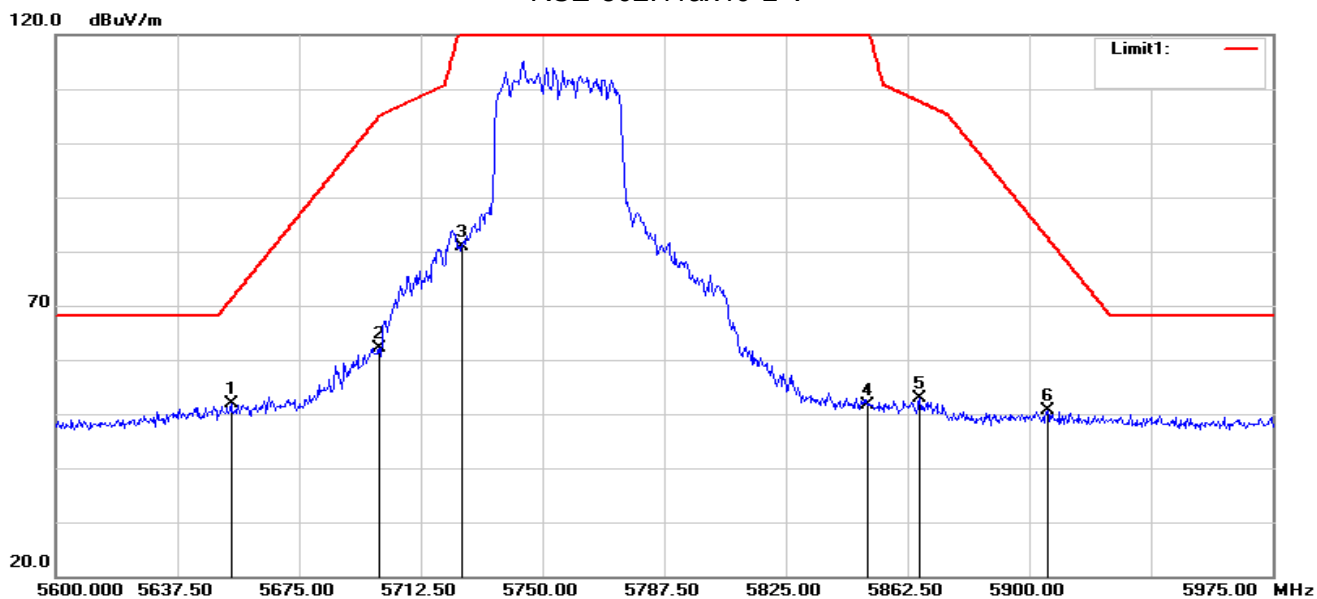
RSE-802.11ax40-L-H



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5644.625	54.09	-4.68	49.41	68.20	-18.79	peak
2	5693.750	54.92	-4.66	50.26	100.58	-50.32	peak
3	5725.000	70.31	-4.57	65.74	122.20	-56.46	peak
4	5850.000	52.12	-4.10	48.02	122.20	-74.18	peak
5	5900.375	53.75	-3.88	49.87	86.42	-36.55	peak
6	5972.000	52.12	-4.00	48.12	68.20	-20.08	peak



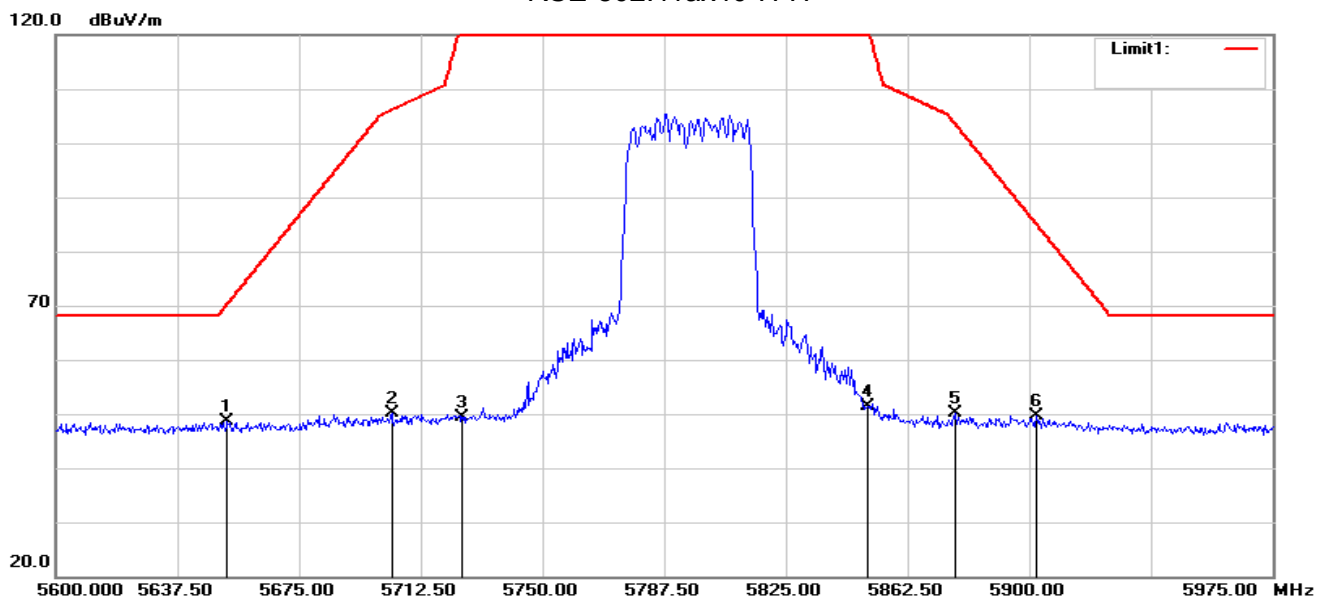
RSE-802.11ax40-L-V



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5654.000	56.47	-4.67	51.80	71.16	-19.36	peak
2	5699.750	66.71	-4.66	62.05	105.02	-42.97	peak
3	5725.000	85.49	-4.57	80.92	122.20	-41.28	peak
4	5850.000	55.66	-4.10	51.56	122.20	-70.64	peak
5	5866.250	56.83	-4.02	52.81	107.65	-54.84	peak
6	5905.625	54.53	-3.89	50.64	82.54	-31.90	peak



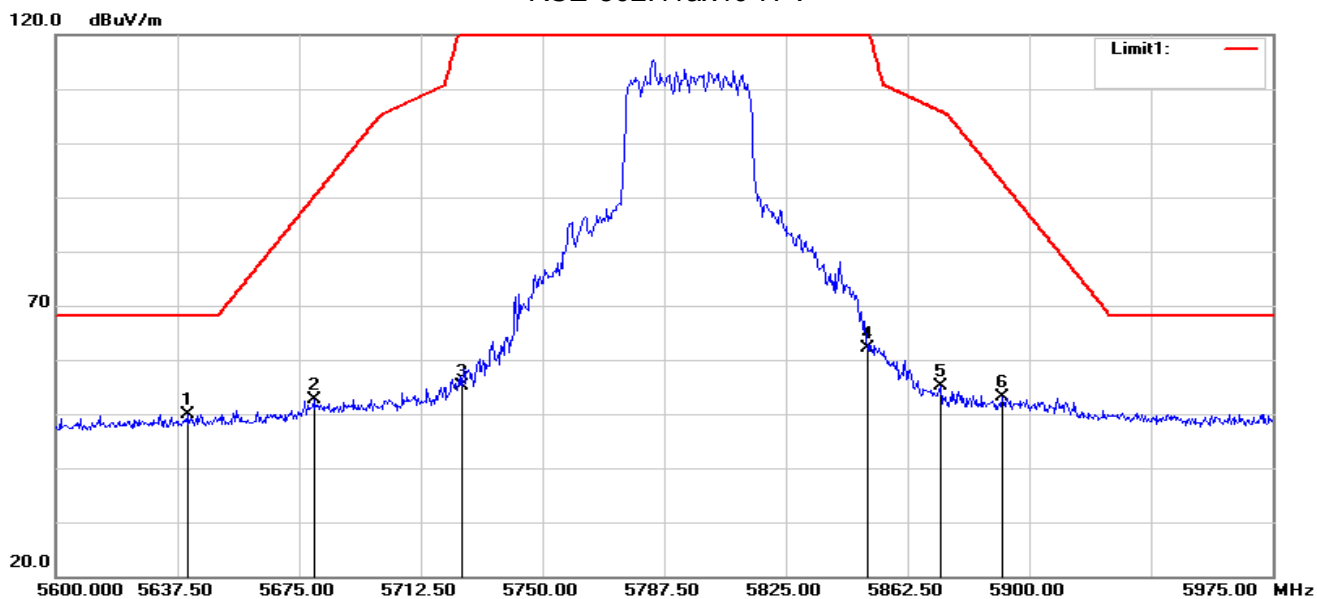
RSE-802.11ax40-H-H



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5652.875	53.34	-4.68	48.66	70.33	-21.67	peak
2	5703.500	54.87	-4.64	50.23	106.18	-55.95	peak
3	5725.000	53.84	-4.57	49.27	122.20	-72.93	peak
4	5850.000	55.43	-4.10	51.33	122.20	-70.87	peak
5	5877.125	54.19	-3.98	50.21	103.63	-53.42	peak
6	5902.250	53.55	-3.89	49.66	85.03	-35.37	peak



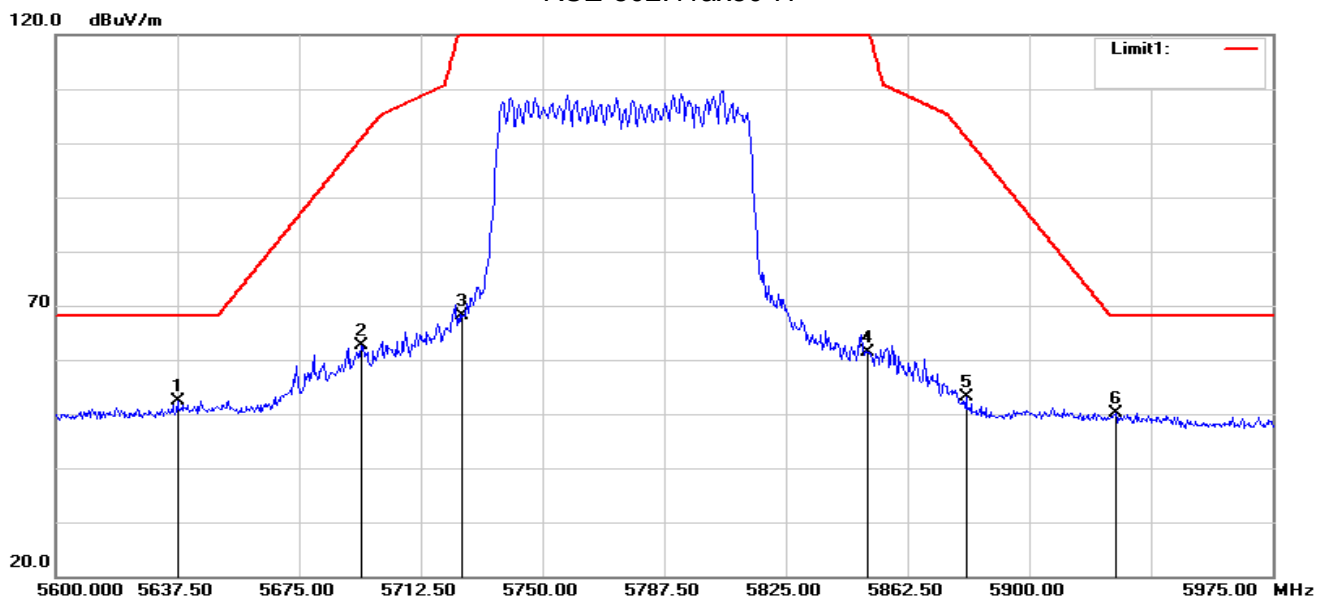
RSE-802.11ax40-H-V



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5640.875	54.66	-4.68	49.98	68.20	-18.22	peak
2	5679.500	57.38	-4.67	52.71	90.03	-37.32	peak
3	5725.000	59.82	-4.57	55.25	122.20	-66.95	peak
4	5850.000	66.24	-4.10	62.14	122.20	-60.06	peak
5	5872.625	59.16	-4.00	55.16	105.87	-50.71	peak
6	5891.750	56.99	-3.91	53.08	92.81	-39.73	peak



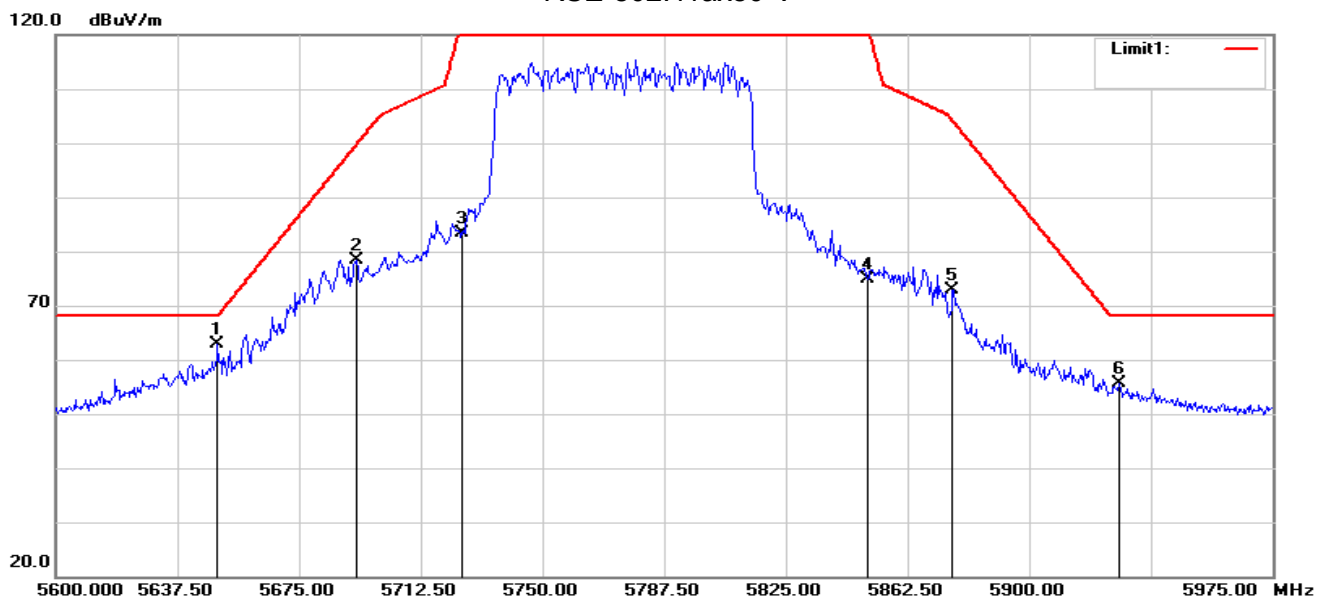
RSE-802.11ax80-H



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5637.500	57.18	-4.69	52.49	68.20	-15.71	peak
2	5694.125	67.38	-4.66	62.72	100.85	-38.13	peak
3	5725.000	72.78	-4.57	68.21	122.20	-53.99	peak
4	5850.000	65.48	-4.10	61.38	122.20	-60.82	peak
5	5880.500	57.20	-3.96	53.24	101.13	-47.89	peak
6	5926.625	54.14	-3.93	50.21	68.20	-17.99	peak



RSE-802.11ax80-V



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5649.875	67.52	-4.68	62.84	68.20	-5.36	peak
2	5692.625	83.05	-4.66	78.39	99.74	-21.35	peak
3	5725.000	87.94	-4.57	83.37	122.20	-38.83	peak
4	5850.000	79.06	-4.10	74.96	122.20	-47.24	peak
5	5876.375	76.77	-3.99	72.78	104.18	-31.40	peak
6	5927.750	59.64	-3.93	55.71	68.20	-12.49	peak

Note: All modes have been tested. Only the worst mode shown in the report.



4. POWER SPECTRAL DENSITY TEST

4.1 LIMIT

1. For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
2. For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
3. For the band 5.725-5.850 GHz, the peak power spectral density shall not exceed 30 dBm in any 500KHz band. If transmitting antenna directional gain is greater than 6 dBi, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

4.2 TEST PROCEDURE

1. The setting follows Method SA-2 of FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
2. Set span to encompass the EBW
3. Set RBW = 1MHz.
4. Set the VBW $\geq$ 3MHz.
5. Number of points in sweep $\geq 2 \times \text{span} / \text{RBW}$. (This ensures that bin-to-bin spacing is $\leq \text{RBW}/2$, so that narrowband signals are not lost between frequency bins.)
6. Sweep time = auto.
7. Detector = power averaging (rms), if available. Otherwise, use sample detector mode
8. Trace average at least 100 traces in power averaging (rms) mode; however, the number of traces to be averaged shall be increased above 100 as needed to ensure that the average accurately represents the true average over the on and off periods of the transmitter.

4.3 DEVIATION FROM STANDARD

No deviation.

4.4 TEST SETUP



4.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.1 Unless otherwise a special operating condition is specified in the follows during the testing.





4.6 TEST RESULTS

5150-5250MHz								
Frequency	Direct measurement Ant_A Power Density (dBm)	Direct measurement Ant_B Power Density (dBm)	Duty cycle factor (dB)	Final Ant_A Power Density (dBm)	Final Ant_B Power Density (dBm)	Power Density Total (dBm)	Limit (dBm)	Result
802.11a								
5180	16.424	15.819	0.280	16.704	16.099	--	17	PASS
5200	16.208	15.871	0.280	16.488	16.151	--	17	PASS
5240	15.859	15.379	0.280	16.139	15.659	--	17	PASS
802.11n20								
5180	10.562	9.741	0.288	10.850	10.029	13.469	14.19	PASS
5200	10.371	9.684	0.288	10.659	9.972	13.339	14.19	PASS
5240	10.393	9.428	0.288	10.681	9.716	13.235	14.19	PASS
802.11n40								
5190	9.833	9.718	0.546	10.379	10.264	13.332	14.19	PASS
5230	9.524	9.289	0.546	10.070	9.835	12.964	14.19	PASS
802.11ac20								
5180	9.822	8.572	0.083	9.905	8.655	12.335	14.19	PASS
5200	9.439	8.675	0.083	9.522	8.758	12.167	14.19	PASS
5240	8.987	8.476	0.083	9.070	8.559	11.832	14.19	PASS
802.11ac40								
5190	9.078	8.517	0.139	9.217	8.656	11.956	14.19	PASS
5230	8.836	8.758	0.139	8.975	8.897	11.947	14.19	PASS
802.11ac80								
5210	10.260	9.777	0.311	10.571	10.088	13.346	14.19	PASS
802.11ax20								
5180	9.762	8.907	0.085	9.847	8.992	12.451	14.19	PASS
5200	9.420	8.929	0.085	9.505	9.014	12.277	14.19	PASS
5240	9.001	8.738	0.085	9.086	8.823	11.967	14.19	PASS
802.11ax40								
5190	9.213	8.795	0.194	9.407	8.989	12.214	14.19	PASS
5230	8.632	8.464	0.194	8.826	8.658	11.753	14.19	PASS
802.11ax80								
5210	10.083	10.189	0.377	10.460	10.566	13.523	14.19	PASS



5250-5350MHz								
Frequency	Direct measurement Ant_A Power Density (dBm)	Direct measurement Ant_B Power Density (dBm)	Duty cycle factor (dB)	Final Ant_A Power Density (dBm)	Final Ant_B Power Density (dBm)	Power Density Total (dBm)	Limit (dBm)	Result
802.11a								
5260	10.059	9.884	0.280	10.339	10.164	--	11	PASS
5300	9.833	9.196	0.280	10.113	9.476	--	11	PASS
5320	9.953	9.085	0.280	10.233	9.365	--	11	PASS
802.11n20								
5260	4.944	3.944	0.274	5.218	4.218	7.757	8.19	PASS
5300	4.666	3.679	0.274	4.940	3.953	7.485	8.19	PASS
5320	4.482	3.885	0.274	4.756	4.159	7.478	8.19	PASS
802.11n40								
5270	3.865	3.324	0.546	4.411	3.870	7.159	8.19	PASS
5310	3.682	2.655	0.546	4.228	3.201	6.755	8.19	PASS
802.11ac20								
5260	3.806	3.081	0.051	3.857	3.132	6.520	8.19	PASS
5300	3.325	3.080	0.051	3.376	3.131	6.265	8.19	PASS
5320	3.465	2.920	0.051	3.516	2.971	6.262	8.19	PASS
802.11ac40								
5270	4.416	3.660	0.139	4.555	3.799	7.204	8.19	PASS
5310	4.226	3.282	0.139	4.365	3.421	6.929	8.19	PASS
802.11ac80								
5290	3.935	3.197	0.311	4.246	3.508	6.903	8.19	PASS
802.11ax20								
5260	3.868	2.833	0.122	3.990	2.955	6.513	8.19	PASS
5300	3.456	2.632	0.122	3.578	2.754	6.196	8.19	PASS
5320	3.235	2.794	0.122	3.357	2.916	6.152	8.19	PASS
802.11ax40								
5270	4.470	3.994	0.183	4.653	4.177	7.432	8.19	PASS
5310	4.442	3.530	0.183	4.625	3.713	7.203	8.19	PASS
802.11ax80								
5290	3.743	3.613	0.374	4.117	3.987	7.063	8.19	PASS
802.11ax160								
5250	4.166	3.663	0.629	4.795	4.292	7.561	8.19	PASS



5470-5725MHz								
Frequency	Direct measurement Ant_A Power Density (dBm)	Direct measurement Ant_B Power Density (dBm)	Duty cycle factor (dB)	Final Ant_A Power Density (dBm)	Final Ant_B Power Density (dBm)	Power Density Total (dBm)	Limit (dBm)	Result
802.11a								
5500	9.815	9.565	0.280	10.095	9.845	--	11	PASS
5580	9.051	8.616	0.280	9.331	8.896	--	11	PASS
5700	10.828	10.197	0.280	11.108	10.477	--	11	PASS
802.11n20								
5500	3.376	2.554	0.275	3.651	2.829	6.269	8.19	PASS
5580	2.269	1.979	0.275	2.544	2.254	5.411	8.19	PASS
5700	3.846	3.078	0.275	4.121	3.353	6.764	8.19	PASS
802.11n40								
5510	2.488	2.085	0.570	3.058	2.655	5.872	8.19	PASS
5550	2.036	1.967	0.570	2.606	2.537	5.582	8.19	PASS
5670	2.679	2.199	0.570	3.249	2.769	6.026	8.19	PASS
802.11ac20								
5500	2.121	1.574	0.054	2.175	1.628	4.921	8.19	PASS
5580	1.256	0.507	0.054	1.310	0.561	3.962	8.19	PASS
5700	2.762	1.934	0.054	2.816	1.988	5.432	8.19	PASS
802.11ac40								
5510	1.421	1.276	0.152	1.573	1.428	4.511	8.19	PASS
5550	1.394	0.527	0.152	1.546	0.679	4.144	8.19	PASS
5670	2.202	1.291	0.152	2.354	1.443	4.933	8.19	PASS
802.11ac80								
5530	3.992	3.379	0.310	4.302	3.689	7.017	8.19	PASS
5610	3.169	2.856	0.310	3.479	3.166	6.336	8.19	PASS
802.11ax20								
5500	2.108	1.416	0.097	2.205	1.513	4.883	8.19	PASS
5580	0.779	0.534	0.097	0.876	0.631	3.766	8.19	PASS
5700	2.608	1.996	0.097	2.705	2.093	5.420	8.19	PASS
802.11ax40								
5510	1.667	0.826	0.206	1.873	1.032	4.483	8.19	PASS
5550	0.966	0.752	0.206	1.172	0.958	4.076	8.19	PASS
5670	1.956	1.397	0.206	2.162	1.603	4.902	8.19	PASS
802.11ax80								
5530	4.161	3.157	0.387	4.548	3.544	7.086	8.19	PASS
5610	3.583	2.824	0.387	3.970	3.211	6.618	8.19	PASS
802.11ax160								
5570	3.126	4.090	0.628	3.754	4.718	7.273	8.19	PASS



5725-5850MHz										
Frequency	Use RBW 510KHz direct measurement Ant_A Power Density (dBm)	Use RBW 510KHz direct measurement Ant_B Power Density (dBm)	Convert to RBW 500KHz direct measurement Ant_A Power Density (dBm)	Convert to RBW 500KHz direct measurement Ant_B Power Density (dBm)	Duty cycle factor (dB)	Final Ant_A Power Density (dBm)	Final Ant_B Power Density (dBm)	Power Density Total (dBm)	Limit (dBm/500KHz)	Result
802.11a										
5745	13.984	14.150	13.898	14.064	0.280	14.178	14.344	--	30	PASS
5785	13.051	12.994	12.965	12.908	0.280	13.245	13.188	--	30	PASS
5825	12.378	12.362	12.292	12.276	0.280	12.572	12.556	--	30	PASS
802.11n20										
5745	13.534	13.923	13.448	13.837	0.288	13.736	14.125	16.945	27.19	PASS
5785	12.550	12.527	12.464	12.441	0.288	12.752	12.729	15.750	27.19	PASS
5825	12.112	12.090	12.026	12.004	0.288	12.314	12.292	15.313	27.19	PASS
802.11n40										
5755	10.256	10.575	10.170	10.489	0.557	10.727	11.046	13.900	27.19	PASS
5795	9.155	9.215	9.069	9.129	0.557	9.626	9.686	12.667	27.19	PASS
802.11ac20										
5745	14.072	13.590	13.986	13.504	0.064	14.050	13.568	16.826	27.19	PASS
5785	12.798	12.626	12.712	12.540	0.064	12.776	12.604	15.701	27.19	PASS
5825	12.359	12.203	12.273	12.117	0.064	12.337	12.181	15.270	27.19	PASS
802.11ac40										
5755	11.283	10.433	11.197	10.347	0.152	11.349	10.499	13.955	27.19	PASS
5795	9.799	9.267	9.713	9.181	0.152	9.865	9.333	12.617	27.19	PASS
802.11ac80										
5775	7.321	7.140	7.235	7.054	0.298	7.533	7.352	10.454	27.19	PASS
802.11ax20										
5745	13.591	13.906	13.505	13.820	0.097	13.602	13.917	16.773	27.19	PASS
5785	11.849	12.549	11.763	12.463	0.097	11.860	12.560	15.235	27.19	PASS
5825	11.828	12.054	11.742	11.968	0.097	11.839	12.065	14.964	27.19	PASS
802.11ax40										
5755	10.632	10.707	10.546	10.621	0.206	10.752	10.827	13.800	27.19	PASS
5795	9.183	9.026	9.097	8.940	0.206	9.303	9.146	12.236	27.19	PASS
802.11ax80										
5775	6.803	7.015	6.717	6.929	0.377	7.094	7.306	10.211	27.19	PASS

Note: 1. RB conversion formula: $10 \cdot \log(500\text{KHz}/\text{RBW})$

2. Test plots see Attachment A.

5. BANDWIDTH MEASUREMENT

5.1 EMISSION BANDWIDTH (EBW) 26 BANDWID PROCEDURES / LIMIT

The following procedure shall be used for measuring 26 bandwidth.

5.1.1 TEST PROCEDURE

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
2. Set RBW = approximately 1% of the emission bandwidth.
3. Set the VBW $\geq$ RBW.
4. Detector = Peak.
5. Trace mode = max hold.
6. Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

5.1.2 DEVIATION FROM STANDARD

No deviation.

5.1.3 TEST SETUP



5.1.4 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

**5.1.5 TEST RESULTS**

Frequency (MHz)	26dB Bandwidth (MHz)	Pass/Fail
802.11a		
5180	21.02	Pass
5200	20.99	Pass
5240	20.93	Pass
802.11n(HT20)		
5180	21.16	Pass
5200	21.23	Pass
5240	21.16	Pass
802.11n(HT40)		
5190	39.45	Pass
5230	39.45	Pass
802.11ac(VHT20)		
5180	21.03	Pass
5200	21.02	Pass
5240	21.09	Pass
802.11ac(VHT40)		
5190	39.38	Pass
5230	39.29	Pass
802.11ac(VHT80)		
5210	80.35	Pass
802.11ax(HE20)		
5180	21.58	Pass
5200	21.39	Pass
5240	21.43	Pass
802.11ax(HE40)		
5190	39.66	Pass
5230	39.74	Pass
802.11ax(HE80)		
5210	80.40	Pass



Frequency (MHz)	26dB Bandwidth (MHz)	Pass/Fail
802.11a		
5260	20.92	Pass
5300	21.41	Pass
5320	21.60	Pass
802.11n(HT20)		
5260	21.21	Pass
5300	21.22	Pass
5320	21.10	Pass
802.11n(HT40)		
5270	39.56	Pass
5310	39.45	Pass
802.11ac(VHT20)		
5260	21.08	Pass
5300	21.07	Pass
5320	21.17	Pass
802.11ac(VHT40)		
5270	39.49	Pass
5310	39.55	Pass
802.11ac(VHT80)		
5290	85.88	Pass
802.11ax(HE20)		
5260	21.47	Pass
5300	21.33	Pass
5320	21.47	Pass
802.11ax(HE40)		
5270	39.65	Pass
5310	39.83	Pass
802.11ax(HE80)		
5290	81.45	Pass
802.11ax(HE160)		
5250	230.00	Pass



Frequency (MHz)	26dB Bandwidth (MHz)	Pass/Fail
802.11a		
5500	21.49	Pass
5580	20.89	Pass
5700	20.95	Pass
802.11n(HT20)		
5500	21.22	Pass
5580	21.26	Pass
5700	21.22	Pass
802.11n(HT40)		
5510	39.59	Pass
5550	39.55	Pass
5670	39.50	Pass
802.11ac(VHT20)		
5500	21.08	Pass
5580	21.07	Pass
5700	20.97	Pass
802.11ac(VHT40)		
5510	39.53	Pass
5550	39.44	Pass
5670	39.59	Pass
802.11ac(VHT80)		
5530	96.95	Pass
5610	80.58	Pass
802.11ax(HE20)		
5500	21.53	Pass
5580	21.53	Pass
5700	21.37	Pass
802.11ax(HE40)		
5510	39.62	Pass
5550	39.55	Pass
5670	39.60	Pass
802.11ax(HE80)		
5530	95.37	Pass
5610	80.87	Pass
802.11ax(HE160)		
5570	230.00	Pass



Frequency (MHz)	26dB Bandwidth (MHz)	Pass/Fail
802.11a		
5745	20.90	Pass
5785	20.97	Pass
5825	20.99	Pass
802.11n(HT20)		
5745	21.19	Pass
5785	21.20	Pass
5825	21.24	Pass
802.11n(HT40)		
5755	39.37	Pass
5795	39.51	Pass
802.11ac(VHT20)		
5745	21.09	Pass
5785	21.00	Pass
5825	20.93	Pass
802.11ac(VHT40)		
5755	39.41	Pass
5795	39.42	Pass
802.11ac(VHT80)		
5775	80.52	Pass
802.11ax(HE20)		
5745	21.48	Pass
5785	21.55	Pass
5825	21.49	Pass
802.11ax(HE40)		
5755	39.66	Pass
5795	39.55	Pass
802.11ax(HE80)		
5775	80.83	Pass

Test plot see Attachment B



5.2 OCCUPIED BANDWIDTH (99%) TEST APPLIED PROCEDURES / LIMIT

The following procedure shall be used for measuring (99 %) power bandwidth.

5.2.1 TEST PROCEDURE

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures v02r01.

The following procedure shall be used for measuring (99 %) power bandwidth:

1. Set center frequency to the nominal EUT channel center frequency.
2. Set span = 1.5 times to 5.0 times the OBW.
3. Set RBW = 1 % to 5 % of the OBW
4. Set VBW $\geq 3 \cdot$ RBW
5. 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.
6. Use the 99 % power bandwidth function of the instrument (if available).
7. If the instrument does not have a 99 % power bandwidth function, the trace data points are recovered and directly summed in power units. 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% occupied bandwidth is the difference between these two frequencies.

5.2.2 DEVIATION FROM STANDARD

No deviation.

5.2.3 TEST SETUP



5.2.4 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

**5.2.5 TEST RESULTS**

Frequency (MHz)	99% Bandwidth (MHz)	Pass/Fail
802.11a		
5180	16.60	Pass
5200	16.61	Pass
5240	16.60	Pass
802.11n(HT20)		
5180	17.78	Pass
5200	17.78	Pass
5240	17.77	Pass
802.11n(HT40)		
5190	36.29	Pass
5230	36.28	Pass
802.11ac(VHT20)		
5180	17.71	Pass
5200	17.72	Pass
5240	17.73	Pass
802.11ac(VHT40)		
5190	36.22	Pass
5230	36.19	Pass
802.11ac(VHT80)		
5210	75.62	Pass
802.11ax(HE20)		
5180	19.08	Pass
5200	19.06	Pass
5240	19.12	Pass
802.11ax(HE40)		
5190	37.48	Pass
5230	37.50	Pass
802.11ax(HE80)		
5210	76.98	Pass



Frequency (MHz)	99% Bandwidth (MHz)	Pass/Fail
802.11a		
5260	16.60	Pass
5300	16.66	Pass
5320	16.64	Pass
802.11n(HT20)		
5260	17.78	Pass
5300	17.78	Pass
5320	17.76	Pass
802.11n(HT40)		
5270	36.31	Pass
5310	36.28	Pass
802.11ac(VHT20)		
5260	17.73	Pass
5300	17.72	Pass
5320	17.72	Pass
802.11ac(VHT40)		
5270	36.23	Pass
5310	36.20	Pass
802.11ac(VHT80)		
5290	75.85	Pass
802.11ax(HE20)		
5260	19.08	Pass
5300	19.06	Pass
5320	19.02	Pass
802.11ax(HE40)		
5270	37.52	Pass
5310	37.50	Pass
802.11ax(HE80)		
5290	77.14	Pass
802.11ax(HE160)		
5250	157.11	Pass



Frequency (MHz)	99% Bandwidth (MHz)	Pass/Fail
802.11a		
5500	16.68	Pass
5580	16.62	Pass
5700	16.62	Pass
802.11n(HT20)		
5500	17.79	Pass
5580	17.81	Pass
5700	17.78	Pass
802.11n(HT40)		
5510	36.27	Pass
5550	36.27	Pass
5670	36.25	Pass
802.11ac(VHT20)		
5500	17.71	Pass
5580	17.72	Pass
5700	17.72	Pass
802.11ac(VHT40)		
5510	36.20	Pass
5550	36.21	Pass
5670	36.20	Pass
802.11ac(VHT80)		
5530	75.74	Pass
5610	75.77	Pass
802.11ax(HE20)		
5500	19.11	Pass
5580	19.09	Pass
5700	19.09	Pass
802.11ax(HE40)		
5510	37.46	Pass
5550	37.49	Pass
5670	37.53	Pass
802.11ax(HE80)		
5530	77.08	Pass
5610	77.14	Pass
802.11ax(HE160)		
5570	157.87	Pass



Frequency (MHz)	99% Bandwidth (MHz)	Pass/Fail
802.11a		
5745	16.63	Pass
5785	16.63	Pass
5825	16.62	Pass
802.11n(HT20)		
5745	17.80	Pass
5785	17.76	Pass
5825	17.79	Pass
802.11n(HT40)		
5755	36.27	Pass
5795	36.29	Pass
802.11ac(VHT20)		
5745	17.72	Pass
5785	17.72	Pass
5825	17.71	Pass
802.11ac(VHT40)		
5755	36.20	Pass
5795	36.20	Pass
802.11ac(VHT80)		
5775	75.62	Pass
802.11ax(HE20)		
5745	19.08	Pass
5785	19.10	Pass
5825	19.09	Pass
802.11ax(HE40)		
5755	37.47	Pass
5795	37.46	Pass
802.11ax(HE80)		
5775	76.94	Pass

Test plot See Attachment B

5.3 MINIMUM EMISSION BANDWIDTH(6 DB) PROCEDURES / LIMIT

Section 15.407(e) specifies the minimum 6 dB emission bandwidth of at least 500 KHz for the band 5.725-5.85 GHz. The following procedure shall be used for measuring this bandwidth.

5.3.1 TEST PROCEDURE

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures v02r01.
 - a) Set RBW = 100 kHz.
 - b) Set the video bandwidth (VBW) $\geq 3 \times$ RBW.
 - c) Detector = Peak.
 - d) Trace mode = max hold.
 - e) Sweep = auto couple.
 - f) Allow the trace to stabilize.
 - g) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

5.3.2 DEVIATION FROM STANDARD

No deviation.

5.3.3 TEST SETUP



5.3.4 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

**5.3.5 TEST RESULTS**

Frequency (MHz)	6dB Bandwidth (MHz)	Pass/Fail
802.11a		
5745	16.33	Pass
5785	16.33	Pass
5825	16.34	Pass
802.11n(HT20)		
5745	17.58	Pass
5785	17.60	Pass
5825	17.59	Pass
802.11n(HT40)		
5755	36.32	Pass
5795	36.35	Pass
802.11ac(VHT20)		
5745	17.60	Pass
5785	17.63	Pass
5825	17.60	Pass
802.11ac(VHT40)		
5755	36.36	Pass
5795	36.38	Pass
802.11ac(VHT80)		
5775	76.00	Pass
802.11ax(HE20)		
5745	18.73	Pass
5785	18.81	Pass
5825	18.87	Pass
802.11ax(HE40)		
5755	36.87	Pass
5795	36.84	Pass
802.11ax(HE80)		
5775	76.28	Pass

Test plots see Attachment C



6. MAXIMUM CONDUCTED OUTPUT POWER

6.1 LIMIT

For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz, If transmitting antennas of directional gain greater than 6 dBi are used.

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. If transmitting antennas of directional gain greater than 6 dBi are used.

FCC Part15 (15.407) , Subpart E				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.407(a) (1) (iv)	Output Power	1 watt	5150-5250	PASS
		The lesser of 250 mW or 11 dBm + 10 log (26 dB emission bandwidth)	5250-5350 5470-5725	
15.407(a) (3)		1 watt	5725-5825	

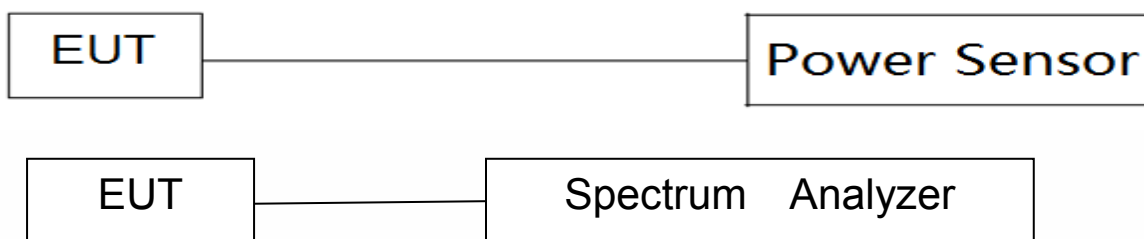
6.2 TEST PROCEDURE

The EUT was directly connected to the Power Sensor&PC

6.3 DEVIATION FROM STANDARD

No deviation.

6.4 TEST SETUP



6.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 5 Unless otherwise a special operating condition is specified in the follows during the testing.



6.6 TEST RESULTS

U-NII-1 (5.15-5.25GHz)								
Test Channel	Frequency (MHz)	Direct measurement Ant_A AV Power (dBm)	Direct measurement Ant_B_AV Power (dBm)	Duty cycle factor (dB)	Final Ant_A AV Power (dBm)	Final Ant_B AV Power (dBm)	AV Power Total (dBm)	LIMIT (dBm)
802.11a								
36	5180	28.91	28.16	0.280	29.19	28.44	--	30.00
40	5200	28.41	27.95	0.280	28.69	28.23	--	30.00
48	5240	28.43	27.77	0.280	28.71	28.05	--	30.00
802.11n(HT20)								
36	5180	23.62	20.92	0.288	23.90	21.21	25.77	27.19
40	5200	23.86	22.12	0.288	24.15	22.41	26.37	27.19
48	5240	24.40	22.87	0.288	24.69	23.16	27.00	27.19
802.11n(HT40)								
38	5190	23.37	21.01	0.546	23.92	21.55	25.91	27.19
46	5230	23.06	20.73	0.546	23.60	21.27	25.60	27.19
802.11ac(VHT20)								
36	5180	24.48	23.32	0.083	24.56	23.40	27.03	27.19
40	5200	24.30	23.54	0.083	24.39	23.62	27.03	27.19
48	5240	24.21	23.64	0.083	24.29	23.72	27.03	27.19
802.11ac(VHT40)								
38	5190	24.14	23.56	0.139	24.28	23.70	27.01	27.19
46	5230	24.15	23.39	0.139	24.29	23.53	26.93	27.19
802.11ac(VHT80)								
42	5210	23.60	23.37	0.311	23.91	23.68	26.81	27.19
802.11ax(HE20)								
36	5180	24.23	22.64	0.085	24.32	22.72	26.60	27.19
40	5200	24.66	23.27	0.085	24.74	23.35	27.11	27.19
48	5240	24.73	22.75	0.085	24.81	22.83	26.94	27.19
802.11ax(HE40)								
38	5190	24.18	23.06	0.194	24.37	23.26	26.86	27.19
46	5230	24.45	23.41	0.194	24.65	23.60	27.16	27.19
802.11ax(HE80)								
42	5210	23.71	23.54	0.377	24.09	23.92	27.01	27.19



U-NII-2A (5.25-5.35GHz)								
Test Channel	Frequency (MHz)	Direct measurement Ant_A AV Power (dBm)	Direct measurement Ant_B_AV Power (dBm)	Duty cycle factor (dB)	Final Ant_A AV Power (dBm)	Final Ant_B AV Power (dBm)	AV Power Total (dBm)	LIMIT (dBm)
802.11a								
52	5260	23.24	23.17	0.280	23.53	23.45	--	23.98
60	5300	23.26	22.84	0.280	23.54	23.12	--	23.98
64	5320	23.65	22.90	0.280	23.93	23.18	--	23.98
802.11n(HT20)								
52	5260	16.59	14.89	0.274	16.87	15.16	19.11	21.17
60	5300	17.46	14.50	0.274	17.74	14.77	19.51	21.17
64	5320	17.42	14.33	0.274	17.69	14.60	19.43	21.17
802.11n(HT40)								
54	5270	17.93	16.17	0.546	18.47	16.71	20.69	21.17
62	5310	18.39	15.31	0.546	18.94	15.86	20.67	21.17
802.11ac(VHT20)								
52	5260	18.58	17.06	0.051	18.63	17.11	20.95	21.17
60	5300	18.37	17.45	0.051	18.42	17.50	21.00	21.17
64	5320	18.85	16.94	0.051	18.90	16.99	21.06	21.17
802.11ac(VHT40)								
54	5270	18.09	17.00	0.139	18.23	17.14	20.73	21.17
62	5310	17.76	16.72	0.139	17.90	16.86	20.42	21.17
802.11ac(VHT80)								
58	5290	17.08	16.65	0.311	17.39	16.96	20.19	21.17
802.11ax(HE20)								
52	5260	18.24	17.18	0.122	18.36	17.30	20.87	21.17
60	5300	18.53	15.77	0.122	18.65	15.89	20.50	21.17
64	5320	18.38	17.24	0.122	18.50	17.37	20.98	21.17
802.11ax(HE40)								
54	5270	18.81	16.39	0.183	18.99	16.57	20.96	21.17
62	5310	17.78	16.31	0.183	17.96	16.49	20.30	21.17
802.11ax(HE80)								
58	5290	17.20	16.83	0.374	17.57	17.20	20.40	21.17
802.11ax(HE160)								
50	5250	17.42	17.15	0.629	18.05	17.78	20.93	21.17



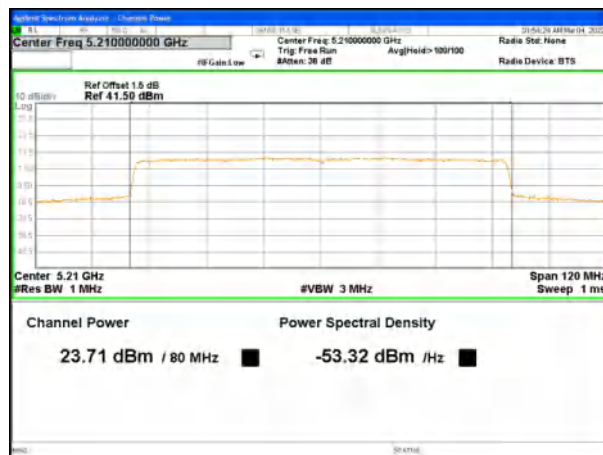
U-NII-2C (5.47-5.725GHz)								
Test Channel	Frequency (MHz)	Direct measurement Ant_A AV Power (dBm)	Direct measurement Ant_B_AV Power (dBm)	Duty cycle factor (dB)	Final Ant_A AV Power (dBm)	Final Ant_B AV Power (dBm)	AV Power Total (dBm)	LIMIT (dBm)
802.11a								
100	5500	23.32	22.40	0.280	23.60	22.68	--	23.98
116	5580	23.36	22.62	0.280	23.64	22.90	--	23.98
140	5700	23.57	22.77	0.280	23.85	23.05	--	23.98
802.11n(HT20)								
100	5500	15.91	13.22	0.275	16.19	13.49	18.06	21.17
116	5580	16.34	12.96	0.275	16.62	13.23	18.26	21.17
140	5700	16.52	14.23	0.275	16.79	14.51	18.81	21.17
802.11n(HT40)								
102	5510	16.14	15.09	0.570	16.71	15.66	19.23	21.17
110	5550	16.04	14.27	0.570	16.61	14.84	18.82	21.17
134	5670	15.62	13.73	0.570	16.19	14.30	18.36	21.17
802.11ac(VHT20)								
100	5500	16.04	14.23	0.054	16.10	14.29	18.29	21.17
116	5580	16.41	12.94	0.054	16.46	13.00	18.08	21.17
140	5700	16.49	14.58	0.054	16.55	14.63	18.70	21.17
802.11ac(VHT40)								
102	5510	18.03	15.29	0.152	18.18	15.44	20.04	21.17
110	5550	18.48	15.59	0.152	18.63	15.74	20.43	21.17
134	5670	18.25	15.98	0.152	18.40	16.13	20.42	21.17
802.11ac(VHT80)								
106	5530	17.82	17.35	0.310	18.13	17.66	20.91	21.17
122	5610	16.87	16.67	0.310	17.18	16.98	20.09	21.17
802.11ax(HE20)								
100	5500	18.06	16.70	0.097	18.15	16.80	20.54	21.17
116	5580	18.80	15.54	0.097	18.89	15.63	20.57	21.17
140	5700	18.45	17.16	0.097	18.55	17.26	20.96	21.17
802.11ax(HE40)								
102	5510	17.73	16.87	0.206	17.93	17.07	20.54	21.17
110	5550	18.39	16.70	0.206	18.60	16.91	20.84	21.17
134	5670	18.03	15.56	0.206	18.24	15.77	20.19	21.17
802.11ax(HE80)								
106	5530	17.89	17.55	0.387	18.28	17.94	21.12	21.17
122	5610	17.79	16.96	0.387	18.18	17.35	20.79	21.17
802.11ax(HE160)								
114	5570	17.26	16.50	0.628	17.89	17.13	20.53	21.17



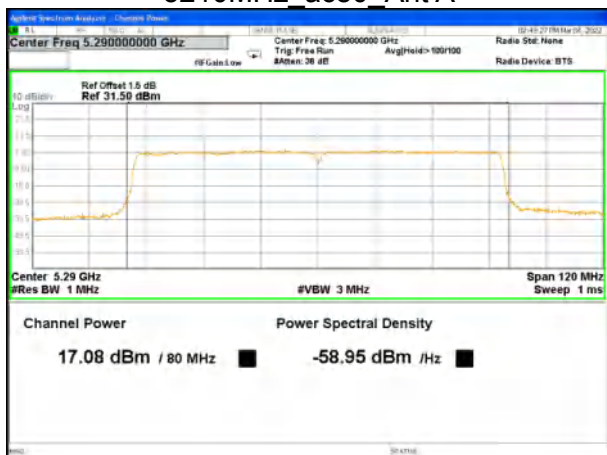
U-NII-3 (5.725-5.85GHz)								
Test Channel	Frequency (MHz)	Direct measurement Ant_A AV Power (dBm)	Direct measurement Ant B_AV Power (dBm)	Duty cycle factor (dB)	Final Ant_A AV Power (dBm)	Final Ant_B AV Power (dBm)	AV Power Total (dBm)	LIMIT (dBm)
802.11a								
149	5745	28.34	27.53	0.280	28.62	27.81	--	30.00
157	5785	27.97	27.44	0.280	28.25	27.72	--	30.00
165	5825	28.43	27.61	0.280	28.71	27.89	--	30.00
802.11n(HT20)								
149	5745	22.84	19.97	0.288	23.13	20.26	24.937	27.19
157	5785	23.98	22.54	0.288	24.27	22.82	26.617	27.19
165	5825	22.77	21.58	0.288	23.06	21.87	25.517	27.19
802.11n(HT40)								
151	5755	23.46	21.22	0.557	24.02	21.78	26.053	27.19
159	5795	23.35	19.93	0.557	23.91	20.49	25.538	27.19
802.11ac(VHT20)								
149	5745	22.93	19.84	0.064	23.00	19.90	24.730	27.19
157	5785	23.91	21.30	0.064	23.98	21.36	25.874	27.19
165	5825	22.74	22.64	0.064	22.80	22.70	25.762	27.19
802.11ac(VHT40)								
151	5755	23.34	22.36	0.152	23.49	22.52	26.039	27.19
159	5795	23.47	22.42	0.152	23.62	22.57	26.137	27.19
802.11ac(VHT80)								
155	5775	23.65	23.10	0.298	23.95	23.40	26.692	27.19
802.11ax(HE20)								
149	5745	23.77	22.65	0.097	23.87	22.75	26.354	27.19
157	5785	23.72	21.51	0.097	23.82	21.61	25.862	27.19
165	5825	24.35	23.16	0.097	24.45	23.26	26.903	27.19
802.11ax(HE40)								
151	5755	23.39	23.12	0.206	23.59	23.33	26.474	27.19
159	5795	23.45	22.47	0.206	23.66	22.67	26.203	27.19
802.11ax(HE80)								
155	5775	23.72	23.27	0.377	24.10	23.65	26.888	27.19



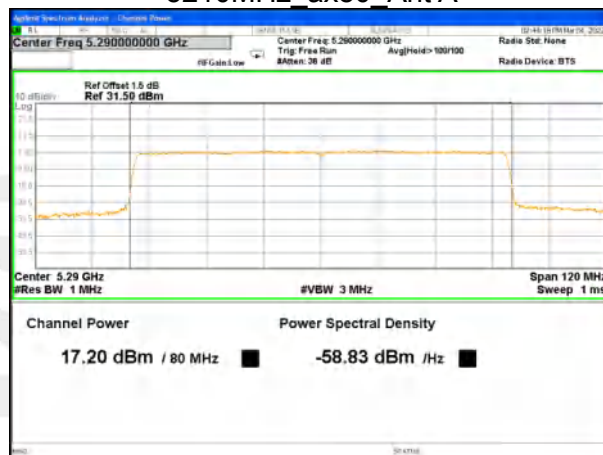
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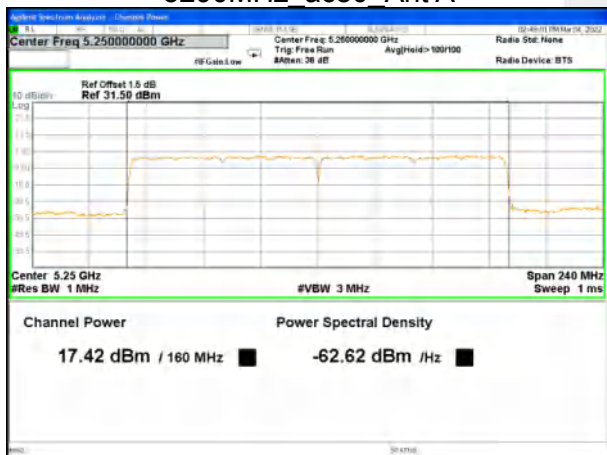
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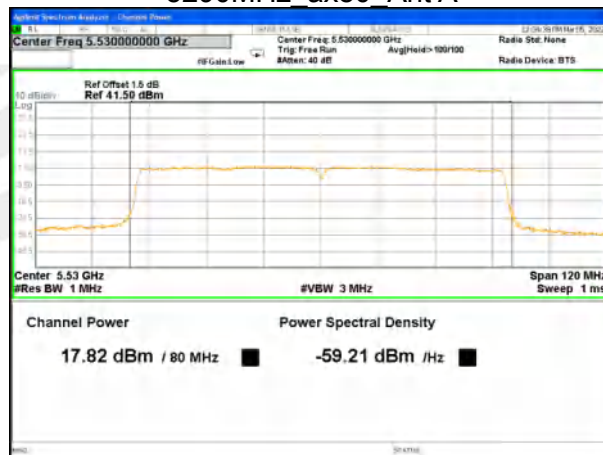
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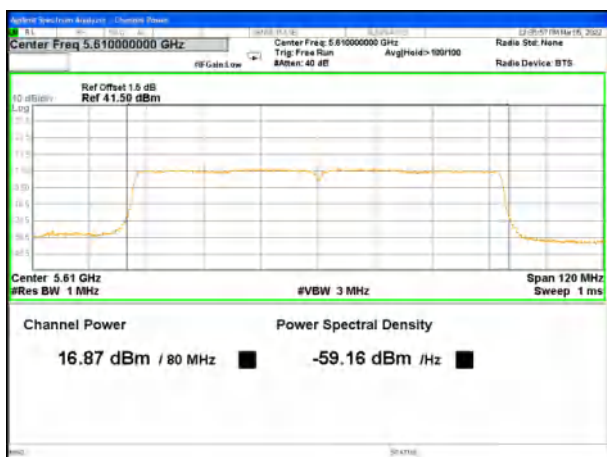
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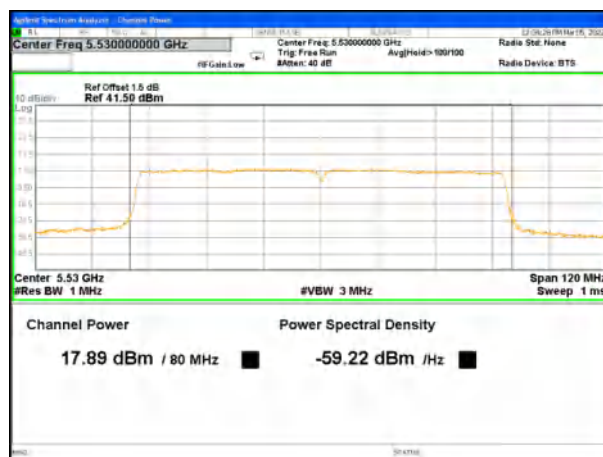
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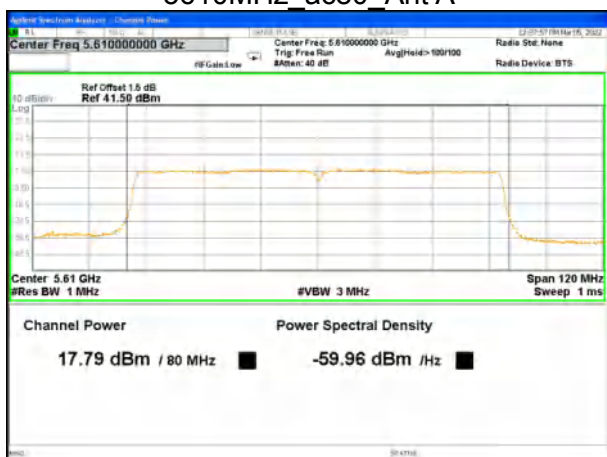
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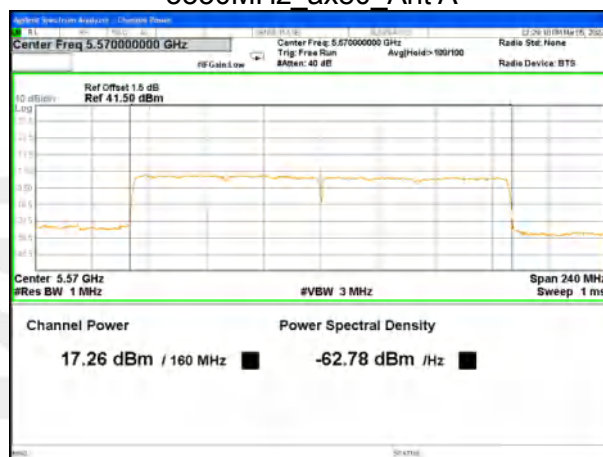
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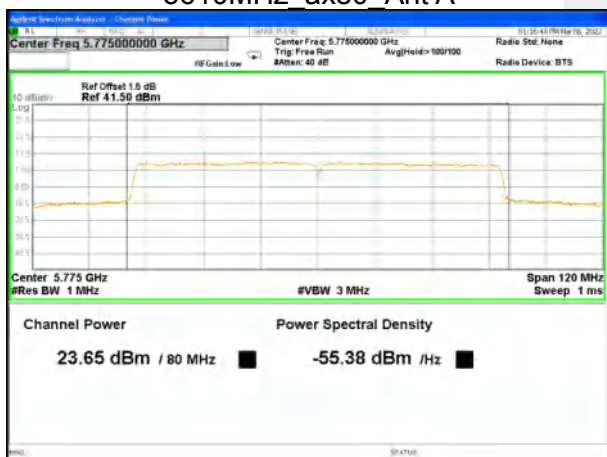
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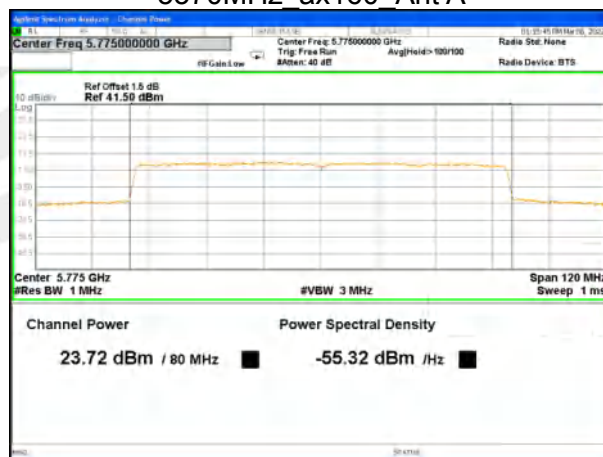
5610MHz_ax80_Ant A



5570MHz_ax160_Ant A



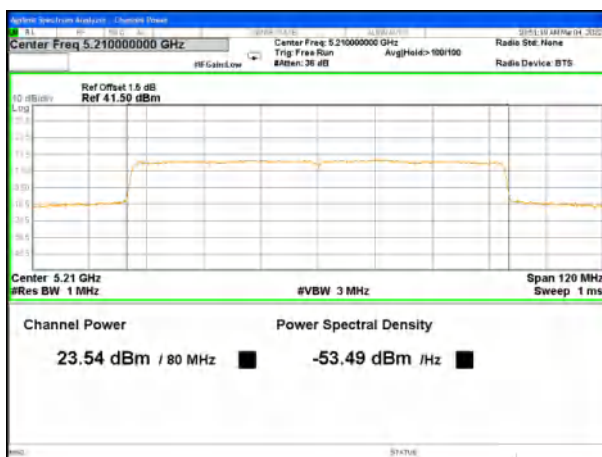
5775MHz_ac80_Ant A



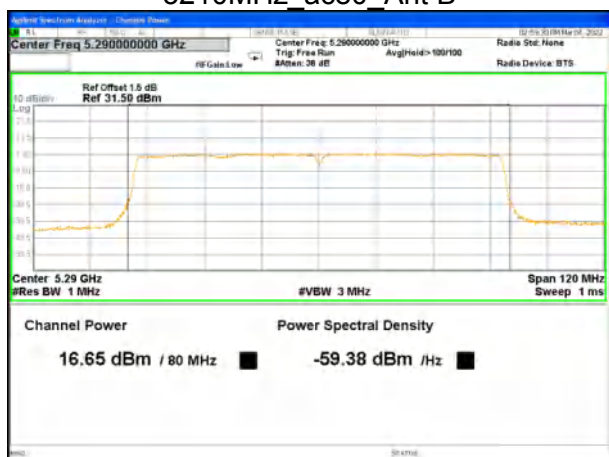
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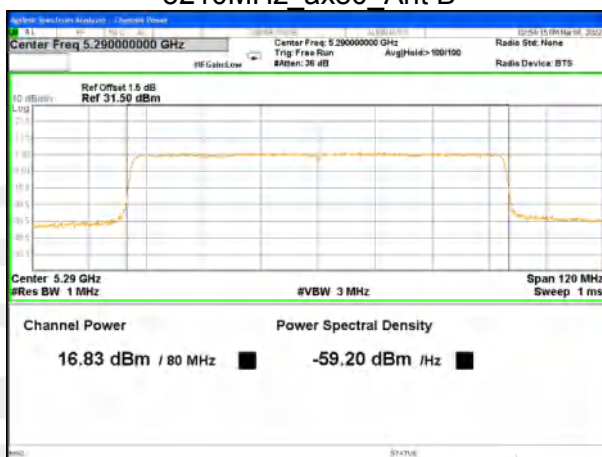
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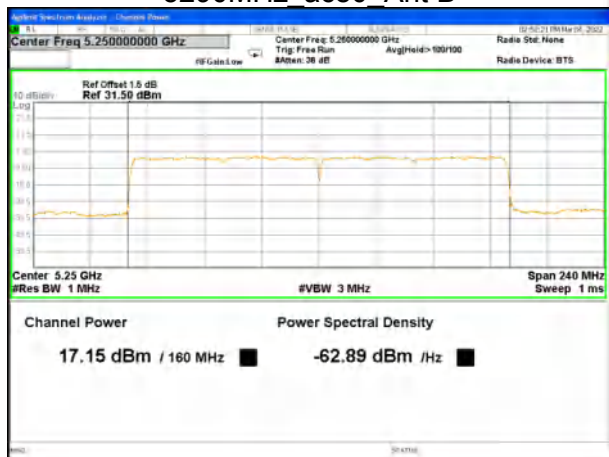
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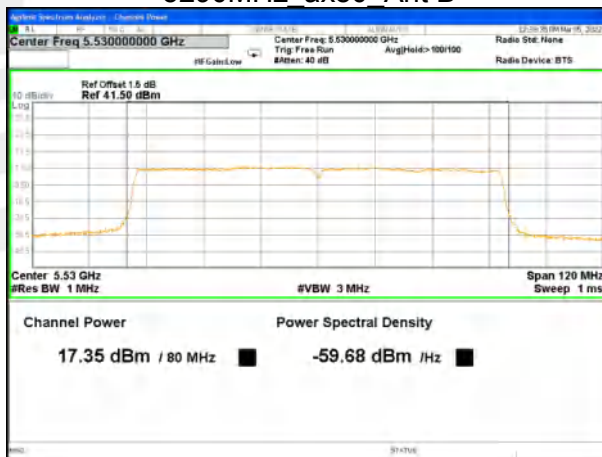
5290MHz_ac80_Ant B



5290MHz_ax80_Ant B



5250MHz_ax160_Ant B



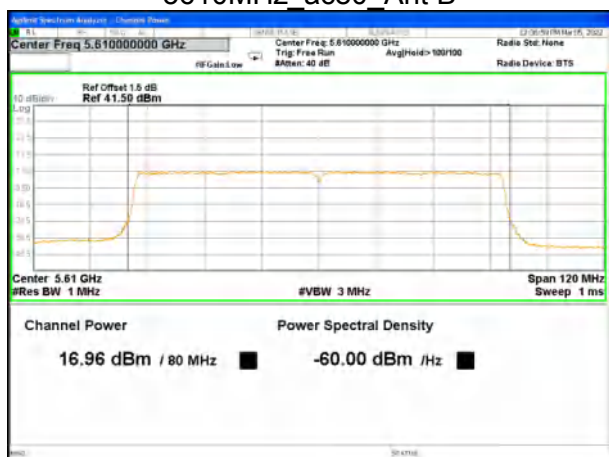
5530MHz_ac80_Ant B



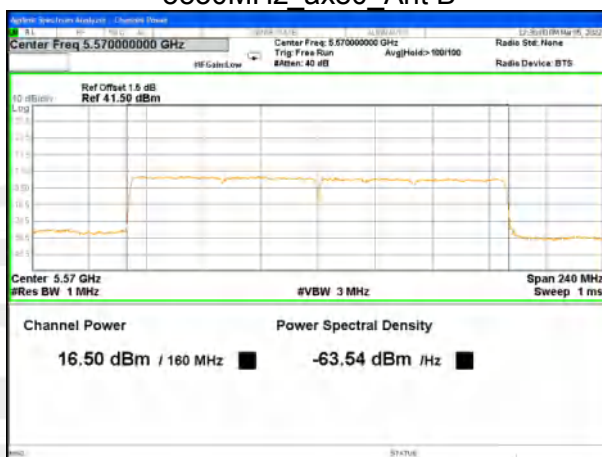
5610MHz_ac80_Ant B



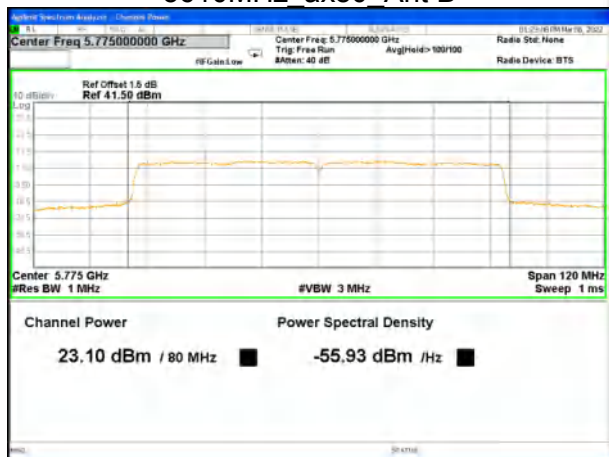
5530MHz_ax80_Ant B



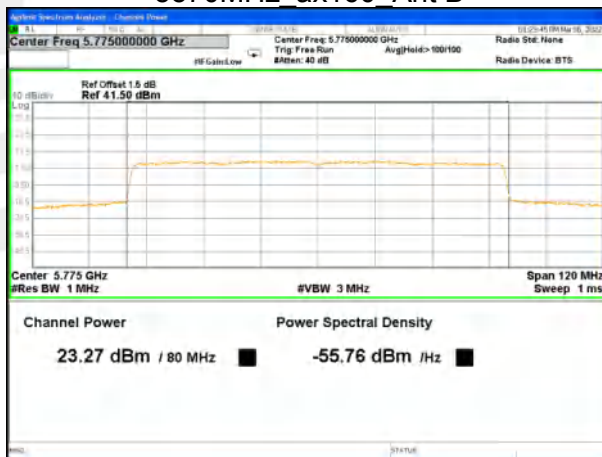
5610MHz_ax80_Ant B



5570MHz_ax160_Ant B



5775MHz_ac80_Ant B



5775MHz_ax80_Ant B



Duty cycle

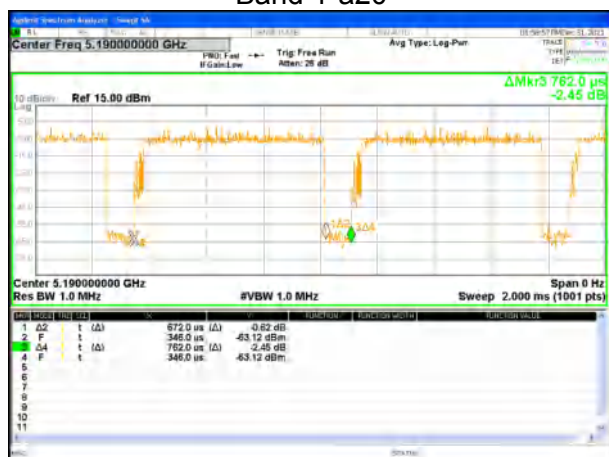
Band1				
Mode	Ton(ms)	Tp(ms)	Duty cycle(%)	Duty factor(dB)
a	1.440	1.536	93.75%	0.280
n20	1.344	1.436	93.59%	0.288
n40	0.672	0.762	88.19%	0.546
ac20	1.350	1.376	98.11%	0.083
ac40	0.674	0.696	96.84%	0.139
ac80	0.337	0.362	93.09%	0.311
ax20	1.062	1.083	98.06%	0.085
ax40	0.568	0.594	95.62%	0.194
ax80	0.309	0.337	91.69%	0.377
Band2				
Mode	Ton(ms)	Tp(ms)	Duty cycle(%)	Duty factor(dB)
a	1.440	1.536	93.75%	0.280
n20	1.352	1.440	93.89%	0.274
n40	0.672	0.762	88.19%	0.546
ac20	1.356	1.372	98.83%	0.051
ac40	0.674	0.696	96.84%	0.139
ac80	0.337	0.362	93.09%	0.311
ax20	1.054	1.084	97.23%	0.122
ax40	0.569	0.593	95.87%	0.183
ax80	0.311	0.339	91.74%	0.374
ax160	0.186	0.215	86.51%	0.629
Band3				
Mode	Ton(ms)	Tp(ms)	Duty cycle(%)	Duty factor(dB)
a	1.440	1.536	93.75%	0.280
n20	1.348	1.436	93.87%	0.275
n40	0.670	0.764	87.70%	0.570
ac20	1.355	1.372	98.76%	0.054
ac40	0.674	0.698	96.56%	0.152
ac80	0.338	0.363	93.11%	0.310
ax20	1.059	1.083	97.78%	0.097
ax40	0.569	0.597	95.37%	0.206
ax80	0.309	0.338	91.47%	0.387
ax160	0.187	0.216	86.54%	0.628
Band4				
Mode	Ton(ms)	Tp(ms)	Duty cycle(%)	Duty factor(dB)
a	1.440	1.536	93.75%	0.280
n20	1.344	1.436	93.59%	0.288
n40	0.672	0.764	87.96%	0.557
ac20	1.356	1.376	98.55%	0.064
ac40	0.674	0.698	96.56%	0.152
ac80	0.338	0.362	93.37%	0.298
ax20	1.059	1.083	97.78%	0.097
ax40	0.567	0.595	95.36%	0.206
ax80	0.309	0.337	91.69%	0.377



Band 1-a20



Band 1-n20



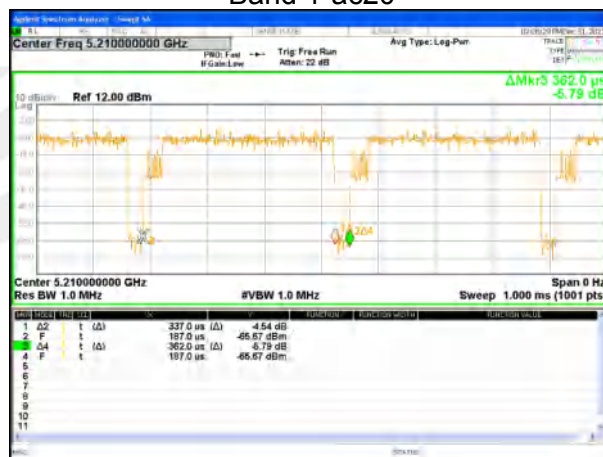
Band 1-n40



Band 1-ac20



Band 1-ac40



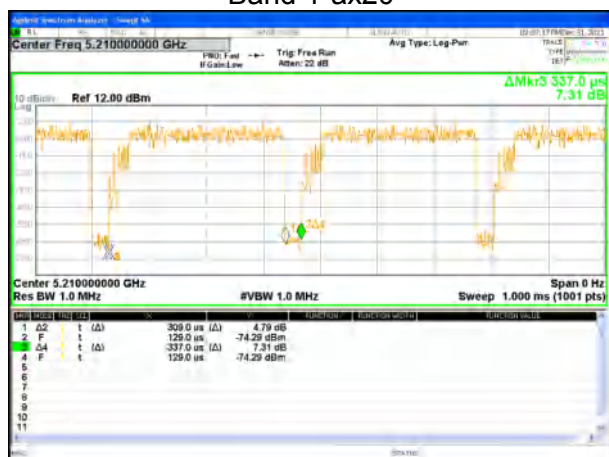
Band 1-ac80



Band 1-ax20



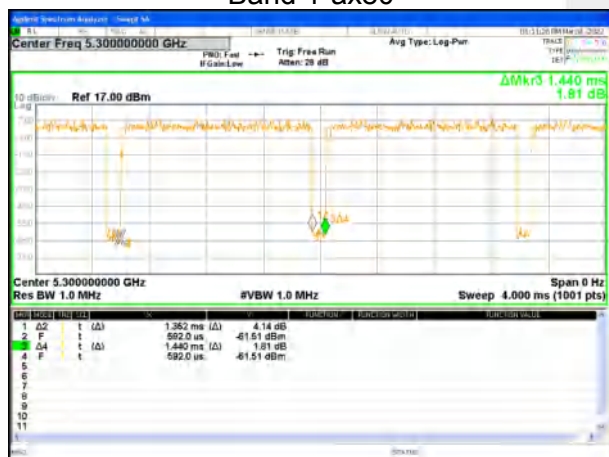
Band 1-ax40



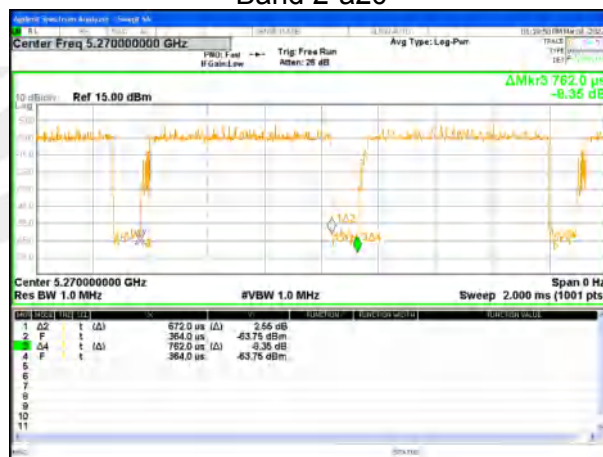
Band 1-ax80



Band 2-a20



Band 2-n20



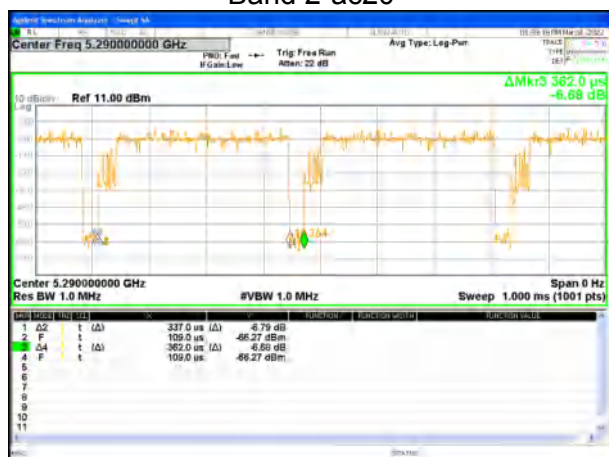
Band 2-n40



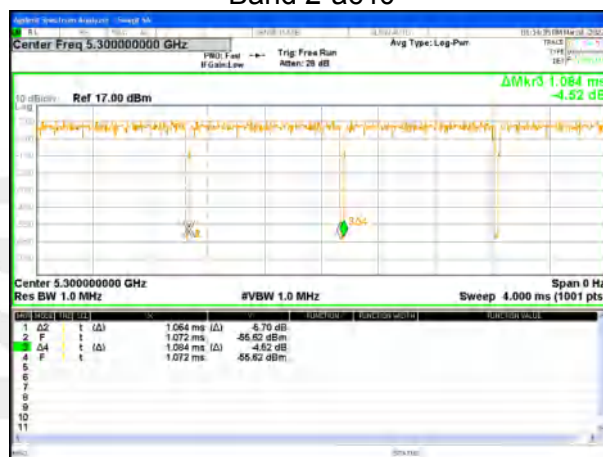
Band 2-ac20



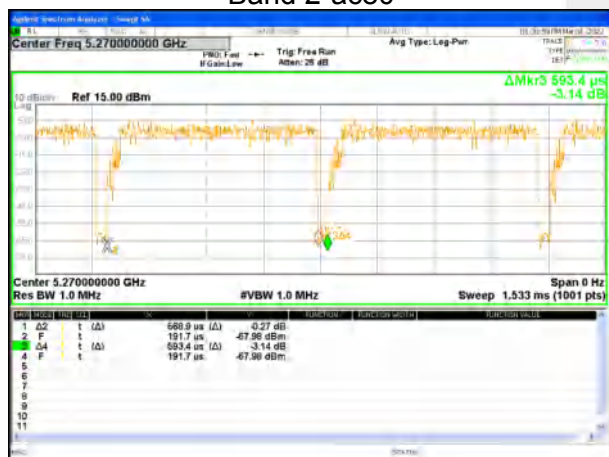
Band 2-ac40



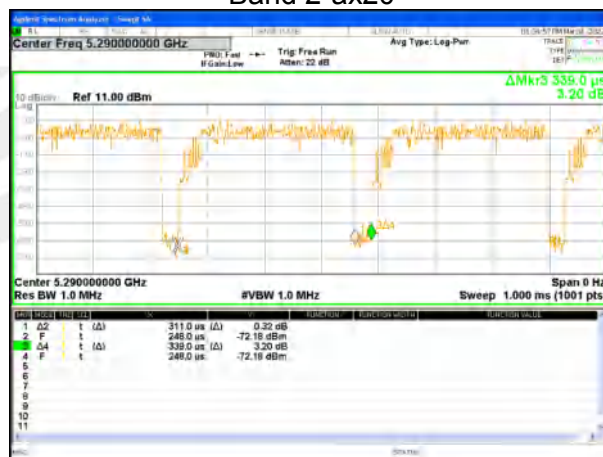
Band 2-ac80



Band 2-ax20



Band 2-ax40



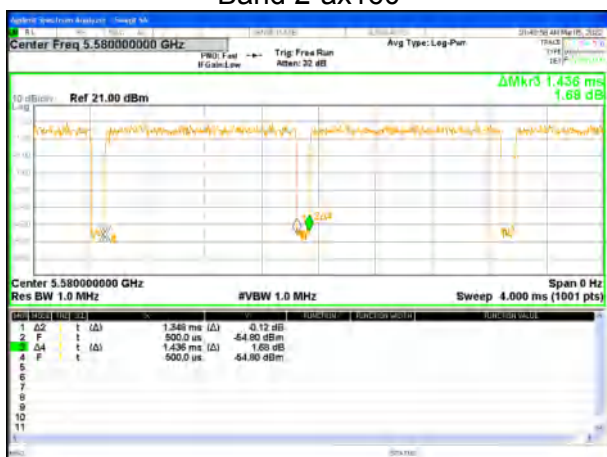
Band 2-ax80



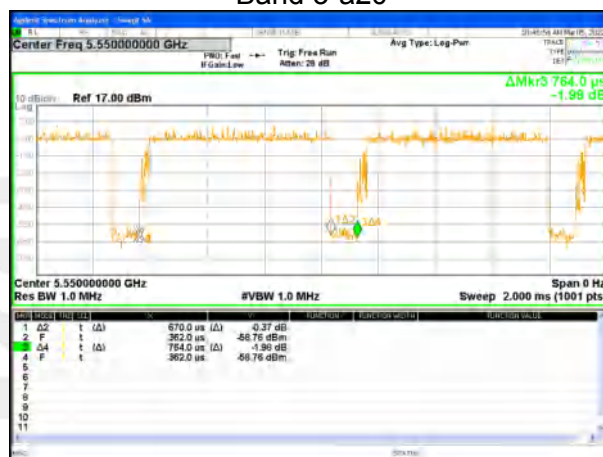
Band 2-ax160



Band 3-a20



Band 3-n20



Band 3-n40



Band 3-ac20



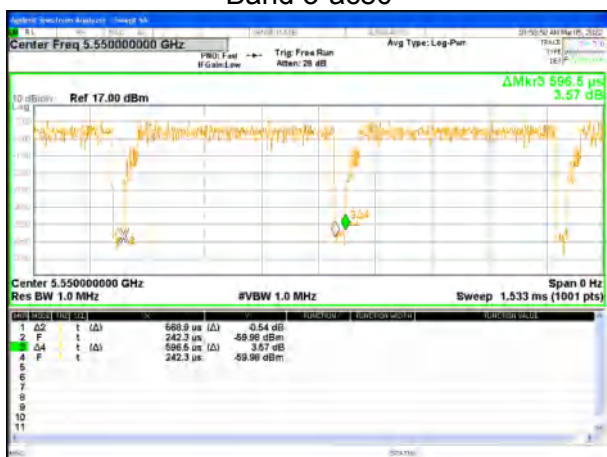
Band 3-ac40



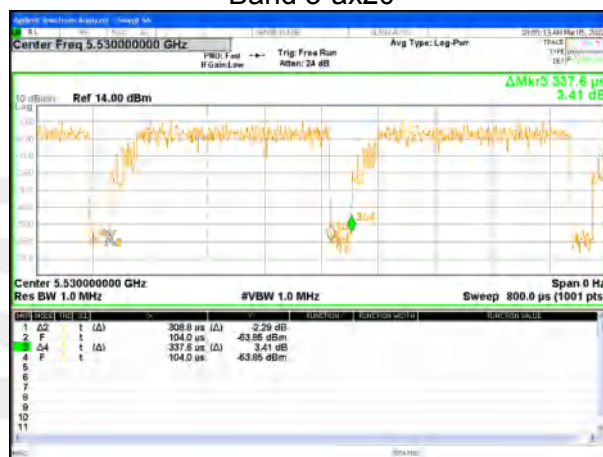
Band 3-ac80



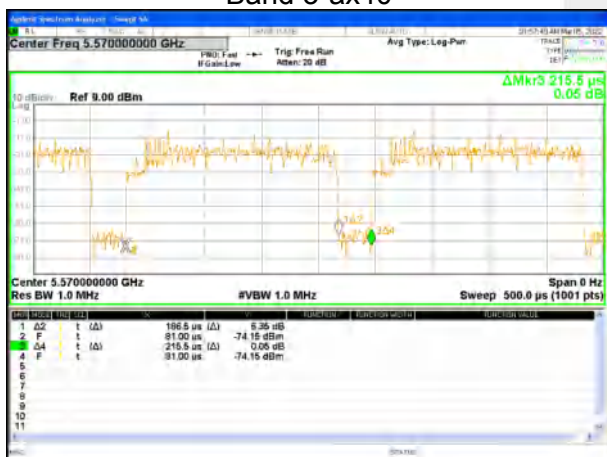
Band 3-ax20



Band 3-ax40



Band 3-ax80



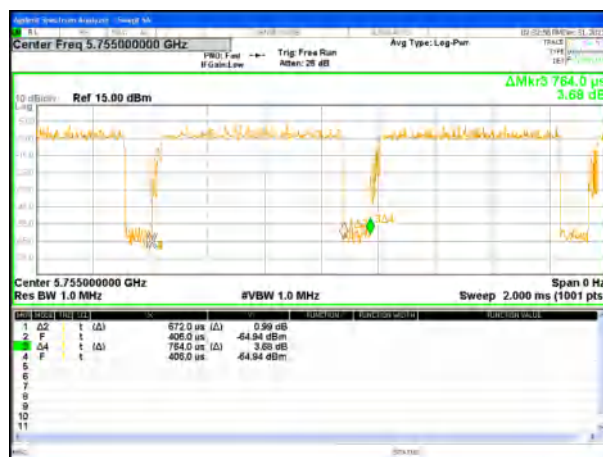
Band 3-ax160



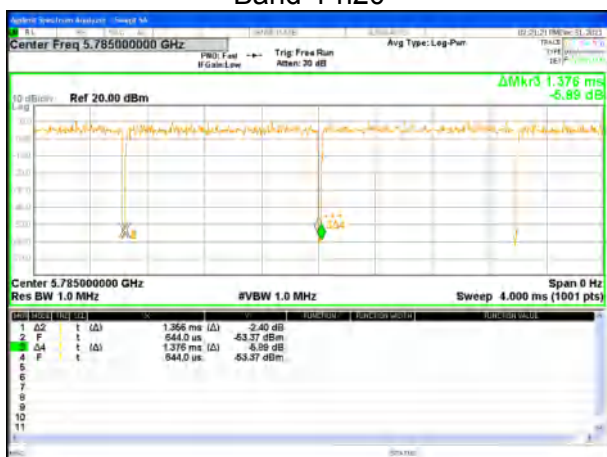
Band 4-a20



Band 4-n20



Band 4-n40



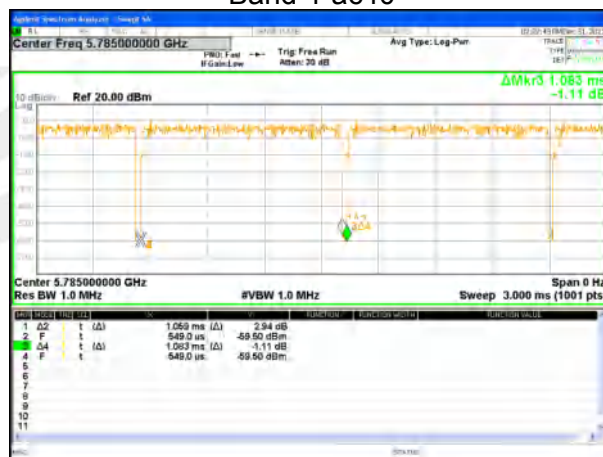
Band 4-ac20



Band 4-ac40



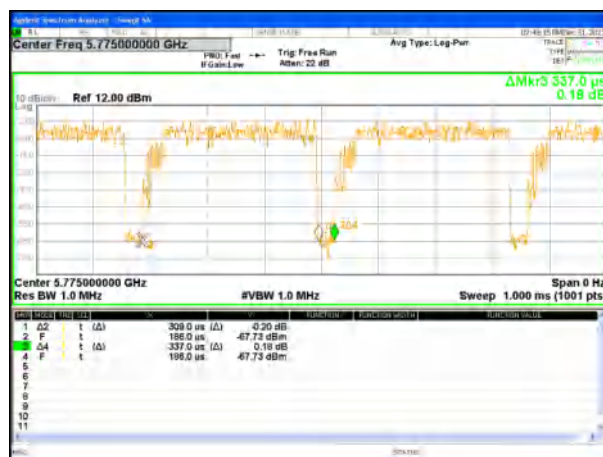
Band 4-ac80



Band 4-ax20



Band 4-ax40



Band 4-ax80





7. AUTOMATICALLY DISCONTINUE TRANSMISSION

7.1 LIMIT OF AUTOMATICALLY DISCONTINUE TRANSMISSION

The device shall automatically discontinue transmission in case of either absence of information to transmit or operational failure. These provisions are not intended to preclude the transmission of control or signaling information or the use of repetitive codes used by certain digital technologies to complete frame or burst intervals. Applicants shall include in their application for equipment authorization to describe how this requirement is met.

7.2 TEST RESULT OF AUTOMATICALLY DISCONTINUE TRANSMISSION

During no any information transmission, the EUT can automatically discontinue transmission and become standby mode for power saving. The EUT can detect the controlling signal of ACK message transmitting from remote device and verify whether it shall resend or discontinue transmission





8. ANTENNA REQUIREMENT

8.1 STANDARD REQUIREMENT

15.203 requirement: For intentional device, according to 15.203: an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

8.2 EUT ANTENNA

The EUT antenna is PIFA Antenna. It comply with the standard requirement.





APPENDIX - PHOTOS OF TEST SETUP

Note: See test photos in setup photo document for the actual connections between Product and support equipment.

※※※※※END OF THE REPORT※※※※※

