



Test Report

FCC ID: 2A8YE-MINI

Applicant: SZ ReachingTech Limited

Address: 401-08, Building A, No.5 Yanhe Road, Xiangjiaotang 3Rd Industrial Zone, Bantian Street, Longgang District, Shenzhen, China

Manufacturer: SZ ReachingTech Limited

Address: 401-08, Building A, No.5 Yanhe Road, Xiangjiaotang 3Rd Industrial Zone, Bantian Street, Longgang District, Shenzhen, China

Product: Computer Stick

Trade Mark: N/A

Model No.: DreamQuest Mini
DreamQuest Mini Plus

Date of Receipt: Jul. 02, 2025

Test Date: Jul. 02, 2025 - Jul. 21, 2025

Date of Report: Jul. 21, 2025

Prepared By: Shenzhen DL Testing Technology Co., Ltd.

Address: 101-201, Comprehensive Building, Tongzhou Electronics Longgang Factory Area, No.1 Baolong Fifth Road, Baolong Community, Baolong Street, Longgang District, Shenzhen, China
FCC PART 15 E 15.407

Applicable Standards: ANSI C63.10-2020
RSS-247 issue 3 August 2023
RSS-Gen Issue 5, Amendment 2, February, 2021

Test Result: Pass

Report Number: DLE-250702009R

Prepared (Test Engineer): Ken Tan

Reviewer (Supervisor): Jack Bu

Approved (Manager): Jade Yang



This test report is based on a single evaluation of one sample of above mentioned products. It is not permitted to be duplicated in extracts without written approval of Shenzhen DL Testing Technology Co., Ltd.



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1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

FCC Part15 (15.407) , Subpart E RSS-247 issue 3 August 2023 RSS-Gen Issue 5, Amendment 2, February, 2021			
Standard Section	Test Item	Judgment	Remark
15.207 RSS-Gen Section 8.8	Conducted Emission	PASS	
15.407(b), 15.205, 15.209 RSS-247&RSS-Gen Section 8.9&RSS-Gen Section 8.10	Radiated Spurious Emission	PASS	
15.407(b), 15.205, 15.209 RSS-247 Section 6.2	Band Edge Emission	PASS	
15.407 (a) RSS-247 Section 6.2	Maximum Conducted Output Power	PASS	
15.407 (a) RSS-247 Section 6.2	Power Spectral Density	PASS	
15.407(a) (e) RSS-247 Section 6.2	26dB bandwidth and 99%dB Bandwidth 6dB bandwidth and 99%dB Bandwidth	PASS	
15.407(g) RSS-GEN 8.11	Frequency Stability	PASS	
15.407(c) RSS-247 Section 6.4	Transmission in case of Absence of Information	PASS	
15.203 RSS-Gen Section 6.8	Antenna Requirement	PASS	

NOTE:

(1)" N/A" denotes test is not applicable in this Test Report

Test lab: Shenzhen DL Testing Technology Co., Ltd.

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China

FCC Test Firm Registration Number: 854456

Designation Number: CN1307

IC Registered No.: 27485

CAB ID.: CN0118



1.1 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement $y \pm U$, where expanded 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	Conducted Emission Test	$\pm 2.56\text{dB}$
2	RF power,conducted	$\pm 0.42\text{dB}$
3	Spurious emissions,conducted	$\pm 2.76\text{dB}$
4	All emissions,radiated(<30MHz)	$\pm 3.54\text{dB}$
5	All emissions,radiated(<1G)	$\pm 3.65\text{dB}$
6	All emissions,radiated(>1G)	$\pm 4.89\text{dB}$
7	Occupied bandwidth	$\pm 0.2\%$
8	PSD	$\pm 0.69\text{dB}$
9	Temperature	$\pm 0.5^{\circ}\text{C}$
10	Humidity	$\pm 2\%$
11	Time	$\pm 2\%$



2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Product Name:	Computer Stick
Trademark	N/A
Model No.:	DreamQuest Mini DreamQuest Mini Plus
Model Difference	All models are same as the samples except model name, they have the same structure and circuit.
Operation Frequency:	5180-5240, 5745-5825MHz(802.11a/n/ac(HT20)) 5190-5230, 5755-5795MHz(802.11n/ac(HT40)) 5210MHz , 5775MHz (802.11ac(HT80))
Channel numbers:	See channel list
S/N:	20250704001
Sample number:	20250704-01
HVIN:	DreamQuest Mini, DreamQuest Mini Plus
FVIN:	V1.0
Channel separation:	20MHz/40MHz/80MHz
Modulation technology:	64QAM, 16QAM, QPSK, BPSK for OFDM
Rate of Transmitter	802.11a: 6Mbps, 9Mbps, 12Mbps, 18Mbps, 24Mbps, 36Mbps, 48Mbps,54Mbps 802.11n: Up to 300Mbps 802.11ac: up to 867Mbps
Antenna Type:	Internal Antenna
Antenna gain:	2.02dBi
Power supply:	DC 12V from adapter
Adapter:	MODEL:M120300-A078 INPUT:100-240V~ 50/60Hz 0.8A OUTPUT:12.0V===3.0A 36.0W

Note:

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

2.The EUT's all information provided by client.



2. Channel List

Channel List for 802.11a/n(HT20)/ac(HT20)			
Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	44	5220
40	5200	48	5240

Channel List for 802.11a/n(HT20)/ac(HT20)			
Channel	Frequency (MHz)	Channel	Frequency (MHz)
149	5745	161	5805
153	5765	165	5825
157	5785		

Channel List for 802.11n(HT40)/ac(HT40)			
Channel	Frequency (MHz)	Channel	Frequency (MHz)
38	5190	46	5230

Channel List for 802.11n(HT40)/ac(HT40)			
Channel	Frequency (MHz)	Channel	Frequency (MHz)
151	5755	159	5795

Channel List for 802.11ac(HT80)			
Channel	Frequency (MHz)	Channel	Frequency (MHz)
42	5210	/	/

Channel List for 802.11ac(HT80)			
Channel	Frequency (MHz)	Channel	Frequency (MHz)
155	5775	/	/



2.2 DESCRIPTION OF TEST MODES

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

Description			
Pretest Mode	Channel	Band 1	Band 4
Mode 1	802.11a/n/acHT20	CH36, CH44, CH48	CH149, CH157, CH165
Mode 2	802.11n/acHT40	CH38, CH46	CH151, CH159
Mode 3	802.11acHT80	CH42	CH155
Mode 4	Link Mode		

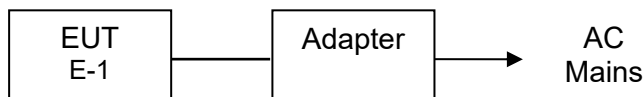
For Conducted & Radiated Emission			
Pretest Mode	Channel	Band 1	Band 4
Mode 1	802.11a/n/acHT20	CH36, CH44, CH48	CH149, CH157, CH165
Mode 2	802.11n/acHT40	CH38, CH46	CH151, CH159
Mode 3	802.11acHT80	CH42	CH155
Mode 4	Link Mode		

Note: 1. The measurements are performed at the highest, middle, lowest available channels.
2. During the test, the test voltage was tuned from 85% to 115% of the nominal rated supply voltage, and found that the worst case was under the nominal rated supply condition. So the report just shows that condition's data.

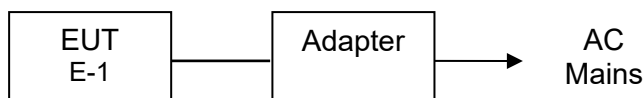


2.3 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

Radiated Spurious Emission Test



Power line conducted emission Test



2.4 DESCRIPTION OF SUPPORT UNITS(CONDUCTED MODE)

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.

Item	Equipment	Model/Type No.	Series No.	Manufacturer
E-1	Computer Stick	DreamQuest Mini	N/A	SZ ReachingTech Limited
E-2	Adapter	M120300-A078	N/A	Zhongshan MLS Electrical Appliance Co.,Ltd.

Item	Shielded Type	Ferrite Core	Length	Note

Note:

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

2.5 TABLE OF PARAMETERS OF TEST SOFTWARE SETTING

During testing, channel & power controlling software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the end product.

Max output power Setting				
Test software Version	Test program: RF TEST Setup			
Mode	802.11a	802.11n HT20	802.11n HT40	802.11ac HT20/HT40/HT80
Data Rate	6Mbps	MSC0	MSC0	MSC0
Power Setting of Software	60	60	66	66



2.6 EQUIPMENTS LIST FOR ALL TEST ITEMS

Radiation test, Band-edge test and 6db bandwidth test equipment

Item	Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
1	Spectrum Analyzer (9kHz-26.5GHz)	Agilent	E4408B	MY50140780	Nov. 01, 2024	Oct. 31, 2025
2	Test Receiver (9kHz-7GHz)	R&S	ESRP7	101393	Nov. 01, 2024	Oct. 31, 2025
3	Bilog Antenna (30MHz-1GHz)	R&S	VULB9162	00306	Nov. 01, 2024	Oct. 31, 2025
4	Horn Antenna (1GHz-18GHz)	Schwarzbeck	BBHA9120D	02139	Nov. 01, 2024	Oct. 31, 2025
5	Horn Antenna (18GHz-40GHz)	A.H. Systems	SAS-574	588	Nov. 01, 2024	Oct. 31, 2025
6	Amplifier (9KHz-6GHz)	Schwarzbeck	BBV9743B	00153	Nov. 01, 2024	Oct. 31, 2025
7	Amplifier (1GHz-18GHz)	EMEC	EM01G8GA	00270	Nov. 01, 2024	Oct. 31, 2025
8	Amplifier (18GHz-40GHz)	Quanjuda	DLE-161	97	Nov. 01, 2024	Oct. 31, 2025
9	Loop Antenna (9KHz-30MHz)	Schwarzbeck	FMZB1519B	00014	Nov. 01, 2024	Oct. 31, 2025
10	RF cables1 (9kHz-1GHz)	ChengYu	966	004	Nov. 01, 2024	Oct. 31, 2025
11	RF cables2 (1GHz-40GHz)	ChengYu	966	003	Nov. 01, 2024	Oct. 31, 2025
12	Antenna connector	Florida RF Labs	N/A	RF 01#	Nov. 01, 2024	Oct. 31, 2025
13	Power probe	KEYSIGHT	U2021XA	MY55210018	Nov. 01, 2024	Oct. 31, 2025
14	Signal Analyzer 9kHz-26.5GHz	Agilent	N9020A	MY55370280	Nov. 01, 2024	Oct. 31, 2025
15	Test Receiver 20kHz-40GHz	R&S	ESU 40	100376	Nov. 01, 2024	Oct. 31, 2025
16	D.C. Power Supply	LongWei	PS-305D	010964729	Nov. 01, 2024	Oct. 31, 2025
17	Temperature & humidity chamber	Changfeng	CF-150-40-P	CF170802-01	Nov. 01, 2024	Oct. 31, 2025

Conduction Test equipment

Item	Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
1	843 Shielded Room	YIHENG	843 Room	843	Nov. 05, 2023	Nov. 04, 2026
2	EMI Receiver	R&S	ESR	101421	Nov. 01, 2024	Oct. 31, 2025
3	LISN	R&S	ENV216	102417	Nov. 01, 2024	Oct. 31, 2025
4	843 Cable 1#	ChengYu	CE Cable	001	Nov. 01, 2024	Oct. 31, 2025

Other

Item	Name	Manufacturer	Model	Software version
1	EMC Conduction Test System	FALA	EZ_EMCC	EMC-CON 3A1.1
2	EMC radiation test system	FALA	EZ_EMCC	FA-03A2
3	RF test system	MAIWEI	MTS8310	2.0.0.0
4	RF communication test system	MAIWEI	MTS8200	2.0.0.0



3. EMC EMISSION TEST

3.1 CONDUCTED EMISSION MEASUREMENT

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

FREQUENCY (MHz)	Limit (dBuV)		Standard
	Quasi-peak	Average	
0.15 -0 5	66 - 56 *	56 - 46 *	FCC&RSS
0.5 -5.0	56.00	46.00	FCC&RSS
5.0 -30.0	60.00	50.00	FCC&RSS

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

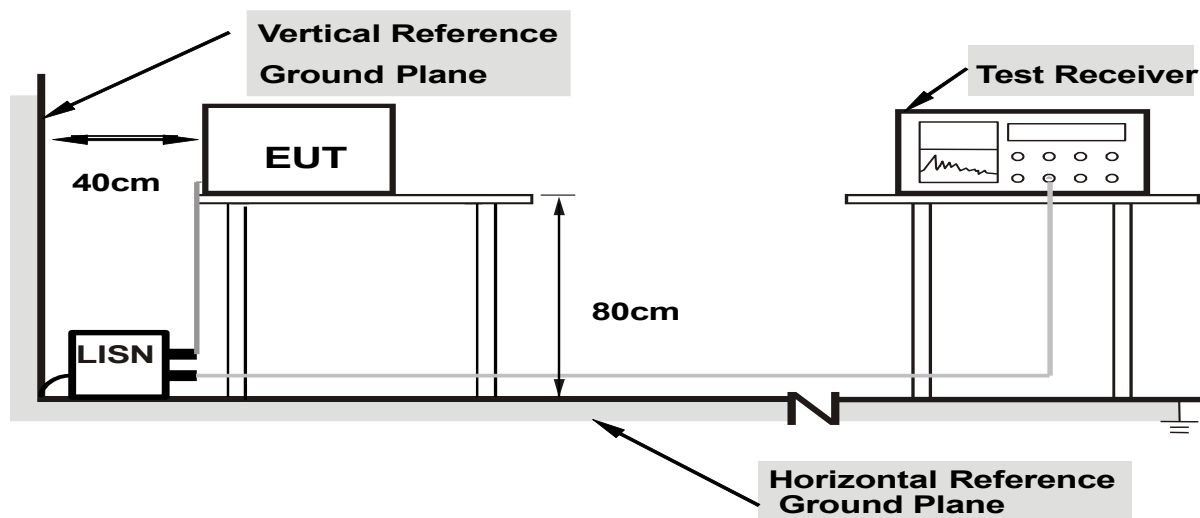
3.1.2 TEST PROCEDURE

- a. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- b. 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.
- c. 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.
- d. LISN at least 80 cm from nearest part of EUT chassis.
- e. 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 from other units and other metal planes

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.

We pretest AC 120V and AC 230V, the worst voltage was AC 120V and the data recording in the report.

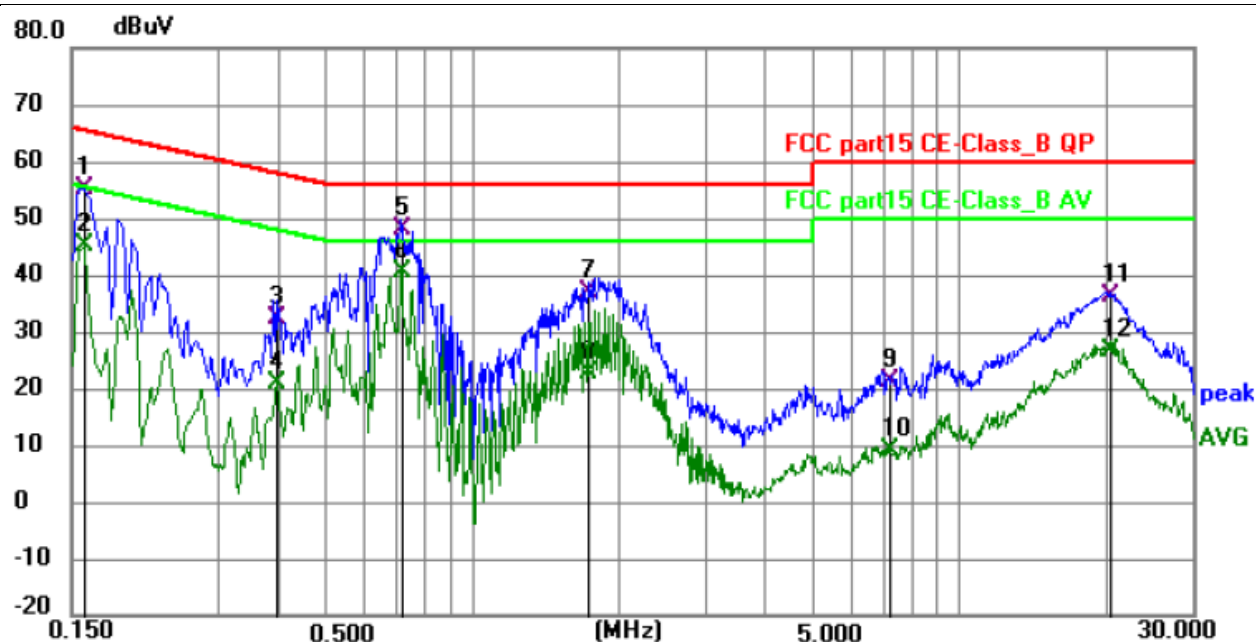
3.1.6 TEST RESULTS

PASS

Please refer to the following page.



Temperature:	25 °C	Relative Humidity:	54%
Pressure:	1010hPa	Phase :	L
Test Voltage :	AC 120V/60Hz	Test Mode:	Mode 4



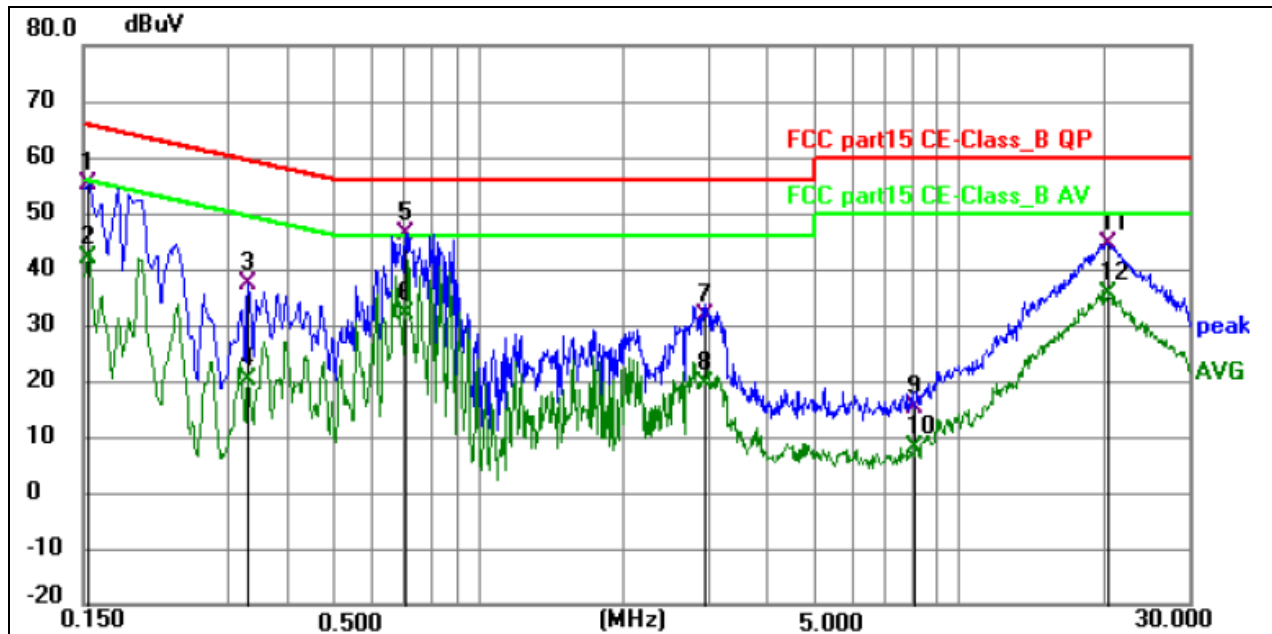
Remark:

Margin = Limit – Level, Correct Factor = Cable lose + LISN insertion loss, Level= Reading + Correct factor

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	0.1597	45.08	10.05	55.13	65.48	-10.35	QP	P	
2	0.1597	35.16	10.05	45.21	55.48	-10.27	AVG	P	
3	0.3975	22.13	10.26	32.39	57.91	-25.52	QP	P	
4	0.3975	10.53	10.26	20.79	47.91	-27.12	AVG	P	
5	0.7170	37.81	10.08	47.89	56.00	-8.11	QP	P	
6 *	0.7170	30.39	10.08	40.47	46.00	-5.53	AVG	P	
7	1.7295	26.98	10.06	37.04	56.00	-18.96	QP	P	
8	1.7295	12.47	10.06	22.53	46.00	-23.47	AVG	P	
9	7.1835	10.28	10.81	21.09	60.00	-38.91	QP	P	
10	7.1835	-1.67	10.81	9.14	50.00	-40.86	AVG	P	
11	20.3775	24.17	12.12	36.29	60.00	-23.71	QP	P	
12	20.3775	14.46	12.12	26.58	50.00	-23.42	AVG	P	



Temperature:	25 °C	Relative Humidity:	54%
Pressure:	1010hPa	Phase :	N
Test Voltage :	AC 120V/60Hz	Test Mode:	Mode 4



Remark:

Margin = Limit – Level, Correct Factor = Cable lose + LISN insertion loss, Level= Reading + Correct factor

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	0.1539	45.13	10.13	55.26	65.79	-10.53	QP	P	
2	0.1539	32.00	10.13	42.13	55.79	-13.66	AVG	P	
3	0.3320	27.19	10.24	37.43	59.40	-21.97	QP	P	
4	0.3320	9.81	10.24	20.05	49.40	-29.35	AVG	P	
5 *	0.7035	36.04	10.12	46.16	56.00	-9.84	QP	P	
6	0.7035	21.98	10.12	32.10	46.00	-13.90	AVG	P	
7	2.9714	21.65	10.08	31.73	56.00	-24.27	QP	P	
8	2.9714	9.47	10.08	19.55	46.00	-26.45	AVG	P	
9	8.1013	4.35	10.90	15.25	60.00	-44.75	QP	P	
10	8.1013	-3.02	10.90	7.88	50.00	-42.12	AVG	P	
11	20.4495	32.32	11.98	44.30	60.00	-15.70	QP	P	
12	20.4495	23.62	11.98	35.60	50.00	-14.40	AVG	P	



3.2 RADIATED EMISSION MEASUREMENT

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

15.407(b)& RSS-247 Undesirable emission limits. Except as shown in paragraph (b) (10)& RSS-247 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 5.15-5.25GHz 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 5.47-5.725GHz 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 solely in the 5.725-5.850GHz band:

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 10dBm/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.

For transmitters with operating frequencies in the band 5150-5250 MHz, all emissions outside the band 5150-5350 MHz shall not exceed -27 dBm/MHz e.i.r.p. Any unwanted emissions that fall into the band 5250-5350 MHz shall be attenuated below the channel power by at least 26dB, when measured using a resolution bandwidth between 1 and 5% of the occupied bandwidth (i.e. 99% bandwidth), above 5250 MHz. The 26 dB bandwidth may fall into the 5250-5350 MHz band; however, if the occupied bandwidth also falls within the 5250-5350 MHz band, the transmission is considered as intentional and the devices shall comply with all requirements in the band 5250-5350 MHz including implementing dynamic frequency selection

(DFS) and TPC, on the portion of the emission that resides in the 5250-5350 MHz band.

Devices operating in the band 5725-5850 MHz shall comply with the following e.i.r.p. spectral density limits:

a) 27 dBm/MHz at frequencies from the band edges decreasing linearly to 15.6 dBm/MHz at 5 MHz above or below the band edges;

b) 15.6 dBm/MHz at 5 MHz above or below the band edges decreasing linearly to 10dBm/MHz at 25 MHz above or below the band edges; 10 dBm/MHz at 25 MHz above or below the band edges decreasing linearly to -27dBm/MHz at 75 MHz above or below the band edges; and

d) -27 dBm/MHz at frequencies more than 75 MHz above or below the band edges.

In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

Frequencies (MHz)	Field Strength (micorvolts/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)	Limit (dBuV/m) (at 3M)	
	PEAK	AVERAGE
Above 1000	74	54

Notes:

- (1) The limit for radiated test was performed according to FCC PART 15C& RSS-247.
- (2) The tighter limit applies at the band edges.
- (3) Emission level (dBuV/m)=20log Emission level (uV/m).

Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	40GHz
RB / VB (emission in restricted band)	1 MHz / 1 MHz for Peak, 1 MHz / 10Hz for Average

Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~150kHz / RB 200Hz for QP
Start ~ Stop Frequency	150kHz~30MHz / RB 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RB 120kHz for QP

3.2.2 TEST PROCEDURE

Below 1GHz test procedure as below:

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

Above 1GHz test procedure as below:

- g. Different between above is the test site, change from Semi- Anechoic Chamber to fully Anechoic Chamber and change form table 0.8 metre to 1.5 metre.
- h. Test the EUT in the lowest channel, the middle channel, the Highest channel

Note:

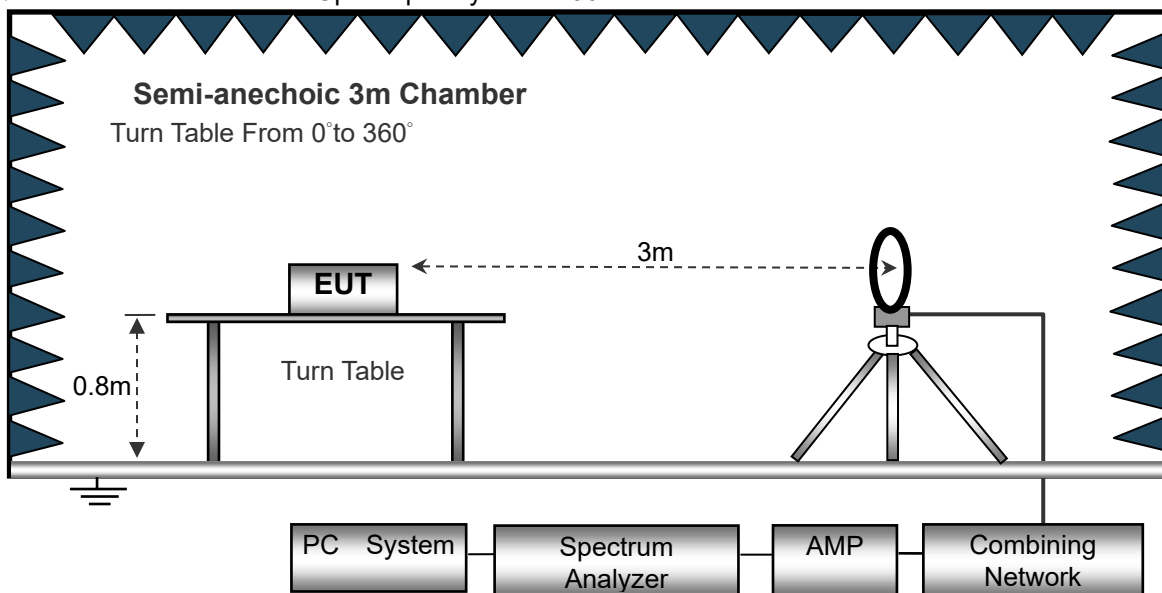
Both horizontal and vertical antenna polarities were tested and performed pretest to three orthogonal axis. The worst case emissions were reported

3.2.3 DEVIATION FROM TEST STANDARD

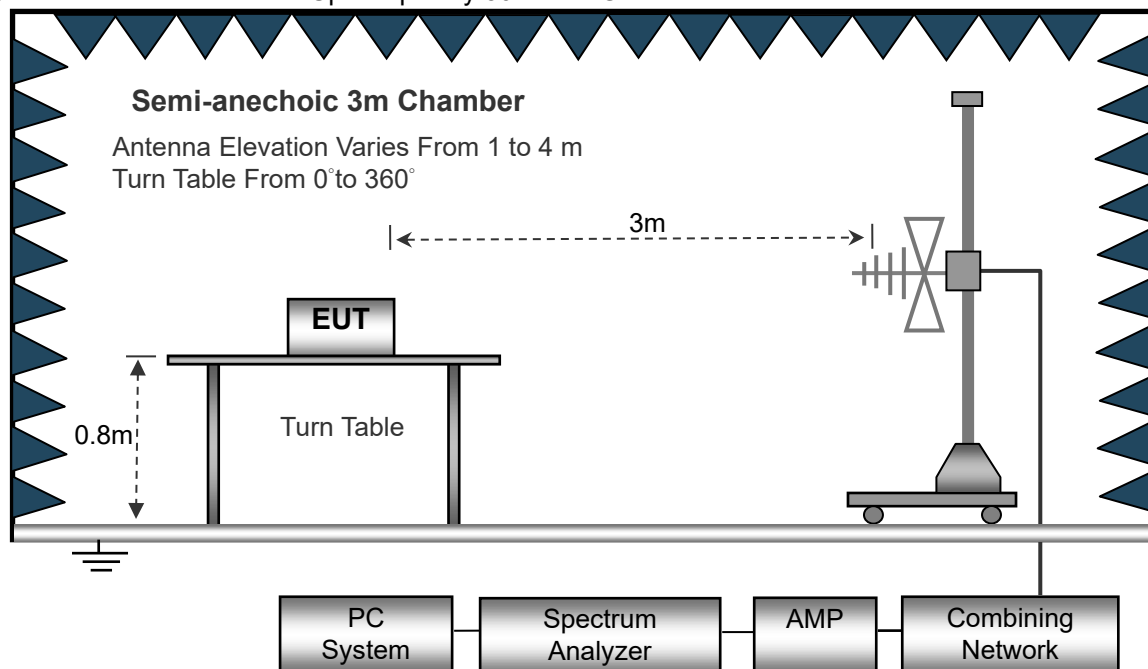
No deviation

3.2.4 TEST SETUP

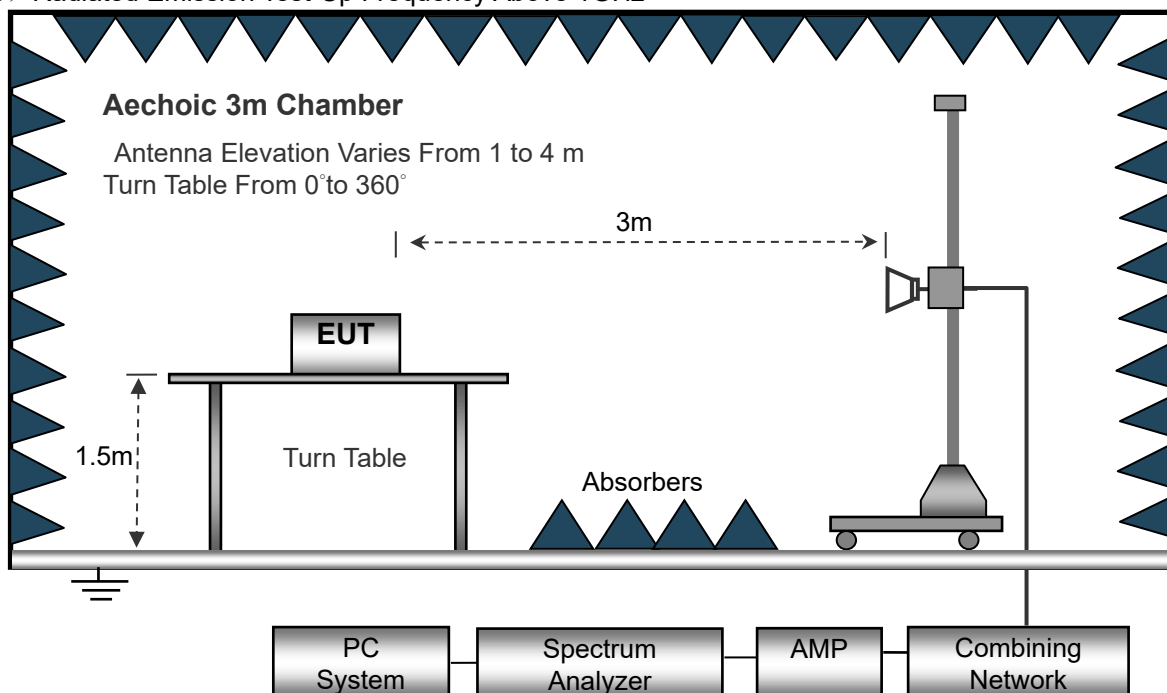
(A) Radiated Emission Test-Up Frequency Below 30MHz



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



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



3.2.5 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of 2.3 Unless otherwise a special operating condition is specified in the follows during the testing.

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

Temperature:	20°C	Relative Humidity:	48%
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	Mode 4	Polarization :	--

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

NOTE:

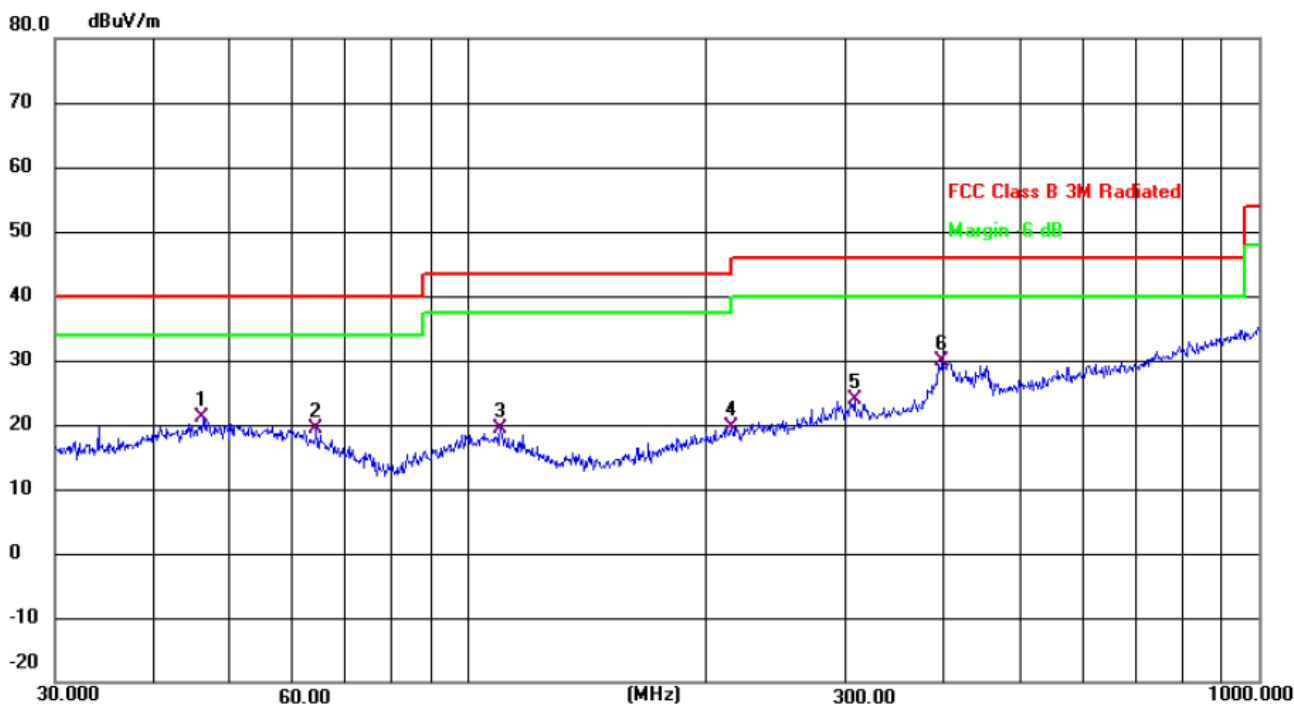
The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

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

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

**3.2.7 TEST RESULTS (Between 30MHz – 1GHz)**

Temperature:	26°C	Relative Humidity:	54%
Pressure:	1010 hPa	Polarization :	Horizontal
Test Voltage:	AC 120V/60Hz		
Test Mode:	Mode 4		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	
		MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector
1		46.1779	27.39	-6.38	21.01	40.00	-18.99	QP
2		64.2074	28.14	-8.76	19.38	40.00	-20.62	QP
3		109.7960	27.85	-8.58	19.27	43.50	-24.23	QP
4		215.2678	27.87	-8.20	19.67	43.50	-23.83	QP
5		307.8313	30.05	-6.16	23.89	46.00	-22.11	QP
6	*	397.6334	33.85	-4.05	29.80	46.00	-16.20	QP

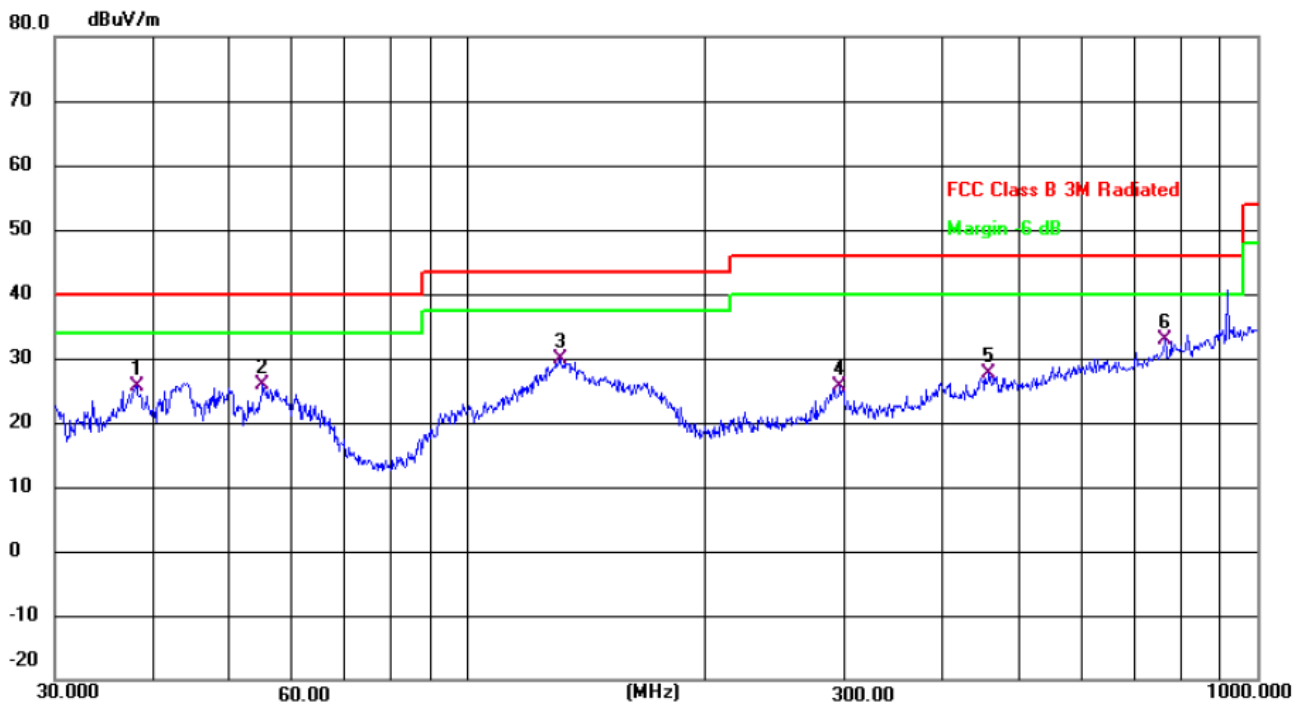
Remark:

Correct Factor = Cable loss + Antenna factor – Preamplifier;

Level = Reading Level + Correct Factor; Margin = Level - Limit;



Temperature:	26℃	Relative Humidity:	54%
Pressure:	1010 hPa	Polarization :	Vertical
Test Voltage:	AC 120V/60Hz		
Test Mode:	Mode 4		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Detector
		MHz	dBuV	dB	dBuV/m	dB/m	dB	
1		38.0783	34.16	-8.53	25.63	40.00	-14.37	QP
2		55.0274	33.32	-7.32	26.00	40.00	-14.00	QP
3		130.8369	41.96	-11.98	29.98	43.50	-13.52	QP
4		296.1836	31.59	-5.97	25.62	46.00	-20.38	QP
5		457.5073	29.76	-2.13	27.63	46.00	-18.37	QP
6	*	763.3757	29.56	3.38	32.94	46.00	-13.06	QP

Remark:

Correct Factor = Cable loss + Antenna factor – Preamplifier;

Level = Reading Level + Correct Factor; Margin = Level - Limit;

**3.2.8 TEST RESULTS (1ghz~40ghZ)**

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Polar (H/V)	Frequency	Meter Reading	Pre- amplifier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
operation frequency:5180									
V	10360	56.22	49.05	15.3	37.39	59.86	68.2	-8.34	PK
V	10360	41.13	49.05	15.3	37.39	44.77	54	-9.23	AV
V	15540	56.51	49.16	15.27	40.45	63.07	74	-10.93	PK
V	15540	39.42	49.16	15.27	40.45	45.98	54	-8.02	AV
H	10360	55.93	49.05	15.3	37.39	59.57	68.2	-8.63	PK
H	10360	40.28	49.05	15.3	37.39	43.92	54	-10.08	AV
H	15540	59.04	49.16	15.27	40.45	65.6	74	-8.40	PK
H	15540	37.92	49.16	15.27	40.45	44.48	54	-9.52	AV
operation frequency:5200									
V	10400	57.3	49.09	15.34	37.42	60.97	68.2	-7.23	PK
V	10400	39.21	49.09	15.34	37.42	42.88	54	-11.12	AV
V	15600	59.28	49.18	15.29	40.47	65.86	74	-8.14	PK
V	15600	38.02	49.18	15.29	40.47	44.6	54	-9.40	AV
H	10400	56.53	49.09	15.34	37.42	60.2	68.2	-8.00	PK
H	10400	39.61	49.09	15.34	37.42	43.28	54	-10.72	AV
H	15600	59.35	49.18	15.29	40.47	65.93	74	-8.07	PK
H	15600	38.2	49.18	15.29	40.47	44.78	54	-9.22	AV
operation frequency:5240									
V	10480	58.64	49.11	15.37	37.46	62.36	68.2	-5.84	PK
V	10480	40.13	49.11	15.37	37.46	43.85	54	-10.15	AV
V	15720	54.07	49.21	15.34	40.51	60.71	74	-13.29	PK
V	15720	38.4	49.21	15.34	40.51	45.04	54	-8.96	AV
H	10480	57.97	49.11	15.37	31.31	55.54	68.2	-12.66	PK
H	10480	45.87	49.11	15.37	31.31	43.44	54	-10.56	AV
H	15720	54.8	49.21	15.34	40.51	61.44	74	-12.56	PK
H	15720	37.4	49.21	15.34	40.51	44.04	54	-9.96	AV

Remark:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier,
Margin= Emission Level - Limit
2. If peak below the average limit, the average emission was no test.
3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.



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Polar (H/V)	Frequency	Meter Reading	Pre- amplifier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
operation frequency:5180									
V	10360	56.61	49.05	15.3	37.39	60.25	68.2	-7.95	PK
V	10360	38.52	49.05	15.3	37.39	42.16	54	-11.84	AV
V	15540	56.13	49.16	15.27	40.45	62.69	74	-11.31	PK
V	15540	38.24	49.16	15.27	40.45	44.8	54	-9.20	AV
H	10360	56.52	49.05	15.3	37.39	60.16	68.2	-8.04	PK
H	10360	39.2	49.05	15.3	37.39	42.84	54	-11.16	AV
H	15540	54.04	49.16	15.27	40.45	60.6	74	-13.40	PK
H	15540	38.22	49.16	15.27	40.45	44.78	54	-9.22	AV
operation frequency:5200									
V	10400	56.71	49.09	15.34	37.42	60.38	68.2	-7.82	PK
V	10400	39.64	49.09	15.34	37.42	43.31	54	-10.69	AV
V	15600	52.56	49.18	15.29	40.47	59.14	74	-14.86	PK
V	15600	38.48	49.18	15.29	40.47	45.06	54	-8.94	AV
H	10400	55.99	49.09	15.34	37.42	59.66	68.2	-8.54	PK
H	10400	40.47	49.09	15.34	37.42	44.14	54	-9.86	AV
H	15600	54.38	49.18	15.29	40.47	60.96	74	-13.04	PK
H	15600	39.91	49.18	15.29	40.47	46.49	54	-7.51	AV
operation frequency:5240									
V	10480	57.02	49.11	15.37	37.46	60.74	68.2	-7.46	PK
V	10480	40.39	49.11	15.37	37.46	44.11	54	-9.89	AV
V	15720	54.17	49.21	15.34	40.51	60.81	74	-13.19	PK
V	15720	38.29	49.21	15.34	40.51	44.93	54	-9.07	AV
H	10480	57	49.11	15.37	31.31	54.57	68.2	-13.63	PK
H	10480	44.52	49.11	15.37	31.31	42.09	54	-11.91	AV
H	15720	55.24	49.21	15.34	40.51	61.88	74	-12.12	PK
H	15720	39.09	49.21	15.34	40.51	45.73	54	-8.27	AV

Remark:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier,
Margin= Emission Level - Limit
2. If peak below the average limit, the average emission was no test.
3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.



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Polar (H/V)	Frequency	Meter Reading	Pre- amplifier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
operation frequency:5190									
V	10380	56.61	49.07	15.33	37.41	60.28	68.2	-7.92	PK
V	10380	39.1	49.07	15.33	37.41	42.77	54	-11.23	AV
V	15570	56.14	49.17	15.28	40.46	62.71	74	-11.29	PK
V	15570	38.2	49.17	15.28	40.46	44.77	54	-9.23	AV
H	10380	56.52	49.07	15.33	37.41	60.19	68.2	-8.01	PK
H	10380	40.24	49.07	15.33	37.41	43.91	54	-10.09	AV
H	15570	54.49	49.17	15.28	40.46	61.06	74	-12.94	PK
H	15570	38.07	49.17	15.28	40.46	44.64	54	-9.36	AV
operation frequency:5230									
V	10460	57.17	49.11	15.37	37.46	60.89	68.2	-7.31	PK
V	10460	39.43	49.11	15.37	37.46	43.15	54	-10.85	AV
V	15690	54.45	49.21	15.34	40.51	61.09	74	-12.91	PK
V	15690	38.32	49.21	15.34	40.51	44.96	54	-9.04	AV
H	10460	57.34	49.11	15.37	31.31	54.91	68.2	-13.29	PK
H	10460	44.87	49.11	15.37	31.31	42.44	54	-11.56	AV
H	15690	55.35	49.21	15.34	40.51	61.99	74	-12.01	PK
H	15690	39.06	49.21	15.34	40.51	45.7	54	-8.30	AV

Remark:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier,
Margin= Emission Level - Limit
2. If peak below the average limit, the average emission was no test.
3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.



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Polar (H/V)	Frequency	Meter Reading	Pre- amplifier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
operation frequency:5180									
V	10360	56.57	49.05	15.3	37.39	60.21	68.2	-7.99	PK
V	10360	39.39	49.05	15.3	37.39	43.03	54	-10.97	AV
V	15540	56.04	49.16	15.27	40.45	62.6	74	-11.40	PK
V	15540	38.2	49.16	15.27	40.45	44.76	54	-9.24	AV
H	10360	56.42	49.05	15.3	37.39	60.06	68.2	-8.14	PK
H	10360	38.01	49.05	15.3	37.39	41.65	54	-12.35	AV
H	15540	54.13	49.16	15.27	40.45	60.69	74	-13.31	PK
H	15540	39.2	49.16	15.27	40.45	45.76	54	-8.24	AV
operation frequency:5200									
V	10400	56.37	49.09	15.34	37.42	60.04	68.2	-8.16	PK
V	10400	41.62	49.09	15.34	37.42	45.29	54	-8.71	AV
V	15600	55.4	49.18	15.29	40.47	61.98	74	-12.02	PK
V	15600	40.21	49.18	15.29	40.47	46.79	54	-7.21	AV
H	10400	55.04	49.09	15.34	37.42	58.71	68.2	-9.49	PK
H	10400	40.42	49.09	15.34	37.42	44.09	54	-9.91	AV
H	15600	54.91	49.18	15.29	40.47	61.49	74	-12.51	PK
H	15600	41.1	49.18	15.29	40.47	47.68	54	-6.32	AV
operation frequency:5240									
V	10480	57.31	49.11	15.37	37.46	61.03	68.2	-7.17	PK
V	10480	40.53	49.11	15.37	37.46	44.25	54	-9.75	AV
V	15720	54.2	49.21	15.34	40.51	60.84	74	-13.16	PK
V	15720	39.25	49.21	15.34	40.51	45.89	54	-8.11	AV
H	10480	57	49.11	15.37	31.31	54.57	68.2	-13.63	PK
H	10480	44.41	49.11	15.37	31.31	41.98	54	-12.02	AV
H	15720	55.49	49.21	15.34	40.51	62.13	74	-11.87	PK
H	15720	39.87	49.21	15.34	40.51	46.51	54	-7.49	AV

Remark:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier,
Margin= Emission Level - Limit
2. If peak below the average limit, the average emission was no test.
3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.



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Polar (H/V)	Frequency	Meter Reading	Pre- amplifier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
operation frequency:5190									
V	10380	56.74	49.07	15.33	37.41	60.41	68.2	-7.79	PK
V	10380	40.28	49.07	15.33	37.41	43.95	54	-10.05	AV
V	15570	56.33	49.17	15.28	40.46	62.9	74	-11.10	PK
V	15570	39.74	49.17	15.28	40.46	46.31	54	-7.69	AV
H	10380	56.52	49.07	15.33	37.41	60.19	68.2	-8.01	PK
H	10380	40.46	49.07	15.33	37.41	44.13	54	-9.87	AV
H	15570	54.58	49.17	15.28	40.46	61.15	74	-12.85	PK
H	15570	39.33	49.17	15.28	40.46	45.9	54	-8.10	AV
operation frequency:5230									
V	10460	57.14	49.11	15.37	37.46	60.86	68.2	-7.34	PK
V	10460	41.61	49.11	15.37	37.46	45.33	54	-8.67	AV
V	15690	54.48	49.21	15.34	40.51	61.12	74	-12.88	PK
V	15690	39.36	49.21	15.34	40.51	46	54	-8.00	AV
H	10460	57.12	49.11	15.37	31.31	54.69	68.2	-13.51	PK
H	10460	44.54	49.11	15.37	31.31	42.11	54	-11.89	AV
H	15690	55.38	49.21	15.34	40.51	62.02	74	-11.98	PK
H	15690	40.04	49.21	15.34	40.51	46.68	54	-7.32	AV
Remark: 1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier, Margin= Emission Level - Limit 2. If peak below the average limit, the average emission was no test. 3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.									

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Polar (H/V)	Frequency	Meter Reading	Pre- amplifier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
operation frequency:5210									
V	10420	56.22	49.07	15.33	37.41	59.89	68.2	-8.31	PK
V	10420	41.63	49.07	15.33	37.41	45.3	54	-8.70	AV
V	15630	56.18	49.17	15.28	40.46	62.75	74	-11.25	PK
V	15630	39.16	49.17	15.28	40.46	45.73	54	-8.27	AV
H	10420	56.38	49.07	15.33	37.41	60.05	68.2	-8.15	PK
H	10420	41.21	49.07	15.33	37.41	44.88	54	-9.12	AV
H	15630	54.04	49.17	15.28	40.46	60.61	74	-13.39	PK
H	15630	40.33	49.17	15.28	40.46	46.9	54	-7.10	AV
Remark: 1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier, Margin= Emission Level - Limit 2. If peak below the average limit, the average emission was no test. 3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.									



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Polar (H/V)	Frequency	Meter Reading	Pre- amplifier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
operation frequency:5745									
V	11490	50.99	49.05	15.3	37.39	54.63	74	-19.37	PK
V	11490	45.11	49.05	15.3	37.39	48.75	54	-5.25	AV
V	17235	50.72	49.16	15.27	40.45	57.28	68.2	-10.92	PK
V	17235	43.2	49.16	15.27	40.45	49.76	54	-4.24	AV
H	11490	50.33	49.05	15.3	37.39	53.97	74	-20.03	PK
H	11490	45.39	49.05	15.3	37.39	49.03	54	-4.97	AV
H	17235	48.52	49.16	15.27	40.45	55.08	68.2	-13.12	PK
H	17235	43.1	49.16	15.27	40.45	49.66	54	-4.34	AV
operation frequency:5785									
V	11570	50.99	49.09	15.34	37.42	54.66	74	-19.34	PK
V	11570	45.11	49.09	15.34	37.42	48.78	54	-5.22	AV
V	17355	50.72	49.18	15.29	40.47	57.3	68.2	-10.90	PK
V	17355	43.2	49.18	15.29	40.47	49.78	54	-4.22	AV
H	11570	50.33	49.09	15.34	37.42	54	74	-20.00	PK
H	11570	45.39	49.09	15.34	37.42	49.06	54	-4.94	AV
H	17355	48.52	49.18	15.29	40.47	55.1	68.2	-13.10	PK
H	17355	43.1	49.18	15.29	40.47	49.68	54	-4.32	AV
operation frequency:5825									
V	11650	52.42	49.11	15.37	37.46	56.14	74	-17.86	PK
V	11650	45.01	49.11	15.37	37.46	48.73	54	-5.27	AV
V	17475	49.49	49.21	15.34	40.51	56.13	68.2	-12.07	PK
V	17475	43.43	49.21	15.34	40.51	50.07	54	-3.93	AV
H	11650	57.15	49.11	15.37	31.31	54.72	74	-19.28	PK
H	11650	51.3	49.11	15.37	31.31	48.87	54	-5.13	AV
H	17475	49.79	49.21	15.34	40.51	56.43	68.2	-11.77	PK
H	17475	42.41	49.21	15.34	40.51	49.05	54	-4.95	AV
Remark: 1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier, Margin= Emission Level - Limit 2. If peak below the average limit, the average emission was no test. 3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.									



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Polar (H/V)	Frequency	Meter Reading	Pre- amplifier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
operation frequency:5745									
V	11490	49.02	49.05	15.3	37.39	52.66	74	-21.34	PK
V	11490	45.18	49.05	15.3	37.39	48.82	54	-5.18	AV
V	17235	48.1	49.16	15.27	40.45	54.66	68.2	-13.54	PK
V	17235	43.37	49.16	15.27	40.45	49.93	54	-4.07	AV
H	11490	49.24	49.05	15.3	37.39	52.88	74	-21.12	PK
H	11490	45.28	49.05	15.3	37.39	48.92	54	-5.08	AV
H	17235	48.03	49.16	15.27	40.45	54.59	68.2	-13.61	PK
H	17235	44.4	49.16	15.27	40.45	50.96	54	-3.04	AV
operation frequency:5785									
V	11570	52.21	49.09	15.34	37.42	55.88	74	-18.12	PK
V	11570	44.27	49.09	15.34	37.42	47.94	54	-6.06	AV
V	17355	49.19	49.18	15.29	40.47	55.77	68.2	-12.43	PK
V	17355	43.5	49.18	15.29	40.47	50.08	54	-3.92	AV
H	11570	49.24	49.09	15.34	37.42	52.91	74	-21.09	PK
H	11570	43.44	49.09	15.34	37.42	47.11	54	-6.89	AV
H	17355	49.2	49.18	15.29	40.47	55.78	68.2	-12.42	PK
H	17355	43.02	49.18	15.29	40.47	49.6	54	-4.40	AV
operation frequency:5825									
V	11650	51.2	49.11	15.37	37.46	54.92	74	-19.08	PK
V	11650	44.59	49.11	15.37	37.46	48.31	54	-5.69	AV
V	17475	48.24	49.21	15.34	40.51	54.88	68.2	-13.32	PK
V	17475	43.37	49.21	15.34	40.51	50.01	54	-3.99	AV
H	11650	56.99	49.11	15.37	31.31	54.56	74	-19.44	PK
H	11650	44.24	49.11	15.37	31.31	41.81	54	-12.19	AV
H	17475	49.02	49.21	15.34	40.51	55.66	68.2	-12.54	PK
H	17475	42.36	49.21	15.34	40.51	49	54	-5.00	AV

Remark:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier,
Margin= Emission Level - Limit
2. If peak below the average limit, the average emission was no test.
3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.



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Polar (H/V)	Frequency	Meter Reading	Pre- amplifier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
operation frequency:5755									
V	11510	49.13	49.07	15.33	37.41	52.8	74	-21.20	PK
V	11510	45.22	49.07	15.33	37.41	48.89	54	-5.11	AV
V	17265	49.04	49.17	15.28	40.46	55.61	68.2	-12.59	PK
V	17265	43.42	49.17	15.28	40.46	49.99	54	-4.01	AV
H	11510	48.1	49.07	15.33	37.41	51.77	74	-22.23	PK
H	11510	45.27	49.07	15.33	37.41	48.94	54	-5.06	AV
H	17265	49.38	49.17	15.28	40.46	55.95	68.2	-12.25	PK
H	17265	43.26	49.17	15.28	40.46	49.83	54	-4.17	AV
operation frequency:5795									
V	11590	49.24	49.11	15.37	37.46	52.96	74	-21.04	PK
V	11590	44.4	49.11	15.37	37.46	48.12	54	-5.88	AV
V	17385	48.18	49.21	15.34	40.51	54.82	68.2	-13.38	PK
V	17385	43.42	49.21	15.34	40.51	50.06	54	-3.94	AV
H	11590	57.13	49.11	15.37	31.31	54.7	74	-19.30	PK
H	11590	44.31	49.11	15.37	31.31	41.88	54	-12.12	AV
H	17385	48.02	49.21	15.34	40.51	54.66	68.2	-13.54	PK
H	17385	43.22	49.21	15.34	40.51	49.86	54	-4.14	AV

Remark:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier,
Margin= Emission Level - Limit
2. If peak below the average limit, the average emission was no test.
3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.



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Polar (H/V)	Frequency	Meter Reading	Pre- amplifier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
operation frequency:5745									
V	11490	49.18	49.05	15.3	37.39	52.82	74	-21.18	PK
V	11490	45.42	49.05	15.3	37.39	49.06	54	-4.94	AV
V	17235	48.23	49.16	15.27	40.45	54.79	68.2	-13.41	PK
V	17235	43.34	49.16	15.27	40.45	49.9	54	-4.10	AV
H	11490	48.2	49.05	15.3	37.39	51.84	74	-22.16	PK
H	11490	45.31	49.05	15.3	37.39	48.95	54	-5.05	AV
H	17235	48.13	49.16	15.27	40.45	54.69	68.2	-13.51	PK
H	17235	44.07	49.16	15.27	40.45	50.63	54	-3.37	AV
operation frequency:5785									
V	11570	48.19	49.09	15.34	37.42	51.86	74	-22.14	PK
V	11570	44.7	49.09	15.34	37.42	48.37	54	-5.63	AV
V	17355	49.32	49.18	15.29	40.47	55.9	68.2	-12.30	PK
V	17355	43.03	49.18	15.29	40.47	49.61	54	-4.39	AV
H	11570	49.48	49.09	15.34	37.42	53.15	74	-20.85	PK
H	11570	43.3	49.09	15.34	37.42	46.97	54	-7.03	AV
H	17355	49.02	49.18	15.29	40.47	55.6	68.2	-12.60	PK
H	17355	43.44	49.18	15.29	40.47	50.02	54	-3.98	AV
operation frequency:5825									
V	11650	49.01	49.11	15.37	37.46	52.73	74	-21.27	PK
V	11650	44.54	49.11	15.37	37.46	48.26	54	-5.74	AV
V	17475	48.4	49.21	15.34	40.51	55.04	68.2	-13.16	PK
V	17475	43.45	49.21	15.34	40.51	50.09	54	-3.91	AV
H	11650	56.99	49.11	15.37	31.31	54.56	74	-19.44	PK
H	11650	44.41	49.11	15.37	31.31	41.98	54	-12.02	AV
H	17475	48.07	49.21	15.34	40.51	54.71	68.2	-13.49	PK
H	17475	44.22	49.21	15.34	40.51	50.86	54	-3.14	AV

Remark:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier,
Margin= Emission Level - Limit
2. If peak below the average limit, the average emission was no test.
3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.



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Polar (H/V)	Frequency	Meter Reading	Pre- amplifier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
operation frequency:5755									
V	11510	49.29	49.07	15.33	37.41	52.96	74	-21.04	PK
V	11510	45.08	49.07	15.33	37.41	48.75	54	-5.25	AV
V	17265	48.13	49.17	15.28	40.46	54.7	68.2	-13.50	PK
V	17265	43.2	49.17	15.28	40.46	49.77	54	-4.23	AV
H	11510	48.24	49.07	15.33	37.41	51.91	74	-22.09	PK
H	11510	45	49.07	15.33	37.41	48.67	54	-5.33	AV
H	17265	48.42	49.17	15.28	40.46	54.99	68.2	-13.21	PK
H	17265	44.11	49.17	15.28	40.46	50.68	54	-3.32	AV
operation frequency:5795									
V	11590	49.4	49.11	15.37	37.46	53.12	74	-20.88	PK
V	11590	44.22	49.11	15.37	37.46	47.94	54	-6.06	AV
V	17385	48	49.21	15.34	40.51	54.64	68.2	-13.56	PK
V	17385	43.51	49.21	15.34	40.51	50.15	54	-3.85	AV
H	11590	56.99	49.11	15.37	31.31	54.56	74	-19.44	PK
H	11590	44.71	49.11	15.37	31.31	42.28	54	-11.72	AV
H	17385	48.5	49.21	15.34	40.51	55.14	68.2	-13.06	PK
H	17385	44.38	49.21	15.34	40.51	51.02	54	-2.98	AV
Remark: 1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier, Margin= Emission Level - Limit 2. If peak below the average limit, the average emission was no test. 3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.									

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Polar (H/V)	Frequency	Meter Reading	Pre- amplifier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
operation frequency:5775									
V	11550	47.99	49.07	15.33	37.41	51.66	74	-22.34	PK
V	11550	45.23	49.07	15.33	37.41	48.9	54	-5.10	AV
V	17325	48.97	49.17	15.28	40.46	55.54	68.2	-12.66	PK
V	17325	43.15	49.17	15.28	40.46	49.72	54	-4.28	AV
H	11550	48.31	49.07	15.33	37.41	51.98	74	-22.02	PK
H	11550	45.38	49.07	15.33	37.41	49.05	54	-4.95	AV
H	17325	48.49	49.17	15.28	40.46	55.06	68.2	-13.14	PK
H	17325	44.02	49.17	15.28	40.46	50.59	54	-3.41	AV
Remark: 1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier, Margin= Emission Level - Limit 2. If peak below the average limit, the average emission was no test. 3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.									



3.3 RADIATED BAND EMISSION MEASUREMENT

3.3.1 TEST REQUIREMENT:

15.407 (b)& RSS-247 Section 5.5& RSS-247 Section 6.2.1.2&6.2.4.3

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000MHz)

(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) Devices operating in the band 5725-5850 MHz shall have e.i.r.p. of unwanted emissions comply with the following:

a) 27 dBm/MHz at frequencies from the band edges decreasing linearly to 15.6 dBm/MHz at 5 MHz above or below the band edges;

b) 15.6 dBm/MHz at 5 MHz above or below the band edges decreasing linearly to 10 dBm/MHz at 25 MHz above or below the band edges;

c) 10 dBm/MHz at 25 MHz above or below the band edges decreasing linearly to -27 dBm/MHz at 75 MHz above or below the band edges; and

d) -27 dBm/MHz at frequencies more than 75 MHz above or below the band edges.

MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
10.495-0.505	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	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	(2)
13.36-13.41			



MHz
0.090-0.110
2.1735-2.1905
3.020-3.026
4.125-4.128
4.17725-4.17775
4.20725-4.20775
5.677-5.683
6.215-6.218
6.26775-6.26825
6.31175-6.31225
8.291-8.294
8.362-8.366
8.37625-8.38675
8.41425-8.41475
12.29-12.293
12.51975-12.52025
12.57675-12.57725
13.36-13.41
16.42-16.423
16.69475-16.69525
16.80425-16.80475
25.5-25.67
37.5-38.25
73-74.6
74.8-75.2
108-138
156.52475-156.52525
156.7-156.9

MHz
240-285
322-335.4
399.9-410
608-614
960-1427
1435-1626.5
1645.5-1646.5
1660-1710
1718.8-1722.2
2200-2300
2310-2390
2655-2900
3260-3267
3332-3339
3345.8-3358
3500-4400
4500-5150
5350-5460
7250-7750
8025-8500

GHz
9.0-9.2
9.3-9.5
10.6-12.7
13.25-13.4
14.47-14.5
15.35-16.2
17.7-21.4
22.01-23.12
23.6-24.0
31.2-31.8
36.43-36.5
Above 38.6

* Certain frequency bands listed in Table 6 and in bands above 38.6 GHz are designated for licence-exempt applications. These frequency bands and the requirements that apply to the devices are set out in the 200- and 300-series of RSSs, such as RSS-210 and RSS-310, which contain the requirements that apply to licence-exempt radio apparatus.



For transmitters with operating frequencies in the band 5150-5250 MHz, all emissions outside the band 5150-5350 MHz shall not exceed -27 dBm/MHz e.i.r.p. Any unwanted emissions that fall into the band 5250-5350 MHz shall be attenuated below the channel power by at least 26dB, when measured using a resolution bandwidth between 1 and 5% of the occupied bandwidth (i.e. 99% bandwidth), above 5250 MHz. The 26 dB bandwidth may fall into the 5250-5350 MHz band; however, if the occupied bandwidth also falls within the 5250-5350 MHz band, the transmission is considered as intentional and the devices shall comply with all requirements in the band 5250-5350 MHz including implementing dynamic frequency selection (DFS) and TPC, on the portion of the emission that resides in the 5250-5350 MHz band.

Frequencies (MHz)	Field Strength (micorvolts/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

FREQUENCY (MHz)	Limit (dBuV/m) (at 3M)	
	PEAK	AVERAGE
Above 1000	74	54

Notes:

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

Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	5000MHz
Stop Frequency	5420MHz
RB / VB (emission in restricted band)	1 MHz / 1 MHz for Peak, 1 MHz / 10Hz for Average



3.3.2 TEST PROCEDURE

Above 1GHz test procedure as below:

- The EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation.
- The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rota table was turned from 0 degrees to 360 degrees to find the maximum reading.
- The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.
- Test the EUT in the lowest channel,the Highest channel

Note:

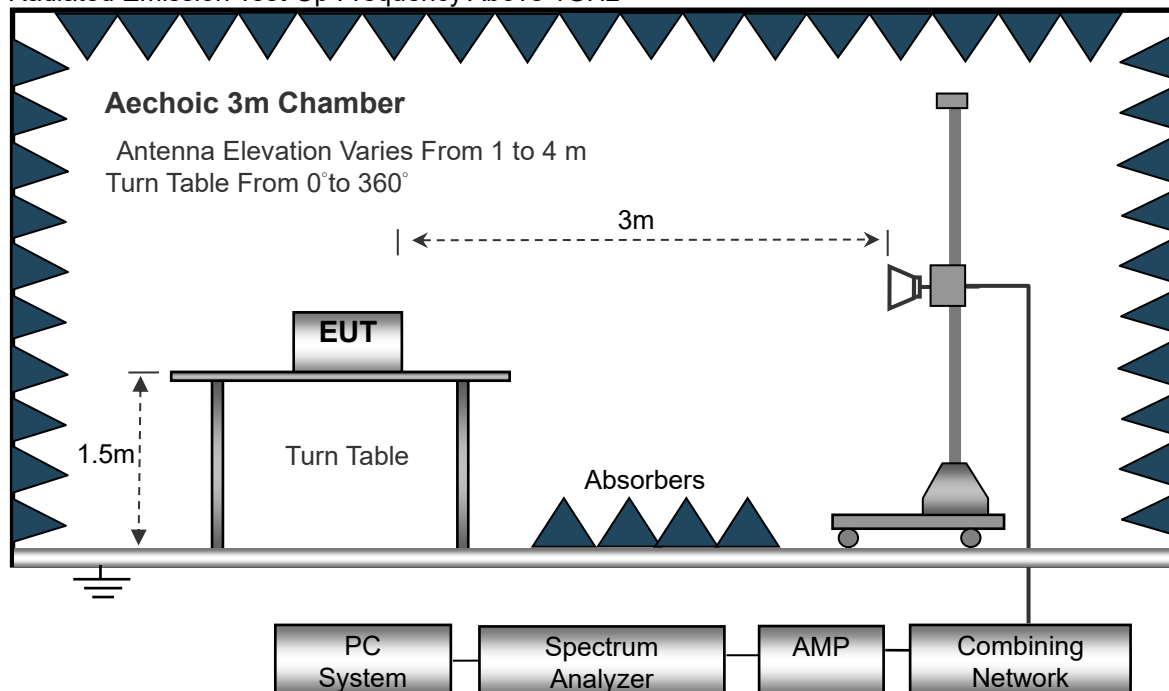
Both horizontal and vertical antenna polarities were tested and performed pretest to three orthogonal axis. The worst case emissions were reported

3.3.3 DEVIATION FROM TEST STANDARD

No deviation

3.3.4 TEST SETUP

Radiated Emission Test-Up Frequency Above 1GHz



3.3.5 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of 2.3 Unless otherwise a special operating condition is specified in the follows during the testing.

**3.3.6 TEST RESULT****802.11a(Band 1)**

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre- amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB/m)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
operation frequency:5180									
V	5150	53.41	49.12	15.6	37.34	57.23	74	-16.77	PK
V	5150	40.08	49.12	15.6	37.34	43.9	54	-10.1	AV
V	5145	54.50	49.19	15.24	40.43	60.98	74	-13.02	PK
V	5145	36.96	49.19	15.24	40.43	43.44	54	-10.56	AV
H	5150	52.72	49.12	15.6	37.34	56.54	74	-17.46	PK
H	5150	37.65	49.12	15.6	37.34	41.47	54	-12.53	AV
H	5145	54.34	49.19	15.24	40.43	60.82	74	-13.18	PK
H	5145	33.73	49.19	15.24	40.43	40.21	54	-13.79	AV

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre- amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB/m)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
operation frequency:5240									
V	5350	53.29	49.13	15.32	37.46	56.94	74	-17.06	PK
V	5350	35.96	49.13	15.32	37.46	39.61	54	-14.39	AV
V	5370	53.32	49.24	15.36	40.51	59.95	74	-14.05	PK
V	5370	32.27	49.24	15.36	40.51	38.9	54	-15.1	AV
H	5350	52.79	49.13	15.32	31.31	50.29	74	-23.71	PK
H	5350	40.86	49.13	15.32	31.31	38.36	54	-15.64	AV
H	5370	52.61	49.24	15.36	40.51	59.24	74	-14.76	PK
H	5370	32.95	49.24	15.36	40.51	39.58	54	-14.42	AV

Remark:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier,
Margin= Emission Level - Limit
2. If peak below the average limit, the average emission was no test.
3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.



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Polar (H/V)	Frequency	Meter Reading	Pre- amplifier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
operation frequency:5180									
V	5150	51.78	49.12	15.6	37.34	55.6	74	-18.4	PK
V	5150	33.24	49.12	15.6	37.34	37.06	54	-16.94	AV
V	5145	52.04	49.19	15.24	40.43	58.52	74	-15.48	PK
V	5145	33.73	49.19	15.24	40.43	40.21	54	-13.79	AV
H	5150	51.40	49.12	15.6	37.34	55.22	74	-18.78	PK
H	5150	33.46	49.12	15.6	37.34	37.28	54	-16.72	AV
H	5145	51.00	49.19	15.24	40.43	57.48	74	-16.52	PK
H	5145	32.46	49.19	15.24	40.43	38.94	54	-15.06	AV

Polar (H/V)	Frequency	Meter Reading	Pre- amplifier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
operation frequency:5240									
V	5350	53.41	49.13	15.32	37.46	57.06	74	-16.94	PK
V	5350	34.96	49.13	15.32	37.46	38.61	54	-15.39	AV
V	5370	51.00	49.24	15.36	40.51	57.63	74	-16.37	PK
V	5370	33.46	49.24	15.36	40.51	40.09	54	-13.91	AV
H	5350	54.41	49.13	15.32	31.31	51.91	74	-22.09	PK
H	5350	36.80	49.13	15.32	31.31	34.3	54	-19.7	AV
H	5370	51.56	49.24	15.36	40.51	58.19	74	-15.81	PK
H	5370	33.99	49.24	15.36	40.51	40.62	54	-13.38	AV

Remark:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier,
Margin= Emission Level - Limit
2. If peak below the average limit, the average emission was no test.
3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.



802.11ac HT20

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre- amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB/m)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
operation frequency:5180									
V	5150	52.52	49.12	15.33	37.41	56.14	74	-17.86	PK
V	5150	34.65	49.12	15.33	37.41	38.27	54	-15.73	AV
V	5145	51.41	49.19	15.28	40.46	57.96	74	-16.04	PK
V	5145	33.95	49.19	15.28	40.46	40.5	54	-13.5	AV
H	5150	52.32	49.12	15.33	37.41	55.94	74	-18.06	PK
H	5150	34.95	49.12	15.33	37.41	38.57	54	-15.43	AV
H	5145	50.71	49.19	15.28	40.46	57.26	74	-16.74	PK
H	5145	33.77	49.19	15.28	40.46	40.32	54	-13.68	AV

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre- amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB/m)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
operation frequency:5240									
V	5350	53.79	49.13	15.32	37.46	57.44	74	-16.56	PK
V	5350	36.25	49.13	15.32	37.46	39.9	54	-14.1	AV
V	5370	50.33	49.24	15.36	40.51	56.96	74	-17.04	PK
V	5370	33.73	49.24	15.36	40.51	40.36	54	-13.64	AV
H	5350	53.71	49.13	15.32	31.31	51.21	74	-22.79	PK
H	5350	40.78	49.13	15.32	31.31	38.28	54	-15.72	AV
H	5370	51.33	49.24	15.36	40.51	57.96	74	-16.04	PK
H	5370	35.52	49.24	15.36	40.51	42.15	54	-11.85	AV

Remark:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier,
Margin= Emission Level - Limit
2. If peak below the average limit, the average emission was no test.
3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.



802.11n HT40

Polar (H/V)	Frequency	Meter Reading	Pre- amplifier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
operation frequency:5190									
V	5150	52.79	49.12	15.6	37.39	56.66	74	-17.34	PK
V	5150	35.68	49.12	15.6	37.39	39.55	54	-14.45	AV
V	5145	51.81	49.19	15.24	40.45	58.31	74	-15.69	PK
V	5145	34.54	49.19	15.24	40.45	41.04	54	-12.96	AV
H	5150	52.74	49.12	15.6	37.39	56.61	74	-17.39	PK
H	5150	35.06	49.12	15.6	37.39	38.93	54	-15.07	AV
H	5145	50.70	49.19	15.24	40.45	57.2	74	-16.8	PK
H	5145	35.36	49.19	15.24	40.45	41.86	54	-12.14	AV

Polar (H/V)	Frequency	Meter Reading	Pre- amplifier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
operation frequency:5230									
V	5350	53.45	49.13	15.34	37.46	57.12	74	-16.88	PK
V	5350	37.52	49.13	15.34	37.46	41.19	54	-12.81	AV
V	5370	50.34	49.24	15.35	40.51	56.96	74	-17.04	PK
V	5370	36.63	49.24	15.35	40.51	43.25	54	-10.75	AV
H	5350	54.52	49.13	15.34	31.31	52.04	74	-21.96	PK
H	5350	41.98	49.13	15.34	31.31	39.5	54	-14.5	AV
H	5370	52.72	49.24	15.35	40.51	59.34	74	-14.66	PK
H	5370	36.58	49.24	15.35	40.51	43.2	54	-10.8	AV

Remark:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier,
Margin= Emission Level - Limit
2. If peak below the average limit, the average emission was no test.
3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.



802.11ac HT40

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB/m)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
operation frequency:5190									
V	5150	52.85	49.12	15.32	37.41	56.46	74	-17.54	PK
V	5150	37.25	49.12	15.32	37.41	40.86	54	-13.14	AV
V	5145	53.01	49.19	15.36	40.46	59.64	74	-14.36	PK
V	5145	36.45	49.19	15.36	40.46	43.08	54	-10.92	AV
H	5150	53.04	49.12	15.32	37.41	56.65	74	-17.35	PK
H	5150	37.47	49.12	15.32	37.41	41.08	54	-12.92	AV
H	5145	51.29	49.19	15.36	40.46	57.92	74	-16.08	PK
H	5145	36.47	49.19	15.36	40.46	43.1	54	-10.9	AV

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB/m)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
operation frequency:5230									
V	5350	55.01	49.13	15.34	37.34	58.56	74	-15.44	PK
V	5350	36.67	49.13	15.34	37.34	40.22	54	-13.78	AV
V	5370	51.70	49.24	15.35	40.43	58.24	74	-15.76	PK
V	5370	37.07	49.24	15.35	40.43	43.61	54	-10.39	AV
H	5350	54.80	49.13	15.34	37.34	58.35	74	-15.65	PK
H	5350	41.39	49.13	15.34	37.34	44.94	54	-9.06	AV
H	5370	50.78	49.24	15.35	40.43	57.32	74	-16.68	PK
H	5370	35.25	49.24	15.35	40.43	41.79	54	-12.21	AV

Remark:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier,
Margin= Emission Level - Limit
2. If peak below the average limit, the average emission was no test.
3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.



802.11ac HT80

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB/m)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
operation frequency:5210									
V	5150	52.84	49.13	15.32	37.48	56.51	74	-17.49	PK
V	5150	35.57	49.13	15.32	37.48	39.24	54	-14.76	AV
V	5145	52.01	49.24	15.36	40.42	58.55	74	-15.45	PK
V	5145	35.25	49.24	15.36	40.42	41.79	54	-12.21	AV
H	5150	52.72	49.13	15.32	37.48	56.39	74	-17.61	PK
H	5150	36.96	49.13	15.32	37.48	40.63	54	-13.37	AV
H	5145	50.51	49.24	15.36	40.42	57.05	74	-16.95	PK
H	5145	35.78	49.24	15.36	40.42	42.32	54	-11.68	AV

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB/m)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
operation frequency:5210									
V	5350	51.50	49.13	15.34	37.34	55.05	74	-18.95	PK
V	5350	40.31	49.13	15.34	37.34	43.86	54	-10.14	AV
V	5370	51.49	49.24	15.35	40.43	58.03	74	-15.97	PK
V	5370	40.75	49.24	15.35	40.43	47.29	54	-6.71	AV
H	5350	51.29	49.13	15.34	37.34	54.84	74	-19.16	PK
H	5350	40.71	49.13	15.34	37.34	44.26	54	-9.74	AV
H	5370	51.30	49.24	15.35	40.43	57.84	74	-16.16	PK
H	5370	41.06	49.24	15.35	40.43	47.6	54	-6.4	AV

Remark:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier,
Margin= Emission Level - Limit
2. If peak below the average limit, the average emission was no test.
3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.



802.11a(Band 4)

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre- amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB/m)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
operation frequency:5745									
V	5725	53.25	46.38	12.43	35.65	54.95	68.2	-13.25	PK
V	5725	39.96	46.38	12.43	35.65	41.66	54	-12.34	AV
V	5720	54.34	46.56	12.47	35.76	56.01	68.2	-12.19	PK
V	5720	36.85	46.56	12.47	35.76	38.52	54	-15.48	AV
H	5725	52.56	46.38	12.43	35.65	54.26	68.2	-13.94	PK
H	5725	37.54	46.38	12.43	35.65	39.24	54	-14.76	AV
H	5720	54.18	46.56	12.47	35.76	55.85	68.2	-12.35	PK
H	5720	33.63	46.56	12.47	35.76	35.3	54	-18.7	AV

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre- amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB/m)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
operation frequency:5825									
V	5850	53.13	46.55	12.65	35.87	55.1	68.2	-13.1	PK
V	5850	35.85	46.55	12.65	35.87	37.82	54	-16.18	AV
V	5870	53.16	46.58	12.67	35.93	55.18	68.2	-13.02	PK
V	5870	32.17	46.58	12.67	35.93	34.19	54	-19.81	AV
H	5850	52.63	46.55	12.65	35.87	54.6	68.2	-13.6	PK
H	5850	40.74	46.55	12.65	35.87	42.71	54	-11.29	AV
H	5870	52.45	46.58	12.67	35.93	54.47	68.2	-13.73	PK
H	5870	32.85	46.58	12.67	35.93	34.87	54	-19.13	AV

Remark:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier,
Margin= Emission Level - Limit
2. If peak below the average limit, the average emission was no test.
3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.



802.11n HT20

Polar (H/V)	Frequency	Meter Reading	Pre- amplifier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
operation frequency:5745									
V	5725	51.62	47.36	13.18	36.26	53.7	68.2	-14.5	PK
V	5725	33.14	47.36	13.18	36.26	35.22	54	-18.78	AV
V	5720	51.88	47.38	13.2	36.29	53.99	68.2	-14.21	PK
V	5720	33.63	47.38	13.2	36.29	35.74	54	-18.26	AV
H	5725	51.25	47.36	13.18	36.26	53.33	68.2	-14.87	PK
H	5725	33.36	47.36	13.18	36.26	35.44	54	-18.56	AV
H	5720	50.85	47.38	13.2	36.29	52.96	68.2	-15.24	PK
H	5720	32.36	47.38	13.2	36.29	34.47	54	-19.53	AV

Polar (H/V)	Frequency	Meter Reading	Pre- amplifier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
operation frequency:5825									
V	5850	53.09	48.32	15.24	37.37	57.38	68.2	-10.82	PK
V	5850	34.76	48.32	15.24	37.37	39.05	54	-14.95	AV
V	5870	50.70	48.36	15.27	37.39	55	68.2	-13.2	PK
V	5870	33.26	48.36	15.27	37.39	37.56	54	-16.44	AV
H	5850	54.09	48.32	15.24	37.37	58.38	68.2	-9.82	PK
H	5850	36.58	48.32	15.24	37.37	40.87	54	-13.13	AV
H	5870	51.26	48.36	15.27	37.39	55.56	68.2	-12.64	PK
H	5870	33.79	48.36	15.27	37.39	38.09	54	-15.91	AV

Remark:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier,
Margin= Emission Level - Limit
2. If peak below the average limit, the average emission was no test.
3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.



802.11ac HT20

Polar (H/V)	Frequency	Meter Reading	Pre- amplifier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
operation frequency:5745									
V	5725	52.20	46.38	12.43	35.65	53.9	68.2	-14.3	PK
V	5725	34.45	46.38	12.43	35.65	36.15	54	-17.85	AV
V	5720	51.11	46.56	12.47	35.76	52.78	68.2	-15.42	PK
V	5720	33.75	46.56	12.47	35.76	35.42	54	-18.58	AV
H	5725	52.00	46.38	12.43	35.65	53.7	68.2	-14.5	PK
H	5725	34.75	46.38	12.43	35.65	36.45	54	-17.55	AV
H	5720	50.41	46.56	12.47	35.76	52.08	68.2	-16.12	PK
H	5720	33.57	46.56	12.47	35.76	35.24	54	-18.76	AV

Polar (H/V)	Frequency	Meter Reading	Pre- amplifier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
operation frequency:5825									
V	5850	53.47	46.55	12.65	35.87	55.44	68.2	-12.76	PK
V	5850	36.03	46.55	12.65	35.87	38	54	-16	AV
V	5870	50.03	46.58	12.67	35.93	52.05	68.2	-16.15	PK
V	5870	33.53	46.58	12.67	35.93	35.55	54	-18.45	AV
H	5850	53.39	46.55	12.65	35.87	55.36	68.2	-12.84	PK
H	5850	40.54	46.55	12.65	35.87	42.51	54	-11.49	AV
H	5870	51.03	46.58	12.67	35.93	53.05	68.2	-15.15	PK
H	5870	35.30	46.58	12.67	35.93	37.32	54	-16.68	AV

Remark:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier,
Margin= Emission Level - Limit
2. If peak below the average limit, the average emission was no test.
3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.



802.11n HT40

Polar (H/V)	Frequency	Meter Reading	Pre- amplifier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
operation frequency:5755									
V	5725	52.47	47.36	13.18	36.26	54.55	68.2	-13.65	PK
V	5725	35.46	47.36	13.18	36.26	37.54	54	-16.46	AV
V	5720	51.51	47.38	13.2	36.29	53.62	68.2	-14.58	PK
V	5720	34.34	47.38	13.2	36.29	36.45	54	-17.55	AV
H	5725	52.42	47.36	13.18	36.26	54.5	68.2	-13.7	PK
H	5725	34.86	47.36	13.18	36.26	36.94	54	-17.06	AV
H	5720	50.40	47.38	13.2	36.29	52.51	68.2	-15.69	PK
H	5720	35.14	47.38	13.2	36.29	37.25	54	-16.75	AV

Polar (H/V)	Frequency	Meter Reading	Pre- amplifier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
operation frequency:5795									
V	5850	53.13	46.38	12.43	35.65	54.83	68.2	-13.37	PK
V	5850	37.30	46.38	12.43	35.65	39	54	-15	AV
V	5870	50.04	46.56	12.47	35.76	51.71	68.2	-16.49	PK
V	5870	36.41	46.56	12.47	35.76	38.08	54	-15.92	AV
H	5850	54.20	46.38	12.43	35.65	55.9	68.2	-12.3	PK
H	5850	41.72	46.38	12.43	35.65	43.42	54	-10.58	AV
H	5870	52.40	46.56	12.47	35.76	54.07	68.2	-14.13	PK
H	5870	36.36	46.56	12.47	35.76	38.03	54	-15.97	AV

Remark:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier,
Margin= Emission Level - Limit
2. If peak below the average limit, the average emission was no test.
3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.



802.11ac HT40

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre- amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB/m)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
operation frequency:5755									
V	5725	52.53	46.55	12.65	35.87	54.5	68.2	-13.7	PK
V	5725	37.03	46.55	12.65	35.87	39	54	-15	AV
V	5720	52.69	46.58	12.67	35.93	54.71	68.2	-13.49	PK
V	5720	36.23	46.58	12.67	35.93	38.25	54	-15.75	AV
H	5725	52.72	46.55	12.65	35.87	54.69	68.2	-13.51	PK
H	5725	37.25	46.55	12.65	35.87	39.22	54	-14.78	AV
H	5720	50.99	46.58	12.67	35.93	53.01	68.2	-15.19	PK
H	5720	36.25	46.58	12.67	35.93	38.27	54	-15.73	AV

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre- amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB/m)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
operation frequency:5795									
V	5850	54.69	47.36	13.18	36.26	56.77	68.2	-11.43	PK
V	5850	36.45	47.36	13.18	36.26	38.53	54	-15.47	AV
V	5870	51.40	47.38	13.2	36.29	53.51	68.2	-14.69	PK
V	5870	36.85	47.38	13.2	36.29	38.96	54	-15.04	AV
H	5850	54.48	47.36	13.18	36.26	56.56	68.2	-11.64	PK
H	5850	41.15	47.36	13.18	36.26	43.23	54	-10.77	AV
H	5870	50.48	47.38	13.2	36.29	52.59	68.2	-15.61	PK
H	5870	35.03	47.38	13.2	36.29	37.14	54	-16.86	AV

Remark:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier,
Margin= Emission Level - Limit
2. If peak below the average limit, the average emission was no test.
3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.



802.11ac HT80

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre- amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB/m)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
operation frequency:5775									
V	5725	52.52	46.38	12.43	35.65	54.22	68.2	-13.98	PK
V	5725	35.35	46.38	12.43	35.65	37.05	54	-16.95	AV
V	5720	51.69	46.56	12.47	35.76	53.36	68.2	-14.84	PK
V	5720	35.03	46.56	12.47	35.76	36.7	54	-17.3	AV
H	5725	52.40	46.38	12.43	35.65	54.1	68.2	-14.1	PK
H	5725	36.74	46.38	12.43	35.65	38.44	54	-15.56	AV
H	5720	50.21	46.56	12.47	35.76	51.88	68.2	-16.32	PK
H	5720	35.56	46.56	12.47	35.76	37.23	54	-16.77	AV

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre- amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB/m)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
operation frequency:5775									
V	5850	51.20	46.55	12.65	35.87	53.17	68.2	-15.03	PK
V	5850	40.07	46.55	12.65	35.87	42.04	54	-11.96	AV
V	5870	51.19	46.58	12.67	35.93	53.21	68.2	-14.99	PK
V	5870	40.51	46.58	12.67	35.93	42.53	54	-11.47	AV
H	5850	50.99	46.55	12.65	35.87	52.96	68.2	-15.24	PK
H	5850	40.47	46.55	12.65	35.87	42.44	54	-11.56	AV
H	5870	51.00	46.58	12.67	35.93	53.02	68.2	-15.18	PK
H	5870	40.82	46.58	12.67	35.93	42.84	54	-11.16	AV

Remark:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier,
Margin= Emission Level - Limit
2. If peak below the average limit, the average emission was no test.
3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.



3.4 CONDUCTED BAND EMISSION MEASUREMENT

3.4.1 TEST REQUIREMENT:

FCC Part15 C Section 15.209 and 15.407& RSS-247 Section 6.2.4.2

(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) Devices operating in the band 5725-5850 MHz shall have e.i.r.p. of unwanted emissions comply with the following:

- a) 27 dBm/MHz at frequencies from the band edges decreasing linearly to 15.6 dBm/MHz at 5 MHz above or below the band edges;
- b) 15.6 dBm/MHz at 5 MHz above or below the band edges decreasing linearly to 10 dBm/MHz at 25 MHz above or below the band edges;
- c) 10 dBm/MHz at 25 MHz above or below the band edges decreasing linearly to -27 dBm/MHz at 75 MHz above or below the band edges; and
- d) -27 dBm/MHz at frequencies more than 75 MHz above or below the band edges.

Spectrum Parameter	Setting	
Attenuation	Auto	
Start Frequency	5150MHz	5725MHz
Stop Frequency	5250MHz	5850MHz
RB / VB (emission in restricted band)	1 MHz / 3 MHz for Peak, 1 MHz / 10Hz for Average	

3.4.2 TEST PROCEDURE

The unwanted emission limits in both the restricted and nonrestricted bands are based on radiated measurements; however, as an alternative, antenna-port conducted measurements in conjunction with cabinet emissions tests are permitted to determine compliance provided that the following steps are performed:

- a) Cabinet emissions measurements--A radiated test shall be performed to confirm that cabinet emissions are below the emission limits. For the cabinet-emission measurements the antenna may be replaced by a termination matching the nominal impedance of the antenna.
- b) Impedance matching--Conducted tests shall be performed using equipment that matches the nominal impedance of the antenna assembly used with the EUT.
- c) EIRP calculation--A value representative of an upper bound on out-of-band antenna gain (in dBi) shall be added to the measured antenna-port conducted emission power to compute EIRP within the specified measurement bandwidth. (For emissions in the restricted bands, additional calculations are required to convert EIRP to field strength at the specified distance.) The upper bound on antenna gain for a device with a single RF output shall be selected as the maximum in-band gain of the antenna across all operating bands, or 2 dBi, whichever is greater. However, for devices that operate in multiple bands using the same transmit antenna, the highest gain of the antenna within the operating band nearest to the out-of-band frequency being measured may be used, in lieu of the overall highest gain, when measuring emissions at frequencies within 20% of the absolute frequency at the nearest edge of that band, but in no case shall a value less than 2 dBi be selected.
- d) EIRP adjustments for multiple outputs--For devices with multiple outputs occupying the same or overlapping frequency ranges in the same band (e.g, MIMO or beamforming devices), compute the total EIRP as follows:
 - 1) Compute EIRP for each output, as described in step c).
 - 2) Follow the procedures specified in Clause 14 for summing emissions across the outputs, or adjusting emission levels measured on individual outputs by $[10 \log (\text{NANr})]$, where NANr is the number of outputs.
 - 3) Add the array gain term specified in 14.4.4 for out-of-band and spurious signals.⁹⁹

3.4.3 DEVIATION FROM TEST STANDARD

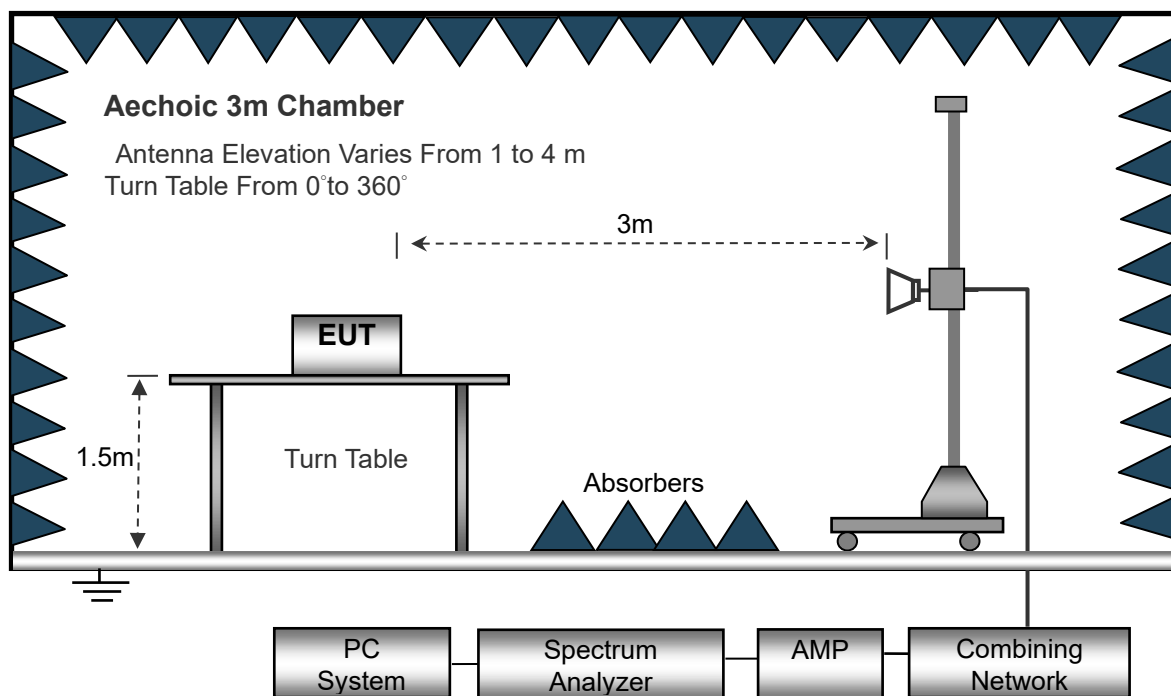
No deviation



3.4.4 TEST SETUP



Radiated versus conducted measurements:



3.4.5 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of 2.3 Unless otherwise a special operating condition is specified in the follows during the testing.

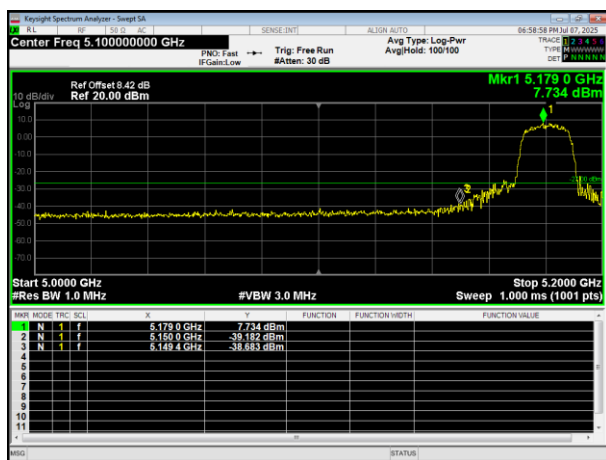
3.4.6 TEST RESULT

The antenna gain is compensated in the test data.

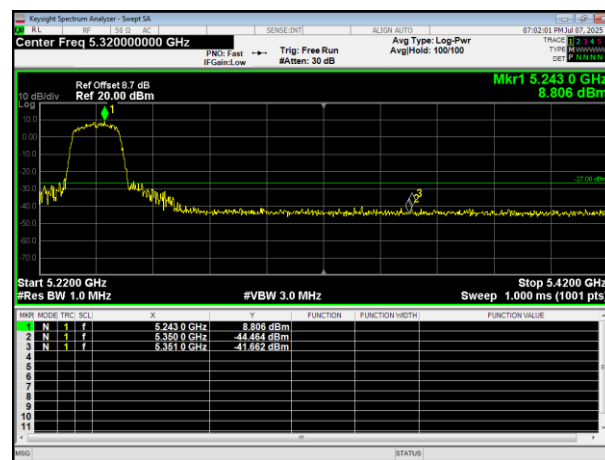
The product has passed radiated emission testing per ANSI C63.10 Section 12.7.4.2 using a 50-ohm termination cabinet, achieving a compliance margin >20dB, with conducted spurious emission data in the report.



802.11a

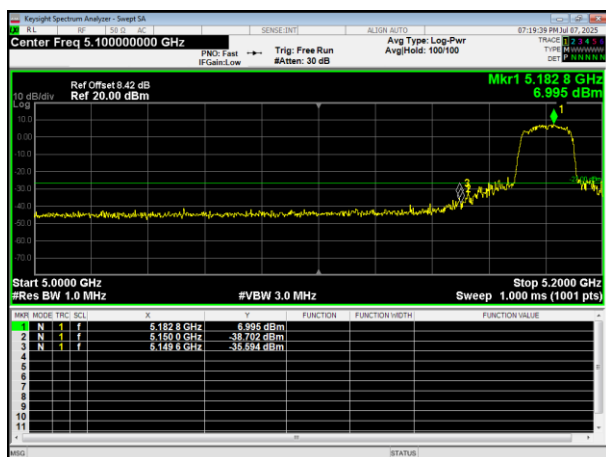


5180MHz



5240MHz

802.11ac HT20

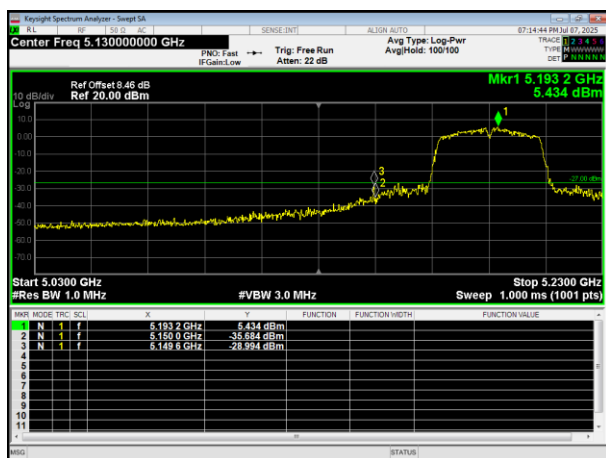


5180MHz

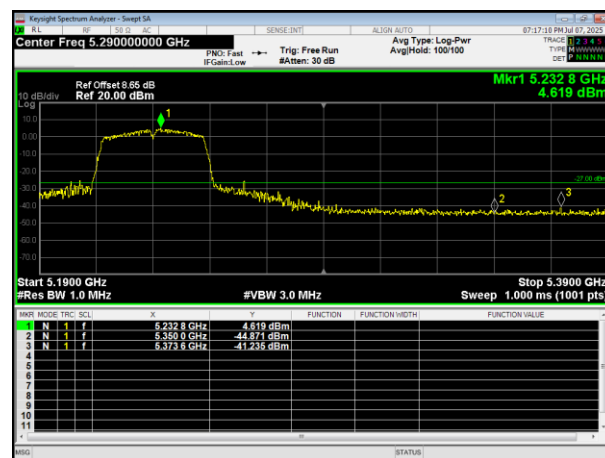


5240MHz

802.11ac HT40



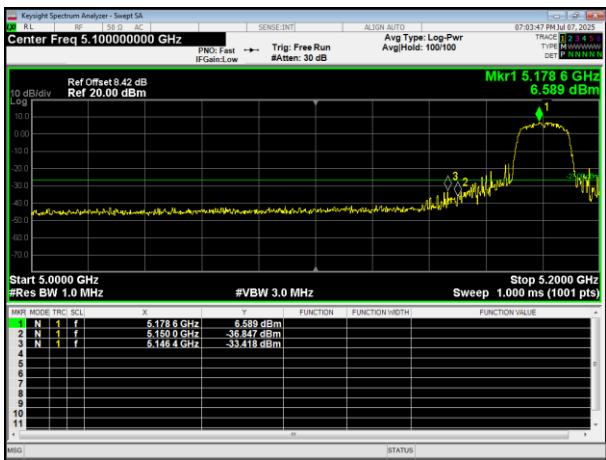
5190MHz



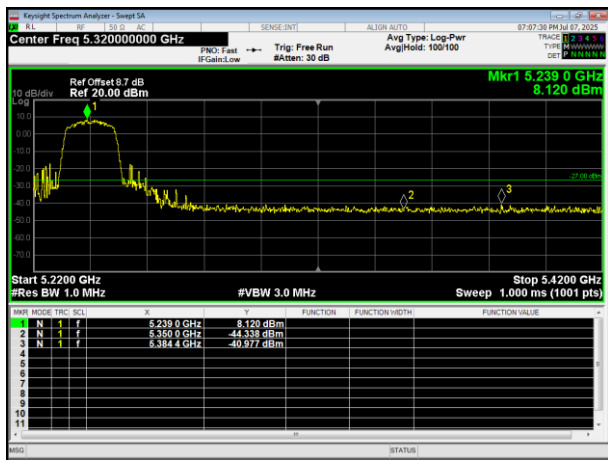
5230MHz



802.11n HT20

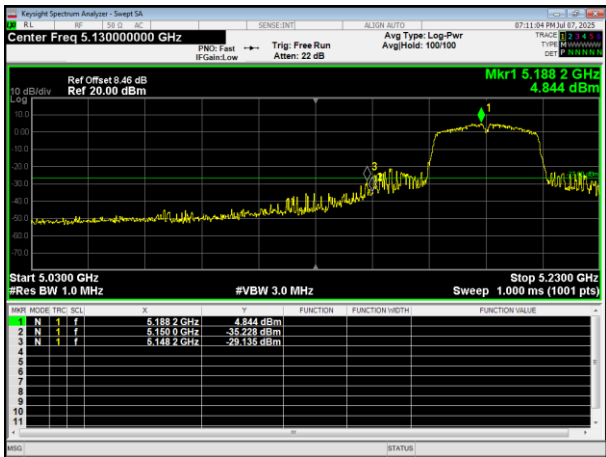


5180MHz



5240MHz

802.11n HT40

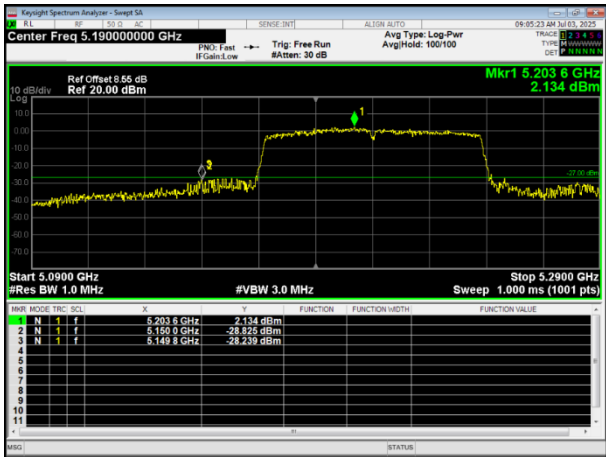


5190MHz

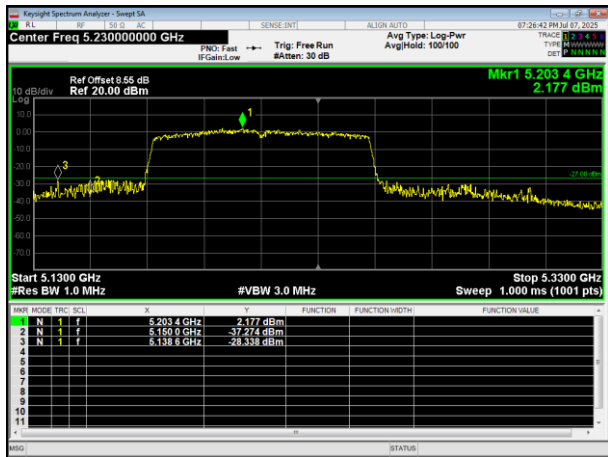


5230MHz

802.11ac HT80



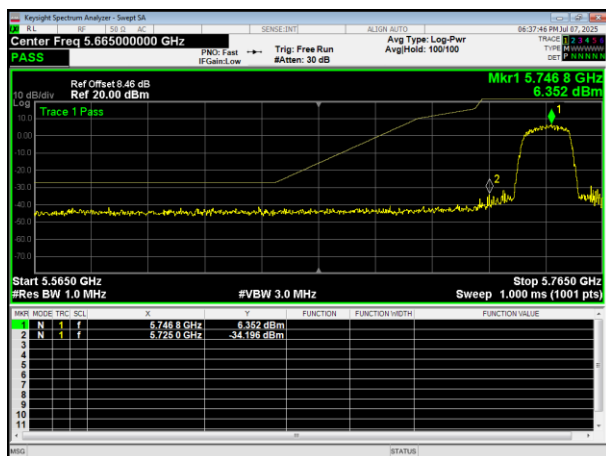
5210MHz



5210MHz



802.11a

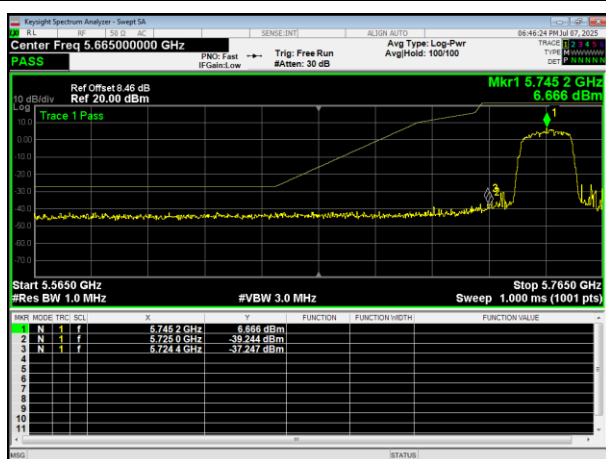


5745MHz

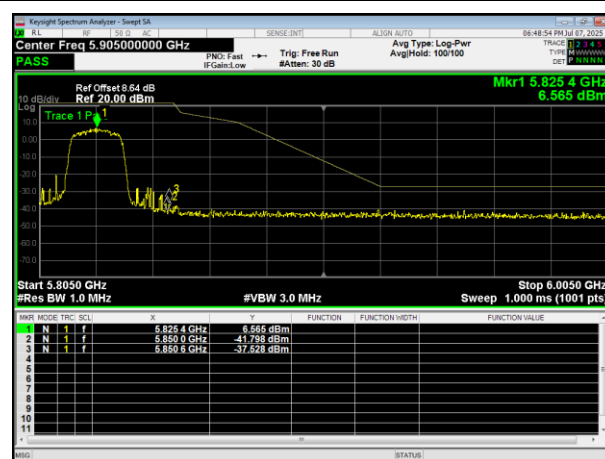


5825MHz

802.11ac HT20

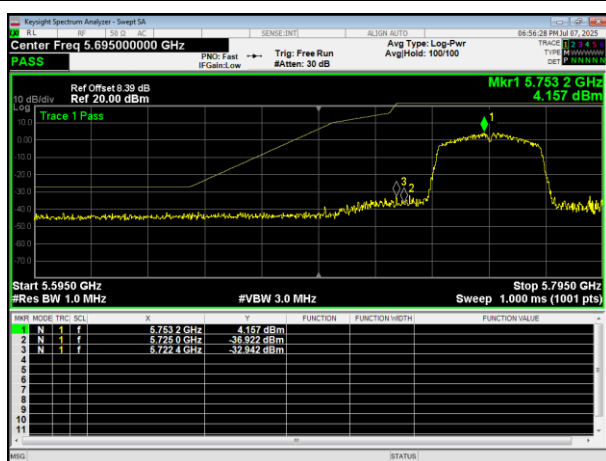


5745MHz



5825MHz

802.11ac HT40



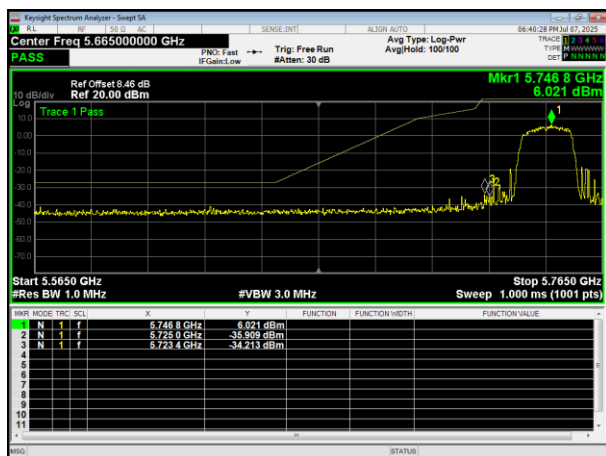
5755MHz



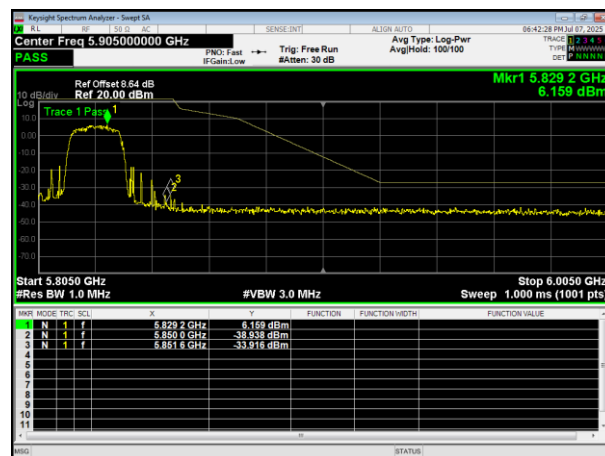
5795MHz



802.11n HT20

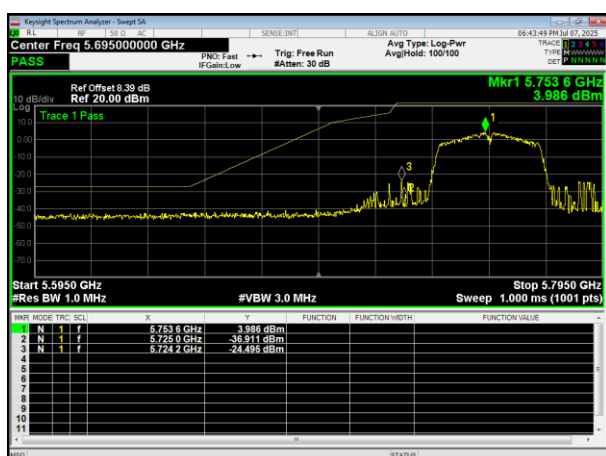


5745MHz

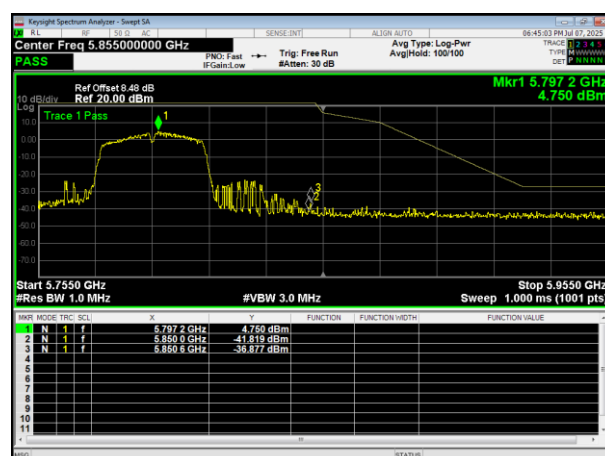


5825MHz

802.11n HT40



5755MHz



5795MHz

802.11ac HT80



5775MHz



5775MHz



4. CONDUCTED OUTPUT POWER

4.1 APPLIED PROCEDURES / LIMIT

FCC Part15, Subpart E/ RSS-247		
Test Item	Limit	Frequency Range (MHz)
Conducted Output Power	For FCC client devices: 250mW (24dBm)	5150-5250
	For RSS: e.i.r.p. power: not exceed 200 mW(23dBm) or $10 + 10 \log_{10} B$	
	250mW (24dBm) or $11 + 10 \log_{10} B$	5250-5350
	250mW (24dBm) or $11 + 10 \log_{10} B$	For FCC:5470-5725 For IC:5470-5600 5650-5725
	1 Watt (30dBm)	5725-5850
Note: For ISDE: B=99% bandwidth.		

4.1.1 TEST PROCEDURE

Method PM is Measurement using an RF average power meter. The procedure for this method is as follows:

a)Measurements may be performed using a wideband RF power meter with a thermocouple detector or equivalent if all of the following conditions are satisfied:

- 1) The EUT is configured to transmit continuously, or to transmit with a constant duty cycle.
- 2) At all times when the EUT is transmitting, it shall be transmitting at its maximum power control level.
- 3) The integration period of the power meter exceeds the repetition period of the transmitted signal by at least a factor of five.

b) If the transmitter does not transmit continuously, measure the duty cycle D of the transmitter output signal as described in 12.2.

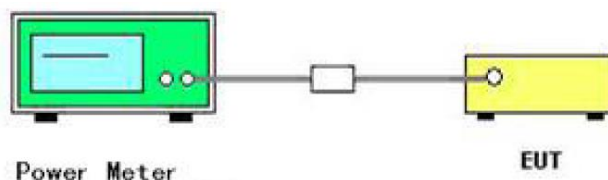
c)Measure the average power of the transmitter. This measurement is an average over both the ON and OFF periods of the transmitter.

d)Correct the measurement in dBm by adding $[10 \log (1 / D)]$, where D is the duty cycle {e.g., $[10 \log (1 / 0.25)]$, if the duty cycle is 25%}.

4.1.2 DEVIATION FROM STANDARD

No deviation.

4.1.3 TEST SETUP



4.1.4 EUT OPERATION CONDITIONS

- 1) The EUT is configured to transmit continuously.
- 2) At all times when the EUT is transmitting, it shall be transmitting at its maximum power control level.
- 3) The integration period of the power meter exceeds the repetition period of the transmitted signal by at least a factor of five.



4.1.5 TEST RESULTS

Temperature:	25 °C	Relative Humidity:	60%
Pressure:	1012 hPa	Test Voltage :	AC 120V/60Hz

Band	Mode	Test Channel	Conducted Output Power (dBm)	Duty factor (dB)	Total Output Power(dB)	LIMIT (dBm)
Band 1	802.11a	Low	8.742	1.12	9.862	23.98
		Moddle	8.276	0.87	9.146	23.98
		High	10.121	0.87	10.991	23.98
	802.11ac HT20	Low	9.755	0.13	9.885	23.98
		Moddle	9.289	0.13	9.419	23.98
		High	10.779	0.13	10.909	23.98
	802.11ac HT40	Low	9.965	0.32	10.285	23.98
		High	9.857	0.26	10.117	23.98
	802.11ac HT80	/	9.741	0.51	10.251	23.98
	802.11n HT20	Low	9.484	0.13	9.614	23.98
		Moddle	9.003	0.16	9.163	23.98
		High	10.876	0.13	11.006	23.98
	802.11n HT40	Low	9.993	0.26	10.253	23.98
		High	9.845	0.26	10.105	23.98

Band	Mode	Test Channel	Conducted Output Power (dBm)	Duty factor (dB)	Total Output Power(dB)	LIMIT (dBm)
Band 4	802.11a	Low	7.335	1.12	8.455	30
		Moddle	7.123	0.87	7.993	30
		High	7.733	0.87	8.603	30
	802.11ac HT20	Low	8.195	0.13	8.325	30
		Moddle	8.052	0.13	8.182	30
		High	8.705	0.13	8.835	30
	802.11ac HT40	Low	8.484	0.26	8.744	30
		High	8.936	0.26	9.196	30
	802.11ac HT80	/	8.686	0.5	9.186	30
	802.11n HT20	Low	8.163	0.16	8.323	30
		Moddle	8.06	0.13	8.19	30
		High	8.368	0.16	8.528	30
	802.11n HT40	Low	8.352	0.32	8.672	30
		High	8.674	0.26	8.934	30



Band	Mode	Test Channel	Total Output Power(dB)	Antenna gain (dBi)	EIRP Output Power(dB)
Band 1	802.11a	Low	9.862	2.02	11.882
		Moddle	9.146	2.02	11.166
		High	10.991	2.02	13.011
	802.11ac HT20	Low	9.885	2.02	11.905
		Moddle	9.419	2.02	11.439
		High	10.909	2.02	12.929
	802.11ac HT40	Low	10.285	2.02	12.305
		High	10.117	2.02	12.137
	802.11ac HT80	/	10.251	2.02	12.271
	802.11n HT20	Low	9.614	2.02	11.634
		Moddle	9.163	2.02	11.183
		High	11.006	2.02	13.026
	802.11n HT40	Low	10.253	2.02	12.273
		High	10.105	2.02	12.125

Band	Mode	Test Channel	Total Output Power(dB)	Antenna gain (dBi)	EIRP Output Power(dB)
Band 4	802.11a	Low	8.455	2.02	10.475
		Moddle	7.993	2.02	10.013
		High	8.603	2.02	10.623
	802.11ac HT20	Low	8.325	2.02	10.345
		Moddle	8.182	2.02	10.202
		High	8.835	2.02	10.855
	802.11ac HT40	Low	8.744	2.02	10.764
		High	9.196	2.02	11.216
	802.11ac HT80	/	9.186	2.02	11.206
	802.11n HT20	Low	8.323	2.02	10.343
		Moddle	8.19	2.02	10.21
		High	8.528	2.02	10.548
	802.11n HT40	Low	8.672	2.02	10.692
		High	8.934	2.02	10.954



5. POWER SPECTRAL DENSITY TEST

5.1 APPLIED PROCEDURES / LIMIT

In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band.
For other devices, the maximum e.i.r.p. shall not exceed 200 mW or $10 + 10 \log_{10} B$, dBm, whichever power is less. B is the 99% emission bandwidth in megahertz. The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.
In addition, the maximum power spectral density shall not exceed 30 dBm in any 500 kHz band.

Spectrum Parameters	Setting
Attenuation	Auto
Span Frequency	= the frequency band of operation
RB	RBW $\geq$ 1MHz for band 1 RBW $\geq$ 510KHz for band 4
VB	VBW $\geq$ 3RBW
Detector	RMS (i.e., power averaging).
Trace	Max Hold
Sweep Time	Auto

5.1.1 TEST PROCEDURE

1. Place the EUT on the table and set it in transmitting mode.
2. The testing follows FCC KDB 789033 D02.
3. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to Spectrum.
4. For U-NII1, U-NII-2A, U-NII-2C Band:
Set RBW=1MHz, VBW=3MHz, where span is enough to capture the entire bandwidth, Sweep time = Auto (601 pts), detector = sample, traces 100 sweeps of video averaging. (SA-2 with the omission of procedure x, the integration with 26dB EBW bandwidth)
For U-NII-3 Band:
Set RBW=510 kHz, VBW=3*RBW, where span is enough to capture the entire bandwidth, Sweep time = Auto (601 pts), detector = sample, traces 100 sweeps of video averaging. (SA-2 with the omission of procedure x, the integration with 26dB EBW bandwidth)
5. Use the cursor on spectrum to peak search the highest level of trace
6. Record the max. reading and add $10 \log(1/\text{duty cycle})$.
we test all antennas, the antenna 1 was worst mode and the data recording in the report.
7. Duty factor Reference is made to the test results in Section 7.1.5.



Method SA-2 uses trace averaging across ON and OFF times of the EUT transmissions, followed by duty cycle correction. The procedure for this method is as follows:

- a) Measure the duty cycle D of the transmitter output signal as described in 12.2.
- b) Set span to encompass the entire 26 dB EBW or 99% OBW of the signal.
- c) Set RBW=1 MHz.
- d) Set VBW≥3 MHz.
- e) Number of points in sweep $\geq [2 \times \text{span} / \text{RBW}]$. (This gives bin-to-bin spacing $\leq \text{RBW} / 2$, so that narrowband signals are not lost between frequency bins.)
- f) Sweep time = auto.
- g) Detector = RMS (i.e., power averaging), if available. Otherwise, use sample detector mode.
- h) Do not use sweep triggering. Allow the sweep to "free run."
- i) 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 such that the average accurately represents the true average over the ON and OFF periods of the transmitter.
- j. Use the peak search function on the instrument to find the peak of the spectrum.
- k. Make the following adjustments to the peak value of the spectrum, if applicable:
 - 1) If method SA-2 or SA-2A was used, then add $[10 \log (1 / D)]$, where D is the duty cycle, to the peak of the spectrum.
 - 2) If method SA-3A was used and the linear mode was used in step h) of 12.3.2.7, add 1 dB to the final result to compensate for the difference between linear averaging and power averaging.
- l. The result is the PPSD.

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**

	Mode	Test Channel	Reading Level (dBm/MHz)	Duty factor (dB)	PSD (dBm/MHz)	Limit (dBm)	Result
Band1	802.11a	Low	-0.516	1.12	0.604	11.00	PASS
		Moddle	-1.296	0.87	-0.426	11.00	PASS
		High	0.787	0.87	1.657	11.00	PASS
	802.11ac HT20	Low	-0.118	0.13	0.012	11.00	PASS
		Moddle	-0.831	0.13	-0.701	11.00	PASS
		High	1.192	0.13	1.322	11.00	PASS
	802.11ac HT40	Low	-2.583	0.32	-2.263	11.00	PASS
		High	-2.866	0.26	-2.606	11.00	PASS
	802.11ac HT80	/	-6.413	0.51	-5.903	11.00	PASS
	802.11n HT20	Low	-0.281	0.13	-0.151	11.00	PASS
		Moddle	-0.647	0.16	-0.487	11.00	PASS
		High	1.248	0.13	1.378	11.00	PASS
	802.11n HT40	Low	-2.391	0.26	-2.131	11.00	PASS
		High	-2.59	0.26	-2.33	11.00	PASS

	Mode	Test Channel	Reading Level (dBm/510kHz)	Duty factor (dB)	RB factor (dB)	PSD (dBm/500kHz)	Limit (dBm/500kHz)	Result
Band4	802.11a	Low	-4.834	1.12	-0.09	-3.714	30.00	PASS
		Moddle	-5.297	0.87	-0.09	-4.427	30.00	PASS
		High	-4.568	0.87	-0.09	-3.698	30.00	PASS
	802.11ac HT20	Low	-4.741	0.13	-0.09	-4.611	30.00	PASS
		Moddle	-4.973	0.13	-0.09	-4.843	30.00	PASS
		High	-4.025	0.13	-0.09	-3.895	30.00	PASS
	802.11ac HT40	Low	-6.45	0.26	-0.09	-6.19	30.00	PASS
		High	-5.719	0.26	-0.09	-5.459	30.00	PASS
	802.11ac HT80	/	-11.276	0.5	-0.09	-10.776	30.00	PASS
	802.11n HT20	Low	-4.302	0.16	-0.09	-4.142	30.00	PASS
		Moddle	-4.652	0.13	-0.09	-4.522	30.00	PASS
		High	-4.421	0.16	-0.09	-4.261	30.00	PASS
	802.11n HT40	Low	-6.496	0.32	-0.09	-6.176	30.00	PASS
		High	-6.563	0.26	-0.09	-6.303	30.00	PASS

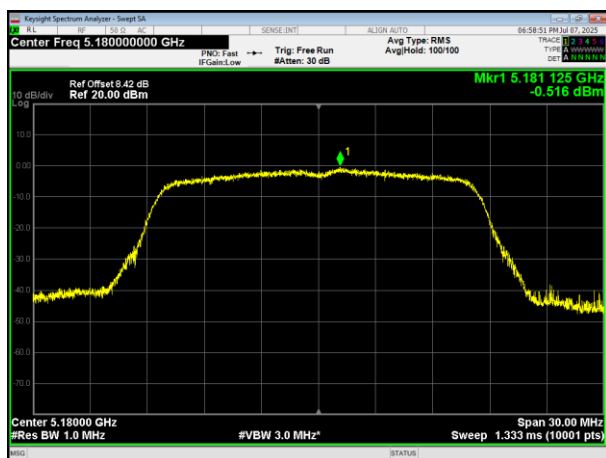
Note: RB factor=10log(510/500k)



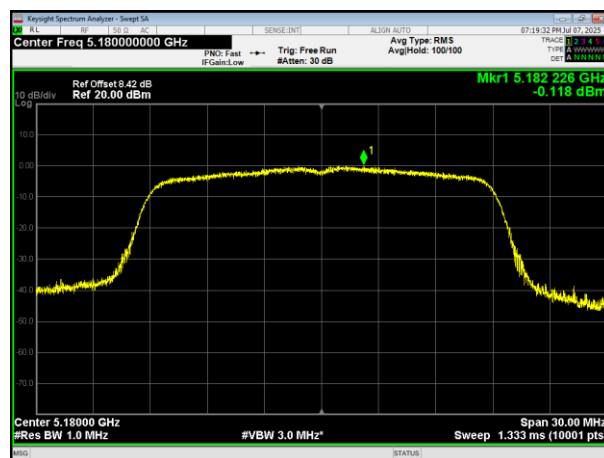
	Mode	Test Channel	PSD (dBm/MHz)	Antenna gain (dBi)	EIRP PSD (dBm/MHz)	Limit (dBm)	Result
Band1	802.11a	Low	0.604	2.02	2.624	10	PASS
		Moddle	-0.426	2.02	1.594	10	PASS
		High	1.657	2.02	3.677	10	PASS
	802.11ac HT20	Low	0.012	2.02	2.032	10	PASS
		Moddle	-0.701	2.02	1.319	10	PASS
		High	1.322	2.02	3.342	10	PASS
	802.11ac HT40	Low	-2.263	2.02	-0.243	10	PASS
		High	-2.606	2.02	-0.586	10	PASS
	802.11ac HT80	/	-5.903	2.02	-3.883	10	PASS
	802.11n HT20	Low	-0.151	2.02	1.869	10	PASS
		Moddle	-0.487	2.02	1.533	10	PASS
		High	1.378	2.02	3.398	10	PASS
	802.11n HT40	Low	-2.131	2.02	-0.111	10	PASS
		High	-2.33	2.02	-0.31	10	PASS



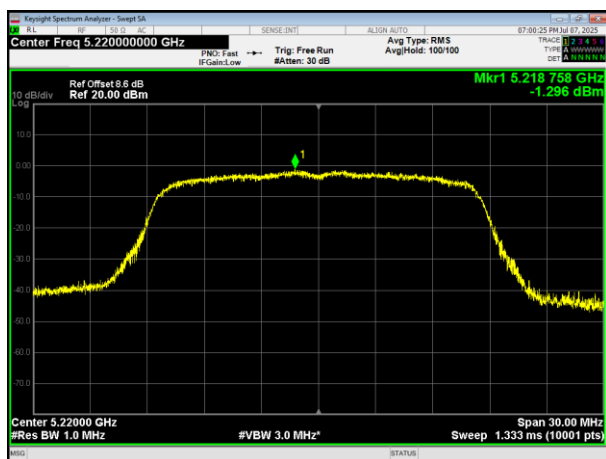
802.11a



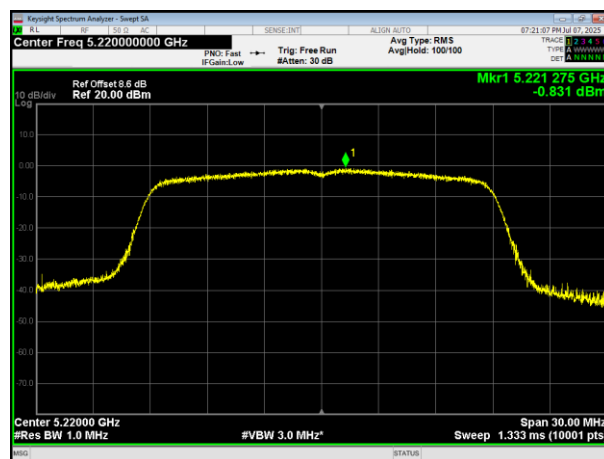
802.11ac HT20



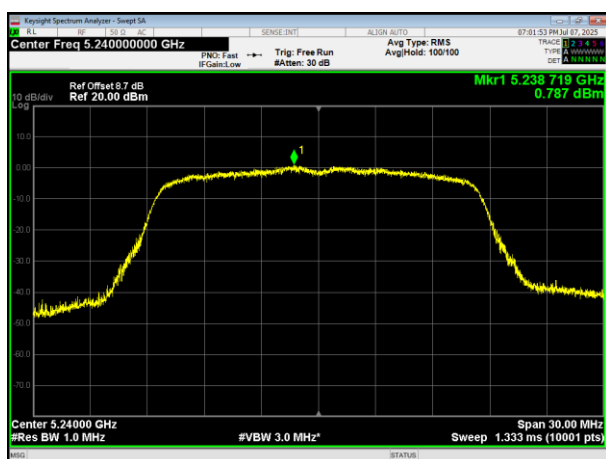
5180MHz



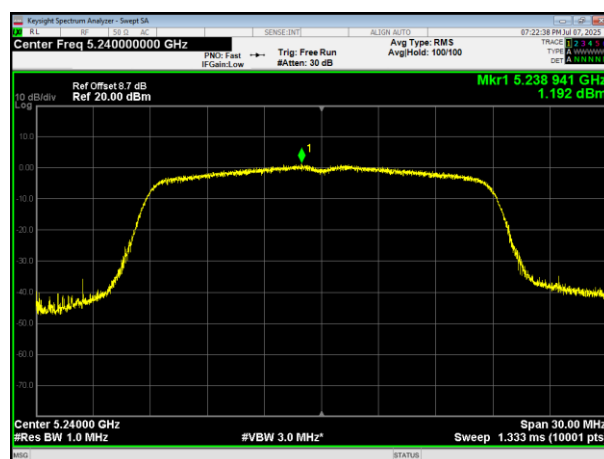
5180MHz



5200MHz

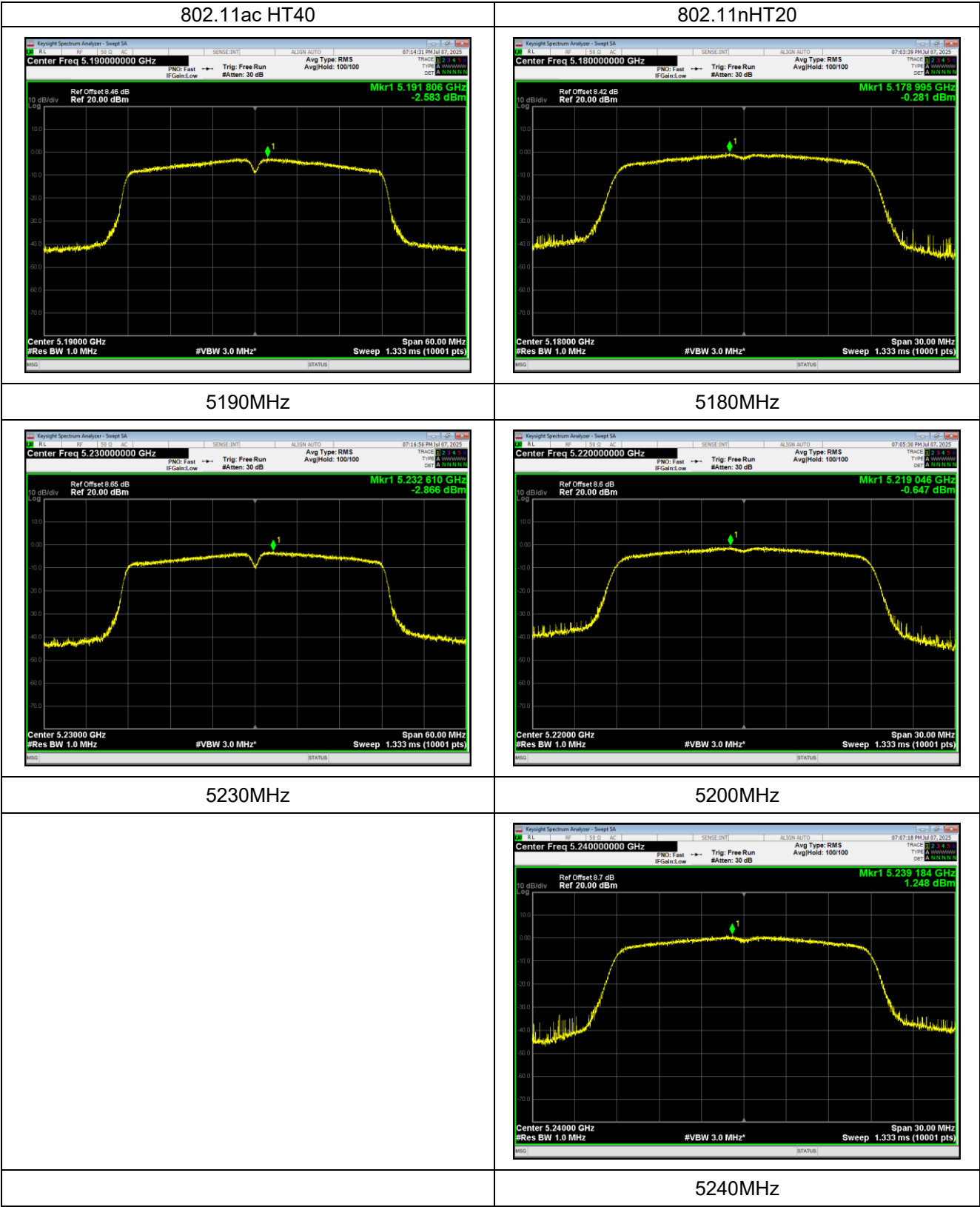


5200MHz



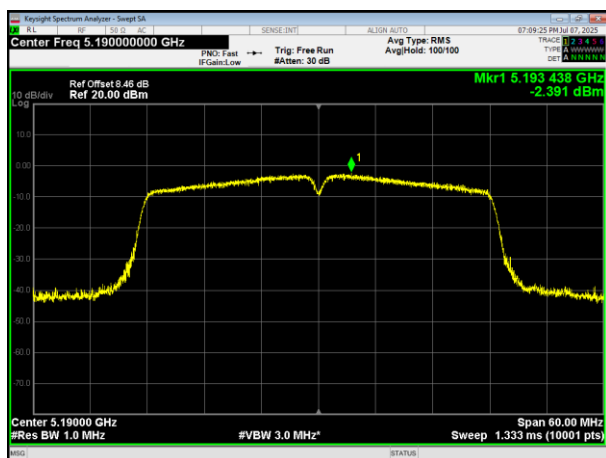
5240MHz

5240MHz

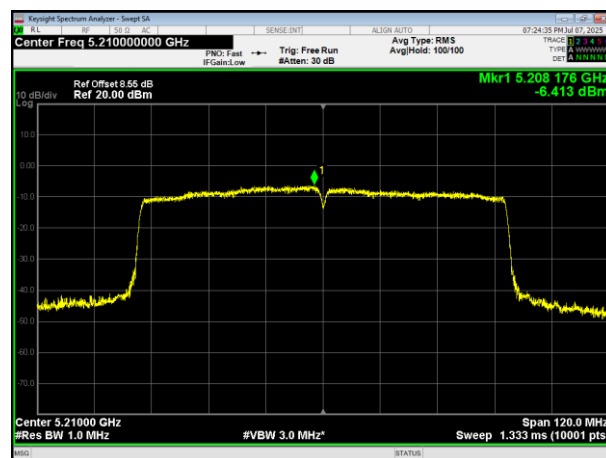




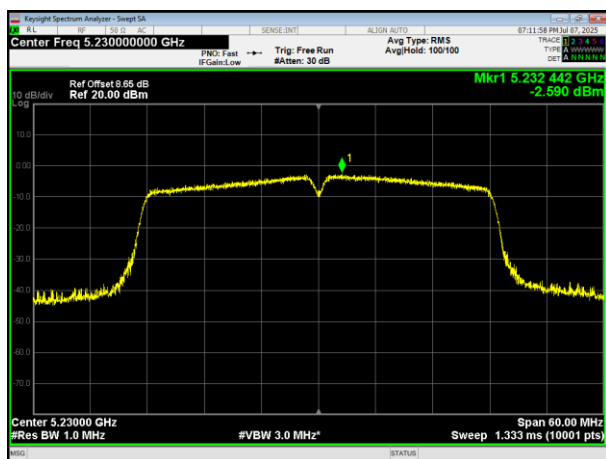
802.11n HT40



802.11ac HT80



5190MHz

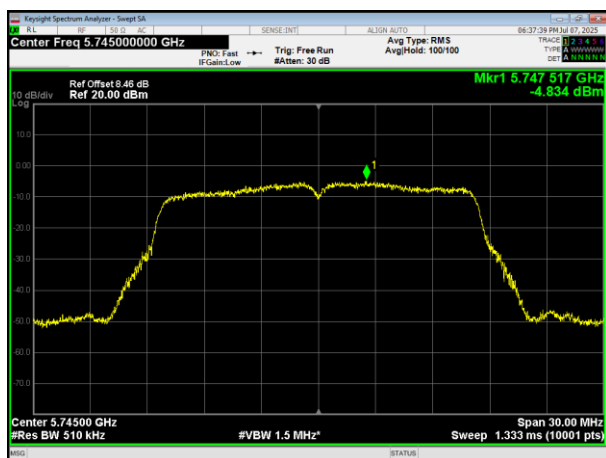


5210MHz

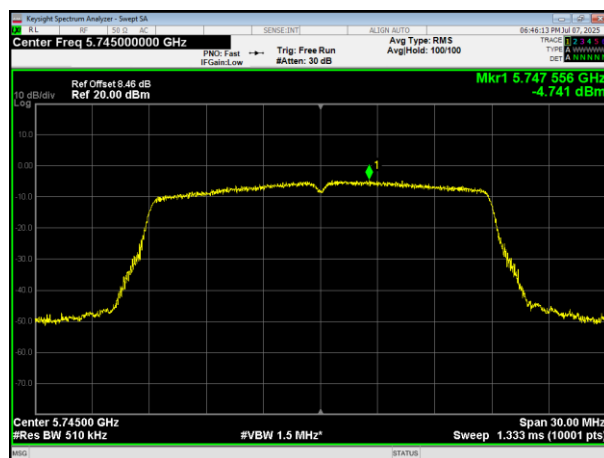
5230MHz



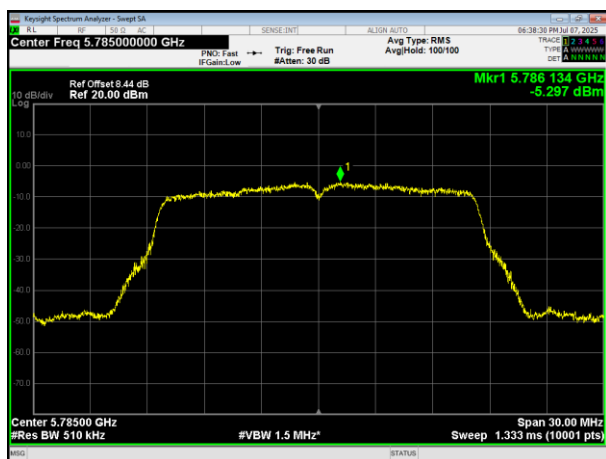
802.11a



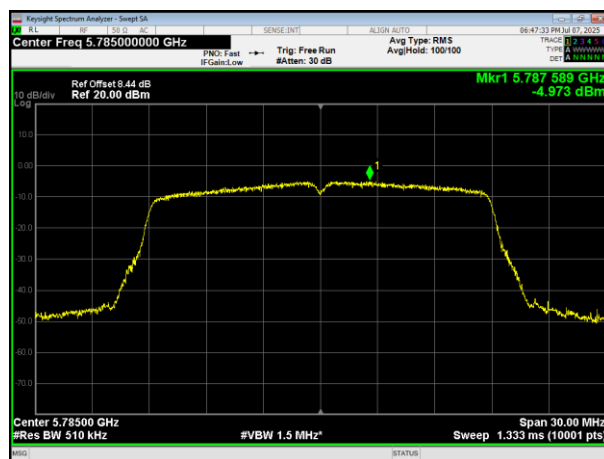
802.11ac HT20



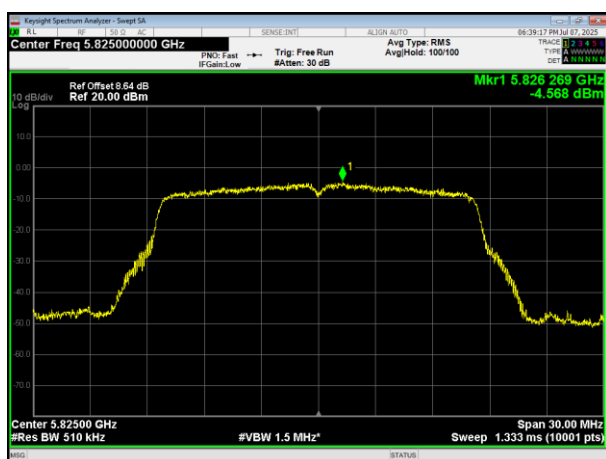
5745MHz



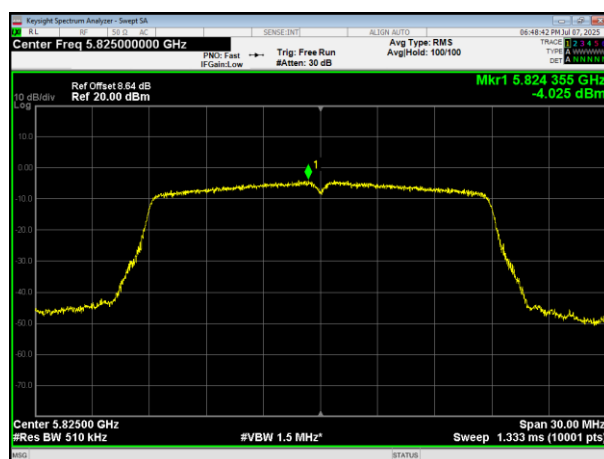
5745MHz



5785MHz



5785MHz

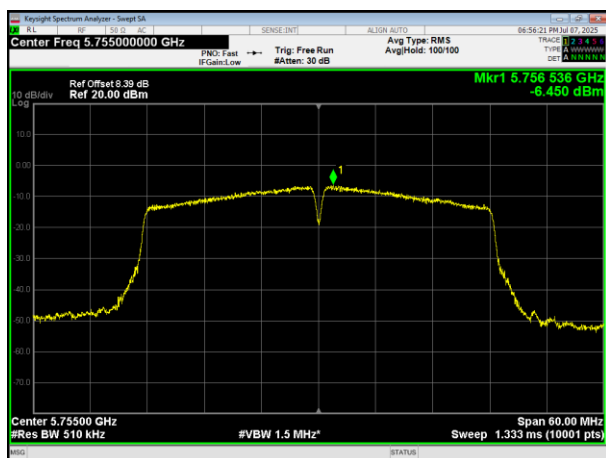


5825MHz

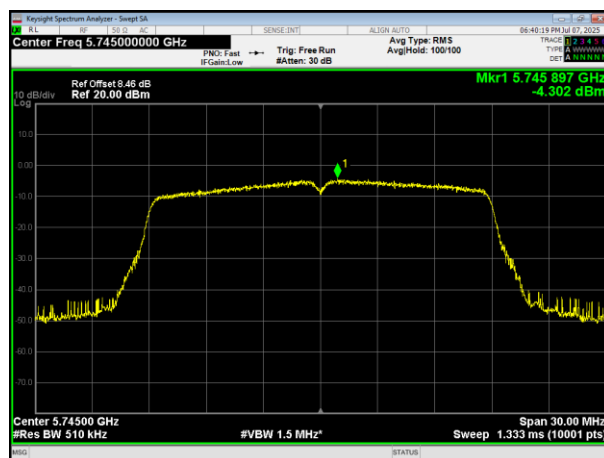
5825MHz



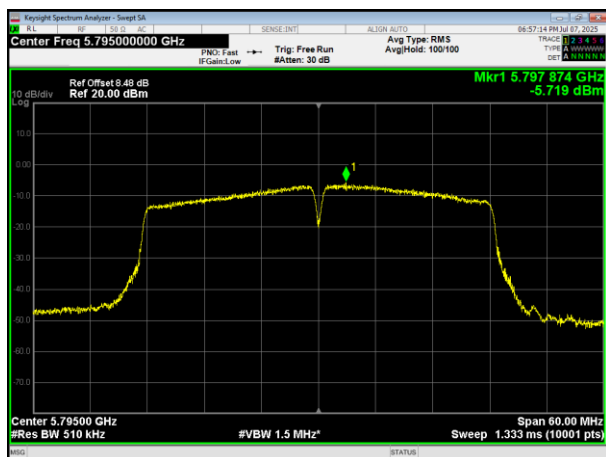
802.11ac HT40



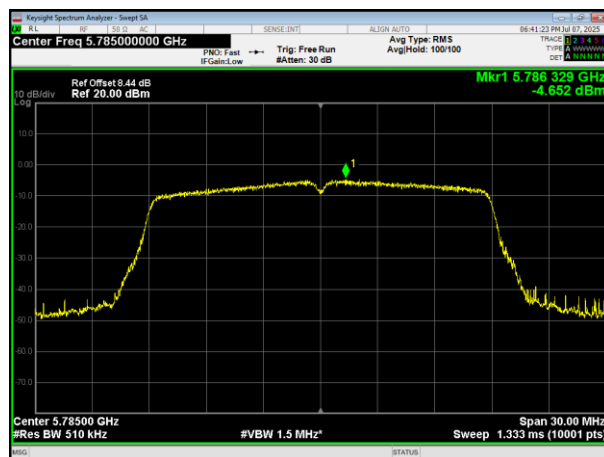
802.11n HT20



5755MHz

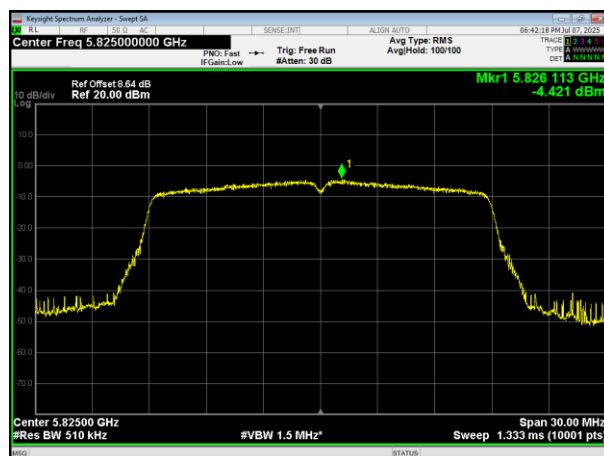


5745MHz



5795MHz

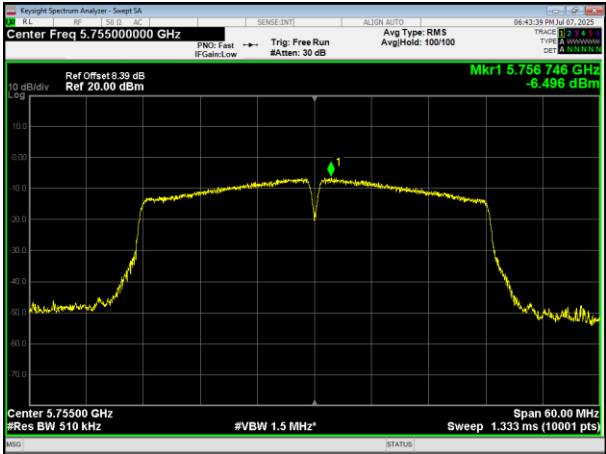
5785MHz



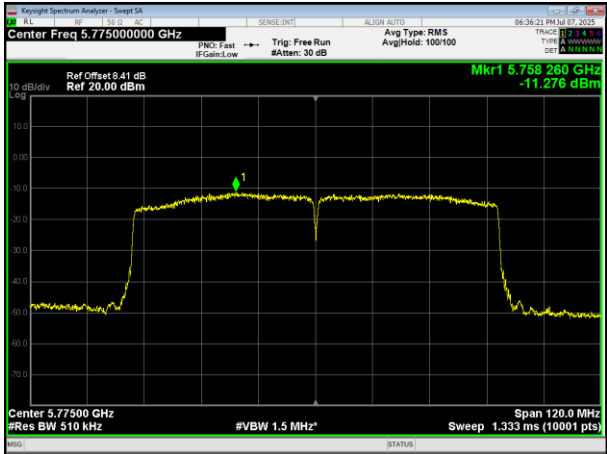
5825MHz



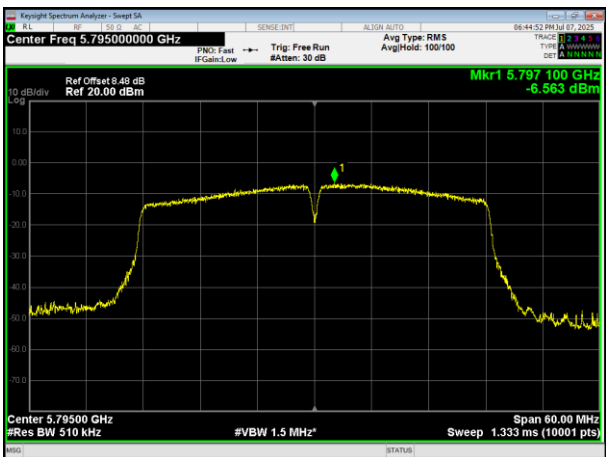
802.11n HT40



802.11ac HT80



5755MHz



5775MHz

5795MHz



6. 6DB&26DB&99% BANDWIDTH TEST

6.1 APPLIED PROCEDURES / LIMIT

The 26 dB bandwidth is used to determine the conducted power limits.

There is no limit bandwidth for U-NII-1, U-NII-2-A and U-NII-2-C.

The minimum of 6dB Bandwidth measurement is 0.5 MHz for U-NII-3

6.1.1 TEST PROCEDURE

6dB Bandwidth	
Spectrum Parameters	Setting
RBW	100KHz
VBW	300KHz
Span	30MHz(20MHz Bandwidth mode) 60MHz(40MHz Bandwidth mode) 120MHz(80MHz Bandwidth mode)
Sweep Time	Auto
Detector	Peak
Trace Mode	Max Hold

26dB Bandwidth	
Spectrum Parameters	Setting
RBW	shall be in the range of 1% to 5% of the emission bandwidth
VBW	>RBW
Span	30MHz(20MHz Bandwidth mode) 60MHz(40MHz Bandwidth mode) 120MHz(80MHz Bandwidth mode)
Sweep Time	Auto
Detector	Peak
Trace Mode	Max Hold

99% Occupied Bandwidth	
Spectrum Parameters	Setting
RBW	1% to 5% of the OBW
VBW	Approximately three times the RBW
Span	between 1.5 times and 5.0 times the OBW
Sweep Time	Auto
Detector	Peak
Trace Mode	Max Hold

6.1.2 DEVIATION FROM STANDARD

No deviation.

6.1.3 TEST SETUP





6.1.4 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.3 Unless otherwise a special operating condition is specified in the follows during the testing.

6.1.5 TEST RESULTS

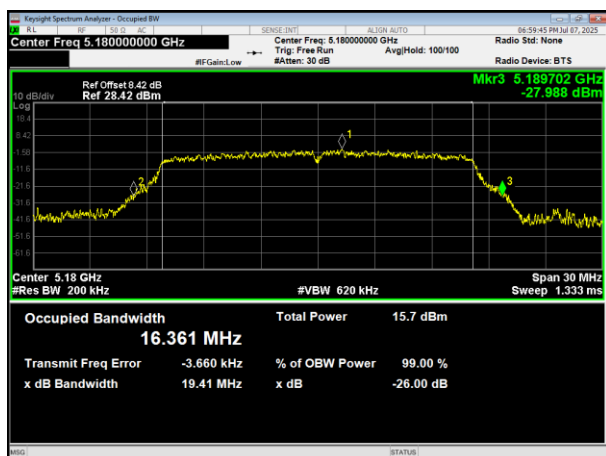
		Test Channel	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	Result
Band 1	802.11a	Low	19.411	16.365	Pass
		Middle	19.54	16.388	Pass
		High	19.035	16.350	Pass
	802.11ac HT20	Low	20.165	17.5451	Pass
		Middle	20.246	17.5779	Pass
		High	20.19	17.528	Pass
	802.11ac HT40	Low	40.428	35.841	Pass
		High	40.164	35.933	Pass
	802.11ac HT80	/	80.636	75.271	Pass
	802.11n HT20	Low	19.892	17.573	Pass
		Middle	20.217	17.570	Pass
		High	20.074	17.535	Pass
	802.11n HT40	Low	40.48	35.839	Pass
		High	39.789	35.993	Pass

		Test Channel	6dB Bandwidth (MHz)	99% Bandwidth (MHz)	6dB Bandwidth Limit (MHz)	Result
Band 4	802.11a	Low	15.725	16.343	>0.5	Pass
		Middle	16.306	16.380	>0.5	Pass
		High	15.731	16.390	>0.5	Pass
	802.11ac HT20	Low	15.042	17.541	>0.5	Pass
		Middle	16.311	17.565	>0.5	Pass
		High	15.026	17.603	>0.5	Pass
	802.11ac HT40	Low	33.776	35.685	>0.5	Pass
		High	32.504	35.756	>0.5	Pass
	802.11ac HT80	/	75.097	75.045	>0.5	Pass
	802.11n HT20	Low	12.515	17.519	>0.5	Pass
		Middle	16.252	17.590	>0.5	Pass
		High	15.388	17.583	>0.5	Pass
	802.11n HT40	Low	30.053	35.641	>0.5	Pass
		High	31.351	35.765	>0.5	Pass

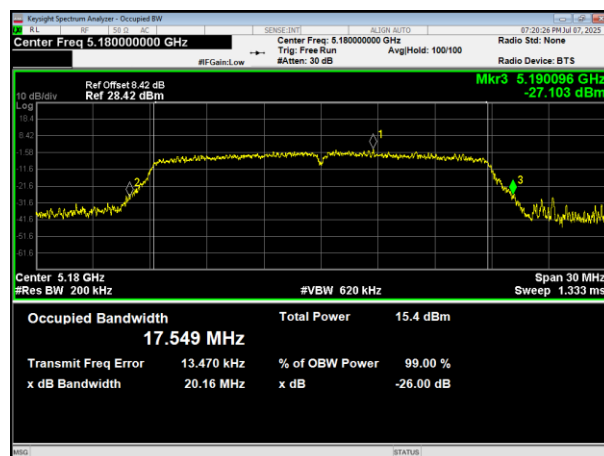


26dB Bandwidth

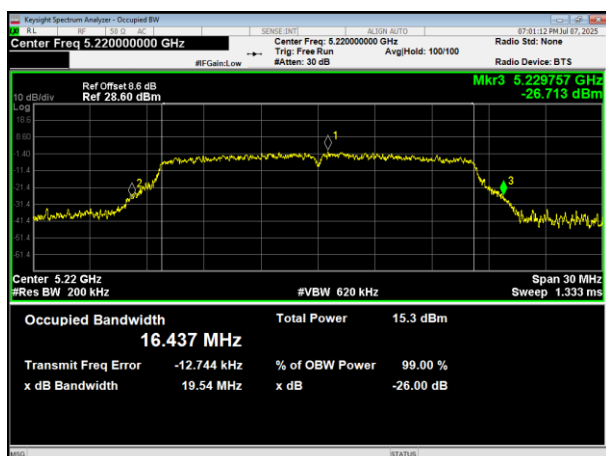
802.11a



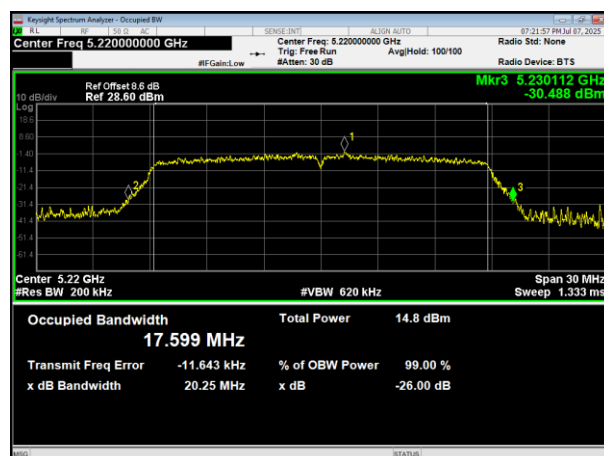
802.11ac HT20



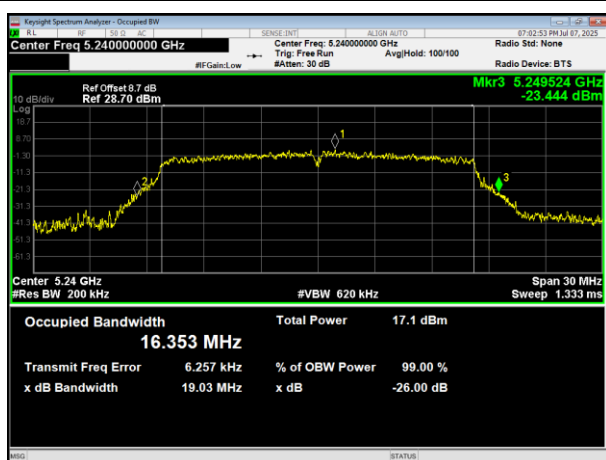
5180MHz



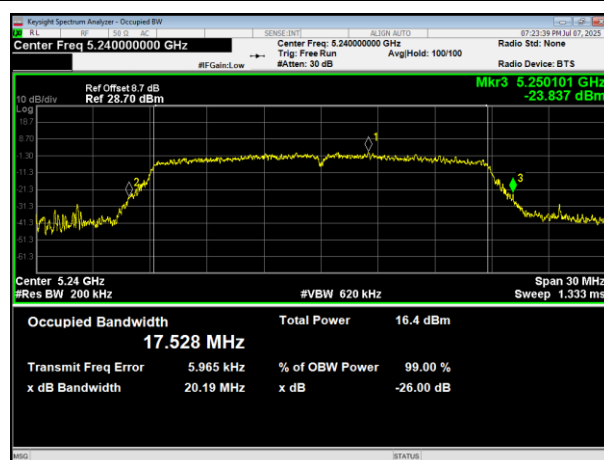
5180MHz



5200MHz



5200MHz

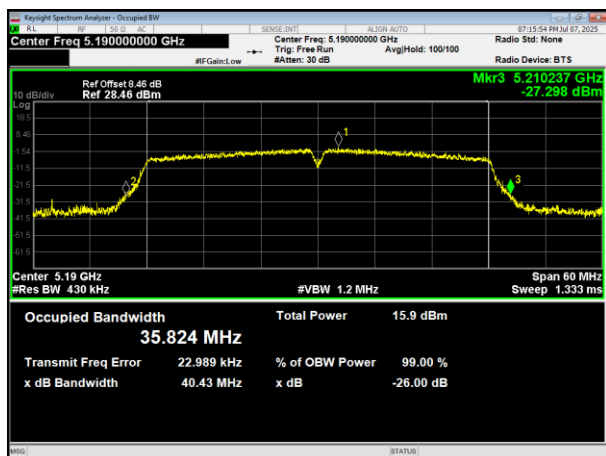


5240MHz

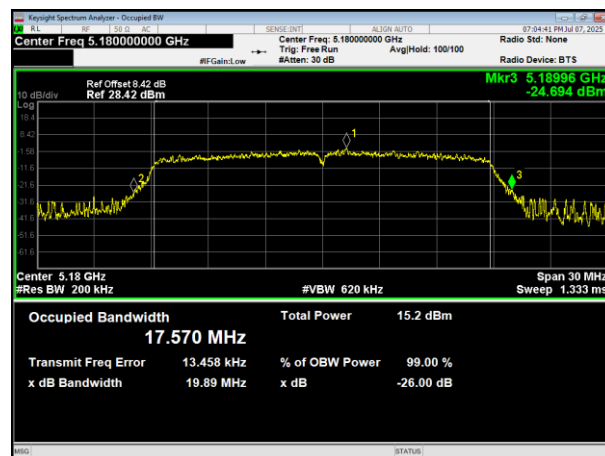
5240MHz



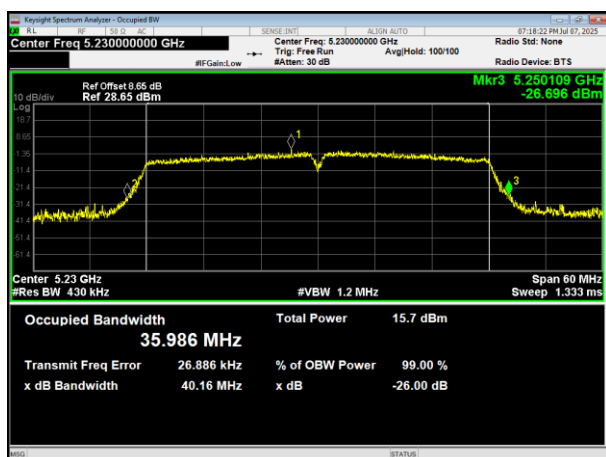
802.11ac HT40



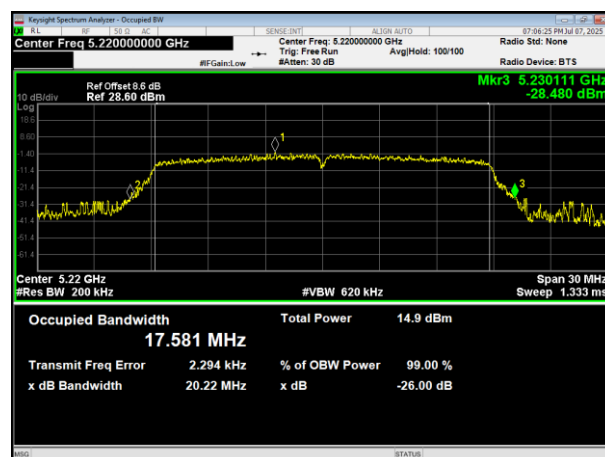
802.11n HT20



5190MHz



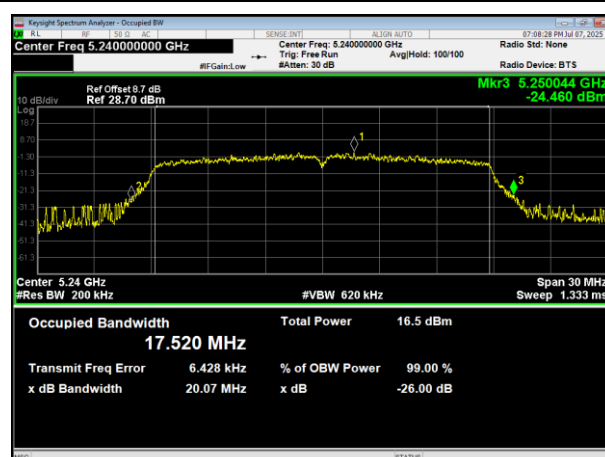
5180MHz



5230MHz



5200MHz



5240MHz