

TEST REPORT

FCC ID. :	2BBVL-AION7XX01
Test Report No..... :	TCT230626E055
Date of issue..... :	Jul. 28, 2023
Testing laboratory	SHENZHEN TONGCE TESTING LAB
Testing location/ address:	2101 & 2201, Zhenchang Factory, Renshan Industrial Zone, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, 518103, People's Republic of China
Applicant's name..... :	TES Touch Embedded Solutions Inc. Taiwan Branch
Address..... :	7F., No.141, Sec. 3, Ren ai Rd., Da an Dist., Taipei City 106, Taiwan, China
Manufacturer's name ... :	TES Touch Embedded Solutions Inc. Taiwan Branch
Address..... :	7F., No.141, Sec. 3, Ren ai Rd., Da an Dist., Taipei City 106, Taiwan, China
Standard(s)	FCC CFR Title 47 Part 15 Subpart E Section 15.407 KDB 662911 D01 Multiple Transmitter Output v02r01 KDB 789033 D02 General U-NII Test Procedures New Rules v02r01
Product Name..... :	AIO Core Board module
Trade Mark	TES/MicroTouch 
Model/Type reference..... :	AION7XX01
Rating(s)..... :	DC 4.2V
Date of receipt of test item	Jun. 26, 2023
Date (s) of performance of test..... :	Jun. 26, 2023 - Jul. 28, 2023
Tested by (+signature) ... :	Rleo LIU 
Check by (+signature).... :	Beryl ZHAO 
Approved by (+signature):	Tomsin 



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1. General Product Information

1.1. EUT description

Product Name.....:	AIO Core Board module
Model/Type reference.....:	AION7XX01
Sample Number.....:	TCT230626E036-0101
Operation Frequency	Band 1: 5180 MHz~5240 MHz Band 2A: 5260 MHz~5320 MHz Band 2C: 5500 MHz~5700 MHz Band 3: 5745 MHz~5825 MHz
Channel Bandwidth.....:	802.11a: 20MHz 802.11n: 20MHz, 40MHz 802.11ac: 20MHz, 40MHz, 80MHz 802.11ax: 20MHz, 40MHz, 80MHz
Modulation Technology	Orthogonal Frequency Division Multiplexing(OFDM)
Modulation Type	256QAM, 64QAM, 16QAM, BPSK, QPSK
Antenna Type.....:	PIFA Antenna
Antenna Gain.....:	Band 1: Antenna 0: 1.39dBi, Antenna 1: 1.15dBi Band 2A: Antenna 0: -0.02dBi, Antenna 1: 1.06dBi Band 2C: Antenna 0: 3.35dBi, Antenna 1: 0.29dBi Band 3: Antenna 0: 2.21dBi, Antenna 1: -0.32dBi
Rating(s).....:	DC 4.2V

Note: The antenna gain listed in this report is provided by applicant, and the test laboratory is not responsible for this parameter.

1.2. Model(s) list

None.

1.3. Test Frequency

Band 1

20MHz		40MHz		80MHz	
Channel	Frequency	Channel	Frequency	Channel	Frequency
36	5180	38	5190	42	5210
40	5200	46	5230		
48	5240				

Band 2A

20MHz		40MHz		80MHz	
Channel	Frequency	Channel	Frequency	Channel	Frequency
52	5260	54	5270	58	5290
60	5300	62	5310		
64	5320				

Band 2C

20MHz		40MHz		80MHz	
Channel	Frequency	Channel	Frequency	Channel	Frequency
100	5500	102	5510	106	5530
120	5600	118	5590	122	5610
140	5700	134	5670		

Band 3

20MHz		40MHz		80MHz	
Channel	Frequency	Channel	Frequency	Channel	Frequency
149	5745	151	5755	155	5775
157	5785	159	5795		
165	5825				

Note:

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

2. Test Result Summary

Requirement	CFR 47 Section	Result
Antenna requirement	§15.203	PASS
AC Power Line Conducted Emission	§15.207	PASS
Maximum Conducted Output Power	§15.407(a)	PASS
6dB Emission Bandwidth	§15.407(a)	PASS
26dB Emission Bandwidth& 99% Occupied Bandwidth	§15.407(a)	PASS
Power Spectral Density	§15.407(a)	PASS
Restricted Bands around fundamental frequency	§15.407(b)	PASS
Radiated Emission	§15.407(b)	PASS
Frequency Stability	§15.407(g)	PASS

Note:

1. PASS: Test item meets the requirement.
2. Fail: Test item does not meet the requirement.
3. N/A: Test case does not apply to the test object.
4. The test result judgment is decided by the limit of test standard.
5. For the band 5.15-5.25GHz, EUT meet the requirements of 15.407(a)(ii).

3. General Information

3.1. Test environment and mode

Operating Environment:	
Temperature:	25.0 °C
Humidity:	56 % RH
Atmospheric Pressure:	1010 mbar
Voltage:	DC 4.2V by Mainboard (Mainboard power by adapter)
Test Software:	
Software Information:	ADB Tool
Power Level:	20M P=7/10 40M P=8/12 80M P=10/14
Test Mode:	
Engineering mode:	Keep the EUT in continuous transmitting by select channel and modulations with max. duty cycle.
The sample was placed 0.8m/1.5m for blow/above 1GHz above the ground plane of 3m chamber. Measurements in both horizontal and vertical polarities were performed. During the test, each emission was maximized by: having the EUT continuously working, investigated all operating modes, rotated about all 3 axis (X, Y & Z) and considered typical configuration to obtain worst position, manipulating interconnecting cables, rotating the turntable, varying antenna height from 1m to 4m in both horizontal and vertical polarizations. The emissions worst-case are shown in Test Results of the following pages.	

We have verified the construction and function in typical operation. All the test modes were carried out with the EUT in transmitting operation, which was shown in this test report and defined as follows:

Per-scan all kind of data rate in lowest channel, and found the follow list which it was worst case.

Mode	Data rate
802.11a(SISO)	6 Mbps
802.11n(HT20) (MIMO)	6.5 Mbps
802.11n(HT40) (MIMO)	13.5 Mbps
802.11ac(VHT20) (MIMO)	6.5 Mbps
802.11ac(VHT40) (MIMO)	13.5 Mbps

802.11ac(VHT80) (MIMO)	29.3 Mbps
802.11ax(VHT20) (MIMO)	6.5 Mbps
802.11ax(VHT40) (MIMO)	13.5 Mbps
802.11ax(VHT80) (MIMO)	29.3 Mbps
Final Test Mode:	
Operation mode:	Keep the EUT in continuous transmitting with modulation

3.2. Description of Support Units

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

Equipment	Model No.	Serial No.	FCC ID	Trade Name
Adapter	DPS-90AB-3	/	/	DELTA
Touch computer	M1-215P-A-A1	/	/	MicroTouch

Note:

1. All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.
2. Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.
3. For conducted measurements (Output Power, Emission Bandwidth, Power Spectral Density, Spurious Emissions), the antenna of EUT is connected to the test equipment via temporary antenna connector, the antenna connector is soldered on the antenna port of EUT, and the temporary antenna connector is listed in the Test Instruments.

4. Facilities and Accreditations

4.1. Facilities

The test facility is recognized, certified, or accredited by the following organizations:

- FCC - Registration No.: 645098

SHENZHEN TONGCE TESTING LAB

Designation Number: CN1205

The testing lab has been registered and fully described in a report with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files.

- IC - Registration No.: 10668A-1

SHENZHEN TONGCE TESTING LAB

CAB identifier: CN0031

The testing lab has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing.

4.2. Location

SHENZHEN TONGCE TESTING LAB

Address: 2101 & 2201, Zhenchang Factory, Renshan Industrial Zone, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, 518103, People's Republic of China

TEL: +86-755-27673339

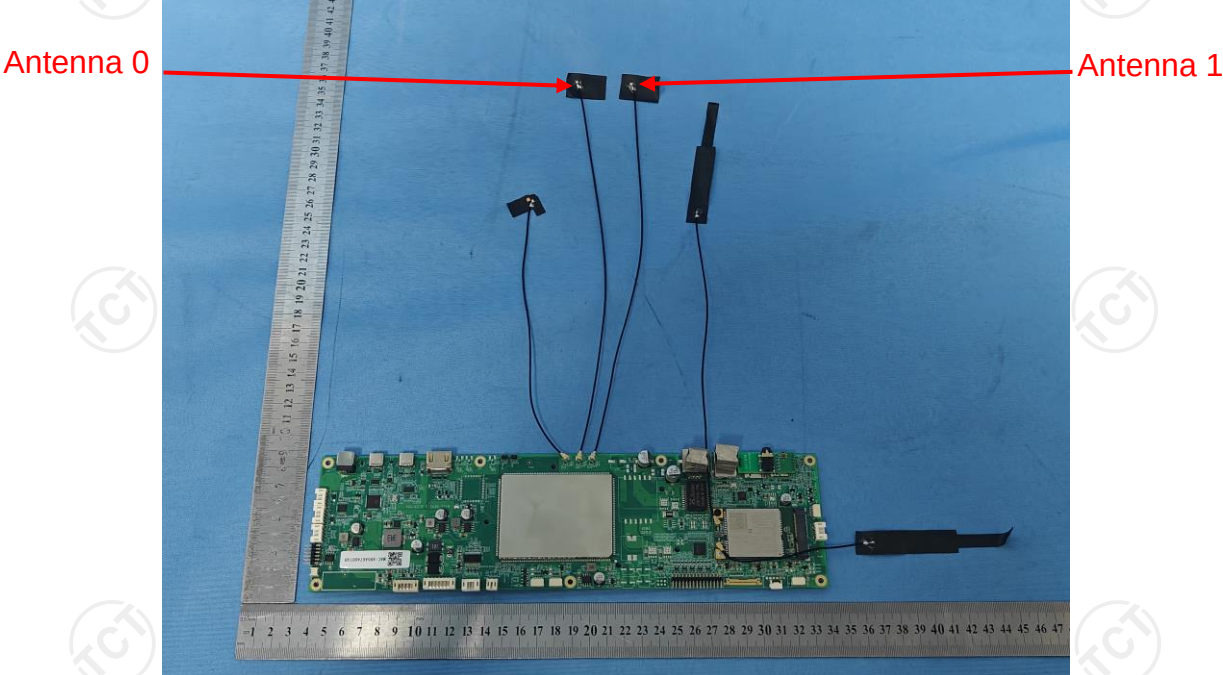
4.3. Measurement Uncertainty

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

No.	Item	MU
1	Conducted Emission	± 3.10 dB
2	RF power, conducted	± 0.12 dB
3	Spurious emissions, conducted	± 0.11 dB
4	All emissions, radiated(<1 GHz)	± 4.56 dB
5	All emissions, radiated(1 GHz - 18 GHz)	± 4.22 dB
6	All emissions, radiated(18 GHz- 40 GHz)	± 4.36 dB

5. Test Results and Measurement Data

5.1. Antenna requirement

Standard requirement:	FCC Part15 C Section 15.203 /247(c)
15.203 requirement: An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.	
E.U.T Antenna:	
The EUT test with two PIFA antennas for maximum gain which are detachable, and the gain is shown below.	
	
Refer to KDB 662911 D01 Multiple Transmitter Output v02r01: Unequal antenna gains, with equal transmit powers, if transmit signals are correlated, then Directional gain of B1= $10\log[(10^{1.39/20}+10^{1.15/20})^2/2] = 4.28\text{dBi}$; Directional gain of B2A = $10\log[(10^{-0.02/20}+10^{1.06/20})^2/2] = 3.55\text{dBi}$; Directional gain of B2C = $10\log[(10^{3.35/20}+10^{0.29/20})^2/2] = 4.96\text{dBi}$; Directional gain of B3 = $10\log[(10^{2.21/20}+10^{-0.32/20})^2/2] = 4.05\text{dBi}$.	
Note: Above directional gain not applicable to power measurements.	

5.2. Conducted Emission

5.2.1. Test Specification

Test Requirement:	FCC Part15 C Section 15.207														
Test Method:	ANSI C63.10:2013														
Frequency Range:	150 kHz to 30 MHz														
Receiver setup:	RBW=9 kHz, VBW=30 kHz, Sweep time=auto														
Limits:	<table><tr><th rowspan="2">Frequency range (MHz)</th><th colspan="2">Limit (dBuV)</th></tr><tr><th>Quasi-peak</th><th>Average</th></tr><tr><td>0.15-0.5</td><td>66 to 56*</td><td>56 to 46*</td></tr><tr><td>0.5-5</td><td>56</td><td>46</td></tr><tr><td>5-30</td><td>60</td><td>50</td></tr></table>	Frequency range (MHz)	Limit (dBuV)		Quasi-peak	Average	0.15-0.5	66 to 56*	56 to 46*	0.5-5	56	46	5-30	60	50
Frequency range (MHz)	Limit (dBuV)														
	Quasi-peak	Average													
0.15-0.5	66 to 56*	56 to 46*													
0.5-5	56	46													
5-30	60	50													
Test Setup:	Reference Plane 40cm Test table/Insulation plane Remark: E.U.T: Equipment Under Test LISN: Line Impedance Stabilization Network Test table height=0.8m														
Test Mode:	Transmitting Mode														
Test Procedure:	1. The E.U.T and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm/50uH coupling impedance for the measuring equipment. 2. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refer to the block diagram of the test setup and photographs). 3. Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10: 2013 on conducted measurement.														
Test Result:	PASS														

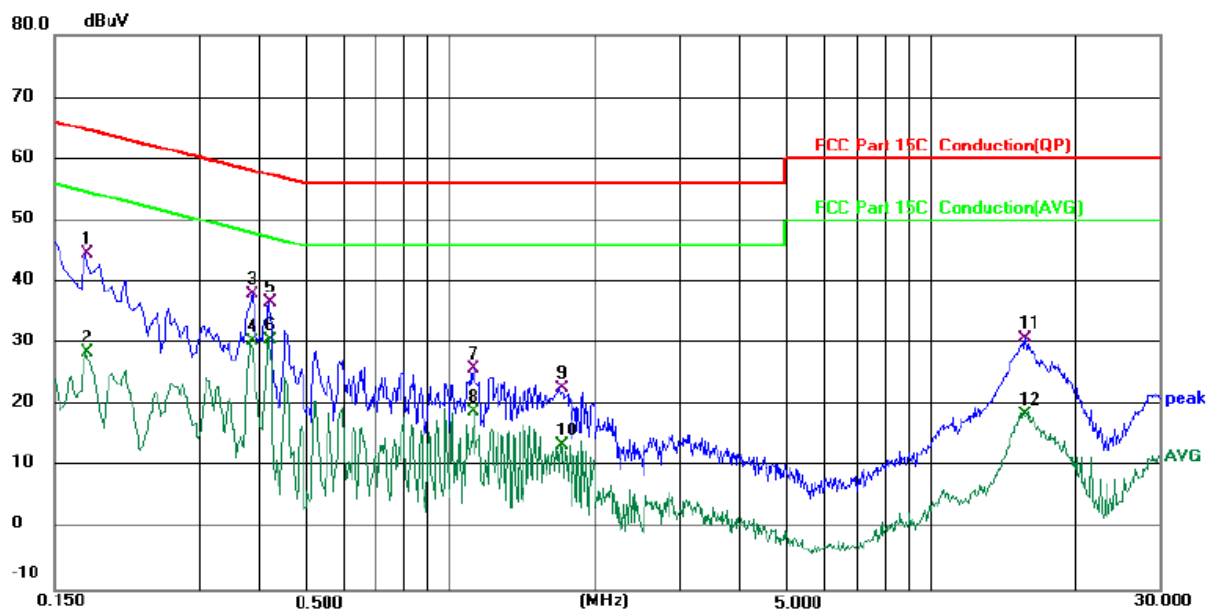
5.2.2. Test Instruments

Conducted Emission Shielding Room Test Site (843)				
Equipment	Manufacturer	Model	Serial Number	Calibration Due
EMI Test Receiver	R&S	ESCI3	100898	Jun. 29, 2024
Line Impedance Stabilisation Newtork(LISN)	Schwarzbeck	NSLK 8126	8126453	Feb. 20, 2024
Line-5	TCT	CE-05	/	Jul. 03, 2024
EMI Test Software	Shurple Technology	EZ-EMC	/	/

5.2.3. Test data

Please refer to following diagram for individual

Conducted Emission on Line Terminal of the power line (150 kHz to 30MHz)



Site 844 Shielding Room

Phase: L1

Temperature: 23.5 (°C)

Humidity: 52 %

Limit: FCC Part 15C Conduction(QP)

Power: DC 4.2V

No.	Mk.	Freq. MHz	Reading Level dBμV	Correct Factor dB	Measure- ment dBμV	Limit dBμV	Over dB	Detector	Comment
1		0.1740	34.34	10.13	44.47	64.77	-20.30	QP	
2		0.1740	18.40	10.13	28.53	54.77	-26.24	AVG	
3		0.3860	28.47	9.56	38.03	58.15	-20.12	QP	
4		0.3860	20.75	9.56	30.31	48.15	-17.84	AVG	
5		0.4180	27.07	9.53	36.60	57.49	-20.89	QP	
6	*	0.4180	21.15	9.53	30.68	47.49	-16.81	AVG	
7		1.1180	17.14	8.86	26.00	56.00	-30.00	QP	
8		1.1180	10.02	8.86	18.88	46.00	-27.12	AVG	
9		1.7020	12.73	9.99	22.72	56.00	-33.28	QP	
10		1.7020	3.59	9.99	13.58	46.00	-32.42	AVG	
11		15.7780	20.60	10.18	30.78	60.00	-29.22	QP	
12		15.7780	8.26	10.18	18.44	50.00	-31.56	AVG	

Note:

Freq. = Emission frequency in MHz

Reading level (dBμV) = Receiver reading

Corr. Factor (dB) = LISN factor + Cable loss

Measurement (dBμV) = Reading level (dBμV) + Corr. Factor (dB)

Limit (dBμV) = Limit stated in standard

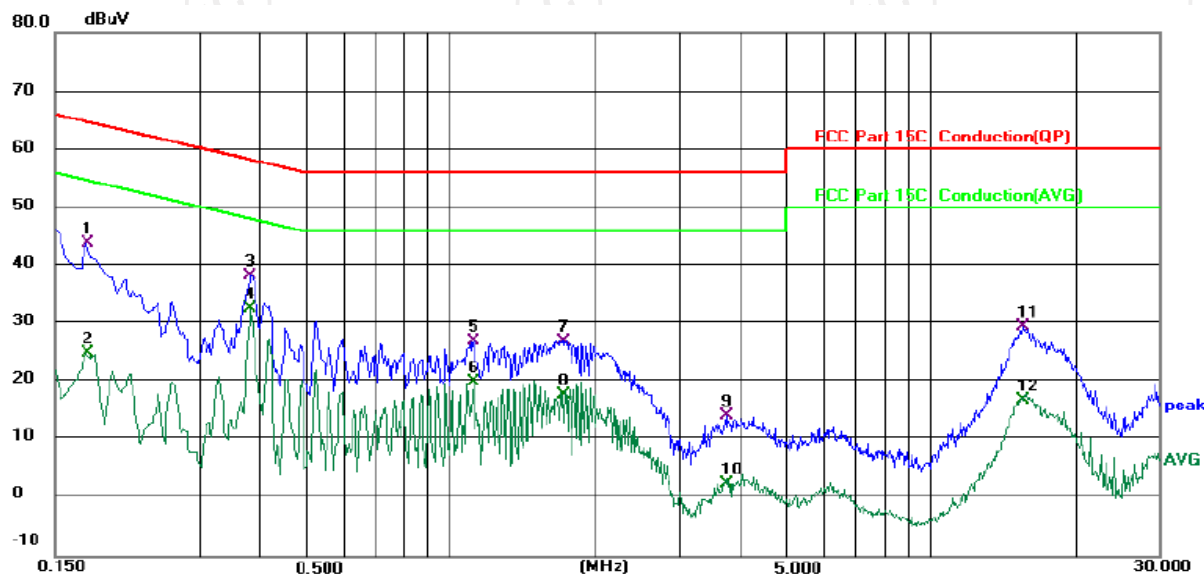
Margin (dB) = Measurement (dBμV) – Limits (dBμV)

Q.P. =Quasi-Peak

AVG =average

* is meaning the worst frequency has been tested in the frequency range 150 kHz to 30MHz.

Conducted Emission on Neutral Terminal of the power line (150 kHz to 30MHz)



Site 844 Shielding Room

Phase: N

Temperature: 23.5 (°C)

Humidity: 52 %

Limit: FCC Part 15C Conduction(QP)

Power: DC 4.2V

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBμV	dB	dBμV	dBμV	dB	Detector	Comment
1		0.1739	33.79	10.11	43.90	64.77	-20.87	QP	
2		0.1739	14.89	10.11	25.00	54.77	-29.77	AVG	
3		0.3820	28.79	9.57	38.36	58.24	-19.88	QP	
4	*	0.3820	22.97	9.57	32.54	48.24	-15.70	AVG	
5		1.1220	18.09	8.87	26.96	56.00	-29.04	QP	
6		1.1220	11.06	8.87	19.93	46.00	-26.07	AVG	
7		1.7139	17.10	10.00	27.10	56.00	-28.90	QP	
8		1.7139	7.72	10.00	17.72	46.00	-28.28	AVG	
9		3.7740	4.11	10.08	14.19	56.00	-41.81	QP	
10		3.7740	-7.58	10.08	2.50	46.00	-43.50	AVG	
11		15.7019	19.30	10.26	29.56	60.00	-30.44	QP	
12		15.7019	6.56	10.26	16.82	50.00	-33.18	AVG	

Note:

Freq. = Emission frequency in MHz

Reading level (dBμV) = Receiver reading

Corr. Factor (dB) = LISN factor + Cable loss

Measurement (dBμV) = Reading level (dBμV) + Corr. Factor (dB)

Limit (dBμV) = Limit stated in standard

Margin (dB) = Measurement (dBμV) – Limits (dBμV)

Q.P. =Quasi-Peak

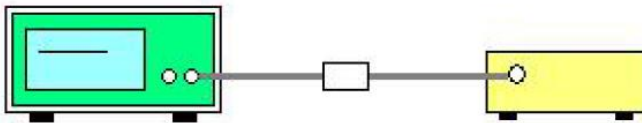
AVG =average

* is meaning the worst frequency has been tested in the frequency range 150 kHz to 30MHz.

Measurements were conducted in all three channels (high, middle, low) and all modulation (802.11a, 802.11n(HT20), 802.11n(HT40), 802.11ac(VHT20), 802.11ac(VHT40), 802.11ac(VHT80), 802.11ax(VHT20), 802.11ax(VHT40), 802.11ax(VHT80)) and the worst case Mode (Highest channel and 802.11ax(VHT20) transmit with antenna 1) was submitted only.

5.3. Maximum Conducted Output Power

5.3.1. Test Specification

Test Requirement:	FCC Part15 E Section 15.407(a)& Part 2 J Section 2.1046										
Test Method:	KDB662911 D01 Multiple Transmitter Output v02r01 KDB789033 D02 General UNII Test Procedures New Rules v02r01 Section E										
Limit:	<table border="1"> <thead> <tr> <th>Frequency Band (MHz)</th><th>Limit</th></tr> </thead> <tbody> <tr> <td>5180 - 5240</td><td>24dBm(250mW) for client device</td></tr> <tr> <td>5260 - 5320</td><td>24dBm(250mW) or 11 dBm + 10 log B, B is the 26 dB emission bandwidth in megahertz</td></tr> <tr> <td>5470 - 5725</td><td>24dBm(250mW) or 11 dBm + 10 log B, B is the 26 dB emission bandwidth in megahertz</td></tr> <tr> <td>5745 - 5825</td><td>30dBm(1W)</td></tr> </tbody> </table>	Frequency Band (MHz)	Limit	5180 - 5240	24dBm(250mW) for client device	5260 - 5320	24dBm(250mW) or 11 dBm + 10 log B, B is the 26 dB emission bandwidth in megahertz	5470 - 5725	24dBm(250mW) or 11 dBm + 10 log B, B is the 26 dB emission bandwidth in megahertz	5745 - 5825	30dBm(1W)
Frequency Band (MHz)	Limit										
5180 - 5240	24dBm(250mW) for client device										
5260 - 5320	24dBm(250mW) or 11 dBm + 10 log B, B is the 26 dB emission bandwidth in megahertz										
5470 - 5725	24dBm(250mW) or 11 dBm + 10 log B, B is the 26 dB emission bandwidth in megahertz										
5745 - 5825	30dBm(1W)										
Test Setup:	 Power meter EUT										
Test Mode:	Transmitting mode with modulation										
Test Procedure:	1. The testing follows the Measurement Procedure of KDB789033 D02 General UNII Test Procedures New Rules v02r01 Section E, 3, a 2. The RF output of EUT was connected to the power meter by RF cable and attenuator. The path loss was compensated to the results for each measurement. 3. Set to the maximum power setting and enable the EUT transmit continuously. 5. Measure the conducted output power and record the results in the test report.										
Test Result:	PASS										
Remark:	Conducted output power= measurement power +10log(1/x), X is duty cycle=1, so 10log(1/1)=0 Conducted output power= measurement power										

5.3.2. Test Instruments

Equipment	Manufacturer	Model	Serial Number	Calibration Due
Spectrum Analyzer	Agilent	N9020A	MY49100619	Jun. 28, 2024
Power Meter	Agilent	E4418B	MY45100357	Jun. 27, 2024
Power Sensor	Agilent	8481A	MY41091497	Jun. 27, 2024
Combiner Box	Ascentest	AT890-RFB	/	/

5.3.3. Test Data

Configuration Band 1 (5180 - 5240 MHz) / Antenna 0+Antenna 1						
Mode	Test channel	Maximum Conducted (Average) Output Power (dBm)			Limit (dBm)	Result
		Ant0	Ant1	Total		
11a	CH36	16.41	15.08	/	24	PASS
11a	CH40	16.08	16.86	/	24	PASS
11a	CH48	15.89	16.74	/	24	PASS
11n(HT20)	CH36	16.45	16.87	19.68	24	PASS
11n(HT20)	CH40	16.09	16.93	19.54	24	PASS
11n(HT20)	CH48	15.90	16.84	19.41	24	PASS
11n(HT40)	CH38	16.06	15.94	19.01	24	PASS
11n(HT40)	CH46	15.48	17.64	19.70	24	PASS
11ac(VHT20)	CH36	16.39	16.84	19.63	24	PASS
11ac(VHT20)	CH40	16.01	16.90	19.49	24	PASS
11ac(VHT20)	CH48	15.76	16.72	19.28	24	PASS
11ac(VHT40)	CH38	15.98	15.94	18.97	24	PASS
11ac(VHT40)	CH46	15.50	17.66	19.72	24	PASS
11ac(VHT80)	CH42	14.92	16.36	18.71	24	PASS
11ax(VHT20)	CH36	16.71	17.12	19.93	24	PASS
11ax(VHT20)	CH40	16.39	17.04	19.74	24	PASS
11ax(VHT20)	CH48	16.21	17.69	20.02	24	PASS
11ax(VHT40)	CH38	16.14	16.21	19.19	24	PASS
11ax(VHT40)	CH46	15.61	16.80	19.26	24	PASS
11ax(VHT80)	CH42	14.69	14.43	17.57	24	PASS

Refer to KDB 662911 D01 Multiple Transmitter Output v02r01:

For power measurements on IEEE 802.11 devices,

Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20})^2 / N_{ANT}]$ dBi = 4.28 < 6, so power limit = 24dBm.

Configuration Band 2A (5260 - 5320 MHz) / Antenna 0+Antenna 1

Mode	Test channel	Maximum Conducted (Average) Output Power (dBm)			26 dB Bandwidth (MHz)	11dBm+10logB (dBm)	Output Power Limit (dBm)	Result
		Ant0	Ant1	Total				
11a	CH52	15.57	16.83	/	28.577	25.56	24	PASS
11a	CH60	15.86	16.21	/	29.273	25.66	24	PASS
11a	CH64	15.78	15.21	/	29.269	25.66	24	PASS
11n(HT20)	CH52	15.54	16.85	19.25	28.839	25.60	24	PASS
11n(HT20)	CH60	15.86	16.27	19.08	29.270	25.66	24	PASS
11n(HT20)	CH64	15.78	15.22	18.52	28.971	25.62	24	PASS
11n(HT40)	CH54	12.91	17.11	18.51	51.483	28.12	24	PASS
11n(HT40)	CH62	15.14	14.81	17.99	41.199	27.15	24	PASS
11ac(VHT20)	CH52	13.90	16.47	18.38	29.641	25.72	24	PASS
11ac(VHT20)	CH60	14.25	16.52	18.54	29.736	25.73	24	PASS
11ac(VHT20)	CH64	14.15	15.87	18.10	29.723	25.73	24	PASS
11ac(VHT40)	CH54	14.94	15.03	18.00	40.574	27.08	24	PASS
11ac(VHT40)	CH62	15.15	14.82	18.00	40.572	27.08	24	PASS
11ac(VHT80)	CH58	13.81	13.26	16.55	80.320	30.05	24	PASS
11ax(VHT20)	CH52	15.60	15.52	18.57	23.550	24.72	24	PASS
11ax(VHT20)	CH60	16.66	15.56	19.16	21.908	24.41	24	PASS
11ax(VHT20)	CH64	16.53	16.25	19.40	27.358	25.37	24	PASS
11ax(VHT40)	CH54	15.04	15.14	18.10	39.230	26.94	24	PASS
11ax(VHT40)	CH62	15.31	15.02	18.18	39.035	26.91	24	PASS
11ax(VHT80)	CH58	13.77	13.51	16.65	79.175	29.99	24	PASS

Refer to KDB 662911 D01 Multiple Transmitter Output v02r01:

For power measurements on IEEE 802.11 devices,

Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20})^2 / N_{ANT}]$ dBi = 3.55 < 6, power limit = 24dBm.

Note: The maximum conducted output power shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz

Configuration Band 2C (5500 - 5700 MHz) / Antenna 0+Antenna 1

Mode	Test channel	Maximum Conducted (Average) Output Power (dBm)			26 dB Bandwidth (MHz)	11dBm+10logB (dBm)	Output Power Limit (dBm)	Result
		Ant0	Ant1	Total				
11a	CH100	9.90	9.59	/	28.598	25.56	24	PASS
11a	CH120	9.27	10.91	/	28.135	25.49	24	PASS
11a	CH140	9.06	11.23	/	28.084	25.48	24	PASS
11n(HT20)	CH100	9.93	9.49	12.73	28.551	25.56	24	PASS
11n(HT20)	CH120	9.35	10.85	13.17	29.284	25.67	24	PASS
11n(HT20)	CH140	9.09	9.13	12.12	27.755	25.43	24	PASS
11n(HT40)	CH102	13.84	13.28	16.58	40.461	27.07	24	PASS
11n(HT40)	CH118	13.16	14.81	17.07	40.815	27.11	24	PASS
11n(HT40)	CH134	14.31	14.52	17.43	40.898	27.12	24	PASS
11ac(VHT20)	CH100	9.86	8.61	12.29	29.292	25.67	24	PASS
11ac(VHT20)	CH120	9.29	10.03	12.69	29.515	25.70	24	PASS
11ac(VHT20)	CH140	9.05	10.54	12.87	29.270	25.66	24	PASS
11ac(VHT40)	CH102	13.91	13.29	16.62	40.417	27.07	24	PASS
11ac(VHT40)	CH118	13.07	14.85	17.06	40.535	27.08	24	PASS
11ac(VHT40)	CH134	14.12	14.51	17.33	40.820	27.11	24	PASS
11ac(VHT80)	CH106	13.55	13.93	16.75	80.344	30.05	24	PASS
11ac(VHT80)	CH122	12.73	14.16	16.51	80.254	30.04	24	PASS
11ax(VHT20)	CH100	10.14	9.03	12.63	23.377	24.69	24	PASS
11ax(VHT20)	CH120	9.54	10.41	13.01	22.926	24.60	24	PASS
11ax(VHT20)	CH140	9.28	10.91	13.18	23.355	24.68	24	PASS
11ax(VHT40)	CH102	9.77	9.40	12.60	39.209	26.93	24	PASS
11ax(VHT40)	CH118	9.08	10.55	12.89	39.205	26.93	24	PASS
11ax(VHT40)	CH134	10.00	9.90	12.96	38.971	26.91	24	PASS
11ax(VHT80)	CH106	9.48	9.06	12.29	79.010	29.98	24	PASS
11ax(VHT80)	CH122	16.67	14.66	18.79	79.225	29.99	24	PASS

Refer to KDB 662911 D01 Multiple Transmitter Output v02r01:

For power measurements on IEEE 802.11 devices,

Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20})^2 / N_{ANT}]$ dBi = 4.96 < 6, power limit = 24dBm.

Note: The maximum conducted output power shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz

Configuration Band 3 (5745 - 5825 MHz) / Antenna 0+Antenna 1

Mode	Test channel	Maximum Conducted (Average) Output Power (dBm)			Limit (dBm)	Result
		Ant0	Ant1	Total		
11a	CH149	10.43	10.79	/	30	PASS
11a	CH157	10.78	10.61	/	30	PASS
11a	CH165	10.03	9.89	/	30	PASS
11n(HT20)	CH149	10.24	10.73	13.50	30	PASS
11n(HT20)	CH157	10.53	10.55	13.55	30	PASS
11n(HT20)	CH165	10.05	9.87	12.97	30	PASS
11n(HT40)	CH151	13.61	15.76	17.83	30	PASS
11n(HT40)	CH159	14.01	15.79	18.00	30	PASS
11ac(VHT20)	CH149	10.17	10.69	13.45	30	PASS
11ac(VHT20)	CH157	10.56	10.48	13.53	30	PASS
11ac(VHT20)	CH165	10.03	9.80	12.93	30	PASS
11ac(VHT40)	CH151	13.58	15.74	17.80	30	PASS
11ac(VHT40)	CH159	14.12	15.79	18.05	30	PASS
11ac(VHT80)	CH155	15.07	15.97	18.55	30	PASS
11ax(VHT20)	CH149	10.77	10.98	13.89	30	PASS
11ax(VHT20)	CH157	11.01	10.84	13.94	30	PASS
11ax(VHT20)	CH165	10.40	10.12	13.27	30	PASS
11ax(VHT40)	CH151	10.25	11.11	13.71	30	PASS
11ax(VHT40)	CH159	10.48	10.90	13.71	30	PASS
11ax(VHT80)	CH155	10.06	10.39	13.24	30	PASS

Refer to KDB 662911 D01 Multiple Transmitter Output v02r01:

For power measurements on IEEE 802.11 devices,

Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20})^2 / N_{ANT}]$ dBi=4.05<6, power limit =30dBm.

5.4. 6dB Emission Bandwidth

5.4.1. Test Specification

Test Requirement:	FCC CFR47 Part 15 Section 15.407(e)& Part 2 J Section 2.1049
Test Method:	KDB662911 D01 Multiple Transmitter Output v02r01 KDB789033 D02 General UNII Test Procedures New Rules v02r01 Section C
Limit:	>500kHz
Test Setup:	 Spectrum Analyzer EUT
Test Mode:	Transmitting mode with modulation
Test Procedure:	1. KDB789033 D02 General UNII Test Procedures New Rules v02r01 Section C 2. Set to the maximum power setting and enable the EUT transmit continuously. 3. Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 100 kHz. Set the Video bandwidth (VBW) = 300 kHz. In order to make an accurate measurement. The 6dB bandwidth must be greater than 500 kHz. 4. Measure and record the results in the test report.
Test Result:	PASS

5.4.2. Test Instruments

Equipment	Manufacturer	Model	Serial Number	Calibration Due
Spectrum Analyzer	Agilent	N9020A	MY49100619	Jun. 28, 2024
Combiner Box	Ascentest	AT890-RFB	/	/

5.5. 26dB Bandwidth and 99% Occupied Bandwidth

5.5.1. Test Specification

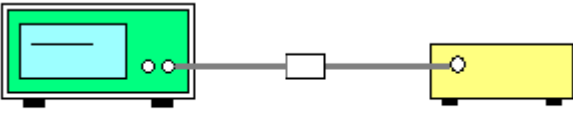
Test Requirement:	47 CFR Part 15C Section 15.407 (a)& Part 2 J Section 2.1049
Test Method:	KDB662911 D01 Multiple Transmitter Output v02r01 KDB789033 D02 General UNII Test Procedures New Rules v02r01 Section D
Limit:	No restriction limits
Test Setup:	 Spectrum Analyzer EUT
Test Mode:	Transmitting mode with modulation
Test Procedure:	1. KDB789033 D02 General UNII Test Procedures New Rules v02r01 Section D 2. Set to the maximum power setting and enable the EUT transmit continuously. 3. Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 1% to 5% of the OBW. Set the Video bandwidth (VBW) = 3 *RBW. In order to make an accurate measurement. 4. Measure and record the results in the test report.
Test Result:	PASS

5.5.2. Test Instruments

Equipment	Manufacturer	Model	Serial Number	Calibration Due
Spectrum Analyzer	Agilent	N9020A	MY49100619	Jun. 28, 2024
Combiner Box	Ascentest	AT890-RFB	/	/

5.6. Power Spectral Density

5.6.1. Test Specification

Test Requirement:	FCC Part15 E Section 15.407 (a)
Test Method:	KDB662911 D01 Multiple Transmitter Output v02r01 KDB789033 D02 General UNII Test Procedures New Rules v02r01 Section F
Limit:	$\leq 11.00\text{dBm/MHz}$ for Band 1 5150MHz-5250MHz(client device) $\leq 11.00\text{dBm/MHz}$ for Band 2A&2C 5250-5350&5470-5725 $\leq 30.00\text{dBm/500KHz}$ for Band 3 5725MHz-5850MHz The e.i.r.p spectral density for Band 1 5150MHz – 5250 MHz should not exceed 10dBm/MHz
Test Setup:	 Spectrum Analyzer EUT
Test Mode:	Transmitting mode with modulation
Test Procedure:	1. Set the spectrum analyzer or EMI receiver span to view the entire emission bandwidth. 1. Set RBW = 510 kHz/1 MHz, VBW $\geq 3 \times$ RBW, Sweep time = Auto, Detector = RMS. 2. Allow the sweeps to continue until the trace stabilizes. 3. Use the peak marker function to determine the maximum amplitude level. 4. The E.I.R.P spectral density used radiated test method. At a test site that has been validated using the procedures of ANSI C63.4 or the latest CISPR 16-1-4 for measurements above 1 GHz, so as to simulate a near free-space environment.
Test Result:	PASS

5.6.2. Test Instruments

Equipment	Manufacturer	Model	Serial Number	Calibration Due
Spectrum Analyzer	Agilent	N9020A	MY49100619	Jun. 28, 2024
Combiner Box	Ascentest	AT890-RFB	/	/

5.6.3. Test data

Configuration Band 1 (5180 - 5240 MHz) / Antenna 0+Antenna 1						
Mode	Test channel	Power Spectral Density(dBm/MHz)			Limit (dBm/MHz)	Result
		Ant0	Ant1	Total		
11a	CH36	5.63	4.35	/	11	PASS
11a	CH40	5.27	6.11	/	11	PASS
11a	CH48	5.30	6.06	/	11	PASS
11n(HT20)	CH36	5.62	6.00	8.82	11	PASS
11n(HT20)	CH40	5.21	6.12	8.70	11	PASS
11n(HT20)	CH48	5.34	6.18	8.79	11	PASS
11n(HT40)	CH38	2.93	3.95	6.48	11	PASS
11n(HT40)	CH46	2.35	4.41	6.51	11	PASS
11ac(VHT20)	CH36	5.31	5.75	8.55	11	PASS
11ac(VHT20)	CH40	4.95	5.89	8.46	11	PASS
11ac(VHT20)	CH48	4.94	5.93	8.47	11	PASS
11ac(VHT40)	CH38	2.73	4.04	6.44	11	PASS
11ac(VHT40)	CH46	2.36	4.54	6.60	11	PASS
11ac(VHT80)	CH42	-1.80	-0.18	2.10	11	PASS
11ax(VHT20)	CH36	6.03	6.66	9.37	11	PASS
11ax(VHT20)	CH40	5.94	6.44	9.21	11	PASS
11ax(VHT20)	CH48	5.67	7.30	9.57	11	PASS
11ax(VHT40)	CH38	3.44	3.72	6.59	11	PASS
11ax(VHT40)	CH46	3.52	3.83	6.69	11	PASS
11ax(VHT80)	CH42	-1.04	-0.59	2.20	11	PASS

Refer to KDB 662911 D01 Multiple Transmitter Output v02r01:

For power spectral density (PSD) measurements when antenna gains are not equal,
Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20})^2 / N_{ANT}]$ dBi =4.28<6,

So limit=11

Configuration Band 2A (5260-5320MHz) /Antenna 0+Antenna 1

Mode	Test channel	Power Spectral Density(dBm/MHz)			Limit (dBm/MHz)	Result
		Ant0	Ant1	Total		
11a	CH52	4.76	6.03	/	11	PASS
11a	CH60	5.04	5.32	/	11	PASS
11a	CH64	4.99	6.02	/	11	PASS
11n(HT20)	CH52	4.70	6.08	8.45	11	PASS
11n(HT20)	CH60	5.09	5.43	8.27	11	PASS
11n(HT20)	CH64	4.94	5.76	8.38	11	PASS
11n(HT40)	CH54	-0.21	3.90	5.32	11	PASS
11n(HT40)	CH62	1.95	3.72	5.93	11	PASS
11ac(VHT20)	CH52	2.91	2.39	5.67	11	PASS
11ac(VHT20)	CH60	3.14	5.49	7.48	11	PASS
11ac(VHT20)	CH64	3.16	4.85	7.10	11	PASS
11ac(VHT40)	CH54	1.86	1.79	4.84	11	PASS
11ac(VHT40)	CH62	2.00	1.61	4.82	11	PASS
11ac(VHT80)	CH58	-2.54	-3.13	0.19	11	PASS
11ax(VHT20)	CH52	4.93	5.13	8.04	11	PASS
11ax(VHT20)	CH60	6.20	5.05	8.67	11	PASS
11ax(VHT20)	CH64	6.23	5.75	9.01	11	PASS
11ax(VHT40)	CH54	2.45	2.53	5.50	11	PASS
11ax(VHT40)	CH62	2.63	2.36	5.51	11	PASS
11ax(VHT80)	CH58	-1.64	-2.09	1.15	11	PASS

Refer to KDB 662911 D01 Multiple Transmitter Output v02r01:

For power spectral density (PSD) measurements when antenna gains are not equal,

Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20})^2 / N_{ANT}]$ dBi = 3.55 < 6,

So limit=11

Configuration Band 2C (5500-5700 MHz) /Antenna 0+Antenna 1

Mode	Test channel	Power Spectral Density(dBm/MHz)			Limit (dBm/MHz)	Result
		Ant0	Ant1	Total		
11a	CH100	-0.92	-1.29	/	11	PASS
11a	CH120	-1.54	0.13	/	11	PASS
11a	CH140	-1.83	0.46	/	11	PASS
11n(HT20)	CH100	-0.88	-1.34	1.91	11	PASS
11n(HT20)	CH120	-1.50	0.03	2.34	11	PASS
11n(HT20)	CH140	-1.74	-1.44	1.42	11	PASS
11n(HT40)	CH102	0.69	0.29	3.50	11	PASS
11n(HT40)	CH118	-0.04	1.55	3.84	11	PASS
11n(HT40)	CH134	1.22	1.31	4.28	11	PASS
11ac(VHT20)	CH100	-1.21	-2.28	1.30	11	PASS
11ac(VHT20)	CH120	-1.77	-1.06	1.61	11	PASS
11ac(VHT20)	CH140	-2.05	-0.41	1.86	11	PASS
11ac(VHT40)	CH102	0.61	0.23	3.43	11	PASS
11ac(VHT40)	CH118	-0.08	1.63	3.87	11	PASS
11ac(VHT40)	CH134	0.87	1.27	4.08	11	PASS
11ac(VHT80)	CH106	-2.83	-2.59	0.30	11	PASS
11ac(VHT80)	CH122	-3.67	-2.36	0.04	11	PASS
11ax(VHT20)	CH100	-0.17	-1.44	2.25	11	PASS
11ax(VHT20)	CH120	-1.26	-0.09	2.37	11	PASS
11ax(VHT20)	CH140	-1.33	0.18	2.50	11	PASS
11ax(VHT40)	CH102	-2.72	-3.02	0.14	11	PASS
11ax(VHT40)	CH118	-3.16	-1.98	0.48	11	PASS
11ax(VHT40)	CH134	-2.71	-2.85	0.23	11	PASS
11ax(VHT80)	CH106	-5.91	-7.01	-3.41	11	PASS
11ax(VHT80)	CH122	1.00	-0.95	3.14	11	PASS

Refer to KDB 662911 D01 Multiple Transmitter Output v02r01:

For power spectral density (PSD) measurements when antenna gains are not equal,

Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20})^2 / N_{ANT}]$ dBi = 4.96 < 6,

So limit=11

Configuration Band 3(5745-5825MHz) / Antenna 0+Antenna 1

Mode	Test channel	Power Spectral Density(dBm/MHz)			Limit (dBm/MHz)	Result
		Ant0	Ant1	Total		
11a	CH149	-3.03	-2.88	/	30	PASS
11a	CH157	-2.76	-2.98	/	30	PASS
11a	CH165	-3.61	-3.72	/	30	PASS
11n(HT20)	CH149	-3.38	-2.90	-0.12	30	PASS
11n(HT20)	CH157	-2.93	-2.95	0.07	30	PASS
11n(HT20)	CH165	-3.56	-3.72	-0.63	30	PASS
11n(HT40)	CH151	-2.37	-0.23	1.84	30	PASS
11n(HT40)	CH159	-2.00	-0.14	2.04	30	PASS
11ac(VHT20)	CH149	-3.66	-3.18	-0.40	30	PASS
11ac(VHT20)	CH157	-3.25	-3.32	-0.27	30	PASS
11ac(VHT20)	CH165	-3.73	-4.05	-0.88	30	PASS
11ac(VHT40)	CH151	-2.44	-0.19	1.84	30	PASS
11ac(VHT40)	CH159	-1.94	-0.22	2.01	30	PASS
11ac(VHT80)	CH155	-4.13	-3.42	-0.75	30	PASS
11ax(VHT20)	CH149	-2.58	-2.49	0.48	30	PASS
11ax(VHT20)	CH157	-2.46	-2.73	0.42	30	PASS
11ax(VHT20)	CH165	-3.28	-3.37	-0.31	30	PASS
11ax(VHT40)	CH151	-5.55	-4.27	-1.85	30	PASS
11ax(VHT40)	CH159	-5.30	-4.43	-1.83	30	PASS
11ax(VHT80)	CH155	-8.43	-7.93	-5.16	30	PASS

Refer to KDB 662911 D01 Multiple Transmitter Output v02r01:

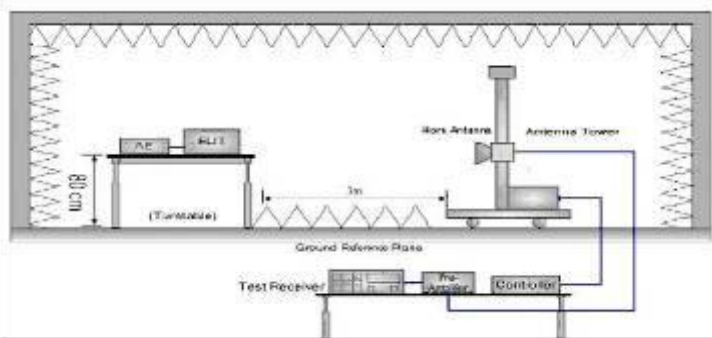
For power spectral density (PSD) measurements when antenna gains are not equal,

Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20})^2 / N_{ANT}]$ dBi=4.05<6,

So limit=30

5.7. Band edge

5.7.1. Test Specification

Test Requirement:	FCC CFR47 Part 15E Section 15.407																				
Test Method:	ANSI C63.10 2013																				
Limit:	In un-restricted band: For Band 1&2A&2C: -27dBm/MHz For Band 3:																				
	<table><tr><th>Frequency (MHz)</th><th>Limit (dBm/MHz)</th><th>Frequency (MHz)</th><th>Limit (dBm/MHz)</th></tr><tr><td>< 650</td><td>-27</td><td>5850~5855</td><td>27~15.6</td></tr><tr><td>5650~5700</td><td>-27~10</td><td>5855~5875</td><td>15.6~10</td></tr><tr><td>5700~5720</td><td>10~15.6</td><td>5875~5925</td><td>10~-27</td></tr><tr><td>5720~5725</td><td>15.6~27</td><td>> 5925</td><td>-27</td></tr></table>	Frequency (MHz)	Limit (dBm/MHz)	Frequency (MHz)	Limit (dBm/MHz)	< 650	-27	5850~5855	27~15.6	5650~5700	-27~10	5855~5875	15.6~10	5700~5720	10~15.6	5875~5925	10~-27	5720~5725	15.6~27	> 5925	-27
	Frequency (MHz)	Limit (dBm/MHz)	Frequency (MHz)	Limit (dBm/MHz)																	
	< 650	-27	5850~5855	27~15.6																	
	5650~5700	-27~10	5855~5875	15.6~10																	
	5700~5720	10~15.6	5875~5925	10~-27																	
5720~5725	15.6~27	> 5925	-27																		
E[dBμV/m] = EIRP[dBm] + 95.2 @3m																					
In restricted band:																					
<table><tr><th>Detector</th><th>Limit@3m</th></tr><tr><td>Peak</td><td>74dBμV/m</td></tr><tr><td>AVG</td><td>54dBμV/m</td></tr></table>	Detector	Limit@3m	Peak	74dBμV/m	AVG	54dBμV/m															
Detector	Limit@3m																				
Peak	74dBμV/m																				
AVG	54dBμV/m																				
Test Setup:																					
Test Mode:	Transmitting mode with modulation																				
Test Procedure:	1. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation. 2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. 3. 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. 4. 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. 5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold																				

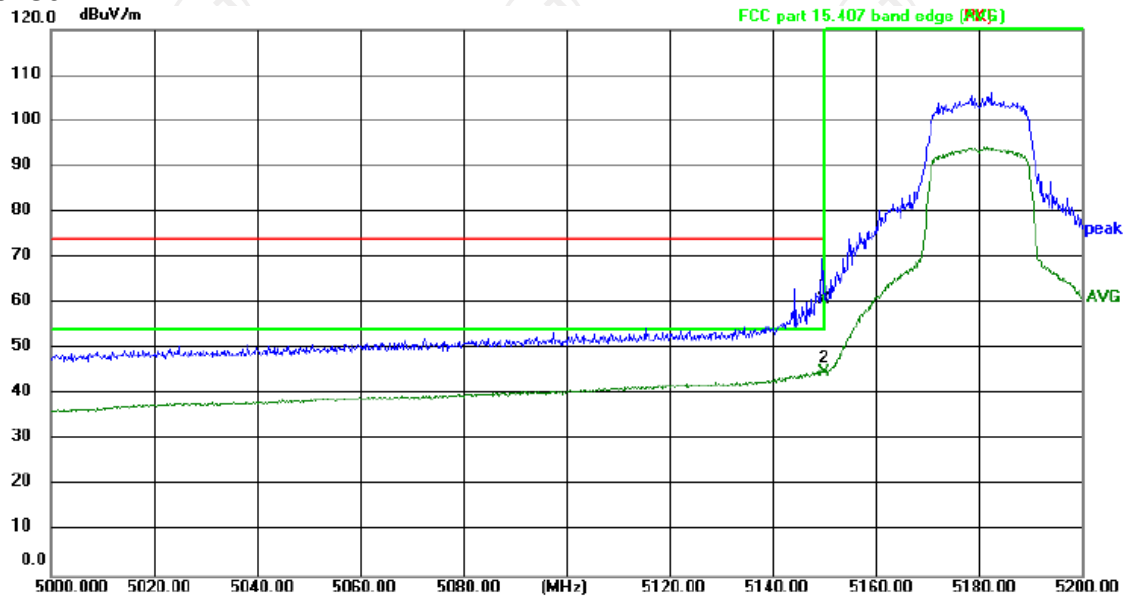
	Mode. 6. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasipeak or average method as specified and then reported in a data sheet.
Test Result:	PASS

5.7.2. Test Instruments

Radiated Emission Test Site (966)				
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
EMI Test Receiver	R&S	ESIB7	100197	Jun. 29, 2024
Spectrum Analyzer	R&S	FSQ40	200061	Jun. 29, 2024
Spectrum Analyzer	Agilent	N9020A	MY49100619	Feb. 20, 2024
Pre-amplifier	SKET	LNPA_0118G-45	SK2021012102	Feb. 20, 2024
Pre-amplifier	SKET	LNPA_1840G-50	SK202109203500	Jun. 27, 2024
Pre-amplifier	HP	8447D	2727A05017	Jul. 02, 2024
Loop antenna	Schwarzbeck	FMZB1519B	00191	Jul. 01, 2024
Broadband Antenna	Schwarzbeck	VULB9163	340	Jul. 01, 2024
Horn Antenna	Schwarzbeck	BBHA 9120D	631	Feb. 24, 2024
Horn Antenna	Schwarzbeck	BBHA 9170	00956	Jun. 29, 2024
Coaxial cable	SKET	RC-18G-N-M	/	Feb. 24, 2024
Coaxial cable	SKET	RC_40G-K-M	/	Feb. 24, 2024
Antenna Mast	Keleto	CC-A-4M	/	/
EMI Test Software	Shurple Technology	EZ-EMC	/	/

5.7.3. Test Data

AX20-5180



Site: #3 3m Anechoic Chamber

Polarization: **Horizontal**

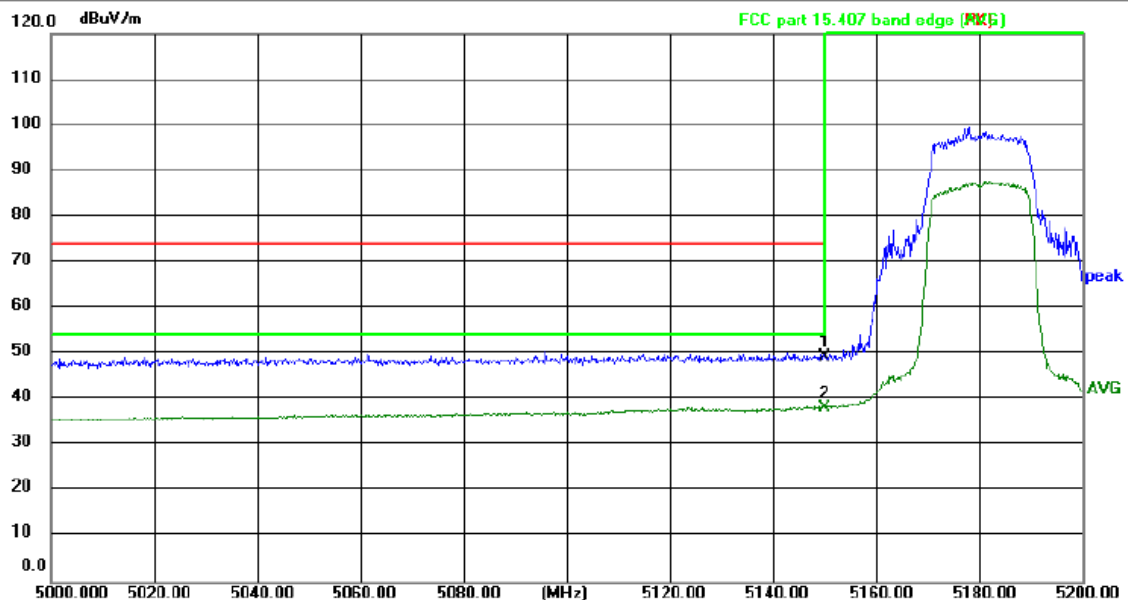
Temperature: 24(°C)

Humidity: 52 %

Limit: FCC part 15.407 band edge (PK)

Power:DC 4.2V

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	5150.000	69.37	-8.63	60.74	74.00	-13.26	peak	P	
2 *	5150.000	53.49	-8.63	44.86	54.00	-9.14	AVG	P	



Site: #3 3m Anechoic Chamber

Polarization: **Vertical**

Temperature: 24(°C)

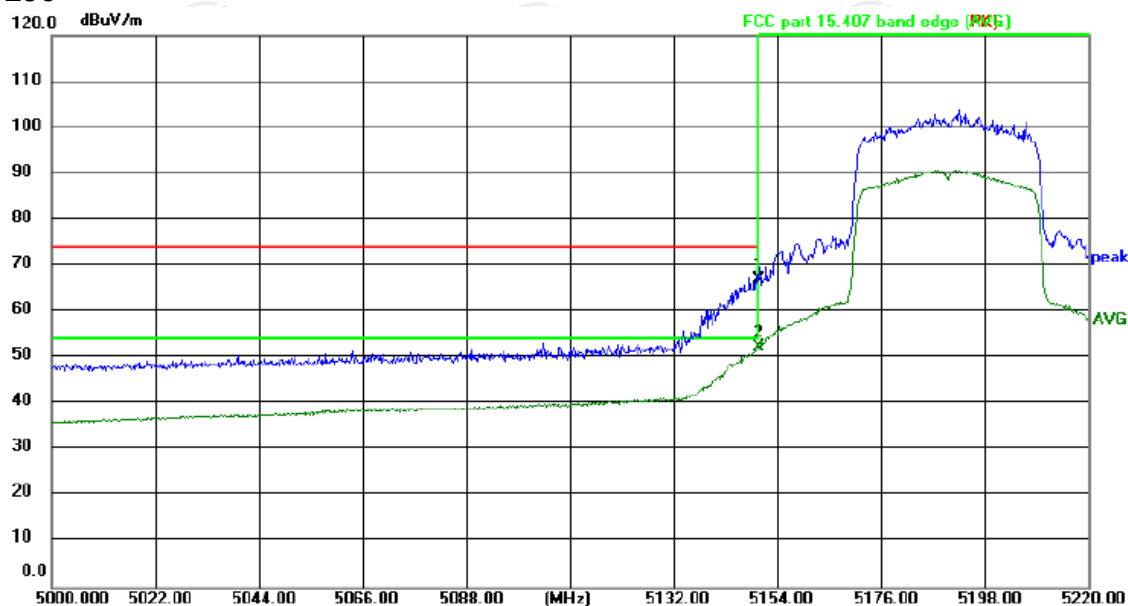
Humidity: 52 %

Limit: FCC part 15.407 band edge (PK)

Power:DC 4.2V

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	5150.000	58.00	-8.63	49.37	74.00	-24.63	peak	P	
2 *	5150.000	47.02	-8.63	38.39	54.00	-15.61	AVG	P	

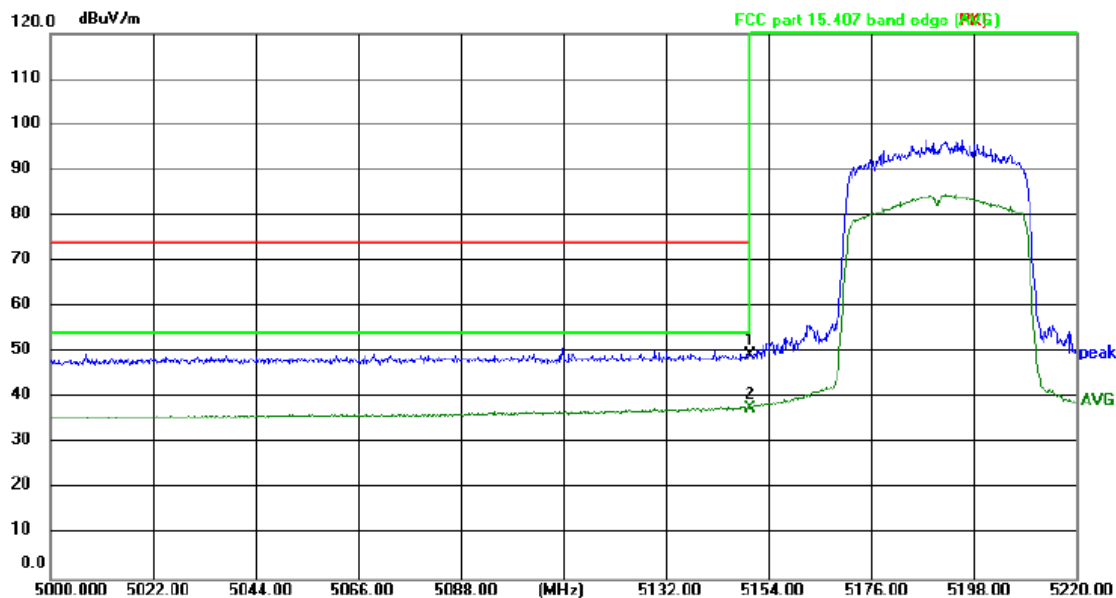
AX40-5190



Site: #3 3m Anechoic Chamber Polarization: **Horizontal** Temperature: 24(°C) Humidity: 52 %

Limit: FCC part 15.407 band edge (PK) Power:DC 4.2V

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	5150.000	75.57	-8.63	66.94	74.00	-7.06	peak	P	
2 *	5150.000	60.92	-8.63	52.29	54.00	-1.71	AVG	P	

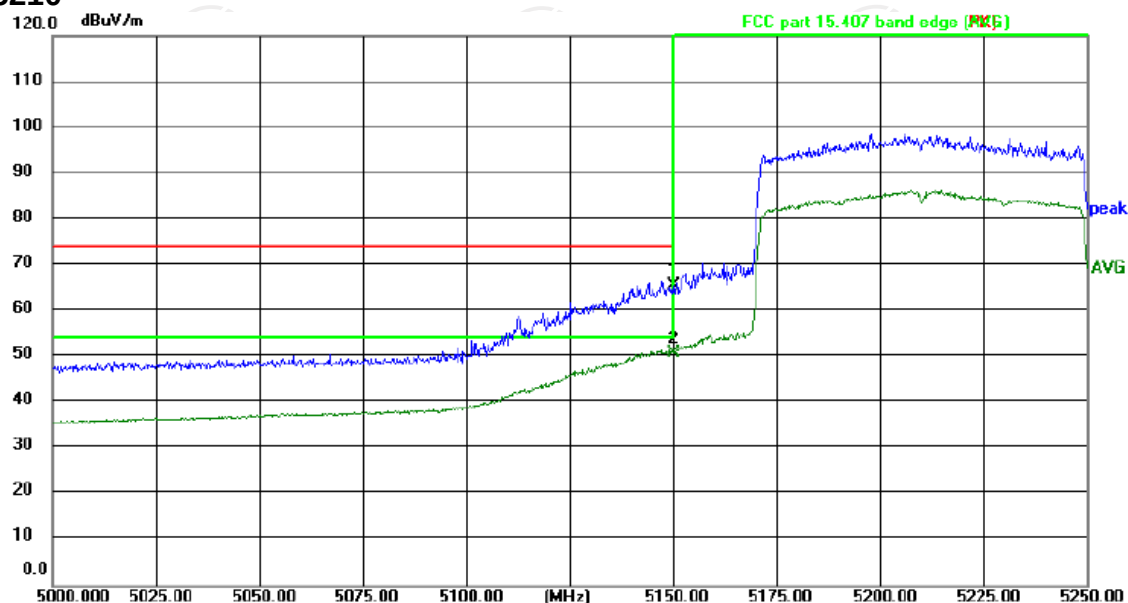


Site: #3 3m Anechoic Chamber Polarization: **Vertical** Temperature: 24(°C) Humidity: 52 %

Limit: FCC part 15.407 band edge (PK) Power:DC 4.2V

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	5150.000	57.98	-8.63	49.35	74.00	-24.65	peak	P	
2 *	5150.000	46.26	-8.63	37.63	54.00	-16.37	AVG	P	

AX80-5210



Site: #3 3m Anechoic Chamber

Polarization: **Horizontal**

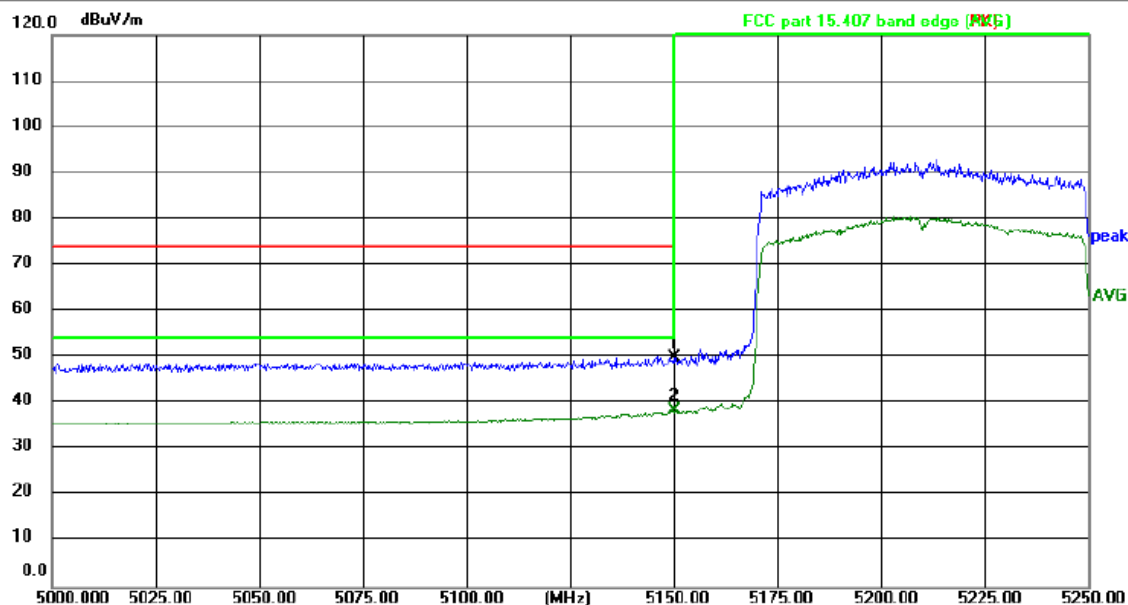
Temperature: 24(°C)

Humidity: 52 %

Limit: FCC part 15.407 band edge (PK)

Power:DC 4.2V

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	5150.000	74.10	-8.63	65.47	74.00	-8.53	peak	P	
2 *	5150.000	59.50	-8.63	50.87	54.00	-3.13	AVG	P	



Site: #3 3m Anechoic Chamber

Polarization: **Vertical**

Temperature: 24(°C)

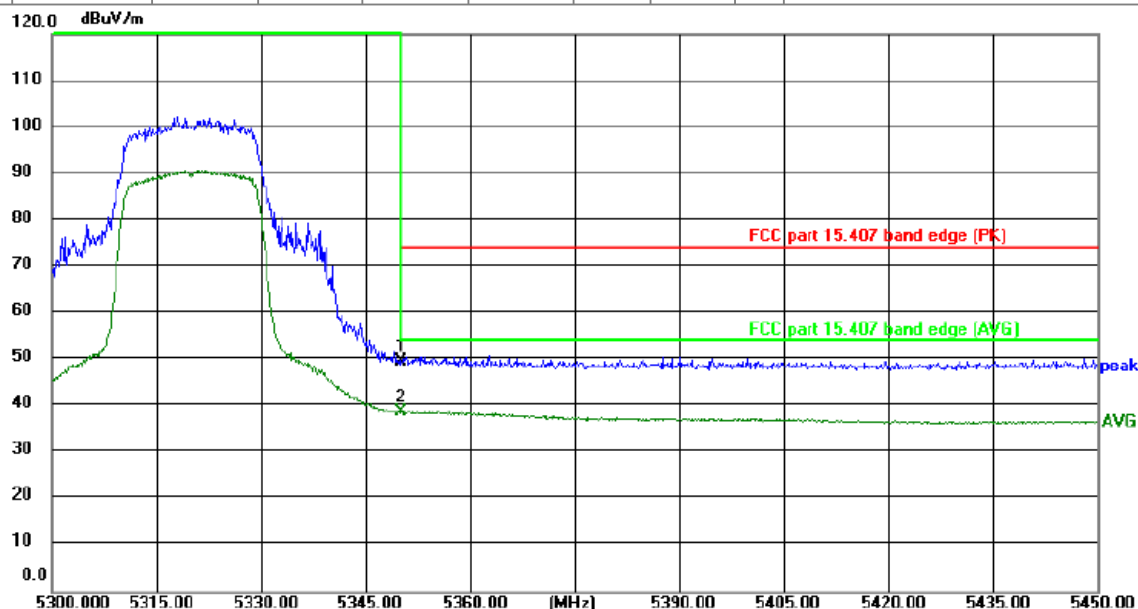
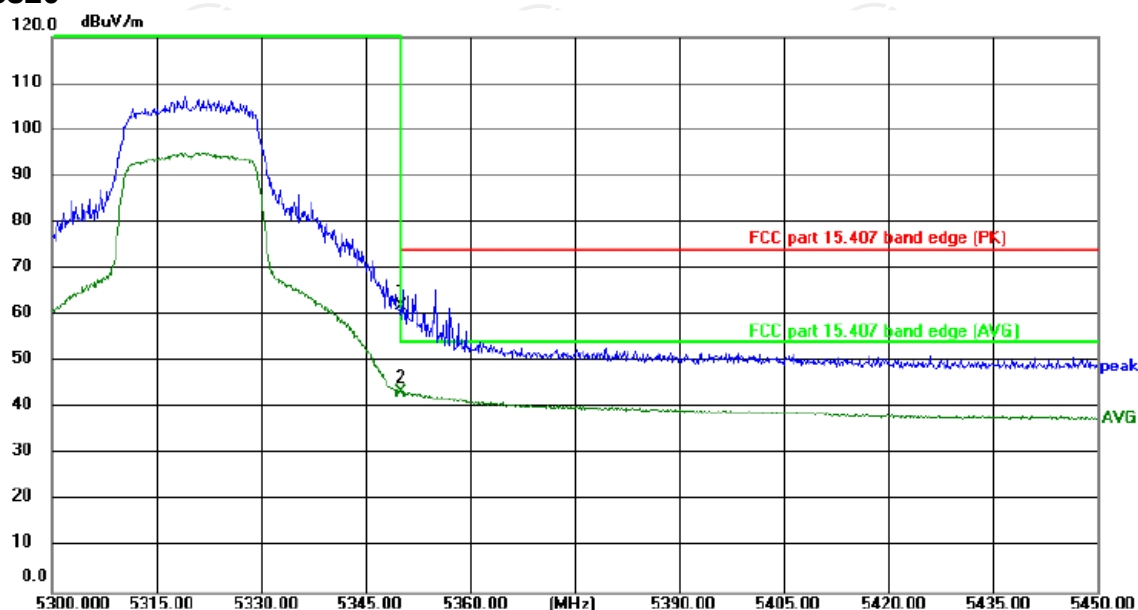
Humidity: 52 %

Limit: FCC part 15.407 band edge (PK)

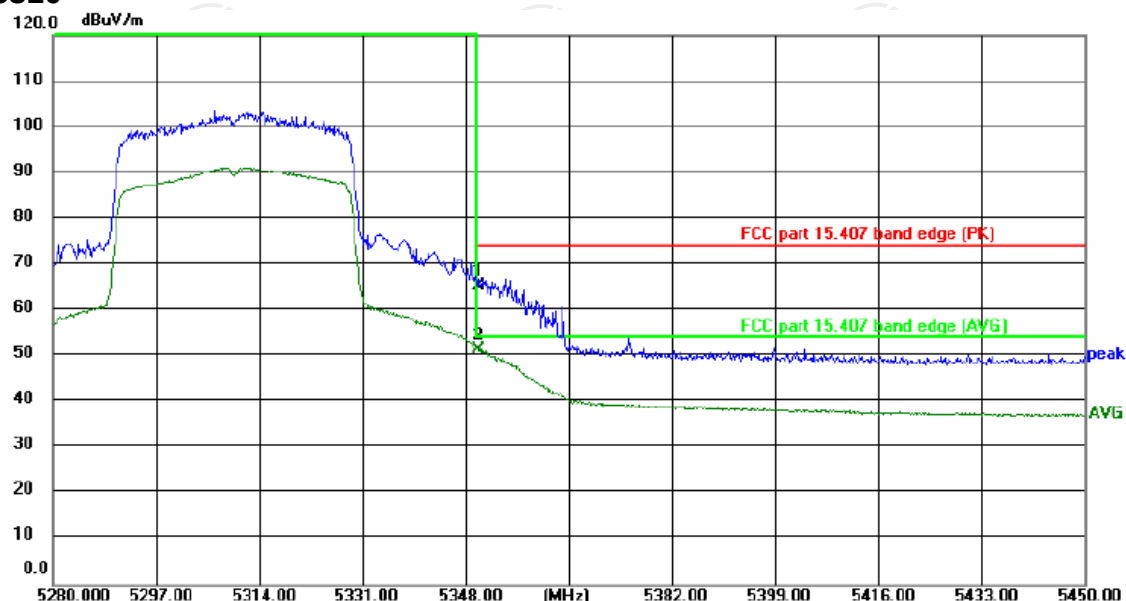
Power:DC 4.2V

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	5150.000	58.61	-8.63	49.98	74.00	-24.02	peak	P	
2 *	5150.000	47.15	-8.63	38.52	54.00	-15.48	AVG	P	

AX20-5320



AX40-5310

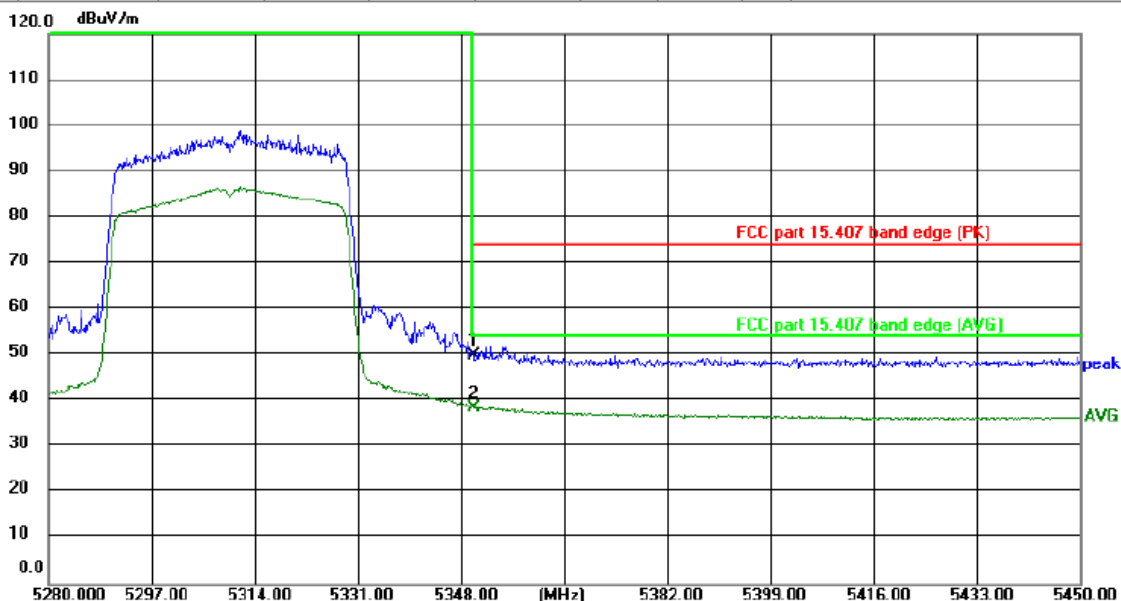


Site: #3 3m Anechoic Chamber Polarization: **Horizontal** Temperature: 24(°C) Humidity: 52 %

Limit: FCC part 15.407 band edge (PK)

Power:DC 4.2V

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	5350.000	73.47	-8.22	65.25	74.00	-8.75	peak	P	
2 *	5350.000	59.79	-8.22	51.57	54.00	-2.43	AVG	P	



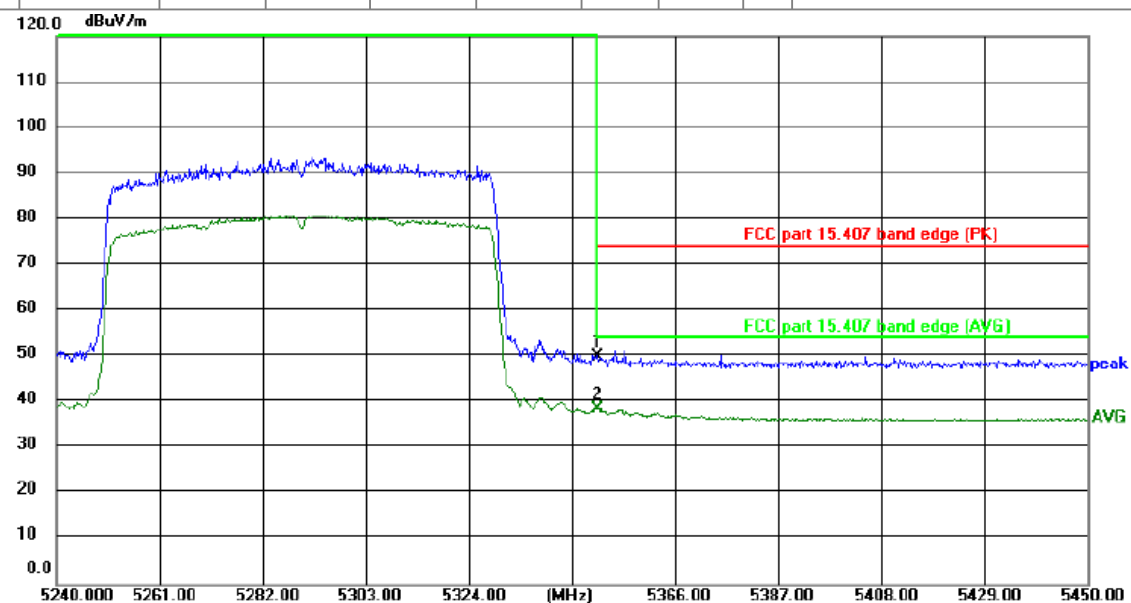
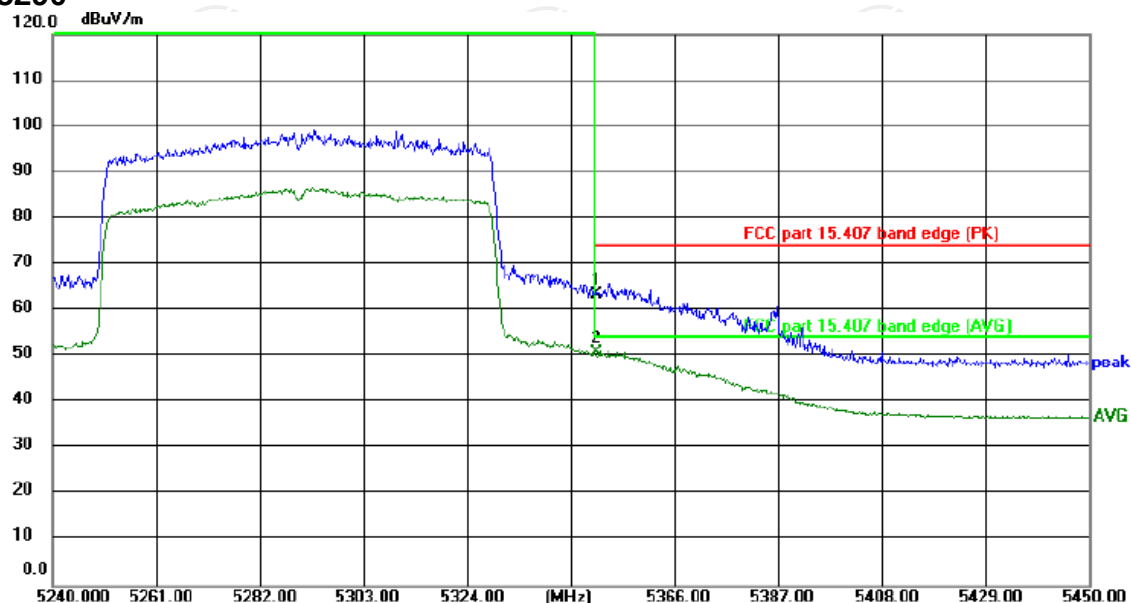
Site: #3 3m Anechoic Chamber Polarization: **Vertical** Temperature: 24(°C) Humidity: 52 %

Limit: FCC part 15.407 band edge (PK)

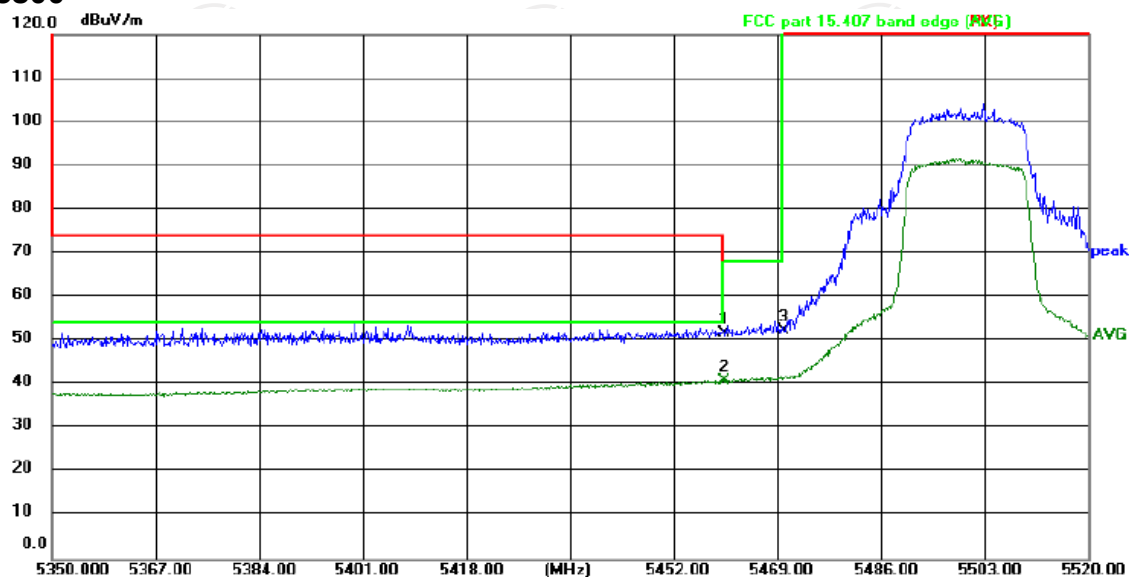
Power:DC 4.2V

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	5350.000	58.03	-8.22	49.81	74.00	-24.19	peak	P	
2 *	5350.000	46.77	-8.22	38.55	54.00	-15.45	AVG	P	

AX80-5290



AX20-5500

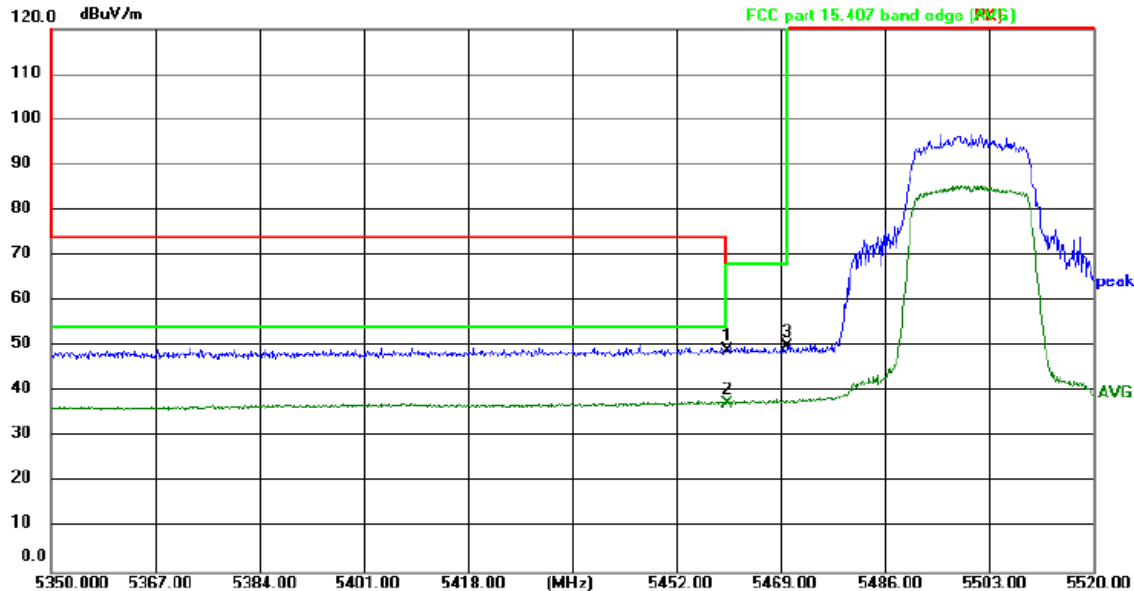


Site: #3 3m Anechoic Chamber Polarization: **Horizontal** Temperature: 24(°C) Humidity: 52 %

Limit: FCC part 15.407 band edge (PK)

Power:DC 4.2V

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	5460.000	59.87	-8.00	51.87	68.20	-16.33	peak	P	
2 *	5460.000	48.81	-8.00	40.81	54.00	-13.19	AVG	P	
3	5470.000	60.27	-7.98	52.29	68.20	-15.91	peak	P	



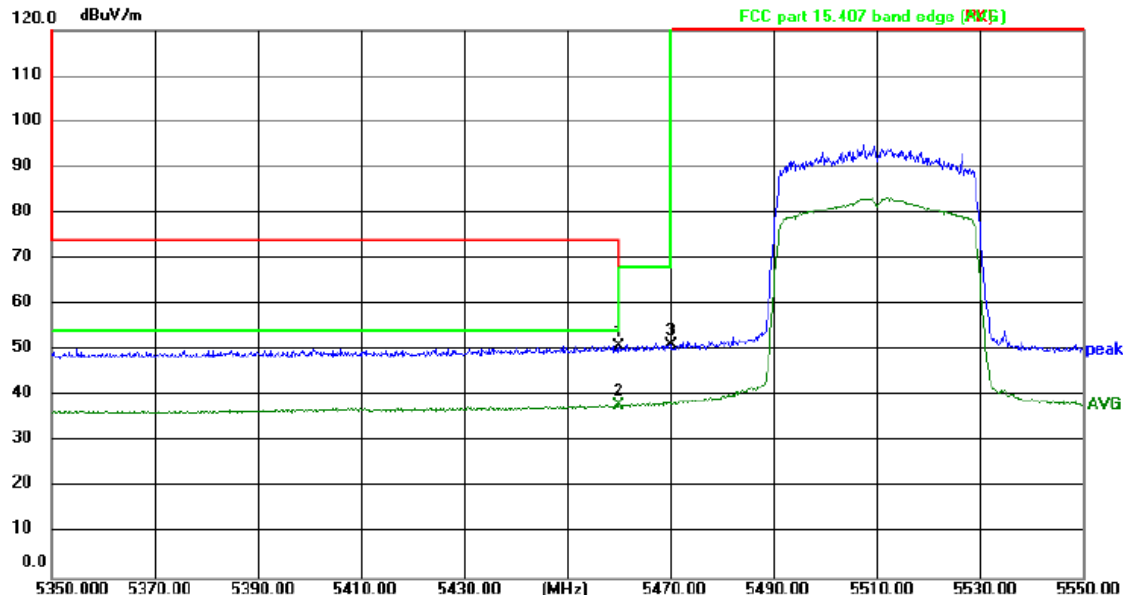
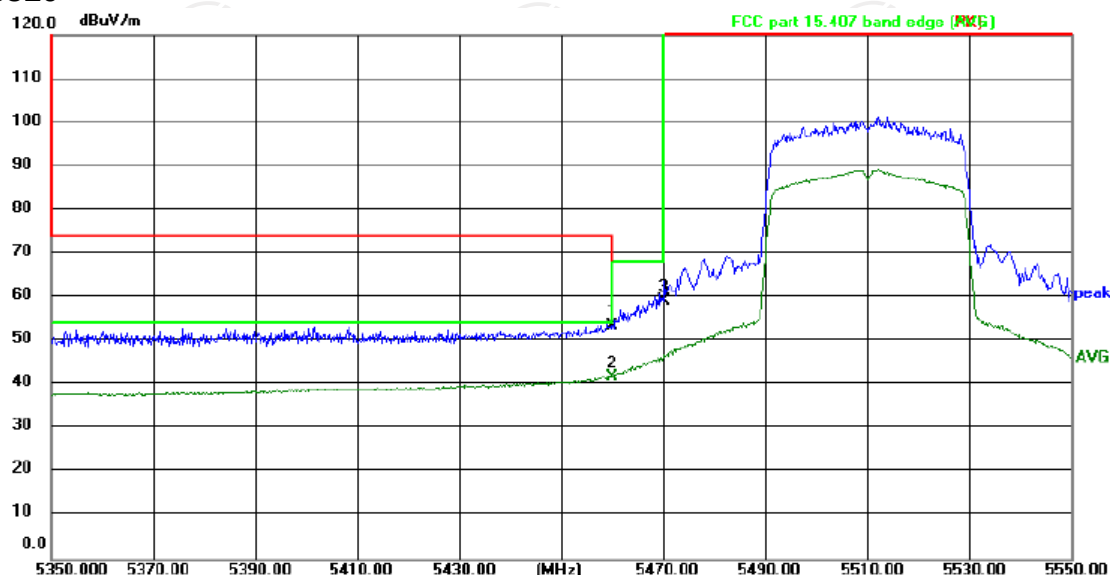
Site: #3 3m Anechoic Chamber Polarization: **Vertical** Temperature: 24(°C) Humidity: 52 %

Limit: FCC part 15.407 band edge (PK)

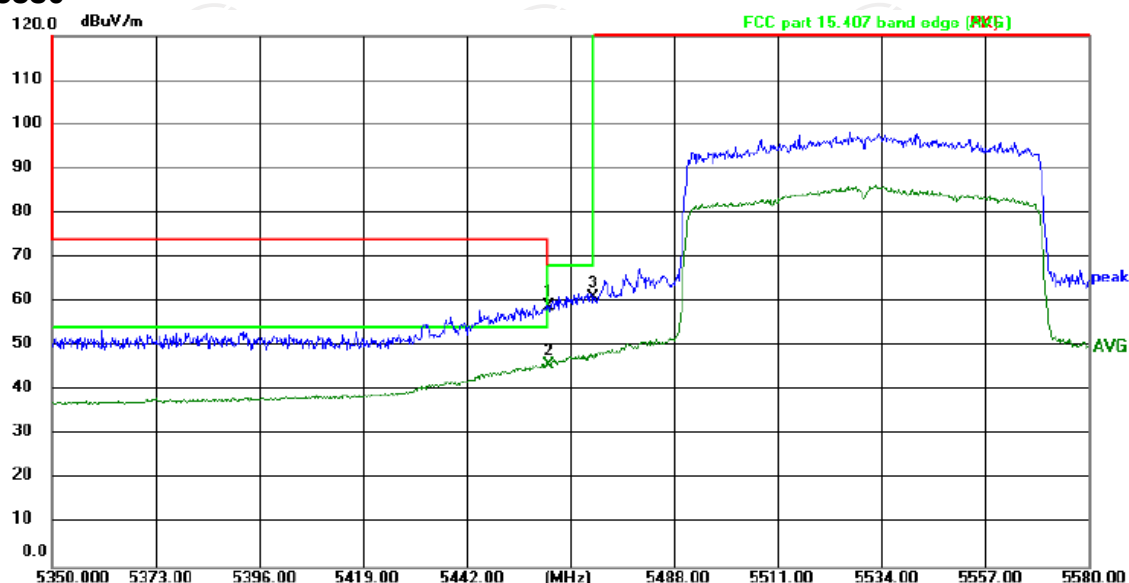
Power:DC 4.2V

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	5460.000	56.95	-8.00	48.95	68.20	-19.25	peak	P	
2 *	5460.000	45.45	-8.00	37.45	54.00	-16.55	AVG	P	
3	5470.000	57.88	-7.98	49.90	68.20	-18.30	peak	P	

AX40-5510



AX80-5530



Site: #3 3m Anechoic Chamber

Polarization: **Horizontal**

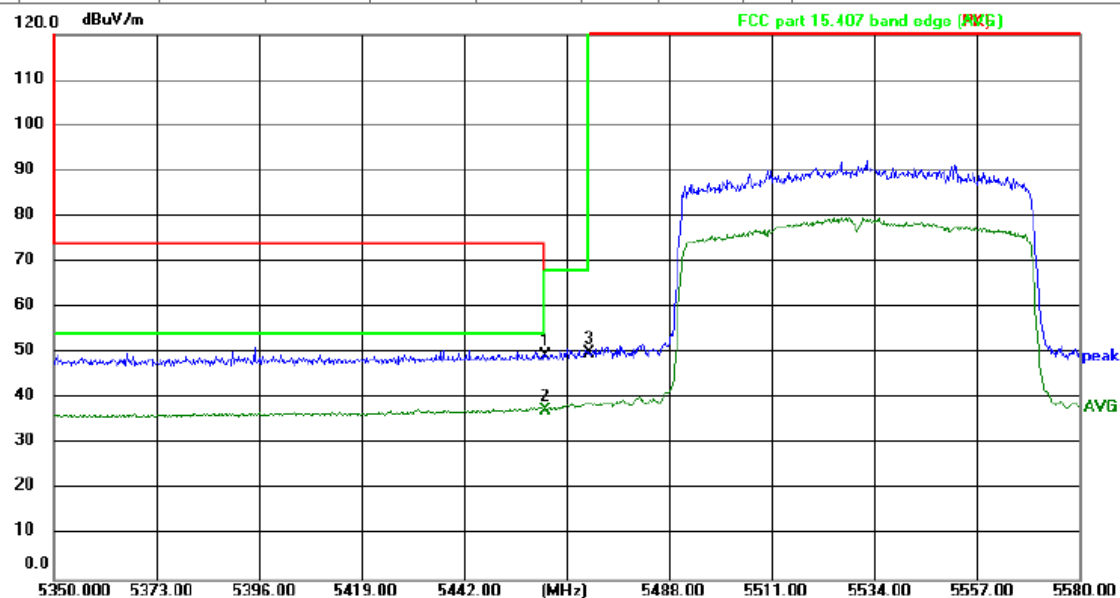
Temperature: 24(°C)

Humidity: 52 %

Limit: FCC part 15.407 band edge (PK)

Power:DC 4.2V

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	5460.000	66.88	-8.00	58.88	68.20	-9.32	peak	P	
2	5460.000	53.87	-8.00	45.87	54.00	-8.13	AVG	P	
3 *	5470.000	69.12	-7.98	61.14	68.20	-7.06	peak	P	



Site: #3 3m Anechoic Chamber

Polarization: **Vertical**

Temperature: 24(°C)

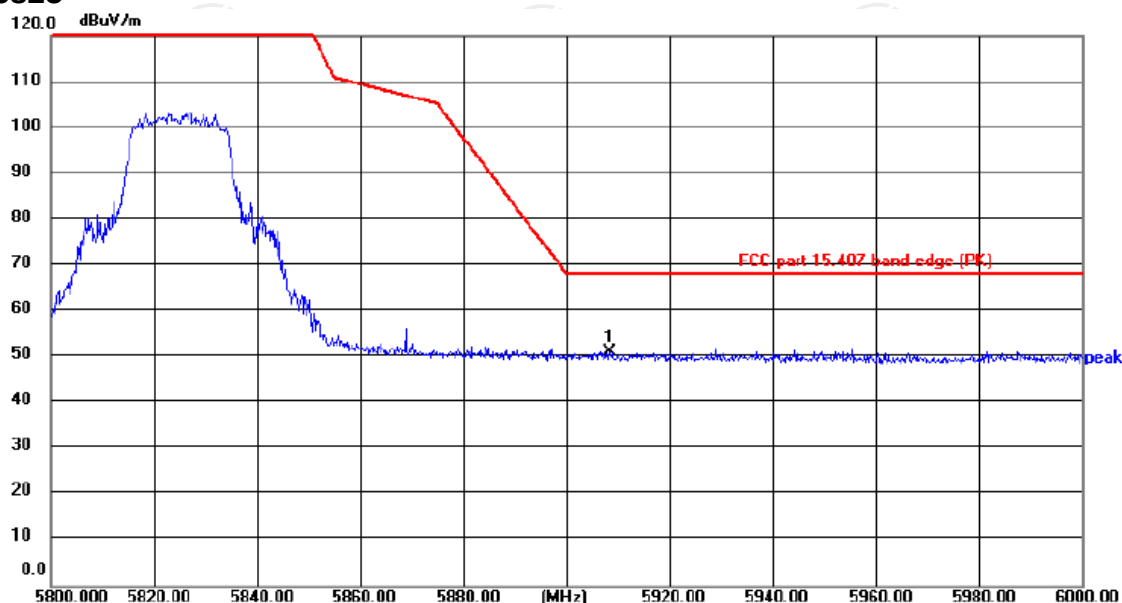
Humidity: 52 %

Limit: FCC part 15.407 band edge (PK)

Power:DC 4.2V

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	5460.000	57.35	-8.00	49.35	68.20	-18.85	peak	P	
2 *	5460.000	45.48	-8.00	37.48	54.00	-16.52	AVG	P	
3	5470.000	58.06	-7.98	50.08	68.20	-18.12	peak	P	

AX20-5825

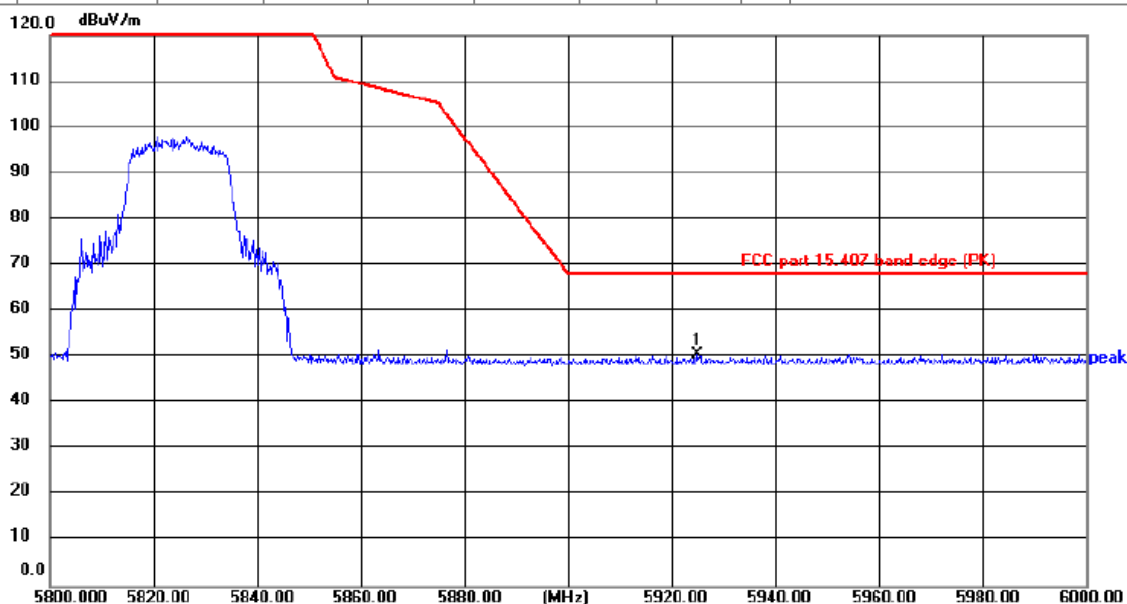


Site: #3 3m Anechoic Chamber Polarization: **Horizontal** Temperature: 24(°C) Humidity: 52 %

Limit: FCC part 15.407 band edge (PK)

Power:DC 4.2V

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1 *	5908.400	58.09	-6.92	51.17	68.20	-17.03	peak	P	



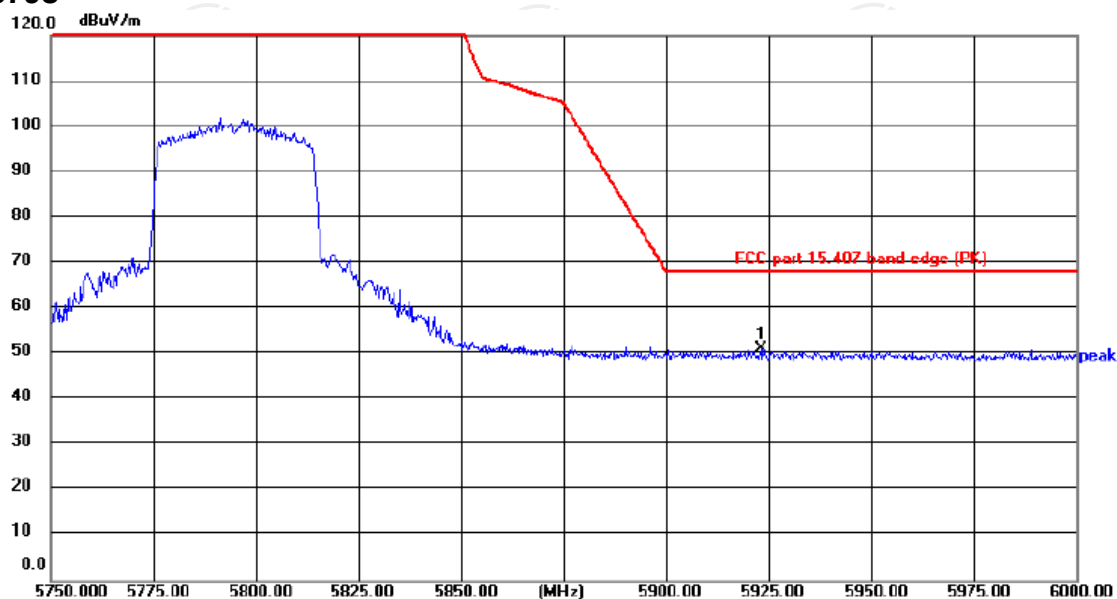
Site: #3 3m Anechoic Chamber Polarization: **Vertical** Temperature: 24(°C) Humidity: 52 %

Limit: FCC part 15.407 band edge (PK)

Power:DC 4.2V

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1 *	5924.800	57.38	-6.89	50.49	68.20	-17.71	peak	P	

AX40-5795

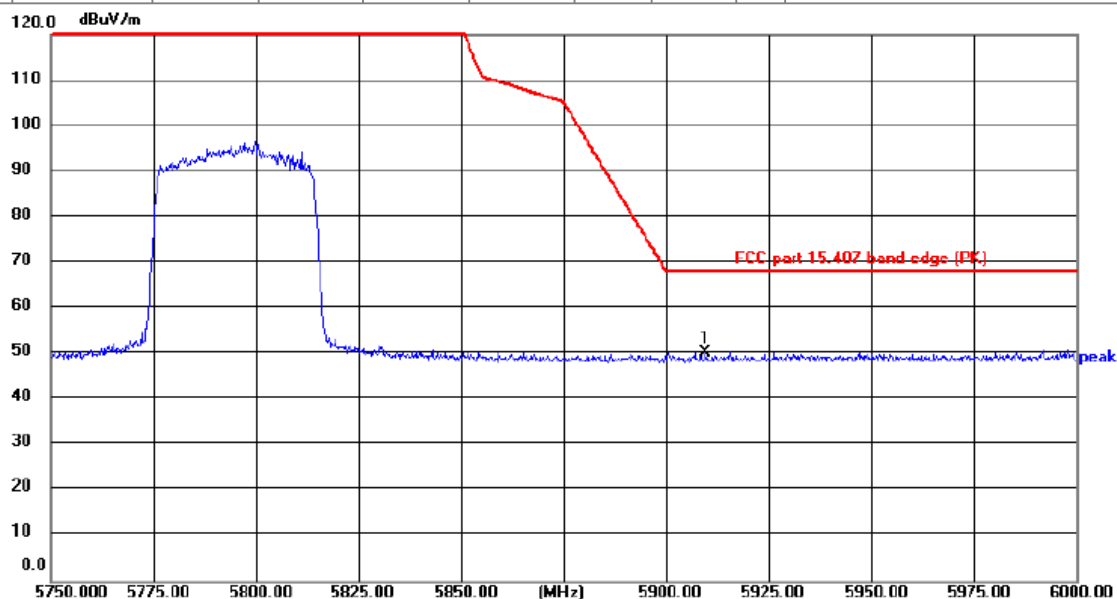


Site: #3 3m Anechoic Chamber Polarization: **Horizontal** Temperature: 24(°C) Humidity: 52 %

Limit: FCC part 15.407 band edge (PK)

Power:DC 4.2V

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1 *	5923.000	58.12	-6.89	51.23	68.20	-16.97	peak	P	



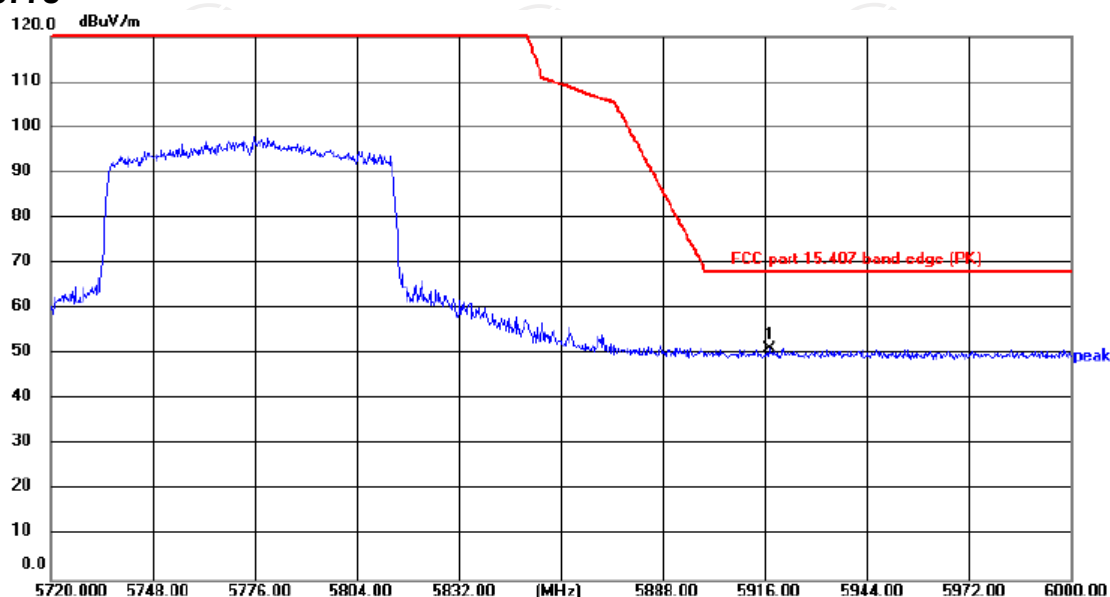
Site: #3 3m Anechoic Chamber Polarization: **Vertical** Temperature: 24(°C) Humidity: 52 %

Limit: FCC part 15.407 band edge (PK)

Power:DC 4.2V

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1 *	5909.500	57.23	-6.92	50.31	68.20	-17.89	peak	P	

AX80-5775

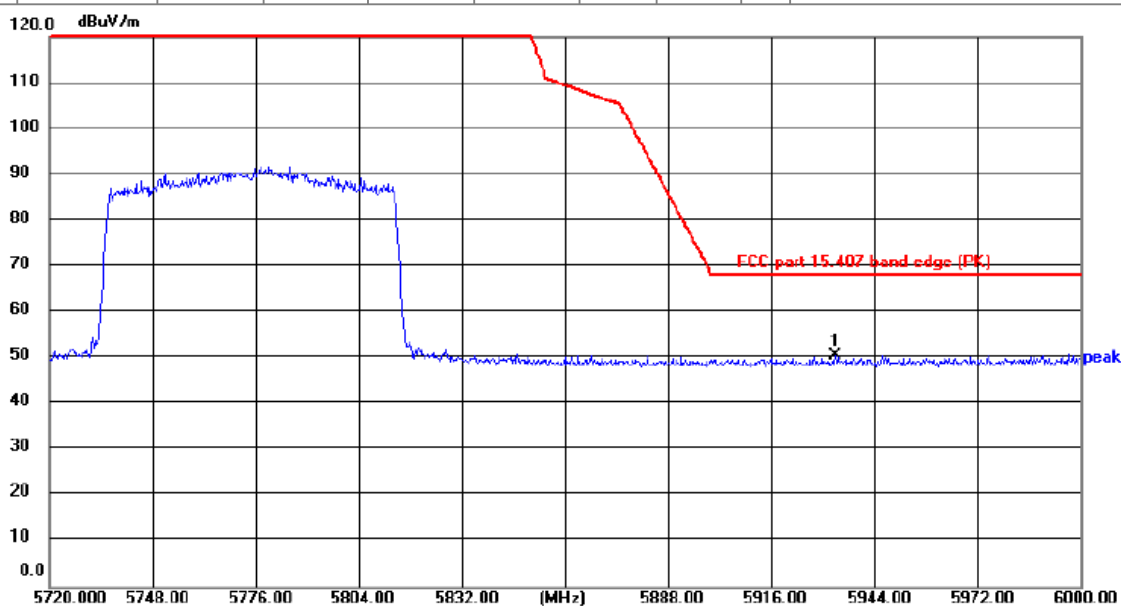


Site: #3 3m Anechoic Chamber Polarization: **Horizontal** Temperature: 24(°C) Humidity: 52 %

Limit: FCC part 15.407 band edge (PK)

Power:DC 4.2V

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1 *	5917.120	57.98	-6.91	51.07	68.20	-17.13	peak	P	



Site: #3 3m Anechoic Chamber Polarization: **Vertical** Temperature: 24(°C) Humidity: 52 %

Limit: FCC part 15.407 band edge (PK)

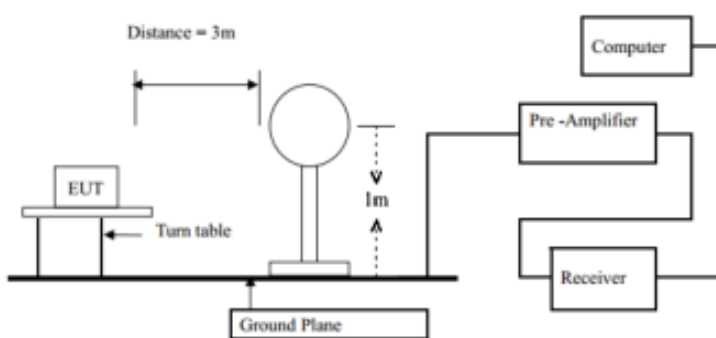
Power:DC 4.2V

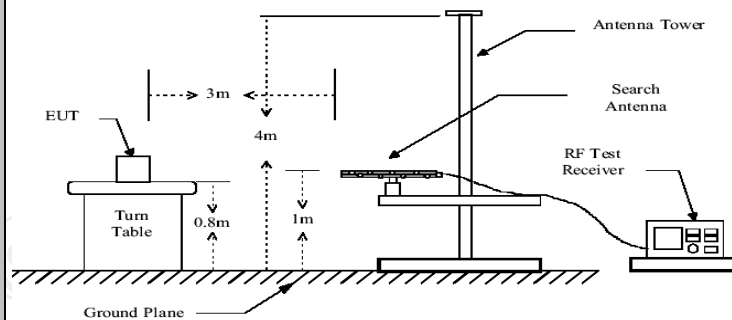
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1 *	5933.360	57.45	-6.86	50.59	68.20	-17.61	peak	P	

Note: All modulation (802.11a, 802.11n, 802.11ac, 802.11ax) have been tested, only the worst case in 802.11ax be reported.

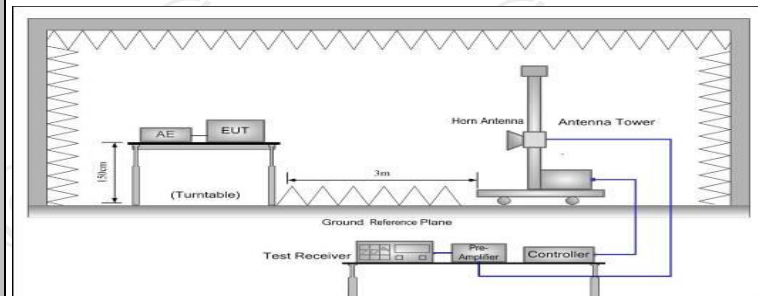
5.8. Unwanted Emissions

5.8.1. Test Specification

Test Requirement:	FCC CFR47 Part 15 Section 15.407 & 15.209 & 15.205				
Test Method:	KDB 789033 D02 v02r01				
Frequency Range:	9kHz to 40GHz				
Measurement Distance:	3 m				
Antenna Polarization:	Horizontal & Vertical				
Operation mode:	Transmitting mode with modulation				
Receiver Setup:	Frequency	Detector	RBW	VBW	Remark
	9kHz- 150kHz	Quasi-peak	200Hz	1kHz	Quasi-peak Value
	150kHz- 30MHz	Quasi-peak	9kHz	30kHz	Quasi-peak Value
	30MHz-1GHz	Quasi-peak	120KHz	300KHz	Quasi-peak Value
	Above 1GHz	Peak	1MHz	3MHz	Peak Value
		Peak	1MHz	10Hz	Average Value
Limit:	Unwanted spurious emissions fallen in restricted bands per FCC Part15.205 shall comply with the general field strength limits set forth in § 15.209 as below table, In restricted bands:				
	Frequency	Detector	Limit@3m		
	Above 1G	Peak	74dBµV/m		
		AVG	54dBµV/m		
	Frequency	Field Strength (microvolts/meter)	Measurement Distance (meters)		
	0.009-0.490	2400/F(KHz)	300		
	0.490-1.705	24000/F(KHz)	3		
	1.705-30	30	30		
	30-88	100	3		
	88-216	150	3		
216-960	200	3			
Above 960	500	3			
	In un-restricted bands: 68.2dBµV/m				
Test setup:	For radiated emissions below 30MHz				
					
	30MHz to 1GHz				



Above 1GHz



Test Procedure:

1. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation.
2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
3. 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.
4. 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 rotating table was turned from 0 degrees to 360 degrees to find the maximum reading.
5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
6. 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.

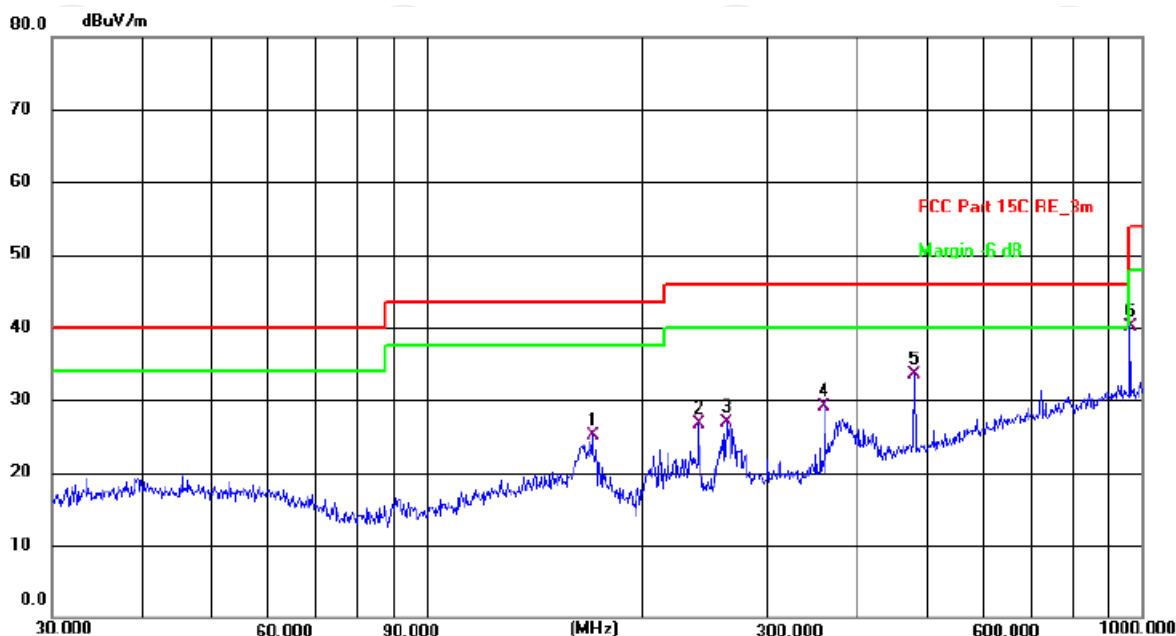
Test results:

PASS

5.8.2. Test Data

Please refer to following diagram for individual
Below 1GHz

Horizontal:



Site #2 3m Anechoic Chamber

Polarization: **Horizontal**

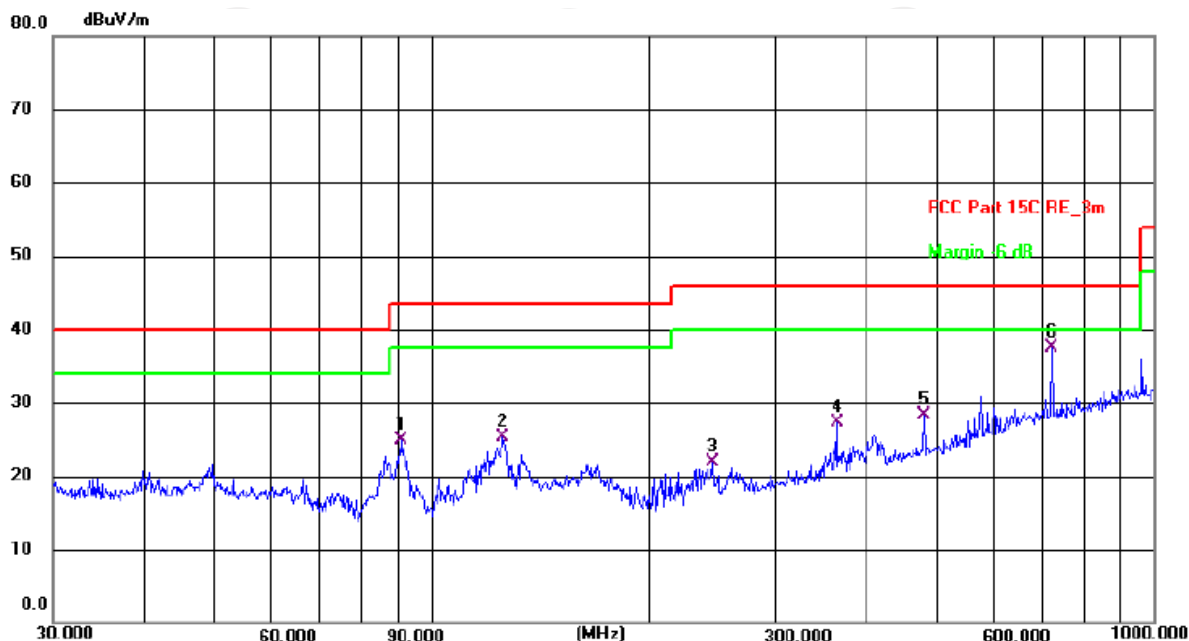
Temperature: 24.1(C) Humidity: 54 %

Limit: FCC Part 15C RE_3m

Power: DC 4.2V

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	170.7926	11.11	14.05	25.16	43.50	-18.34	QP	P	
2	239.9874	13.88	12.85	26.73	46.00	-19.27	QP	P	
3	262.8955	13.51	13.43	26.94	46.00	-19.06	QP	P	
4	360.4476	12.91	16.16	29.07	46.00	-16.93	QP	P	
5 *	480.5276	14.60	18.96	33.56	46.00	-12.44	QP	P	
6	962.1623	13.85	26.17	40.02	54.00	-13.98	QP	P	

Vertical:



Site #2 3m Anechoic Chamber

Polarization: **Vertical**

Temperature: 24.1(C)

Humidity: 54 %

Limit: FCC Part 15C RE_3m

Power: DC 4.2V

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	91.1744	14.84	10.10	24.94	43.50	-18.56	QP	P	
2	125.4457	11.64	13.64	25.28	43.50	-18.22	QP	P	
3	245.0900	8.98	12.96	21.94	46.00	-24.06	QP	P	
4	364.2595	11.10	16.25	27.35	46.00	-18.65	QP	P	
5	480.5276	9.44	18.96	28.40	46.00	-17.60	QP	P	
6 *	721.7258	14.33	23.23	37.56	46.00	-8.44	QP	P	

Note: 1. The low frequency, which started from 9KHz~30MHz, was pre-scanned and the result which was 20dB lower than the limit line per 15.31(o) was not reported

2. Measurements were conducted in all three channels (high, middle, low) and all modulation (802.11a, 802.11n(HT20), 802.11n(HT40), 802.11ac(VHT20), 802.11ac(VHT40), 802.11ac(VHT80), 802.11ax(VHT20), 802.11ax(VHT40), 802.11ax(VHT80)) and the worst case Mode (Channel 48 and 802.11ax(VHT20) transmit with antenna 1) was submitted only.

3. Measurement (dBuV) = Reading level + Correction Factor, correction Factor= Antenna Factor + Cable loss – Pre-amplifier.

Modulation Type: Band 1									
11a CH36: 5180MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
10360	H	38.74	---	8.02	46.76	---	68.2	---	-21.44
15540	H	37.21	---	9.87	47.08	---	74	54	-6.92
---	H	---	---	---	---	---	---	---	---
10360	V	38.49	---	8.02	46.51	---	68.2	---	-21.69
15540	V	37.52	---	9.87	47.39	---	74	54	-6.61
---	V	---	---	---	---	---	---	---	---
11a CH40: 5200MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
10400	H	39.62	---	7.97	47.59	---	68.2	---	-20.61
15600	H	38.45	---	9.83	48.28	---	74	54	-5.72
---	H	---	---	---	---	---	---	---	---
10400	V	40.91	---	7.97	48.88	---	68.2	---	-19.32
15600	V	38.08	---	9.83	47.91	---	74	54	-6.09
---	V	---	---	---	---	---	---	---	---
11a CH48: 5240MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
10480	H	38.12	---	7.97	46.09	---	68.2	---	-22.11
15720	H	37.89	---	9.83	47.72	---	74	54	-6.28
---	H	---	---	---	---	---	---	---	---
10480	V	38.56	---	7.97	46.53	---	68.2	---	-21.67
15720	V	36.41	---	9.83	46.24	---	74	54	-7.76
---	V	---	---	---	---	---	---	---	---
11n(HT20) CH36: 5180MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
10360	H	41.73	---	8.02	49.75	---	68.2	---	-18.45
15540	H	37.65	---	9.87	47.52	---	74	54	-6.48
---	H	---	---	---	---	---	---	---	---
10360	V	42.91	---	8.02	50.93	---	68.2	---	-17.27
15540	V	37.47	---	9.87	47.34	---	74	54	-6.66
---	V	---	---	---	---	---	---	---	---

11n(HT20) CH40: 5200MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
10400	H	40.75	---	7.97	48.72	---	68.2	---	-19.48
15600	H	38.23	---	9.83	48.06	---	74	54	-5.94
---	H	---	---	---	---	---	---	---	---
10400	V	40.81	---	7.97	48.78	---	68.2	---	-19.42
15600	V	37.06	---	9.83	46.89	---	74	54	-7.11
---	V	---	---	---	---	---	---	---	---
11n(HT20) CH48: 5240MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
10480	H	41.42	---	7.97	49.39	---	68.2	---	-18.81
15720	H	38.58	---	9.83	48.41	---	74	54	-5.59
---	H	---	---	---	---	---	---	---	---
10480	V	40.61	---	7.97	48.58	---	68.2	---	-19.62
15720	V	38.93	---	9.83	48.76	---	74	54	-5.24
---	V	---	---	---	---	---	---	---	---
11n(HT40) CH38: 5190MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
10380	H	39.67	---	7.75	47.42	---	68.2	---	-20.78
15570	H	37.21	---	9.87	47.08	---	74	54	-6.92
---	H	---	---	---	---	---	---	---	---
10380	V	40.86	---	7.75	48.61	---	68.2	---	-19.59
15570	V	37.47	---	9.87	47.34	---	74	54	-6.66
---	V	---	---	---	---	---	---	---	---
11n(HT40) CH46: 5230MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
10460	H	41.44	---	7.97	49.41	---	68.2	---	-18.79
15690	H	38.38	---	9.83	48.21	---	74	54	-5.79
---	H	---	---	---	---	---	---	---	---
10460	V	41.72	---	7.97	49.69	---	68.2	---	-18.51
15690	V	38.69	---	9.83	48.52	---	74	54	-5.48
---	V	---	---	---	---	---	---	---	---

11ac(VHT20) CH36: 5180MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
10360	H	40.96	---	8.02	48.98	---	68.2	---	-19.22
15540	H	37.14	---	9.87	47.01	---	74	54	-6.99
---	H	---	---	---	---	---	---	---	---
10360	V	38.37	---	8.02	46.39	---	68.2	---	-21.81
15540	V	39.52	---	9.87	49.39	---	74	54	-4.61
---	V	---	---	---	---	---	---	---	---
11ac(VHT20) CH40: 5200MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
10400	H	39.25	---	7.97	47.22	---	68.2	---	-20.98
15600	H	38.89	---	9.83	48.72	---	74	54	-5.28
---	H	---	---	---	---	---	---	---	---
10400	V	39.56	---	7.97	47.53	---	68.2	---	-20.67
15600	V	38.04	---	9.83	47.87	---	74	54	-6.13
---	V	---	---	---	---	---	---	---	---
11ac(VHT20) CH48:5240									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
10480	H	37.74	---	7.97	45.71	---	68.2	---	-22.49
15720	H	37.45	---	9.83	47.28	---	74	54	-6.72
---	H	---	---	---	---	---	---	---	---
10480	V	38.88	---	7.97	46.85	---	68.2	---	-21.35
15720	V	38.91	---	9.83	48.74	---	74	54	-5.26
---	V	---	---	---	---	---	---	---	---
11ac(VHT40) CH38:5190									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
10380	H	40.12	---	7.75	47.87	---	68.2	---	-20.33
15570	H	39.58	---	9.87	49.45	---	74	54	-4.55
---	H	---	---	---	---	---	---	---	---
10380	V	38.89	---	7.75	46.64	---	68.2	---	-21.56
15570	V	38.24	---	9.87	48.11	---	74	54	-5.89
---	V	---	---	---	---	---	---	---	---

11ac(VHT40) CH46:5230									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
10460	H	38.41	---	7.97	46.38	---	68.2	---	-21.82
15690	H	38.69	---	9.83	48.52	---	74	54	-5.48
---	H	---	---	---	---	---	---	---	---
10460	V	39.82	---	7.97	47.79	---	68.2	---	-20.41
15690	V	37.53	---	9.83	47.36	---	74	54	-6.64
---	V	---	---	---	---	---	---	---	---
11ac(VHT80) CH42:5210									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
10420	H	41.38	---	7.96	49.34	---	68.2	---	-18.86
15630	H	39.74	---	9.84	49.58	---	74	54	-4.42
---	H	---	---	---	---	---	---	---	---
10420	V	41.51	---	7.96	49.47	---	68.2	---	-18.73
15630	V	39.49	---	9.84	49.33	---	74	54	-4.67
---	V	---	---	---	---	---	---	---	---
11ax(VHT20) CH36: 5180MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
10360	H	39.96	---	8.02	47.98	---	68.2	---	-20.22
15540	H	37.14	---	9.87	47.01	---	74	54	-6.99
---	H	---	---	---	---	---	---	---	---
10360	V	38.37	---	8.02	46.39	---	68.2	---	-21.81
15540	V	38.02	---	9.87	47.89	---	74	54	-6.11
---	V	---	---	---	---	---	---	---	---
11ax(VHT20) CH40: 5200MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
10400	H	39.47	---	7.97	47.44	---	68.2	---	-20.76
15600	H	38.01	---	9.83	47.84	---	74	54	-6.16
---	H	---	---	---	---	---	---	---	---
10400	V	39.38	---	7.97	47.35	---	68.2	---	-20.85
15600	V	38.56	---	9.83	48.39	---	74	54	-5.61
---	V	---	---	---	---	---	---	---	---

11ax(VHT20) CH48:5240									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
10480	H	37.69	---	7.97	45.66	---	68.2	---	-22.54
15720	H	37.25	---	9.83	47.08	---	74	54	-6.92
---	H	---	---	---	---	---	---	---	---
10480	V	38.04	---	7.97	46.01	---	68.2	---	-22.19
15720	V	38.13	---	9.83	47.96	---	74	54	-6.04
---	V	---	---	---	---	---	---	---	---
11ax(VHT40) CH38:5190									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
10380	H	40.23	---	7.75	47.98	---	68.2	---	-20.22
15570	H	39.68	---	9.87	49.55	---	74	54	-4.45
---	H	---	---	---	---	---	---	---	---
10380	V	38.71	---	7.75	46.46	---	68.2	---	-21.74
15570	V	38.05	---	9.87	47.92	---	74	54	-6.08
---	V	---	---	---	---	---	---	---	---
11ax(VHT40) CH46:5230									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
10460	H	38.56	---	7.97	46.53	---	68.2	---	-21.67
15690	H	38.12	---	9.83	47.95	---	74	54	-6.05
---	H	---	---	---	---	---	---	---	---
10460	V	39.98	---	7.97	47.95	---	68.2	---	-20.25
15690	V	37.44	---	9.83	47.27	---	74	54	-6.73
---	V	---	---	---	---	---	---	---	---

11ax(VHT80) CH42:5210									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
10420	H	41.05	---	7.96	49.01	---	68.2	---	-19.19
15630	H	39.82	---	9.84	49.66	---	74	54	-4.34
---	H	---	---	---	---	---	---	---	---
10420	V	41.16	---	7.96	49.12	---	68.2	---	-19.08
15630	V	39.57	---	9.84	49.41	---	74	54	-4.59
---	V	---	---	---	---	---	---	---	---

Note:

1. Emission Level=Peak Reading + Correction Factor; Correction Factor= Antenna Factor + Cable loss – Pre-amplifier
2. Margin (dB) = Emission Level (Peak) (dBμV/m)-Average limit (dBμV/m)
3. The emission levels of other frequencies are very lower than the limit and not show in test report.
4. Measurements were conducted from 1 GHz to the 10th harmonic of highest fundamental frequency. The highest test frequency is 40GHz.
5. Data of measurement shown “---“in the above table mean that the reading of emissions is attenuated more than 20 dB below the limits or the field strength is too small to be measured.

Modulation Type: Band 2A									
11a CH52: 5260MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
10520	H	38.85	---	7.97	46.82	---	68.2	---	-21.38
15780	H	36.12	---	9.83	45.95	---	74	54	-8.05
---	H	---	---	---	---	---	---	---	---
10520	V	41.51	---	7.97	49.48	---	68.2	---	-18.72
15780	V	38.06	---	9.83	47.89	---	74	54	-6.11
---	V	---	---	---	---	---	---	---	---
11a CH60: 5300MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
10600	H	38.69	---	7.98	46.67	---	74	54	-7.33
15900	H	36.02	---	9.85	45.87	---	74	54	-8.13
---	H	---	---	---	---	---	---	---	---
10600	V	39.97	---	7.98	47.95	---	74	54	-6.05
15900	V	37.43	---	9.85	47.28	---	74	54	-6.72
---	V	---	---	---	---	---	---	---	---
11a CH64: 5320MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
10640	H	40.83	---	7.98	48.81	---	74	54	-5.19
15960	H	37.14	---	9.85	46.99	---	74	54	-7.01
---	H	---	---	---	---	---	---	---	---
10640	V	39.36	---	7.98	47.34	---	74	54	-6.66
15960	V	35.58	---	9.85	45.43	---	74	54	-8.57
---	V	---	---	---	---	---	---	---	---
11n(HT20) C52: 5260MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
10520	H	41.98	---	7.97	49.95	---	68.2	---	-18.25
15780	H	38.31	---	9.83	48.14	---	74	54	-5.86
---	H	---	---	---	---	---	---	---	---
10520	V	38.05	---	7.97	46.02	---	68.2	---	-22.18
15780	V	35.42	---	9.83	45.25	---	74	54	-8.75
---	V	---	---	---	---	---	---	---	---

11n(HT20) CH60: 5300MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
10600	H	38.45	---	7.98	46.43	---	74	54	-7.57
15900	H	35.81	---	9.85	45.66	---	74	54	-8.34
---	H	---	---	---	---	---	---	---	---
10600	V	40.69	---	7.98	48.67	---	74	54	-5.33
15900	V	38.23	---	9.85	48.08	---	74	54	-5.92
---	V	---	---	---	---	---	---	---	---
11n(HT20) CH64: 5320MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
10640	H	37.57	---	7.98	45.55	---	74	54	-8.45
15960	H	35.21	---	9.85	45.06	---	74	54	-8.94
---	H	---	---	---	---	---	---	---	---
10640	V	39.63	---	7.98	47.61	---	74	54	-6.39
15960	V	37.48	---	9.85	47.33	---	74	54	-6.67
---	V	---	---	---	---	---	---	---	---
11n(HT40) CH54: 5270MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
10540	H	41.98	---	7.97	49.95	---	68.2	---	-18.25
15810	H	37.42	---	9.83	47.25	---	74	54	-6.75
---	H	---	---	---	---	---	---	---	---
10540	V	37.75	---	7.97	45.72	---	68.2	---	-22.48
15810	V	36.13	---	9.83	45.96	---	74	54	-8.04
---	V	---	---	---	---	---	---	---	---
11n(HT40) CH62: 5310MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
10620	H	40.18	---	7.98	48.16	---	74	54	-5.84
15930	H	37.44	---	9.85	47.29	---	74	54	-6.71
---	H	---	---	---	---	---	---	---	---
10620	V	38.36	---	7.98	46.34	---	74	54	-7.66
15930	V	35.82	---	9.85	45.67	---	74	54	-8.33
---	V	---	---	---	---	---	---	---	---

11ac(VHT20) C52: 5260MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
10520	H	40.72	---	7.97	48.69	---	68.2	---	-19.51
15780	H	39.45	---	9.83	49.28	---	74	54	-4.72
---	H	---	---	---	---	---	---	---	---
10520	V	40.12	---	7.97	48.09	---	68.2	---	-20.11
15780	V	37.38	---	9.83	47.21	---	74	54	-6.79
---	V	---	---	---	---	---	---	---	---
11ac(VHT20) CH60: 5300MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
10600	H	38.44	---	7.98	46.42	---	74	54	-7.58
15900	H	35.61	---	9.85	45.46	---	74	54	-8.54
---	H	---	---	---	---	---	---	---	---
10600	V	37.75	---	7.98	45.73	---	74	54	-8.27
15900	V	34.23	---	9.85	44.08	---	74	54	-9.92
---	V	---	---	---	---	---	---	---	---
11ac(VHT20) CH64: 5320MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
10640	H	40.71	---	7.98	48.69	---	74	54	-5.31
15960	H	37.63	---	9.85	47.48	---	74	54	-6.52
---	H	---	---	---	---	---	---	---	---
10640	V	40.89	---	7.98	48.87	---	74	54	-5.13
15960	V	35.27	---	9.85	45.12	---	74	54	-8.88
---	V	---	---	---	---	---	---	---	---
11ac(VHT40) CH54: 5270MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
10540	H	40.45	---	7.97	48.42	---	68.2	---	-19.78
15810	H	37.91	---	9.83	47.74	---	74	54	-6.26
---	H	---	---	---	---	---	---	---	---
10540	V	39.24	---	7.97	47.21	---	68.2	---	-20.99
15810	V	37.56	---	9.83	47.39	---	74	54	-6.61
---	V	---	---	---	---	---	---	---	---

11ac(VHT40) CH62: 5310MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
10620	H	38.91	---	7.98	46.89	---	74	54	-7.11
15930	H	36.26	---	9.85	46.11	---	74	54	-7.89
---	H	---	---	---	---	---	---	---	---
10620	V	39.73	---	7.98	47.71	---	74	54	-6.29
15930	V	37.04	---	9.85	46.89	---	74	54	-7.11
---	V	---	---	---	---	---	---	---	---
11ac(VHT80) C58:5290MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
10580	H	41.15	---	7.98	49.13	---	74	54	-4.87
15870	H	38.62	---	9.85	48.47	---	74	54	-5.53
---	H	---	---	---	---	---	---	---	---
10580	V	40.58	---	7.98	48.56	---	74	54	-5.44
15870	V	37.29	---	9.85	47.14	---	74	54	-6.86
---	V	---	---	---	---	---	---	---	---
11ax(VHT20) C52: 5260MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
10520	H	40.25	---	7.97	48.22	---	68.2	---	-19.98
15780	H	39.69	---	9.83	49.52	---	74	54	-4.48
---	H	---	---	---	---	---	---	---	---
10520	V	40.12	---	7.97	48.09	---	68.2	---	-20.11
15780	V	37.04	---	9.83	46.87	---	74	54	-7.13
---	V	---	---	---	---	---	---	---	---
11ax(VHT20) CH60: 5300MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
10600	H	38.56	---	7.98	46.54	---	74	54	-7.46
15900	H	36.12	---	9.85	45.97	---	74	54	-8.03
---	H	---	---	---	---	---	---	---	---
10600	V	37.44	---	7.98	45.42	---	74	54	-8.58
15900	V	35.38	---	9.85	45.23	---	74	54	-8.77
---	V	---	---	---	---	---	---	---	---

11ax(VHT20) CH64: 5320MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
10640	H	40.03	---	7.98	48.01	---	74	54	-5.99
15960	H	37.54	---	9.85	47.39	---	74	54	-6.61
---	H	---	---	---	---	---	---	---	---
10640	V	40.36	---	7.98	48.34	---	74	54	-5.66
15960	V	35.47	---	9.85	45.32	---	74	54	-8.68
---	V	---	---	---	---	---	---	---	---
11ax(VHT40) CH54: 5270MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
10540	H	40.69	---	7.97	48.66	---	68.2	---	-19.54
15810	H	37.25	---	9.83	47.08	---	74	54	-6.92
---	H	---	---	---	---	---	---	---	---
10540	V	39.36	---	7.97	47.33	---	68.2	---	-20.87
15810	V	37.01	---	9.83	46.84	---	74	54	-7.16
---	V	---	---	---	---	---	---	---	---
11ax(VHT40) CH62: 5310MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
10620	H	38.31	---	7.98	46.29	---	74	54	-7.71
15930	H	36.04	---	9.85	45.89	---	74	54	-8.11
---	H	---	---	---	---	---	---	---	---
10620	V	39.66	---	7.98	47.64	---	74	54	-6.36
15930	V	37.18	---	9.85	47.03	---	74	54	-6.97
---	V	---	---	---	---	---	---	---	---

11ax(VHT80) C58:5290MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
10580	H	41.74	---	7.98	49.72	---	74	54	-4.28
15870	H	39.12	---	9.85	48.97	---	74	54	-5.03
---	H	---	---	---	---	---	---	---	---
10580	V	40.36	---	7.98	48.34	---	74	54	-5.66
15870	V	37.28	---	9.85	47.13	---	74	54	-6.87
---	V	---	---	---	---	---	---	---	---

Note:

1. Emission Level=Peak Reading + Correction Factor; Correction Factor= Antenna Factor + Cable loss – Pre-amplifier
2. Margin (dB) = Emission Level (Peak) (dBμV/m)-Average limit (dBμV/m)
3. The emission levels of other frequencies are very lower than the limit and not show in test report.
4. Measurements were conducted from 1 GHz to the 10th harmonic of highest fundamental frequency. The highest test frequency is 40GHz.
5. Data of measurement shown “---“in the above table mean that the reading of emissions is attenuated more than 20 dB below the limits or the field strength is too small to be measured.

Modulation Type: Band 2C									
11a CH100: 5500MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
11000	H	39.84	---	8.03	47.87	---	74	54	-6.13
16500	H	39.13	---	9.76	48.89	---	68.2	---	-19.31
---	H	---	---	---	---	---	---	---	---
11000	V	40.25	---	8.03	48.28	---	74	54	-5.72
16500	V	40.78	---	9.76	50.54	---	68.2	---	-17.66
---	V	---	---	---	---	---	---	---	---
11a CH120: 5600MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
11200	H	40.35	---	8.04	48.39	---	74	54	-5.61
16800	H	40.14	---	9.74	49.88	---	68.2	---	-18.32
---	H	---	---	---	---	---	---	---	---
11200	V	38.58	---	8.04	46.62	---	74	54	-7.38
16800	V	39.07	---	9.74	48.81	---	68.2	---	-19.39
---	V	---	---	---	---	---	---	---	---
11a CH140: 5700MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
11400	H	38.78	---	8.05	46.83	---	74	54	-7.17
17100	H	40.15	---	9.72	49.87	---	68.2	---	-18.33
---	H	---	---	---	---	---	---	---	---
11400	V	38.92	---	8.05	46.97	---	74	54	-7.03
17100	V	40.34	---	9.72	50.06	---	68.2	---	-18.14
---	V	---	---	---	---	---	---	---	---
11n(HT20) CH100: 5500MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
11000	H	40.15	---	8.03	48.18	---	74	54	-5.82
16500	H	39.02	---	9.76	48.78	---	68.2	---	-19.42
---	H	---	---	---	---	---	---	---	---
11000	V	38.64	---	8.03	46.67	---	74	54	-7.33
16500	V	41.79	---	9.76	51.55	---	68.2	---	-16.65
---	V	---	---	---	---	---	---	---	---

11n(HT20) CH120: 5600MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
11200	H	39.23	---	8.04	47.27	---	74	54	-6.73
16800	H	40.75	---	9.74	50.49	---	68.2	---	-17.71
---	H	---	---	---	---	---	---	---	---
11200	V	38.91	---	8.04	46.95	---	74	54	-7.05
16800	V	39.38	---	9.74	49.12	---	68.2	---	-19.08
---	V	---	---	---	---	---	---	---	---
11n(HT20) CH140: 5700MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
11400	H	39.74	---	8.05	47.79	---	74	54	-6.21
17100	H	40.25	---	9.72	49.97	---	68.2	---	-18.23
---	H	---	---	---	---	---	---	---	---
11400	V	38.36	---	8.05	46.41	---	74	54	-7.59
17100	V	39.01	---	9.72	48.73	---	68.2	---	-19.47
---	V	---	---	---	---	---	---	---	---
11n(HT40) CH102: 5510MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
11020	H	39.44	---	8.03	47.47	---	74	54	-6.53
16530	H	39.58	---	9.76	49.34	---	68.2	---	-18.86
---	H	---	---	---	---	---	---	---	---
11020	V	39.13	---	8.03	47.16	---	74	54	-6.84
16530	V	37.27	---	9.76	47.03	---	68.2	---	-21.17
---	V	---	---	---	---	---	---	---	---
11n(HT40) CH118: 5590MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
11180	H	39.58	---	8.04	47.62	---	74	54	-6.38
16770	H	39.02	---	9.74	48.76	---	68.2	---	-19.44
---	H	---	---	---	---	---	---	---	---
11180	V	37.39	---	8.04	45.43	---	74	54	-8.57
16770	V	41.61	---	9.74	51.35	---	68.2	---	-16.85
---	V	---	---	---	---	---	---	---	---

11n(HT40) CH134: 5670MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
11340	H	40.69	---	8.05	48.74	---	74	54	-5.26
17010	H	41.34	---	9.72	51.06	---	68.2	---	-17.14
---	H	---	---	---	---	---	---	---	---
11340	V	39.48	---	8.05	47.53	---	74	54	-6.47
17010	V	38.93	---	9.72	48.65	---	68.2	---	-19.55
---	V	---	---	---	---	---	---	---	---
11ac(VHT20) CH100: 5500MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
11000	H	37.52	---	8.03	45.55	---	74	54	-8.45
16500	H	39.87	---	9.76	49.63	---	68.2	---	-18.57
---	H	---	---	---	---	---	---	---	---
11000	V	39.61	---	8.03	47.64	---	74	54	-6.36
16500	V	39.23	---	9.76	48.99	---	68.2	---	-19.21
---	V	---	---	---	---	---	---	---	---
11ac(VHT20) CH120: 5600MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
11200	H	40.95	---	8.04	48.99	---	74	54	-5.01
16800	H	39.18	---	9.74	48.92	---	68.2	---	-19.28
---	H	---	---	---	---	---	---	---	---
11200	V	39.23	---	8.04	47.27	---	74	54	-6.73
16800	V	39.05	---	9.74	48.79	---	68.2	---	-19.41
---	V	---	---	---	---	---	---	---	---
11ac(VHT20) CH140: 5700MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
11400	H	39.24	---	8.05	47.29	---	74	54	-6.71
17100	H	38.36	---	9.72	48.08	---	68.2	---	-20.12
---	H	---	---	---	---	---	---	---	---
11400	V	40.02	---	8.05	48.07	---	74	54	-5.93
17100	V	39.75	---	9.72	49.47	---	68.2	---	-18.73
---	V	---	---	---	---	---	---	---	---

11ac(VHT40) CH102: 5510MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
11020	H	38.45	---	8.03	46.48	---	74	54	-7.52
16530	H	39.12	---	9.76	48.88	---	68.2	---	-19.32
---	H	---	---	---	---	---	---	---	---
11020	V	41.36	---	8.03	49.39	---	74	54	-4.61
16530	V	38.57	---	9.76	48.33	---	68.2	---	-19.87
---	V	---	---	---	---	---	---	---	---
11ac(VHT40) CH118: 5590MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
11180	H	38.85	---	8.04	46.89	---	74	54	-7.11
16770	H	36.24	---	9.74	45.98	---	68.2	---	-22.22
---	H	---	---	---	---	---	---	---	---
11180	V	38.71	---	8.04	46.75	---	74	54	-7.25
16770	V	37.33	---	9.74	47.07	---	68.2	---	-21.13
---	V	---	---	---	---	---	---	---	---
11ac(VHT40) CH134: 5670MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
11340	H	37.02	---	8.05	45.07	---	74	54	-8.93
17010	H	36.69	---	9.72	46.41	---	68.2	---	-21.79
---	H	---	---	---	---	---	---	---	---
11340	V	37.14	---	8.05	45.19	---	74	54	-8.81
17010	V	39.56	---	9.72	49.28	---	68.2	---	-18.92
---	V	---	---	---	---	---	---	---	---
11ac(VHT80) CH106: 5530MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
11060	H	39.58	---	8.03	47.61	---	74	54	-6.39
16590	H	40.71	---	9.75	50.46	---	68.2	---	-17.74
---	H	---	---	---	---	---	---	---	---
11060	V	40.68	---	8.03	48.71	---	74	54	-5.29
16590	V	41.04	---	9.75	50.79	---	68.2	---	-17.41
---	V	---	---	---	---	---	---	---	---

11ac(VHT80) CH122: 5610MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
11220	H	40.36	---	8.05	48.41	---	74	54	-5.59
16830	H	38.12	---	9.72	47.84	---	68.2	---	-20.36
---	H	---	---	---	---	---	---	---	---
11220	V	39.47	---	8.05	47.52	---	74	54	-6.48
16830	V	39.91	---	9.72	49.63	---	68.2	---	-18.57
---	V	---	---	---	---	---	---	---	---
11ax(VHT20) CH100: 5500MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
11000	H	37.34	---	8.03	45.37	---	74	54	-8.63
16500	H	39.12	---	9.76	48.88	---	68.2	---	-19.32
---	H	---	---	---	---	---	---	---	---
11000	V	39.05	---	8.03	47.08	---	74	54	-6.92
16500	V	39.66	---	9.76	49.42	---	68.2	---	-18.78
---	V	---	---	---	---	---	---	---	---
11ax(VHT20) CH120: 5600MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
11200	H	40.14	---	8.04	48.18	---	74	54	-5.82
16800	H	39.52	---	9.74	49.26	---	68.2	---	-18.94
---	H	---	---	---	---	---	---	---	---
11200	V	39.73	---	8.04	47.77	---	74	54	-6.23
16800	V	39.25	---	9.74	48.99	---	68.2	---	-19.21
---	V	---	---	---	---	---	---	---	---
11ax(VHT20) CH140: 5700MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
11400	H	39.54	---	8.05	47.59	---	74	54	-6.41
17100	H	38.02	---	9.72	47.74	---	68.2	---	-20.46
---	H	---	---	---	---	---	---	---	---
11400	V	40.86	---	8.05	48.91	---	74	54	-5.09
17100	V	39.13	---	9.72	48.85	---	68.2	---	-19.35
---	V	---	---	---	---	---	---	---	---

11ax(VHT40) CH102: 5510MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
11020	H	38.53	---	8.03	46.56	---	74	54	-7.44
16530	H	39.47	---	9.76	49.23	---	68.2	---	-18.97
---	H	---	---	---	---	---	---	---	---
11020	V	41.25	---	8.03	49.28	---	74	54	-4.72
16530	V	38.61	---	9.76	48.37	---	68.2	---	-19.83
---	V	---	---	---	---	---	---	---	---
11ax(VHT40) CH118: 5590MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
11180	H	38.03	---	8.04	46.07	---	74	54	-7.93
16770	H	36.48	---	9.74	46.22	---	68.2	---	-21.98
---	H	---	---	---	---	---	---	---	---
11180	V	38.15	---	8.04	46.19	---	74	54	-7.81
16770	V	37.24	---	9.74	46.98	---	68.2	---	-21.22
---	V	---	---	---	---	---	---	---	---
11ax(VHT40) CH134: 5670MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
11340	H	37.26	---	8.05	45.31	---	74	54	-8.69
17010	H	36.01	---	9.72	45.73	---	68.2	---	-22.47
---	H	---	---	---	---	---	---	---	---
11340	V	37.67	---	8.05	45.72	---	74	54	-8.28
17010	V	39.45	---	9.72	49.17	---	68.2	---	-19.03
---	V	---	---	---	---	---	---	---	---
11ax(VHT80) CH106: 5530MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
11060	H	39.13	---	8.03	47.16	---	74	54	-6.84
16590	H	40.48	---	9.75	50.23	---	68.2	---	-17.97
---	H	---	---	---	---	---	---	---	---
11060	V	40.53	---	8.03	48.56	---	74	54	-5.44
16590	V	41.04	---	9.75	50.79	---	68.2	---	-17.41
---	V	---	---	---	---	---	---	---	---

11ax(VHT80) CH122: 5610MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
11220	H	40.56	---	8.05	48.61	---	74	54	-5.39
16830	H	38.14	---	9.72	47.86	---	68.2	---	-20.34
---	H	---	---	---	---	---	---	---	---
11220	V	39.33	---	8.05	47.38	---	74	54	-6.62
16830	V	39.96	---	9.72	49.68	---	68.2	---	-18.52
---	V	---	---	---	---	---	---	---	---

Note:

1. Emission Level=Peak Reading + Correction Factor; Correction Factor= Antenna Factor + Cable loss – Pre-amplifier
2. Margin (dB) = Emission Level (Peak) (dBμV/m)-Average limit (dBμV/m)
3. The emission levels of other frequencies are very lower than the limit and not show in test report.
4. Measurements were conducted from 1 GHz to the 10th harmonic of highest fundamental frequency. The highest test frequency is 40GHz.
5. Data of measurement shown “---“in the above table mean that the reading of emissions is attenuated more than 20 dB below the limits or the field strength is too small to be measured.

Modulation Type: Band 3									
11a CH149: 5745MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
11490	H	37.38	---	8.09	45.47	---	74	54	-8.53
17235	H	37.12	---	9.67	46.79	---	68.2	---	-21.41
---	H	---	---	---	---	---	---	---	---
11490	V	40.04	---	8.09	48.13	---	74	54	-5.87
17235	V	38.69	---	9.67	48.36	---	68.2	---	-19.84
---	V	---	---	---	---	---	---	---	---
11a CH157: 5785MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
11570	H	39.51	---	8.10	47.61	---	74	54	-6.39
17355	H	38.46	---	9.65	48.11	---	68.2	---	-20.09
---	H	---	---	---	---	---	---	---	---
11570	V	38.35	---	8.10	46.45	---	74	54	-7.55
17355	V	39.98	---	9.65	49.63	---	68.2	---	-18.57
---	V	---	---	---	---	---	---	---	---
11a CH165: 5825MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
11650	H	37.15	---	8.12	45.27	---	74	54	-8.73
17475	H	36.47	---	9.62	46.09	---	68.2	---	-22.11
---	H	---	---	---	---	---	---	---	---
11650	V	38.23	---	8.12	46.35	---	74	54	-7.65
17475	V	38.69	---	9.62	48.31	---	68.2	---	-19.89
---	V	---	---	---	---	---	---	---	---
11n(HT20) CH149: 5745MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
11490	H	38.22	---	8.09	46.31	---	74	54	-7.69
17235	H	38.78	---	9.67	48.45	---	68.2	---	-19.75
---	H	---	---	---	---	---	---	---	---
11490	V	39.63	---	8.09	47.72	---	74	54	-6.28
17235	V	37.91	---	9.67	47.58	---	68.2	---	-20.62
---	V	---	---	---	---	---	---	---	---

11n(HT20) CH157: 5785MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
11570	H	38.45	---	8.10	46.55	---	74	54	-7.45
17355	H	39.62	---	9.65	49.27	---	68.2	---	-18.93
---	H	---	---	---	---	---	---	---	---
11570	V	38.89	---	8.10	46.99	---	74	54	-7.01
17355	V	39.36	---	9.65	49.01	---	68.2	---	-19.19
---	V	---	---	---	---	---	---	---	---
11n(HT20) CH165: 5825MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
11650	H	38.51	---	8.12	46.63	---	74	54	-7.37
17475	H	37.03	---	9.62	46.65	---	68.2	---	-21.55
---	H	---	---	---	---	---	---	---	---
11650	V	38.75	---	8.12	46.87	---	74	54	-7.13
17475	V	39.24	---	9.62	48.86	---	68.2	---	-19.34
---	V	---	---	---	---	---	---	---	---
11n(HT40) CH151: 5755MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
11510	H	40.53	---	8.09	48.62	---	74	54	-5.38
17265	H	37.16	---	9.67	46.83	---	68.2	---	-21.37
---	H	---	---	---	---	---	---	---	---
11510	V	41.68	---	8.09	49.77	---	74	54	-4.23
17265	V	38.22	---	9.67	47.89	---	68.2	---	-20.31
---	V	---	---	---	---	---	---	---	---
11n(HT40) CH159: 5795MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
11590	H	38.71	---	8.10	46.81	---	74	54	-7.19
17385	H	38.24	---	9.65	47.89	---	68.2	---	-20.31
---	H	---	---	---	---	---	---	---	---
11590	V	38.76	---	8.10	46.86	---	74	54	-7.14
17385	V	37.42	---	9.65	47.07	---	68.2	---	-21.13
---	V	---	---	---	---	---	---	---	---

11ac(VHT20) CH149: 5745MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
11490	H	40.53	---	8.09	48.62	---	74	54	-5.38
17235	H	37.61	---	9.67	47.28	---	68.2	---	-20.92
---	H	---	---	---	---	---	---	---	---
11490	V	40.78	---	8.09	48.87	---	74	54	-5.13
17235	V	38.42	---	9.67	48.09	---	68.2	---	-20.11
---	V	---	---	---	---	---	---	---	---
11ac(VHT20) CH157: 5785MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
11570	H	38.95	---	8.10	47.05	---	74	54	-6.95
17355	H	36.42	---	9.65	46.07	---	68.2	---	-22.13
---	H	---	---	---	---	---	---	---	---
11570	V	37.63	---	8.10	45.73	---	74	54	-8.27
17355	V	38.71	---	9.65	48.36	---	68.2	---	-19.84
---	V	---	---	---	---	---	---	---	---
11ac(VHT20) CH165: 5825MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
11650	H	40.04	---	8.12	48.16	---	74	54	-5.84
17475	H	38.13	---	9.62	47.75	---	68.2	---	-20.45
---	H	---	---	---	---	---	---	---	---
11650	V	38.75	---	8.12	46.87	---	74	54	-7.13
17475	V	40.94	---	9.62	50.56	---	68.2	---	-17.64
---	V	---	---	---	---	---	---	---	---
11ac(VHT40) CH151: 5755MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
11510	H	39.23	---	8.09	47.32	---	74	54	-6.68
17265	H	37.87	---	9.67	47.54	---	68.2	---	-20.66
---	H	---	---	---	---	---	---	---	---
11510	V	40.36	---	8.09	48.45	---	74	54	-5.55
17265	V	36.14	---	9.67	45.81	---	68.2	---	-22.39
---	V	---	---	---	---	---	---	---	---

11ac(VHT40) CH159: 5795MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
11590	H	40.52	---	8.10	48.62	---	74	54	-5.38
17385	H	37.47	---	9.65	47.12	---	68.2	---	-21.08
---	H	---	---	---	---	---	---	---	---
11590	V	39.86	---	8.10	47.96	---	74	54	-6.04
17385	V	38.23	---	9.65	47.88	---	68.2	---	-20.32
---	V	---	---	---	---	---	---	---	---
11ac(VHT80) CH155: 5775MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
11550	H	40.45	---	8.09	48.54	---	74	54	-5.46
17325	H	38.12	---	9.66	47.78	---	68.2	---	-20.42
---	H	---	---	---	---	---	---	---	---
11550	V	41.38	---	8.09	49.47	---	74	54	-4.53
17325	V	38.65	---	9.66	48.31	---	68.2	---	-19.89
---	V	---	---	---	---	---	---	---	---
11ax(VHT20) CH149: 5745MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
11490	H	40.53	---	8.09	48.62	---	74	54	-5.38
17235	H	37.64	---	9.67	47.31	---	68.2	---	-20.89
---	H	---	---	---	---	---	---	---	---
11490	V	40.78	---	8.09	48.87	---	74	54	-5.13
17235	V	38.41	---	9.67	48.08	---	68.2	---	-20.12
---	V	---	---	---	---	---	---	---	---
11ax(VHT20) CH157: 5785MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
11570	H	38.25	---	8.10	46.35	---	74	54	-7.65
17355	H	36.69	---	9.65	46.34	---	68.2	---	-21.86
---	H	---	---	---	---	---	---	---	---
11570	V	37.03	---	8.10	45.13	---	74	54	-8.87
17355	V	38.44	---	9.65	48.09	---	68.2	---	-20.11
---	V	---	---	---	---	---	---	---	---

11ax(VHT20) CH165: 5825MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
11650	H	40.12	---	8.12	48.24	---	74	54	-5.76
17475	H	38.57	---	9.62	48.19	---	68.2	---	-20.01
---	H	---	---	---	---	---	---	---	---
11650	V	38.31	---	8.12	46.43	---	74	54	-7.57
17475	V	40.42	---	9.62	50.04	---	68.2	---	-18.16
---	V	---	---	---	---	---	---	---	---
11ax(VHT40) CH151: 5755MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
11510	H	39.33	---	8.09	47.42	---	74	54	-6.58
17265	H	37.56	---	9.67	47.23	---	68.2	---	-20.97
---	H	---	---	---	---	---	---	---	---
11510	V	40.08	---	8.09	48.17	---	74	54	-5.83
17265	V	36.44	---	9.67	46.11	---	68.2	---	-22.09
---	V	---	---	---	---	---	---	---	---
11ax(VHT40) CH159: 5795MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
11590	H	40.29	---	8.10	48.39	---	74	54	-5.61
17385	H	37.08	---	9.65	46.73	---	68.2	---	-21.47
---	H	---	---	---	---	---	---	---	---
11590	V	39.15	---	8.10	47.25	---	74	54	-6.75
17385	V	38.37	---	9.65	48.02	---	68.2	---	-20.18
---	V	---	---	---	---	---	---	---	---

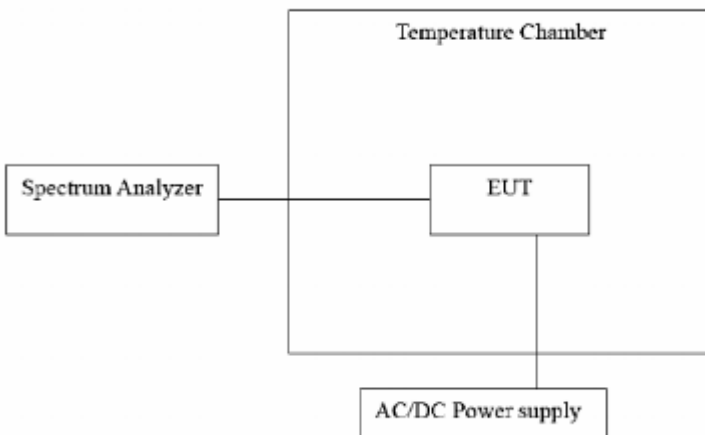
11ax(VHT80) CH155: 5775MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
11550	H	40.33	---	8.09	48.42	---	74	54	-5.58
17325	H	38.42	---	9.66	48.08	---	68.2	---	-20.12
---	H	---	---	---	---	---	---	---	---
11550	V	41.69	---	8.09	49.78	---	74	54	-4.22
17325	V	38.15	---	9.66	47.81	---	68.2	---	-20.39
---	V	---	---	---	---	---	---	---	---

Note:

1. Emission Level=Peak Reading + Correction Factor; Correction Factor= Antenna Factor + Cable loss – Pre-amplifier
2. Margin (dB) = Emission Level (Peak) (dBμV/m)-Average limit (dBμV/m)
3. The emission levels of other frequencies are very lower than the limit and not show in test report.
4. Measurements were conducted from 1 GHz to the 10th harmonic of highest fundamental frequency. The highest test frequency is 40GHz.
5. Data of measurement shown “---“in the above table mean that the reading of emissions is attenuated more than 20 dB below the limits or the field strength is too small to be measured.

5.9. Frequency Stability Measurement

5.9.1. Test Specification

Test Requirement:	FCC Part15 Section 15.407(g) &Part2 J Section 2.1055
Test Method:	ANSI C63.10: 2013
Limit:	The frequency tolerance shall be maintained within the band of operation frequency over a temperature variation of 0 degrees to 45 degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C.
Test Setup:	 <pre> graph LR SA[Spectrum Analyzer] --- EUT[EUT] subgraph TC [Temperature Chamber] EUT end EUT --- P[AC/DC Power supply] </pre>
Test Procedure:	The EUT was placed inside the environmental test chamber and powered by nominal AC/DC voltage. b. Turn the EUT on and couple its output to a spectrum analyzer. c. Turn the EUT off and set the chamber to the highest temperature specified. d. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize. e. Repeat step 2 and 3 with the temperature chamber set to the lowest temperature. f. The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.
Test Result:	PASS
Remark:	Pre-scan was performed at Antenna 0 and Antenna 1, the worst case was found. Only the test data of Antenna 0 was shown in this report.

Test plots as follows:

Test mode:		802.11ax(HT20)	Frequency(MHz):	5180
Temperature (°C)	Voltage(VDC)	Measurement Frequency(MHz)	Delta Frequency(Hz)	Result
45	4.2V	5179.98	-20000	PASS
35		5180	0	PASS
25		5179.98	-20000	PASS
15		5180	0	PASS
5		5180	0	PASS
0		5180	0	PASS
20	2.6V	5180	0	PASS
	4.2V	5179.98	-20000	PASS
	5V	5180	0	PASS

Test mode:		802.11ax(HT20)	Frequency(MHz):	5200
Temperature (°C)	Voltage(VDC)	Measurement Frequency(MHz)	Delta Frequency(Hz)	Result
45	4.2V	5200	0	PASS
35		5200	0	PASS
25		5200	0	PASS
15		5199.98	-20000	PASS
5		5199.98	-20000	PASS
0		5199.98	-20000	PASS
20	2.6V	5199.98	-20000	PASS
	4.2V	5199.98	-20000	PASS
	5V	5199.98	-20000	PASS

Test mode:		802.11ax(HT20)	Frequency(MHz):	5240
Temperature (°C)	Voltage(VDC)	Measurement Frequency(MHz)	Delta Frequency(Hz)	Result
45	4.2V	5240	0	PASS
35		5240	0	PASS
25		5240	0	PASS
15		5240	0	PASS
5		5240	0	PASS
0		5239.98	-20000	PASS
20	2.6V	5240	0	PASS
	4.2V	5239.98	-20000	PASS
	5V	5240	0	PASS

Test mode:		802.11ax(HT20)	Frequency(MHz):	5745
Temperature (°C)	Voltage(VDC)	Measurement Frequency(MHz)	Delta Frequency(Hz)	Result
45	4.2V	5744.98	-20000	PASS
35		5744.98	-20000	PASS
25		5744.98	-20000	PASS
15		5744.98	-20000	PASS
5		5744.98	-20000	PASS
0		5744.98	-20000	PASS
20	2.6V	5744.98	-20000	PASS
	4.2V	5744.98	-20000	PASS
	5V	5744.98	-20000	PASS

Test mode:		802.11ax(HT20)	Frequency(MHz):	5785
Temperature (°C)	Voltage(VDC)	Measurement Frequency(MHz)	Delta Frequency(Hz)	Result
45	4.2V	5784.98	-20000	PASS
35		5785	0	PASS
25		5785	0	PASS
15		5784.98	-20000	PASS
5		5784.96	-40000	PASS
0		5784.98	-20000	PASS
20	2.6V	5785	0	PASS
	4.2V	5784.98	-20000	PASS
	5V	5784.98	-20000	PASS

Test mode:		802.11ax(HT20)	Frequency(MHz):	5825
Temperature (°C)	Voltage(VDC)	Measurement Frequency(MHz)	Delta Frequency(Hz)	Result
45	4.2V	5825	0	PASS
35		5824.98	-20000	PASS
25		5825	0	PASS
15		5825	0	PASS
5		5825	0	PASS
0		5825	0	PASS
20	2.6V	5824.98	-20000	PASS
	4.2V	5824.98	-20000	PASS
	5V	5824.98	-20000	PASS

Test mode:		802.11ax(HT40)	Frequency(MHz):	5190
Temperature (°C)	Voltage(VDC)	Measurement Frequency(MHz)	Delta Frequency(Hz)	Result
45	4.2V	5189.96	-40000	PASS
35		5189.96	-40000	PASS
25		5189.96	-40000	PASS
15		5189.96	-40000	PASS
5		5189.96	-40000	PASS
0		5189.96	-40000	PASS
20	2.6V	5189.96	-40000	PASS
	4.2V	5189.96	-40000	PASS
	5V	5190	0	PASS

Test mode:		802.11ax(HT40)	Frequency(MHz):	5230
Temperature (°C)	Voltage(VDC)	Measurement Frequency(MHz)	Delta Frequency(Hz)	Result
45	4.2V	5229.96	-40000	PASS
35		5229.96	-40000	PASS
25		5229.96	-40000	PASS
15		5229.96	-40000	PASS
5		5230	0	PASS
0		5229.96	-40000	PASS
20	2.6V	5229.96	-40000	PASS
	4.2V	5230	0	PASS
	5V	5229.96	-40000	PASS

Test mode:		802.11ax(HT40)	Frequency(MHz):	5755
Temperature (°C)	Voltage(VDC)	Measurement Frequency(MHz)	Delta Frequency(Hz)	Result
45	4.2V	5754.96	-40000	PASS
35		5755	0	PASS
25		5754.96	-40000	PASS
15		5754.96	-40000	PASS
5		5754.96	-40000	PASS
0		5754.96	-40000	PASS
20	2.6V	5754.96	-40000	PASS
	4.2V	5754.96	-40000	PASS
	5V	5755	0	PASS

Test mode:		802.11ax(HT40)	Frequency(MHz):	5795
Temperature (°C)	Voltage(VDC)	Measurement Frequency(MHz)	Delta Frequency(Hz)	Result
45	4.2V	5794.96	-40000	PASS
35		5794.96	-40000	PASS
25		5794.96	-40000	PASS
15		5794.96	-40000	PASS
5		5794.96	-40000	PASS
0		5794.96	-40000	PASS
20	2.6V	5794.96	-40000	PASS
	4.2V	5794.96	-40000	PASS
	5V	5794.96	-40000	PASS

Test mode:		802.11ax(VHT80)	Frequency(MHz):	5210
Temperature (°C)	Voltage(VDC)	Measurement Frequency(MHz)	Delta Frequency(Hz)	Result
45	4.2V	5210	0	PASS
35		5210	0	PASS
25		5210	0	PASS
15		5210	0	PASS
5		5210	0	PASS
0		5210	0	PASS
20	2.6V	5210	0	PASS
	4.2V	5210	0	PASS
	5V	5210	0	PASS

Test mode:		802.11ax(VHT80)	Frequency(MHz):	5775
Temperature (°C)	Voltage(VDC)	Measurement Frequency(MHz)	Delta Frequency(Hz)	Result
45	4.2V	5775	0	PASS
35		5775	0	PASS
25		5775	0	PASS
15		5775	0	PASS
5		5775	0	PASS
0		5775	0	PASS
20	2.6V	5775	0	PASS
	4.2V	5775	0	PASS
	5V	5775	0	PASS

Appendix A: Test Result of Conducted Test

Antenna 0

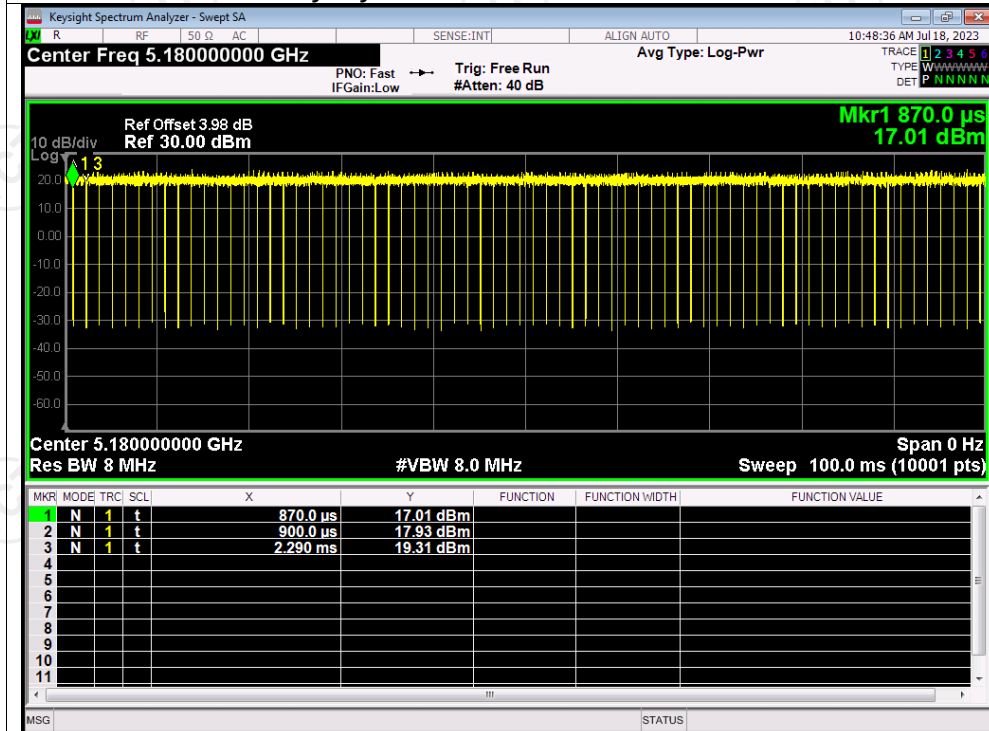
Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)
NVNT	a	5180	Ant0	98.29	0
NVNT	a	5200	Ant0	98.31	0
NVNT	a	5240	Ant0	98.18	0
NVNT	n20	5180	Ant0	98.27	0
NVNT	n20	5200	Ant0	98.25	0
NVNT	n20	5240	Ant0	98.18	0
NVNT	n40	5190	Ant0	96.34	0.16
NVNT	n40	5230	Ant0	96.35	0.16
NVNT	ac20	5180	Ant0	98.17	0
NVNT	ac20	5200	Ant0	98.23	0
NVNT	ac20	5240	Ant0	98.08	0
NVNT	ac40	5190	Ant0	96.45	0.16
NVNT	ac40	5230	Ant0	96.50	0.15
NVNT	ac80	5210	Ant0	93.10	0.31
NVNT	ax20	5180	Ant0	97.65	0.10
NVNT	ax20	5200	Ant0	97.60	0.11
NVNT	ax20	5240	Ant0	97.15	0.13
NVNT	ax40	5190	Ant0	95.61	0.19
NVNT	ax40	5230	Ant0	95.62	0.19
NVNT	ax80	5210	Ant0	92.56	0.34
NVNT	a	5260	Ant0	98.31	0
NVNT	a	5300	Ant0	98.25	0
NVNT	a	5320	Ant0	98.32	0
NVNT	n20	5260	Ant0	98.32	0
NVNT	n20	5300	Ant0	98.32	0
NVNT	n20	5320	Ant0	98.26	0
NVNT	n40	5270	Ant0	96.37	0.16
NVNT	n40	5310	Ant0	96.45	0.16
NVNT	ac20	5260	Ant0	98.15	0
NVNT	ac20	5300	Ant0	98.22	0
NVNT	ac20	5320	Ant0	98.14	0
NVNT	ac40	5270	Ant0	96.37	0.16
NVNT	ac40	5310	Ant0	96.36	0.16
NVNT	ac80	5290	Ant0	93.11	0.31
NVNT	ax20	5260	Ant0	97.64	0.10
NVNT	ax20	5300	Ant0	97.62	0.10
NVNT	ax20	5320	Ant0	97.60	0.11
NVNT	ax40	5270	Ant0	95.64	0.19
NVNT	ax40	5310	Ant0	95.64	0.19
NVNT	ax80	5290	Ant0	92.56	0.34
NVNT	a	5500	Ant0	98.32	0

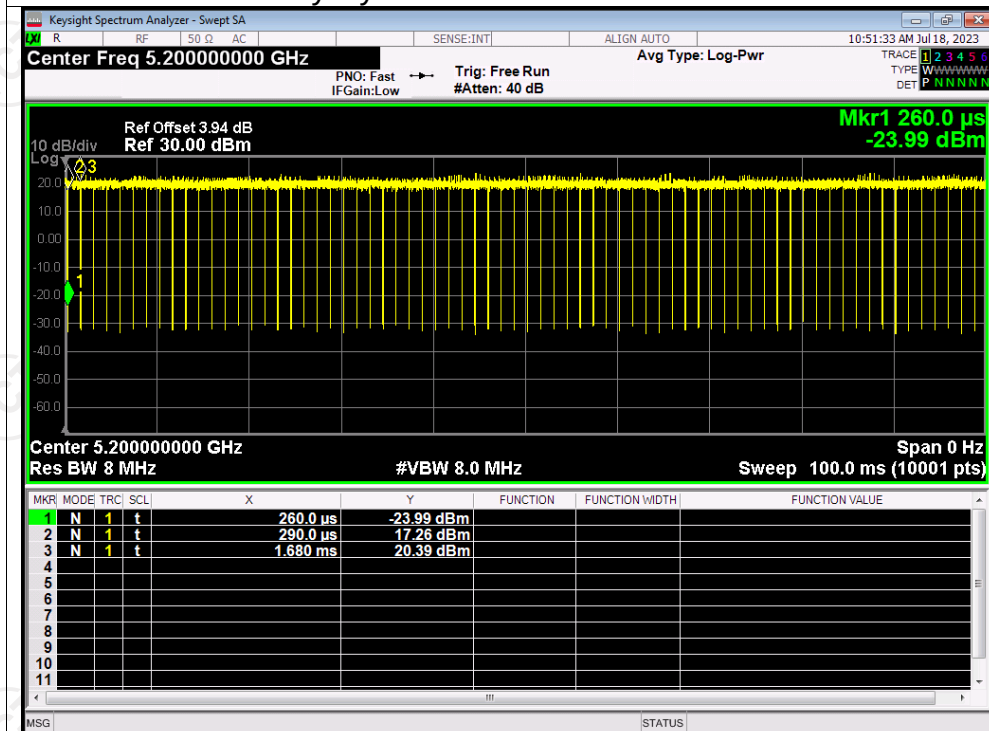
NVNT	a	5600	Ant0	98.30	0
NVNT	a	5700	Ant0	98.25	0
NVNT	n20	5500	Ant0	98.31	0
NVNT	n20	5600	Ant0	98.26	0
NVNT	n20	5700	Ant0	98.27	0
NVNT	n40	5510	Ant0	96.48	0.16
NVNT	n40	5590	Ant0	96.49	0.16
NVNT	n40	5670	Ant0	96.42	0.16
NVNT	ac20	5500	Ant0	98.15	0
NVNT	ac20	5600	Ant0	98.20	0
NVNT	ac20	5700	Ant0	98.12	0
NVNT	ac40	5510	Ant0	96.48	0.16
NVNT	ac40	5590	Ant0	96.52	0.15
NVNT	ac40	5670	Ant0	96.46	0.16
NVNT	ac80	5530	Ant0	93.19	0.31
NVNT	ac80	5610	Ant0	93.24	0.30
NVNT	ax20	5500	Ant0	97.63	0.10
NVNT	ax20	5600	Ant0	97.63	0.10
NVNT	ax20	5700	Ant0	97.63	0.10
NVNT	ax40	5510	Ant0	95.58	0.20
NVNT	ax40	5590	Ant0	95.59	0.20
NVNT	ax40	5670	Ant0	95.61	0.19
NVNT	ax80	5530	Ant0	92.53	0.34
NVNT	ax80	5610	Ant0	92.25	0.35
NVNT	a	5745	Ant0	98.25	0
NVNT	a	5785	Ant0	98.28	0
NVNT	a	5825	Ant0	98.25	0
NVNT	n20	5745	Ant0	98.32	0
NVNT	n20	5785	Ant0	98.26	0
NVNT	n20	5825	Ant0	98.25	0
NVNT	n40	5755	Ant0	96.47	0.16
NVNT	n40	5795	Ant0	96.38	0.16
NVNT	ac20	5745	Ant0	98.15	0
NVNT	ac20	5785	Ant0	98.13	0
NVNT	ac20	5825	Ant0	98.18	0
NVNT	ac40	5755	Ant0	96.38	0.16
NVNT	ac40	5795	Ant0	96.39	0.16
NVNT	ac80	5775	Ant0	93.19	0.31
NVNT	ax20	5745	Ant0	97.60	0.11
NVNT	ax20	5785	Ant0	97.61	0.11
NVNT	ax20	5825	Ant0	97.59	0.11
NVNT	ax40	5755	Ant0	95.62	0.19
NVNT	ax40	5795	Ant0	95.55	0.20
NVNT	ax80	5775	Ant0	92.53	0.34

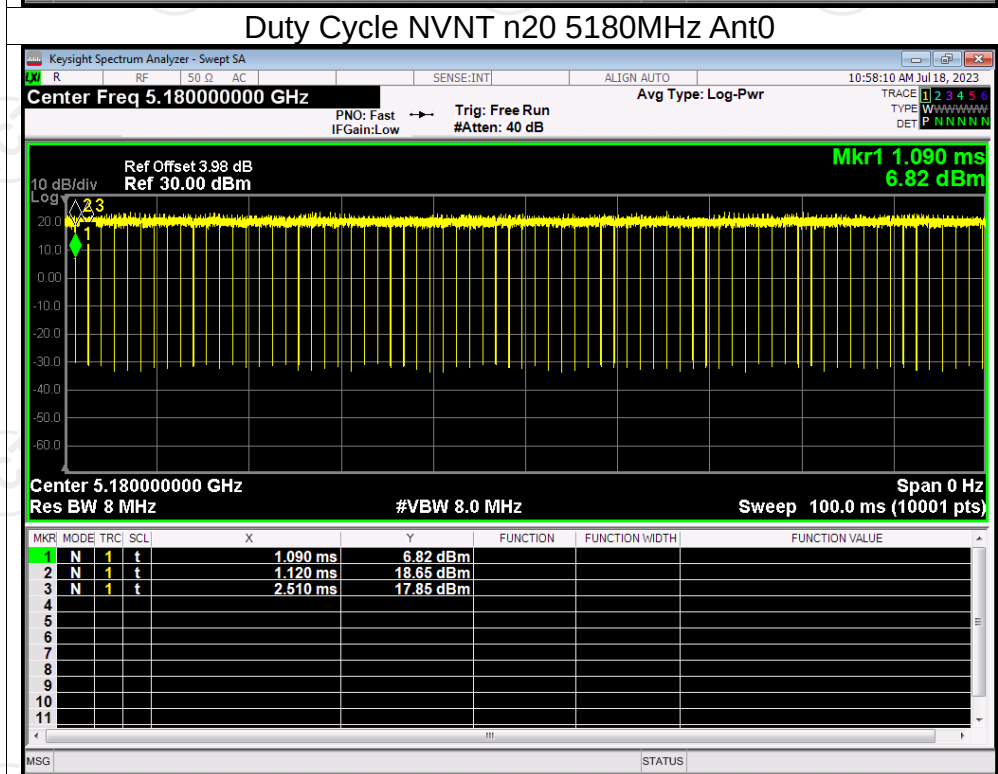
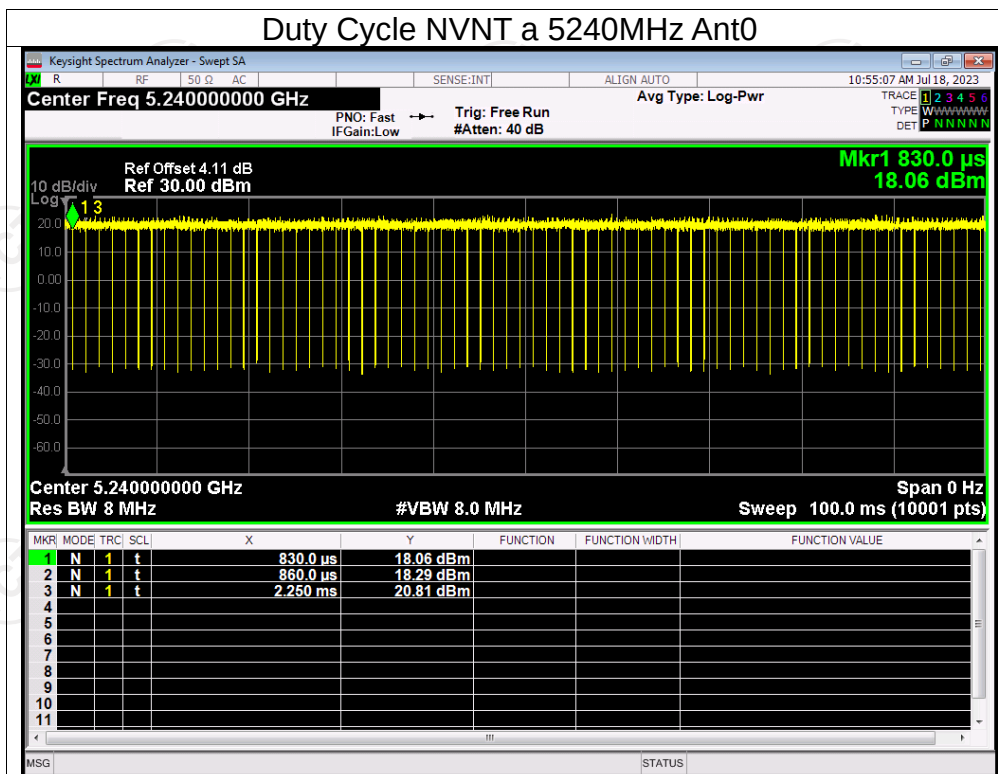
Test Graphs

Duty Cycle NVNT a 5180MHz Ant0

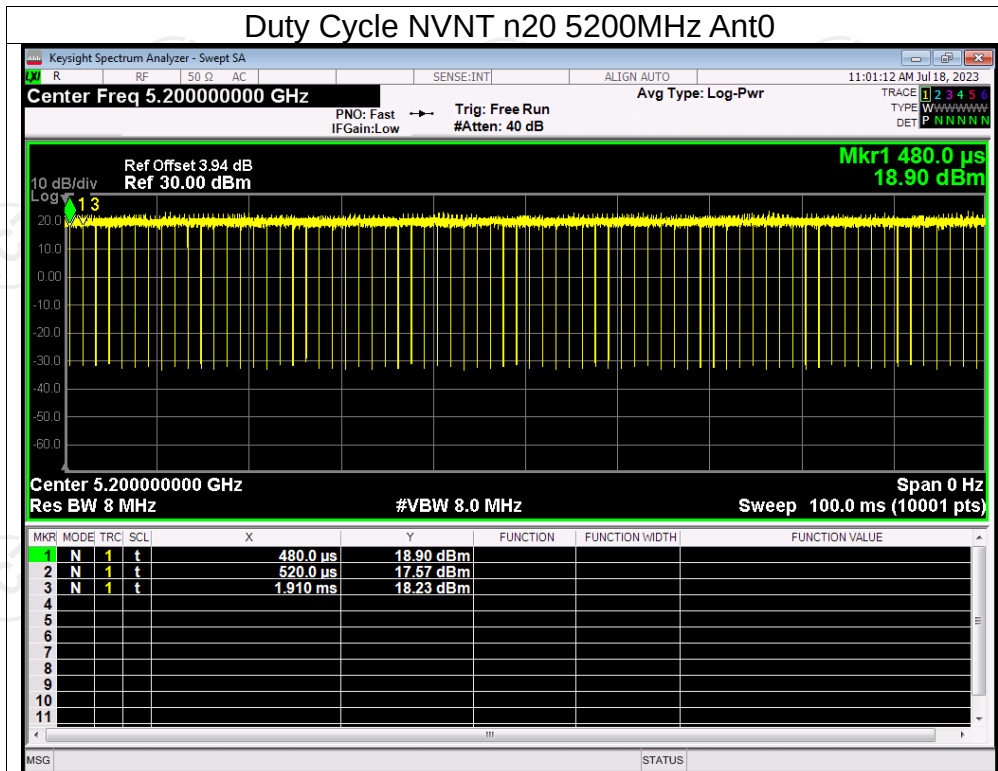


Duty Cycle NVNT a 5200MHz Ant0

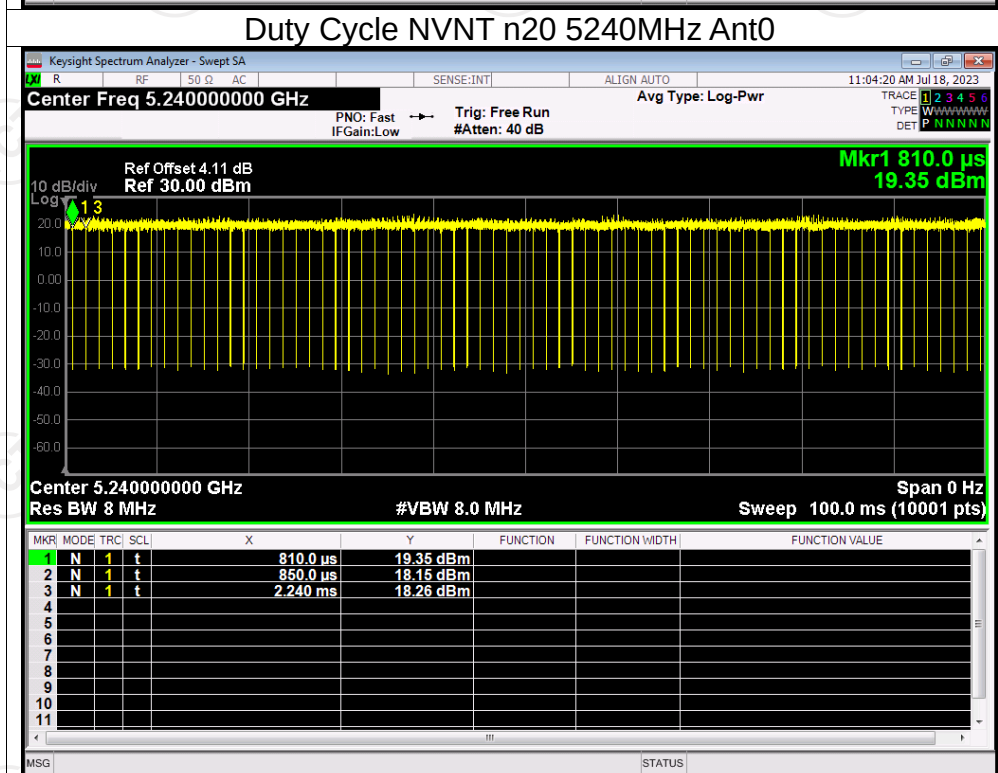




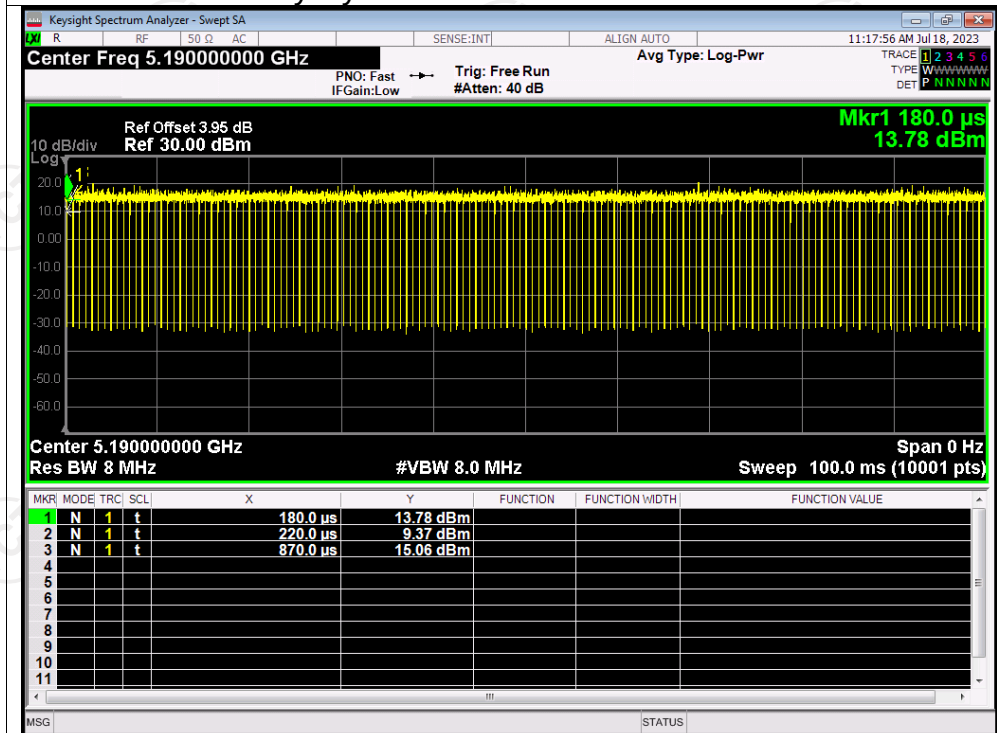
Duty Cycle NVNT n20 5200MHz Ant0



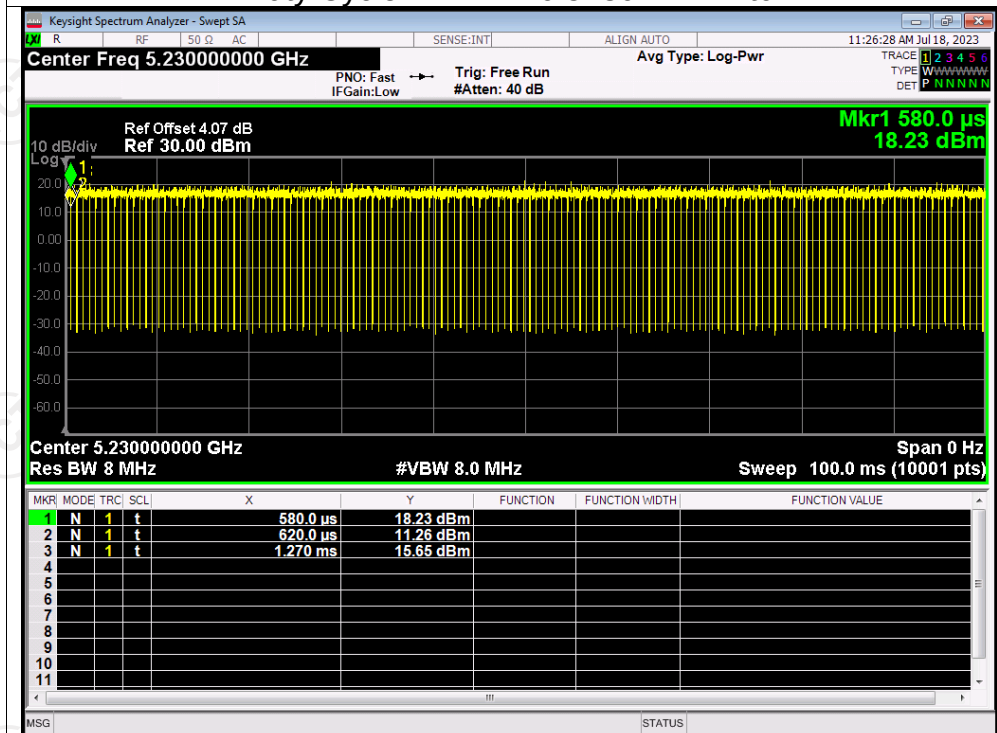
Duty Cycle NVNT n20 5240MHz Ant0

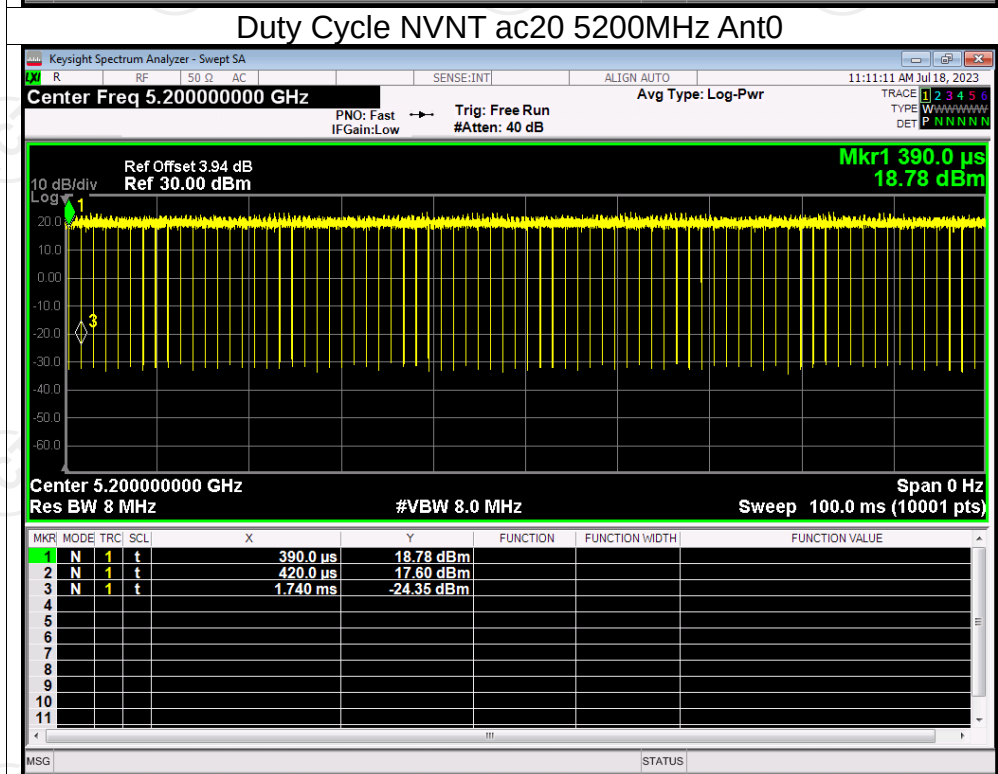
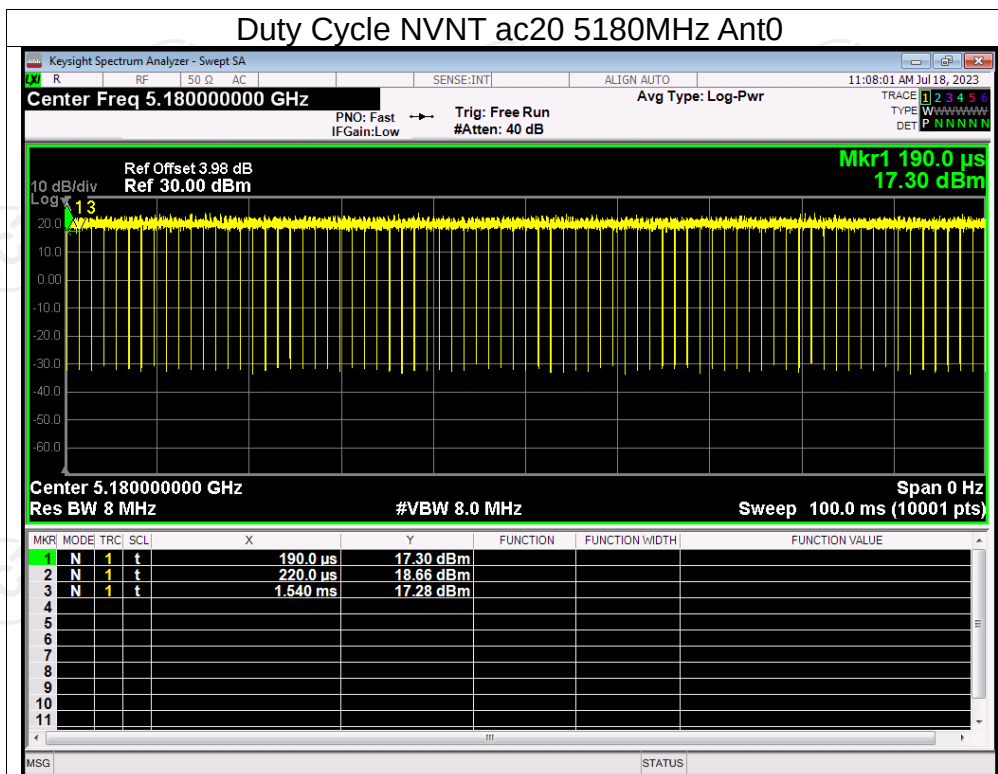


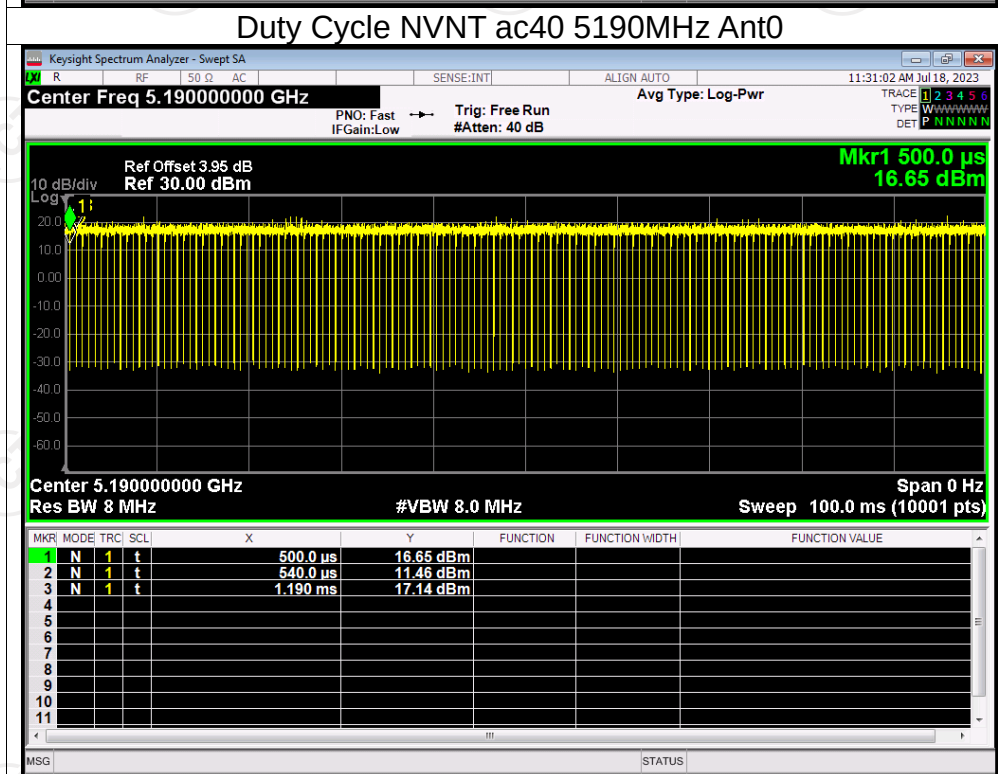
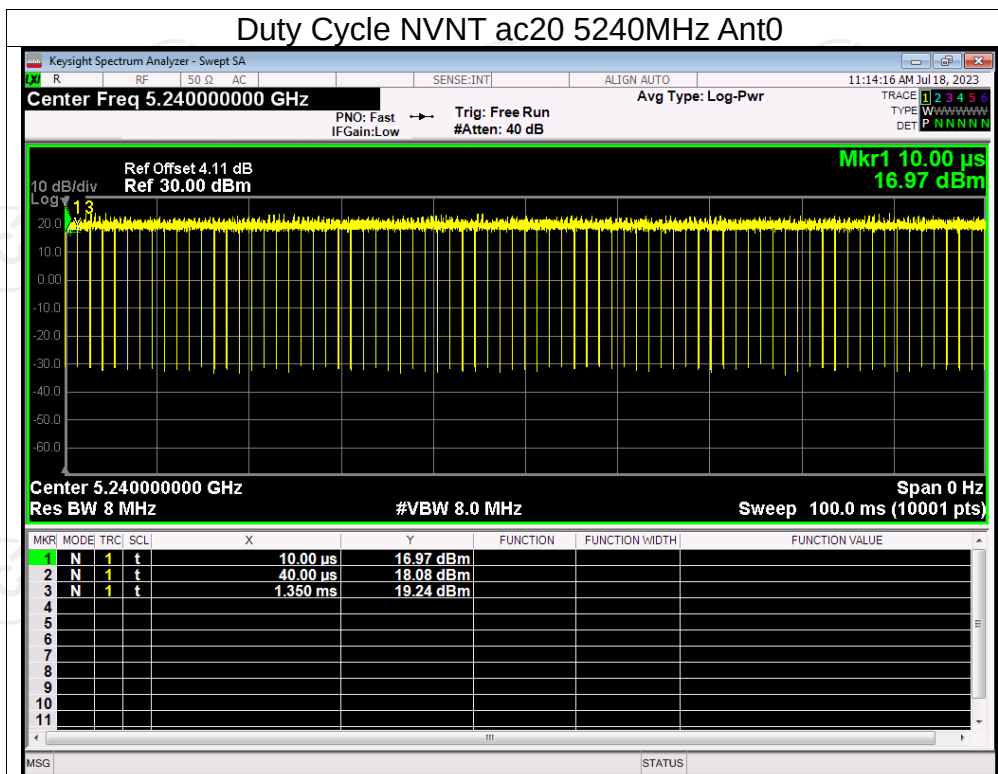
Duty Cycle NVNT n40 5190MHz Ant0

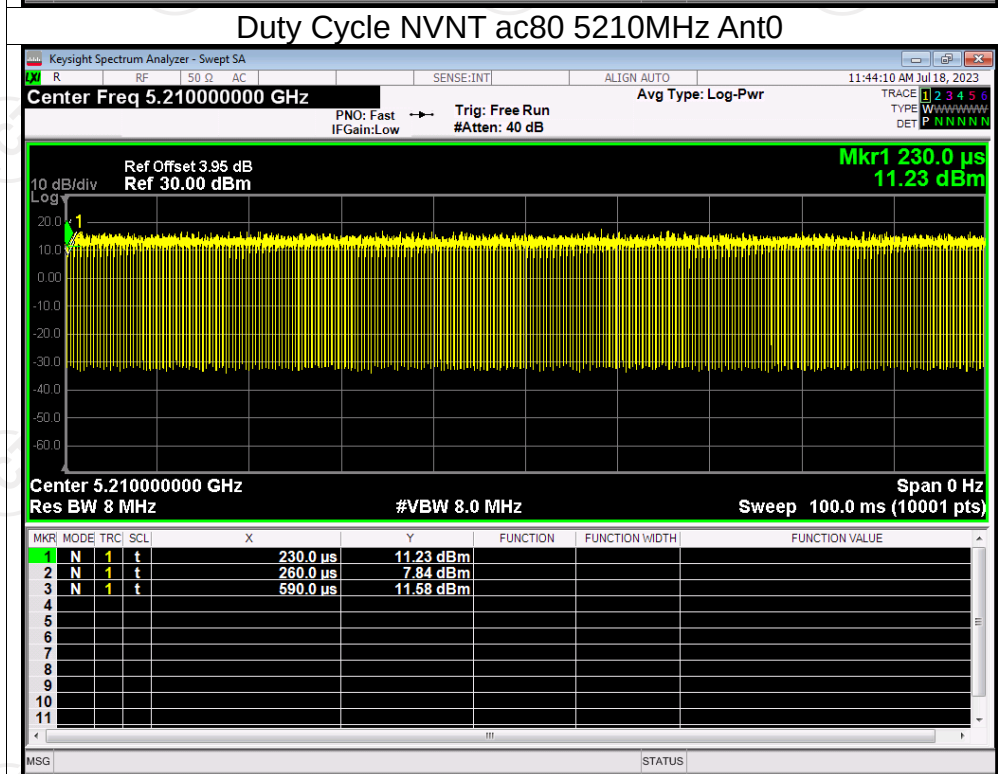
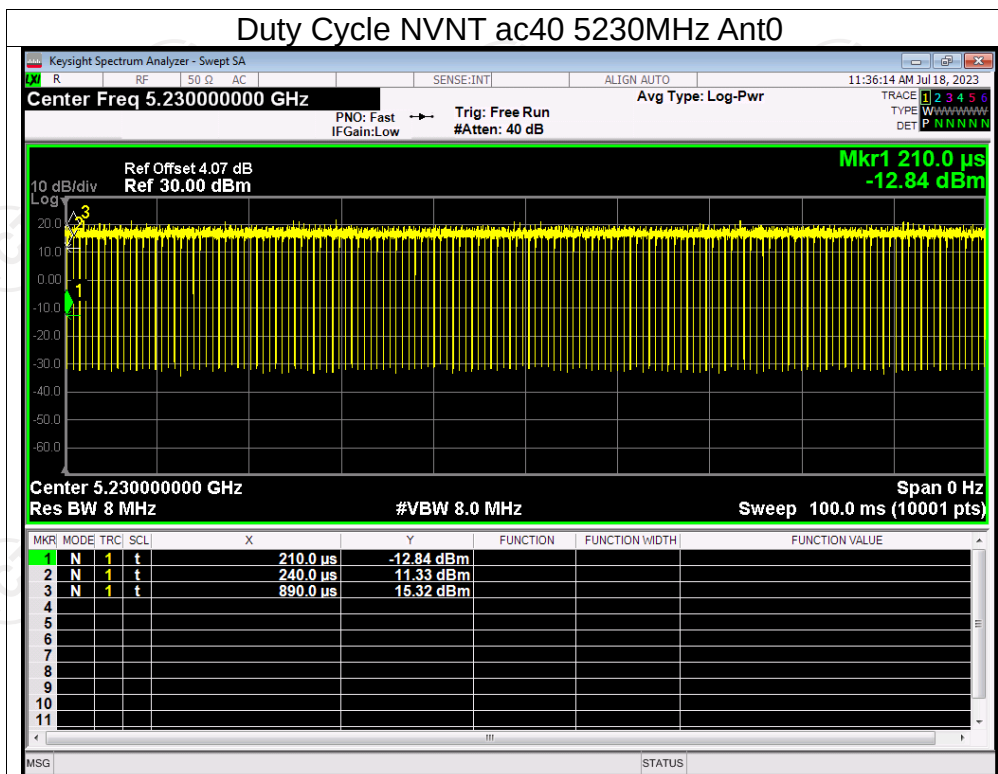


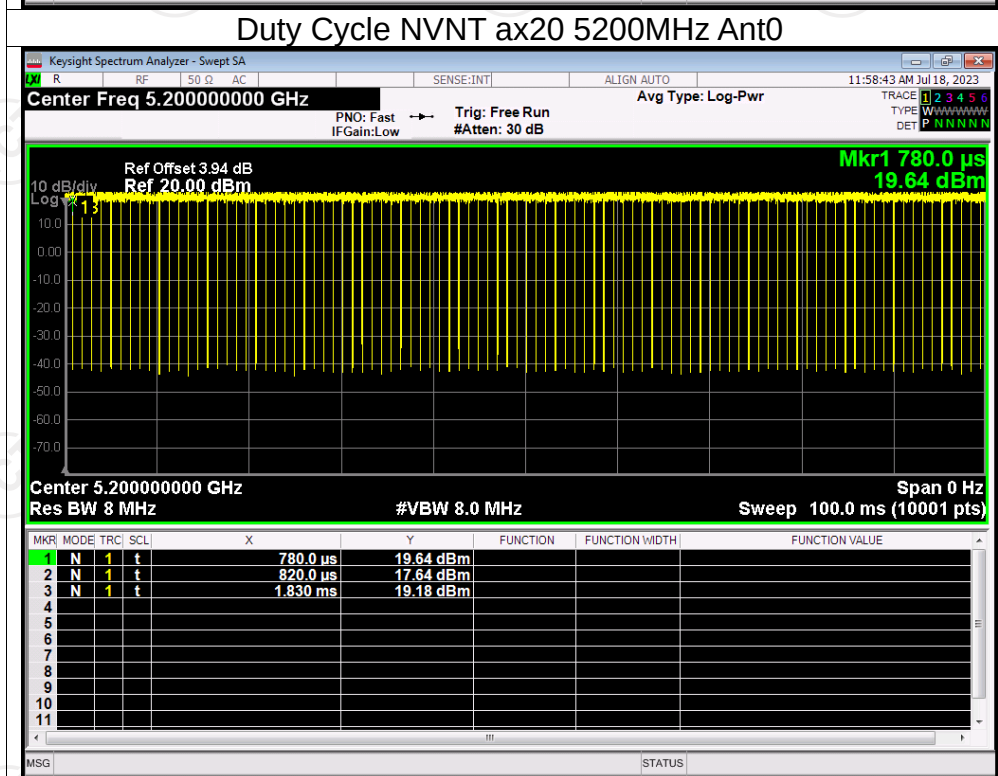
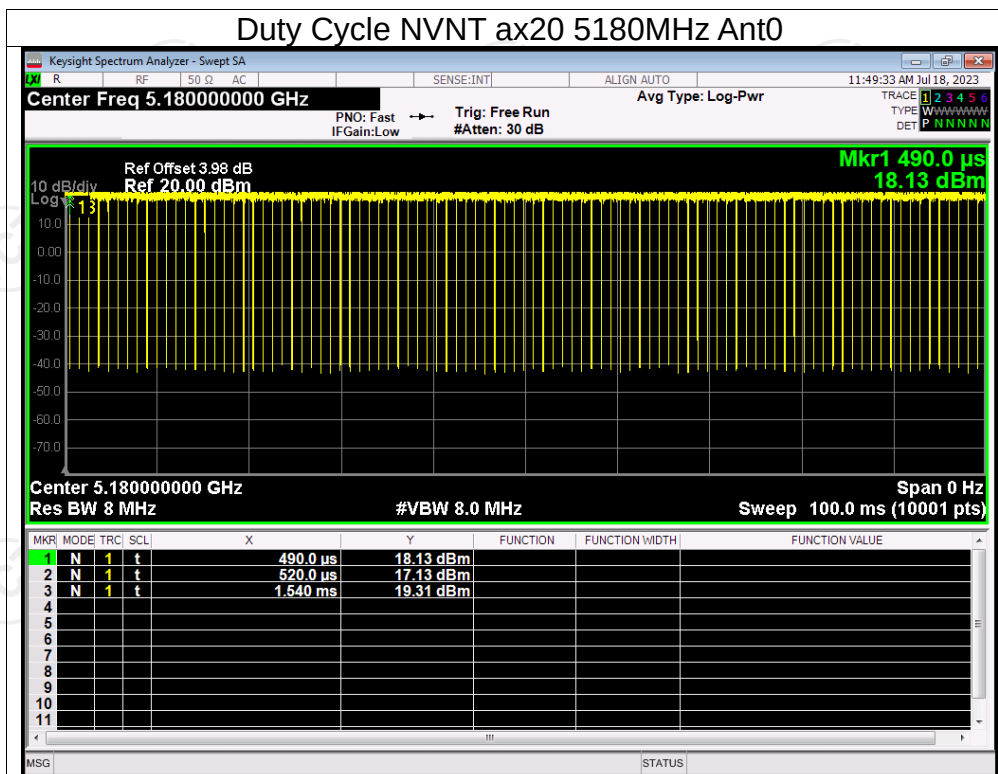
Duty Cycle NVNT n40 5230MHz Ant0

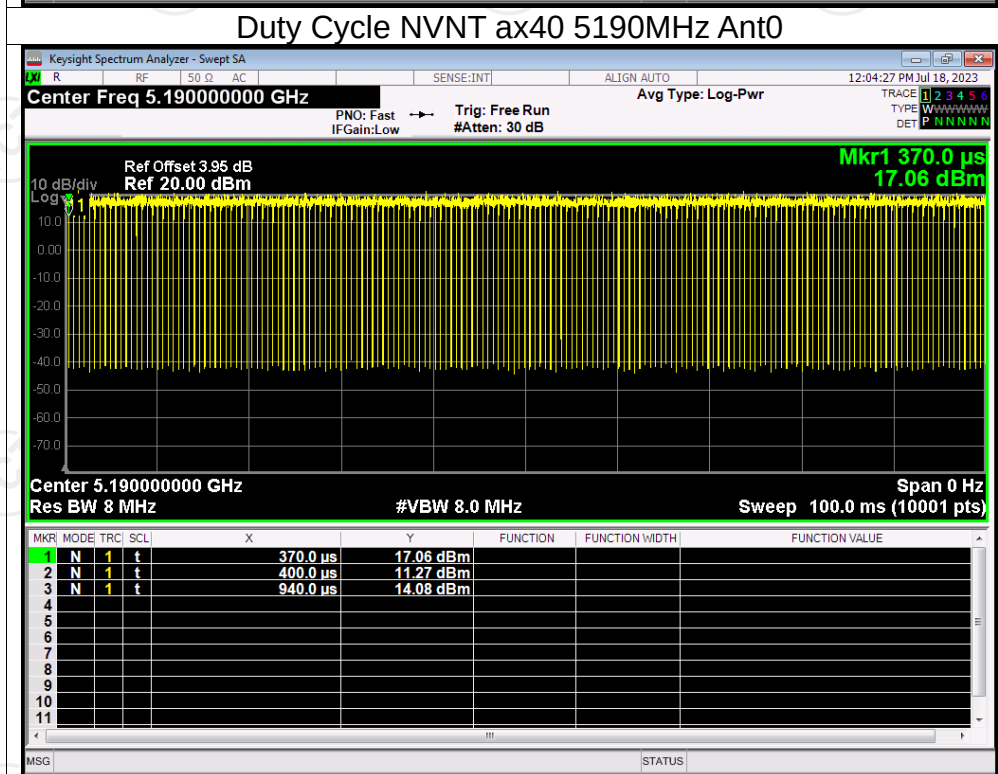
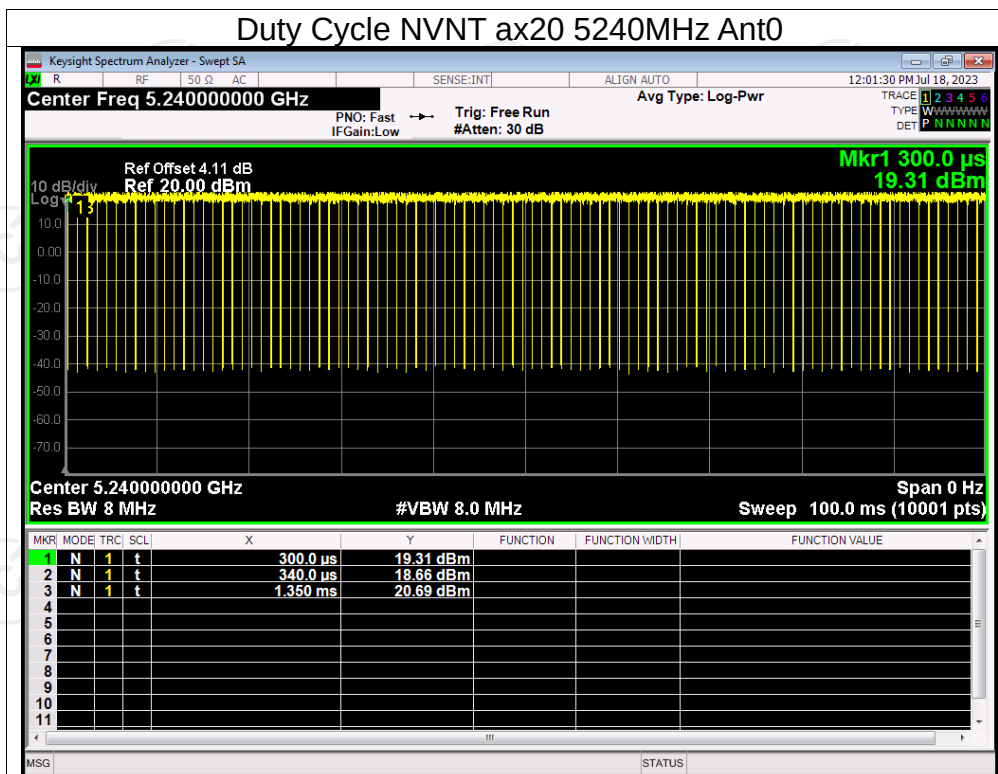


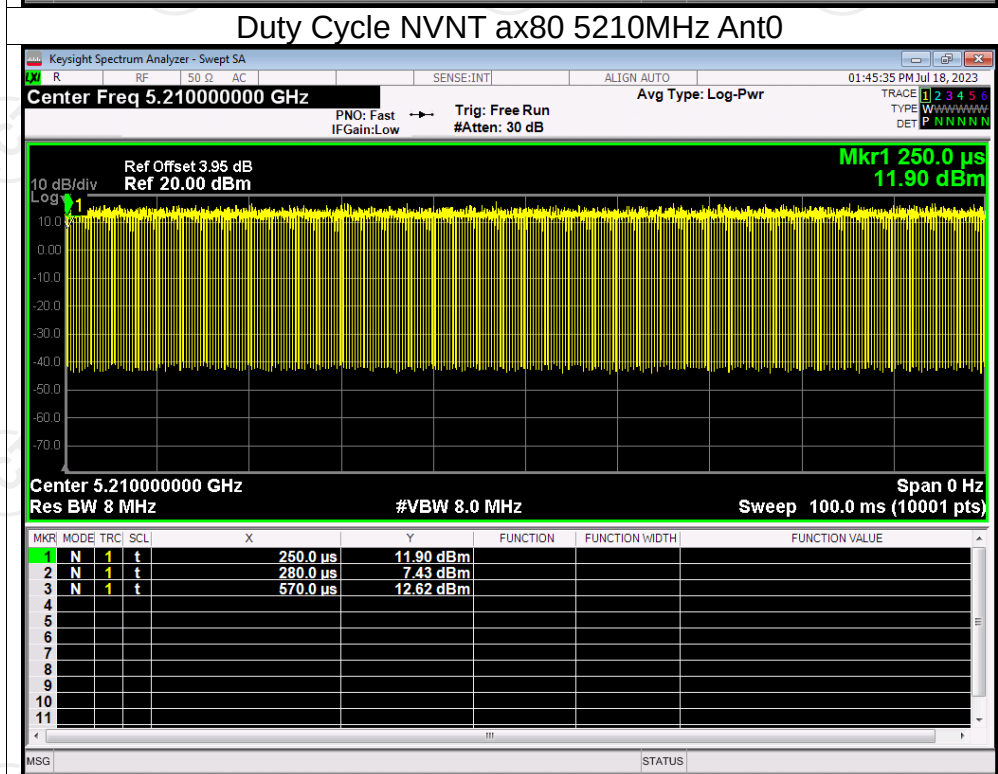
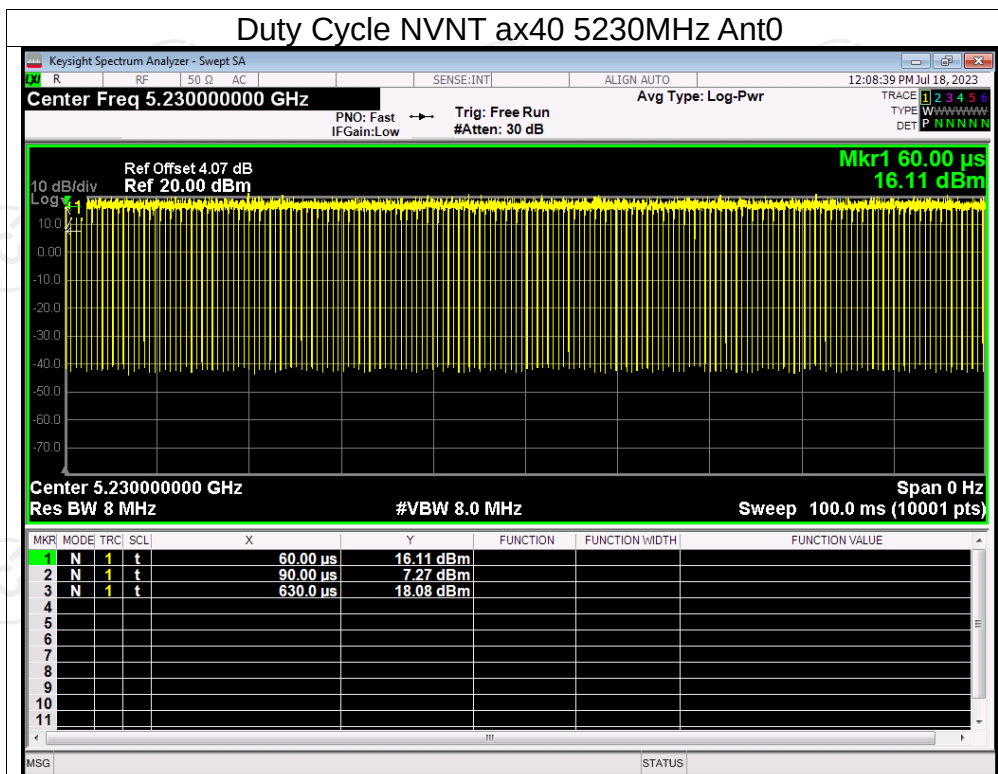






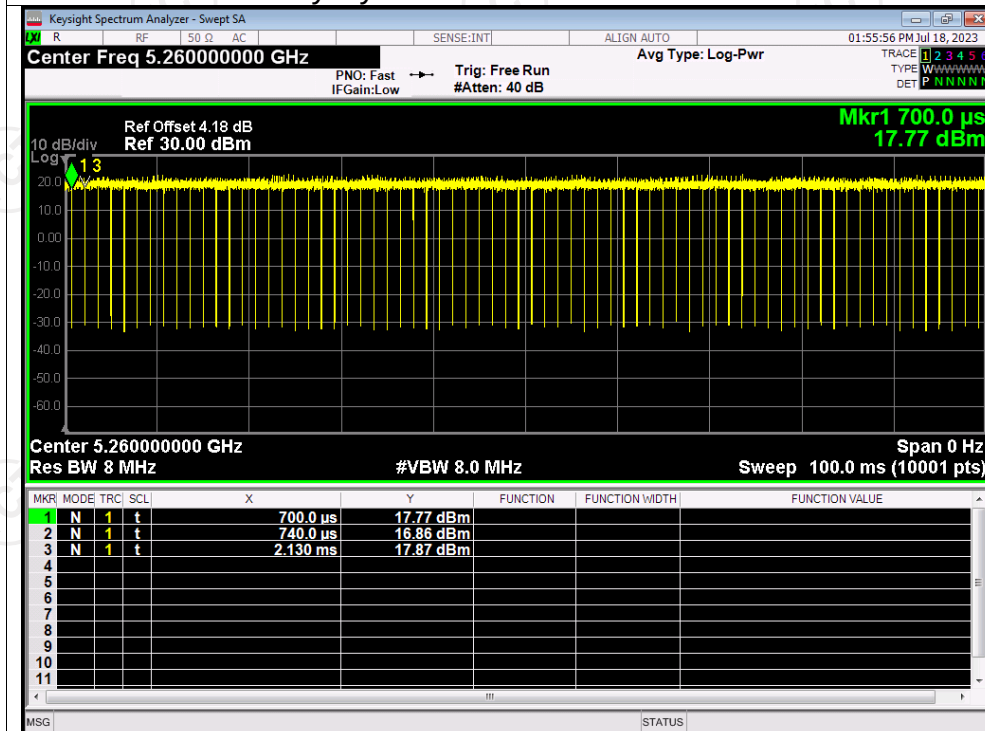




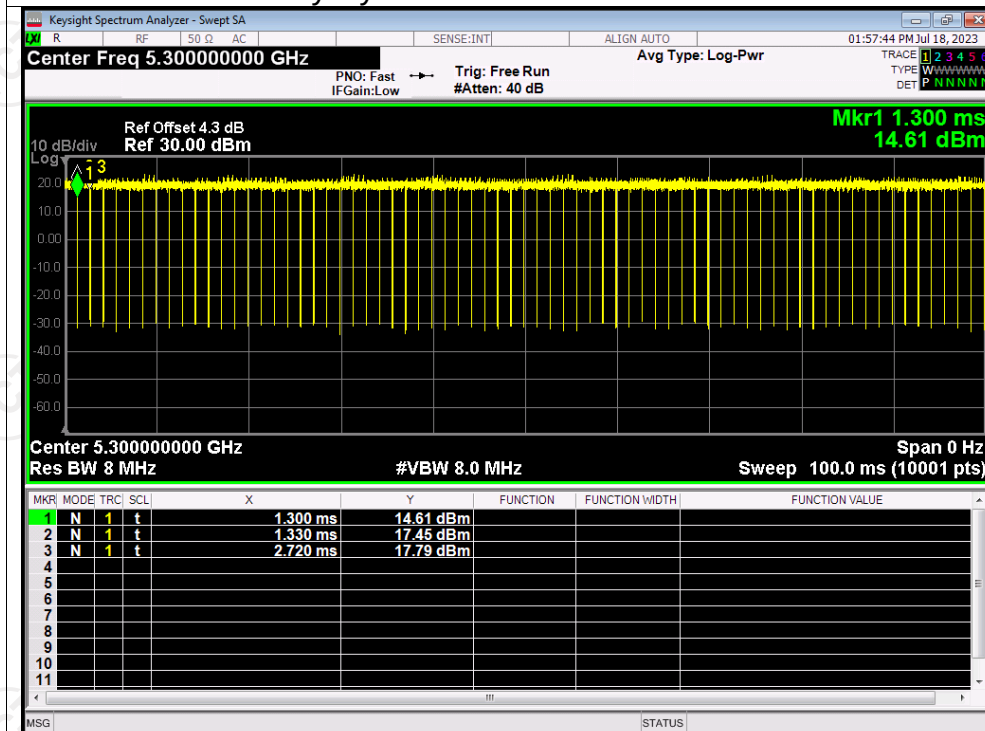


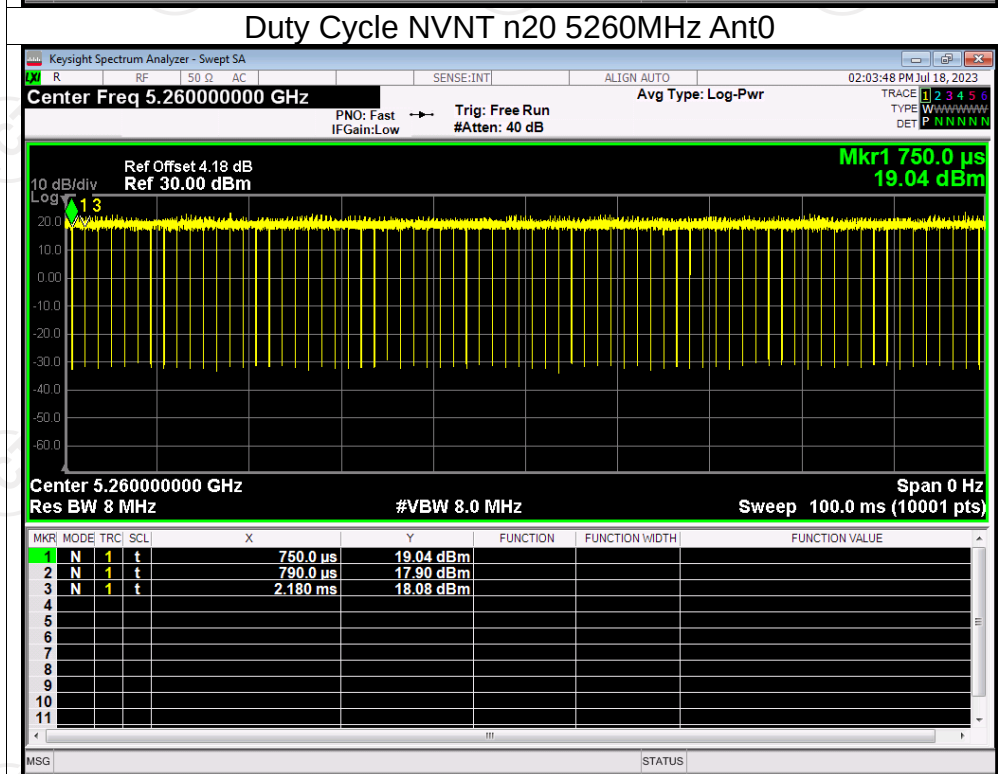
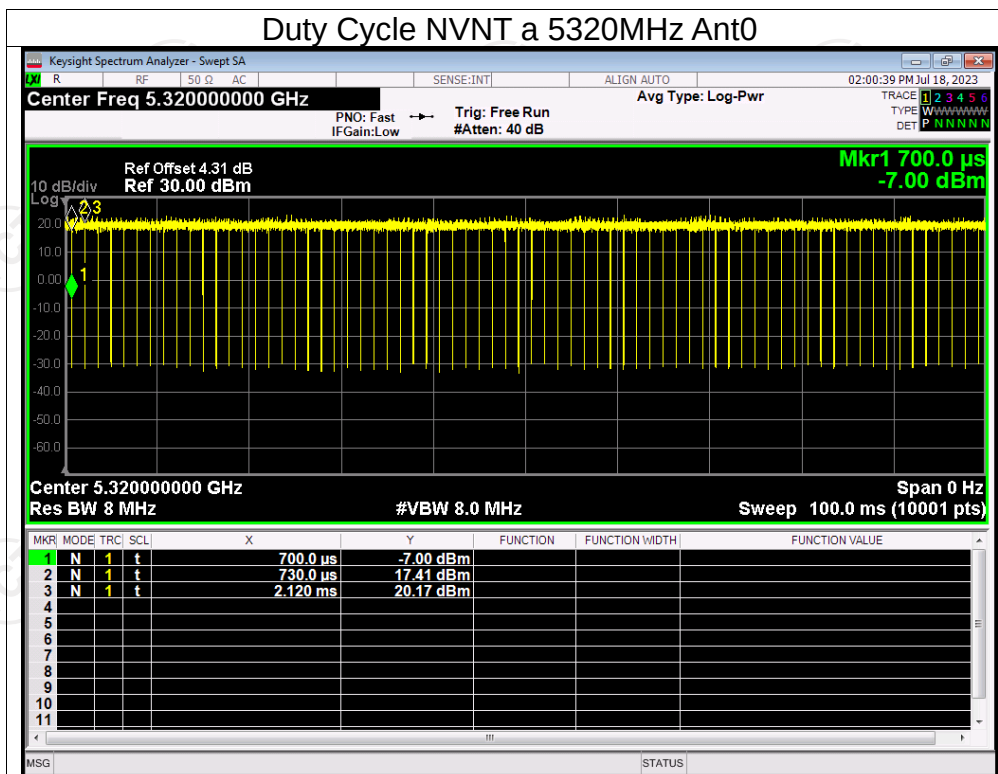
Test Graphs

Duty Cycle NVNT a 5260MHz Ant0

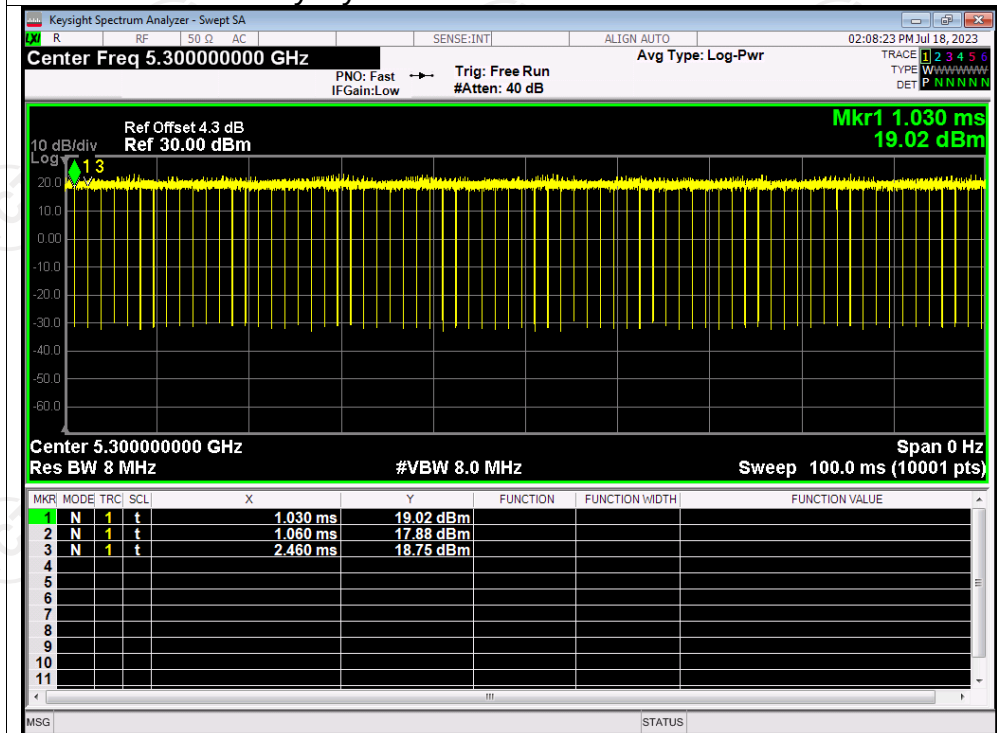


Duty Cycle NVNT a 5300MHz Ant0

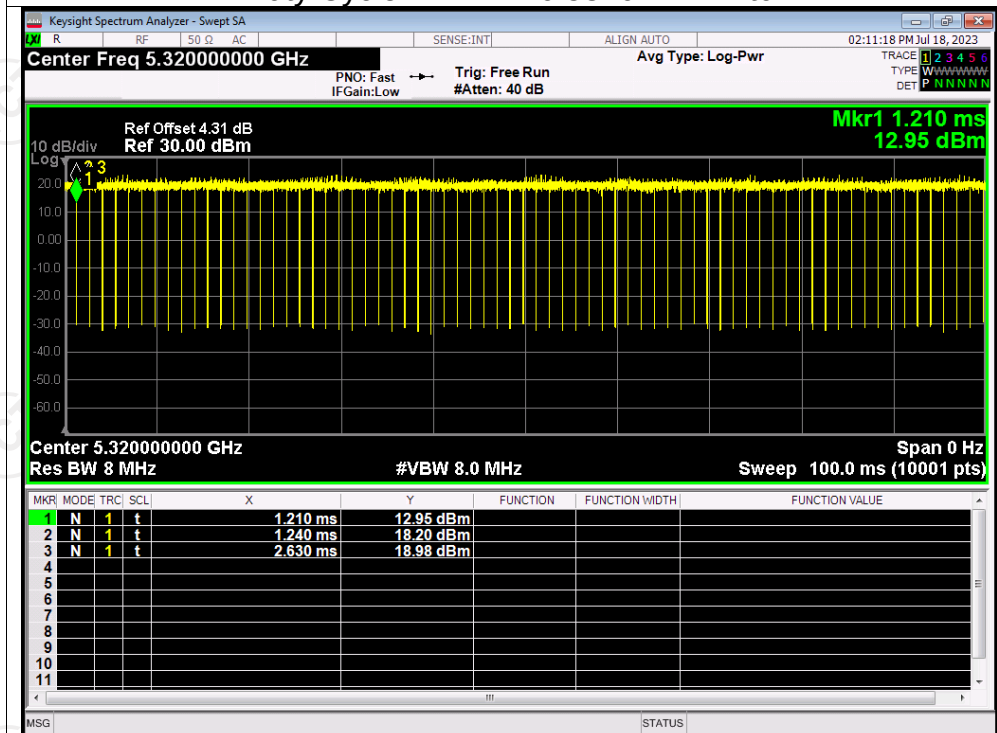




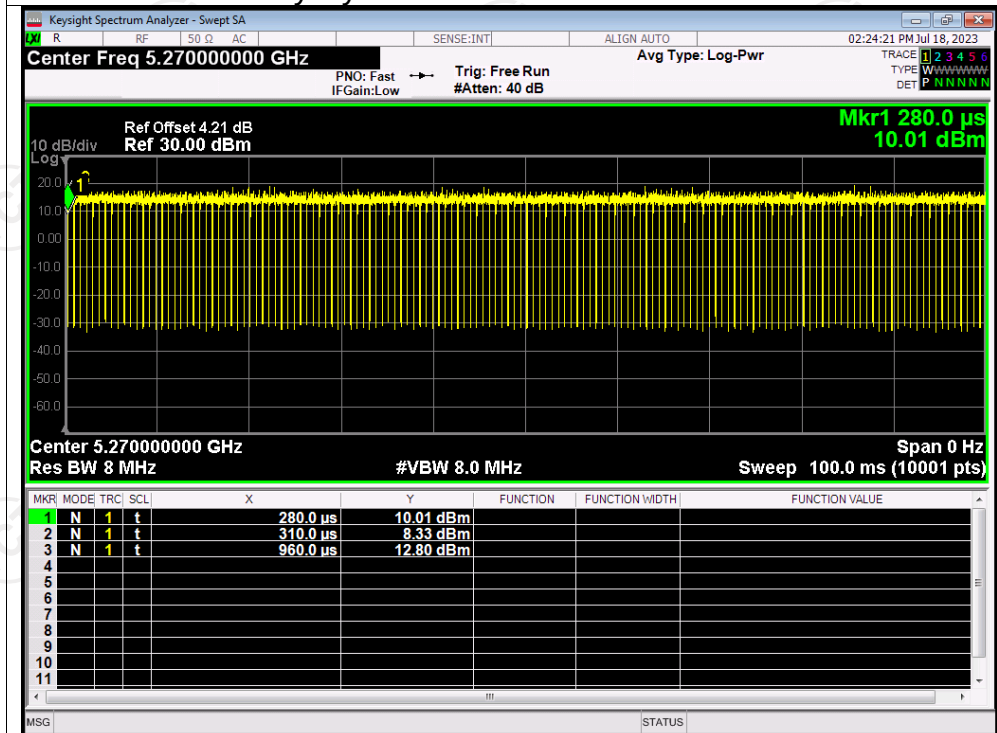
Duty Cycle NVNT n20 5300MHz Ant0



Duty Cycle NVNT n20 5320MHz Ant0



Duty Cycle NVNT n40 5270MHz Ant0



Duty Cycle NVNT n40 5310MHz Ant0

