TCT 通测检测
TESTING CENTRE TECHNOLOGY

TEST REPORT

FCC ID. ..... :	2BAHU2023001	
Test Report No..... :	TCT230524E049	
Date of issue..... :	May 30, 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..... :	DIALN PRODUCTS INC.	
Address..... :	8312 Page Ave, Saint Louis, Missouri 63130, United States	
Manufacturer's name ... :	SHENZHEN JREN TECHNOLOGY CO., LTD	
Address..... :	B Area, 9/F, A4 Building, Tianrui Industrial Park, No. 35, Fuyuan 1st Road, Zhancheng, Fuhai, Baoan District, Shenzhen, 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..... :	LTE Tablet	
Trade Mark ..... :	DIALN	
Model/Type reference..... :	X8G, X8M, X8L	
Rating(s)..... :	Adapter Information: Model: BOS050200-01A Input: AC 100-240V, 50/60Hz, 0.45A Output: DC 5V, 2000mA Rechargeable Li-ion Battery DC 3.7V	
Date of receipt of test item ..... :	May 24, 2023	
Date (s) of performance of test..... :	May 24, 2023 - May 30, 2023	
Tested by (+signature) ... :	Aaron MO	Aaron Mo
Check by (+signature).... :	Beryl ZHAO	Beryl Zhao
Approved by (+signature):	Tomsin	Tomsin

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1. General Product Information

1.1. EUT description

Product Name.....:	LTE Tablet
Model/Type reference.....:	X8G
Sample Number.....:	TCT230524E027-0101
Operation Frequency .....:	Band 1: 5180 MHz ~ 5240 MHz Band 3: 5745 MHz ~ 5825 MHz
Channel Bandwidth.....:	802.11a: 20MHz 802.11n: 20MHz, 40MHz 802.11ac: 20MHz, 40MHz, 80MHz
Modulation Technology .....:	Orthogonal Frequency Division Multiplexing(OFDM)
Modulation Type.....:	256QAM, 64QAM, 16QAM, BPSK, QPSK
Antenna Type.....:	Internal Antenna
Antenna Gain.....:	Band 1: 2.96dBi Band 3: 3.44dBi
Rating(s).....:	Adapter Information: Model: BOS050200-01A Input: AC 100-240V, 50/60Hz, 0.45A Output: DC 5V, 2000mA Rechargeable Li-ion Battery DC 3.7V

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

No.	Model No.	Tested with
1	X8G	☒
Other models	X8M, X8L	☐

Note: X8G is tested model, other models are derivative models. The models are identical in circuit and PCB layout, only different on the model names. So the test data of X8G can represent the remaining models.

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 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).

6. Those test results (Maximum Conducted Output Power, 6dB Emission Bandwidth, 26dB Emission Bandwidth& 99% Occupied Bandwidth, Power Spectral Density, Frequency Stability) was based on FCC ID: 2BAHU2023001; Change product model No. and shell material of EUT.

3. General Information

3.1. Test environment and mode

Operating Environment:	
Temperature:	25.0 °C
Humidity:	56 % RH
Atmospheric Pressure:	1010 mbar
Test Mode:	
Engineer mode:	Keep the EUT in continuous transmitting by select channel and modulations with Fully-charged battery.

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	6 Mbps
802.11n(HT20)	6.5 Mbps
802.11n(HT40)	13.5 Mbps
802.11ac(VHT20)	6.5 Mbps
802.11ac(VHT40)	13.5 Mbps
802.11ac(VHT80)	29.3 Mbps

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
/	/	/	/	/

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 ± 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

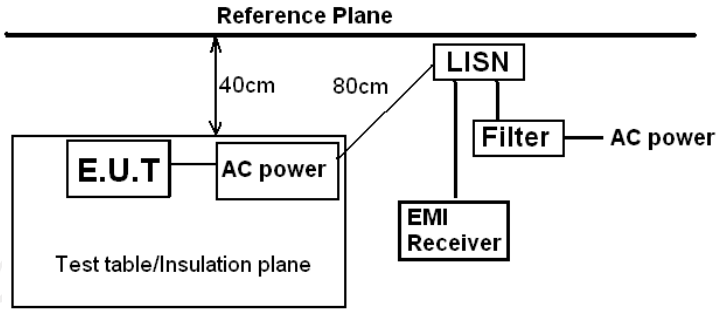
5. Test Results and Measurement Data

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 antenna is internal antenna which permanently attached, and the maximum gain of the antenna is 0.6dBi at UNII-B3.	

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:	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:	 *Remark:* *E.U.T: Equipment Under Test* *LISN: Line Impedence Stabilization Network* *Test table height=0.8m*
Test Mode:	Charging + 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

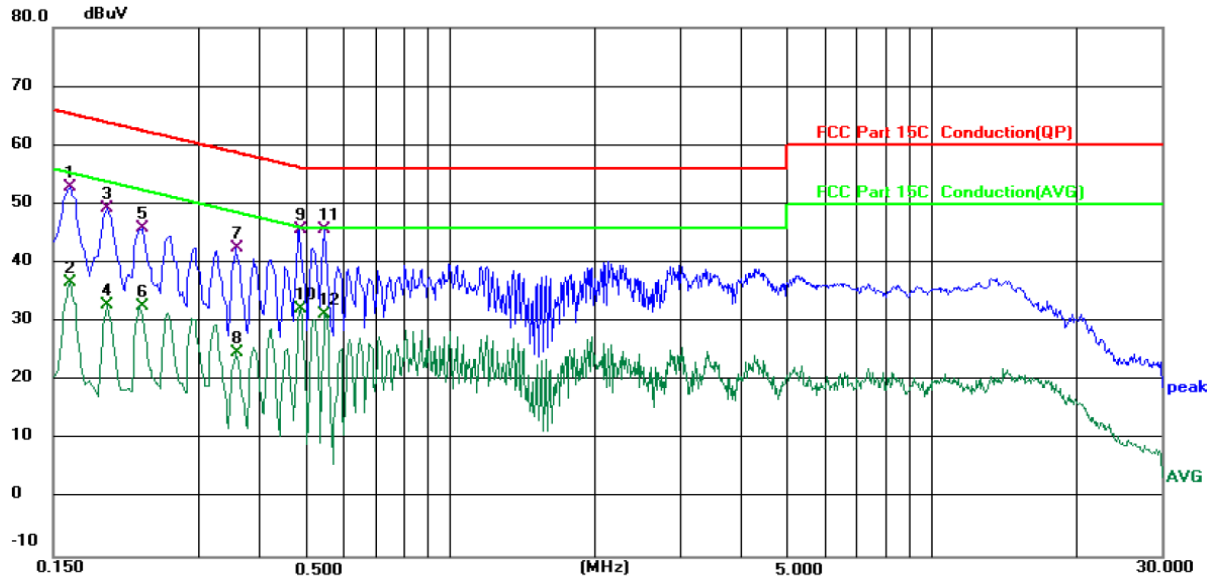
5.2.2. Test Instruments

Conducted Emission Shielding Room Test Site (843)				
Equipment	**Manufacturer**	**Model**	**Serial Number**	**Calibration Due**
EMI Test Receiver	R&S	ESCI3	100898	Jul. 03, 2023
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 (℃) | Humidity: 52 %

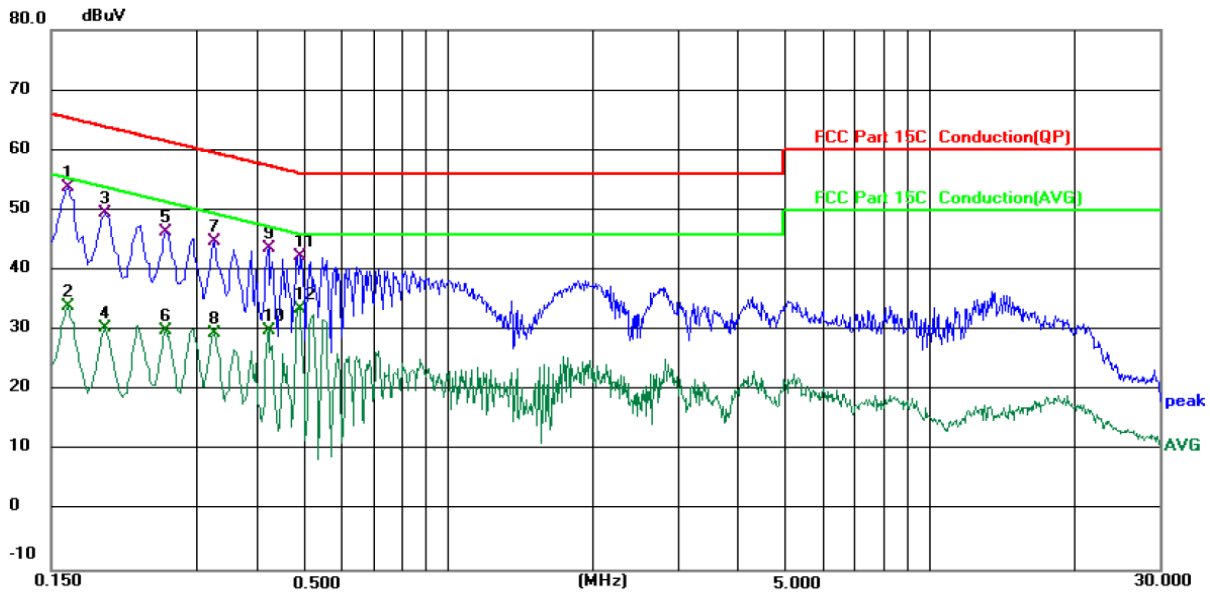
Limit: FCC Part 15C Conduction(QP) | Power: AC 120 V/ 60 Hz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1620	42.71	10.10	52.81	65.36	-12.55	QP	
2		0.1620	26.68	10.10	36.78	55.36	-18.58	AVG	
3		0.1940	39.14	10.14	49.28	63.86	-14.58	QP	
4		0.1940	22.79	10.14	32.93	53.86	-20.93	AVG	
5		0.2300	35.93	9.95	45.88	62.45	-16.57	QP	
6		0.2300	22.69	9.95	32.64	52.45	-19.81	AVG	
7		0.3579	33.02	9.58	42.60	58.78	-16.18	QP	
8		0.3579	15.15	9.58	24.73	48.78	-24.05	AVG	
9		0.4859	36.20	9.47	45.67	56.24	-10.57	QP	
10		0.4859	22.80	9.47	32.27	46.24	-13.97	AVG	
11	*	0.5500	36.33	9.41	45.74	56.00	-10.26	QP	
12		0.5500	21.98	9.41	31.39	46.00	-14.61	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 (℃) | Humidity: 52 %

Limit: FCC Part 15C Conduction(QP) | Power:AC 120 V/ 60 Hz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.1620	43.62	10.10	53.72	65.36	-11.64	QP	
2		0.1620	23.87	10.10	33.97	55.36	-21.39	AVG	
3		0.1940	39.46	10.14	49.60	63.86	-14.26	QP	
4		0.1940	20.35	10.14	30.49	53.86	-23.37	AVG	
5		0.2580	36.43	9.94	46.37	61.50	-15.13	QP	
6		0.2580	20.04	9.94	29.98	51.50	-21.52	AVG	
7		0.3260	35.17	9.61	44.78	59.55	-14.77	QP	
8		0.3260	19.86	9.61	29.47	49.55	-20.08	AVG	
9		0.4219	34.15	9.53	43.68	57.41	-13.73	QP	
10		0.4219	20.42	9.53	29.95	47.41	-17.46	AVG	
11		0.4939	32.92	9.47	42.39	56.10	-13.71	QP	
12		0.4939	24.12	9.47	33.59	46.10	-12.51	AVG	

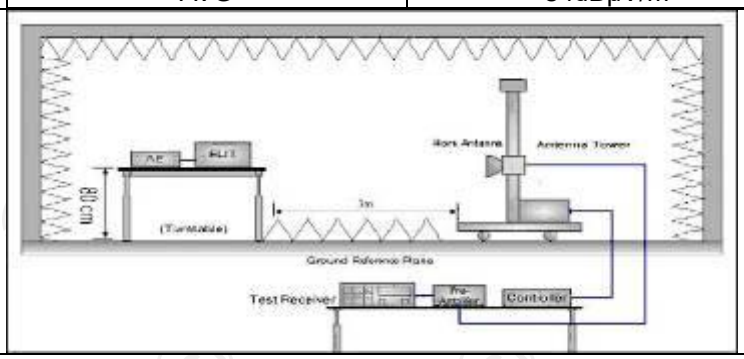
Note:

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) and the worst case Mode (Lowest channel and 802.11n(HT20)) was submitted only.

5.3. Band edge

5.3.1. Test Specification

<table>
<tr><td>Test Requirement:</td><td>FCC CFR47 Part 15E Section 15.407</td></tr>
<tr><td>Test Method:</td><td>ANSI C63.10 2013</td></tr>
<tr><td>Limit:</td><td>In un-restricted band:
For Band 1&2A&2C: -27dBm/MHz
For Band 3:
<table>
<tr><td>Frequency (MHz)</td><td>Limit (dBm/MHz)</td><td>Frequency (MHz)</td><td>Limit (dBm/MHz)</td></tr>
<tr><td>< 5650</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>
E[dBμV/m] = EIRP[dBm] + 95.2 @3m
In restricted band:
<table>
<tr><td>Detector</td><td>Limit@3m</td></tr>
<tr><td>Peak</td><td>74dBμV/m</td></tr>
<tr><td>AVG</td><td>54dBμV/m</td></tr>
</table></td></tr>
<tr><td>Test Setup:</td><td> 
</td></tr>
<tr><td>Test Mode:</td><td>Transmitting mode with modulation</td></tr>
<tr><td>Test Procedure:</td><td>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</td></tr>
</table>

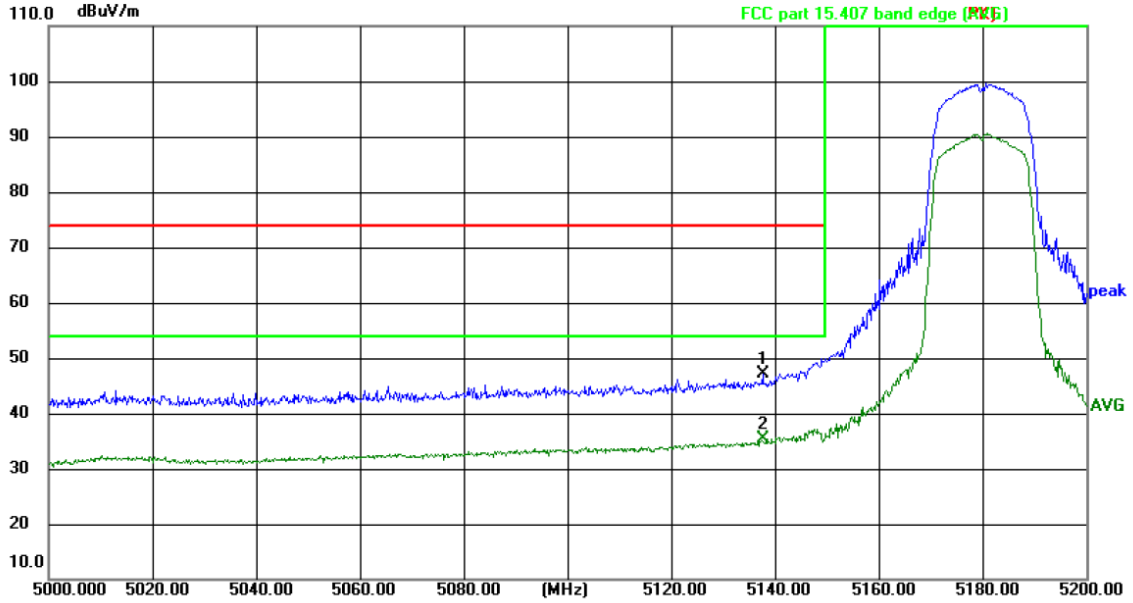
	Mode. 6. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasipeak or average method as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

5.3.2. Test Instruments

Radiated Emission Test Site (966)				
Name of Equipment	**Manufacturer**	**Model**	**Serial Number**	**Calibration Due**
EMI Test Receiver	R&S	ESIB7	100197	Jul. 03, 2023
Spectrum Analyzer	R&S	FSQ40	200061	Jul. 03, 2023
Spectrum Analyzer	Agilent	N9020A	MY49100619	Jul. 04, 2023
Pre-amplifier	SKET	LNPA_0118G-45	SK2021012102	Feb. 20, 2024
Pre-amplifier	SKET	LNPA_1840G-50	SK202109203500	Feb. 20, 2024
Pre-amplifier	HP	8447D	2727A05017	Jul. 03, 2023
Loop antenna	Schwarzbeck	FMZB1519B	00191	Jun. 11, 2023
Broadband Antenna	Schwarzbeck	VULB9163	340	Jul. 05, 2023
Horn Antenna	Schwarzbeck	BBHA 9120D	631	Jul. 05, 2023
Horn Antenna	Schwarzbeck	BBHA 9170	00956	Feb. 24, 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	/	/

5.3.3. Test Data

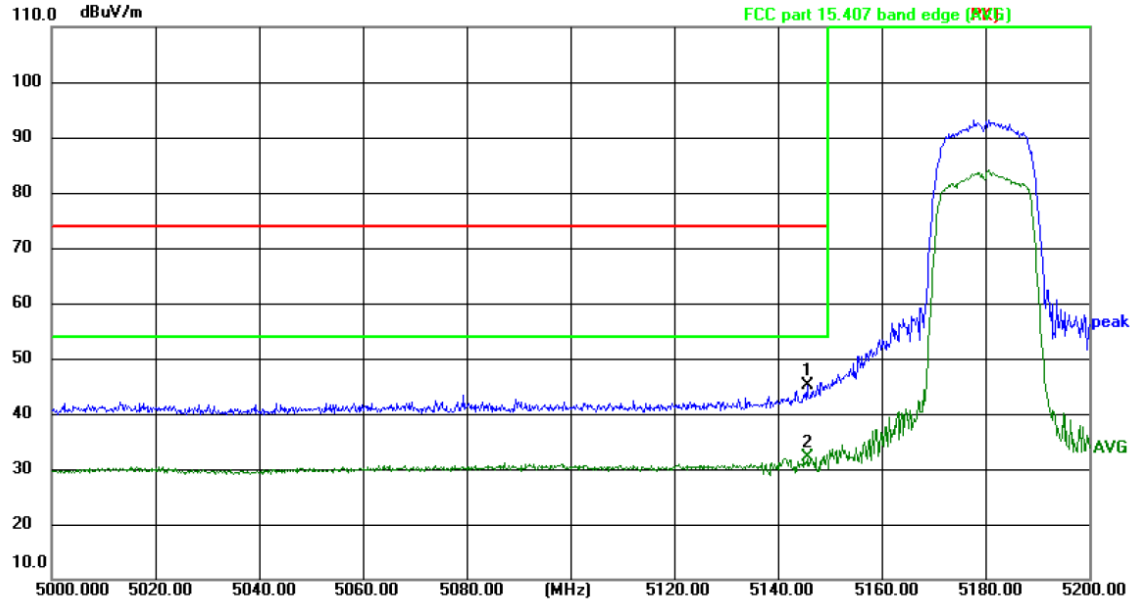
AC20-5180



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

Limit: FCC part 15.407 band edge (PK) Power:DC 3.7 V

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	5137.850	55.66	-8.49	47.17	74.00	-26.83	peak	P	
2 *	5137.850	43.75	-8.49	35.26	54.00	-18.74	AVG	P	

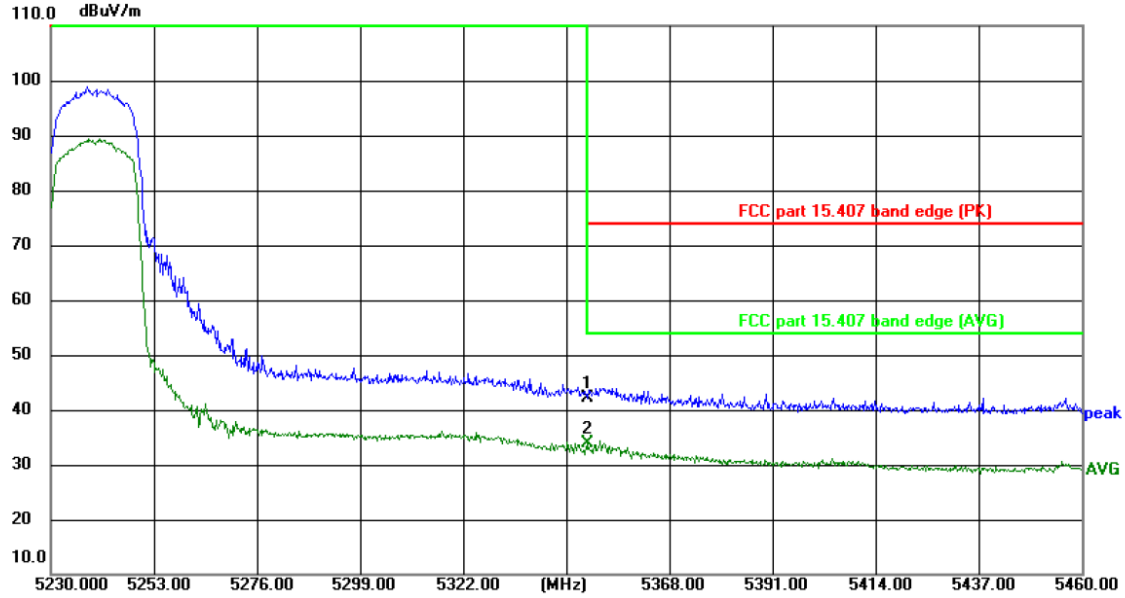


Site: #3 3m Anechoic Chamber Polarization: ***Vertical*** Temperature: 24(℃) Humidity: 52 %

Limit: FCC part 15.407 band edge (PK) Power:DC 3.7 V

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	5145.825	53.61	-8.48	45.13	74.00	-28.87	peak	P	
2 *	5145.825	40.66	-8.48	32.18	54.00	-21.82	AVG	P	

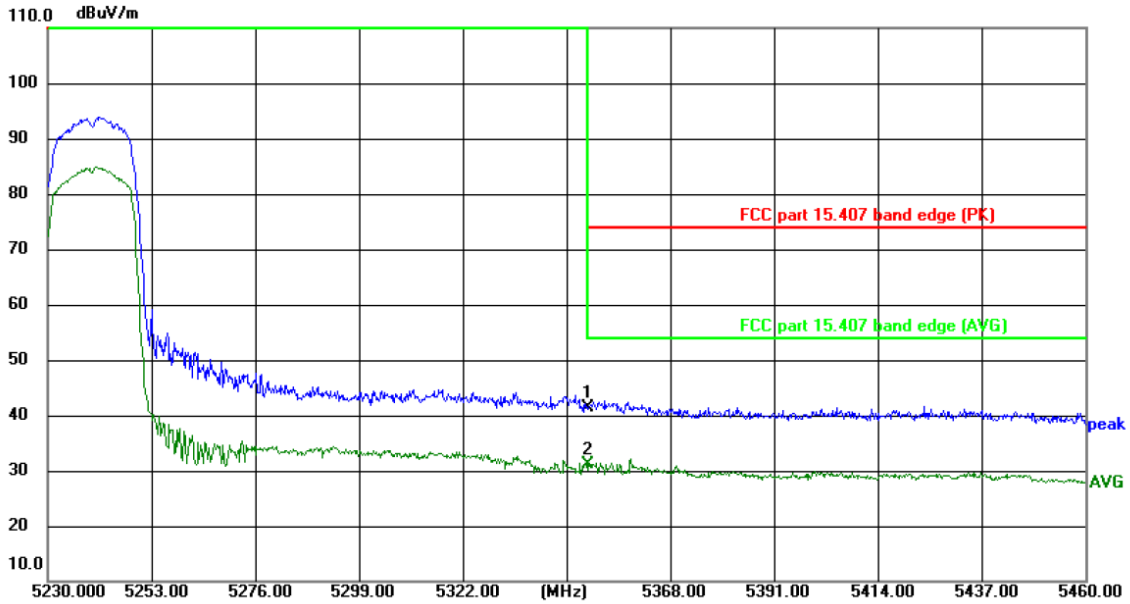
AC20-5240



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

Limit: FCC part 15.407 band edge (PK) Power:DC 3.7 V

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	5350.000	50.63	-8.40	42.23	74.00	-31.77	peak	P	
2 *	5350.000	42.19	-8.40	33.79	54.00	-20.21	AVG	P	

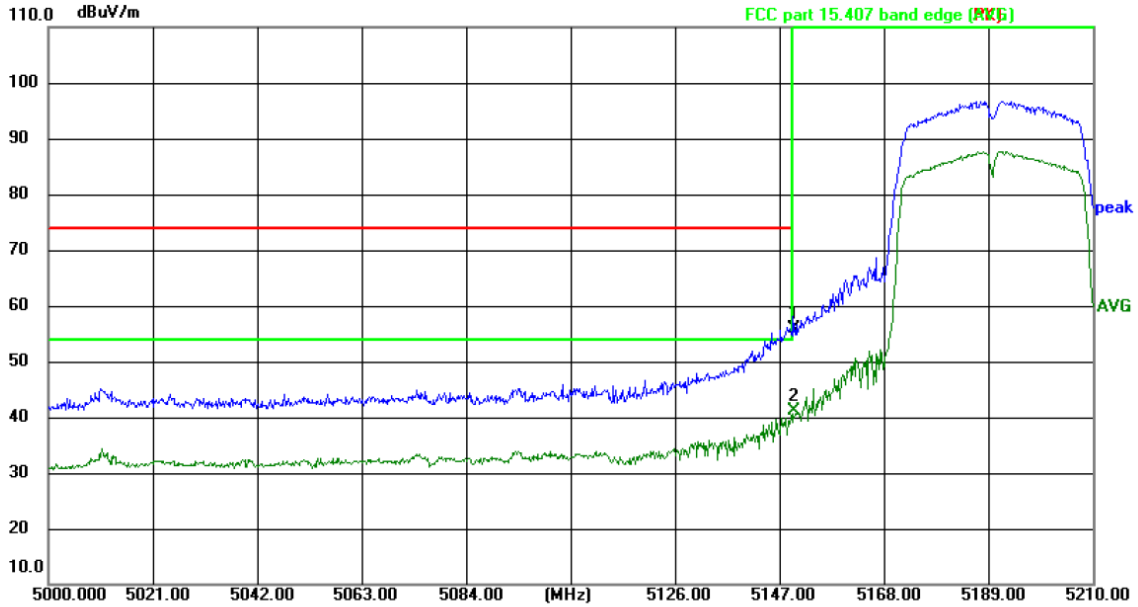


Site: #3 3m Anechoic Chamber Polarization: ***Vertical*** Temperature: 24(℃) Humidity: 52 %

Limit: FCC part 15.407 band edge (PK) Power:DC 3.7 V

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	5350.000	49.84	-8.40	41.44	74.00	-32.56	peak	P	
2 *	5350.000	39.65	-8.40	31.25	54.00	-22.75	AVG	P	

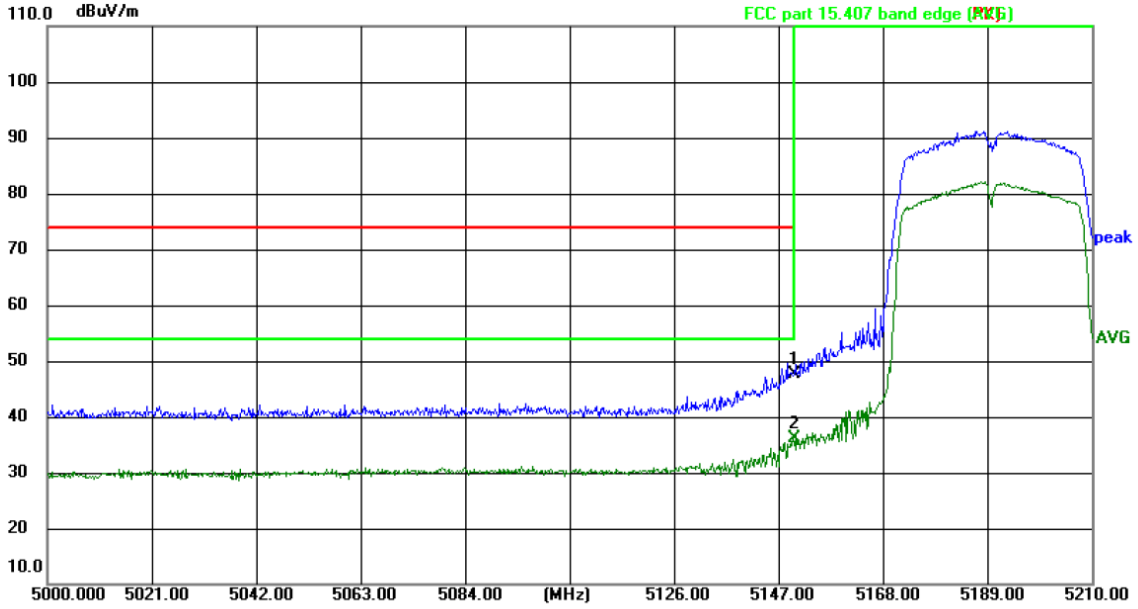
AC40-5190



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

Limit: FCC part 15.407 band edge (PK) Power:DC 3.7 V

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	5150.000	64.37	-8.48	55.89	74.00	-18.11	peak	P	
2 *	5150.000	49.60	-8.48	41.12	54.00	-12.88	AVG	P	

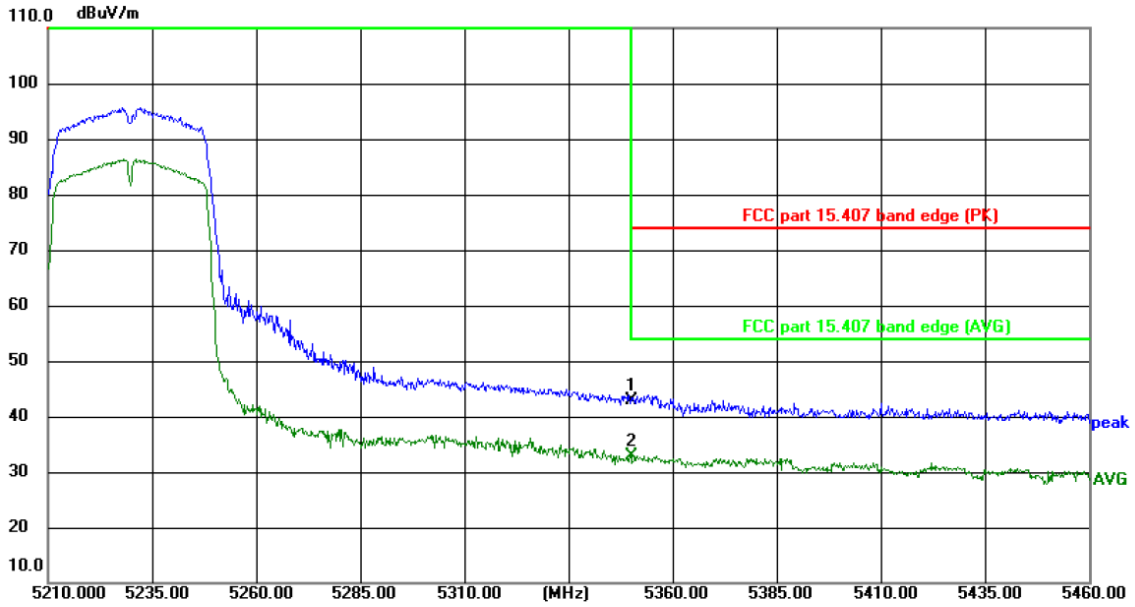


Site: #3 3m Anechoic Chamber Polarization: ***Vertical*** Temperature: 24(℃) Humidity: 52 %

Limit: FCC part 15.407 band edge (PK) Power:DC 3.7 V

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	5150.000	56.13	-8.48	47.65	74.00	-26.35	peak	P	
2 *	5150.000	44.73	-8.48	36.25	54.00	-17.75	AVG	P	

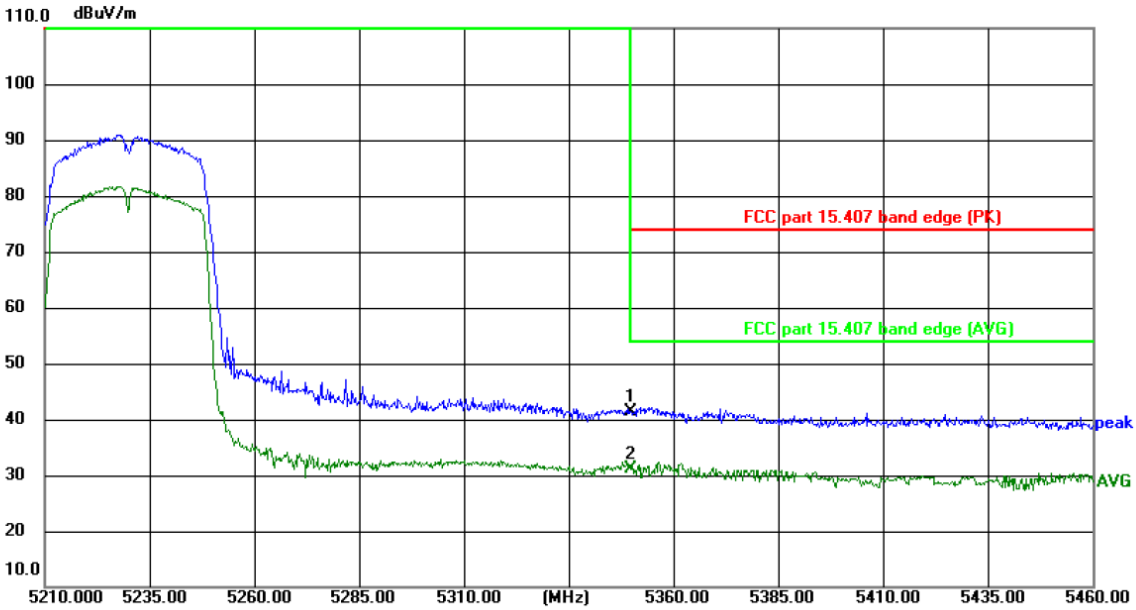
AC40-5230



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

Limit: FCC part 15.407 band edge (PK) Power:DC 3.7 V

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	5350.000	51.24	-8.40	42.84	74.00	-31.16	peak	P	
2 *	5350.000	41.17	-8.40	32.77	54.00	-21.23	AVG	P	

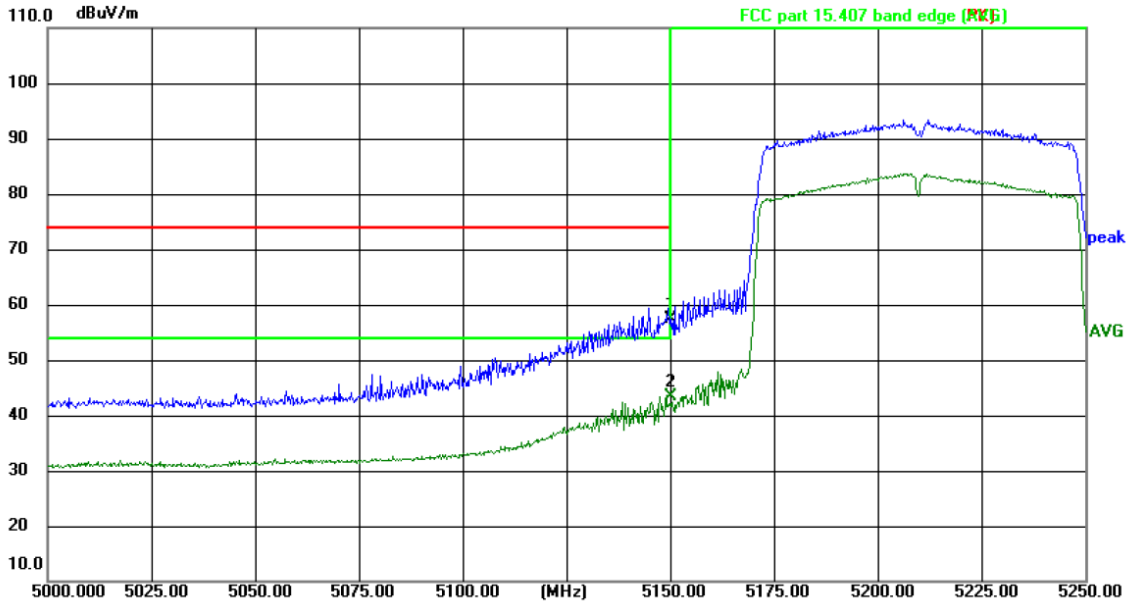


Site: #3 3m Anechoic Chamber Polarization: ***Vertical*** Temperature: 24(℃) Humidity: 52 %

Limit: FCC part 15.407 band edge (PK) Power:DC 3.7 V

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	5350.000	49.85	-8.40	41.45	74.00	-32.55	peak	P	
2 *	5350.000	39.63	-8.40	31.23	54.00	-22.77	AVG	P	

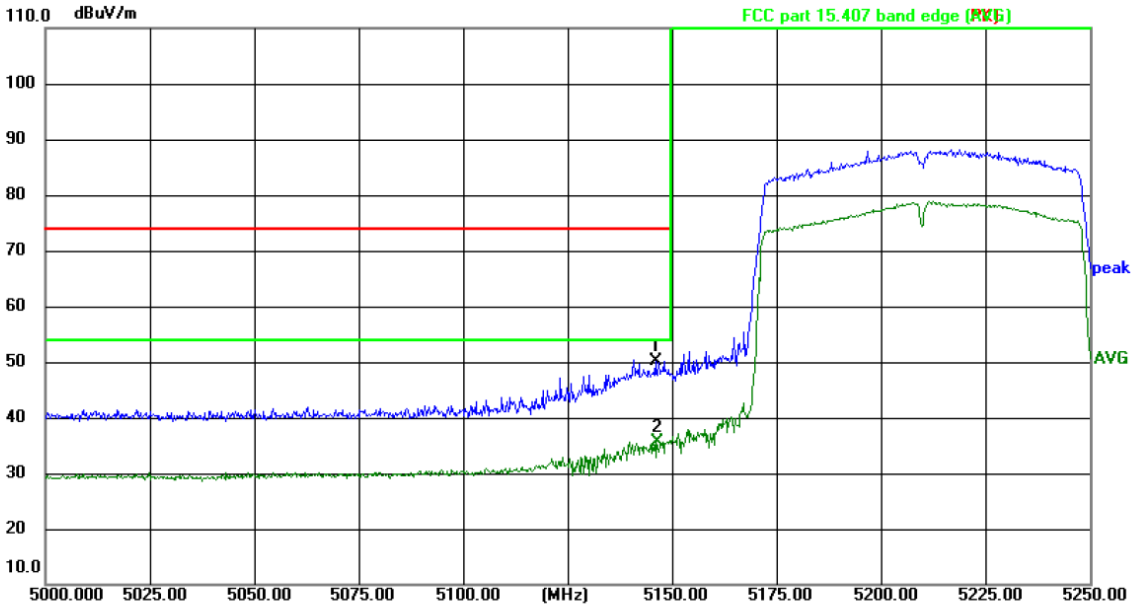
AC80-5210



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

Limit: FCC part 15.407 band edge (PK) Power:DC 3.7 V

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	5150.000	65.92	-8.48	57.44	74.00	-16.56	peak	P	
2 *	5150.000	51.80	-8.48	43.32	54.00	-10.68	AVG	P	

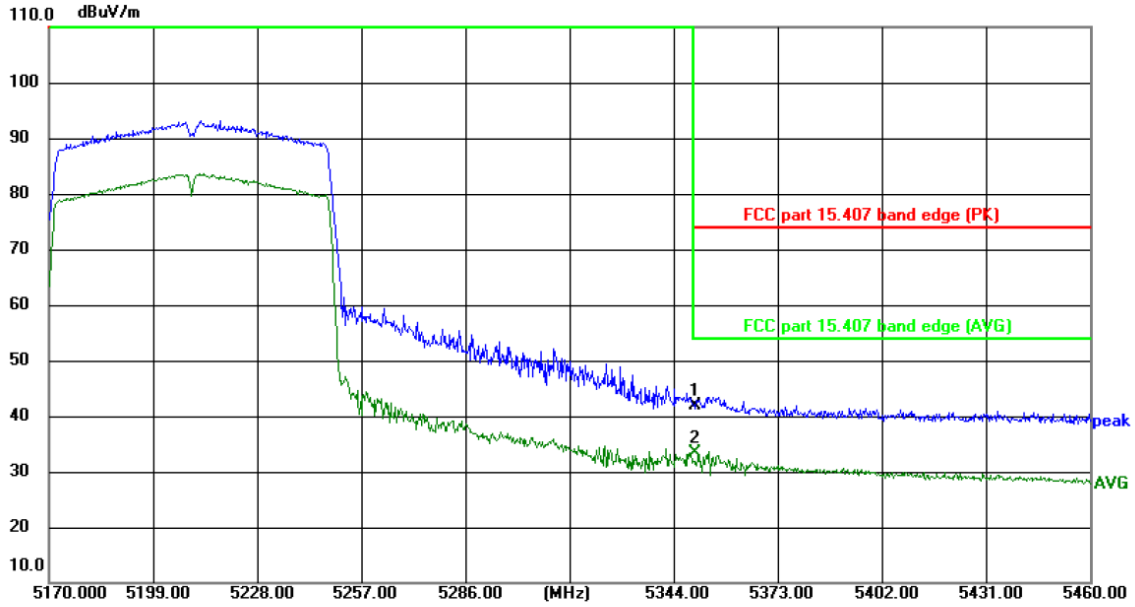


Site: #3 3m Anechoic Chamber Polarization: ***Vertical*** Temperature: 24(℃) Humidity: 52 %

Limit: FCC part 15.407 band edge (PK) Power:DC 3.7 V

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	5146.125	58.69	-8.48	50.21	74.00	-23.79	peak	P	
2 *	5146.313	44.10	-8.48	35.62	54.00	-18.38	AVG	P	

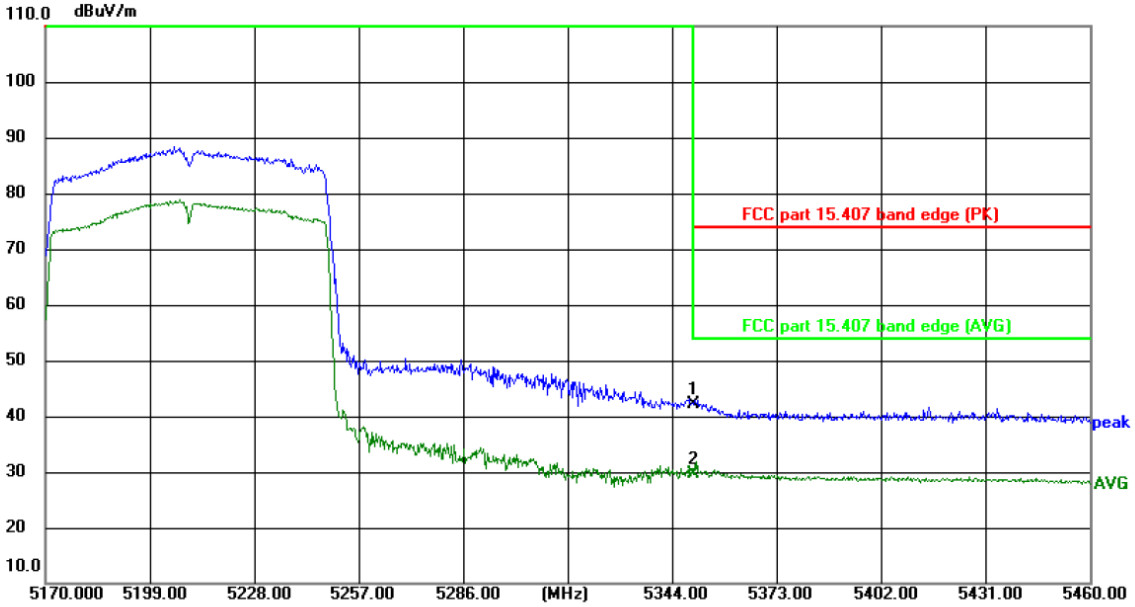
AC80-5210



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

Limit: FCC part 15.407 band edge (PK) Power:DC 3.7 V

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	5350.000	50.38	-8.40	41.98	74.00	-32.02	peak	P	
2 *	5350.000	41.88	-8.40	33.48	54.00	-20.52	AVG	P	

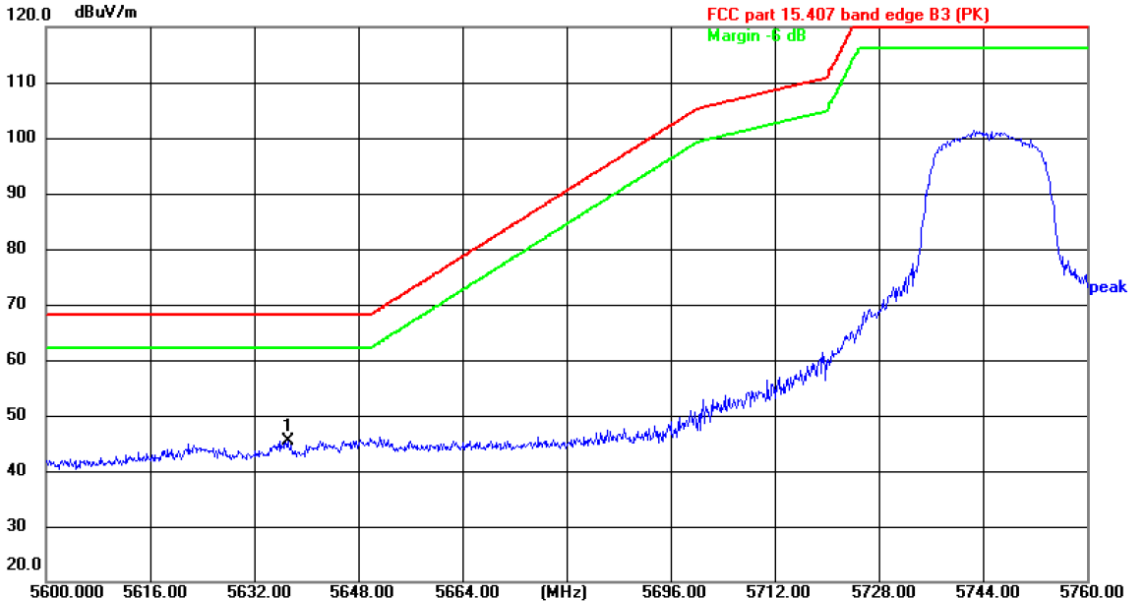


Site: #3 3m Anechoic Chamber Polarization: ***Vertical*** Temperature: 24(℃) Humidity: 52 %

Limit: FCC part 15.407 band edge (PK) Power:DC 3.7 V

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	5350.000	50.63	-8.40	42.23	74.00	-31.77	peak	P	
2 *	5350.000	38.02	-8.40	29.62	54.00	-24.38	AVG	P	

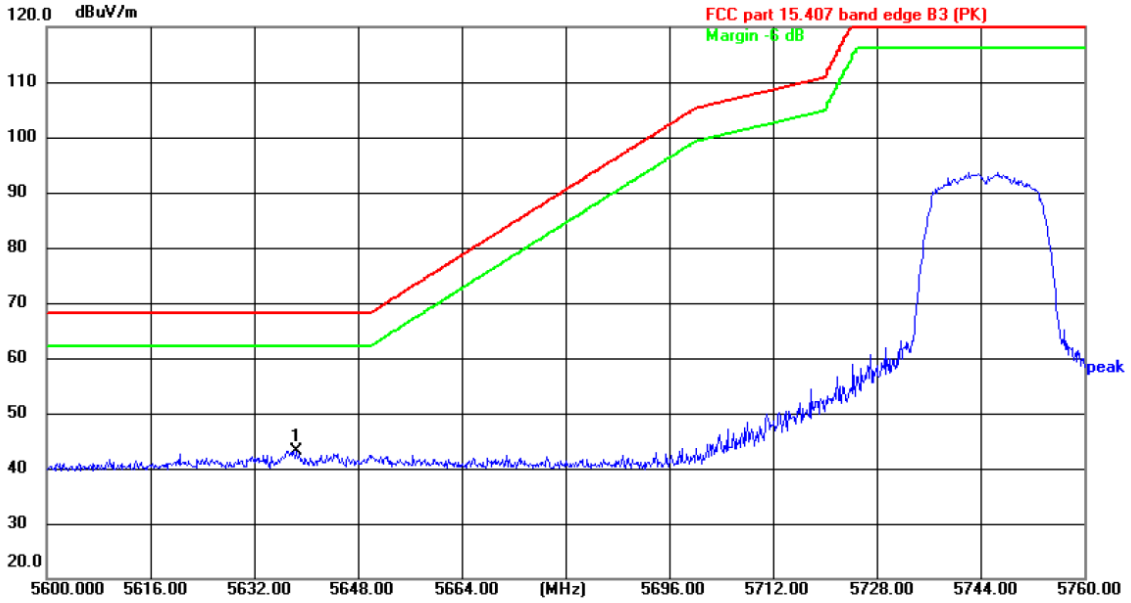
AC20-5745



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

Limit: FCC part 15.407 band edge B3 (PK) Power:DC 3.7 V

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1 *	5637.240	53.38	-7.90	45.48	68.20	-22.72	peak	P	

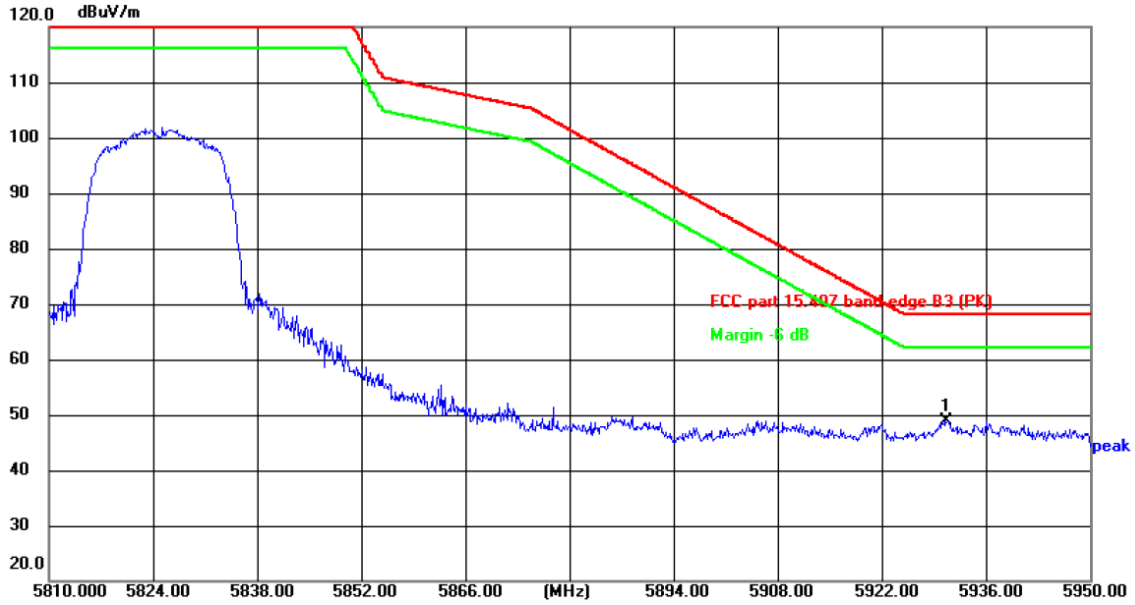


Site: #3 3m Anechoic Chamber Polarization: ***Vertical*** Temperature: 24(℃) Humidity: 52 %

Limit: FCC part 15.407 band edge B3 (PK) Power:DC 3.7 V

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1 *	5638.520	51.13	-7.90	43.23	68.20	-24.97	peak	P	

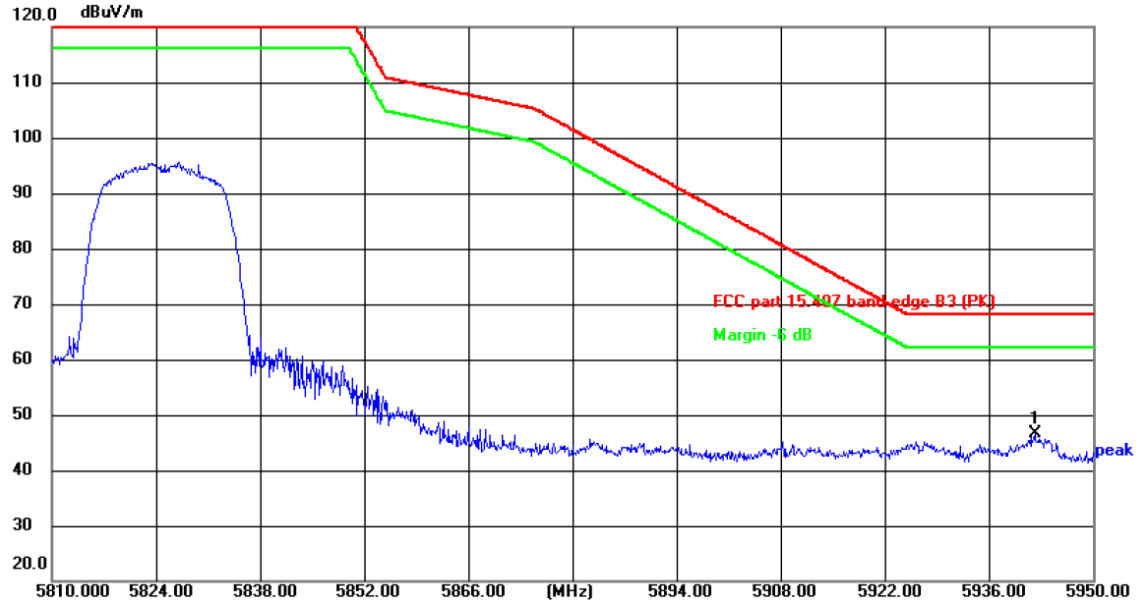
AC20-5825



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

Limit: FCC part 15.407 band edge B3 (PK) Power:DC 3.7 V

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1 *	5930.575	55.96	-6.97	48.99	68.20	-19.21	peak	P	

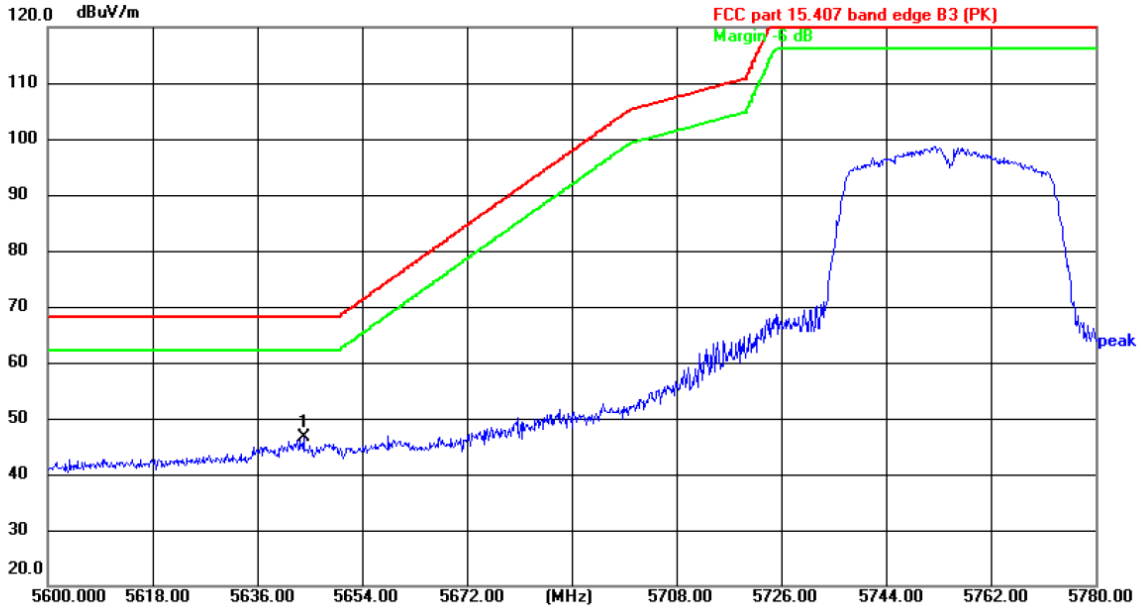


Site: #3 3m Anechoic Chamber Polarization: ***Vertical*** Temperature: 24(℃) Humidity: 52 %

Limit: FCC part 15.407 band edge B3 (PK) Power:DC 3.7 V

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1 *	5942.283	53.60	-6.93	46.67	68.20	-21.53	peak	P	

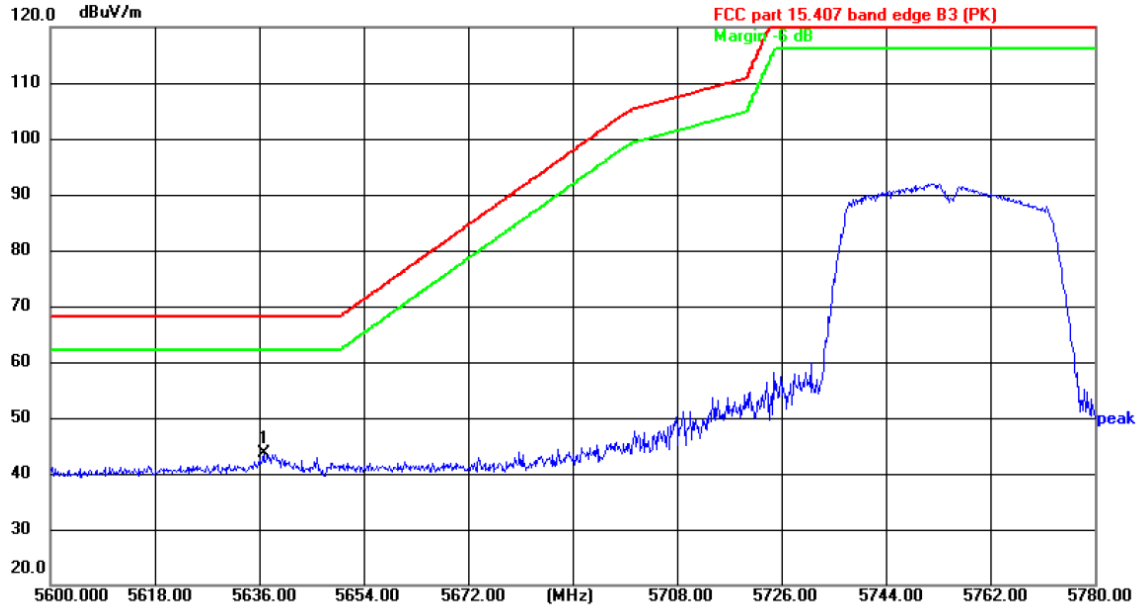
AC40-5755



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

Limit: FCC part 15.407 band edge B3 (PK) Power:DC 3.7 V

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1 *	5643.920	54.45	-7.89	46.56	68.20	-21.64	peak	P	

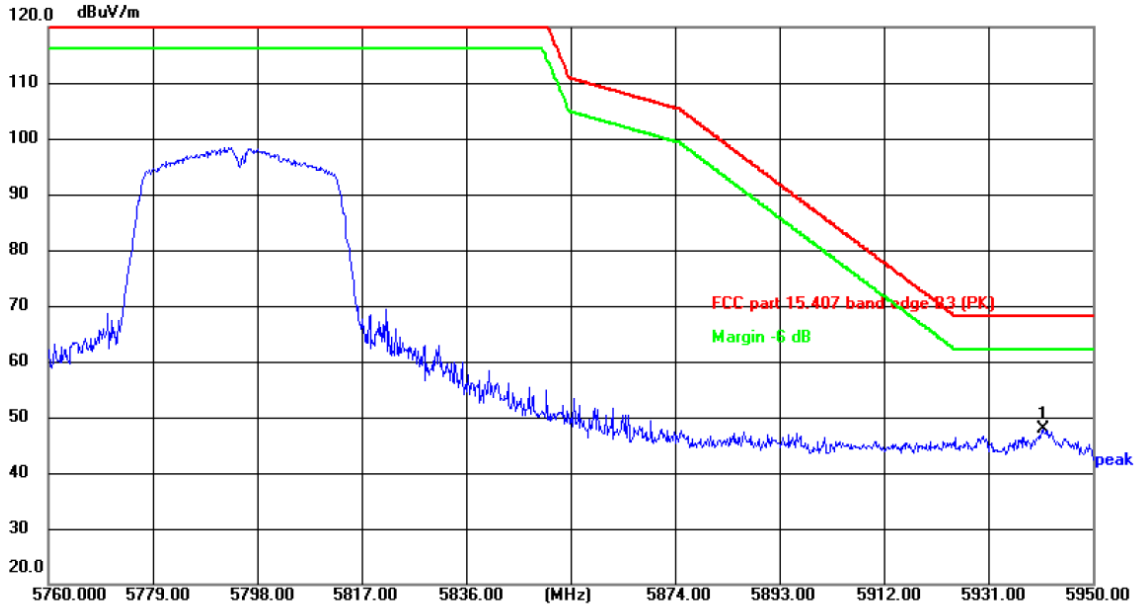


Site: #3 3m Anechoic Chamber Polarization: ***Vertical*** Temperature: 24(℃) Humidity: 52 %

Limit: FCC part 15.407 band edge B3 (PK) Power:DC 3.7 V

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1 *	5636.765	51.63	-7.90	43.73	68.20	-24.47	peak	P	

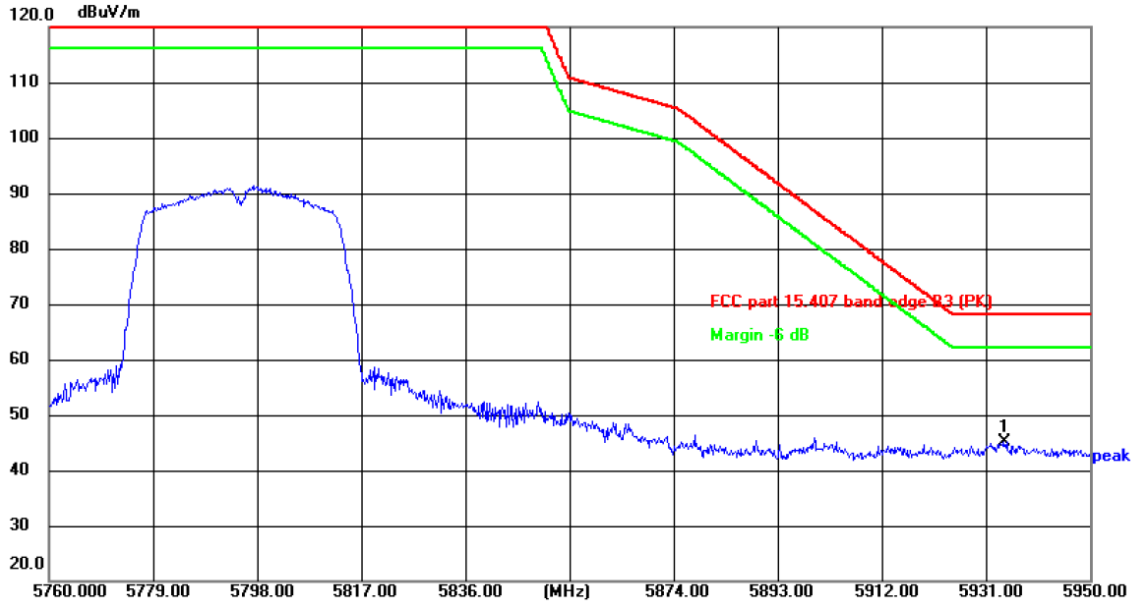
AC40-5795



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

Limit: FCC part 15.407 band edge B3 (PK) Power:DC 3.7 V

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1 *	5940.927	54.84	-6.93	47.91	68.20	-20.29	peak	P	

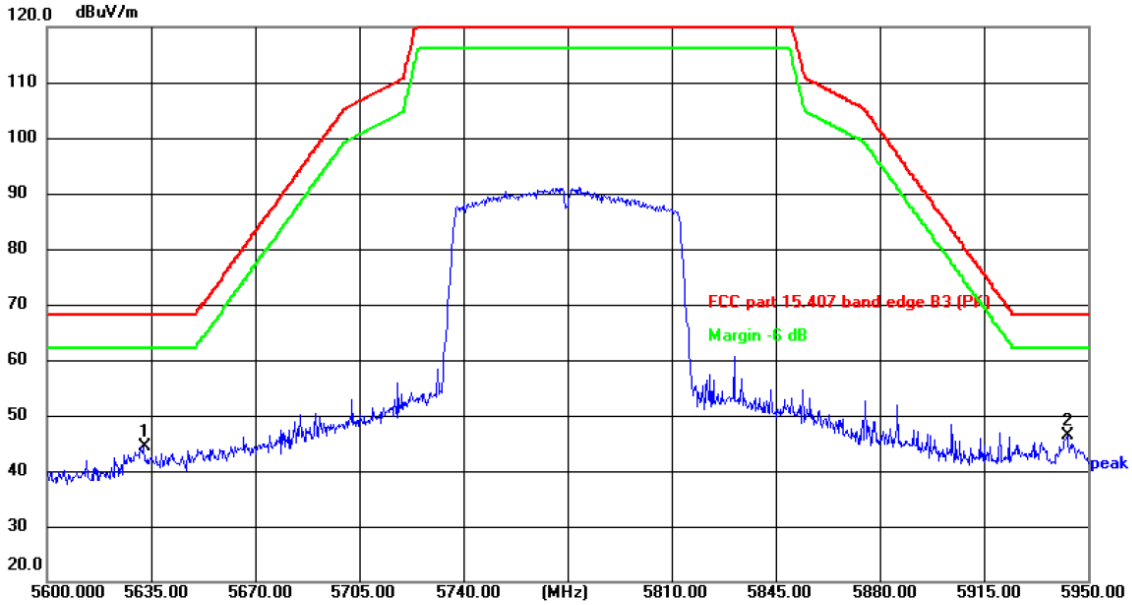


Site: #3 3m Anechoic Chamber Polarization: ***Vertical*** Temperature: 24(℃) Humidity: 52 %

Limit: FCC part 15.407 band edge B3 (PK) Power:DC 3.7 V

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1 *	5934.278	52.12	-6.96	45.16	68.20	-23.04	peak	P	

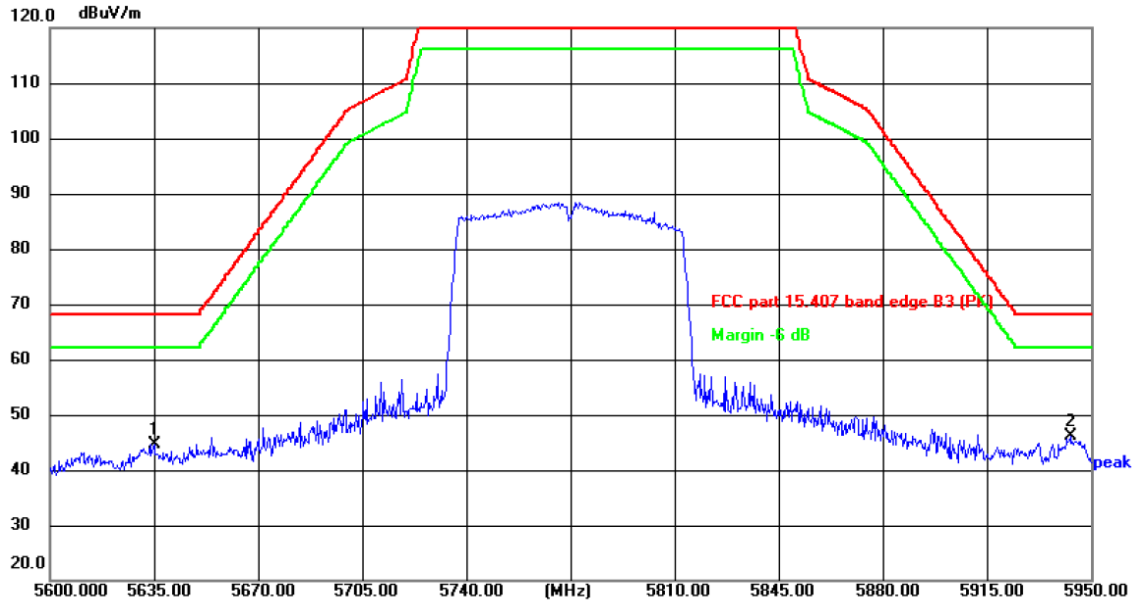
AC80-5775



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

Limit: FCC part 15.407 band edge B3 (PK) Power:DC 3.7 V

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	5632.813	52.30	-7.91	44.39	68.20	-23.81	peak	P	
2 *	5943.175	53.32	-6.93	46.39	68.20	-21.81	peak	P	



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

Limit: FCC part 15.407 band edge B3 (PK) Power:DC 3.7 V

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	5635.087	52.61	-7.91	44.70	68.20	-23.50	peak	P	
2 *	5943.000	53.13	-6.93	46.20	68.20	-22.00	peak	P	

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

5.4. Unwanted Emissions

5.4.1. 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:

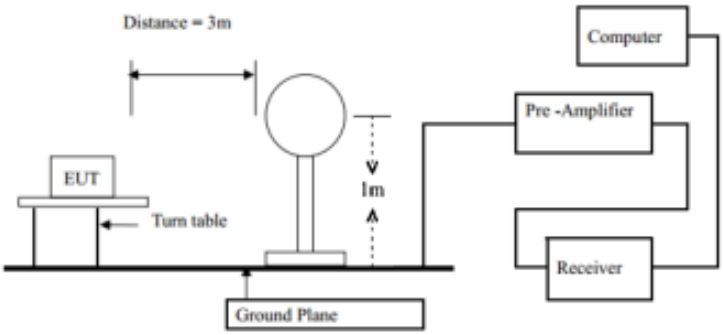
Frequency	Detector	Limit@3m
Above 1G	Peak	74dBμV/m
	AVG	54dBμV/m

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

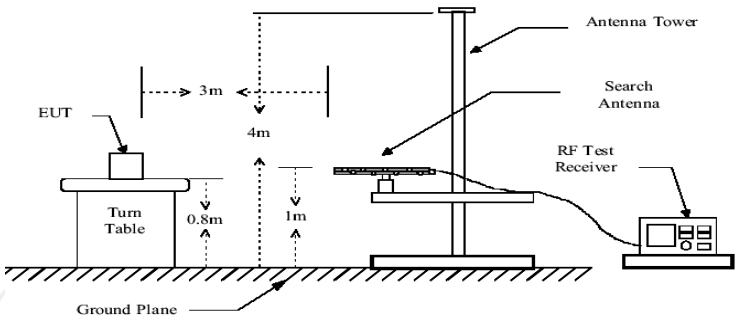
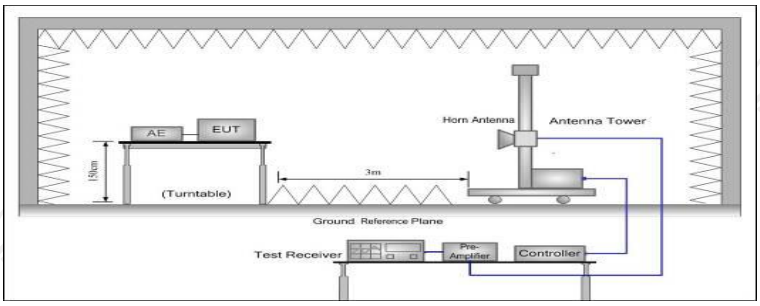
In un-restricted bands: 68.2dBuV/m

Test setup:

For radiated emissions below 30MHz



30MHz to 1GHz

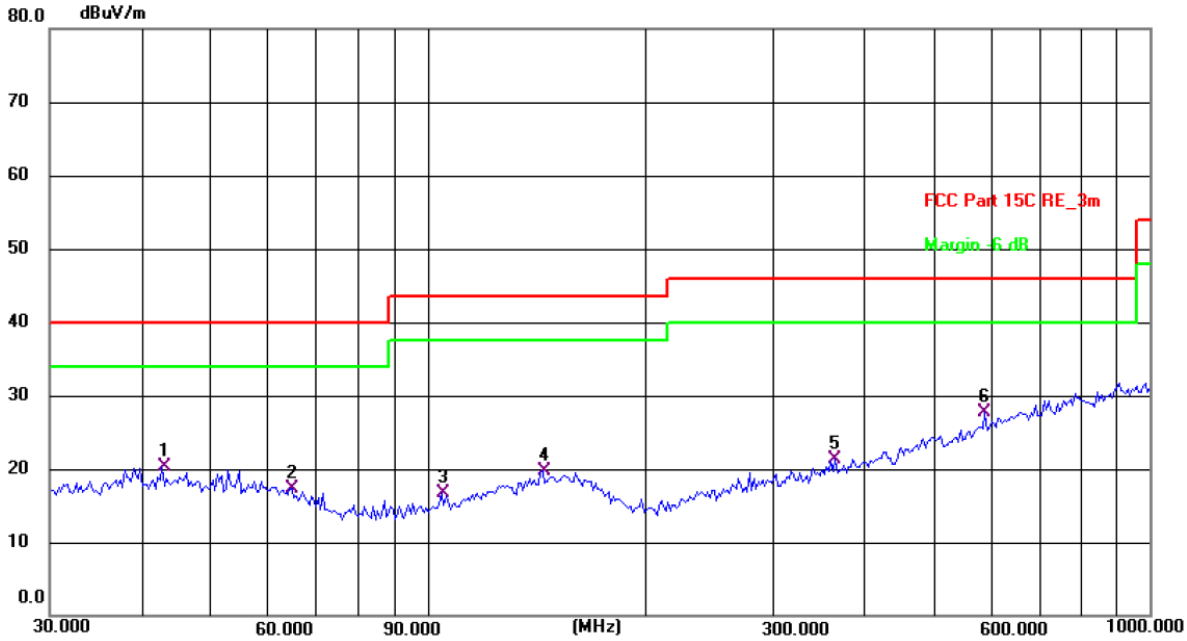
	 Above 1GHz 
Test Procedure:	1. The EUT was placed on the top of a rotating table 0.8 meters above the groundat a 3 meter camber. The table was rotated 360 degrees todetermine the position of the highest radiation. 2. The EUT was set 3 meters away from the interference-receiving antenna, whichwas mounted 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 thenthe antenna was tuned to heights from 1 meter to 4 meters and the rotatablewas turned from 0 degrees to 360 degrees to find the maximum reading. 5. The test-receiver system was set to Peak Detect Function and SpecifiedBandwidth with Maximum Hold Mode. 6. If the emission level of the EUT in peak mode was 10dB lower than the limitspecified, then testing could be stopped and the peak values of the EUT wouldbe reported. Otherwise the emissions that did not have 10dB margin would bere-tested one by one using peak, quasi-peak or average method as specified andthen reported in a data sheet.
Test results:	PASS

5.4.2. Test Data

Please refer to following diagram for individual

Below 1GHz

Horizontal:

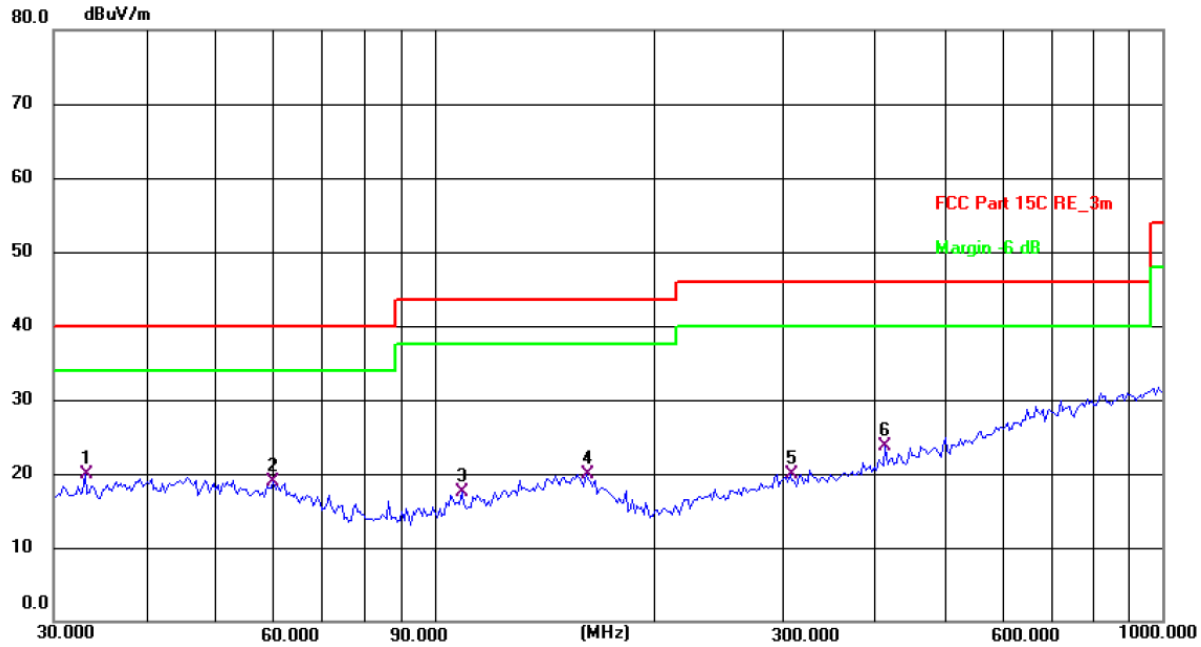


Site: #1 3m Anechoic Chamber Polarization: ***Horizontal*** Temperature: 24.9(C) Humidity: 53 %

Limit: FCC Part 15C RE_3m Power: DC 3.7 V

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	42.8998	6.38	13.85	20.23	40.00	-19.77	QP	P	
2	64.8865	5.43	11.84	17.27	40.00	-22.73	QP	P	
3	104.5361	5.71	10.93	16.64	43.50	-26.86	QP	P	
4	144.3348	5.67	14.08	19.75	43.50	-23.75	QP	P	
5	366.8231	5.68	15.57	21.25	46.00	-24.75	QP	P	
6 *	590.9737	7.40	20.32	27.72	46.00	-18.28	QP	P	

Vertical:



Site: #1 3m Anechoic Chamber Polarization: ***Vertical*** Temperature: 24.9(C) Humidity: 53 %

Limit: FCC Part 15C RE_3m Power: DC 3.7 V

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1 *	33.0950	6.73	13.13	19.86	40.00	-20.14	QP	P	
2	60.0691	5.91	12.96	18.87	40.00	-21.13	QP	P	
3	109.0286	6.07	11.39	17.46	43.50	-26.04	QP	P	
4	161.4742	5.37	14.49	19.86	43.50	-23.64	QP	P	
5	307.8313	5.74	14.23	19.97	46.00	-26.03	QP	P	
6	416.1791	6.88	16.80	23.68	46.00	-22.32	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) and the worst case Mode (Lowest channel and 802.11n(HT20)) was submitted only.

3.Measurement (dBμV) = 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 (dBμV/m)	Emission Level AV (dBμV/m)	Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
10360	H	38.56	---	8.02	46.58	---	68.2	---	-21.62
15540	H	38.91	---	9.87	48.78	---	74	54	-5.22
---	H	---	---	---	---	---	---	---	---
10360	V	38.43	---	8.02	46.45	---	68.2	---	-21.75
15540	V	38.72	---	9.87	48.59	---	74	54	-5.41
---	V	---	---	---	---	----	---	---	---
11a CH40: 5200MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level Peak (dBμV/m)	Emission Level AV (dBμV/m)	Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
10400	H	39.04	---	7.97	47.01	---	68.2	---	-21.19
15600	H	38.15	---	9.83	47.98	---	74	54	-6.02
---	H	---	---	---	---	---	---	---	---
10400	V	40.38	---	7.97	48.35	---	68.2	---	-19.85
15600	V	38.62	---	9.83	48.45	---	74	54	-5.55
---	V	---	---	---	---	----	---	---	---
11a CH48: 5240MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level Peak (dBμV/m)	Emission Level AV (dBμV/m)	Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
10480	H	38.04	---	7.97	46.01	---	68.2	---	-22.19
15720	H	37.92	---	9.83	47.75	---	74	54	-6.25
---	H	---	---	---	---	---	---	---	---
10480	V	38.35	---	7.97	46.32	---	68.2	---	-21.88
15720	V	36.16	---	9.83	45.99	---	74	54	-8.01
---	V	---	---	---	---	----	---	---	---
11n(HT20) CH36: 5180MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level Peak (dBμV/m)	Emission Level AV (dBμV/m)	Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
10360	H	41.23	---	8.02	49.25	---	68.2	---	-18.95
15540	H	37.81	---	9.87	47.68	---	74	54	-6.32
---	H	---	---	---	---	---	---	---	---
10360	V	42.79	---	8.02	50.81	---	68.2	---	-17.39
15540	V	37.34	---	9.87	47.21	---	74	54	-6.79
---	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	40.56	---	7.97	48.53	---	68.2	---	-19.67
15600	H	38.71	---	9.83	48.54	---	74	54	-5.46
---	H	---	---	---	---	---	---	---	---
10400	V	40.02	---	7.97	47.99	---	68.2	---	-20.21
15600	V	37.16	---	9.83	46.99	---	74	54	-7.01
---	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	41.69	---	7.97	49.66	---	68.2	---	-18.54
15720	H	39.52	---	9.83	49.35	---	74	54	-4.65
---	H	---	---	---	---	---	---	---	---
10480	V	40.14	---	7.97	48.11	---	68.2	---	-20.09
15720	V	39.86	---	9.83	49.69	---	74	54	-4.31
---	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	39.47	---	7.75	47.22	---	68.2	---	-20.98
15570	H	37.25	---	9.87	47.12	---	74	54	-6.88
---	H	---	---	---	---	---	---	---	---
10380	V	40.61	---	7.75	48.36	---	68.2	---	-19.84
15570	V	37.89	---	9.87	47.76	---	74	54	-6.24
---	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	41.25	---	7.97	49.22	---	68.2	---	-18.98
15690	H	38.01	---	9.83	47.84	---	74	54	-6.16
---	H	---	---	---	---	---	---	---	---
10460	V	41.56	---	7.97	49.53	---	68.2	---	-18.67
15690	V	38.94	---	9.83	48.77	---	74	54	-5.23
---	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	40.45	---	8.02	48.47	---	68.2	---	-19.73
15540	H	37.61	---	9.87	47.48	---	74	54	-6.52
---	H	---	---	---	---	---	---	---	---
10360	V	38.87	---	8.02	46.89	---	68.2	---	-21.31
15540	V	39.34	---	9.87	49.21	---	74	54	-4.79
---	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	39.89	---	7.97	47.86	---	68.2	---	-20.34
15600	H	38.02	---	9.83	47.85	---	74	54	-6.15
---	H	---	---	---	---	---	---	---	---
10400	V	39.34	---	7.97	47.31	---	68.2	---	-20.89
15600	V	38.65	---	9.83	48.48	---	74	54	-5.52
---	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	37.25	---	7.97	45.22	---	68.2	---	-22.98
15720	H	37.08	---	9.83	46.91	---	74	54	-7.09
---	H	---	---	---	---	---	---	---	---
10480	V	38.36	---	7.97	46.33	---	68.2	---	-21.87
15720	V	38.44	---	9.83	48.27	---	74	54	-5.73
---	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	39.57	---	9.87	49.44	---	74	54	-4.56
---	H	---	---	---	---	---	---	---	---
10380	V	38.38	---	7.75	46.13	---	68.2	---	-22.07
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	38.92	---	7.97	46.89	---	68.2	---	-21.31
15690	H	38.14	---	9.83	47.97	---	74	54	-6.03
---	H	---	---	---	---	---	---	---	---
10460	V	39.68	---	7.97	47.65	---	68.2	---	-20.55
15690	V	37.35	---	9.83	47.18	---	74	54	-6.82
---	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	41.57	---	7.96	49.53	---	68.2	---	-18.67
15630	H	39.31	---	9.84	49.15	---	74	54	-4.85
---	H	---	---	---	---	---	---	---	---
10420	V	41.02	---	7.96	48.98	---	68.2	---	-19.22
15630	V	39.85	---	9.84	49.69	---	74	54	-4.31
---	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.*

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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 (dBμV/m)	Emission Level AV (dBμV/m)	Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
11490	H	37.57	---	8.09	45.66	---	74	54	-8.34
17235	H	37.32	---	9.67	46.99	---	68.2	---	-21.21
---	H	---	---	---	---	---	---	---	---
11490	V	40.68	---	8.09	48.77	---	74	54	-5.23
17235	V	38.12	---	9.67	47.79	---	68.2	---	-20.41
---	V	---	---	---	---	----	---	---	---
11a CH157: 5785MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level Peak (dBμV/m)	Emission Level AV (dBμV/m)	Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
11570	H	39.45	---	8.10	47.55	---	74	54	-6.45
17355	H	38.18	---	9.65	47.83	---	68.2	---	-20.37
---	H	---	---	---	---	---	---	---	---
11570	V	38.96	---	8.10	47.06	---	74	54	-6.94
17355	V	39.01	---	9.65	48.66	---	68.2	---	-19.54
---	V	---	---	---	---	----	---	---	---
11a CH165: 5825MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level Peak (dBμV/m)	Emission Level AV (dBμV/m)	Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
11650	H	37.34	---	8.12	45.46	---	74	54	-8.54
17475	H	36.69	---	9.62	46.31	---	68.2	---	-21.89
---	H	---	---	---	---	---	---	---	---
11650	V	38.91	---	8.12	47.03	---	74	54	-6.97
17475	V	38.05	---	9.62	47.67	---	68.2	---	-20.53
---	V	---	---	---	---	----	---	---	---
11n(HT20) CH149: 5745MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level Peak (dBμV/m)	Emission Level AV (dBμV/m)	Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
11490	H	38.63	---	8.09	46.72	---	74	54	-7.28
17235	H	38.79	---	9.67	48.46	---	68.2	---	-19.74
---	H	---	---	---	---	---	---	---	---
11490	V	39.48	---	8.09	47.57	---	74	54	-6.43
17235	V	37.81	---	9.67	47.48	---	68.2	---	-20.72
---	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	38.24	---	8.10	46.34	---	74	54	-7.66
17355	H	39.76	---	9.65	49.41	---	68.2	---	-18.79
---	H	---	---	---	---	---	---	---	---
11570	V	38.14	---	8.10	46.24	---	74	54	-7.76
17355	V	39.48	---	9.65	49.13	---	68.2	---	-19.07
---	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	38.85	---	8.12	46.97	---	74	54	-7.03
17475	H	37.36	---	9.62	46.98	---	68.2	---	-21.22
---	H	---	---	---	---	---	---	---	---
11650	V	38.12	---	8.12	46.24	---	74	54	-7.76
17475	V	39.37	---	9.62	48.99	---	68.2	---	-19.21
---	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	40.05	---	8.09	48.14	---	74	54	-5.86
17265	H	37.24	---	9.67	46.91	---	68.2	---	-21.29
---	H	---	---	---	---	---	---	---	---
11510	V	41.76	---	8.09	49.85	---	74	54	-4.15
17265	V	38.19	---	9.67	47.86	---	68.2	---	-20.34
---	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	38.23	---	8.10	46.33	---	74	54	-7.67
17385	H	38.96	---	9.65	48.61	---	68.2	---	-19.59
---	H	---	---	---	---	---	---	---	---
11590	V	38.12	---	8.10	46.22	---	74	54	-7.78
17385	V	37.58	---	9.65	47.23	---	68.2	---	-20.97
---	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	40.34	---	8.09	48.43	---	74	54	-5.57
17235	H	37.15	---	9.67	46.82	---	68.2	---	-21.38
---	H	---	---	---	---	---	---	---	---
11490	V	40.79	---	8.09	48.88	---	74	54	-5.12
17235	V	38.01	---	9.67	47.68	---	68.2	---	-20.52
---	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	38.44	---	8.10	46.54	---	74	54	-7.46
17355	H	36.02	---	9.65	45.67	---	68.2	---	-22.53
---	H	---	---	---	---	---	---	---	---
11570	V	37.58	---	8.10	45.68	---	74	54	-8.32
17355	V	38.91	---	9.65	48.56	---	68.2	---	-19.64
---	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	40.69	---	8.12	48.81	---	74	54	-5.19
17475	H	38.52	---	9.62	48.14	---	68.2	---	-20.06
---	H	---	---	---	---	---	---	---	---
11650	V	38.74	---	8.12	46.86	---	74	54	-7.14
17475	V	40.35	---	9.62	49.97	---	68.2	---	-18.23
---	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	39.25	---	8.09	47.34	---	74	54	-6.66
17265	H	37.68	---	9.67	47.35	---	68.2	---	-20.85
---	H	---	---	---	---	---	---	---	---
11510	V	40.72	---	8.09	48.81	---	74	54	-5.19
17265	V	36.15	---	9.67	45.82	---	68.2	---	-22.38
---	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	40.89	---	8.10	48.99	---	74	54	-5.01
17385	H	37.34	---	9.65	46.99	---	68.2	---	-21.21
---	H	---	---	---	---	---	---	---	---
11590	V	39.61	---	8.10	47.71	---	74	54	-6.29
17385	V	38.72	---	9.65	48.37	---	68.2	---	-19.83
---	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	40.23	---	8.09	48.32	---	74	54	-5.68
17325	H	38.95	---	9.66	48.61	---	68.2	---	-19.59
---	H	---	---	---	---	---	---	---	---
11550	V	41.86	---	8.09	49.95	---	74	54	-4.05
17325	V	38.05	---	9.66	47.71	---	68.2	---	-20.49
---	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.*

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Appendix B: Photographs of Test Setup

Refer to the test report No. TCT230524E027

Appendix C: Photographs of EUT

Refer to the test report No. TCT230524E027

*******END OF REPORT*******