

TEST REPORT

Product Name : Mini PC
Model Number : M2 Pro-388H, M2 Pro-****(* = "0-9" 、"A-Z"、
"-","blank")
FCC ID : 2A49R-M2PRO

Prepared for : MICRO COMPUTER (HK) TECH LIMITED
Address : Unit 1908, 19/F, Tower 2, Grand Central Plaza, 138 Shatin
Rural Committee Road, Shatin, N.T., H.K

Prepared by : EMTEK (SHENZHEN) CO., LTD.
Address : Bldg 69, Majialong Industry Zone, Nanshan District,
Shenzhen, Guangdong, China

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Report Number : ENS2607150124W01204R
Date(s) of Tests : July 16, 2026 to August 22, 2026
Date of Issue : August 24, 2026

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Modified Information

Version	Report No.	Revision Date	Summary
Ver.1.0	ENS2607150124W01204R	/	Original Report



1 TEST RESULT CERTIFICATION

Applicant : MICRO COMPUTER (HK) TECH LIMITED
Address : Unit 1908, 19/F, Tower 2, Grand Central Plaza, 138 Shatin Rural Committee Road, Shatin, N.T., H.K.
Manufacturer : MICRO COMPUTER (HK) TECH LIMITED
Address : Unit 1908, 19/F, Tower 2, Grand Central Plaza, 138 Shatin Rural Committee Road, Shatin, N.T., H.K.
EUT : Mini PC
Model Name : M2 Pro-388H, M2 Pro-****(* = "0-9" 、" A-Z" 、"-" 、" blank")
Trademark : N/A

Measurement Procedure Used:

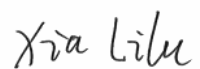
APPLICABLE STANDARDS	
STANDARD	TEST RESULT
FCC 47 CFR Part 2, Subpart J FCC 47 CFR Part 15, Subpart E	PASS
IC RSS-GEN, Issue 5(04-2018)+A1(03-2019)+A2(02-2021) IC RSS-247 Issue 4(07-2025)	PASS

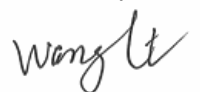
The above equipment was tested by EMTEK (SHENZHEN) CO., LTD. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024 and the energy emitted by the sample EUT tested as described in this report is in compliance with the requirements of FCC Rules Part 2, Part 15.407, IC RSS-247 Issue 4 and IC RSS-GEN, Issue 5.

The test results of this report relate only to the tested sample identified in this report.

Date of Test : July 16, 2026 to August 22, 2026

Prepared by : 
Yu Xiaolan /Editor

Reviewer : 
Xia Lili/Supervisor

Approve & Authorized Signer : 
Wang Li/Manager



2 EUT TECHNICAL DESCRIPTION

Device style:	5G WIFI (Slave equipment without radar detection function)
Product Name:	Mini PC
Model Number:	M2 Pro-388H, M2 Pro-****(* = "0-9" 、" A-Z" 、"-" 、" blank") (The differences between the models are only different due to the different sales regions and the model naming method, other circuit principles, safety structure and key components are the same, and the differences do not affect the safety and electromagnetic compatibility of the product. The main test model is selected as M2 Pro-388H)
Test Sample S/N:	ENS2607150124W012-01
WIFI Type:	UNII-1: 5150MHz-5250MHz Band UNII-2A: 5250MHz-5350MHz Band UNII-2C: 5470MHz-5725MHz Band UNII-3: 5725MHz-5850MHz Band
WLAN Supported:	IEEE 802.11a IEEE 802.11n(20MHz channel bandwidth) IEEE 802.11n(40MHz channel bandwidth) IEEE 802.11ac(20MHz channel bandwidth) IEEE 802.11ac(40MHz channel bandwidth) IEEE 802.11ac(80MHz channel bandwidth) IEEE 802.11ac(160MHz channel bandwidth) IEEE 802.11ax/be(20MHz channel bandwidth) IEEE 802.11ax/be(40MHz channel bandwidth) IEEE 802.11ax/be(80MHz channel bandwidth) IEEE 802.11ax/be(160MHz channel bandwidth)
Modulation:	OFDM with BPSK/QPSK/16QAM/64QAM for 802.11a/n OFDM with BPSK/QPSK/16QAM/64QAM/256QAM for 802.11ac OFDMA with BPSK/QPSK/16QAM/64QAM/256QAM/1024QAM for 802.11ax OFDMA with BPSK/QPSK/16QAM/64QAM/256QAM/1024QAM/4096-QAM for 802.11be
Frequency Range:	UNII-1: 5150MHz-5250MHz Band 5180-5240MHz for 802.11a/n(HT20)/ac(VHT20)/ax(HE20)/be(EHT20) 5190-5230MHz for 802.11n(HT40) /ac(VHT40)/ax(HE40)/be(EHT40) 5210MHz for 802.11ac(VHT80)/ax(HE80)/be(EHT80)
	UNII-2A: 5250MHz-5350MHz Band 5260-5320MHz for 802.11a/n(HT20) /ac(VHT20)/ax(HE20)/be(EHT20) 5270-5310MHz for 802.11n(HT40) /ac(VHT40)/ax(HE40)/be(EHT40) 5290MHz for 802.11ac(VHT80)/ax(HE80)/be(EHT80) 5250MHz for 802.11ac(VHT160)/ax(HE160)/be(EHT160)
	UNII-2C: 5470MHz-5725MHz Band 5500-5700MHz for 802.11a/n(HT20) /ac(VHT20)/ax(HE20)/be(EHT20) 5510-5670MHz for 802.11n(HT40) /ac(VHT40)/ax(HE40)/be(EHT40) 5530MHz for 802.11ac(VHT80)/ax(HE80)/be(EHT80) 5570MHz for 802.11ac(VHT160)/ax(HE160)/be(EHT160)

	UNII-3 with 5725MHz-5850MHz Band 5745-5825MHz for 802.11a/n(HT20) /ac(VHT20)/ax(HE20)/be(EHT20) 5755-5795MHz for 802.11n(HT40) /ac(VHT40)/ax(HE40)/be(EHT40) 5775MHz for 802.11ac(VHT80)/ax(HE80)/be(EHT80)
Modulation:	OFDM,OFDMA
TPC Function:	Not Support
Beamforming:	Not Support
DFS Function:	Slave
Smart System:	MIMO
Antenna Type:	FPC Antenna
Antenna Gain:	Ant1: 3.93dBi, Ant2: 3.28dBi (Note: The antenna information is provided by the customers, which will have a certain impact on the test results.)
Test Voltage:	AC 120V/60Hz
Temperature Range:	0°C ~ +35°C
Software Version:	V1.0
Hardware Version:	V1.0
Date of Received:	July 16, 2026
Date of Test:	July 16, 2026 to August 22, 2026

Note: for more details, please refer to the user's manual of the EUT.

3 SUMMARY OF TEST RESULT

FCC Part Clause	IC Part Clause	Test Parameter	Verdict	Remark
15.407 (a) 15.407 (e) 2.1049	RSS-247 clause 7.3.4.2 RSS-Gen 6.7	99% , 6dB and 26dB Bandwidth	PASS	*
15.407 (a)	RSS-247 clause 7.3.2.2 RSS-247 clause 7.3.3.2 RSS-247 clause 7.3.4.3	Maximum Conducted Output Power	PASS	*
15.407 (a)	RSS-247 clause 7.3.1.2 RSS-247 clause 7.3.2.2 RSS-247 clause 7.3.3.2 RSS-247 clause 7.3.4.3	PeakPower Spectral Density	PASS	*
15.407 (b) 15.209 15.205	RSS-247 clause 7.3.1.3 RSS-247 clause 7.3.2.3 RSS-247 clause 7.3.3.3 RSS-247 clause 7.3.4.4 RSS-Gen 8.9 RSS-Gen 8.10 RSS-Gen 6.13	RadiatedSpurious Emission	PASS	
15.207	RSS-Gen 8.8	Power Line Conducted Emission	PASS	
15.407(a) 15.203	RSS-Gen 6.8	Antenna Application	PASS	
NOTE1:N/A (Not Applicable) NOTE2:According to FCC OET KDB 789033, the report use radiated measurements in the restricted frequency bands. In addition, the radiated test is also performed to ensure the emissions emanating from the device cabinet also comply with the applicable limits. NOTE3: * According to FCC OET 484596 D01,means that this item refers to module report of FCC ID: PD9BE211NG				

RELATED SUBMITTAL(S) / GRANT(S):

This submittal(s) (test report) is intended for **FCC ID:2A49R-M2PRO** filing to comply with Section 15.407 of the FCC Part 15, Subpart C Rules.

This submittal(s) (test report) is intended for filing to comply with RSS-247 Rules.

4 TEST METHODOLOGY

4.1 GENERAL DESCRIPTION OF APPLIED STANDARDS

According to its specifications, the EUT must comply with the requirements of the following standards:

FCC 47 CFR Part 2, Subpart J

FCC 47 CFR Part 15, Subpart E

IC RSS-GEN, Issue 5(04-2018)+A1(03-2019)+A2(02-2021)

IC RSS-247 Issue 4(07-2025)

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

FCC KDB 789033 D2 General UNII Test Procedures New Rules v02r01

4.2 MEASUREMENT EQUIPMENT USED

Conducted Emission Test Equipment

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
EMI Test Receiver	Rohde & Schwarz	ESCI	101384	2026/5/9	1Year
AMN	Rohde & Schwarz	ENV216	101161	2026/5/10	1Year

For Spurious Emissions Test

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
Pre-Amplifier	Bonn	BLMA 011001N	2213967A	2025/10/16	1Year
EMI Test Receiver	Rohde & Schwarz	ESR7	102551	2025/10/16	1Year
Bilog Antenna	Schwarzbeck	VULB 9163	141	2026/5/16	2Year
Horn antenna	Schwarzbeck	BBHA9120D	9120D-1198	2025/5/13	2Year
Pre-Amplifier	Bonn	BLMA 0118-5G	2213967B-01	2025/10/16	1Year
Spectrum Analyzer	Rohde & Schwarz	FSV3044	101290	2025/10/16	1Year
Horn antenna	Schwarzbeck	BBHA9170	9170-399	2025/5/13	2Year
Pre-Amplifier	Lunar EM	LNA10M1G-40	J101113112600 1	2026/5/8	1Year
Pre-Amplifier	Lunar EM	LNA10M1G-40	J101113112600 2	2026/5/8	1Year
Loop Antenna	Schwarzbeck	FMZB1519	1519-012	2025/5/13	2Year
Coaxial Cable	TIMES	NmNm-7-C15702	N/A	2026/5/8	1Year
Coaxial Cable	TIMES	HF290-NMSM-6.5M	N/A	2026/5/8	1Year
Coaxial Cable	TIMES	LMR-240 N-N	N/A	2026/5/8	1Year

For other test items

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
Wideband Radio Communication Tester	R&S	CMW500	171168	2025/9/9	1Year
Frequency Extender	R&S	CMW-Z800A	100430	2025/9/9	1Year
Spectrum Analyzer	R&S	FSV3044	101289	2025/12/16	1Year
Analog Signal Generator	R&S	SMB100A	183237	2025/9/9	1Year
Vector Signal Generator	R&S	SMM100A	101808	2025/9/9	1Year
RF Control Unit(Power Meter)	Tonscend	JS0806-2	22C8060567	2025/9/9	1Year
Temperature&Humidity Chamber	ESPEC	EL-02KA	12107166	2026/5/8	1 Year

4.3 DESCRIPTION OF TEST MODES

The EUT has been tested under its typical operating condition.

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

The Transmitter was operated in the normal operating mode. The TX frequency was fixed which was for the purpose of the measurements.

Test of channel included the lowest and middle and highest frequency to perform the test, then record on this report.

Pre-defined engineering program for regulatory testing used to control the EUT for staying in continuous transmitting and receiving mode is programmed.

Wifi 5G with 5150-5250MHz

Frequency and Channel list for 802.11a, 802.11n (HT20), 802.11ac(VHT20), 802.11ax(HE20), 802.11be(EHT20):

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	44	5220		
40	5200	48	5240		

Frequency and Channel list for 802.11n (HT40), 802.11ac(VHT40), 802.11ax(HE40),802.11be(EHT40) :

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
38	5190	46	5230		

Frequency and Channel list for 802.11ac(VHT80), 802.11ax(HE80),802.11be(EHT80):

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
42	5210	-	-	-	-

Test Frequency and Channels for 802.11a, 802.11n (HT20), 802.11ac(VHT20), 802.11ax(HE20), 802.11be(EHT20):

Lowest Frequency		Middle Frequency		Highest Frequency	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	40	5200	48	5240

Test Frequency and channels for 802.11n (HT40), 802.11ac(VHT40), 802.11ax(HE40), 802.11be(EHT40) :

Lowest Frequency		Middle Frequency		Highest Frequency	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
38	5190	-	-	46	5230

Test Frequency and channels for 802.11ac(VHT80), 802.11ax(HE80),802.11be(EHT80):

Lowest Frequency		Middle Frequency		Highest Frequency	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
42	5210	-	-	-	-

WIFI 5G with 5250-5350MHz

Frequency and Channels list for 802.11a, 802.11n (HT20), 802.11ac(VHT20), 802.11ax(HE20), 802.11be(EHT20):

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
52	5260	60	5300	-	-
56	5280	64	5320	-	-

Frequency and Channels list for 802.11n (HT40), 802.11ac(VHT40), 802.11ax(HE40),802.11be(EHT40) :

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
54	5270	-	-	-	-
62	5310	-	-	-	-

Frequency and Channels list for 802.11ac(VHT80), 802.11ax(HE80),802.11be(EHT80):

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
58	5290	-	-	-	-

Frequency and Channels list for 802.11ax(HE160), 802.11be(EHT160) :

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
50	5250	-	-	-	-

Test Frequency and Channels for 802.11a, 802.11n (HT20), 802.11ac(VHT20), 802.11ax(HE20), 802.11be(EHT20):

Lowest Frequency		Middle Frequency		Highest Frequency	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
52	5260	56	5280	64	5320

Test Frequency and channels for 802.11n (HT40), 802.11ac(VHT40), 802.11ax(HE40), 802.11be(EHT40) :

Lowest Frequency		Middle Frequency		Highest Frequency	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
54	5270	-	-	62	5310

Test Frequency and channels for 802.11ac(VHT80), 802.11ax(HE80),802.11be(EHT80):

Lowest Frequency		Middle Frequency		Highest Frequency	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
58	5290	-	-	-	-

Test Frequency and channels for 802.11ax(HE160), 802.11be(EHT160) :

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
50	5250	-	-	-	-

WIFI 5G with 5470-5725MHz

Frequency and Channels list for 802.11a, 802.11n (HT20), 802.11ac(VHT20), 802.11ax(HE20), 802.11be(EHT20):

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
100	5500	116	5580	132	5660
104	5520	120	5600	136	5680
108	5540	124	5620	140	5700
112	5560	128	5640	-	-

Frequency and Channels list for 802.11n (HT40), 802.11ac(VHT40), 802.11ax(HE40), 802.11be(EHT40):

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
102	5510	118	5590	134	5670
110	5550	126	5630	-	-

Frequency and Channels list for 802.11ac(VHT80), 802.11ax(HE80), 802.11be(EHT80):

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
106	5530	122	5610	-	-

Frequency and channels for 802.11ax(HE160), 802.11be(EHT160):

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
114	5570	-	-	-	-

Test Frequency and Channels for 802.11a, 802.11n (HT20), 802.11ac(VHT20), 802.11ax(HE20), 802.11be(EHT20):

Lowest Frequency		Middle Frequency		Highest Frequency	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
100	5500	116	5580	140	5700

Test Frequency and channels for 802.11n (HT40), 802.11ac(VHT40), 802.11ax(HE40), 802.11be(EHT40):

Lowest Frequency		Middle Frequency		Highest Frequency	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
102	5510	-	-	134	5670

Test Frequency and channels for 802.11ac(VHT80), 802.11ax(HE80), 802.11be(EHT80):

Lowest Frequency		Middle Frequency		Highest Frequency	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
106	5530	122	5610	-	-

Test Frequency and channels for 802.11ax(HE160), 802.11be(EHT160) :

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
114	5570	-	-	-	-

Wifi 5G with 5725MHz-5850MHz

Frequency and Channels list for 802.11a, 802.11n (HT20), 802.11ac(VHT20), 802.11ax(HE20), 802.11be(EHT20):

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
149	5745	157	5785	165	5825
153	5765	161	5805	-	-

Frequency and Channels list for 802.11n (HT40), 802.11ac(VHT40), 802.11ax(HE40), 802.11be(EHT40) :

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
151	5755	-	-	-	-
159	5795	-	-	-	-

Frequency and Channels list for 802.11ac(VHT80), 802.11ax(HE80), 802.11be(EHT80):

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
155	5775	-	-	-	-

Test Frequency and Channels for 802.11a, 802.11n (HT20), 802.11ac(VHT20), 802.11ax(HE20), 802.11be(EHT20):

Lowest Frequency		Middle Frequency		Highest Frequency	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
149	5745	157	5785	165	5825

Test Frequency and channels for 802.11n (HT40), 802.11ac(VHT40), 802.11ax(HE40), 802.11be(EHT40) :

Lowest Frequency		Middle Frequency		Highest Frequency	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
151	5755	-	-	159	5795

Test Frequency and channels for 802.11ac(VHT80), 802.11ax(HE80), 802.11be(EHT80):

Lowest Frequency		Middle Frequency		Highest Frequency	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
155	5775	-	-	-	-

Multi-antenna correlation:

☒	Transmit Signals are Correlated
	Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / N_{ANT}]$ dBi
☐	All Transmit Signals are Completely Uncorrelated
	Directional gain = $10 \log[(10^{G1/10} + 10^{G2/10} + \dots + 10^{GN/10}) / N_{ANT}]$ dBi

Ant1: 3.93dBi, Ant2: 3.28dBi

Directional gain = 6.62dBi



5 FACILITIES AND ACCREDITATIONS

5.1 FACILITIES

All measurement facilities used to collect the measurement data are located at:

EMTEK (Shenzhen) Co., Ltd.

Building 69, Majialong Industry Zone District, Nanshan District, Shenzhen, China

The sites are constructed in conformance with the requirements of ANSI C63.7, ANSI C63.4 and CISPR Publication 22.

5.2 EQUIPMENT

Radiated emissions are measured with one or more of the following types of linearly polarized antennas: tuned dipole, biconical, log periodic, bi-log, and/or ridged waveguide, horn. Spectrum analyzers with preselectors and quasi-peak detectors are used to perform radiated measurements.

Conducted emissions are measured with Line Impedance Stabilization Networks and EMI Test Receivers.

Calibrated wideband preamplifiers, coaxial cables, and coaxial attenuators are also used for making measurements.

All receiving equipment conforms to CISPR Publication 16-1, "Radio Interference Measuring Apparatus and Measurement Methods."

5.3 LABORATORY ACCREDITATIONS AND LISTINGS

Site Description

EMC Lab.

: **Accredited by CNAS**

The Certificate Registration Number is L2291

The Laboratory has been assessed and proved to be in compliance with CNAS-CL01 (identical to ISO/IEC 17025:2017)

Accredited by FCC

Designation Number: CN1204

Test Firm Registration Number: 882943

Accredited by A2LA

The Certificate Number is 4321.01

Accredited by Industry Canada

The Conformity Assessment Body Identifier is CN0008

Name of Firm : EMTEK (SHENZHEN) CO., LTD.

Site Location : Building 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, China

6 TEST SYSTEM UNCERTAINTY

The following measurement uncertainty levels have been estimated for tests performed on the apparatus:

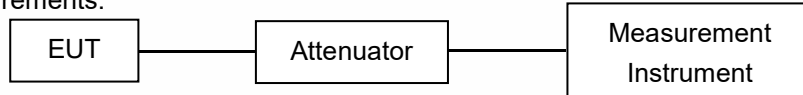
Test Parameter	Measurement Uncertainty
Frequency error	$\pm 1.9\%$
Occupied Bandwidth	$\pm 1.9\text{KHz}$
Transmitter output power	$\pm 1.18\text{dB}$
Conducted spurious emissions	$\pm 3.3\text{dB}$
Radiated spurious emissions	$\pm 4.5\text{dB}$
Temperature	$\pm 1.2^\circ\text{C}$
Humidity	$\pm 3\%$
DC voltages	$\pm 0.25\text{V}$
Time	$\pm 1\%$

Measurement Uncertainty for a level of Confidence of 95%.

7 SETUP OF EQUIPMENT UNDER TEST

7.1 RADIO FREQUENCY TEST SETUP

The WLAN component's antenna ports(s) of the EUT are connected to the measurement instrument per an appropriate attenuator. The EUT is controlled by PC/software to emit the specified signals for the purpose of measurements.



7.2 RADIO FREQUENCY TEST SETUP

The test site semi-anechoic chamber has met the requirement of NSA tolerance 4 dB according to the standards: ANSI C63.10. The test distance is 3m. The setup is according to the requirements in Section 13.1.4.1 of ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024 and CAN/CSA-CEI/IEC CISPR 22.

Below 30MHz:

The EUT is placed on a turntable 0.8 meters above the ground in the chamber, 3 meter away from the antenna (loop antenna). The Antenna should be positioned with its plane vertical at the specified distance from the EUT and rotated about its vertical axis for maximum response at each azimuth about the EUT. The center of the loop shall be 1 m above the ground. For certain applications, the loop antenna plane may also need to be positioned horizontally at the specified distance from the EUT.

Above 30MHz:

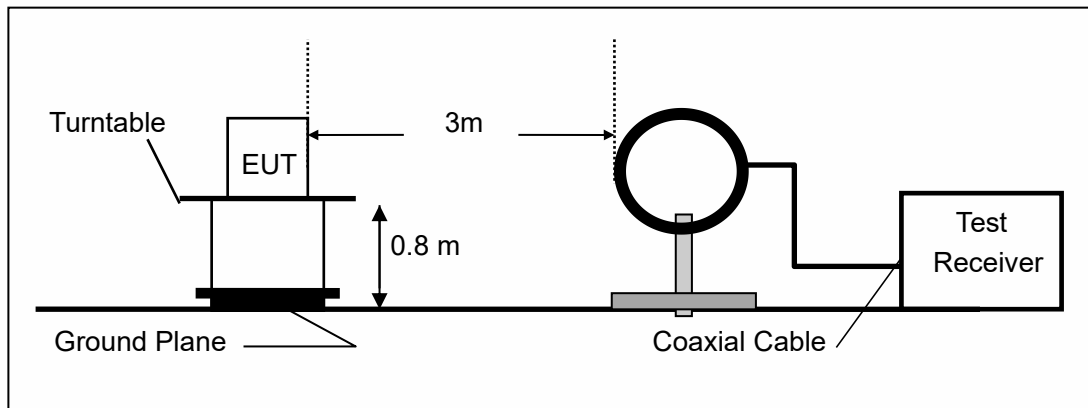
The EUT is placed on a turntable 0.8 meters above the ground in the chamber, 3 meter away from the antenna. The maximal emission value is acquired by adjusting the antenna height, polarisation and turntable azimuth. Normally, the height range of antenna is 1 m to 4 m, the azimuth range of turntable is 0° to 360°, and the receive antenna has two polarizations Vertical (V) and Horizontal (H).

Above 1GHz:

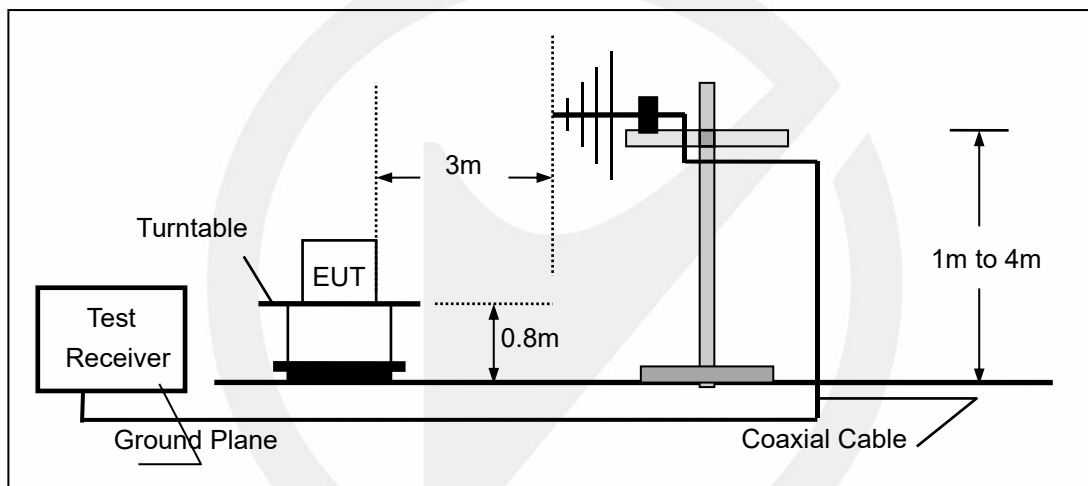
(Note: the FCC's permission to use 1.5m as an alternative per TCBC Conf call of Dec. 2, 2014.)

The EUT is placed on a turntable 1.5 meters above the ground in the chamber, 3 meter away from the antenna. The maximal emission value is acquired by adjusting the antenna height, polarisation and turntable azimuth. Normally, the height range of antenna is 1 m to 4 m, the azimuth range of turntable is 0° to 360°, and the receive antenna has two polarizations Vertical (V) and Horizontal (H).

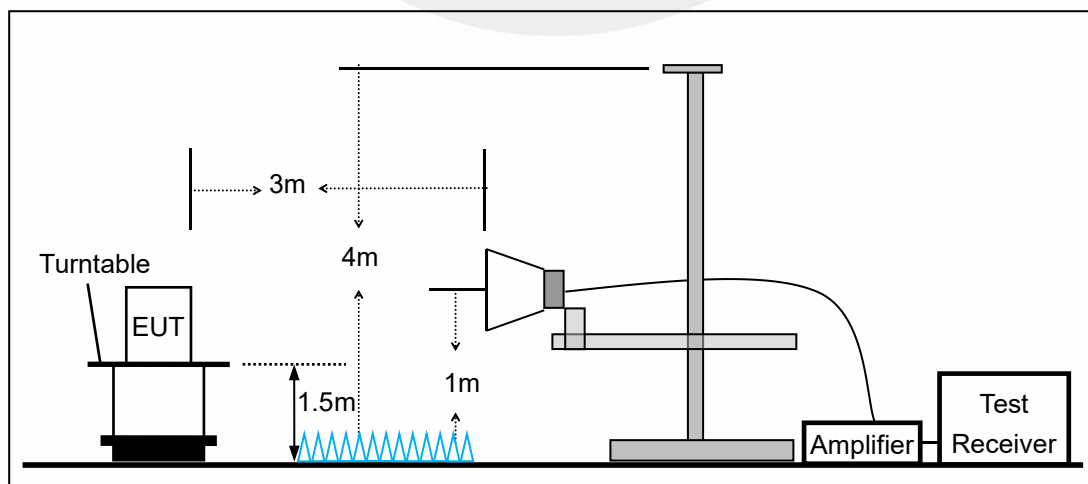
(a) Radiated Emission Test Set-Up, Frequency Below 30MHz



(b) Radiated Emission Test Set-Up, Frequency Below 1000MHz



(c) Radiated Emission Test Set-Up, Frequency above 1000MHz



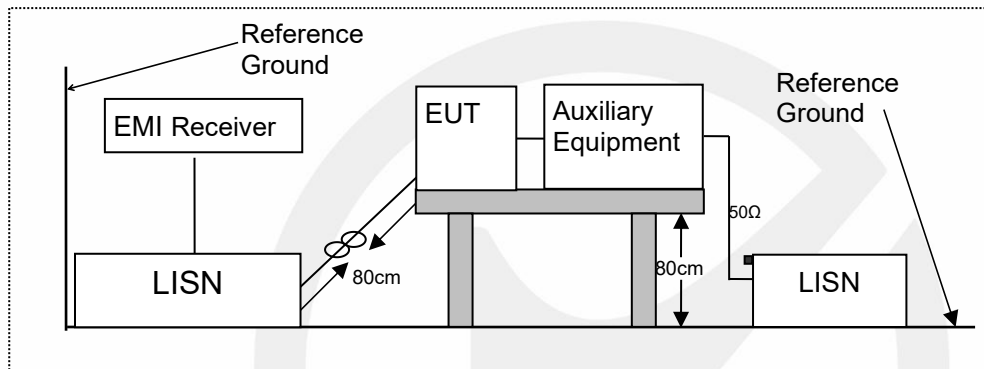
7.3 CONDUCTED EMISSION TEST SETUP

The mains cable of the EUT (maybe per AC/DC Adapter) must be connected to LISN. The LISN shall be placed 0.8 m from the boundary of EUT and bonded to a ground reference plane for LISN mounted on top of the ground reference plane. This distance is between the closest points of the LISN and the EUT. All other units of the EUT and associated equipment shall be at least 0.8m from the LISN.

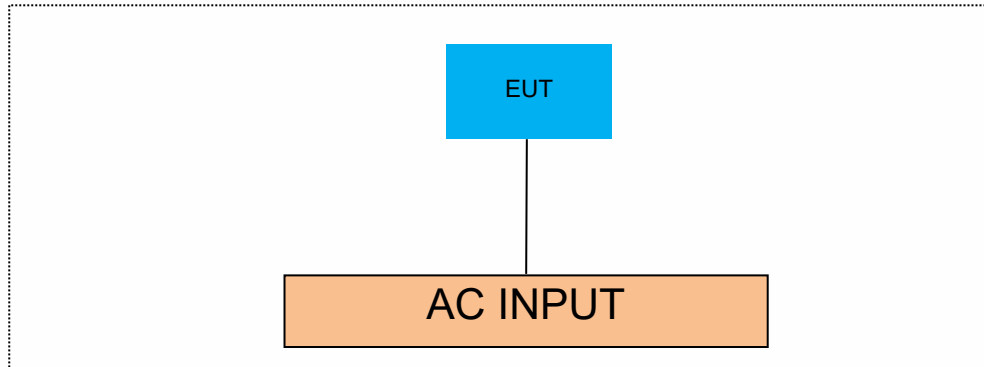
Ground connections, where required for safety purposes, shall be connected to the reference ground point of the LISN and, where not otherwise provided or specified by the manufacturer, shall be of same length as the mains cable and run parallel to the mains connection at a separation distance of not more than 0.1 m.

According to the requirements in Section 13.1.4.1 of ANSI C63.10-2020+Cor.

1-2023+C63.10a-2024 + Errata to C63.10a-2024 Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30 MHz using CISPR Quasi-Peak and average detector mode.



7.4 BLOCK DIAGRAM CONFIGURATION OF TEST SYSTEM



7.5 SUPPORT EQUIPMENT

EUT Cable List and Details			
Cable Description	Length (m)	Shielded/Unshielded	With / Without Ferrite
/	/	/	/

Auxiliary Cable List and Details			
Cable Description	Length (m)	Shielded/Unshielded	With / Without Ferrite
/	/	/	/

Auxiliary Equipment List and Details			
Description	Manufacturer	Model	Serial Number
/	/	/	/

Notes:

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.

8 TEST REQUIREMENTS

8.1 BANDWIDTH MEASUREMENT

8.1.1 Applicable Standard

According to FCC Part 15.407(a)(1) for UNII Band I
According to FCC Part 15.407(a)(2) for UNII Band II-A and UNII Band II-C
According to FCC Part 15.407(a)(3) for UNII Band III
According to FCC Part 15.407(e) for UNII Band III
According to 789033 D02 Section II(C)
According to 789033 D02 Section II(D)
According to RSS-Gen, RSS 247

8.1.2 Conformance Limit

The 26dB bandwidth is used to determine the conducted power limits.
Within the 5.725-5.85 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

8.1.3 Test Configuration

Test according to clause 6.1 radio frequency test setup.

8.1.4 Test Procedure

According to 789033 D02 v02r01 section C&D, the following is the measurement procedure.

1. Emission Bandwidth (EBW)

- Set RBW = approximately 1% of the emission bandwidth.
- Set the VBW > RBW.
- Detector = Peak.
- Trace mode = max hold.
- Measure the maximum width of the emission that is 26 dB down from the maximum of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

2. Minimum Emission Bandwidth for the band 5.725-5.85 GHz

Section 15.407(e) specifies the minimum 6 dB emission bandwidth of at least 500 KHz for the band 5.715-5.85 GHz. The following procedure shall be used for measuring this bandwidth:

- Set RBW = 100 kHz.
- Set the video bandwidth (VBW) $\geq 3 \times$ RBW.
- Detector = Peak.
- Trace mode = max hold.
- Sweep = auto couple.
- Allow the trace to stabilize.
- Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

Note: The automatic bandwidth measurement capability of a spectrum analyzer or EMI receiver may be employed if it implements the functionality described above.

D. 99 Percent Occupied Bandwidth

The 99-percent occupied bandwidth is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers are each equal to 0.5 % of the total mean power of the given emission. Measurement of the 99-percent occupied bandwidth is required only as a condition for using the optional band-edge measurement techniques described in section II.G.3.d). Measurements of 99-percent occupied bandwidth may also optionally be used in lieu of the EBW to 789033 D02 v01r02 General UNII Test Procedures New Rules v01 define the minimum frequency range over which the

spectrum is integrated when measuring maximum conducted output power as described in section II.E. However, the EBW must be measured to determine bandwidth dependent limits on maximum conducted output power in accordance with 15.407(a).

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

1. Set center frequency to the nominal EUT channel center frequency.
2. Set span = 1.5 times to 5.0 times the OBW.
3. Set RBW = 1 % to 5 % of the OBW.
4. Set VBW $\geq 3 \times$ RBW.
5. Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.
6. Use the 99 % power bandwidth function of the instrument (if available).
7. If the instrument does not have a 99 % power bandwidth function, the trace data points are recovered and directly summed in power units. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5 % of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5 % of the total is reached; that frequency is recorded as the upper frequency. The 99% occupied bandwidth is the difference between these two frequencies.



8.1.5 Test Results

Temperature : 25°C
Humidity : 45 %

ATM Pressure:: 1011 mbar
Test Engineer: GJ

Note: Power data reference module report.



8.2 MAXIMUM CONDUCTED OUTPUT POWER

8.2.1 Applicable Standard

According to FCC Part 15.407(a)(1) for UNII Band I
According to FCC Part 15.407(a)(2) for UNII Band II-A and UNII Band II-C
According to FCC Part 15.407(a)(3) for UNII Band III
According to 789033 D02 Section II(E)
According to RSS 247

8.2.2 Conformance Limit

FCC Limit:

■ For the band 5.15-5.25 GHz

(a)(1) (i) For an outdoor access point, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).

(a) (1) (ii) For an indoor access point, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(a) (1) (iii) For fixed point-to-point access points, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

(a) (1) (iv) For client devices, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

■ For the 5.25-5.35 GHz and 5.47-5.725 GHz bands

(a)(2) The maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in megahertz. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

■ For the band 5.725-5.85 GHz

(a) (3) The maximum conducted output power over the frequency band of operation shall not exceed 1 W. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point

operations

IC Limit:

■ Frequency band 5150-5250 MHz

The maximum e.i.r.p. shall not exceed 200 mW or $10 + 10 \log_{10} B$, dBm, whichever power is less. B is the 99% emission bandwidth in megahertz.

■ Frequency band 5250-5350 MHz

The maximum conducted output power shall not exceed 250 mW or $11 + 10 \log_{10} B$, dBm, whichever is less.

The maximum e.i.r.p. shall not exceed 1.0 W or $17 + 10 \log_{10} B$, dBm, whichever is less. B is the 99% emission bandwidth in megahertz. Note that devices with a maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W.

■ Frequency bands 5470-5600 MHz and 5650-5725 MHz

The maximum conducted output power shall not exceed 250 mW or $11 + 10 \log_{10} B$, dBm, whichever is less.

The maximum e.i.r.p. shall not exceed 1.0 W or $17 + 10 \log_{10} B$, dBm, whichever is less. B is the 99% emission bandwidth in megahertz. Note that devices with a maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W.

■ Frequency band 5725-5850 MHz

The maximum conducted output power shall not exceed 1 W. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications and multiple collocated transmitters transmitting the same information.

8.2.3 Test Configuration

Test according to clause 6.1 radio frequency test setup 1.

8.2.4 Test Procedure

The maximum average conducted output power can be measured using Method PM-G (Measurement using a gated RF average power meter):

Measurements may be performed using a wideband gated RF power meter provided that the gate parameters are adjusted such that the power is measured only when the EUT is transmitting at its maximum power control level. Since the measurement is made only during the ON time of the transmitter, no duty cycle correction factor is required.

- The Transmitter output (antenna port) was connected to the power meter.
- Turn on the EUT and power meter and then record the power value.
- Repeat above procedures on all channels needed to be tested.

8.2.5 Test Results

Temperature :	25°C	ATM Pressure::	1011 mbar
Humidity :	60 %	Test Engineer:	GJ

Note: Power data reference module report.

8.3 MAXIMUM PEAK POWER DENSITY

8.3.1 Applicable Standard

According to FCC Part 15.407(a)(1) for UNII Band I
According to FCC Part 15.407(a)(2) for UNII Band II-A and UNII Band II-C
According to FCC Part 15.407(a)(3) for UNII Band III
According to 789033 D02 Section II(F)
According to RSS 247

8.3.2 Conformance Limit

FCC Limit:

- For the band 5.15-5.25 GHz,
 - (a)(1) (i) For an outdoor access point, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
 - (a) (1) (ii) For an indoor access point, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
 - (a) (1) (iii) For fixed point-to-point access points, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.
 - (a) (1) (iv) For client devices, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
- For the 5.25-5.35 GHz and 5.47-5.725 GHz bands
 - (b) (2) The maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
- For the band 5.725-5.85 GHz
 - (a) (3) The maximum power spectral density shall not exceed 30 dBm in any 500-kHz band provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations

IC Limit:

- Frequency band 5150-5250 MHz

The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.

- Frequency band 5250-5350 MHz

The power spectral density shall not exceed 11 dBm in any 1.0 MHz band.

- Frequency bands 5470-5600 MHz and 5650-5725 MHz

The power spectral density shall not exceed 11 dBm in any 1.0 MHz band.

- Frequency band 5725-5850 MHz

The output power spectral density shall not exceed 30 dBm in any 500 kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, the output power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications and multiple collocated transmitters transmitting the same information.

8.3.3 Test Configuration

Test according to clause 6.1 radio frequency test setup 1.

8.3.4 Test Procedure

Methods refer to FCC KDB 789033.

For devices operating in the bands 5.15-5.25 GHz, 5.25-5.35 GHz, and 5.47-5.725 GHz, the above procedures make use of 1 MHz RBW to satisfy directly the 1 MHz reference bandwidth specified in § 15.407(a)(5). For devices operating in the band 5.725-5.85 GHz, the rules specify a measurement bandwidth of 500 kHz. Many spectrum analyzers do not have 500 kHz RBW, thus a narrower RBW may need to be used. The rules permit the use of a RBWs less than 1 MHz, or 500 kHz, “provided that the measured power is integrated over the full reference bandwidth” to show the total power over the specified measurement bandwidth (i.e., 1 MHz, or 500 kHz). If measurements are performed using a reduced resolution bandwidth (< 1 MHz, or < 500 kHz) and integrated over 1 MHz, or 500 KHz bandwidth, the following adjustments to the procedures apply:

- a) Set $RBW \geq 1/T$, where T is defined in section II.B.I.a).
- b) Set $VBW \geq 3 RBW$.
- c) If measurement bandwidth of Maximum PSD is specified in 500 kHz, add $10\log(500\text{kHz}/RBW)$ to the measured result, whereas RBW (< 500 KHz) is the reduced resolution bandwidth of the spectrum analyzer set during measurement.
- d) If measurement bandwidth of Maximum PSD is specified in 1 MHz, add $10\log(1\text{MHz}/RBW)$ to the measured result, whereas RBW (< 1 MHz) is the reduced resolution bandwidth of spectrum analyzer set during measurement.
- e) Care must be taken to ensure that the measurements are performed during a period of continuous transmission or are corrected upward for duty cycle.

Note: As a practical matter, it is recommended to use reduced RBW of 100 KHz for the sections.

5.c) and 5.d) above, since RBW=100 KHz is available on nearly all spectrum analyzers.

8.3.5 Test Results

Temperature : 25°C
Humidity : 60 %

ATM Pressure:: 1011 mbar
Test Engineer: GJ

Note: Power data reference module report.



8.4 UNDESIRABLE RADIATED SPURIOUS EMISSION

8.4.1 Applicable Standard

According to FCC Part 15.407 (b)
According to 789033 D02 Section II(G)
According to RSS-GEN

8.4.2 Conformance Limit

For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

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

The emission measurements shall be performed using a minimum resolution bandwidth of 1 MHz. A lower resolution bandwidth may be employed near the band edge, when necessary, provided the measured energy is integrated to show the total power over 1 MHz.

Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in §15.209.

The emissions from an intentional radiator shall not exceed the field strength levels specified in the following table 15.209(a):

Restricted Frequency(MHz)	Field Strength ($\mu\text{V/m}$)	Field Strength (dB $\mu\text{V/m}$)	Measurement Distance
0.009-0.490	2400/F(KHz)	20 log ($\mu\text{V/m}$)	300
0.490-1.705	2400/F(KHz)	20 log ($\mu\text{V/m}$)	30
1.705-30	30	29.5	30
30-88	100	40	3
88-216	150	43.5	3
216-960	200	46	3
Above 960	500	54	3

The provisions of §15.205 apply to intentional radiators operating under this section, 15.205 Restricted bands of operation

MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
10.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	(2)
13.36-13.41			

Remark: 1. Emission level in dBuV/m=20 log (uV/m)
2. Measurement was performed at an antenna to the closed point of EUT distance of meters.
3. Only spurious frequency is permitted to locate within the Restricted Bands specified in provision of 15.205, and the emissions located in restricted bands also comply with 15.209 limit.

8.4.3 Test Configuration

Test according to clause 6.2 radio frequency test setup 2.

8.4.4 Test Procedure

■ Unwanted Emissions Measurements below 1000 MHz

Compliance shall be demonstrated using CISPR quasi-peak detection; however, peak detection is permitted as an alternative to quasi-peak detection.

The EUT was placed on a turn table which is 0.8m above ground plane.

And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.

Repeat above procedures until all frequency measured was complete.

We use software control the EUT, Let EUT hopping on and transmit with highest power, All the modes have been tested and the worst result was reported.

Use the following spectrum analyzer settings:

Set RBW=120kHz for $f < 1$ GHz(30MHz to 1GHz), 200Hz for $f < 150$ KHz(9KHz to 150KHz), 9KHz for $f < 30$ MHz (150KHz to 30KHz).

Set the VBW > RBW.

Detector = Peak.

Trace mode = max hold.

Follow the guidelines in ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024 with respect to maximizing the emission by rotating the EUT, measuring the emission while the EUT is situated in three orthogonal planes (if appropriate), adjusting the measurement antenna height and polarization, etc. A pre-amp and a high pass filter are required for this test, in order to provide the measuring system with sufficient sensitivity. Allow the trace to stabilize. The peak reading of the emission, after being corrected by the antenna factor, cable loss, pre-amp gain, etc., is the peak field strength, which must comply with the limit specified in Section 15.35(b). Submit this data.

Repeat above procedures until all frequency measured was complete.

■ Unwanted Maximum peak Emissions Measurements above 1000 MHz

Maximum emission levels are measured by setting the analyzer as follows:

RBW = 1 MHz.

VBW $\geq$ 3 MHz.

Detector = Peak.

Sweep time = auto.

Trace mode = max hold.

Allow sweeps to continue until the trace stabilizes. Note that if the transmission is not continuous, the time required for the trace to stabilize will increase by a factor of approximately 1/x, where x is the duty cycle. For example, at 50 percent duty cycle, the measurement time will increase by a factor of two relative to measurement time for continuous transmission.

■ Unwanted Average Emissions Measurements above 1000 MHz

Method VB (Averaging using reduced video bandwidth): Alternative method.

RBW = 1 MHz.

Video bandwidth. • If the EUT is configured to transmit with duty cycle $\geq$ 98 percent, set $VBW \leq RBW/100$ (i.e., 10 kHz) but not less than 10 Hz.

• If the EUT duty cycle is < 98 percent, set $VBW \geq 1/T$, where T is defined in section II.B.1.a).

Video bandwidth mode or display mode • The instrument shall be set to ensure that video filtering is applied in the power domain. Typically, this requires setting the detector mode to RMS and setting the Average-VBW Type to Power (RMS).

• As an alternative, the analyzer may be set to linear detector mode. Ensure that video filtering is applied in linear voltage domain (rather than in a log or dB domain). Some analyzers require linear display mode in order to accomplish this. Others have a setting for Average-VBW Type, which can be set to "Voltage" regardless of the display mode.

Detector = Peak.

Sweep time = auto.

Trace mode = max hold.

Allow max hold to run for at least 50 traces if the transmitted signal is continuous or has at least 98 percent duty cycle. For lower duty cycles, increase the minimum number of traces by a factor of $1/x$, where x is the duty cycle. For example, use at least 200 traces if the duty cycle is 25 percent. (If a specific emission is demonstrated to be continuous—i.e., 100 percent duty cycle—rather than turning on and off with the transmit cycle, at least 50 traces shall be averaged).

■ Band edge measurements.

Unwanted band-edge emissions may be measured using either of the special band-edge measurement techniques (the marker-delta or integration methods) described below. Note that the marker-delta method is primarily a radiated measurement technique that requires the 99% occupied bandwidth edge to be within 2 MHz of the authorized band edge, whereas the integration method can be used in either a radiated or conducted measurement without any special requirement with regards to the displacement of the unwanted emission(s) relative to the authorized bandwidth.

Marker-Delta Method.

The marker-delta method, as described in ANSI C63.10, can be used to perform measurements of the radiated unwanted emissions level of emissions provided that the 99% occupied bandwidth of the fundamental is within 2 MHz of the authorized band-edge.

8.4.5 Test Results

Temperature : 25°C
Humidity : 60 %

ATM Pressure:: 1011 mbar
Test Engineer: CZF

■ ☒ For Undesirable radiated Spurious Emission in U-NII – 1

☒ Undesirable radiated Spurious Emission Above 1GHz(1GHz to 40GHz)

All the antenna(Antenna 1 and 2) and modes(802.11a/n/ac/ax/be) has been tested and the worst(Antenna 1,802.11a) result recorded was report as below:

no any obvious emission were detected from 18 GHz to 40 GHz, so below finaltest was performed with frequency range from 1GHz to 18 GHz.

Test mode: 802.11a Frequency: Channel 36: 5180MHz

Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
5255.25	V	47.67	-47.56	-27	20.56
10657.5	V	58.72	-36.51	-27	9.51
17640.9	V	65.27	-29.96	-27	2.96
5164.24	H	47.43	-47.8	-27	20.8
10565.5	H	58.22	-37.01	-27	10.01
17989.9	H	66.08	-29.15	-27	2.15

Test mode: 802.11a Frequency: Channel 36: 5180MHz

Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
5268.25	V	47.42	-47.81	-27	20.81
10742.5	V	58.71	-36.52	-27	9.52
18000	V	65.75	-29.48	-27	2.48
5300.25	H	47.78	-47.45	-27	20.45
10429.5	H	58.09	-37.14	-27	10.14
17969.9	H	64.53	-30.7	-27	3.7

Test mode: 802.11a Frequency: Channel 36: 5180MHz

Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
5278.25	V	47.34	-47.89	-27	20.89
10660.5	V	58.52	-36.71	-27	9.71
17987.9	V	65.44	-29.79	-27	2.79
5193.24	H	48.35	-46.88	-27	19.88
10513.5	H	59.43	-35.8	-27	8.8
17968.9	H	64.62	-30.61	-27	3.61

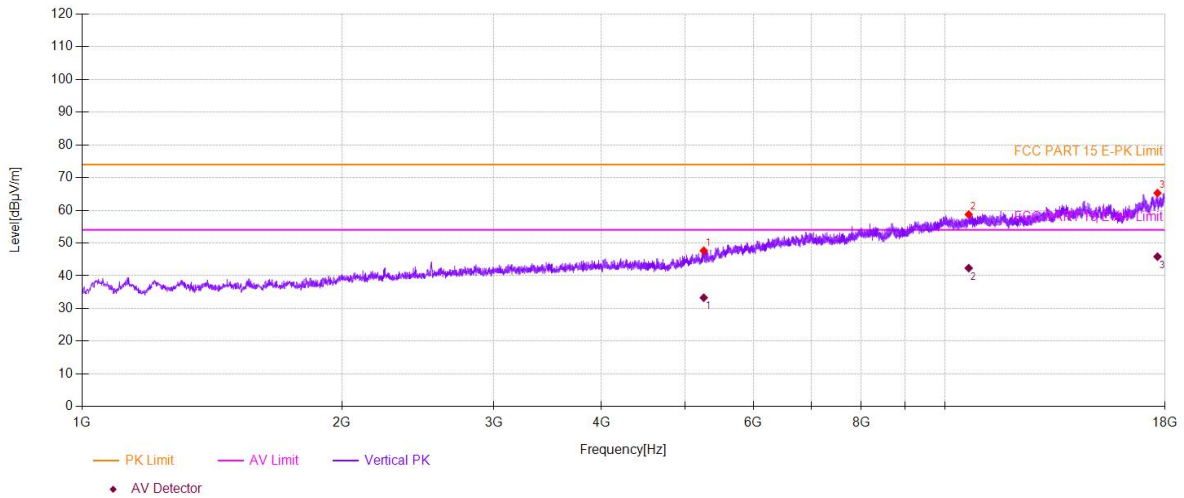
Note: (1) All Readings are Peak Value (VBW=3MHz) and AV Value (VBW=10Hz).

(2) Emission Level= Reading Level+Probe Factor +Cable Loss.

(3)EIRP[dBm] = E[dBμV/m] + 20 log(d[meters]) - 104.77

d is the measurement distance in 3 meters

Test mode: 802.11a Frequency: Channel 36: 5180MHz

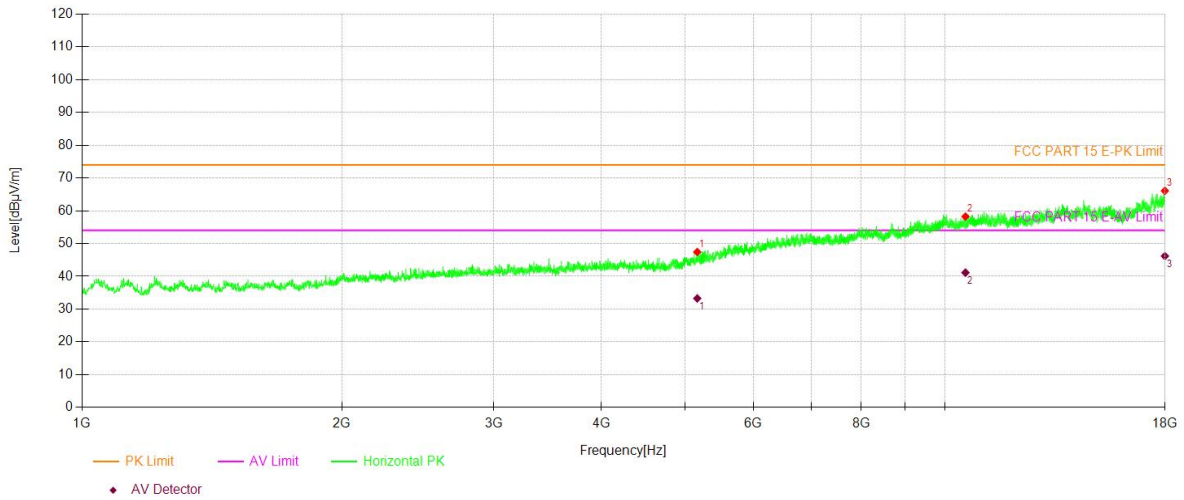


Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor[dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5255.2503	47.67	-8.95	74.00	26.33	PK	Vertical
2	10657.5681	58.72	4.19	74.00	15.28	PK	Vertical
3	17640.9789	65.27	10.62	74.00	8.73	PK	Vertical

AV Final Data List

NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	5255.2503	33.30	54.00	20.70	AV	Vertical
2	10657.5681	42.33	54.00	11.67	AV	Vertical
3	17640.9789	45.85	54.00	8.15	AV	Vertical



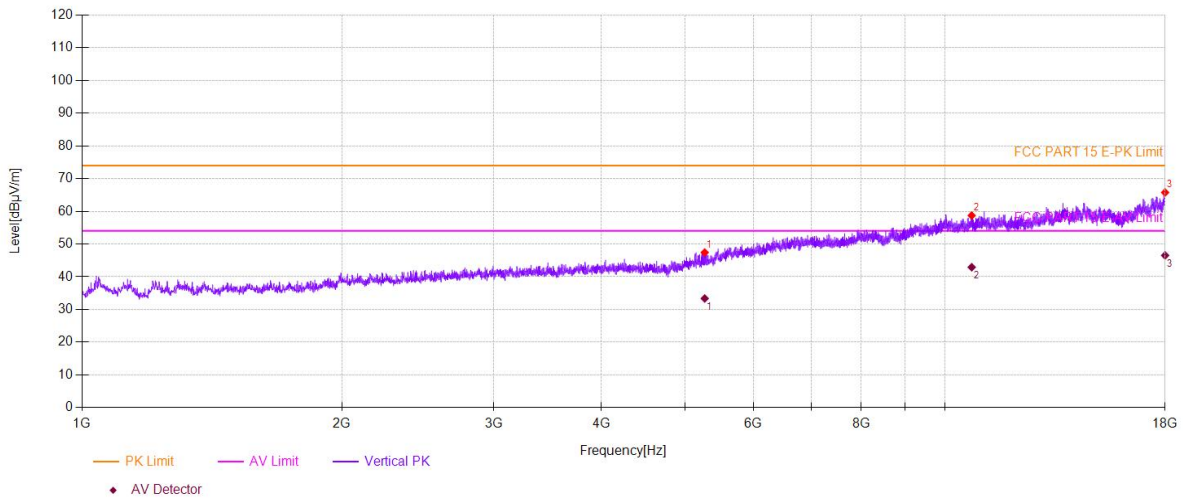
Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5164.245	47.43	-9.34	74.00	26.57	PK	Horizontal
2	10565.5627	58.22	2.49	74.00	15.78	PK	Horizontal
3	17989.9994	66.08	10.92	74.00	7.92	PK	Horizontal

AV Final Data List

NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	5164.245	33.27	54.00	20.73	AV	Horizontal
2	10565.5627	41.13	54.00	12.87	AV	Horizontal
3	17989.9994	46.18	54.00	7.82	AV	Horizontal

Test mode: 802.11a Frequency: Channel 40: 5200MHz

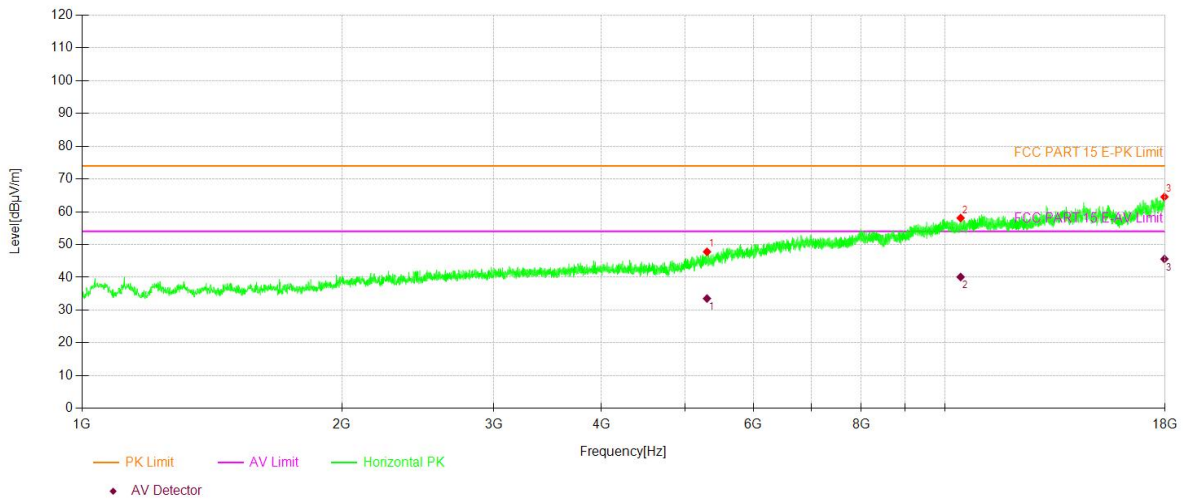


Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5268.2511	47.42	-8.88	74.00	26.58	PK	Vertical
2	10742.5731	58.71	4.47	74.00	15.29	PK	Vertical
3	18000	65.75	11.22	74.00	8.25	PK	Vertical

AV Final Data List

NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	5268.2511	33.37	54.00	20.63	AV	Vertical
2	10742.5731	42.92	54.00	11.08	AV	Vertical
3	18000	46.53	54.00	7.47	AV	Vertical



Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5300.253	47.78	-8.72	74.00	26.22	PK	Horizontal
2	10429.5547	58.09	1.77	74.00	15.91	PK	Horizontal
3	17969.9982	64.53	10.32	74.00	9.47	PK	Horizontal

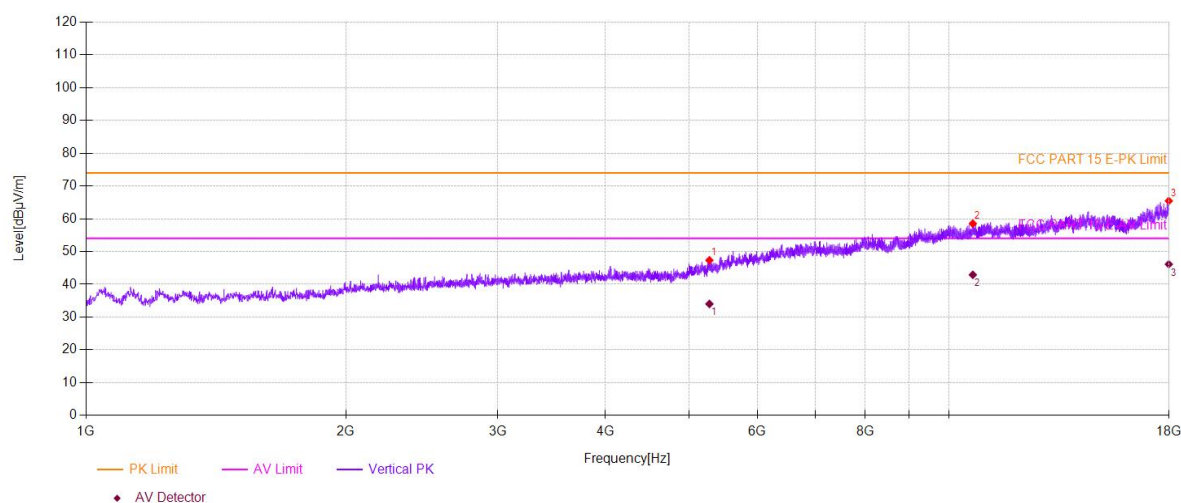
AV Final Data List

NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	5300.253	33.54	54.00	20.46	AV	Horizontal
2	10429.5547	40.10	54.00	13.90	AV	Horizontal
3	17969.9982	45.59	54.00	8.41	AV	Horizontal

Test mode: 802.11a

Frequency:

Channel 48: 5240MHz

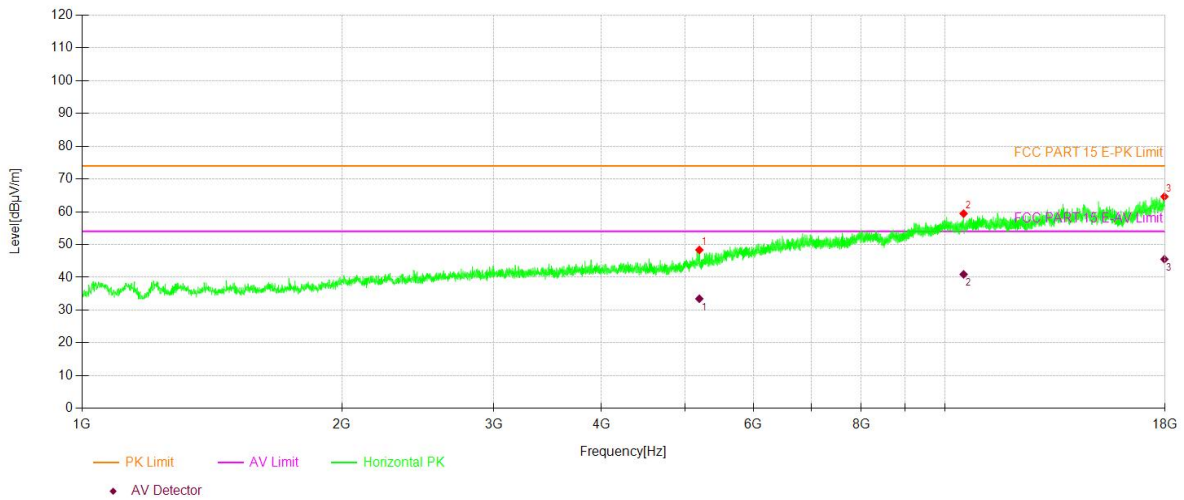


Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5278.2517	47.34	-8.83	74.00	26.66	PK	Vertical
2	10660.5683	58.52	4.27	74.00	15.48	PK	Vertical
3	17987.9993	65.44	10.86	74.00	8.56	PK	Vertical

AV Final Data List

NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	5278.2517	34.02	54.00	19.98	AV	Vertical
2	10660.5683	42.91	54.00	11.09	AV	Vertical
3	17987.9993	46.12	54.00	7.88	AV	Vertical



Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5193.2467	48.35	-9.17	74.00	25.65	PK	Horizontal
2	10513.5596	59.43	2.35	74.00	14.57	PK	Horizontal
3	17968.9982	64.62	10.29	74.00	9.38	PK	Horizontal

AV Final Data List

NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	5193.2467	33.47	54.00	20.53	AV	Horizontal
2	10513.5596	40.90	54.00	13.10	AV	Horizontal
3	17968.9982	45.52	54.00	8.48	AV	Horizontal

- Note:**
- (1) All Readings are Peak Value (VBW=3MHz) and Peak Value (VBW=10Hz).
 - (2) Emission Level= Reading Level+Correct Factor +Cable Loss.
 - (3) Correct Factor= Ant_F + Cab_L - Preamp
 - (4) The reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

● ☒ Undesirable radiated Undesirable radiated Spurious Emission in Band Edge

All the antenna(Antenna 1and 2) and modes(802.11a/n/ac/ax/be) has been tested and the worst(Antenna 1,802.11a) result recorded was report as below:

Test mode: 802.11a Frequency: Channel 36: 5180MHz

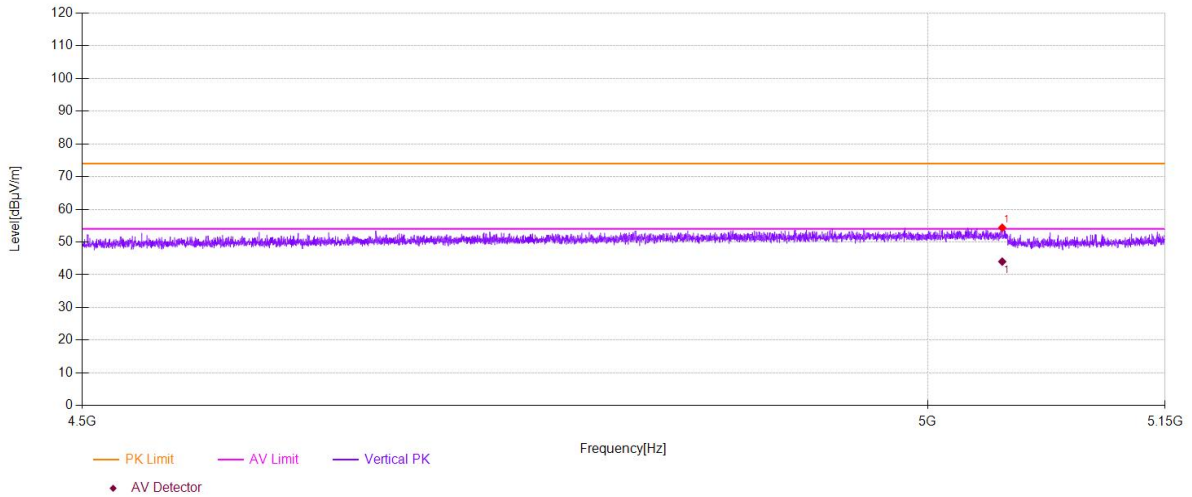
Freq. (MHz)	Ant.Pol. H/V	Field Strength (RBW=100KHz) (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Verdict
5046.56	V	54.38	-40.85	-27	Pass
5047.3	H	54.12	-41.11	-27	Pass

Test mode: 802.11a Frequency: Channel 48: 5240MHz

Freq. (MHz)	Ant.Pol. H/V	Field Strength (RBW=100KHz) (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Verdict
5363.26	V	53.26	-41.97	-27	Pass
5354.95	H	53.39	-41.84	-27	Pass

Note: (1) All Readings are Peak Value (VBW=3MHz) and Peak Value (VBW=10Hz).
 (2) Emission Level= Reading Level+Correct Factor +Cable Loss.
 (3) Correct Factor= Ant_F + Cab_L - Preamp
 (4) EIRP[dBm] = E[dBuV/m] + 20 log(d[meters]) - 104.77
 d is the measurement distance in 3 meters

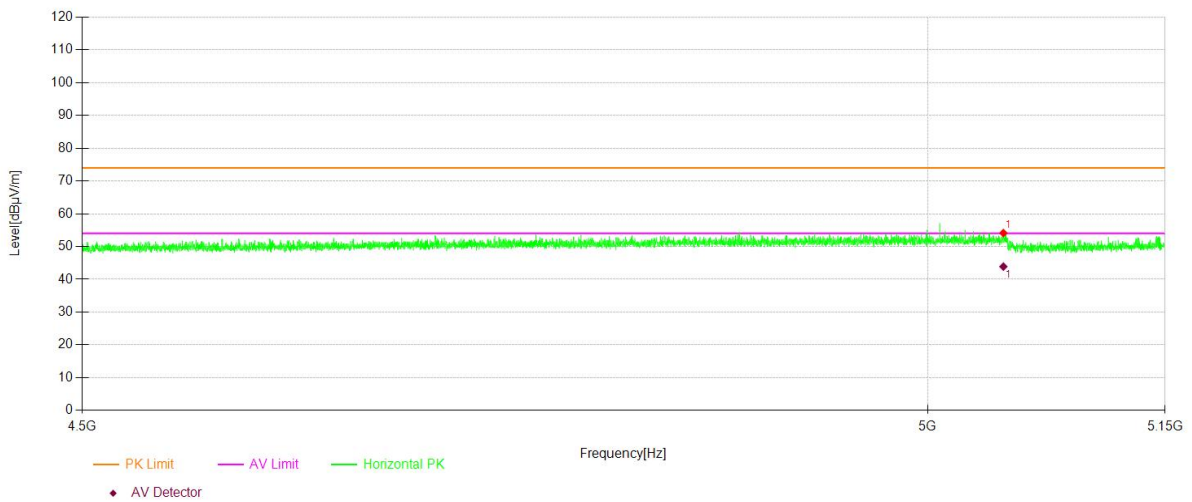
U-NII - 1				
Test Model	Undesirable radiated	Undesirable radiated	Spurious Emission in Band Edge	
	802.11a	Channel 36: 5180MHz	Ant.Pol	V



Suspected Data List							
NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5046.5688	54.38	37.77	74.00	19.62	PK	Vertical

AV Final Data List						
NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	5046.5688	44.02	54.00	9.98	AV	Vertical

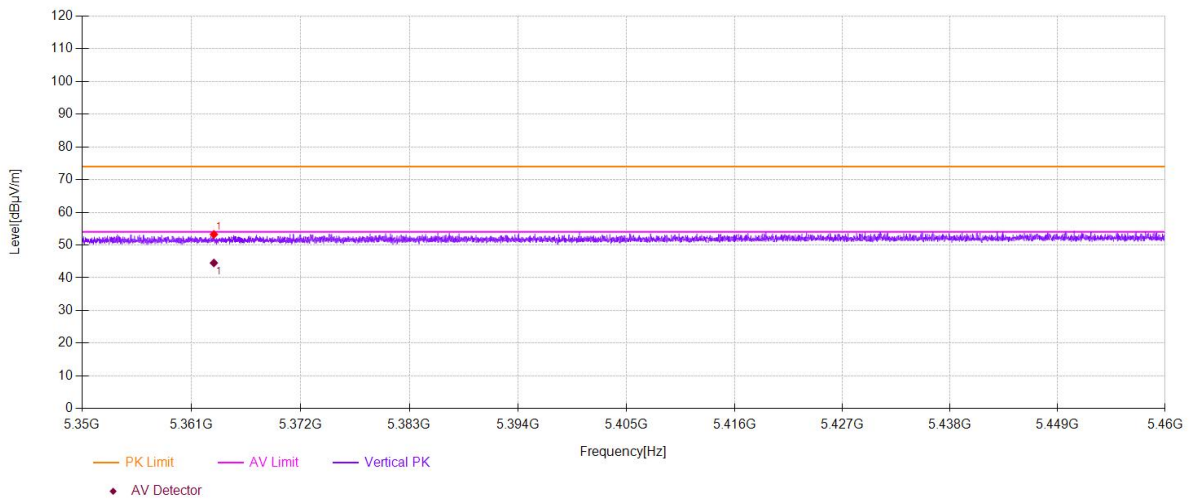
U-NII - 1				
Test Model	Undesirable radiated	Undesirable radiated	Spurious Emission in Band Edge	
	802.11a	Channel 36: 5180MHz	Ant.Pol	H



Suspected Data List							
NO.	Freq. [MHz]	Level [dBμV/m]	Factor[dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5047.3	54.12	37.77	74.00	19.88	PK	Horizontal

AV Final Data List						
NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	5047.3	43.88	54.00	10.12	AV	Horizontal

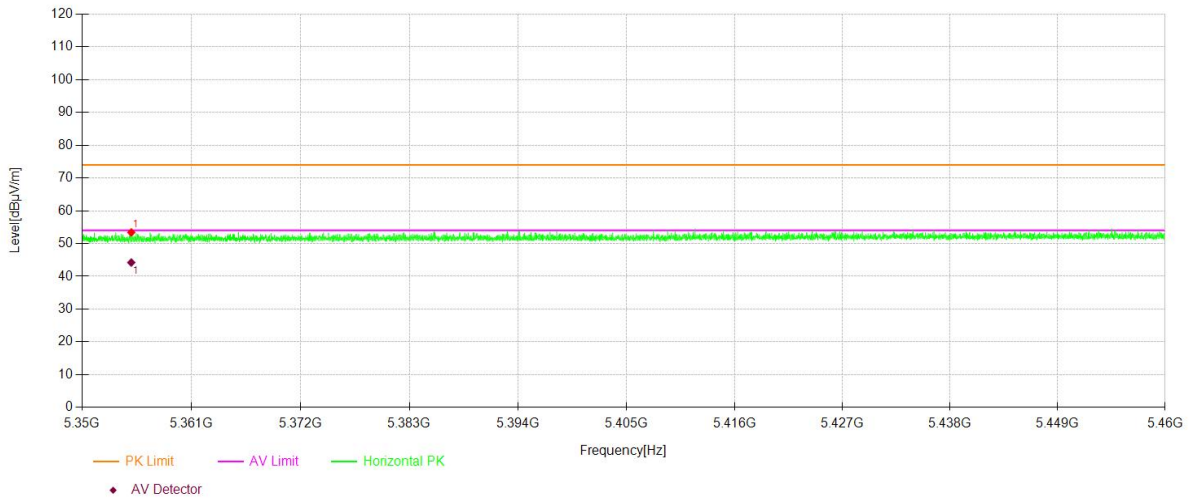
U-NII - 1
Test Model Undesirable radiated Undesirable radiated Spurious Emission in Band Edge
802.11a Channel 48: 5240MHz Ant.Pol V



Suspected Data List							
NO.	Freq. [MHz]	Level [dBμV/m]	Factor[dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5363.2688	53.26	38.01	74.00	20.74	PK	Vertical

AV Final Data List						
NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	5363.2688	44.53	54.00	9.47	AV	Vertical

U-NII - 1				
Test Model	Undesirable radiated	Undesirable radiated	Spurious Emission in Band Edge	
	802.11a	Channel 48: 5240MHz	Ant.Pol	H



Suspected Data List							
NO.	Freq. [MHz]	Level [dBμV/m]	Factor[dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5354.95	53.39	37.99	74.00	20.61	PK	Horizontal

AV Final Data List						
NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	5354.95	44.21	54.00	9.79	AV	Horizontal

■ ☒ For Undesirable radiated Spurious Emission in U-NII -2A

☒ Undesirable radiated Spurious Emission Above 1GHz(1GHz to 40GHz)

All the antenna(Antenna 1 and 2) and modes(802.11a/n/ac/ax/be) has been tested and the worst(Antenna 1,802.11a) result recorded was report as below:

no any obvious emission were detected from 18 GHz to 40 GHz, so below finaltest was performed with frequency range from 1GHz to 18 GHz.

Test mode: 802.11a Frequency: Channel 52: 5260MHz

Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
5238.24	V	47.64	-47.59	-27	20.59
10474.5	V	58.46	-36.77	-27	9.77
17959.9	V	64.90	-30.33	-27	3.33
5305.25	H	49.21	-46.02	-27	19.02
10677.5	H	58.59	-36.64	-27	9.64
17997.9	H	65.81	-29.42	-27	2.42

Test mode: 802.11a Frequency: Channel 56: 5280MHz

Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
5237.24	V	47.54	-47.69	-27	20.69
10761.5	V	58.67	-36.56	-27	9.56
17940.9	V	64.81	-30.42	-27	3.42
5296.25	H	49.83	-45.4	-27	18.4
10200.5	H	57.51	-37.72	-27	10.72
17954.9	H	65.26	-29.97	-27	2.97

Test mode: 802.11a Frequency: Channel 64: 5320MHz

Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
5270.25	V	47.75	-47.48	-27	20.48
10668.5	V	58.40	-36.83	-27	9.83
17994.9	V	65.43	-29.8	-27	2.8
5202.24	H	46.58	-48.65	-27	21.65
10661.5	H	58.72	-36.51	-27	9.51
17985.9	H	65.26	-29.97	-27	2.97

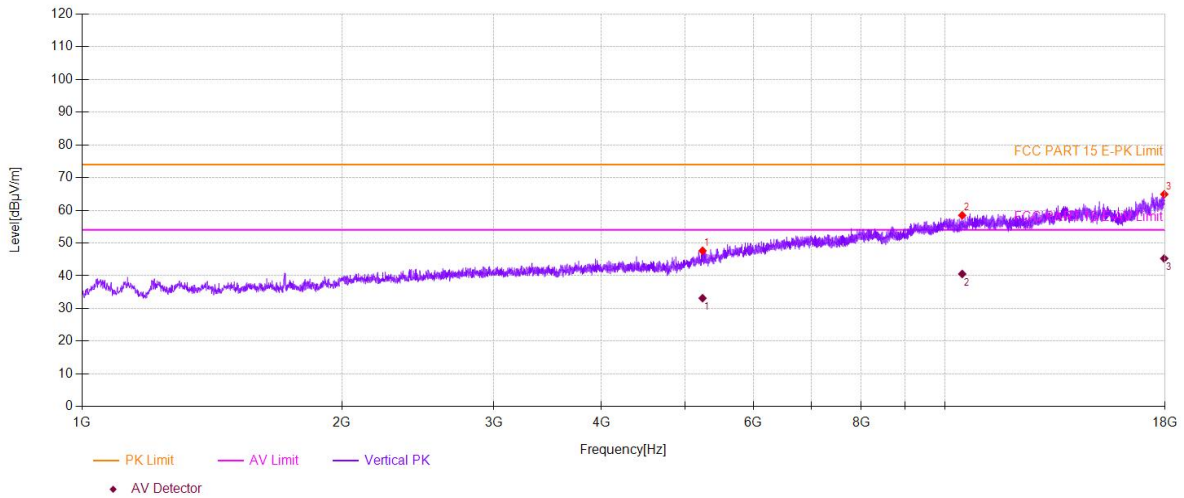
Note: (1) All Readings are Peak Value (VBW=3MHz) and AV Value (VBW=10Hz).

(2) Emission Level= Reading Level+Probe Factor +Cable Loss.

(3)EIRP[dBm] = E[dBμV/m] + 20 log(d[meters]) - 104.77

d is the measurement distance in 3 meters

Test mode: 802.11a Frequency: Channel 52: 5260MHz

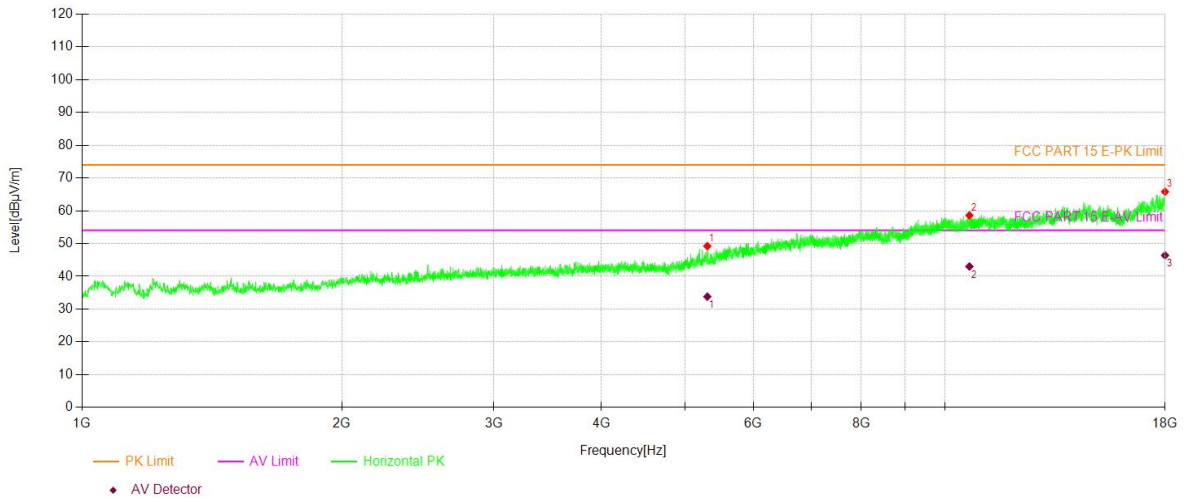


Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor[dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5238.2493	47.64	-9.01	74.00	26.36	PK	Vertical
2	10474.5573	58.46	2.11	74.00	15.54	PK	Vertical
3	17959.9976	64.90	10.02	74.00	9.10	PK	Vertical

AV Final Data List

NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	5238.2493	33.14	54.00	20.86	AV	Vertical
2	10474.5573	40.56	54.00	13.44	AV	Vertical
3	17959.9976	45.28	54.00	8.72	AV	Vertical



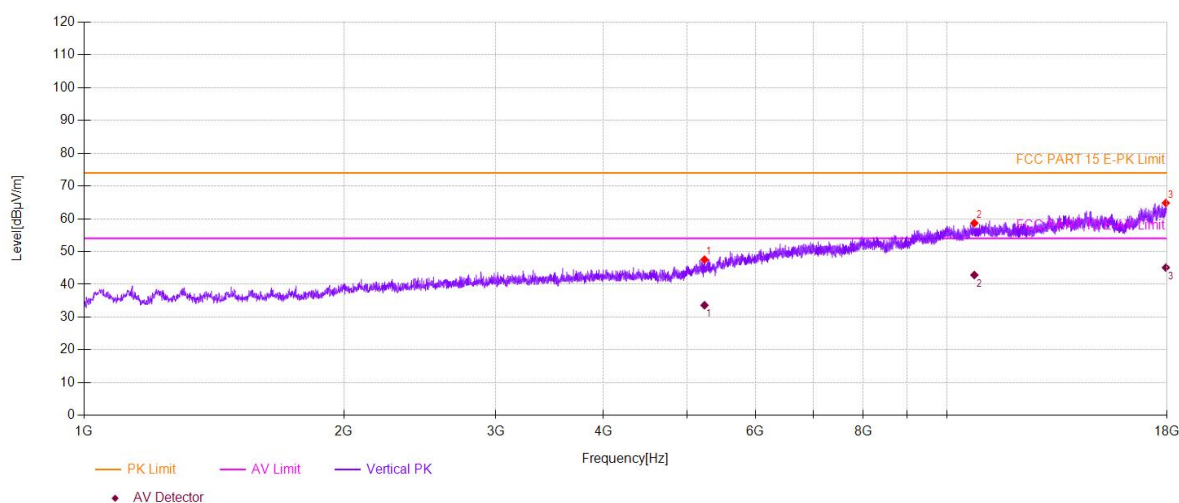
Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5305.2532	49.21	-8.71	74.00	24.79	PK	Horizontal
2	10677.5693	58.59	4.75	74.00	15.41	PK	Horizontal
3	17997.9999	65.81	11.16	74.00	8.19	PK	Horizontal

AV Final Data List

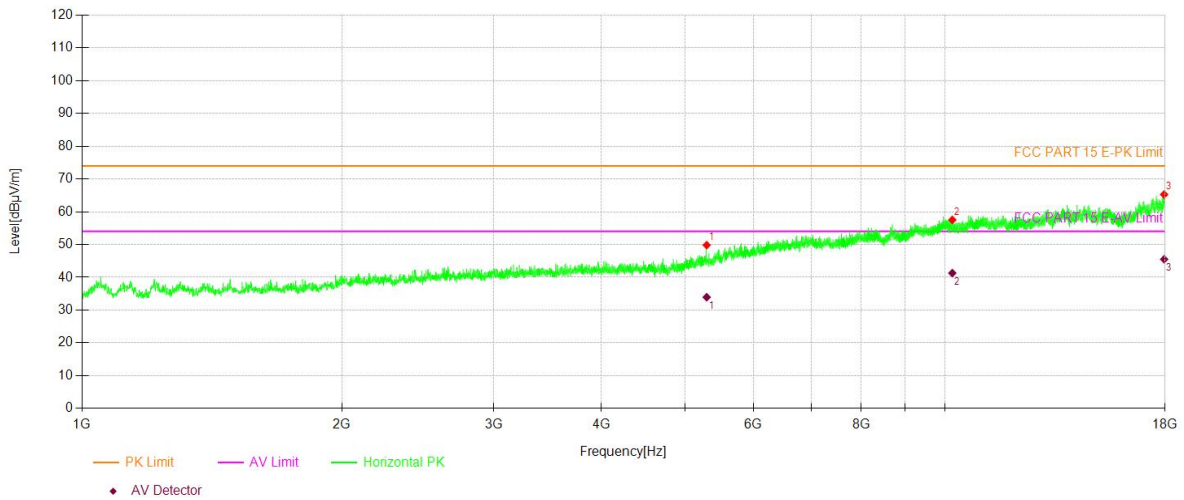
NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	5305.2532	33.80	54.00	20.20	AV	Horizontal
2	10677.5693	43.00	54.00	11.00	AV	Horizontal
3	17997.9999	46.40	54.00	7.60	AV	Horizontal

Test mode: 802.11a Frequency: Channel 56: 5280MHz



Suspected Data List							
NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5237.2492	47.54	-9.01	74.00	26.46	PK	Vertical
2	10761.5742	58.67	4.07	74.00	15.33	PK	Vertical
3	17940.9965	64.81	9.45	74.00	9.19	PK	Vertical

AV Final Data List						
NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	5237.2492	33.63	54.00	20.37	AV	Vertical
2	10761.5742	42.84	54.00	11.16	AV	Vertical
3	17940.9965	45.11	54.00	8.89	AV	Vertical



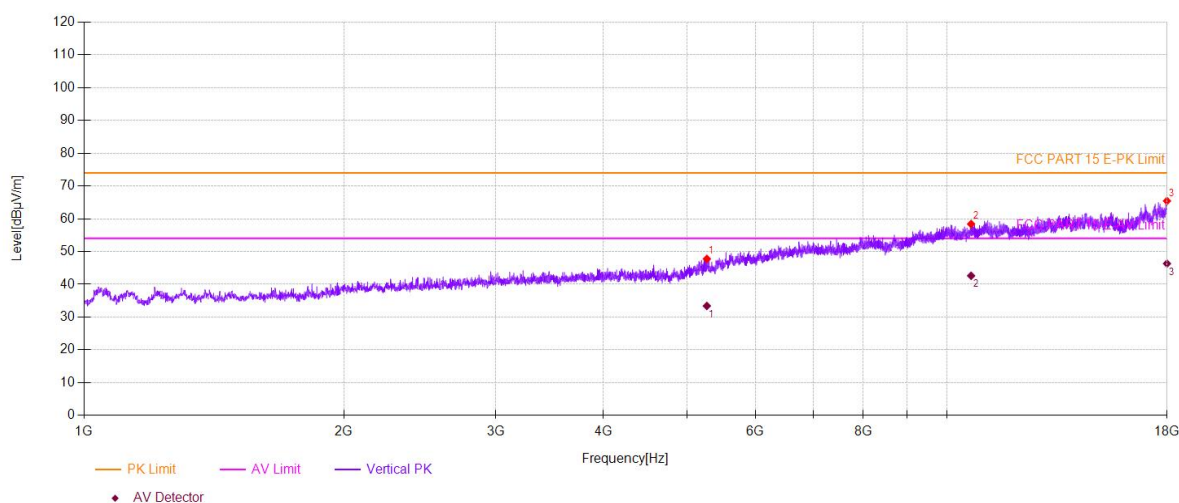
Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5296.2527	49.83	-8.74	74.00	24.17	PK	Horizontal
2	10200.5412	57.51	2.33	74.00	16.49	PK	Horizontal
3	17954.9974	65.26	9.87	74.00	8.74	PK	Horizontal

AV Final Data List

NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	5296.2527	33.94	54.00	20.06	AV	Horizontal
2	10200.5412	41.30	54.00	12.70	AV	Horizontal
3	17954.9974	45.51	54.00	8.49	AV	Horizontal

Test mode: 802.11a Frequency: Channel 64: 5320MHz

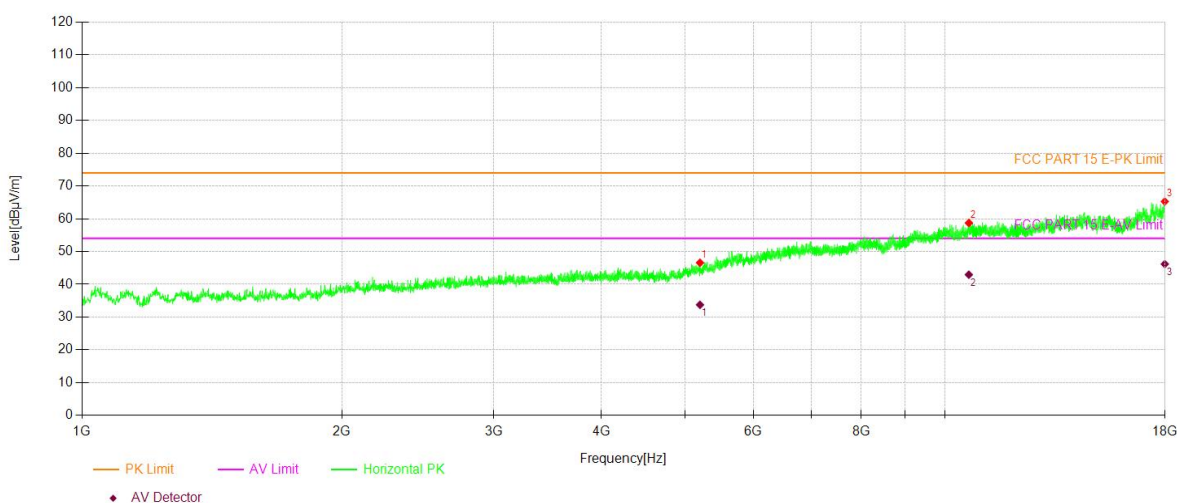


Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5270.2512	47.75	-8.87	74.00	26.25	PK	Vertical
2	10668.5687	58.40	4.50	74.00	15.60	PK	Vertical
3	17994.9997	65.43	11.07	74.00	8.57	PK	Vertical

AV Final Data List

NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	5270.2512	33.41	54.00	20.59	AV	Vertical
2	10668.5687	42.61	54.00	11.39	AV	Vertical
3	17994.9997	46.33	54.00	7.67	AV	Vertical



Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5202.2472	46.58	-9.12	74.00	27.42	PK	Horizontal
2	10661.5683	58.72	4.30	74.00	15.28	PK	Horizontal
3	17985.9992	65.26	10.80	74.00	8.74	PK	Horizontal

AV Final Data List

NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	5202.2472	33.76	54.00	20.24	AV	Horizontal
2	10661.5683	42.94	54.00	11.06	AV	Horizontal
3	17985.9992	46.18	54.00	7.82	AV	Horizontal

- Note:**
- (1) All Readings are Peak Value (VBW=3MHz) and Peak Value (VBW=10Hz).
 - (2) Emission Level= Reading Level+Correct Factor +Cable Loss.
 - (3) Correct Factor= Ant_F + Cab_L - Preamp
 - (4) The reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

- ☒ Undesirable radiated Undesirable radiated Spurious Emission in Band Edge
All the antenna(Antenna 1and 2) and modes(802.11a/n/ac/ax/be) has been tested and the worst(Antenna 1,802.11ac(VHT20)) result recorded was report as below:

Test mode: 802.11ac(VHT20) Frequency: Channel 52: 5260MHz

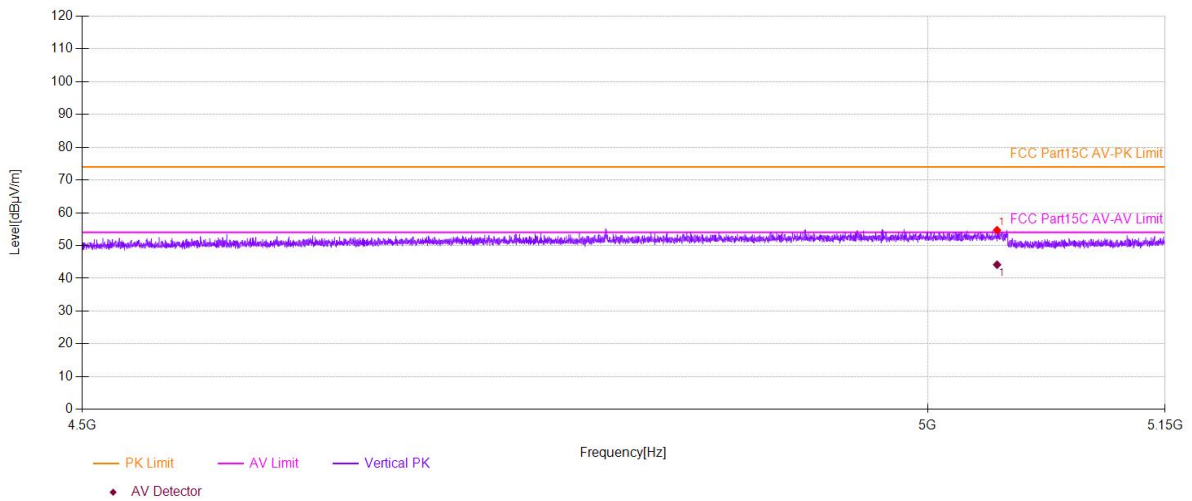
Freq. (MHz)	Ant.Pol. H/V	Field Strength (RBW=100KHz) (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Verdict
5043.31	V	54.69	-40.54	-27	Pass
5036.33	H	54.70	-40.53	-27	Pass

Test mode: 802.11ac(VHT20) Frequency: Channel 64: 5320MHz

Freq. (MHz)	Ant.Pol. H/V	Field Strength (RBW=100KHz) (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Verdict
5365.97	V	53.54	-41.69	-27	Pass
5363.86	H	53.55	-41.68	-27	Pass

Note: (1) All Readings are Peak Value (VBW=3MHz) and Peak Value (VBW=10Hz).
(2) Emission Level= Reading Level+Correct Factor +Cable Loss.
(3) Correct Factor= Ant_F + Cab_L - Preamp
(4) EIRP[dBm] = E[dBuV/m] + 20 log(d[meters]) - 104.77
d is the measurement distance in 3 meters

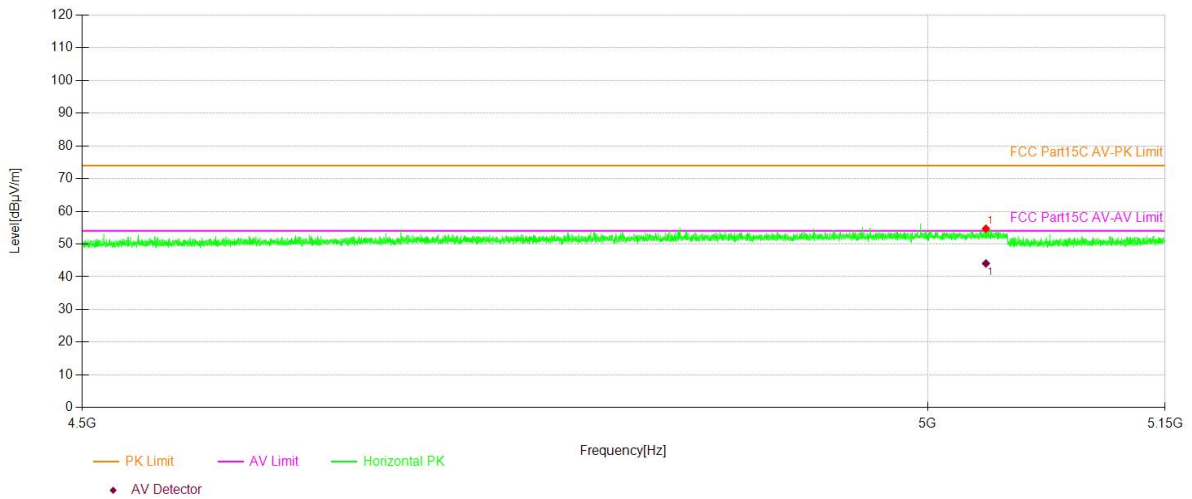
Test Model	U-NII -2A			
	Undesirable radiated 802.11ac(VHT20)	Undesirable radiated Channel 52: 5260MHz	Spurious Emission in Band Edge Ant.Pol	H



Suspected Data List							
NO.	Freq. [MHz]	Level [dBμV/m]	Factor[dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5043.3188	54.69	37.75	74.00	19.31	PK	Vertical

AV Final Data List						
NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	5043.3188	44.16	54.00	9.84	AV	Vertical

U-NII -2A				
Test Model	Undesirable radiated	Undesirable radiated	Spurious Emission in Band Edge	
	802.11ac(VHT20)	Channel 52: 5260MHz	Ant.Pol	V

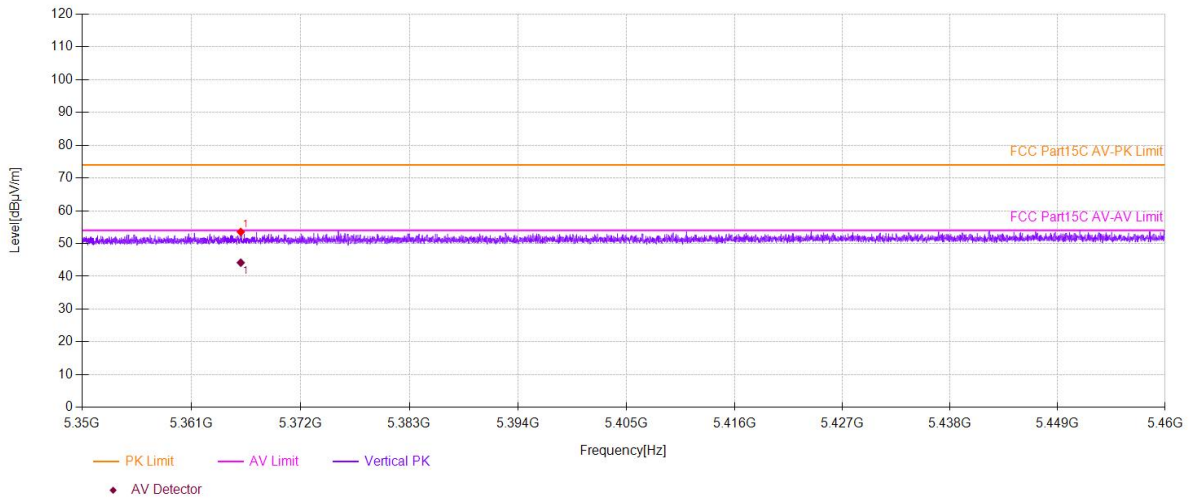


Suspected Data List							
NO.	Freq. [MHz]	Level [dBμV/m]	Factor[dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5036.3312	54.70	37.73	74.00	19.30	PK	Horizontal

AV Final Data List						
NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	5036.3312	44.06	54.00	9.94	AV	Horizontal

U-NII -2A

Test Model	Undesirable radiated	Undesirable radiated	Spurious Emission in Band Edge	
	802.11ac(VHT20)	Channel 64: 5320MHz	Ant.Pol	H



Suspected Data List

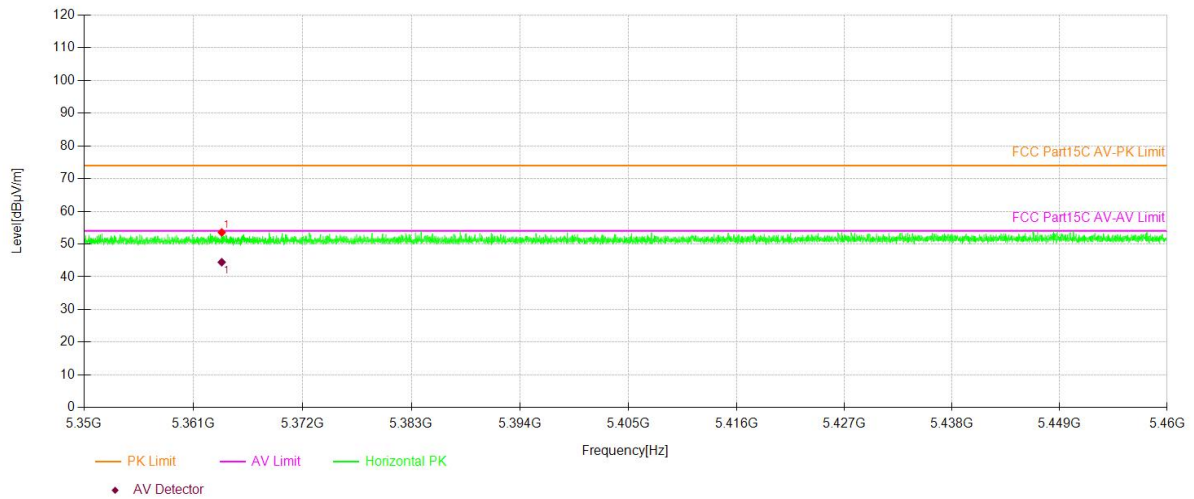
NO.	Freq. [MHz]	Level [dBμV/m]	Factor[dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5365.9775	53.54	38.01	74.00	20.46	PK	Vertical

AV Final Data List

NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	5365.9775	44.16	54.00	9.84	AV	Vertical

U-NII -2A

Test Model	Undesirable radiated Undesirable radiated Spurious Emission in Band Edge	802.11ac(VHT20)	Channel 64: 5320MHz	Ant.Pol	V
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Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor[dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5363.86	53.55	38.01	74.00	20.45	PK	Horizontal

AV Final Data List

NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	5363.86	44.45	54.00	9.55	AV	Horizontal

- ☒ For Undesirable radiated Spurious Emission in U-NII -2C
☒ Undesirable radiated Spurious Emission Above 1GHz (1GHz to 40GHz)

All the antenna(Antenna 1 and 2) and modes(802.11a/n/ac/ax/be) has been tested and the worst(Antenna 1,802.11a) result recorded was report as below:

no any obvious emission were detected from 18 GHz to 40 GHz, so below finaltest was performed with frequency range from 1GHz to 18 GHz.

Test mode: 802.11a Frequency: Channel 100: 5500MHz

Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
5176.24	V	47.15	-48.08	-27	21.08
10728.5	V	57.93	-37.3	-27	10.3
17992.9	V	65.21	-30.02	-27	3.02
5172.24	H	47.23	-48	-27	21
10117.5	H	58.26	-36.97	-27	9.97
17981.9	H	64.64	-30.59	-27	3.59

Test mode: 802.11a Frequency: Channel 116: 5580MHz

Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
5099.24	V	47.24	-47.99	-27	20.99
10692.5	V	58.39	-36.84	-27	9.84
17975.9	V	65.17	-30.06	-27	3.06
5207.24	H	48.54	-46.69	-27	19.69
10144.5	H	58.17	-37.06	-27	10.06
17984.9	H	65.89	-29.34	-27	2.34

Test mode: 802.11a Frequency: Channel 140: 5700MHz

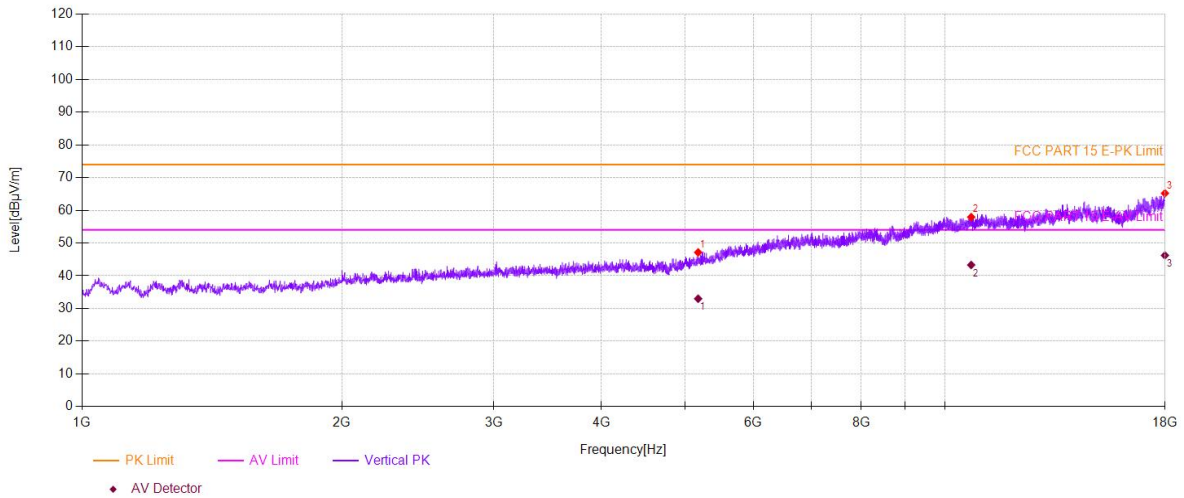
Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
5202.24	V	46.90	-48.33	-27	21.33
10344.5	V	57.70	-37.53	-27	10.53
17994.9	V	64.89	-30.34	-27	3.34
5177.24	H	47.46	-47.77	-27	20.77
10406.5	H	57.63	-37.6	-27	10.6
17984.9	H	65.20	-30.03	-27	3.03

Note: (1) All Readings are Peak Value (VBW=3MHz) and AV Value (VBW=10Hz).
(2) Emission Level= Reading Level+Probe Factor +Cable Loss.
(3) EIRP[dBm] = E[dBuV/m] + 20 log(d[meters]) - 104.77
d is the measurement distance in 3 meters

Test mode: 802.11a

Frequency:

Channel 100: 5500MHz

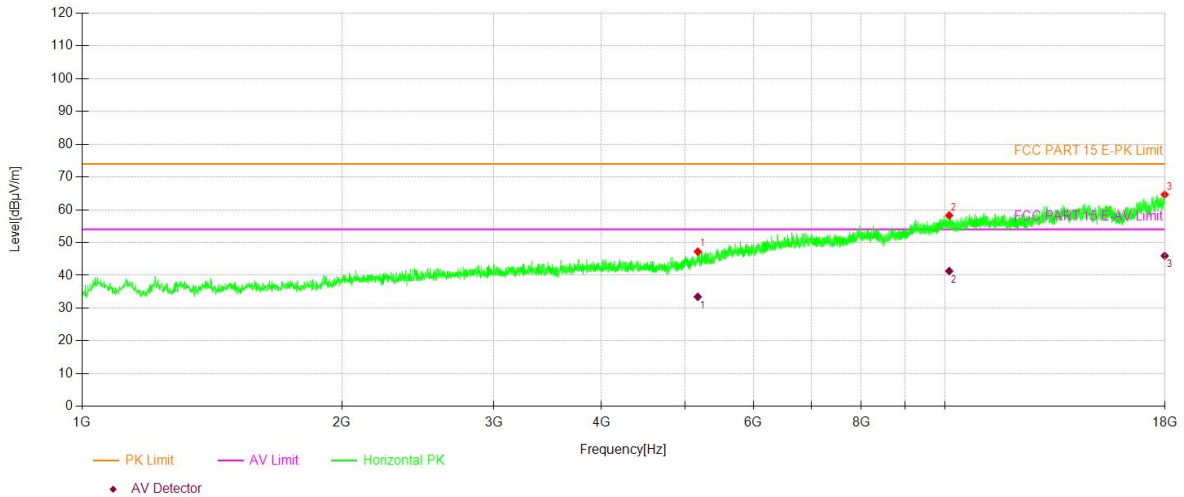


Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor[dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5176.2457	47.15	-9.27	74.00	26.85	PK	Vertical
2	10728.5723	57.93	4.77	74.00	16.07	PK	Vertical
3	17992.9996	65.21	11.01	74.00	8.79	PK	Vertical

AV Final Data List

NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	5176.2457	32.99	54.00	21.01	AV	Vertical
2	10728.5723	43.31	54.00	10.69	AV	Vertical
3	17992.9996	46.24	54.00	7.76	AV	Vertical



Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5172.2454	47.23	-9.30	74.00	26.77	PK	Horizontal
2	10117.5363	58.26	2.67	74.00	15.74	PK	Horizontal
3	17981.9989	64.64	10.68	74.00	9.36	PK	Horizontal

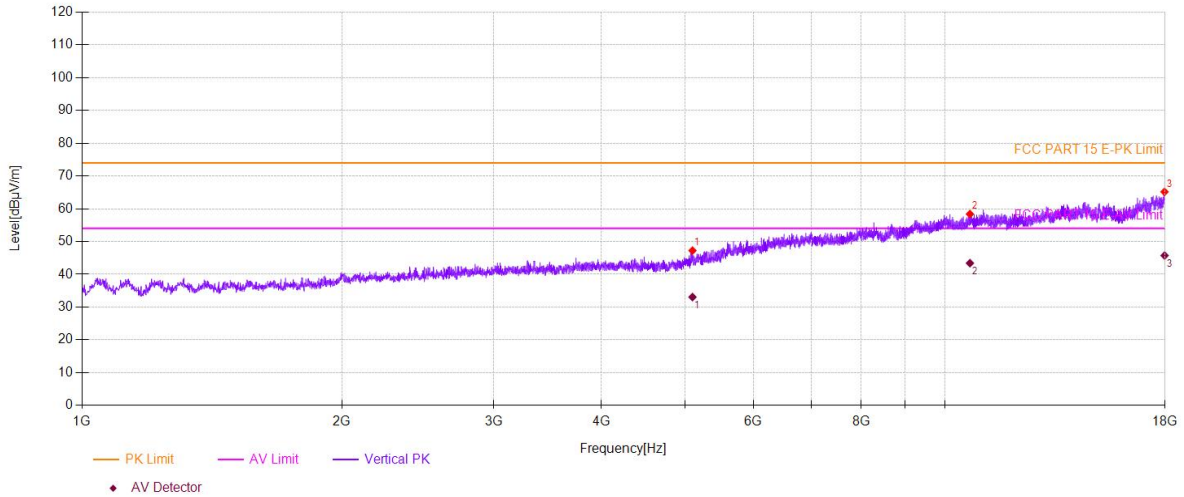
AV Final Data List

NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	5172.2454	33.45	54.00	20.55	AV	Horizontal
2	10117.5363	41.31	54.00	12.69	AV	Horizontal
3	17981.9989	45.94	54.00	8.06	AV	Horizontal

Test mode: 802.11a

Frequency:

Channel 116: 5580MHz

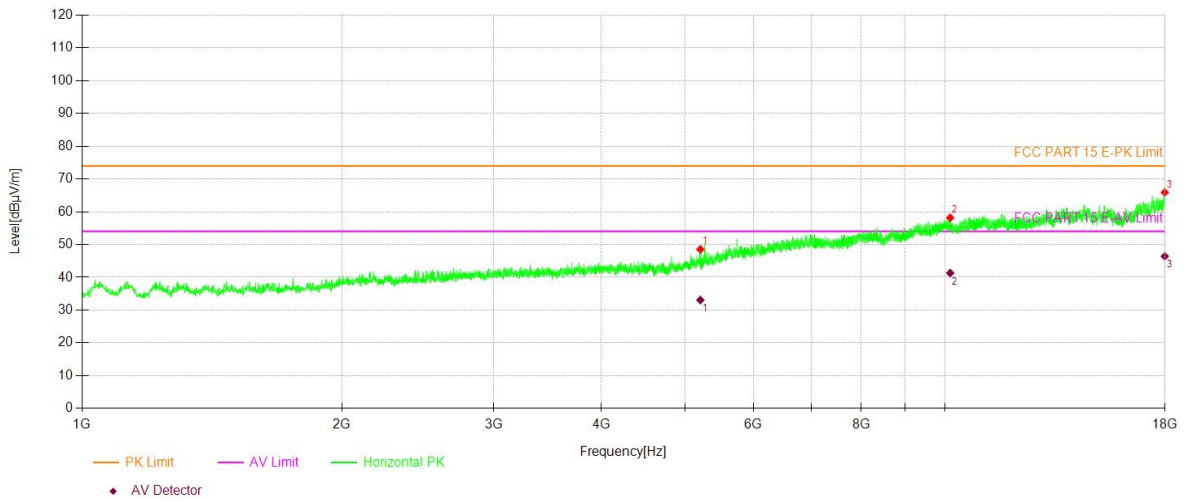


Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5099.2411	47.24	-9.61	74.00	26.76	PK	Vertical
2	10692.5702	58.39	5.16	74.00	15.61	PK	Vertical
3	17975.9986	65.17	10.50	74.00	8.83	PK	Vertical

AV Final Data List

NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	5099.2411	33.07	54.00	20.93	AV	Vertical
2	10692.5702	43.41	54.00	10.59	AV	Vertical
3	17975.9986	45.74	54.00	8.26	AV	Vertical



Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5207.2475	48.54	-9.11	74.00	25.46	PK	Horizontal
2	10144.5379	58.17	2.56	74.00	15.83	PK	Horizontal
3	17984.9991	65.89	10.77	74.00	8.11	PK	Horizontal

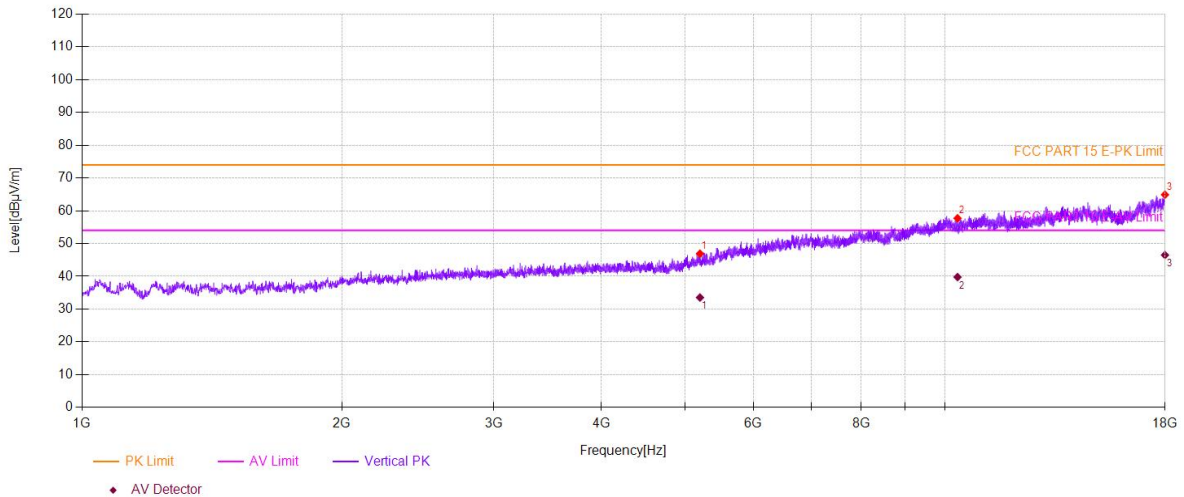
AV Final Data List

NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	5207.2475	33.07	54.00	20.93	AV	Horizontal
2	10144.5379	41.30	54.00	12.70	AV	Horizontal
3	17984.9991	46.41	54.00	7.59	AV	Horizontal

Test mode: 802.11a

Frequency:

Channel 140: 5700MHz

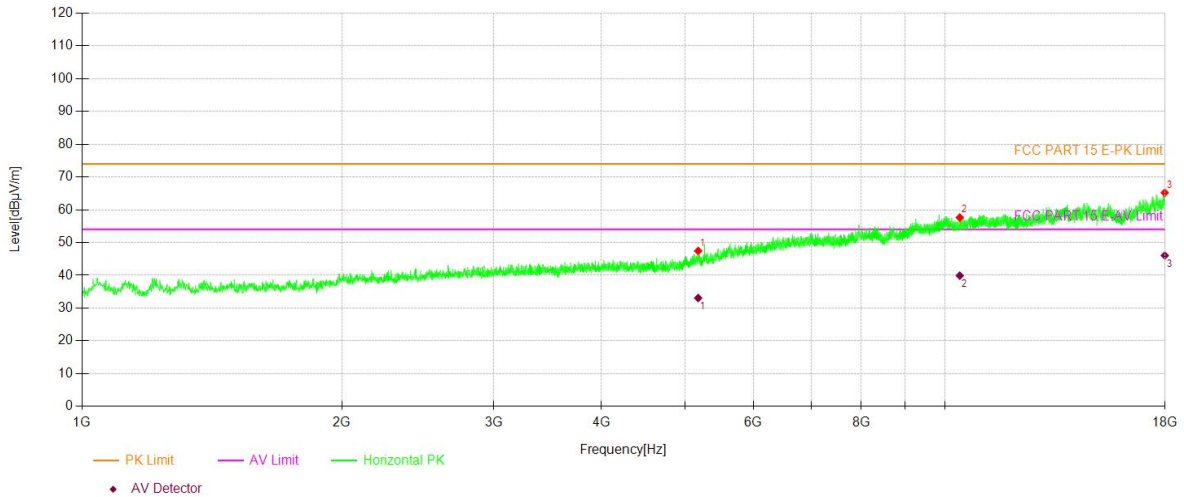


Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor[dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5202.2472	46.90	-9.12	74.00	27.10	PK	Vertical
2	10344.5497	57.70	1.45	74.00	16.30	PK	Vertical
3	17994.9997	64.89	11.07	74.00	9.11	PK	Vertical

AV Final Data List

NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	5202.2472	33.53	54.00	20.47	AV	Vertical
2	10344.5497	39.78	54.00	14.22	AV	Vertical
3	17994.9997	46.49	54.00	7.51	AV	Vertical



Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor[dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5177.2457	47.46	-9.27	74.00	26.54	PK	Horizontal
2	10406.5533	57.63	1.59	74.00	16.37	PK	Horizontal
3	17984.9991	65.20	10.77	74.00	8.80	PK	Horizontal

AV Final Data List

NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	5177.2457	33.08	54.00	20.92	AV	Horizontal
2	10406.5533	39.90	54.00	14.10	AV	Horizontal
3	17984.9991	46.05	54.00	7.95	AV	Horizontal

- Note:**
- (1) All Readings are Peak Value (VBW=3MHz) and Peak Value (VBW=10Hz).
 - (2) Emission Level= Reading Level+Correct Factor +Cable Loss.
 - (3) Correct Factor= Ant_F + Cab_L - Preamp
 - (4) The reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

- ☒ Undesirable radiated Undesirable radiated Spurious Emission in Band Edge
All the antenna(Antenna 1 and 2) and modes(802.11a/n/ac/ax/be) has been tested and the worst(Antenna 1,802.11ac(VHT20)) result recorded was report as below:

Test mode: 802.11ac(VHT20) Frequency: Channel 100: 5500MHz

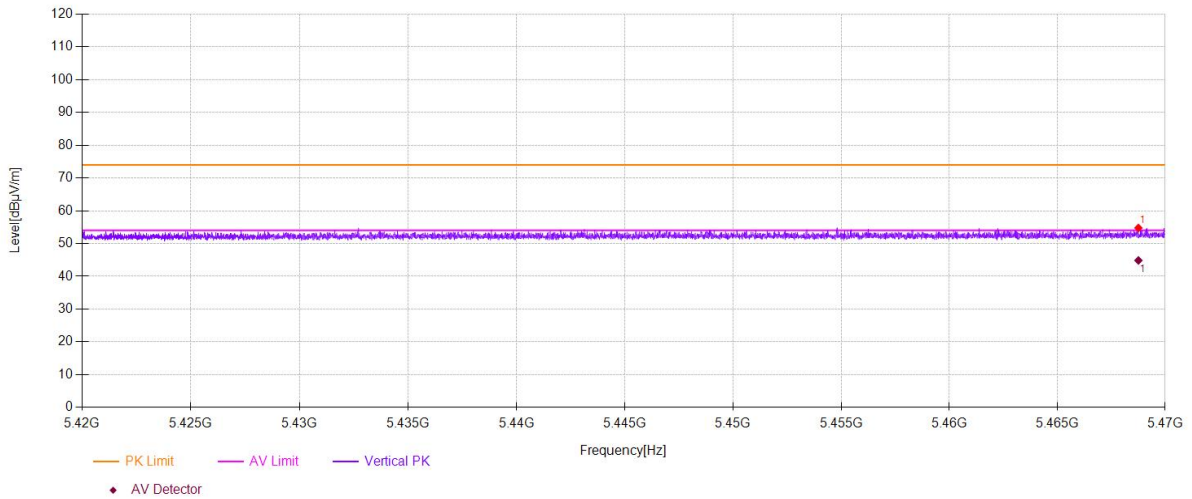
Freq. (MHz)	Ant.Pol. H/V	Field Strength (RBW=100KHz) (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Verdict
5468.76	V	54.76	-40.47	-27	Pass
5463.96	H	55.35	-39.88	-27	Pass

Test mode: 802.11ac(VHT20) Frequency: Channel 140: 5700MHz

Freq. (MHz)	Ant.Pol. H/V	Field Strength (RBW=100KHz) (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Verdict
5728.20	V	55.53	-39.7	-27	Pass
5727.01	H	54.80	-40.43	-27	Pass

Note: (1) All Readings are Peak Value (VBW=3MHz) and Peak Value (VBW=10Hz).
(2) Emission Level= Reading Level+Correct Factor +Cable Loss.
(3) Correct Factor= Ant_F + Cab_L - Preamp
(4) EIRP[dBm] = E[dBuV/m] + 20 log(d[meters]) - 104.77
d is the measurement distance in 3 meters

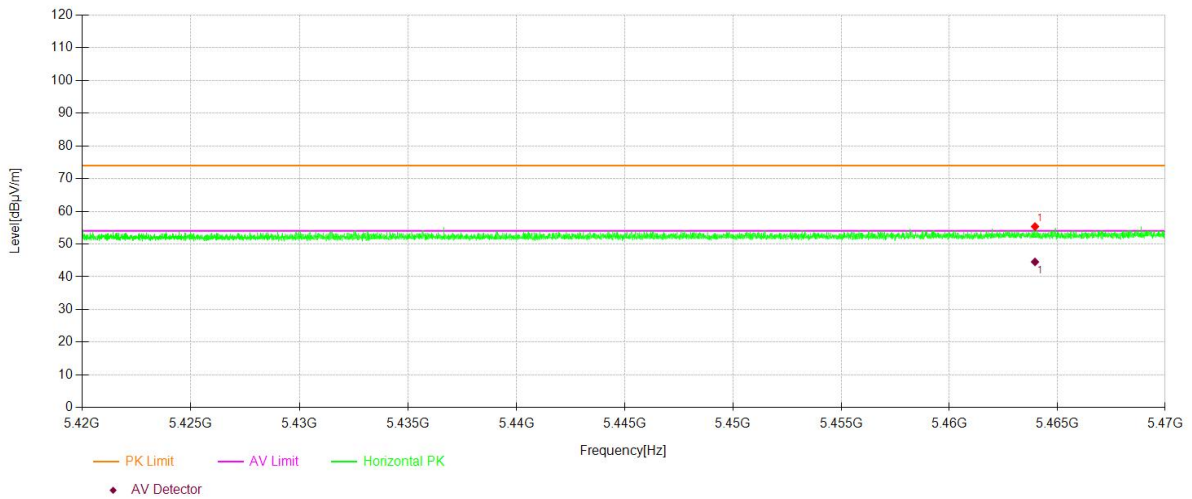
U-NII -2C				
Test Model	Undesirable radiated	Undesirable radiated	Spurious Emission in Band Edge	
	802.11ac(VHT20)	Channel 100: 5500MHz	Ant.Pol	V



Suspected Data List							
NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5468.7625	54.76	38.44	74.00	19.24	PK	Vertical

AV Final Data List						
NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	5468.7625	44.85	54.00	9.15	AV	Vertical

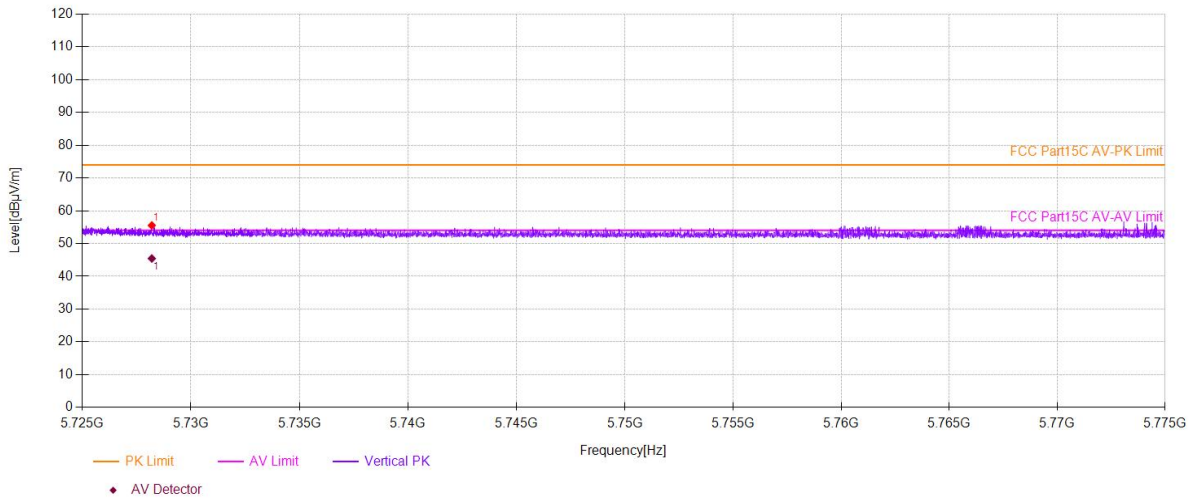
Test Model	U-NII -2C			
	Undesirable radiated	Undesirable radiated	Spurious Emission in Band Edge	
	802.11ac(VHT20)	Channel 100: 5500MHz	Ant.Pol	H



Suspected Data List							
NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5463.9688	55.35	38.41	74.00	18.65	PK	Horizontal

AV Final Data List						
NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	5463.9688	44.54	54.00	9.46	AV	Horizontal

U-NII -2C				
Test Model	Undesirable radiated	Undesirable radiated	Spurious Emission in Band Edge	
	802.11ac(VHT20)	Channel 140: 5700MHz	Ant.Pol	V



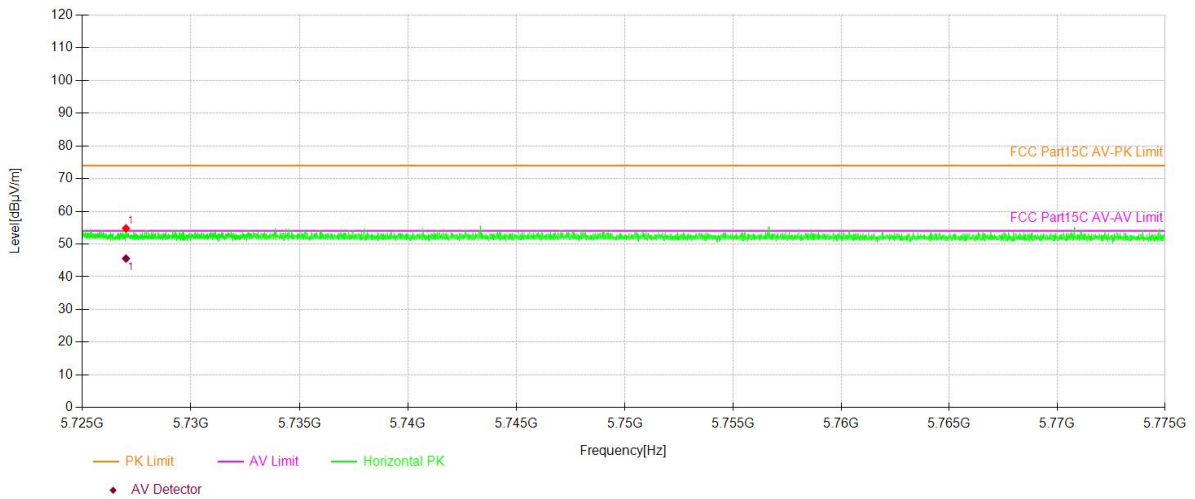
Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor[dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5728.2062	55.53	39.05	74.00	18.47	PK	Vertical

AV Final Data List

NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	5728.2062	45.44	54.00	8.56	AV	Vertical

U-NII -2C				
Test Model	Undesirable radiated	Undesirable radiated	Spurious Emission in Band Edge	
	802.11ac(VHT20)	Channel 140: 5700MHz	Ant.Pol	H



Suspected Data List							
NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5727.0188	54.80	39.04	74.00	19.20	PK	Horizontal

AV Final Data List						
NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	5727.0188	45.56	54.00	8.44	AV	Horizontal

- ☒ For Undesirable radiated Spurious Emission in U-NII -3

- ☒ Undesirable radiated Spurious Emission Above 1GHz (1GHz to 40GHz)

All the antenna(Antenna 1 and 2) and modes(802.11a/n/ac/ax/be) has been tested and the worst(Antenna 1,802.11a) result recorded was report as below:

no any obvious emission were detected from 18 GHz to 40 GHz, so below finaltest was performed with frequency range from 1GHz to 18 GHz.

Test mode: 802.11a Frequency: Channel 149: 5745MHz

Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
5175.24	V	47.99	-47.24	-27	20.24
10511.5	V	58.21	-37.02	-27	10.02
17986.9	V	64.76	-30.47	-27	3.47
5317.25	H	47.62	-47.61	-27	20.61
10323.5	H	57.66	-37.57	-27	10.57
17961.9	H	65.34	-29.89	-27	2.89

Test mode: 802.11a Frequency: Channel 157: 5785MHz

Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
5200.24	V	46.42	-48.81	-27	21.81
10047.5	V	58.23	-37	-27	10
17996.9	V	65.09	-30.14	-27	3.14
5103.24	H	46.12	-49.11	-27	22.11
10144.5	H	58.54	-36.69	-27	9.69
17624.9	H	65.02	-30.21	-27	3.21

Test mode: 802.11a Frequency: Channel 165: 5825MHz

Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
5232.24	V	47.18	-48.05	-27	21.05
9885.52	V	57.93	-37.3	-27	10.3
17970.9	V	65.45	-29.78	-27	2.78
5222.24	H	48.94	-46.29	-27	19.29
9995.52	H	57.38	-37.85	-27	10.85
17998.9	H	66.13	-29.1	-27	2.1

Note: (1) All Readings are Peak Value (VBW=3MHz) and AV Value (VBW=10Hz).

(2) Emission Level= Reading Level+Probe Factor +Cable Loss.

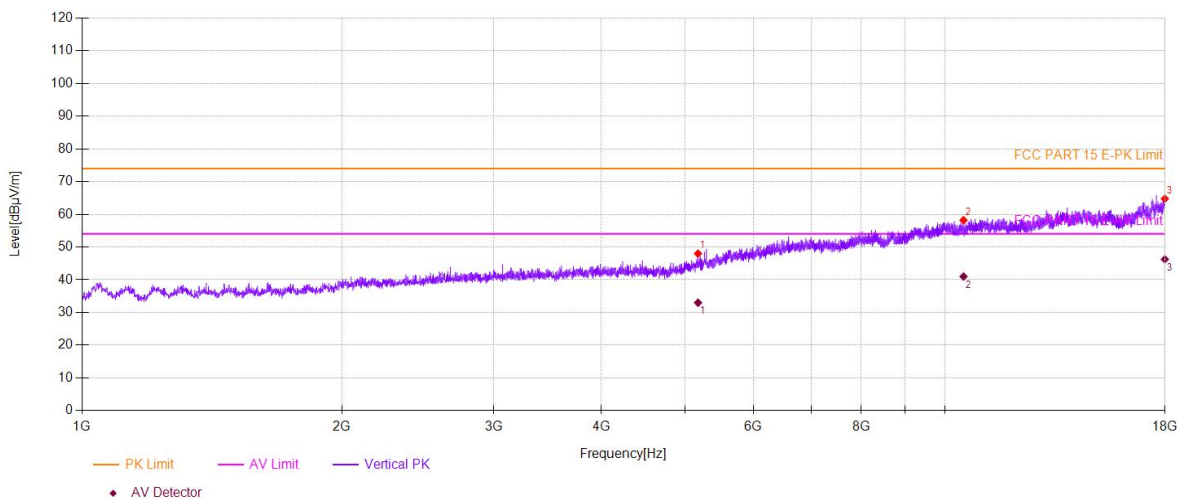
(3)EIRP[dBm] = E[dBμV/m] + 20 log(d[meters]) - 104.77

d is the measurement distance in 3 meters

Test mode: 802.11a

Frequency:

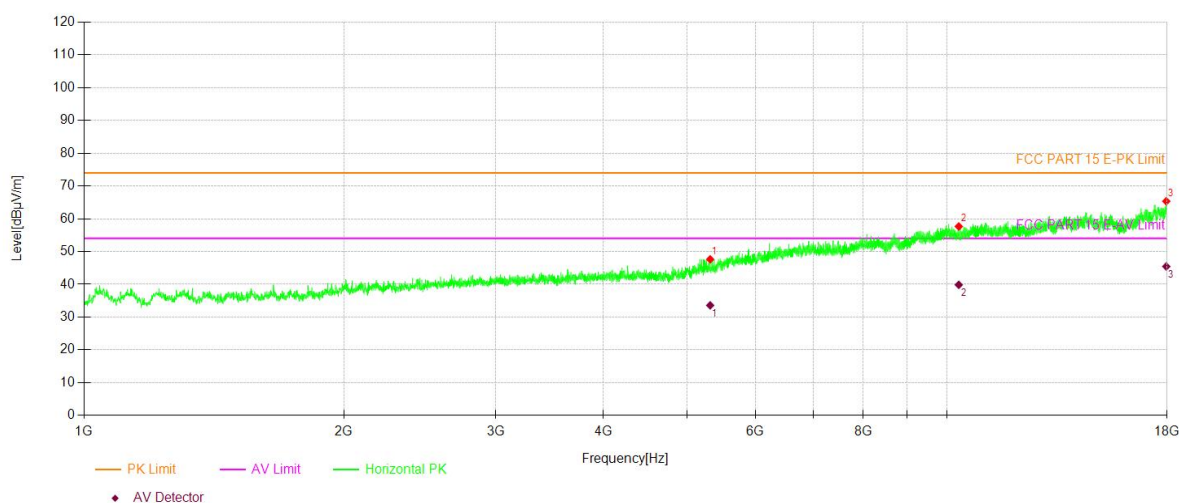
Channel 149: 5745MHz

**Suspected Data List**

NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5175.2456	47.99	-9.27	74.00	26.01	PK	Vertical
2	10511.5595	58.21	2.34	74.00	15.79	PK	Vertical
3	17986.9992	64.76	10.83	74.00	9.24	PK	Vertical

AV Final Data List

NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	5175.2456	32.99	54.00	21.01	AV	Vertical
2	10511.5595	41.00	54.00	13.00	AV	Vertical
3	17986.9992	46.27	54.00	7.73	AV	Vertical



Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor[dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5317.254	47.62	-8.67	74.00	26.38	PK	Horizontal
2	10323.5484	57.66	1.42	74.00	16.34	PK	Horizontal
3	17961.9978	65.34	10.08	74.00	8.66	PK	Horizontal

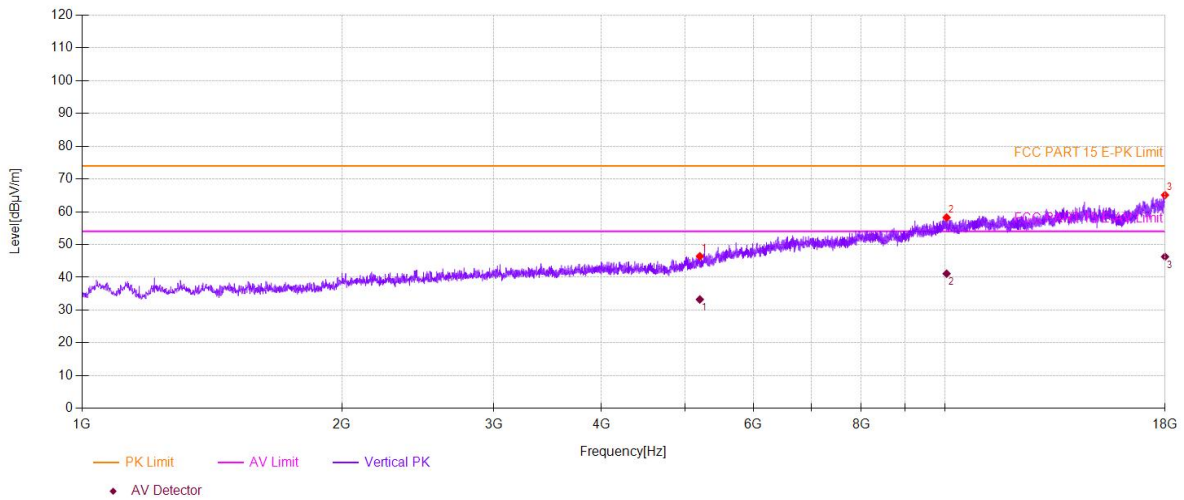
AV Final Data List

NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	5317.254	33.59	54.00	20.41	AV	Horizontal
2	10323.5484	39.86	54.00	14.14	AV	Horizontal
3	17961.9978	45.46	54.00	8.54	AV	Horizontal

Test mode: 802.11a

Frequency:

Channel 157: 5785MHz

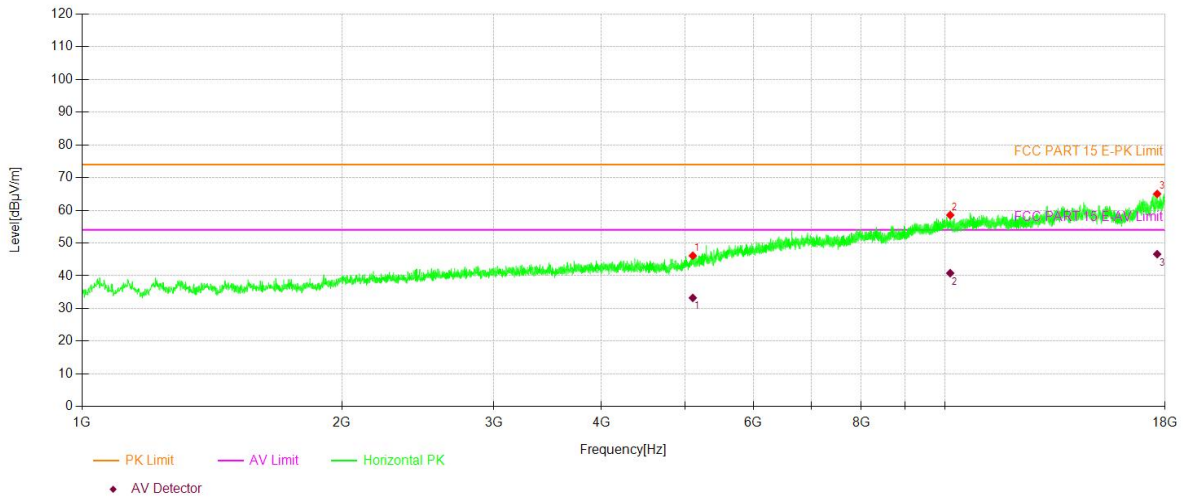


Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor[dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5200.2471	46.42	-9.13	74.00	27.58	PK	Vertical
2	10047.5322	58.23	2.50	74.00	15.77	PK	Vertical
3	17996.9998	65.09	11.13	74.00	8.91	PK	Vertical

AV Final Data List

NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	5200.2471	33.25	54.00	20.75	AV	Vertical
2	10047.5322	41.12	54.00	12.88	AV	Vertical
3	17996.9998	46.28	54.00	7.72	AV	Vertical



Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5103.2414	46.12	-9.60	74.00	27.88	PK	Horizontal
2	10144.5379	58.54	2.56	74.00	15.46	PK	Horizontal
3	17624.9779	65.02	10.83	74.00	8.98	PK	Horizontal

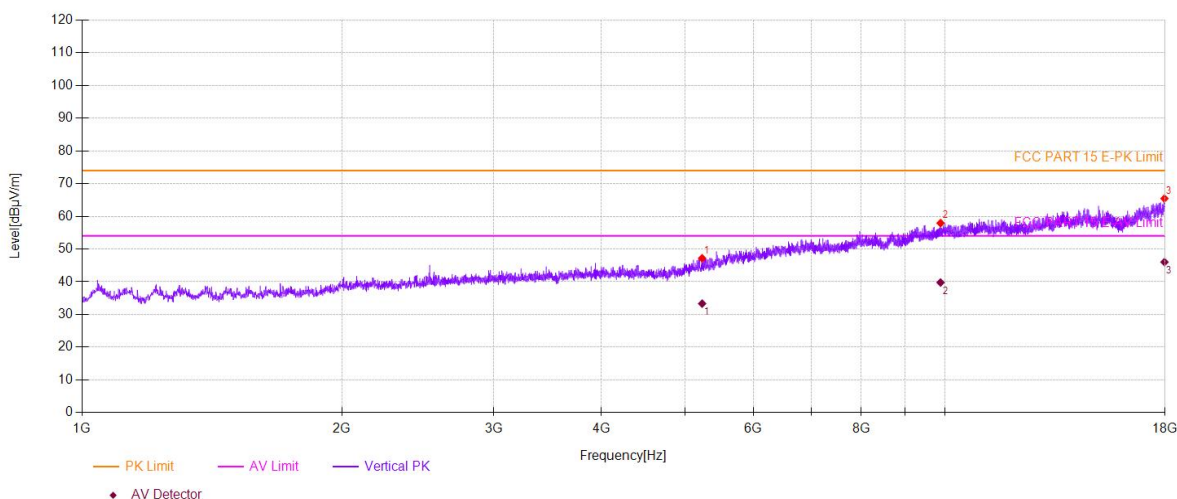
AV Final Data List

NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	5103.2414	33.24	54.00	20.76	AV	Horizontal
2	10144.5379	40.81	54.00	13.19	AV	Horizontal
3	17624.9779	46.60	54.00	7.40	AV	Horizontal

Test mode:: 802.11a

Frequency:

Channel 165: 5825MHz

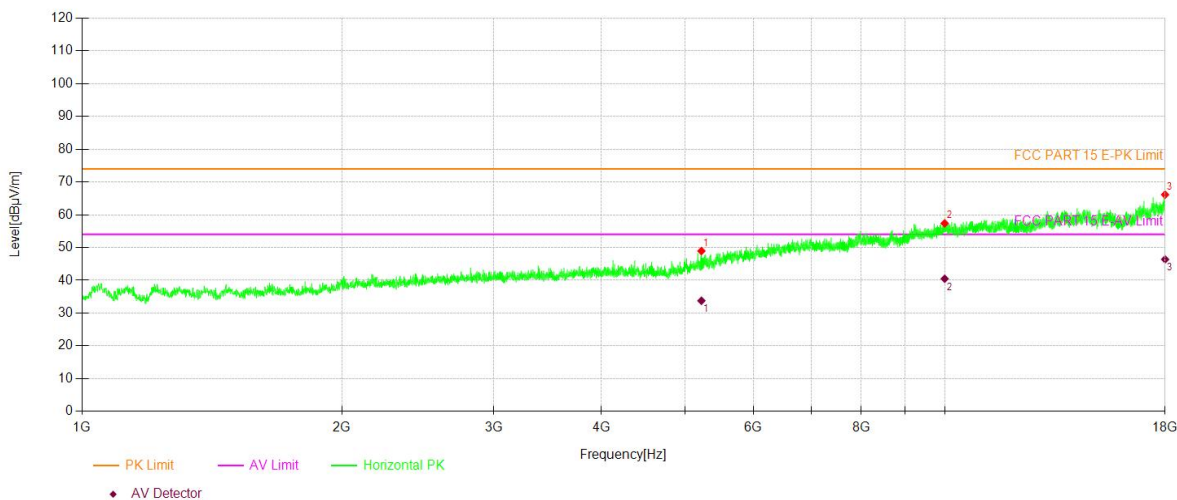


Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor[dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5232.249	47.18	-9.03	74.00	26.82	PK	Vertical
2	9885.5227	57.93	0.93	74.00	16.07	PK	Vertical
3	17970.9983	65.45	10.35	74.00	8.55	PK	Vertical

AV Final Data List

NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	5232.249	33.33	54.00	20.67	AV	Vertical
2	9885.5227	39.78	54.00	14.22	AV	Vertical
3	17970.9983	46.02	54.00	7.98	AV	Vertical



Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5222.2484	48.94	-9.06	74.00	25.06	PK	Horizontal
2	9995.5291	57.38	2.23	74.00	16.62	PK	Horizontal
3	17998.9999	66.13	11.19	74.00	7.87	PK	Horizontal

AV Final Data List

NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	5222.2484	33.77	54.00	20.23	AV	Horizontal
2	9995.5291	40.48	54.00	13.52	AV	Horizontal
3	17998.9999	46.40	54.00	7.60	AV	Horizontal

- Note:**
- (1) All Readings are Peak Value (VBW=3MHz) and Peak Value (VBW=10Hz).
 - (2) Emission Level= Reading Level+Correct Factor +Cable Loss.
 - (3) Correct Factor= Ant_F + Cab_L - Preamp
 - (4) The reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

● ☒ Undesirable radiated Spurious Emission in band edge

All the antenna(Antenna 1 and 2) and modes(802.11a/n/ac/ax/be) has been tested and the worst(Antenna 1,802.11a) result recorded was report as below:

Test mode:		Frequency:		Channel 149: 5745MHz	
Freq. (MHz)	Ant.Pol. H/V	Field Strength (RBW=100KHz) (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Verdict
5721.62	V	54.22	-41.01	-27	PASS
5722.18	H	54.71	-40.52	-27	PASS

Test mode:		Frequency:		Channel 165: 5825MHz	
Freq. (MHz)	Ant.Pol. H/V	Field Strength (RBW=100KHz) (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Verdict
5859.6923	V	54.14	-41.09	-27	PASS
5864.69	H	54.29	-40.94	-27	PASS

Note: (1) All Readings are Peak Value (VBW=3MHz) and Peak Value (VBW=10Hz).

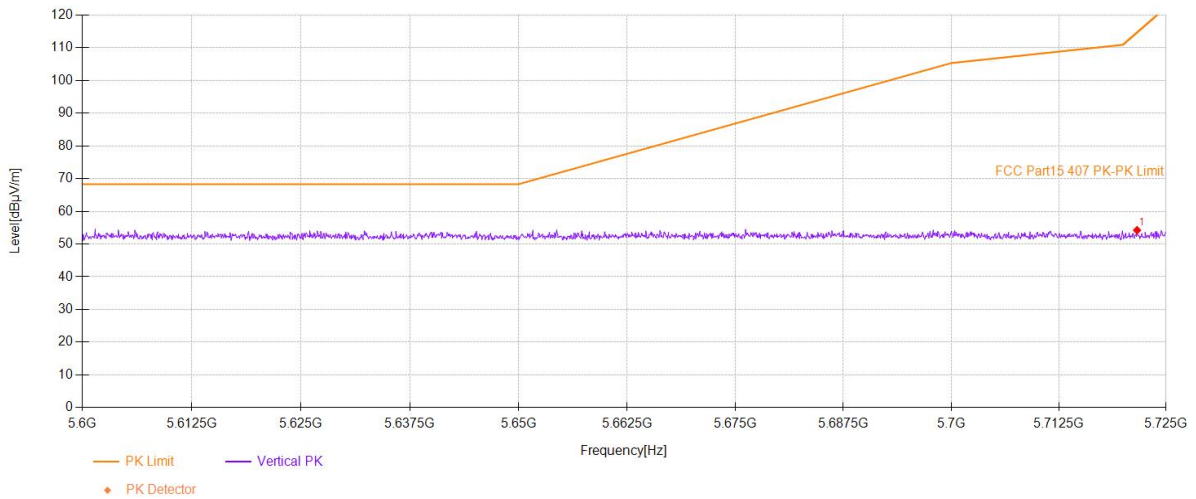
(2) Emission Level= Reading Level+Correct Factor +Cable Loss.

(3) Correct Factor= Ant_F + Cab_L - Preamp

(4) EIRP[dBm] = E[dBuV/m] + 20 log(d[meters]) - 104.77

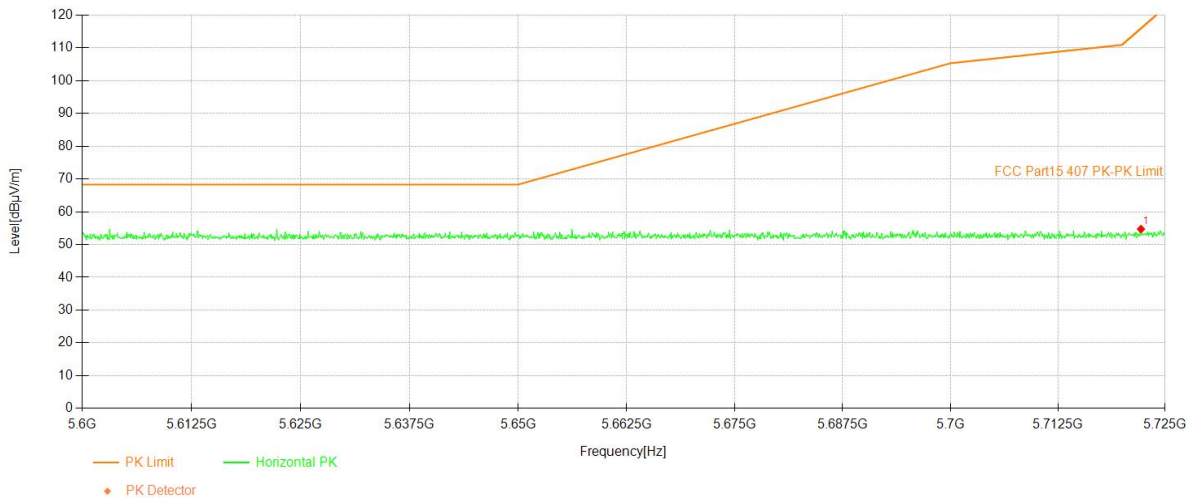
d is the measurement distance in 3 meters

U-NII-3
Test Model Undesirable radiated Undesirable radiated Spurious Emission in Band Edge
802.11a Channel 149: 5745MHz Ant.Pol V



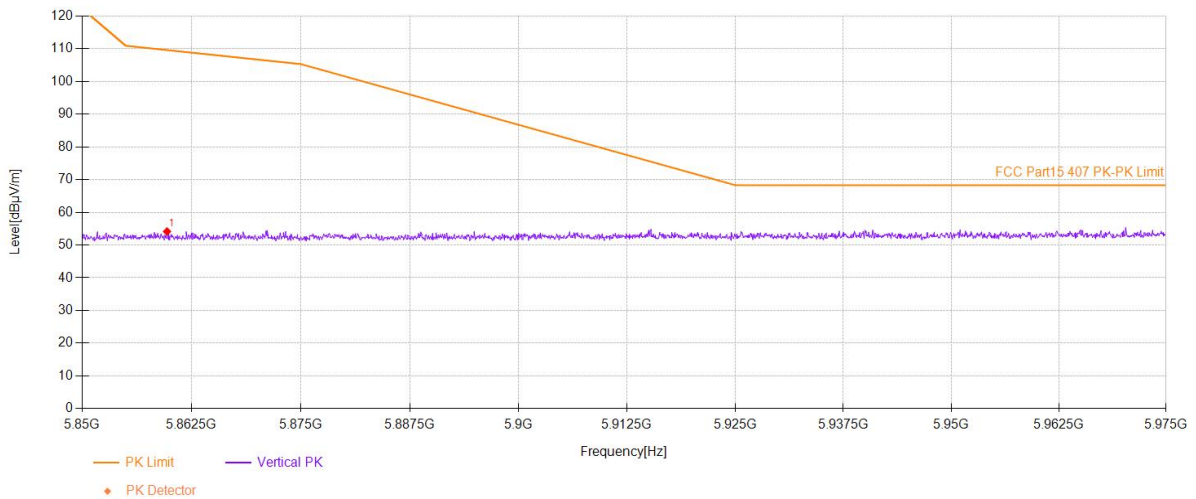
Suspected Data List							
NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5721.6233	54.22	39.03	114.60	60.38	PK	Vertical

Test Model U-NII-3
Undesirable radiated Undesirable radiated Spurious Emission in Band Edge
802.11a Channel 149: 5745MHz Ant.Pol H



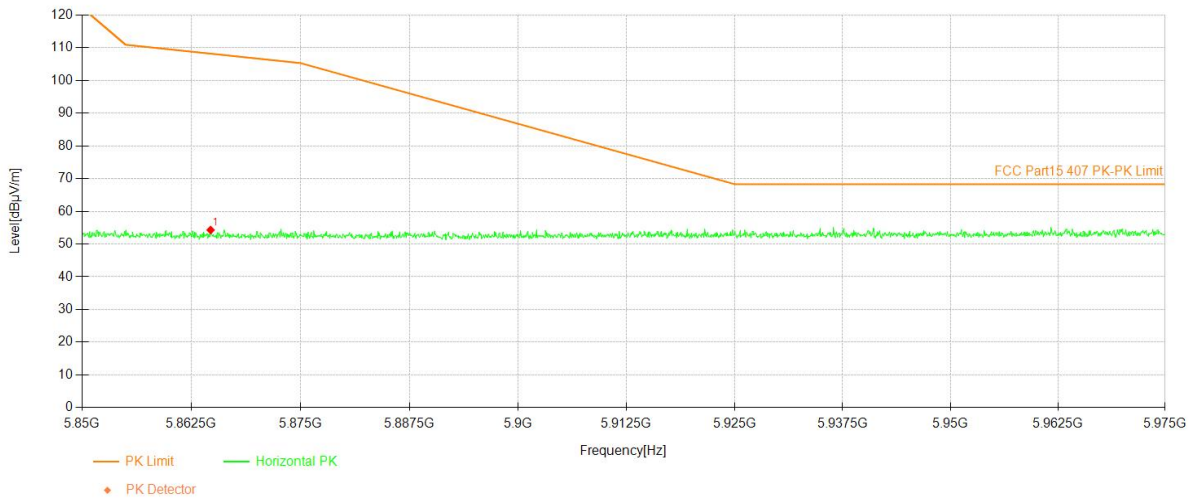
Suspected Data List							
NO.	Freq. [MHz]	Level [dBμV/m]	Factor[dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5722.1861	54.71	39.03	115.89	61.18	PK	Horizontal

U-NII-3				
Test Model	Undesirable radiated	Undesirable radiated	Spurious Emission in Band Edge	
	802.11a	Channel 165: 5825MHz	Ant.Pol	V



Suspected Data List							
NO.	Freq. [MHz]	Level [dBμV/m]	Factor[dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5859.6923	54.14	39.37	109.58	55.44	PK	Vertical

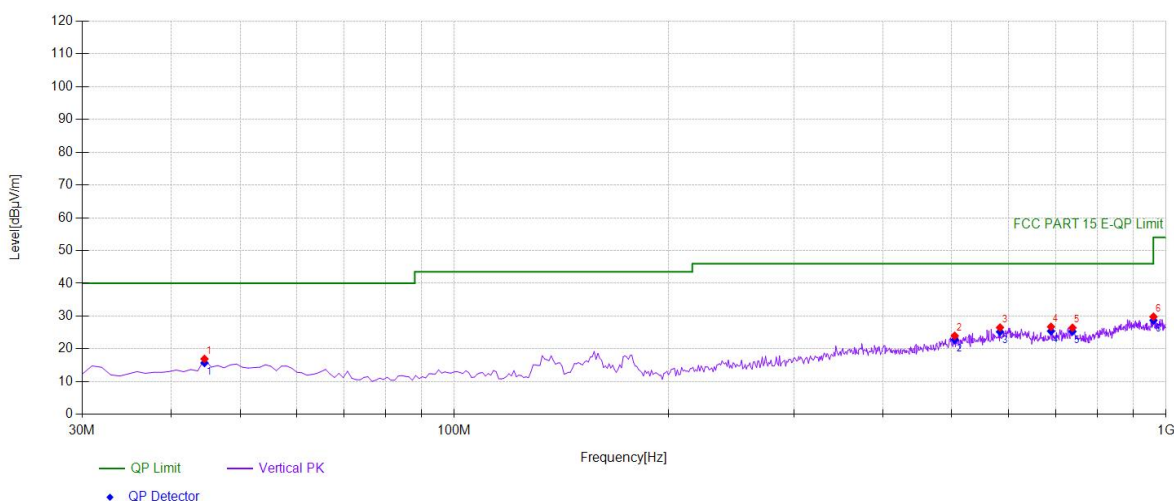
U-NII-3				
Test Model	Undesirable radiated	Undesirable radiated	Spurious Emission in Band Edge	
	802.11a	Channel 165: 5825MHz	Ant.Pol	V



Suspected Data List							
NO.	Freq. [MHz]	Level [dBμV/m]	Factor[dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5864.6948	54.29	39.37	108.18	53.89	PK	Horizontal

- Undesirable radiated Spurious Emission below 1GHz (30MHz to 1GHz)
All of the configurations or modes are tested, the data of the worst case is recorded in the report.

Test mode: 802.11n(VHT20) Frequency(MHz): 5180

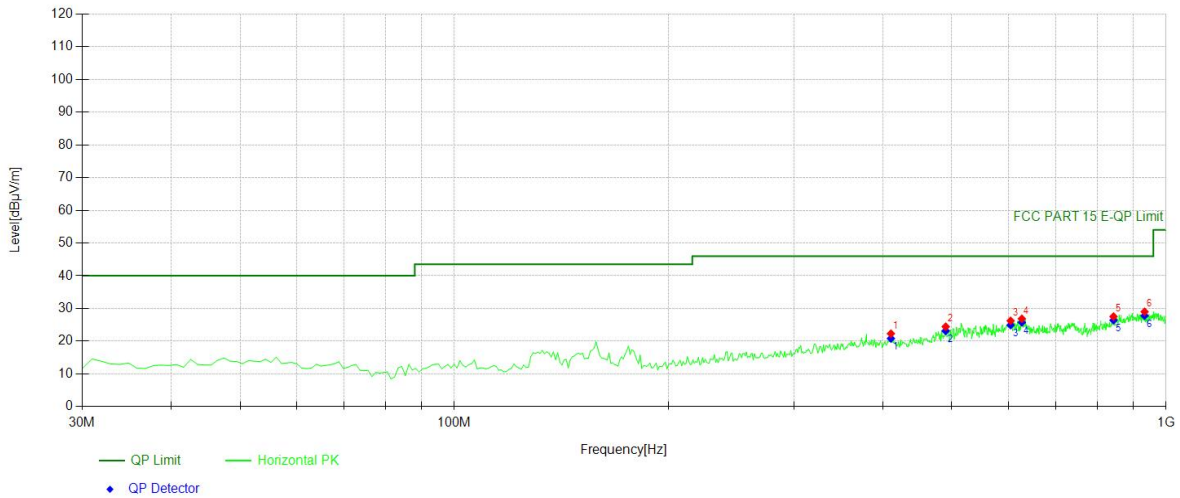


Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB/m]	Level [dBμV/m]	Detector	Limit [dBμV/m]	Margin [dB]	Polarity
1	44.5646	28.48	-11.53	16.95	PK	40.00	23.05	Vertical
2	504.804	28.03	-4.03	24.00	PK	46.00	22.00	Vertical
3	584.424	27.65	-1.13	26.52	PK	46.00	19.48	Vertical
4	689.289	27.41	-0.67	26.74	PK	46.00	19.26	Vertical
5	738.808	25.98	0.47	26.45	PK	46.00	19.55	Vertical
6	960.190	26.35	3.47	29.82	PK	54.00	24.18	Vertical

Final Data List

NO.	Freq. [MHz]	Factor [dB/m]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]
1	44.5646	-11.53	15.72	40.00	24.28
2	504.8048	-4.03	22.77	46.00	23.23
3	584.4244	-1.13	25.21	46.00	20.79
4	689.2893	-0.67	25.43	46.00	20.57
5	738.8088	0.47	25.32	46.00	20.68
6	960.1902	3.47	28.69	54.00	25.31



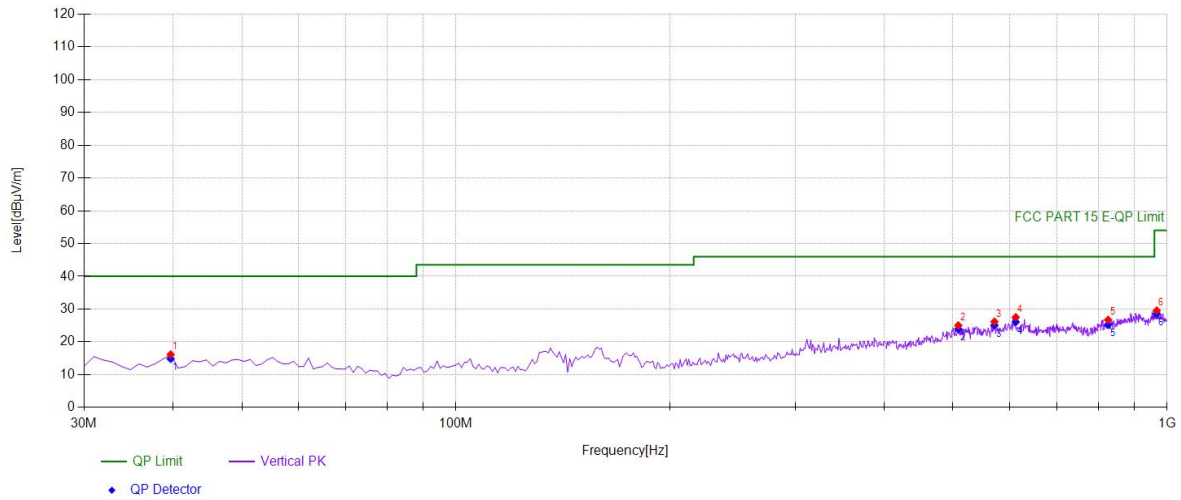
Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB/m]	Level [dBμV/m]	Detector	Limit [dBμV/m]	Margin [dB]	Polarity
1	410.620	28.19	-5.87	22.32	PK	46.00	23.68	Horizontal
2	490.240	28.40	-3.95	24.45	PK	46.00	21.55	Horizontal
3	604.814	26.81	-0.56	26.25	PK	46.00	19.75	Horizontal
4	627.147	28.16	-1.29	26.87	PK	46.00	19.13	Horizontal
5	843.673	26.36	1.18	27.54	PK	46.00	18.46	Horizontal
6	933.003	26.72	2.29	29.01	PK	46.00	16.99	Horizontal

Final Data List

NO.	Freq. [MHz]	Factor [dB/m]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]
1	410.6206	-5.87	20.83	46.00	25.17
2	490.2402	-3.95	23.14	46.00	22.86
3	604.8148	-0.56	24.94	46.00	21.06
4	627.1471	-1.29	25.74	46.00	20.26
5	843.6737	1.18	26.41	46.00	19.59
6	933.003	2.29	27.80	46.00	18.20

Test mode: 802.11n(VHT20) Frequency(MHz): 5200

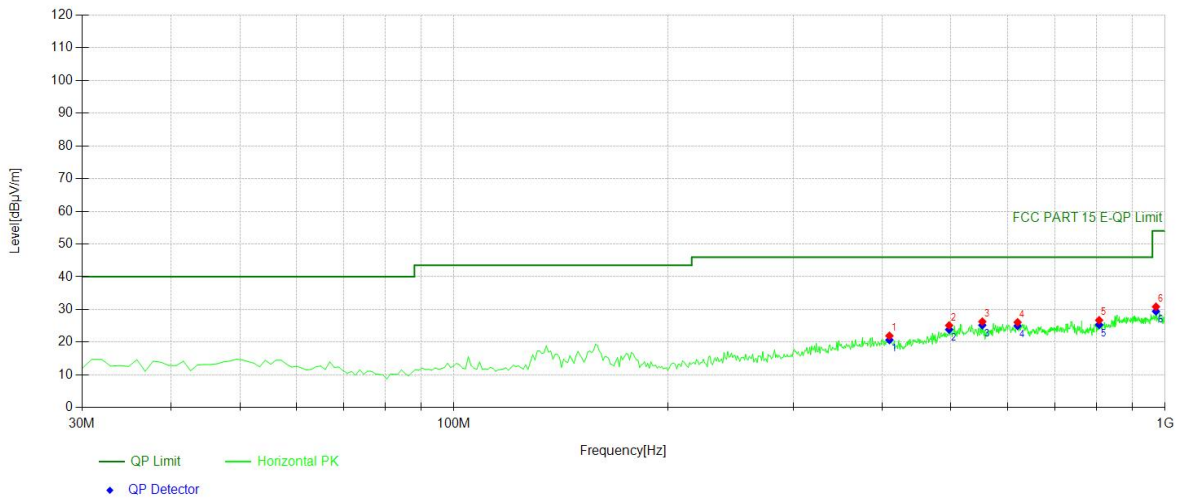


Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB/m]	Level [dBμV/m]	Detector	Limit [dBμV/m]	Margin [dB]	Polarity
1	39.7097	28.45	-12.31	16.14	PK	40.00	23.86	Vertical
2	508.688	29.01	-4.00	25.01	PK	46.00	20.99	Vertical
3	571.801	28.07	-1.90	26.17	PK	46.00	19.83	Vertical
4	612.582	28.51	-0.99	27.52	PK	46.00	18.48	Vertical
5	826.196	25.85	0.86	26.71	PK	46.00	19.29	Vertical
6	966.987	26.27	3.30	29.57	PK	54.00	24.43	Vertical

Final Data List

NO.	Freq. [MHz]	Factor [dB/m]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]
1	39.7097	-12.31	14.86	40.00	25.14
2	508.6887	-4.00	23.91	46.00	22.09
3	571.8018	-1.90	25.07	46.00	20.93
4	612.5826	-0.99	26.10	46.00	19.90
5	826.1962	0.86	25.29	46.00	20.71
6	966.987	3.30	28.57	54.00	25.43



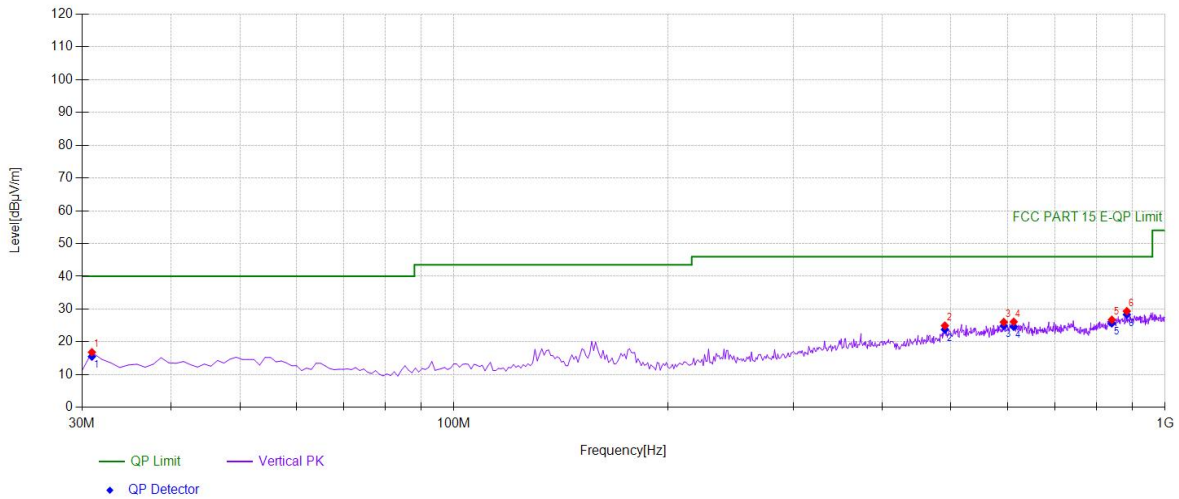
Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB/m]	Level [dBμV/m]	Detector	Limit [dBμV/m]	Margin [dB]	Polarity
1	409.649	27.80	-5.85	21.95	PK	46.00	24.05	Horizontal
2	497.037	29.18	-4.05	25.13	PK	46.00	20.87	Horizontal
3	553.353	29.20	-2.91	26.29	PK	46.00	19.71	Horizontal
4	620.350	27.46	-1.37	26.09	PK	46.00	19.91	Horizontal
5	807.747	26.03	0.70	26.73	PK	46.00	19.27	Horizontal
6	970.870	27.64	3.20	30.84	PK	54.00	23.16	Horizontal

Final Data List

NO.	Freq. [MHz]	Factor [dB/m]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]
1	409.6496	-5.85	20.68	46.00	25.32
2	497.037	-4.05	23.86	46.00	22.14
3	553.3534	-2.91	25.20	46.00	20.80
4	620.3504	-1.37	25.00	46.00	21.00
5	807.7477	0.70	25.32	46.00	20.68
6	970.8709	3.20	29.43	54.00	24.57

Test mode: 802.11n(VHT20) Frequency(MHz): 5240

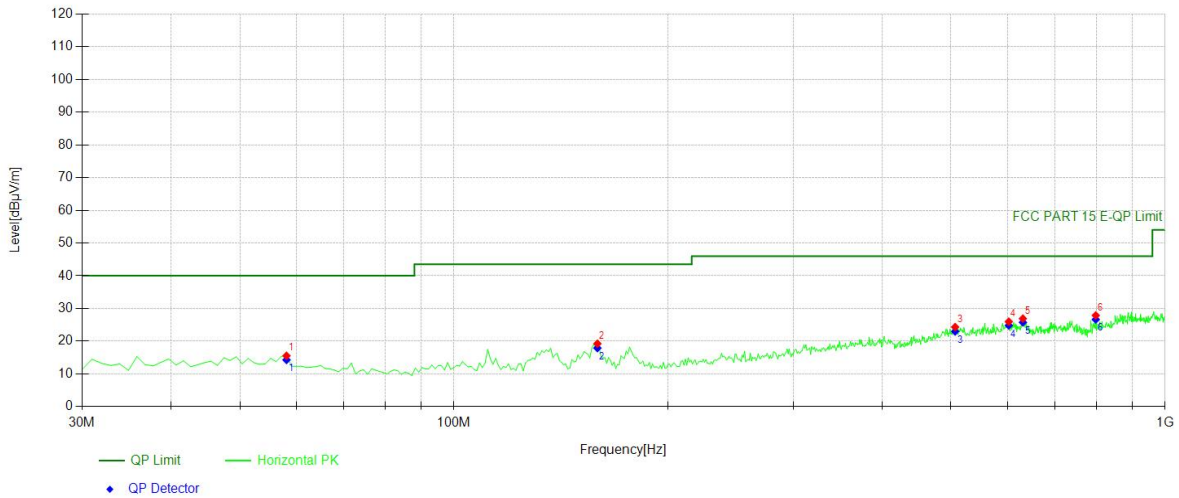


Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB/m]	Level [dBμV/m]	Detector	Limit [dBμV/m]	Margin [dB]	Polarity
1	30.971	30.49	-13.63	16.86	PK	40.00	23.14	Vertical
2	490.240	28.90	-3.95	24.95	PK	46.00	21.05	Vertical
3	593.163	26.64	-0.61	26.03	PK	46.00	19.97	Vertical
4	612.582	27.12	-0.99	26.13	PK	46.00	19.87	Vertical
5	841.731	25.67	1.07	26.74	PK	46.00	19.26	Vertical
6	883.483	27.13	2.25	29.38	PK	46.00	16.62	Vertical

Final Data List

NO.	Freq. [MHz]	Factor [dB/m]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]
1	30.971	-13.63	15.53	40.00	24.47
2	490.2402	-3.95	23.80	46.00	22.20
3	593.1632	-0.61	24.88	46.00	21.12
4	612.5826	-0.99	24.66	46.00	21.34
5	841.7317	1.07	25.69	46.00	20.31
6	883.4835	2.25	28.33	46.00	17.67



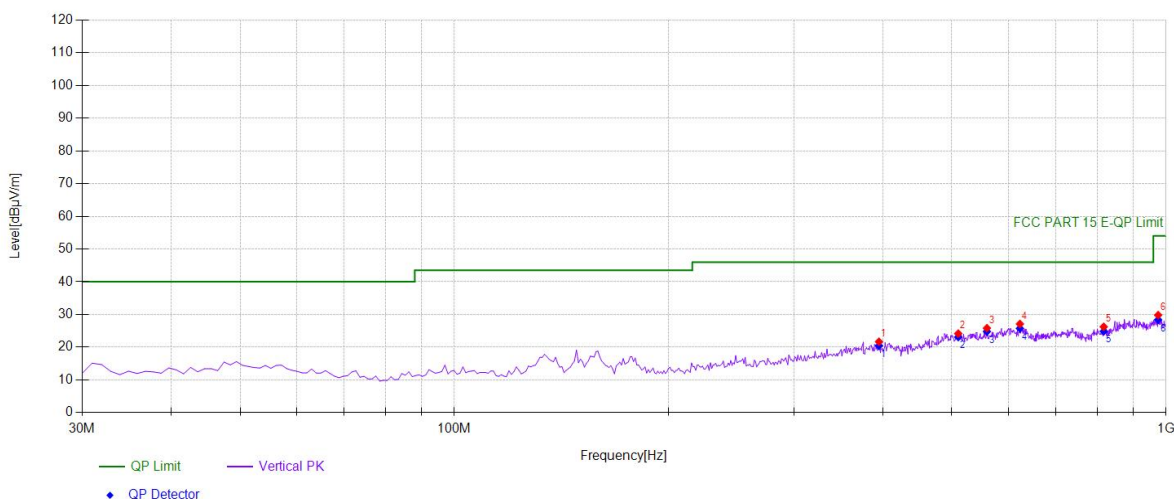
Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB/m]	Level [dBμV/m]	Detector	Limit [dBμV/m]	Margin [dB]	Polarity
1	58.1582	27.33	-11.77	15.56	PK	40.00	24.44	Horizontal
2	159.139	33.38	-14.13	19.25	PK	43.50	24.25	Horizontal
3	506.746	28.35	-4.02	24.33	PK	46.00	21.67	Horizontal
4	602.872	26.41	-0.44	25.97	PK	46.00	20.03	Horizontal
5	631.031	28.19	-1.26	26.93	PK	46.00	19.07	Horizontal
6	799.009	27.43	0.45	27.88	PK	46.00	18.12	Horizontal

Final Data List

NO.	Freq. [MHz]	Factor [dB/m]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]
1	58.1582	-11.77	14.30	40.00	25.70
2	159.1391	-14.13	17.91	43.50	25.59
3	506.7467	-4.02	22.99	46.00	23.01
4	602.8729	-0.44	24.81	46.00	21.19
5	631.031	-1.26	25.77	46.00	20.23
6	799.009	0.45	26.64	46.00	19.36

Test mode: 802.11n(VHT20) Frequency(MHz): 5260

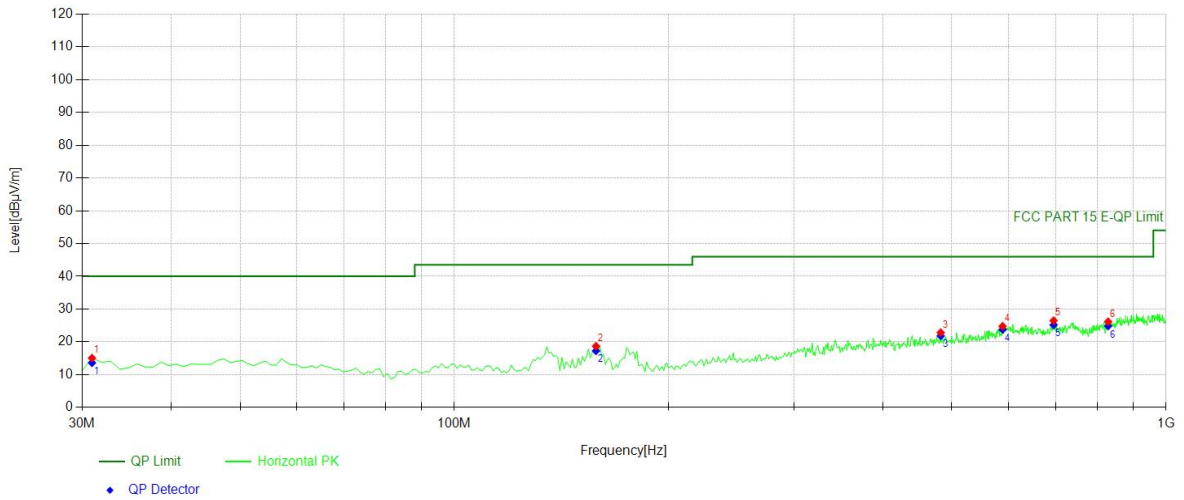


Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB/m]	Level [dBμV/m]	Detector	Limit [dBμV/m]	Margin [dB]	Polarity
1	395.0851	27.25	-5.58	21.67	PK	46.00	24.33	Vertical
2	510.6306	28.14	-3.97	24.17	PK	46.00	21.83	Vertical
3	560.1502	28.50	-2.66	25.84	PK	46.00	20.16	Vertical
4	623.2633	28.45	-1.33	27.12	PK	46.00	18.88	Vertical
5	817.4575	25.43	0.81	26.24	PK	46.00	19.76	Vertical
6	974.7548	26.75	3.08	29.83	PK	54.00	24.17	Vertical

Final Data List

NO.	Freq. [MHz]	Factor [dB/m]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]
1	395.0851	-5.58	20.44	46.00	25.56
2	510.6306	-3.97	23.12	46.00	22.88
3	560.1502	-2.66	24.79	46.00	21.21
4	623.2633	-1.33	25.75	46.00	20.25
5	817.4575	0.81	24.87	46.00	21.13
6	974.7548	3.08	28.38	54.00	25.62



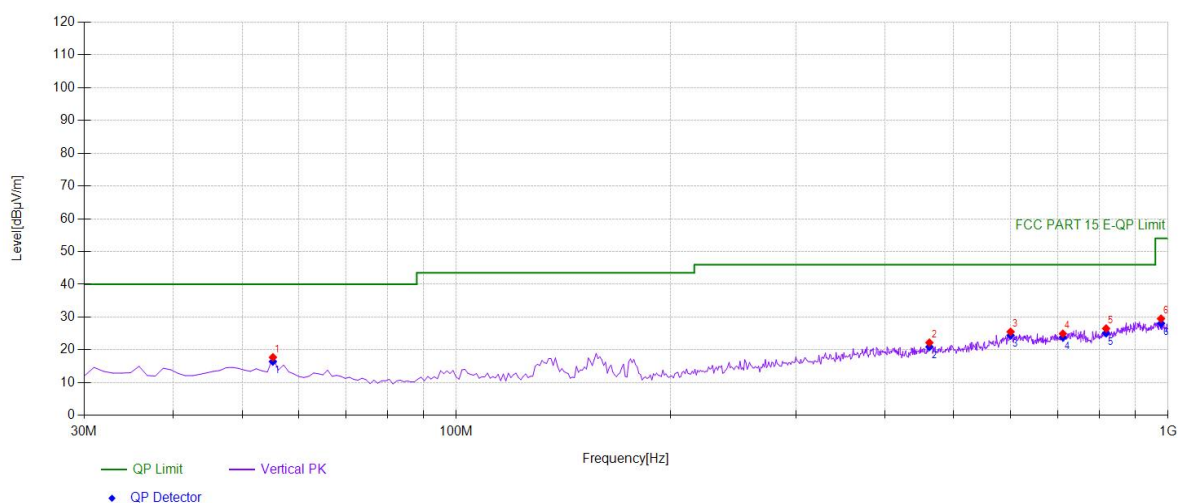
Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB/m]	Level [dBμV/m]	Detector	Limit [dBμV/m]	Margin [dB]	Polarity
1	30.971	28.69	-13.63	15.06	PK	40.00	24.94	Horizontal
2	158.1682	32.84	-14.15	18.69	PK	43.50	24.81	Horizontal
3	482.4725	26.80	-3.96	22.84	PK	46.00	23.16	Horizontal
4	589.2793	25.59	-0.82	24.77	PK	46.00	21.23	Horizontal
5	695.1151	26.93	-0.44	26.49	PK	46.00	19.51	Horizontal
6	829.1091	25.30	0.87	26.17	PK	46.00	19.83	Horizontal

Final Data List

NO.	Freq. [MHz]	Factor [dB/m]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]
1	30.971	-13.63	13.63	40.00	26.37
2	158.1682	-14.15	17.26	43.50	26.24
3	482.4725	-3.96	21.83	46.00	24.17
4	589.2793	-0.82	23.76	46.00	22.24
5	695.1151	-0.44	25.16	46.00	20.84
6	829.1091	0.87	24.84	46.00	21.16

Test mode: 802.11n(VHT20) Frequency(MHz): 5280

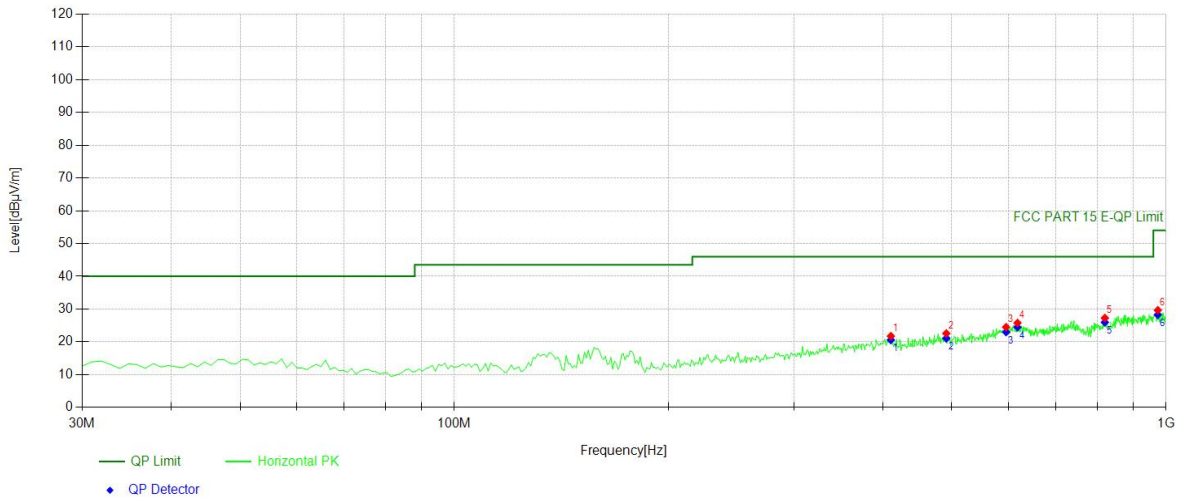


Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB/m]	Level [dBμV/m]	Detector	Limit [dBμV/m]	Margin [dB]	Polarity
1	55.2452	29.11	-11.37	17.74	PK	40.00	22.26	Vertical
2	462.0821	26.54	-4.33	22.21	PK	46.00	23.79	Vertical
3	600.9309	25.86	-0.33	25.53	PK	46.00	20.47	Vertical
4	711.6216	25.12	-0.18	24.94	PK	46.00	21.06	Vertical
5	818.4284	25.72	0.81	26.53	PK	46.00	19.47	Vertical
6	977.6677	26.53	2.99	29.52	PK	54.00	24.48	Vertical

Final Data List

NO.	Freq. [MHz]	Factor [dB/m]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]
1	55.2452	-11.37	16.45	40.00	23.55
2	462.0821	-4.33	20.92	46.00	25.08
3	600.9309	-0.33	24.42	46.00	21.58
4	711.6216	-0.18	23.83	46.00	22.17
5	818.4284	0.81	25.10	46.00	20.90
6	977.6677	2.99	28.09	54.00	25.91



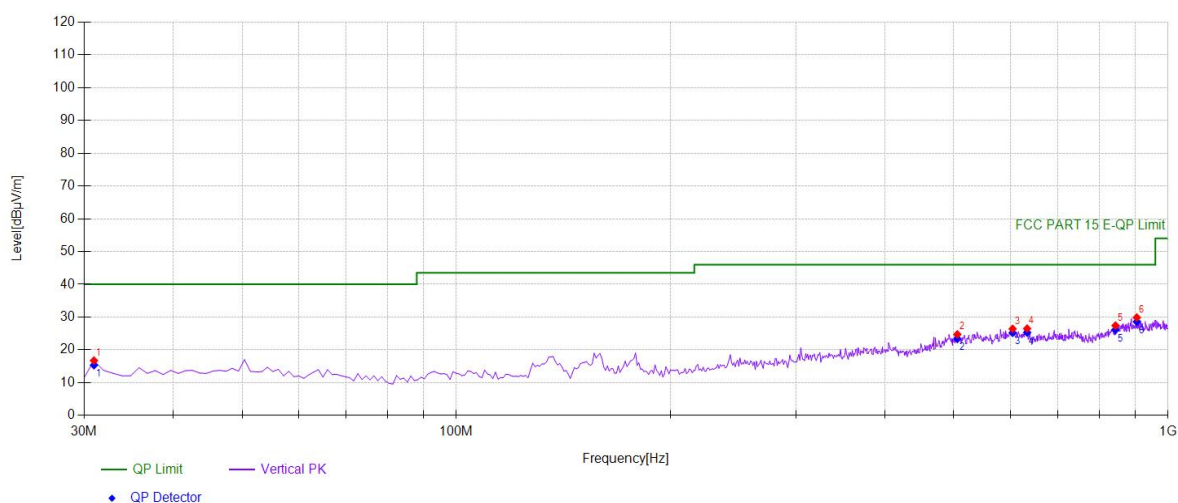
Suspected Data List

NO.	Freq. [MHz]	Reading [dBµV]	Factor [dB/m]	Level [dBµV/m]	Detector	Limit [dBµV/m]	Margin [dB]	Polarity
1	410.6206	27.63	-5.87	21.76	PK	46.00	24.24	Horizontal
2	491.2112	26.55	-3.97	22.58	PK	46.00	23.42	Horizontal
3	596.0761	24.97	-0.47	24.50	PK	46.00	21.50	Horizontal
4	618.4084	27.06	-1.29	25.77	PK	46.00	20.23	Horizontal
5	820.3704	26.46	0.83	27.29	PK	46.00	18.71	Horizontal
6	973.7838	26.56	3.11	29.67	PK	54.00	24.33	Horizontal

Final Data List

NO.	Freq. [MHz]	Factor [dB/m]	QP Value [dBµV/m]	QP Limit [dBµV/m]	QP Margin [dB]
1	410.6206	-5.87	20.59	46.00	25.41
2	491.2112	-3.97	21.09	46.00	24.91
3	596.0761	-0.47	23.01	46.00	22.99
4	618.4084	-1.29	24.46	46.00	21.54
5	820.3704	0.83	25.98	46.00	20.02
6	973.7838	3.11	28.27	54.00	25.73

Test mode: 802.11n(VHT20) Frequency(MHz): 5320

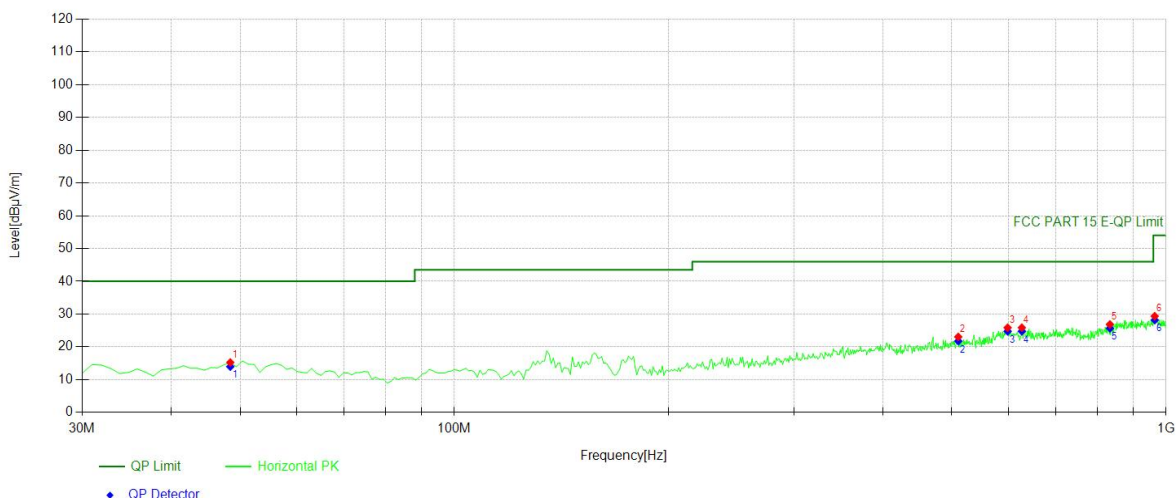


Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB/m]	Level [dBμV/m]	Detector	Limit [dBμV/m]	Margin [dB]	Polarity
1	30.971	30.37	-13.63	16.74	PK	40.00	23.26	Vertical
2	505.7758	28.76	-4.02	24.74	PK	46.00	21.26	Vertical
3	604.8148	26.98	-0.56	26.42	PK	46.00	19.58	Vertical
4	633.9439	27.77	-1.26	26.51	PK	46.00	19.49	Vertical
5	843.6737	26.24	1.18	27.42	PK	46.00	18.58	Vertical
6	903.8739	27.23	2.65	29.88	PK	46.00	16.12	Vertical

Final Data List

NO.	Freq. [MHz]	Factor [dB/m]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]
1	30.971	-13.63	15.34	40.00	24.66
2	505.7758	-4.02	23.34	46.00	22.66
3	604.8148	-0.56	25.20	46.00	20.80
4	633.9439	-1.26	25.29	46.00	20.71
5	843.6737	1.18	26.12	46.00	19.88
6	903.8739	2.65	28.58	46.00	17.42



Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB/m]	Level [dBμV/m]	Detector	Limit [dBμV/m]	Margin [dB]	Polarity
1	48.4484	26.17	-10.90	15.27	PK	40.00	24.73	Horizontal
2	510.6306	27.03	-3.97	23.06	PK	46.00	22.94	Horizontal
3	598.989	26.19	-0.32	25.87	PK	46.00	20.13	Horizontal
4	627.1471	27.16	-1.29	25.87	PK	46.00	20.13	Horizontal
5	833.964	25.94	0.92	26.86	PK	46.00	19.14	Horizontal
6	964.0741	26.01	3.37	29.38	PK	54.00	24.62	Horizontal

Final Data List

NO.	Freq. [MHz]	Factor [dB/m]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]
1	48.4484	-10.90	13.98	40.00	26.02
2	510.6306	-3.97	21.77	46.00	24.23
3	598.989	-0.32	24.76	46.00	21.24
4	627.1471	-1.29	24.76	46.00	21.24
5	833.964	0.92	25.67	46.00	20.33
6	964.0741	3.37	28.19	54.00	25.81