Testing Laboratory
3023

Test report No.: 2340267R-RFUSV03S-A

TEST REPORT

Product Name (PEC2311M)	WiFi 6 ax3000 2x2 dual concurrent MiniPCIe interface Module
Product Name (PCE2312M)	WiFi 6 ax3000 2x2 dual concurrent M.2 B key Module
Trademark	Senao
Model and /or type reference	PCE2311M, PCE2312M
FCC ID	U2M-PCE2311M
Applicant´s name / address	Senao Networks, Inc. 3F, No. 529, Chung Cheng Rd., Hsintien,Taipei,Taiwan
Manufacturer´s name	Senao Networks, Inc.
Test method requested, standard	FCC CFR Title 47 Part 15 Subpart E ANSI C63.4: 2014, ANSI C63.10: 2013 KDB Publication 789033
Verdict Summary	IN COMPLIANCE
Documented By (Senior Project Specialist / Joanne Lin)	Joanne Lin
Tested By (Senior Engineer / Ivan Chuang)	Ivan Chuang
Approved By (Senior Engineer / Alan Chen)	Alan Chen
Date of Receipt	2023/04/12
Date of Issue	2023/06/19
Report Version	V1.0

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Appendix 1: EUT Test Photographs
Appendix 2: Product Photos-Please refer to the file: 2340267R-Product Photos

Competences and Guarantees

DEKRA is a testing laboratory competent to carry out the tests described in this report.

In order to assure the traceability to other national and international laboratories, DEKRA has a calibration and maintenance program for its measurement equipment.

DEKRA guarantees the reliability of the data presented in this report, which is the result of the measurements and the tests performed to the item under test on the date and under the conditions stated in the report and it is based on the knowledge and technical facilities available at DEKRA at the time of performance of the test.

DEKRA is liable to the client for the maintenance of the confidentiality of all information related to the item under test and the results of the test.

The results presented in this Test Report apply only to the particular item under test established in this document.

General conditions

1. The test results relate only to the samples tested.
2. The test results shown in the test report are traceable to the national/international standard through the calibration report of the equipment and evaluated measurement uncertainty herein.
3. This report must not be used to claim product endorsement by TAF or any agency of the government.
4. The test report shall not be reproduced without the written approval of DEKRA Testing and Certification Co., Ltd.
5. Measurement uncertainties evaluated for each testing system and associated connections are given here to provide the system information for reference. Compliance determinations do not take into account measurement uncertainties for each testing system, but are based on the results of the compliance measurement.

Revision History

Report No.	Version	Description	Issued Date
2340267R-RFUSV03S-A	V1.0	Initial issue of report.	2023/06/19

1. General Information

1.1. EUT Description

Product Name (PEC2311M)	WiFi 6 ax3000 2x2 dual concurrent MiniPCIe interface Module
Product Name (PCE2312M)	WiFi 6 ax3000 2x2 dual concurrent M.2 B key Module
Trademark	Senao
Model and /or type reference	PCE2311M, PCE2312M
EUT Rated Voltage	DC 3.3V
EUT Test Voltage	DC 3.3V (by Test Fixture)
Frequency Range	802.11a/n/ac/ax-20 MHz: 5180-5240 MHz, 5745-5825 MHz 802.11n/ac/ax-40 MHz: 5190-5230 MHz, 5755-5795 MHz 802.11ac/ax-80 MHz: 5210 MHz, 5775 MHz
Number of Channels	802.11a/n/ac/ax-20 MHz: 9CH, 802.11n/ac/ax-40 MHz: 4CH 802.11ac/ax-80 MHz: 2CH
Data Rate	802.11a: 6-54 Mbps, 802.11n: up to 300 MHz 802.11ac: up to 866.7 MHz, 802.11ax: up to 1201 MHz
Type of Modulation	OFDM, BPSK, QPSK, 16QAM, 64QAM, 256QAM OFDMA, BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM
Channel Control	Auto

Antenna List

No.	Manufacturer	Part No.	Antenna Type	Peak Gain
1	AWAN	A8EEE-000012 WHITE	Dipole	5.33 dBi for 5150-5250 MHz 5.35 dBi for 5725-5850 MHz

Note: The antenna of EUT is conform to FCC 15.203. The antenna gain as by the manufacturer provided.

For power CDD Directional gain: 5.33 dBi for 5150-5250 MHz 5.35 dBi for 5725-5850 MHz
For CDD mode: 5150-5250 MHz: Directional gain = 5.33 dBi 5725-5850 MHz: Directional gain = 5.35 dBi (Directional gain = $G_{ANT\ MAX}$ + Array Gain, Array Gain = 0 dB for $N_{ANT} \leq 4$)

For power Beamforming Directional gain: 8.34 dBi for 5150-5250 MHz 8.36 dBi for 5725-5850 MHz
For Beamforming mode: 5150-5250 MHz: Directional gain = 8.34 dBi 5725-5850 MHz: Directional gain = 8.36 dBi Directional gain = $G_{ANT\ MAX}$ + Array Gain, Array Gain = 10*log(2) = 3.01 dB)

For PSD Directional gain: 8.34 dBi for 5150-5250 MHz 8.36 dBi for 5725-5850 MHz
For PSD mode: 5150-5250 MHz: Directional gain = 8.34 dBi 5725-5850 MHz: Directional gain = 8.36 dBi Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20})^2$ / N_{ANT}] dBi

802.11a/n/ac/ax-20 MHz Center Working Frequency of Each Channel:

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	40	5200	44	5220	48	5240
149	5745	153	5765	157	5785	161	5805
165	5825	--	--	--	--	--	--

802.11n/ac/ax-40 MHz Center Working Frequency of Each Channel:

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
38	5190	46	5230	151	5755	159	5795

802.11ac/ax-80 MHz Center Working Frequency of Each Channel:

Channel	Frequency (MHz)	Channel	Frequency (MHz)				
42	5210	155	5775				

Note:

1. This device is a WiFi 6 ax3000 2x2 dual concurrent MiniPCIe interface Module, WiFi 6 ax3000 2x2 dual concurrent M.2 B key Module with built-in WLAN, this report for 5GHz WLAN.
2. The different of each model is shown as below:

Model Number	Product Name
PEC2311M	WiFi 6 ax3000 2x2 dual concurrent MiniPCIe interface Module
PCE2312M	WiFi 6 ax3000 2x2 dual concurrent M.2 B key Module
Difference of interface, the PCE2311M is PCIe, and the PCE2312M is M.2. The identification of test sample is PEC2311M.	

3. Regarding to the operation frequency, the lowest, middle and highest frequency are selected to perform the test.
4. Lowest data rates are tested in each mode. Only worst case is shown in the report. (802.11a is 6Mbps、802.11ax-20 MHz/40 MHz/80 MHz is MCS0)
5. The CDD mode and Beamforming mode are presented in the power output test item. For other test items, CDD mode is the worst case for the final test and shown in this report.
6. The spectrum plot against conducted item only shows the worst case.
7. This device does not support partial RU function.
8. These tests were conducted on a sample for the purpose of demonstrating compliance of 802.11a/n/ac/ax transmitter with Part 15 Subpart E for Unlicensed National Information Infrastructure devices.

Test Mode	Mode 1	Transmit (802.11a-CDD)
		Transmit (802.11ax-20 MHz-CDD)
		Transmit (802.11ax-40 MHz-CDD)
		Transmit (802.11ax-80 MHz-CDD)
		Transmit (802.11ax-20 MHz-Beamforming)
		Transmit (802.11ax-40 MHz-Beamforming)
		Transmit (802.11ax-80 MHz-Beamforming)

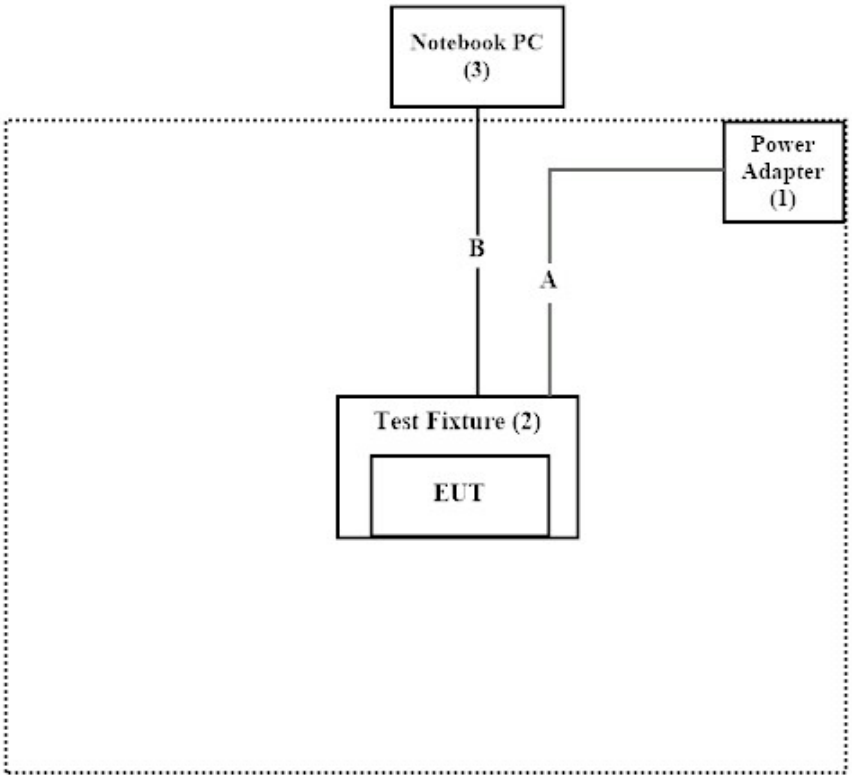
1.2. Tested System Datails

The types for all equipment, plus descriptions of all cables used in the tested system (including inserted cards) are:

Product		Manufacturer	Model No.	Serial No.	Power Cord
1	Power Adapter	I.T.E	MU30B1120250-A1	N/A	N/A
2	Test Fixture	N/A	N/A	N/A	N/A
3	Notebook PC	DELL	P62G	229FJC2	N/A

Cable Type		Cable Description
A	Power Cable	Non-shielded, 1.5m
B	LAN Cable	Non-shielded, 3m

1.3. Configuration of tested System



1.4. EUT Exercise Software

1	Setup the EUT as shown in Section 1.3.
2	Execute software “QATOOL Version 0.0.2.78” on the Notebook PC.
3	Configure the test mode, the test channel, and the data rate.
4	Press “OK” to start the continuous Transmit.
5	Verify that the EUT works properly.

1.5. Test Facility

Ambient conditions in the laboratory:

Performed Item	Items	Required	Actual
Conducted Emission	Temperature (°C)	10~40 °C	21.7 °C
	Humidity (%RH)	10~90 %	53.4 %
Radiated Emission	Temperature (°C)	10~40 °C	23.8 °C
	Humidity (%RH)	10~90 %	55.7 %
Conductive	Temperature (°C)	10~40 °C	23.4 °C
	Humidity (%RH)	10~90 %	61.4 %

USA	FCC Registration Number: TW0033
Canada	CAB Identifier Number: TW3023 / Company Number: 26930

Site Description	Accredited by TAF
	Accredited Number: 3023

Test Laboratory	DEKRA Testing and Certification Co., Ltd.
	Linkou Laboratory
Address	No.5-22, Ruishukeng Linkou District, New Taipei City, 24451, Taiwan, R.O.C.
Performed Location	No. 26, Huaya 1st Rd., Guishan Dist.,Taoyuan City 333411, Taiwan, R.O.C.
Phone Number	+886-3-275-7255
Fax Number	+886-3-327-8031

1.6. List of Test Equipment

For Conduction Measurements / HY-SR01

	Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Due Date
V	EMI Test Receiver	R&S	ESR7	101601	2022/06/23	2023/06/22
V	Two-Line V-Network	R&S	ENV216	101306	2023/03/16	2024/03/15
V	Two-Line V-Network	R&S	ENV216	101307	2022/07/04	2023/07/03
V	Coaxial Cable	SUHNER	RG400_BNC	RF001	2023/01/10	2024/01/09

Note:

1. All equipments are calibrated every one year.
2. The test instruments marked with "V" are used to measure the final test results.
3. Test Software Version: e3 230303 dekra V9.

For Conducted Measurements / HY-SR02

	Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Due Date
V	Spectrum Analyzer	R&S	FSV30	103466	2022/12/22	2023/12/21
V	Peak Power Analyzer	KEYSIGHT	8990B	MY51000539	2022/08/06	2023/08/05
V	Wideband Power Sensor	KEYSIGHT	N1923A	MY59240002	2022/08/05	2023/08/04
V	Wideband Power Sensor	KEYSIGHT	N1923A	MY59240003	2022/08/05	2023/08/04

Note:

1. All equipments are calibrated every one year.
2. The test instruments marked with "V" are used to measure the final test results.
3. Test Software Version: RF Conducted Test Tools R3 V3.0.0.14.

For Radiated Measurements / HY-CB03

	Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Due Date
V	Loop Antenna	AMETEK	HLA6121	49611	2023/02/21	2024/02/20
V	Bi-Log Antenna	SCHWARZBECK	VULB9168	9168-675	2021/08/11	2023/08/10
V	Horn Antenna	RF SPIN	DRH18-E	210507A18ES	2023/05/11	2024/05/10
V	Horn Antenna	Com-Power	AH-840	101100	2021/10/04	2023/10/03
V	Pre-Amplifier	SGH	SGH0301-9	20211007-10	2023/01/10	2024/01/09
V	Pre-Amplifier	SGH	PRAMP118	20200701	2023/01/10	2024/01/09
V	Pre-Amplifier	EMCI	EMC05820SE	980310	2023/01/10	2024/01/09
V	Pre-Amplifier	EMCI	EMC184045SE	980369	2023/01/10	2024/01/09
	Coaxial Cable	EMCI	EMC102-KM-KM-600	1160314		
	Coaxial Cable	EMCI	EMC102-KM-KM-7000	170242		
V	Filter	MICRO TRONICS	BRM50702	G269	2023/01/05	2024/01/04
	Filter	MICRO TRONICS	BRM50716	G196	2023/01/05	2024/01/04
V	EMI Test Receiver	R&S	ESR	102793	2021/12/15	2022/12/14
V	Spectrum Analyzer	R&S	FSV3044	101114	2023/02/16	2024/02/15
V	Coaxial Cable	SGH	SGH18	2021005-1	2022/03/18	2023/03/17
	Coaxial Cable	SGH	SGH18	202108-4		
	Coaxial Cable	SGH	SGH18	GD20110223-1		
	Coaxial Cable	SGH	HA800	GD20110222-3		

Note:

1. Bi-Log Antenna and Horn Antenna(AH-840) is calibrated every two years, the other equipments are calibrated every one year.
2. The test instruments marked with "V" are used to measure the final test results.
3. Test Software Version: e3 230303 dekra V9.

1.7. Uncertainty

Uncertainties have been calculated according to the DEKRA internal document.

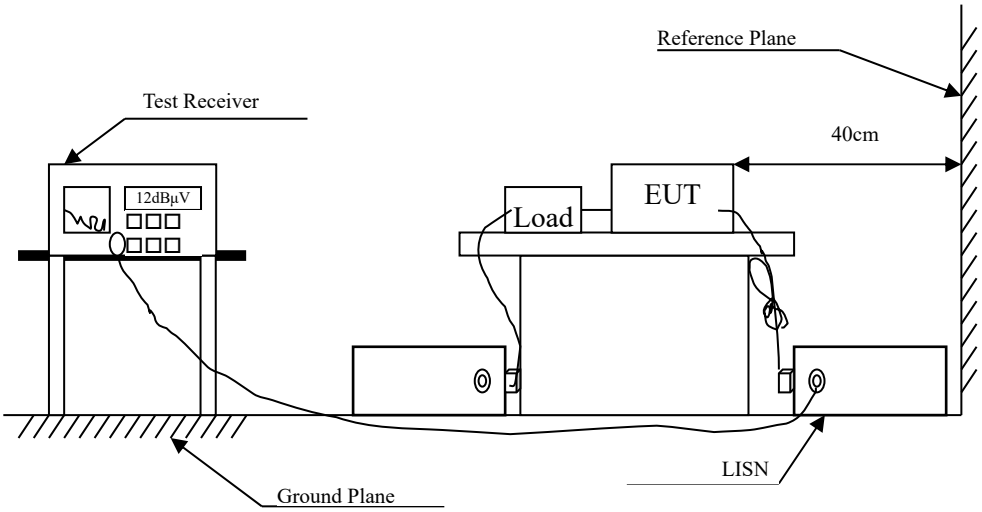
The reported expanded uncertainties are based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95%.

Measurement uncertainties evaluated for each testing system and associated connections are given here to provide the system information for reference. Compliance determinations do not take into account measurement uncertainties for each testing system, but are based on the results of the compliance measurement.

Test item	**Uncertainty**
Conducted Emission	±3.50 dB
Maximum conducted output power	Spectrum Analyzer: ±2.14 dB Power Meter: ±1.05 dB
Maximum Power Spectral Density	±2.14 dB
Radiated Emission	9 kHz~30 MHz: ±3.88 dB 30 MHz~1 GHz: ±4.42 dB 1 GHz~18 GHz: ±4.28 dB 18 GHz~40 GHz: ±3.90 dB
Band Edge	9 kHz~30 MHz: ±3.88 dB 30 MHz~1 GHz: ±4.42 dB 1 GHz~18 GHz: ±4.28 dB 18 GHz~40 GHz: ±3.90 dB
Occupied Bandwidth	±1580.61 Hz
Duty Cycle	±0.53 %

2. Conducted Emission

2.1. Test Setup



2.2. Limits

FCC Part 15 Subpart C Paragraph 15.207 (dBµV) Limit		
Frequency MHz	Limits	
	QP	AV
0.15 - 0.50	66-56	56-46
0.50 - 5.0	56	46
5.0 - 30	60	50

Remarks : In the above table, the tighter limit applies at the band edges.

2.3. Test Procedure

The EUT and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50 ohm /50µH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm /50µH coupling impedance with 50ohm termination. (Please refers to the block diagram of the test setup and photographs.)

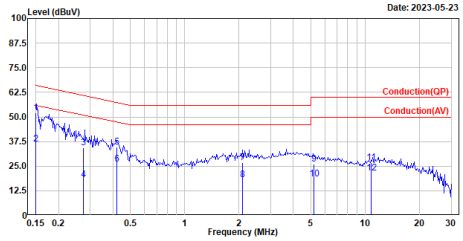
Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.4:2014 on conducted measurement.

Conducted emissions were invested over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9 kHz.

2.4. Test Result of Conducted Emission

M/N: PCE2311M

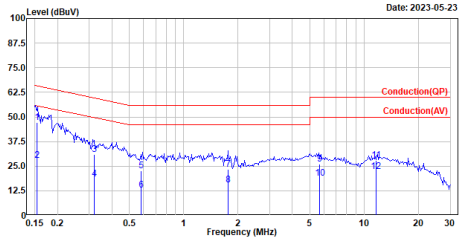
Site :HY-SR01
Condition :Line
Mode :TX_ax80_5775MHz
test by :Jimmy



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	0.150	52.02	65.98	-13.96	42.34	9.68	QP
2	0.150	36.38	55.98	-19.60	26.70	9.68	Average
3	0.274	34.31	61.00	-26.69	24.63	9.68	QP
4	0.274	18.05	51.00	-32.95	8.37	9.68	Average
5	0.423	34.88	57.39	-22.51	25.20	9.68	QP
6	0.423	25.87	47.39	-21.52	16.19	9.68	Average
7	2.094	26.64	56.00	-29.36	16.79	9.85	QP
8	2.094	18.24	46.00	-27.76	8.39	9.85	Average
9	5.213	25.96	60.00	-34.04	15.12	10.84	QP
10	5.213	18.39	50.00	-31.61	7.55	10.84	Average
11	10.794	26.66	60.00	-33.34	15.87	10.79	QP
12	10.794	21.60	50.00	-28.40	10.81	10.79	Average

Note:
1. Level = Read Level + Factor
2. Factor = LISN insertion loss + Cable loss
3. Over Limit = Level - Limit Line

Site :HY-SR01
Condition :Neutral
Mode :TX_ax80_5775MHz
test by :Jimmy

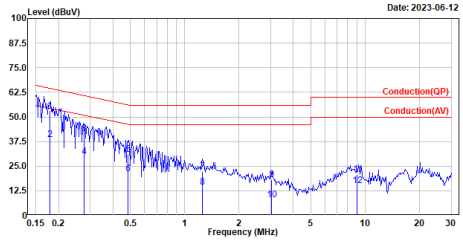


No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	0.154	47.15	65.76	-18.61	37.49	9.66	QP
2	0.154	27.82	55.76	-27.94	18.16	9.66	Average
3	0.319	31.04	59.74	-28.70	21.39	9.65	QP
4	0.319	18.53	49.74	-31.21	8.88	9.65	Average
5	0.580	22.46	56.00	-33.54	12.80	9.66	QP
6	0.580	12.84	46.00	-33.16	3.18	9.66	Average
7	1.759	23.54	56.00	-32.46	13.76	9.78	QP
8	1.759	15.60	46.00	-30.40	5.82	9.78	Average
9	5.651	26.00	60.00	-34.00	15.18	10.82	QP
10	5.651	18.81	50.00	-31.19	7.99	10.82	Average
11	11.586	27.95	60.00	-32.05	17.14	10.81	QP
12	11.586	22.42	50.00	-27.58	11.61	10.81	Average

Note:
1. Level = Read Level + Factor
2. Factor = LISN insertion loss + Cable loss
3. Over Limit = Level - Limit Line

M/N: PCE2312M

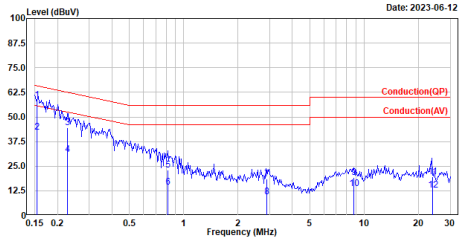
Site :HY-SR01
Condition :Line
Mode :TX_ax20_5180MHz
test by :Shane



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	0.180	53.26	64.50	-11.24	43.58	9.68	QP
2	0.180	38.59	54.50	-15.91	28.91	9.68	Average
3	0.277	41.69	60.91	-19.22	32.01	9.68	QP
4	0.277	29.79	50.91	-21.12	20.11	9.68	Average
5	0.486	30.87	56.23	-25.36	21.19	9.68	QP
6	0.486	21.16	46.23	-25.07	11.48	9.68	Average
7	1.248	22.43	56.00	-33.57	12.69	9.74	QP
8	1.248	14.49	46.00	-31.51	4.75	9.74	Average
9	3.032	18.09	56.00	-37.91	7.92	10.17	QP
10	3.032	7.97	46.00	-38.03	-2.20	10.17	Average
11	9.039	20.59	60.00	-39.41	9.78	10.81	QP
12	9.039	14.94	50.00	-35.06	4.13	10.81	Average

Note:
1. Level = Read Level + Factor
2. Factor = LISN insertion loss + Cable loss
3. Over Limit = Level - Limit Line

Site :HY-SR01
Condition :Neutral
Mode :TX_ax20_5180MHz
test by :Shane



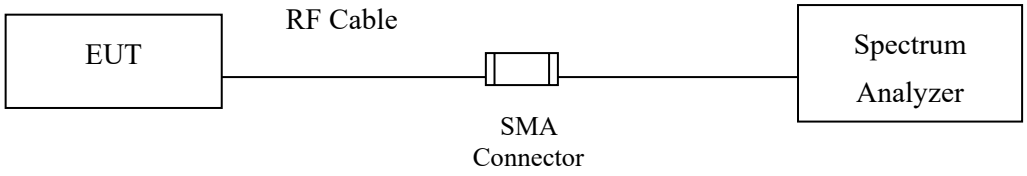
No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	0.155	58.35	65.75	-7.40	48.69	9.66	QP
2	0.155	42.40	55.75	-13.35	32.74	9.66	Average
3	0.226	44.37	62.58	-18.21	34.71	9.66	QP
4	0.226	30.86	52.58	-21.72	21.20	9.66	Average
5	0.816	22.85	56.00	-33.15	13.16	9.69	QP
6	0.816	14.30	46.00	-31.70	4.61	9.69	Average
7	2.898	18.65	56.00	-37.35	8.54	10.11	QP
8	2.898	9.61	46.00	-36.39	-0.50	10.11	Average
9	8.776	19.14	60.00	-40.86	8.34	10.80	QP
10	8.776	13.50	50.00	-36.50	2.70	10.80	Average
11	23.910	19.45	60.00	-40.55	8.74	10.71	QP
12	23.910	12.92	50.00	-37.08	2.21	10.71	Average

Note:
1. Level = Read Level + Factor
2. Factor = LISN insertion loss + Cable loss
3. Over Limit = Level - Limit Line

3. Maximum conducted output power

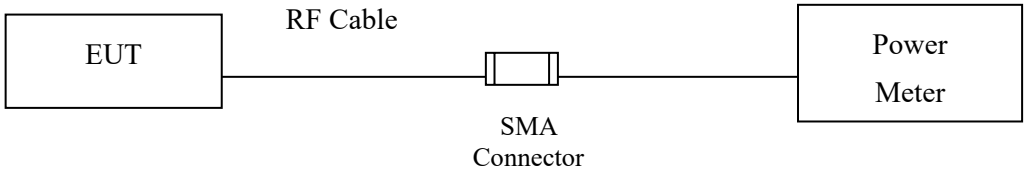
3.1. Test Setup

26 dB Occupied Bandwidth

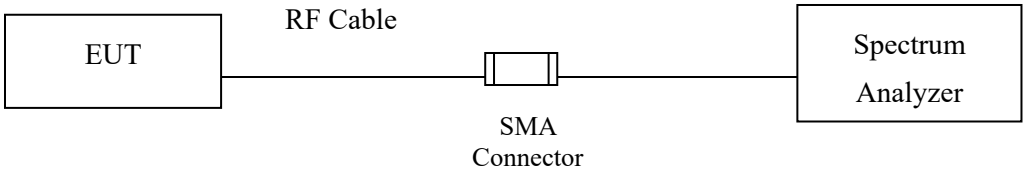


Conduction Power Measurement

Conduction Power Measurement (for 802.11an)



Conduction Power Measurement (for 802.11ac/ax)



3.2. Limits

For the band 5.15-5.25 GHz,

(i) For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. provided the maximum antenna gain does not exceed 6 dBi. 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).

(ii) For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition. 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.

(iii) For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. Fixed point-topoint 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.

(iv) For mobile and portable client devices in the 5.15-5.25 GHz band, 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. In addition. 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, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm 10 log B, where B is the 99% 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, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition. 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 UNII 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.

The maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For CDD mode:

5150-5250 MHz: Directional gain = 5.33 dBi, Limit= 30 dBm

5725-5850 MHz: Directional gain = 5.35 dBi, Limit= 30 dBm

(Directional gain = $G_{ANT\ MAX}$ + Array Gain, Array Gain = 0 dB for $N_{ANT} \leq 4$)

For Beamforming mode:

5150-5250 MHz: Directional gain = 8.34 dBi, Limit= 27.66 dBm

5725-5850 MHz: Directional gain = 8.36 dBi, Limit= 27.64 dBm

(Directional gain = $G_{ANT\ MAX}$ + Array Gain, Array Gain = 10*log(2) = 3.01 dB)

3.3. Test Procedure

As an alternative to FCC KDB-789033, the EUT maximum conducted output power was measured with an average power meter employing a video bandwidth greater the 6dB BW of the emission under test. Maximum conducted output power was read directly from the meter across all data rates, and across three channels within each sub-band. Special care was used to make sure that the EUT was transmitting in continuous mode. This method exceeds the limitations of FCC KDB-789033, and provides more accurate measurements.

802.11an (BW≦40MHz) Maximum conducted output power using KDB 789033 section E)3)b) Method PM-G (Measurement using a gated RF average power meter)
Note: the power meter have a video bandwidth that is greater than or equal to the measurement bandwidth, (Anritsu/ MA2411B video bandwidth: 65MHz)

802.11ac (BW=80MHz) Maximum conducted output power using KDB 789033 section E)2)b) Method SA-1 (trace averaging with the EUT transmitting at full power throughout each sweep).

When transmitted signals consist of two or more non-contiguous spectrum segments (e.g., 80+80 MHz mode) or when a single spectrum segment of a transmission crosses the boundary between two adjacent U-NII bands, KDB 644545 D03 section D) procedure is used for measurements.

3.4. Test Result of Maximum conducted output power

Product : WiFi 6 ax3000 2x2 dual concurrent MiniPCIe interface Module
Test Item : Maximum conducted output power
Test Mode : Transmit (802.11a-CDD)
Test Date : 2023/06/07

Maximum conducted output power Measurement:

Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	Chain A Power (dBm)	Chain B Power (dBm)	Duty factor (dB)	Output Power (dBm)	Output Power Limit	
							(dBm)	dBm+10log(BW)
36	5180	--	19.77	19.96	--	22.88	30	--
44	5220	--	20.95	21.11	--	24.04	30	--
48	5240	--	22.65	22.96	--	25.82	30	--
149	5745	--	22.45	22.69	--	25.58	30	
157	5785	--	22.34	22.70	--	25.53	30	--
165	5825	--	21.85	22.16	--	25.02	30	--

Note:

1. Output Power Value (dBm) = 10*LOG (Chain A(mW) + Chain B(mW))
2. 26dB Bandwidth is the bandwidth of chain A or B whichever is less bandwidth, output power limitation is more stringent.

Product	:	WiFi 6 ax3000 2x2 dual concurrent MiniPCIe interface Module
Test Item	:	Maximum conducted output power
Test Mode	:	Transmit (802.11ax-20 MHz-CDD)
Test Date	:	2023/06/07

Maximum conducted output power Measurement:

Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	Chain A Power (dBm)	Chain B Power (dBm)	Duty factor (dB)	Output Power (dBm)	Output Power Limit	
							(dBm)	dBm+10log(BW)
36	5180	--	19.45	19.61	--	22.54	30	--
44	5220	--	21.02	21.24	--	24.14	30	--
48	5240	--	22.17	22.46	--	25.33	30	--
149	5745	--	21.68	22.04	--	24.87	30	--
157	5785	--	21.72	22.14	--	24.95	30	--
165	5825	--	21.15	21.64	--	24.41	30	--

Note:

1. Output Power Value (dBm) = 10*LOG (Chain A(mW) + Chain B(mW))
2. 26dB Bandwidth is the bandwidth of chain A or B whichever is less bandwidth, output power limitation is more stringent.

Product	:	WiFi 6 ax3000 2x2 dual concurrent MiniPCIe interface Module
Test Item	:	Maximum conducted output power
Test Mode	:	Transmit (802.11ax-40 MHz-CDD)
Test Date	:	2023/06/07

Maximum conducted output power Measurement:

Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	Chain A Power (dBm)	Chain B Power (dBm)	Duty factor (dB)	Output Power (dBm)	Output Power Limit	
							(dBm)	dBm+10log(BW)
38	5190	--	15.91	15.98	--	18.95	30	--
46	5230	--	19.45	19.58	--	22.52	30	--
151	5755	--	21.92	22.17	--	25.05	30	--
159	5795	--	20.62	20.92	--	23.78	30	--

Note:

1. Output Power Value (dBm) = 10*LOG (Chain A(mW) + Chain B(mW))
2. 26dB Bandwidth is the bandwidth of chain A or B whichever is less bandwidth, output power limitation is more stringent.

Product : WiFi 6 ax3000 2x2 dual concurrent MiniPCIe interface Module
Test Item : Maximum conducted output power
Test Mode : Transmit (802.11ax-80 MHz-CDD)
Test Date : 2023/06/07

Maximum conducted output power Measurement

Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	Chain A Power (dBm)	Chain B Power (dBm)	Duty factor (dB)	Output Power (dBm)	Output Power Limit	
							(dBm)	dBm+10log(BW)
42	5210	--	12.45	12.55	--	15.51	30	--
155	5775	--	18.45	18.68	--	21.57	30	--

Note:
1. Output Power Value (dBm) = 10*LOG (Chain A(mW) + Chain B(mW))
2. 26dB Bandwidth is the bandwidth of chain A or B whichever is less bandwidth, output power limitation is more stringent.

Product : WiFi 6 ax3000 2x2 dual concurrent MiniPCIe interface Module
Test Item : Maximum conducted output power
Test Mode : Transmit (802.11ax-20 MHz-Beamforming)
Test Date : 2023/06/07

Maximum conducted output power Measurement:

Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	Chain A Power (dBm)	Chain B Power (dBm)	Duty factor (dB)	Output Power (dBm)	Output Power Limit	
							(dBm)	dBm+10log(BW)
36	5180	--	16.44	16.60	--	19.53	27.66	--
44	5220	--	18.01	18.23	--	21.13	27.66	--
48	5240	--	19.16	19.45	--	22.32	27.66	--
149	5745	--	18.67	19.03	--	21.86	27.64	--
157	5785	--	18.71	19.13	--	21.94	27.64	--
165	5825	--	18.14	18.63	--	21.40	27.64	--

Note:
1. Output Power Value (dBm) = 10*LOG (Chain A(mW) + Chain B(mW))
2. 26dB Bandwidth is the bandwidth of chain A or B whichever is less bandwidth, output power limitation is more stringent.

Product	:	WiFi 6 ax3000 2x2 dual concurrent MiniPCIe interface Module
Test Item	:	Maximum conducted output power
Test Mode	:	Transmit (802.11ax-40 MHz-Beamforming)
Test Date	:	2023/06/07

Maximum conducted output power Measurement:

Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	Chain A Power (dBm)	Chain B Power (dBm)	Duty factor (dB)	Output Power (dBm)	Output Power Limit	
							(dBm)	dBm+10log(BW)
38	5190	--	12.90	12.97	--	15.94	27.66	--
46	5230	--	16.44	16.57	--	19.51	27.66	--
151	5755	--	18.91	19.16	--	22.04	27.64	--
159	5795	--	17.61	17.91	--	20.77	27.64	--

Note:

1. Output Power Value (dBm) = 10*LOG (Chain A(mW) + Chain B(mW))
2. 26dB Bandwidth is the bandwidth of chain A or B whichever is less bandwidth, output power limitation is more stringent.

Product : WiFi 6 ax3000 2x2 dual concurrent MiniPCIe interface Module
Test Item : Maximum conducted output power
Test Mode : Transmit (802.11ax-80 MHz-Beamforming)
Test Date : 2023/06/07

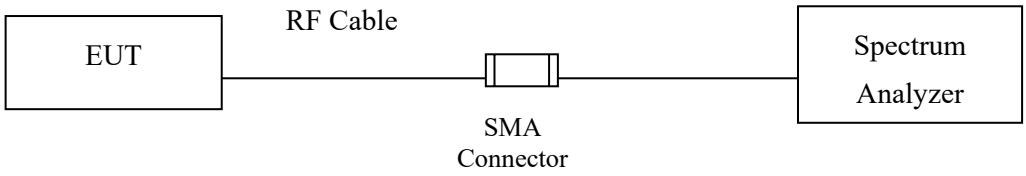
Maximum conducted output power Measurement

Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	Chain A Power (dBm)	Chain B Power (dBm)	Duty factor (dB)	Output Power (dBm)	Output Power Limit	
							(dBm)	dBm+10log(BW)
42	5210	--	9.44	9.54	--	12.50	27.66	--
155	5775	--	15.44	15.67	--	18.56	27.64	--

Note:
1. Output Power Value (dBm) = 10*LOG (Chain A(mW) + Chain B(mW))
2. 26dB Bandwidth is the bandwidth of chain A or B whichever is less bandwidth, output power limitation is more stringent.

4. Maximum Power Spectral Density

4.1. Test Setup



4.2. Limits

For the band 5.15-5.25 GHz,

(i) For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(ii) For an indoor access point operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(iii) For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. Fixed point-topoint U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or 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 conducted output power and 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.

(iv) For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, 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, the maximum 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 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 UNII 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.

The maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

5150-5250 MHz: Directional gain = 8.34Bi, Limit= 14.66 dBm
5725-5850 MHz: Directional gain = 8.36Bi, Limit= 27.64 dBm
Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20})^2$ / N_{ANT}] dBi

4.3. Test Procedure

The EUT was setup to ANSI C63.10, 2013; tested to UNII test procedure of FCC KDB-789033 for compliance to FCC 47CFR Subpart E requirements.
The Peak Power Spectral Density using KDB 789033 section F) procedure, Create an average power spectrum for the EUT operating mode being tested by following the instructions in section E)2) for measuring maximum conducted output power using a spectrum analyzer.
SA-1 method is selected to run the test.

4.4. Test Result of Maximum Power Spectral Density

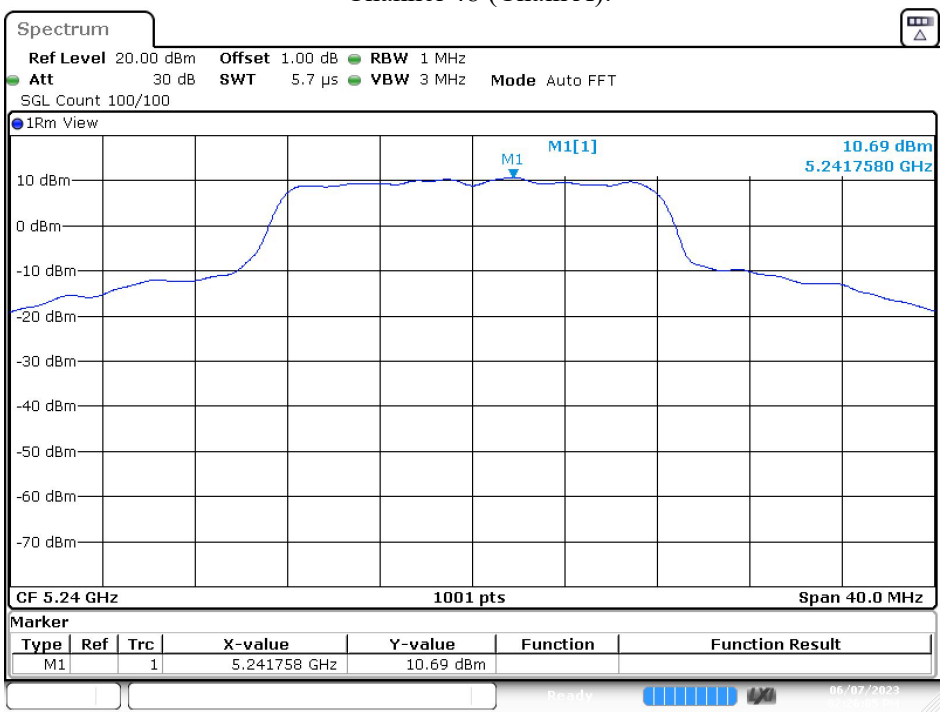
Product : WiFi 6 ax3000 2x2 dual concurrent MiniPCIe interface Module
Test Item : Maximum Power Spectral Density
Test Mode : Transmit (802.11a-CDD)

Channel No.	Frequency (MHz)	Data Rate (Mbps)	Chain	PPSD/MHz (dBm)	Duty factor (dB)	Total PPSD/MHz (dBm)	Limit (dBm)	Result
36	5180	6	A	7.75	0.17	11.20	14.66	Pass
			B	8.27				
44	5220	6	A	8.97	0.17	12.06	14.66	Pass
			B	8.80				
48	5240	6	A	10.69	0.17	13.74	14.66	Pass
			B	10.44				

Channel No.	Frequency (MHz)	Data Rate (Mbps)	Chain	PPSD/MHz (dBm)	Duty factor (dB)	Total PPSD/MHz (dBm)	Limit (dBm)	Result
149	5745	6	A	7.56	0.17	10.85	27.64	Pass
			B	7.79				
157	5785	6	A	7.81	0.17	11.14	27.64	Pass
			B	8.11				
165	5825	6	A	6.77	0.17	10.07	27.64	Pass
			B	7.02				

Note: Total PPSD = 10*log(Chain A (mW) + Chain B (mW) + Duty factor.

Channel 48 (Chain A):



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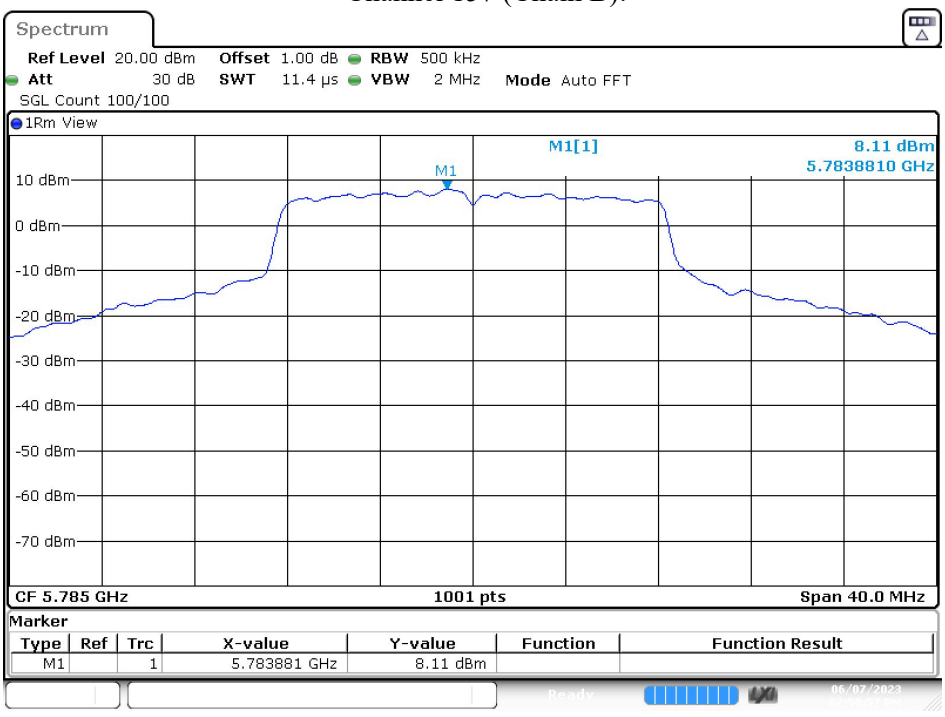
Channel 157 (Chain B):



Date: 7.JUN.2023 14:59:56

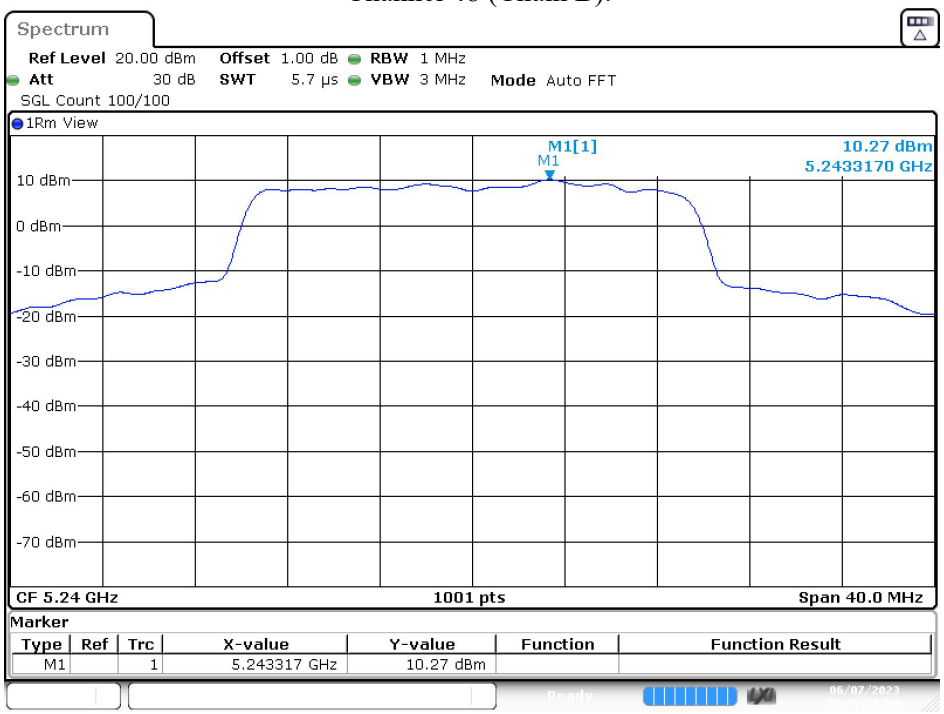
Product : WiFi 6 ax3000 2x2 dual concurrent MiniPCIe interface Module
Test Item : Maximum Power Spectral Density
Test Mode : Transmit (802.11ax-20 MHz-CDD)

Channel No.	Frequency (MHz)	Data Rate	Chain	PPSD/MHz (dBm)	Duty factor (dB)	Total PPSD/MHz (dBm)	Limit (dBm)	Result
36	5180	MCS0	A	6.74	0.25	9.86	14.66	Pass
			B	6.46				
44	5220	MCS0	A	8.30	0.25	11.73	14.66	Pass
			B	8.63				
48	5240	MCS0	A	9.90	0.25	13.35	14.66	Pass
			B	10.27				

Channel No.	Frequency (MHz)	Data Rate	Chain	PPSD/MHz (dBm)	Duty factor (dB)	Total PPSD/MHz (dBm)	Limit (dBm)	Result
149	5745	MCS0	A	6.23	0.25	9.62	27.64	Pass
			B	6.50				
157	5785	MCS0	A	6.09	0.25	9.50	27.64	Pass
			B	6.39				
165	5825	MCS0	A	5.39	0.25	8.82	27.64	Pass
			B	5.73				

Note: Total PPSD = 10*log(Chain A (mW) + Chain B (mW) + Duty factor.

Channel 48 (Chain B):



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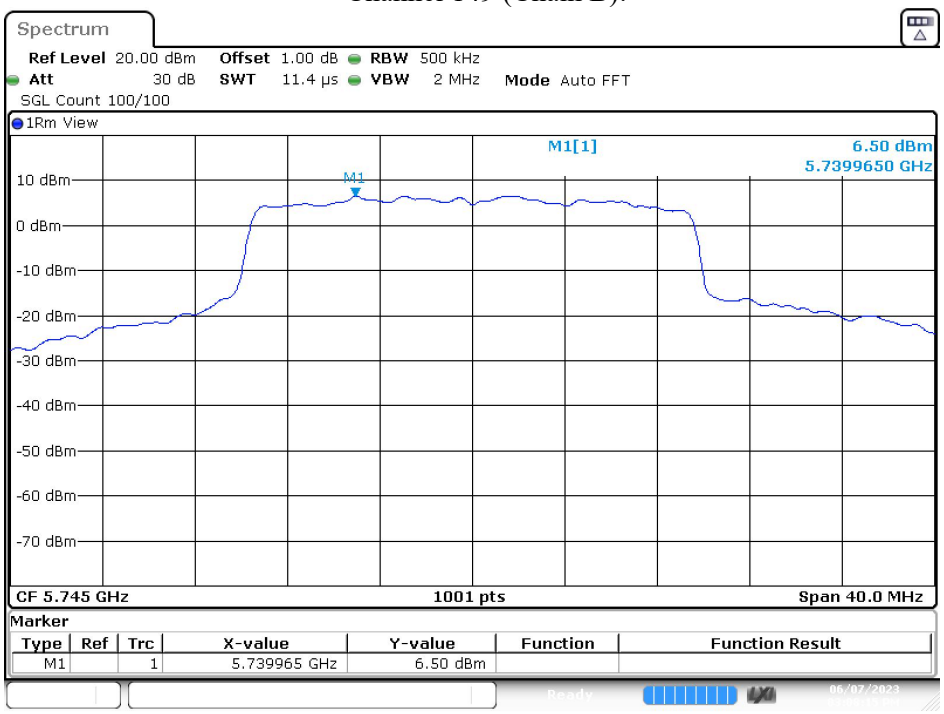
Channel 149 (Chain B):



Date: 7.JUN.2023 15:08:16

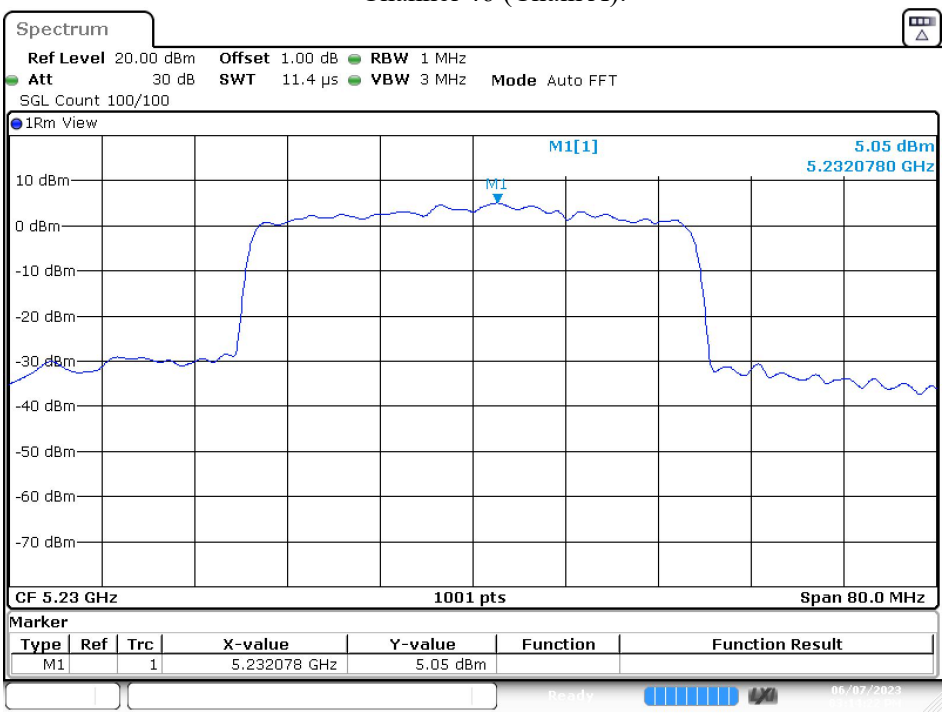
Product : WiFi 6 ax3000 2x2 dual concurrent MiniPCIe interface Module
Test Item : Maximum Power Spectral Density
Test Mode : Transmit (802.11ax-40 MHz-CDD)

Channel No.	Frequency (MHz)	Data Rate	Chain	PPSD/MHz (dBm)	Duty factor (dB)	Total PPSD/MHz (dBm)	Limit (dBm)	Result
38	5190	MCS0	A	0.89	0.44	4.65	14.66	Pass
			B	1.50				
46	5230	MCS0	A	5.05	0.44	8.05	14.66	Pass
			B	4.11				

Channel No.	Frequency (MHz)	Data Rate	Chain	PPSD/MHz (dBm)	Duty factor (dB)	Total PPSD/MHz (dBm)	Limit (dBm)	Result
151	5755	MCS0	A	4.15	0.44	7.75	27.64	Pass
			B	4.46				
159	5795	MCS0	A	2.78	0.44	6.55	27.64	Pass
			B	3.40				

Note: Total PPSD = 10*log(Chain A (mW) + Chain B (mW) + Duty factor.

Channel 46 (Chain A):



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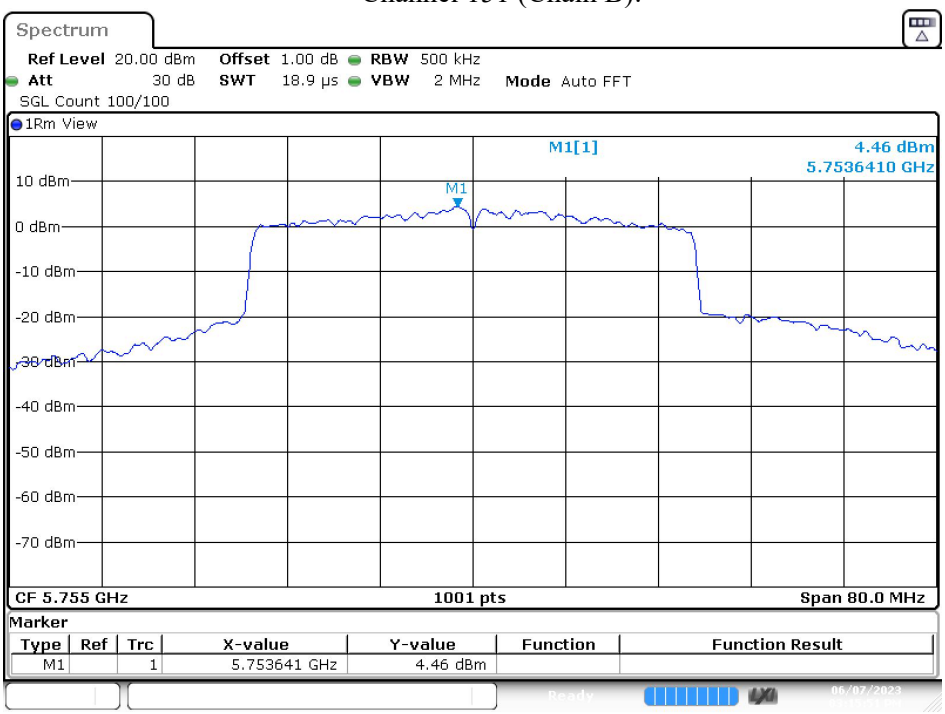
Channel 151 (Chain B):



Date: 7.JUN.2023 15:15:51

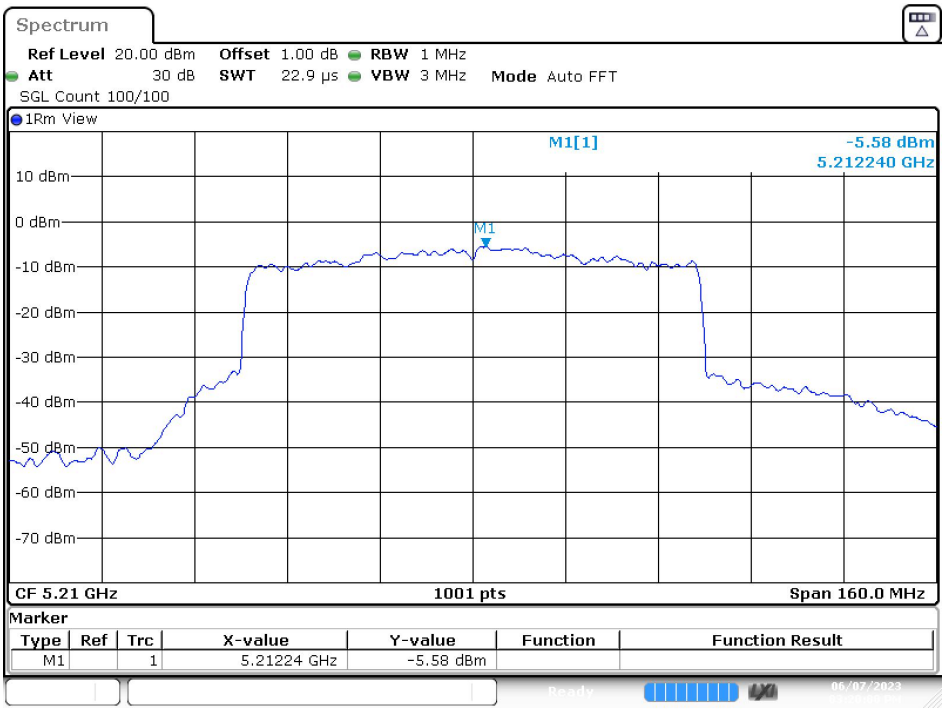
Product : WiFi 6 ax3000 2x2 dual concurrent MiniPCIe interface Module
Test Item : Maximum Power Spectral Density
Test Mode : Transmit (802.11ax-80 MHz-CDD)

Channel No.	Frequency (MHz)	Data Rate	Chain	PPSD/MHz (dBm)	Duty factor (dB)	Total PPSD/MHz (dBm)	Limit (dBm)	Result
42	5210	MCS0	A	-5.82	0.79	-1.90	14.66	Pass
			B	-5.58				

Channel No.	Frequency (MHz)	Data Rate	Chain	PPSD/MHz (dBm)	Duty factor (dB)	Total PPSD/MHz (dBm)	Limit (dBm)	Result
155	5775	MCS0	A	-2.91	0.79	1.29	27.64	Pass
			B	-2.15				

Note: Total PPSD = 10*log(Chain A (mW) + Chain B (mW) + Duty factor.

Channel 42 (Chain B):



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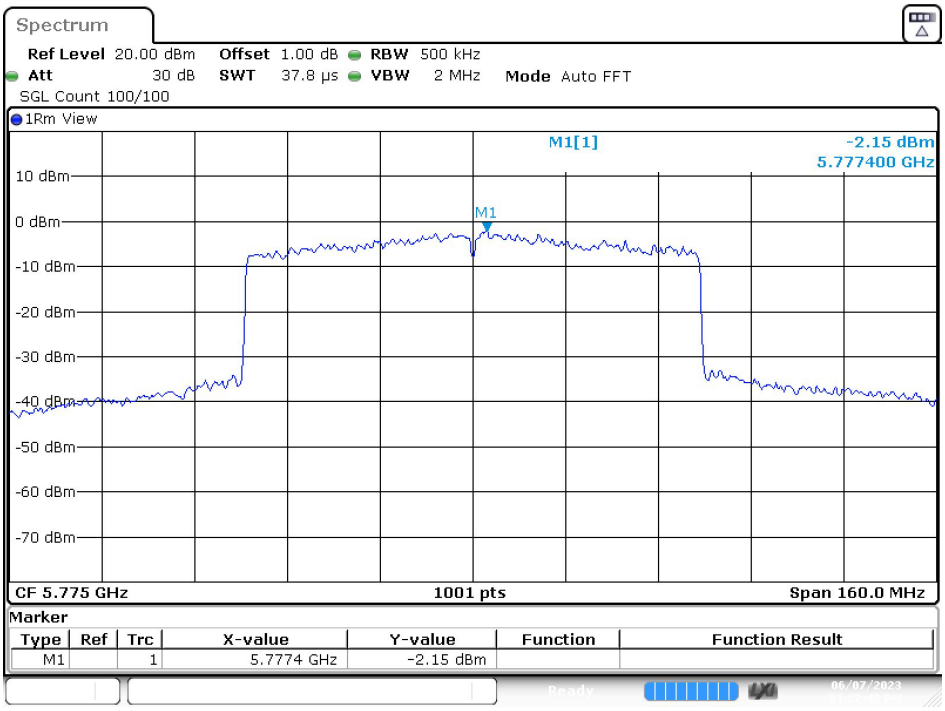
Channel 155 (Chain B):

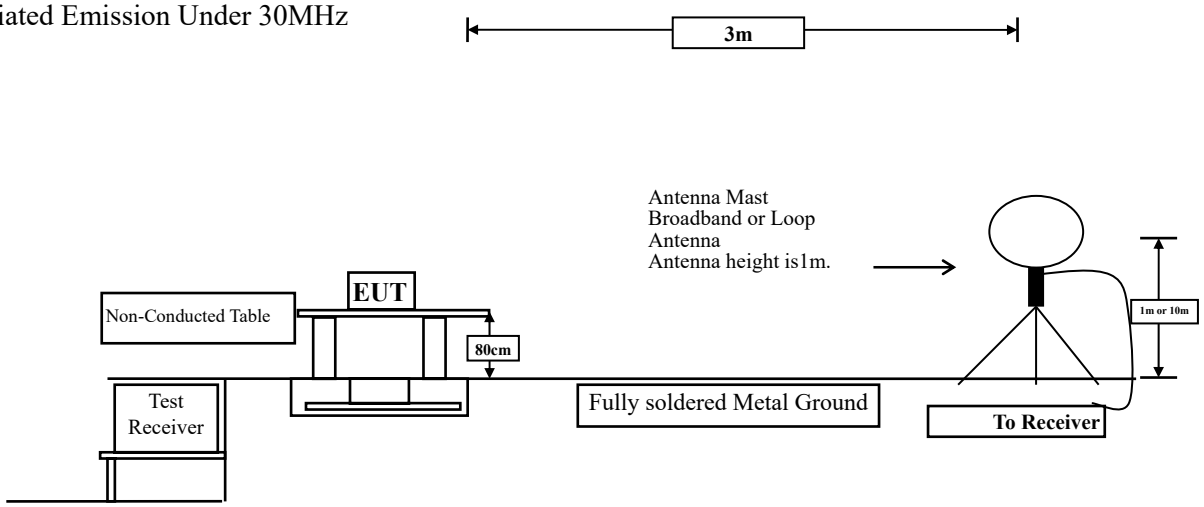


Date: 7.JUN.2023 15:22:50

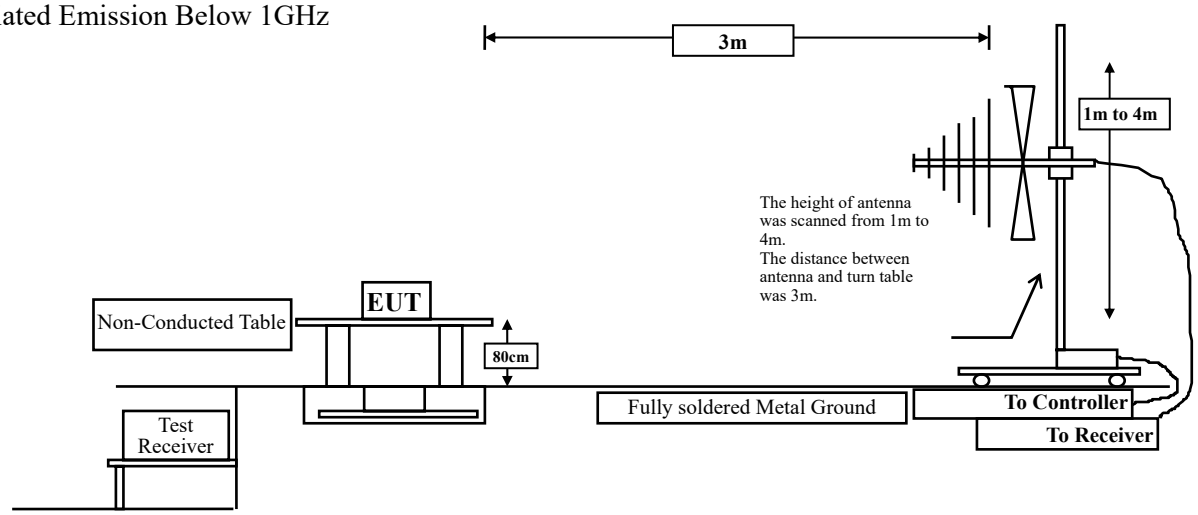
5. Radiated Emission

5.1. Test Setup

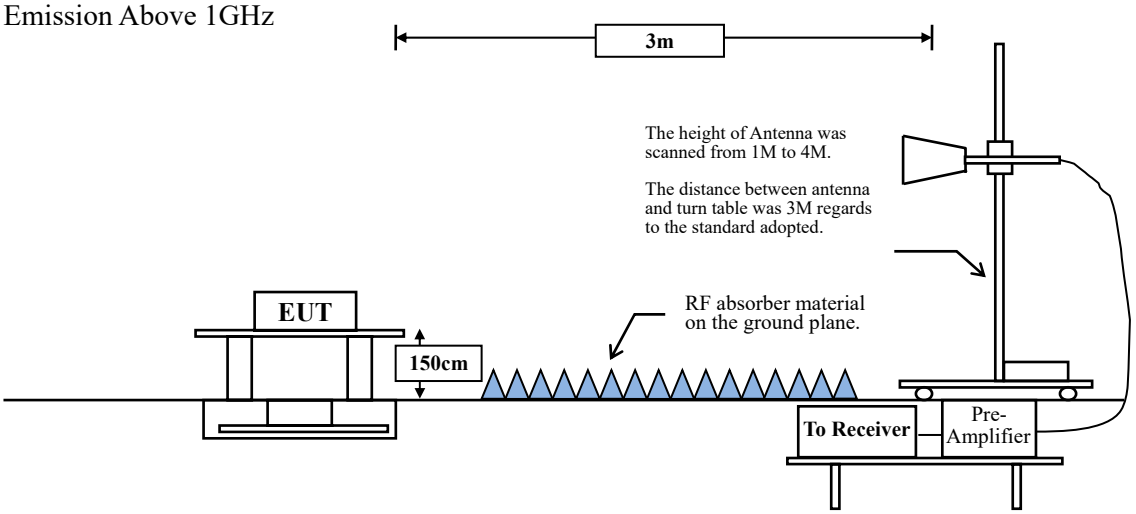
Radiated Emission Under 30MHz



Radiated Emission Below 1GHz



Radiated Emission Above 1GHz



5.2. Limits

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 20dB below the level of the fundamental or to the general radiated emission limits in paragraph 15.209, whichever is the lesser attenuation.

FCC Part 15 Subpart C Paragraph 15.209(a) Limits		
Frequency MHz	Field strength (microvolts/meter)	*Measurement distance (meter)*
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

Remarks: E field strength (dBμV/m) = 20 log E field strength (μV/m).

5.3. Test Procedure

The EUT was setup according to ANSI C63.10, 2013 and tested according to FCC KDB-789033 test procedure for compliance to FCC 47CFR 15. 407 requirements.

Measuring the frequency range below 1GHz, the EUT is placed on a turn table which is 0.8 meter above ground,when measuring the frequency range above 1GHz, the EUT is placed on a turn table which is 1.5 meter above ground.

The turn table is rotated 360 degrees to determine the position of the maximum emission level.

The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna is scanned between 1 meter and 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.10: 2013 on radiated measurement.

The resolution bandwidth below 30MHz setting on the field strength meter is 9 kHz and
30 MHz~1 GHz is 120 kHz and above 1 GHz is 1 MHz.

Radiated emission measurements below 30 MHz are made using Loop Antenna and 30 MHz~1 GHz are made using broadband Bilog antenna and above 1 GHz are made using Horn Antennas.

The measurement is divided into the Preliminary Measurement and the Final Measurement.

The suspected frequencies are searched for in Preliminary Measurement with the measurement antenna kept pointed at the source of the emission both in azimuth and elevation, with the polarization of the antenna oriented for maximum response. The antenna is pointed at an angle towards the source of the emission, and the EUT is rotated in both height and polarization to maximize the measured emission. The emission is kept within the illumination area of the 3 dB bandwidth of the antenna.

The measurement frequency range form 9 kHz - 10 th Harmonic of fundamental was investigated.

RBW and VBW Parameter setting:

According to KDB 789033 section II.G.5 Procedure for Unwanted Maximum Emissions Measurements above 1000 MHz.

RBW = 1MHz.

VBW ≥ 3MHz.

According to KDB 789033 section II.G.6 Procedures for Average Unwanted Emissions Measurements above 1000 MHz.

RBW = 1MHz.

VBW = 10Hz, when duty cycle ≥ 98 %

VBW ≥ 1/T, when duty cycle < 98 %

(T refers to the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.)

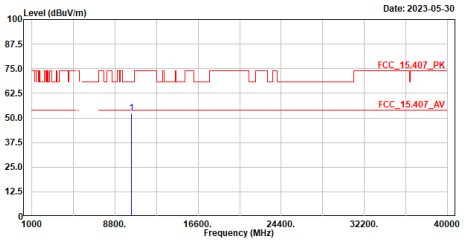
5GHz band	Duty Cycle (%)	T (ms)	1/T (Hz)	VBW (Hz)
802.11a	96.22	1.4000	714	1000
802.11ax-20 MHz	94.47	1.0250	976	1000
802.11ax-40 MHz	90.43	0.5480	1825	2000
802.11ax-80 MHz	83.38	0.2960	3378	5000

Note: Duty Cycle Refer to Section 8.

5.4. Test Result of Radiated Emission

M/N: PCE2311M

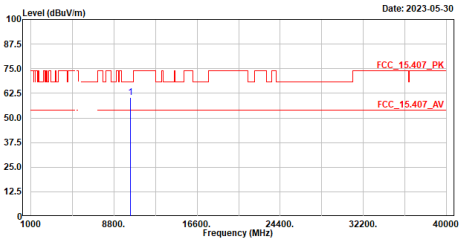
Site :HY-CB03
Condition :3m ,HORIZONTAL
Mode :TX_a_5180MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	10360.000	52.51	68.22	-15.71	57.03	-4.52	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

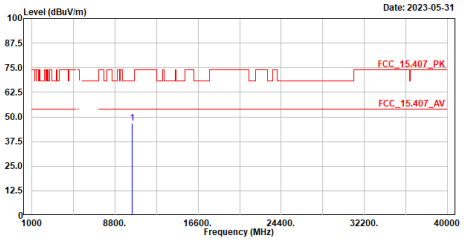
Site :HY-CB03
Condition :3m ,VERTICAL
Mode :TX_a_5180MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	10360.000	60.28	68.22	-7.94	64.80	-4.52	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

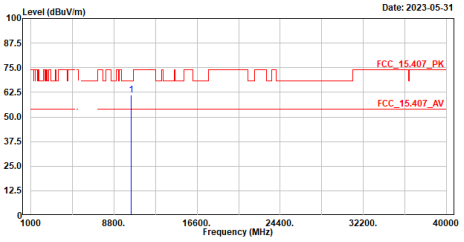
Site :HY-CB03
Condition :3m ,HORIZONTAL
Mode :TX_a_5220MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	10440.000	46.78	68.22	-21.44	51.26	-4.48	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

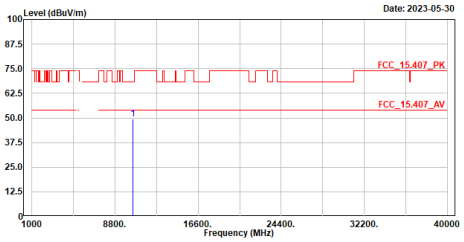
Site :HY-CB03
Condition :3m ,VERTICAL
Mode :TX_a_5220MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	10440.000	61.28	68.22	-6.94	65.76	-4.48	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

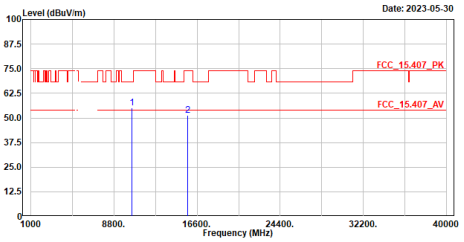
Site :HY-CB03
Condition :3m ,HORIZONTAL
Mode :TX_a_5240MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	10480.000	49.54	68.22	-18.68	53.88	-4.34	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

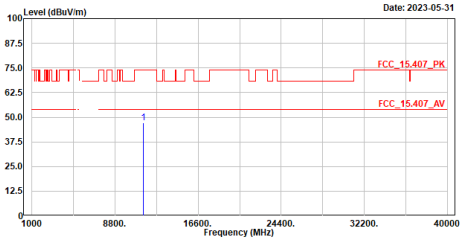
Site :HY-CB03
Condition :3m ,VERTICAL
Mode :TX_a_5240MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	10480.000	55.13	68.22	-13.09	59.47	-4.34	Peak
2	15720.000	51.39	74.00	-22.61	52.07	-0.68	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

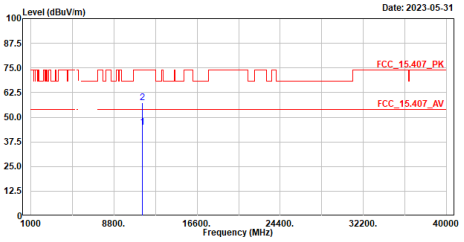
Site :HY-CB03
Condition :3m ,HORIZONTAL
Mode :TX_a_5745MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	11490.000	47.08	74.00	-26.92	49.18	-2.10	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

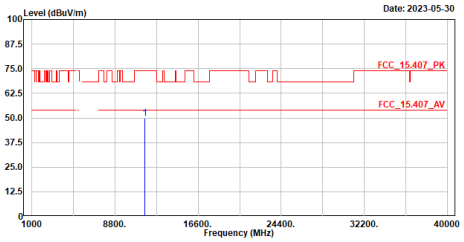
Site :HY-CB03
Condition :3m ,VERTICAL
Mode :TX_a_5745MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	11490.000	44.98	54.00	-9.02	47.08	-2.10	Average
2	11490.000	57.32	74.00	-16.68	59.42	-2.10	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

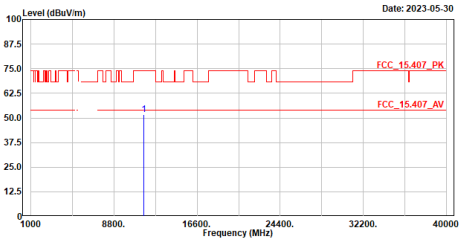
Site :HY-CB03
Condition :3m ,HORIZONTAL
Mode :TX_a_5785MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	11570.000	49.92	74.00	-24.08	51.77	-1.85	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

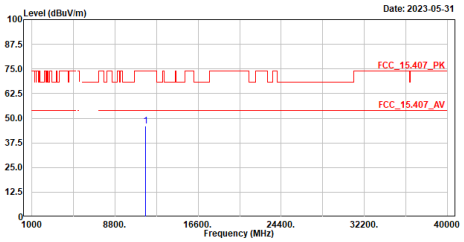
Site :HY-CB03
Condition :3m ,VERTICAL
Mode :TX_a_5785MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	11570.000	51.70	74.00	-22.30	53.55	-1.85	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

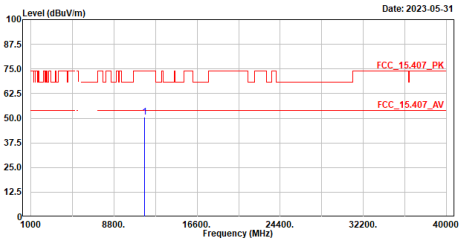
Site :HY-CB03
Condition :3m ,HORIZONTAL
Mode :TX_a_5825MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	11650.000	45.93	74.00	-28.07	47.85	-1.92	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

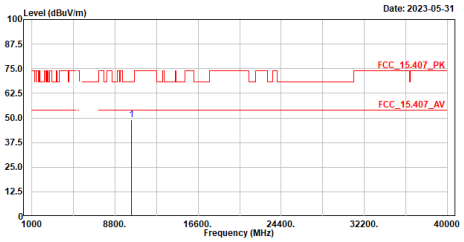
Site :HY-CB03
Condition :3m ,VERTICAL
Mode :TX_a_5825MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	11650.000	50.64	74.00	-23.36	52.56	-1.92	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

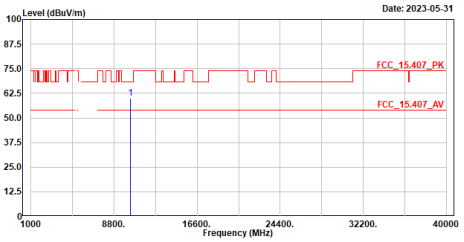
Site :HY-CB03
Condition :3m ,HORIZONTAL
Mode :TX_ax20_5180MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	10360.000	49.14	68.22	-19.08	53.66	-4.52	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

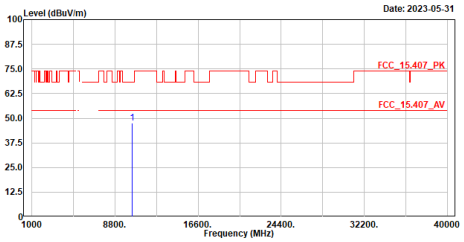
Site :HY-CB03
Condition :3m ,VERTICAL
Mode :TX_ax20_5180MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	10360.000	60.08	68.22	-8.14	64.60	-4.52	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

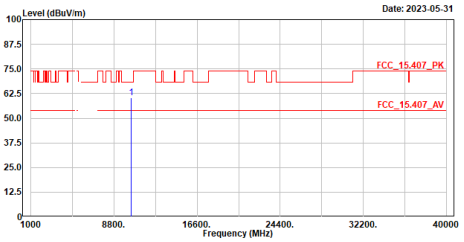
Site :HY-CB03
Condition :3m ,HORIZONTAL
Mode :TX_ax20_5220MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	10440.000	47.70	68.22	-20.52	52.18	-4.48	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

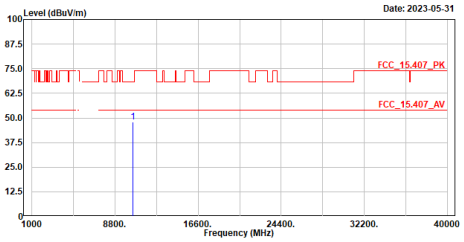
Site :HY-CB03
Condition :3m ,VERTICAL
Mode :TX_ax20_5220MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	10440.000	60.50	68.22	-7.72	64.98	-4.48	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

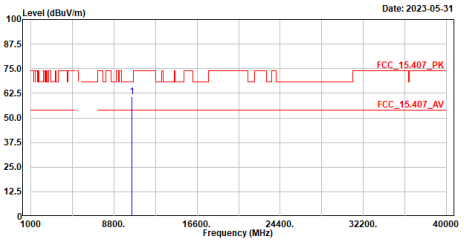
Site :HY-CB03
Condition :3m ,HORIZONTAL
Mode :TX_ax20_5240MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	10480.000	47.80	68.22	-20.42	52.14	-4.34	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

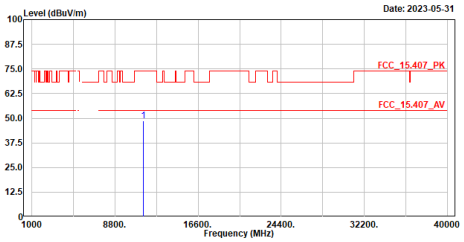
Site :HY-CB03
Condition :3m ,VERTICAL
Mode :TX_ax20_5240MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	10480.000	60.58	68.22	-7.64	64.92	-4.34	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

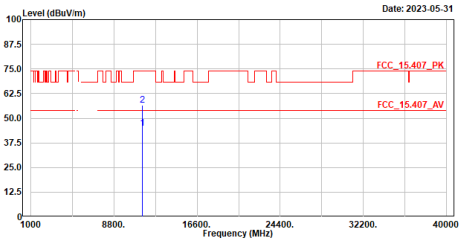
Site :HY-CB03
Condition :3m ,HORIZONTAL
Mode :TX_ax20_5745MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	11490.000	48.55	74.00	-25.45	50.65	-2.10	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

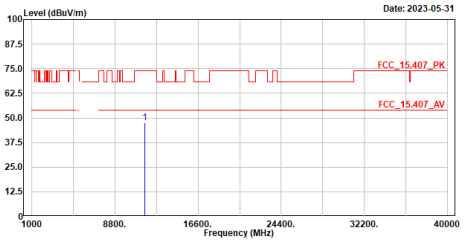
Site :HY-CB03
Condition :3m ,VERTICAL
Mode :TX_ax20_5745MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	11490.000	44.80	54.00	-9.20	46.90	-2.10	Average
2	11490.000	56.74	74.00	-17.26	58.84	-2.10	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

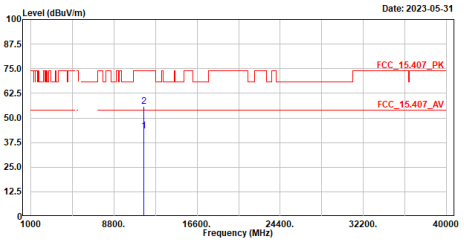
Site :HY-CB03
Condition :3m ,HORIZONTAL
Mode :TX_ax20_5785MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	11570.000	47.59	74.00	-26.41	49.44	-1.85	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

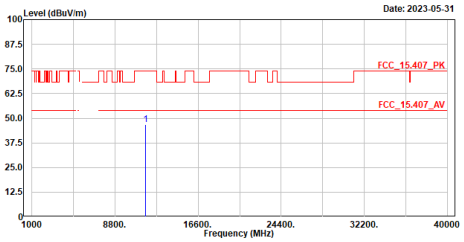
Site :HY-CB03
Condition :3m ,VERTICAL
Mode :TX_ax20_5785MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	11570.000	43.27	54.00	-10.73	45.12	-1.85	Average
2	11570.000	55.80	74.00	-18.20	57.65	-1.85	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

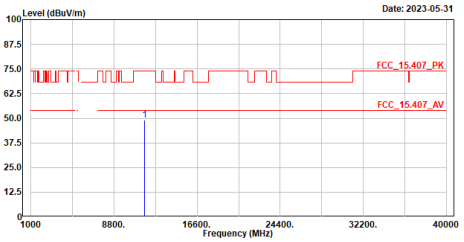
Site :HY-CB03
Condition :3m ,HORIZONTAL
Mode :TX_ax20_5825MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	11650.000	46.94	74.00	-27.06	48.86	-1.92	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

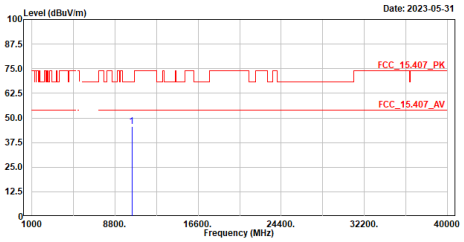
Site :HY-CB03
Condition :3m ,VERTICAL
Mode :TX_ax20_5825MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	11650.000	48.93	74.00	-25.07	50.85	-1.92	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

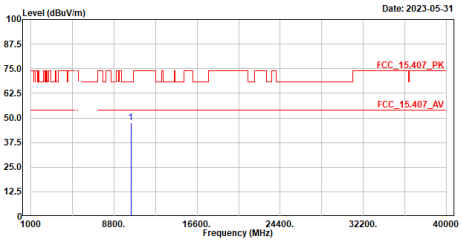
Site :HY-CB03
Condition :3m ,HORIZONTAL
Mode :TX_ax40_5190MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	10380.000	45.62	68.22	-22.60	50.11	-4.49	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

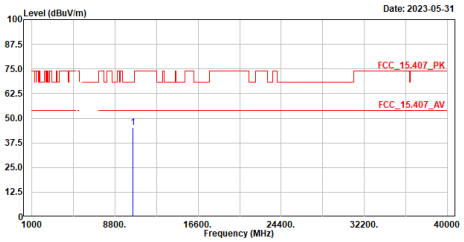
Site :HY-CB03
Condition :3m ,VERTICAL
Mode :TX_ax40_5190MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	10380.000	47.43	68.22	-20.79	51.92	-4.49	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

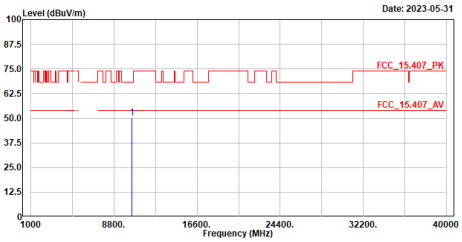
Site :HY-CB03
Condition :3m ,HORIZONTAL
Mode :TX_ax40_5230MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	10460.000	45.43	68.22	-22.79	49.87	-4.44	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

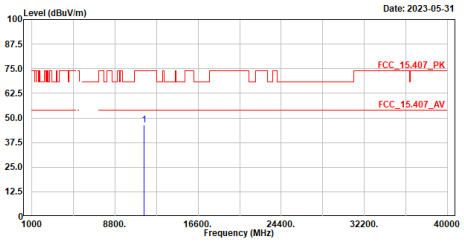
Site :HY-CB03
Condition :3m ,VERTICAL
Mode :TX_ax40_5230MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	10460.000	50.37	68.22	-17.85	54.81	-4.44	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

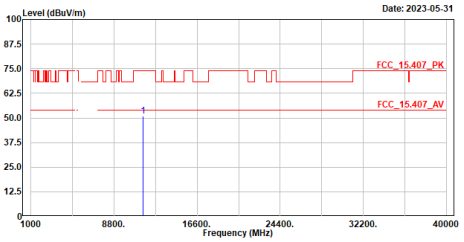
Site :HY-CB03
Condition :3m ,HORIZONTAL
Mode :TX_ax40_5755MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	11510.000	46.56	74.00	-27.44	48.56	-2.00	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

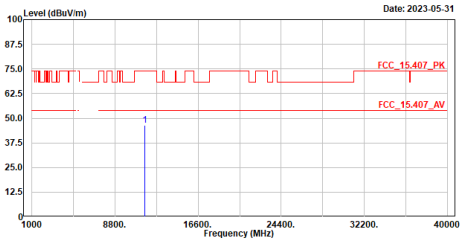
Site :HY-CB03
Condition :3m ,VERTICAL
Mode :TX_ax40_5755MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	11510.000	50.77	74.00	-23.23	52.77	-2.00	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

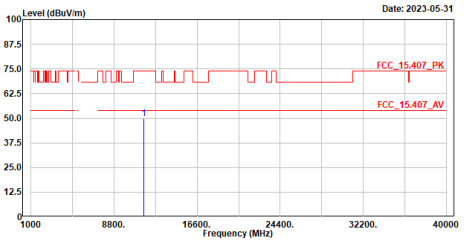
Site :HY-CB03
Condition :3m ,HORIZONTAL
Mode :TX_ax40_5795MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	11590.000	46.49	74.00	-27.51	48.40	-1.91	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

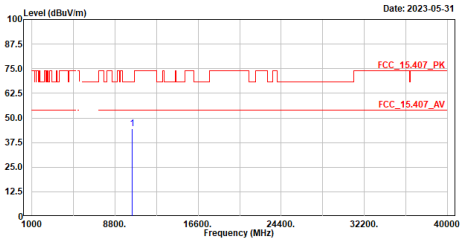
Site :HY-CB03
Condition :3m ,VERTICAL
Mode :TX_ax40_5795MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	11590.000	49.65	74.00	-24.35	51.56	-1.91	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

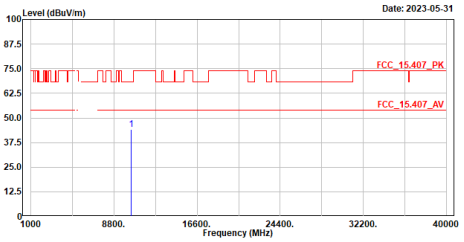
Site :HY-CB03
Condition :3m ,HORIZONTAL
Mode :TX_ax80_5210MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	10420.000	44.54	68.22	-23.68	49.01	-4.47	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

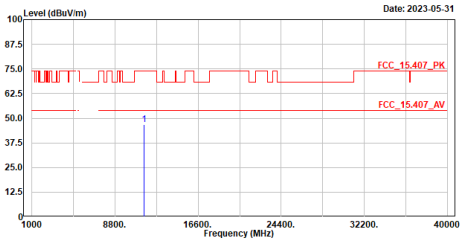
Site :HY-CB03
Condition :3m ,VERTICAL
Mode :TX_ax80_5210MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	10420.000	44.11	68.22	-24.11	48.58	-4.47	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

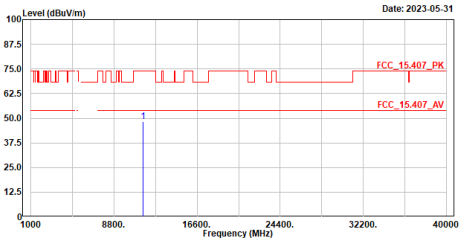
Site :HY-CB03
Condition :3m ,HORIZONTAL
Mode :TX_ax80_5775MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	11550.000	46.89	74.00	-27.11	48.68	-1.79	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

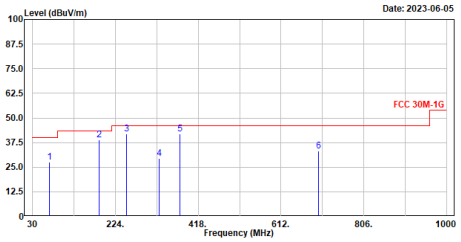
Site :HY-CB03
Condition :3m ,VERTICAL
Mode :TX_ax80_5775MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	11550.000	48.38	74.00	-25.62	50.17	-1.79	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

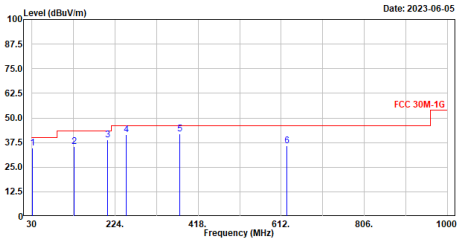
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_ax80_5775MHz
TEST BY :Ashton



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	69.770	27.65	40.00	-12.35	54.22	-26.57	QP
2	185.200	39.02	43.50	-4.48	65.19	-26.17	QP
3	250.190	41.82	46.00	-4.18	67.30	-25.48	QP
4	325.850	29.48	46.00	-16.52	52.30	-22.82	QP
5	375.320	42.04	46.00	-3.96	63.79	-21.75	QP
6	700.270	33.21	46.00	-12.79	47.98	-14.77	QP

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission under 30MHz was not included since the emission levels are very low against the limit.

Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_ax80_5775MHz
TEST BY :Ashton

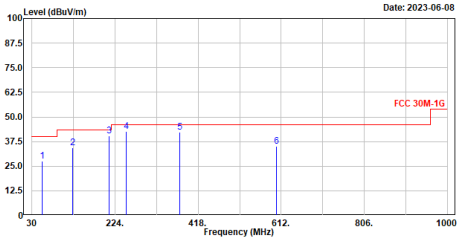


No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	31.940	34.72	40.00	-5.28	59.98	-25.26	QP
2	127.970	35.55	43.50	-7.95	61.20	-25.65	QP
3	206.540	38.97	43.50	-4.53	66.05	-27.08	QP
4	250.190	41.42	46.00	-4.58	66.90	-25.48	QP
5	375.320	41.97	46.00	-4.03	63.72	-21.75	QP
6	625.580	35.82	46.00	-10.18	51.86	-16.04	QP

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission under 30MHz was not included since the emission levels are very low against the limit.

M/N: PCE2312M

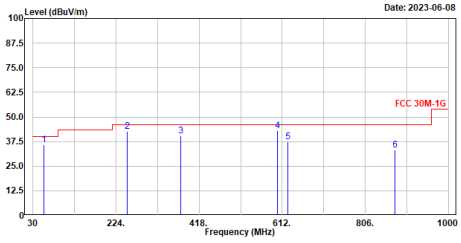
Site :HY-CB03
Condition :3m ,HORIZONTAL
Mode :TX_ax20_5180MHz
TEST BY :Ashton



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	53.280	27.61	40.00	-12.39	51.97	-24.36	QP
2	126.030	34.33	43.50	-9.17	60.08	-25.75	QP
3	210.420	40.38	43.50	-3.12	67.39	-27.01	QP
4	250.190	42.54	46.00	-3.46	68.02	-25.48	QP
5	375.320	42.10	46.00	-3.90	63.85	-21.75	QP
6	600.360	34.99	46.00	-11.01	51.10	-16.11	QP

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission under 30MHz was not included since the emission levels are very low against the limit.

Site :HY-CB03
Condition :3m ,VERTICAL
Mode :TX_ax20_5180MHz
TEST BY :Ashton



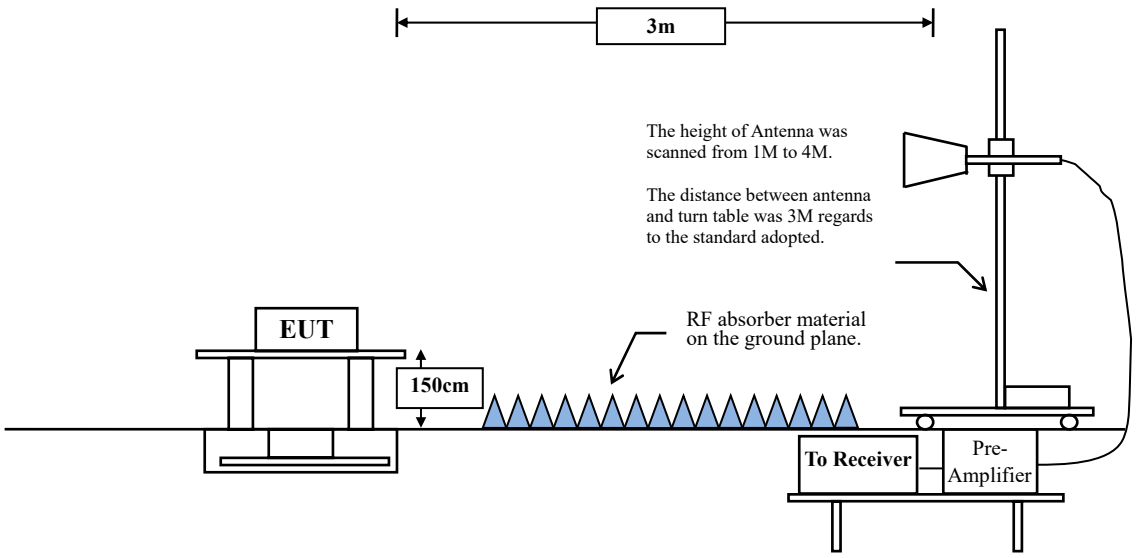
No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	55.220	35.74	40.00	-4.26	60.33	-24.59	QP
2	250.190	42.81	46.00	-3.19	68.29	-25.48	QP
3	375.320	40.41	46.00	-5.59	62.16	-21.75	QP
4	600.360	42.96	46.00	-3.04	59.07	-16.11	QP
5	625.580	37.49	46.00	-8.51	53.53	-16.04	QP
6	875.840	33.33	46.00	-12.67	46.10	-12.77	QP

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission under 30MHz was not included since the emission levels are very low against the limit.

6. Band Edge

6.1. Test Setup

RF Radiated Measurement:



6.2. Limits

The provisions of Section 15.205 of this part apply to intentional radiators operating under this section. Radiated emissions which fall in the restricted bands, as defined in Section 15.205, must also comply with the radiated emission limits specified in Section 15.209:

FCC Part 15 Subpart C Paragraph 15.209 Limits		
Frequency MHz	μV/m @3m	dBμV/m@3m
30-88	100	40
88-216	150	43.5
216-960	200	46
Above 960	500	54

Remarks:

1. RF Voltage (dBμV) = 20 log RF Voltage (μV).
2. In the Above Table, the tighter limit applies at the band edges.
3. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

6.3. Test Procedure

The EUT is placed on a turn table which is 1.5 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.
The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.
Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.10:2013 on radiated measurement.
The bandwidth below 1GHz setting on the field strength meter is 120 kHz, above 1GHz are 1 MHz.
The EUT was setup to ANSI C63.10, 2013; tested to UNII test procedure of FCC KDB-789033 for compliance to FCC 47CFR Subpart E requirements.

RBW and VBW Parameter setting:
According to KDB 789033 section II.G.5 Procedure for Unwanted Maximum Emissions Measurements above 1000 MHz.
RBW = 1MHz.
VBW ≥ 3MHz.

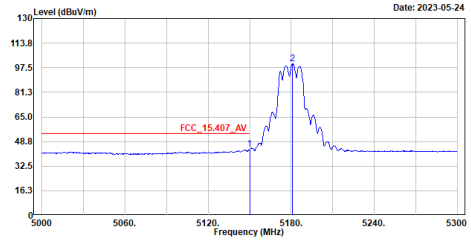
According to KDB 789033 section II.G.6 Procedures for Average Unwanted Emissions Measurements above 1000 MHz.
RBW = 1MHz.
VBW = 10Hz, when duty cycle ≥ 98 %
VBW ≥ 1/T, when duty cycle < 98 %
(T refers to the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.)

5GHz band	Duty Cycle (%)	T (ms)	1/T (Hz)	VBW (Hz)
802.11a	96.22	1.4000	714	1000
802.11ax-20 MHz	94.47	1.0250	976	1000
802.11ax-40 MHz	90.43	0.5480	1825	2000
802.11ax-80 MHz	83.38	0.2960	3378	5000

Note: Duty Cycle Refer to Section 8.

6.4. Test Result of Band Edge

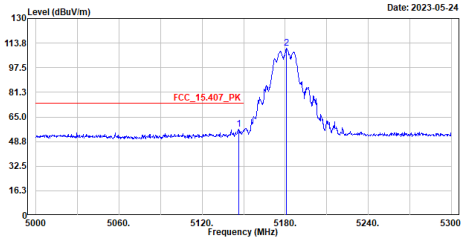
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_a_5180MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5150.000	43.66	54.00	-10.34	27.94	15.72	Average
2	5180.900	100.06	------	------	84.22	15.84	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

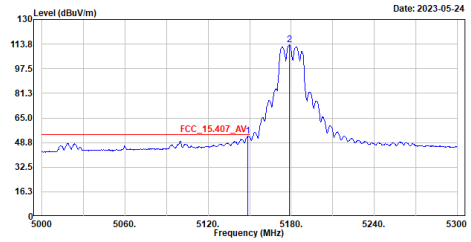
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_a_5180MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5146.400	57.05	74.00	-16.95	41.34	15.71	Peak
2	5180.900	110.51	------	------	94.67	15.84	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

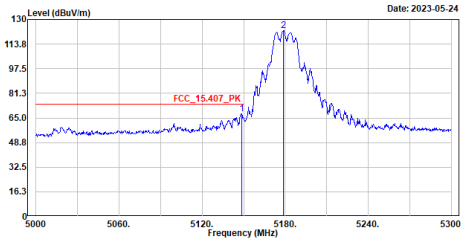
Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_a_5180MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5148.800	53.15	54.00	-0.85	37.45	15.70	Average
2	5178.500	113.18	------	------	97.34	15.84	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

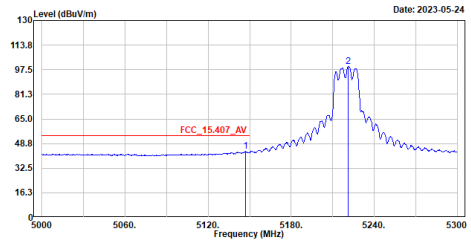
Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_a_5180MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5148.500	67.70	74.00	-6.30	52.00	15.70	Peak
2	5178.800	122.87	------	------	107.03	15.84	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

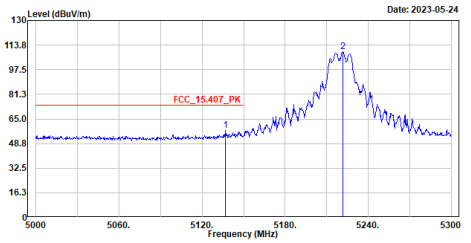
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_a_5220MHz_B1
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5147.000	43.45	54.00	-10.55	27.74	15.71	Average
2	5221.400	99.57	------	------	83.66	15.91	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

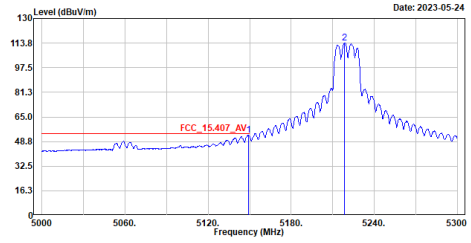
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_a_5220MHz_B1
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5137.100	57.26	74.00	-16.74	41.56	15.70	Peak
2	5221.700	109.33	------	------	93.42	15.91	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

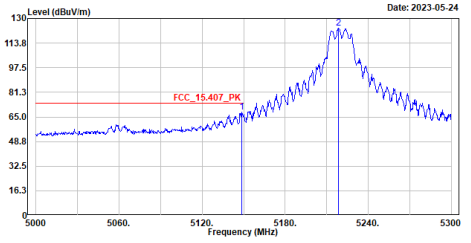
Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_a_5220MHz_B1
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5149.100	53.09	54.00	-0.91	37.39	15.70	Average
2	5218.700	113.99	------	------	98.08	15.91	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

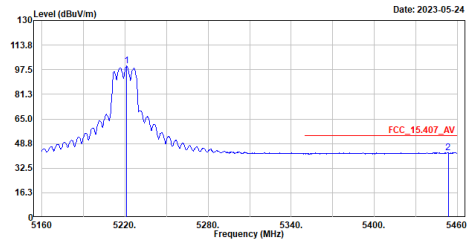
Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_a_5220MHz_B1
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5148.500	68.04	74.00	-5.96	52.34	15.70	Peak
2	5218.700	123.45	------	------	107.54	15.91	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

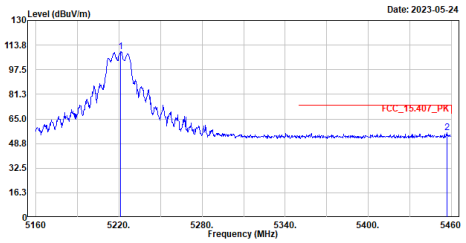
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_a_5220MHz_B2
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5221.200	99.93	------	------	84.02	15.91	Average
2	5453.400	42.74	54.00	-11.26	26.57	16.17	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

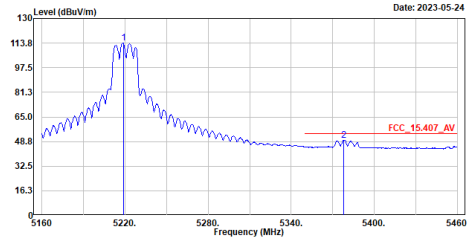
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_a_5220MHz_B2
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5221.200	109.41	------	------	93.50	15.91	Peak
2	5456.700	56.05	74.00	-17.95	39.86	16.19	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

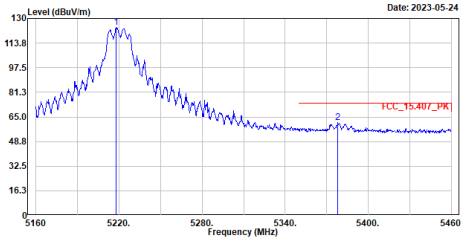
Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_a_5220MHz_B2
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5218.800	113.94	------	------	98.03	15.91	Average
2	5378.100	49.73	54.00	-4.27	33.85	15.88	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

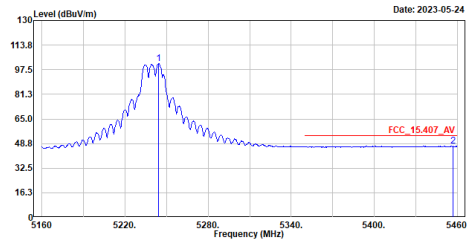
Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_a_5220MHz_B2
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5217.900	123.94	------	------	108.03	15.91	Peak
2	5378.100	61.10	74.00	-12.90	45.22	15.88	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

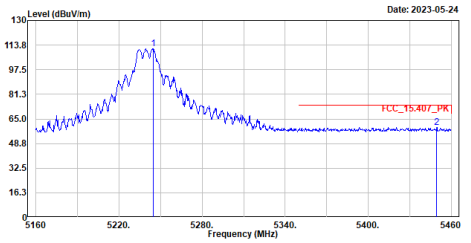
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_a_5240MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5244.300	101.73	------	------	85.83	15.90	Average
2	5457.000	47.00	54.00	-7.00	30.81	16.19	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

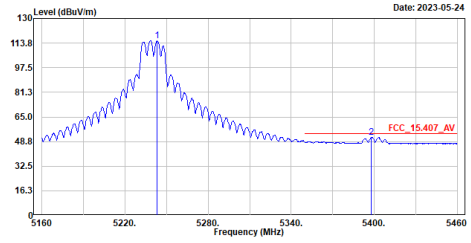
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_a_5240MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5244.600	111.51	------	------	95.61	15.90	Peak
2	5449.500	59.43	74.00	-14.57	43.28	16.15	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

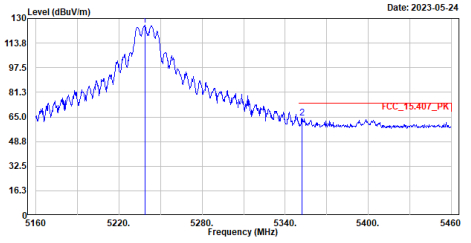
Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_a_5240MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5243.400	115.16	------	------	99.26	15.90	Average
2	5397.900	51.72	54.00	-2.28	35.82	15.90	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

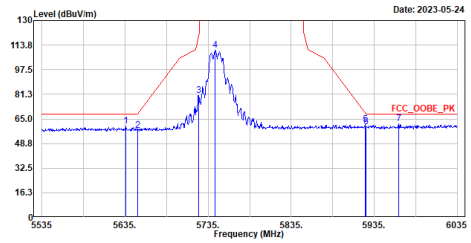
Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_a_5240MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5238.600	125.35	------	------	109.46	15.89	Peak
2	5352.000	64.19	74.00	-9.81	48.34	15.85	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

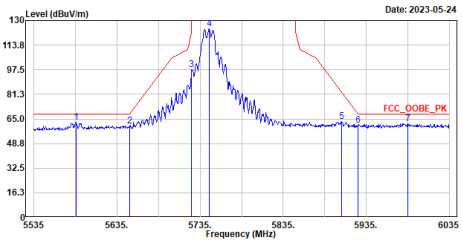
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_a_5745MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5636.000	60.17	68.20	-8.03	43.18	16.99	Peak
2	5650.000	57.52	68.21	-10.69	40.55	16.97	Peak
3	5723.500	80.50	118.78	-38.28	63.03	17.47	Peak
4	5743.500	110.14	------	------	92.52	17.62	Peak
5	5924.000	61.46	68.95	-7.49	43.58	17.88	Peak
6	5925.000	59.74	68.21	-8.47	41.86	17.88	Peak
7	5964.500	61.71	68.20	-6.49	43.93	17.78	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

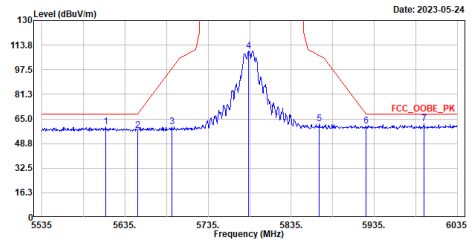
Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_a_5745MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5585.500	62.56	68.20	-5.64	45.53	17.03	Peak
2	5650.000	60.30	68.21	-7.91	43.33	16.97	Peak
3	5725.000	97.43	122.20	-24.77	79.95	17.48	Peak
4	5746.000	124.38	------	------	106.74	17.64	Peak
5	5905.000	63.25	83.00	-19.75	45.28	17.97	Peak
6	5925.000	60.69	68.21	-7.52	42.81	17.88	Peak
7	5985.000	61.88	68.20	-6.32	44.10	17.78	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

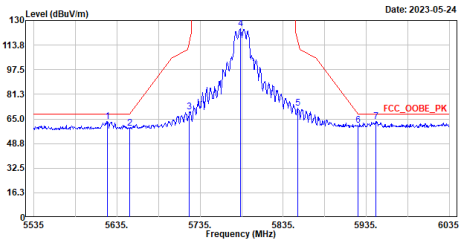
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_a_5785MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5611.500	59.77	68.20	-8.43	42.72	17.05	Peak
2	5650.000	57.51	68.21	-10.70	40.54	16.97	Peak
3	5691.500	59.91	98.91	-39.00	42.69	17.22	Peak
4	5784.000	109.94	------	------	92.13	17.81	Peak
5	5869.000	61.88	106.88	-45.00	43.89	17.99	Peak
6	5925.000	60.43	68.21	-7.78	42.55	17.88	Peak
7	5995.000	61.67	68.20	-6.53	43.89	17.78	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

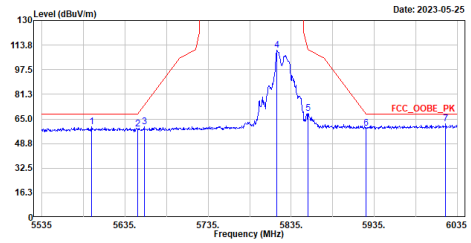
Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_a_5785MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5623.500	63.49	68.20	-4.71	46.47	17.02	Peak
2	5650.000	58.84	68.21	-9.37	41.87	16.97	Peak
3	5722.000	69.82	115.36	-45.54	52.36	17.46	Peak
4	5783.500	124.55	------	------	106.74	17.81	Peak
5	5852.500	72.17	116.50	-44.33	54.17	18.00	Peak
6	5925.000	60.96	68.21	-7.25	43.08	17.88	Peak
7	5946.500	63.41	68.20	-4.79	45.63	17.78	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

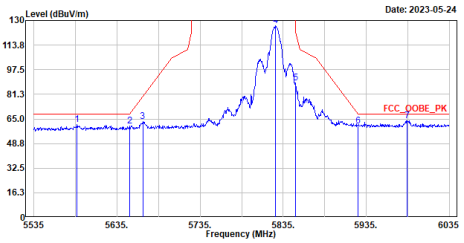
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_a_5825MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5595.000	59.64	68.20	-8.56	42.57	17.07	Peak
2	5650.000	58.25	68.21	-9.96	41.28	16.97	Peak
3	5658.000	60.07	74.13	-14.06	43.07	17.00	Peak
4	5818.000	110.22	------	------	92.28	17.94	Peak
5	5855.500	68.46	110.66	-42.20	50.46	18.00	Peak
6	5925.000	59.02	68.21	-9.19	41.14	17.88	Peak
7	6021.000	61.62	68.20	-6.58	43.74	17.88	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

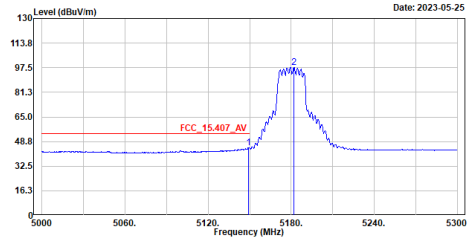
Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_a_5825MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5587.000	61.23	68.20	-6.97	44.18	17.05	Peak
2	5650.000	60.13	68.21	-8.08	43.16	16.97	Peak
3	5666.000	63.06	80.05	-16.99	46.03	17.03	Peak
4	5826.000	126.52	------	------	108.57	17.95	Peak
5	5850.000	88.92	122.20	-33.28	70.92	18.00	Peak
6	5925.000	60.20	68.21	-8.01	42.32	17.88	Peak
7	5984.000	64.00	68.20	-4.20	46.22	17.78	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

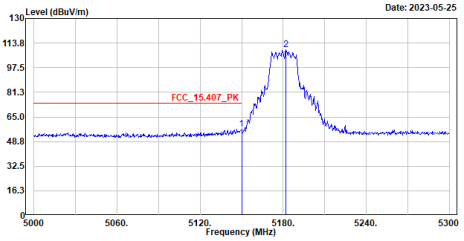
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_ax20_5180MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5149.400	44.73	54.00	-9.27	29.02	15.71	Average
2	5182.100	97.84	------	------	82.00	15.84	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

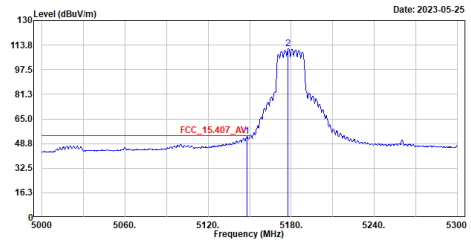
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_ax20_5180MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5150.000	56.98	74.00	-17.02	41.26	15.72	Peak
2	5182.100	109.40	------	------	93.56	15.84	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

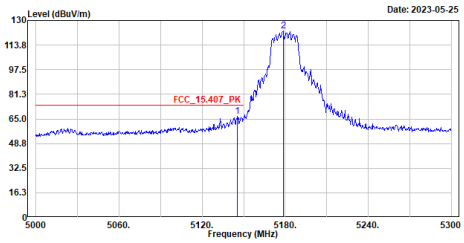
Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_ax20_5180MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5148.200	53.38	54.00	-0.62	37.68	15.70	Average
2	5177.900	111.34	------	------	95.50	15.84	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

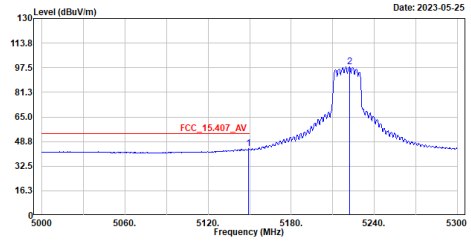
Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_ax20_5180MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5145.500	66.57	74.00	-7.43	50.86	15.71	Peak
2	5178.500	122.90	------	------	107.06	15.84	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

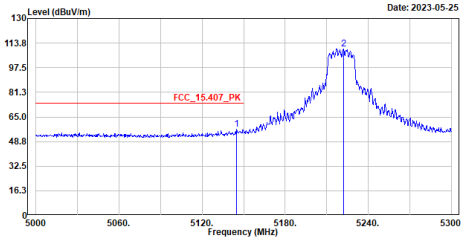
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_ax20_5220MHz_B1
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5149.400	44.01	54.00	-9.99	28.30	15.71	Average
2	5222.000	97.91	------	------	82.00	15.91	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

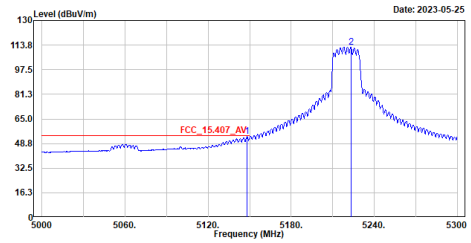
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_ax20_5220MHz_B1
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5144.900	56.92	74.00	-17.08	41.21	15.71	Peak
2	5222.000	109.95	------	------	94.04	15.91	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

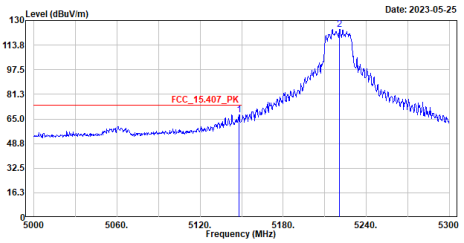
Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_ax20_5220MHz_B1
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5148.200	53.26	54.00	-0.74	37.56	15.70	Average
2	5223.200	112.39	------	------	96.49	15.90	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

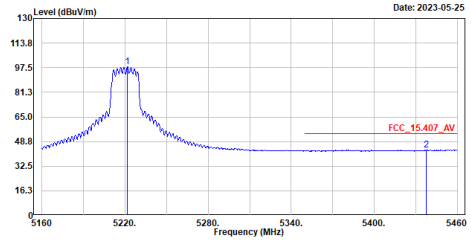
Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_ax20_5220MHz_B1
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5147.900	67.91	74.00	-6.09	52.21	15.70	Peak
2	5220.800	124.27	------	------	108.36	15.91	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

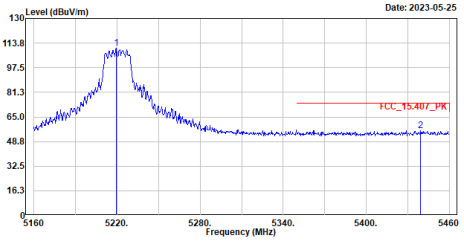
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_ax20_5220MHz_B2
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5221.800	98.17	------	------	82.26	15.91	Average
2	5437.500	43.13	54.00	-10.87	27.04	16.09	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

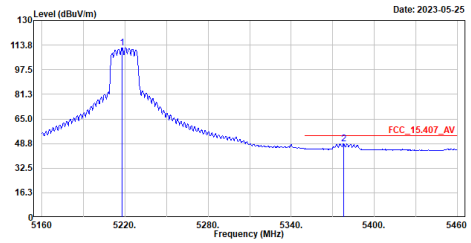
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_ax20_5220MHz_B2
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5219.400	110.15	------	------	94.24	15.91	Peak
2	5439.300	55.99	74.00	-18.01	39.88	16.11	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

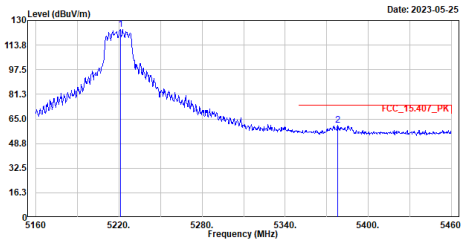
Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_ax20_5220MHz_B2
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5217.900	112.02	------	------	96.11	15.91	Average
2	5378.100	48.71	54.00	-5.29	32.83	15.88	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

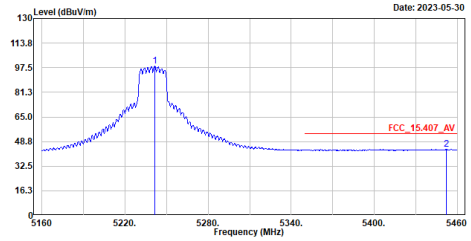
Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_ax20_5220MHz_B2
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5220.900	124.27	------	------	108.36	15.91	Peak
2	5377.800	60.68	74.00	-13.32	44.80	15.88	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

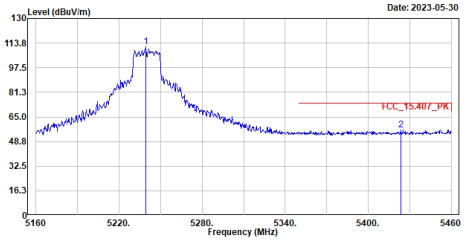
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_ax20_5240MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5241.300	98.44	------	------	82.54	15.90	Average
2	5452.200	43.77	54.00	-10.23	27.60	16.17	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

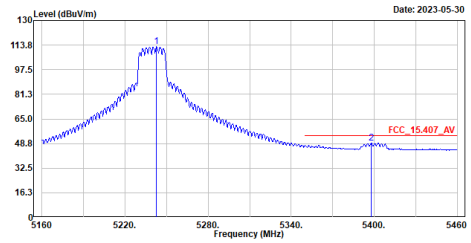
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_ax20_5240MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5239.200	111.39	------	------	95.49	15.90	Peak
2	5423.400	56.43	74.00	-17.57	40.41	16.02	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

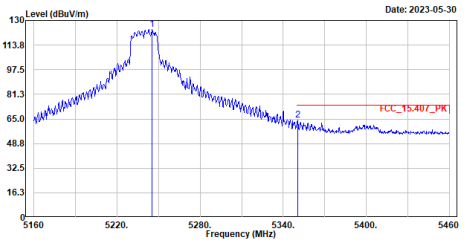
Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_ax20_5240MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5242.800	112.60	------	------	96.71	15.89	Average
2	5397.900	49.08	54.00	-4.92	33.18	15.90	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

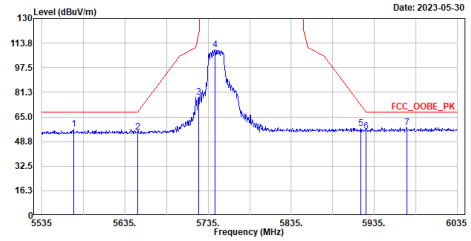
Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_ax20_5240MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5245.500	124.35	------	------	108.45	15.90	Peak
2	5350.800	64.06	74.00	-9.94	48.21	15.85	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

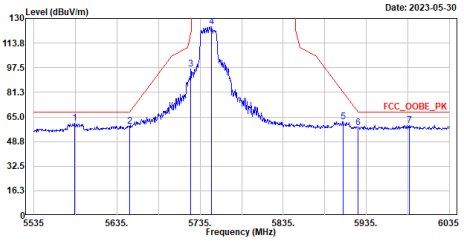
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_ax20_5745MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5573.000	56.91	68.20	-11.29	39.99	16.92	Peak
2	5650.000	54.73	68.21	-13.48	37.76	16.97	Peak
3	5723.500	78.11	118.78	-40.67	60.64	17.47	Peak
4	5743.000	109.52	------	------	91.90	17.62	Peak
5	5918.500	57.54	73.02	-15.48	39.64	17.90	Peak
6	5925.000	55.20	68.21	-13.01	37.32	17.88	Peak
7	5974.000	57.83	68.20	-10.37	40.06	17.77	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

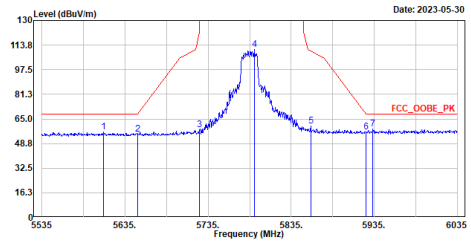
Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_ax20_5745MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5584.000	60.64	68.20	-7.56	43.61	17.03	Peak
2	5650.000	58.79	68.21	-9.42	41.82	16.97	Peak
3	5724.000	96.58	119.92	-23.34	79.11	17.47	Peak
4	5749.000	124.62	------	------	106.97	17.65	Peak
5	5907.000	62.06	81.52	-19.46	44.11	17.95	Peak
6	5925.000	57.76	68.21	-10.45	39.88	17.88	Peak
7	5986.500	59.55	68.20	-8.65	41.77	17.78	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

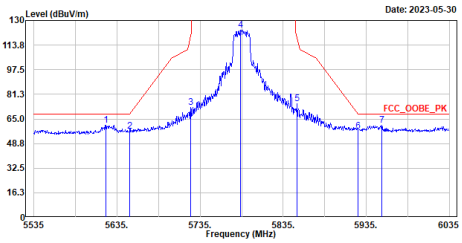
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_ax20_5785MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5609.500	56.60	68.20	-11.60	39.55	17.05	Peak
2	5650.000	54.74	68.21	-13.47	37.77	16.97	Peak
3	5725.000	58.10	122.20	-64.10	40.62	17.48	Peak
4	5790.500	110.83	------	------	92.99	17.84	Peak
5	5858.500	60.51	109.82	-49.31	42.51	18.00	Peak
6	5925.000	56.61	68.21	-11.60	38.73	17.88	Peak
7	5933.500	58.18	68.20	-10.02	40.34	17.84	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

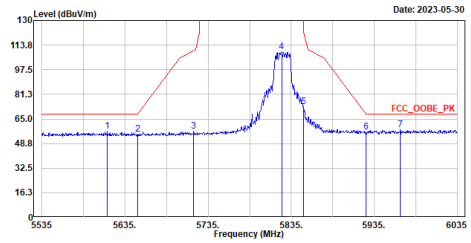
Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_ax20_5785MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5621.500	61.01	68.20	-7.19	43.99	17.02	Peak
2	5650.000	56.77	68.21	-11.44	39.80	16.97	Peak
3	5724.000	72.47	119.92	-47.45	55.00	17.47	Peak
4	5784.000	123.68	------	------	105.87	17.81	Peak
5	5852.000	74.87	117.64	-42.77	56.87	18.00	Peak
6	5925.000	57.13	68.21	-11.08	39.25	17.88	Peak
7	5953.500	60.67	68.20	-7.53	42.89	17.78	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

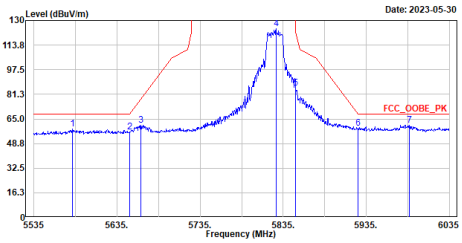
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_ax20_5825MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5614.000	56.73	68.20	-11.47	39.68	17.05	Peak
2	5650.000	55.00	68.21	-13.21	38.03	16.97	Peak
3	5717.500	56.82	110.10	-53.28	39.40	17.42	Peak
4	5823.500	109.25	------	------	91.30	17.95	Peak
5	5850.000	73.32	122.20	-48.88	55.32	18.00	Peak
6	5925.000	56.46	68.21	-11.75	38.58	17.88	Peak
7	5966.500	57.85	68.20	-10.35	40.07	17.78	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

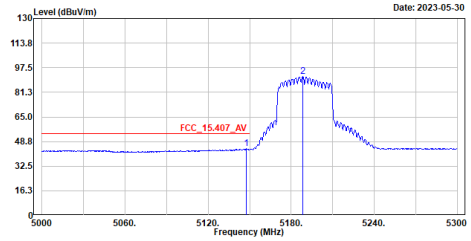
Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_ax20_5825MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5581.000	58.16	68.20	-10.04	41.17	16.99	Peak
2	5650.000	56.48	68.21	-11.73	39.51	16.97	Peak
3	5663.500	60.75	78.20	-17.45	43.73	17.02	Peak
4	5826.500	124.62	------	------	106.67	17.95	Peak
5	5850.000	85.18	122.20	-37.02	67.18	18.00	Peak
6	5925.000	58.68	68.21	-9.53	40.80	17.88	Peak
7	5987.000	60.95	68.20	-7.25	43.17	17.78	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

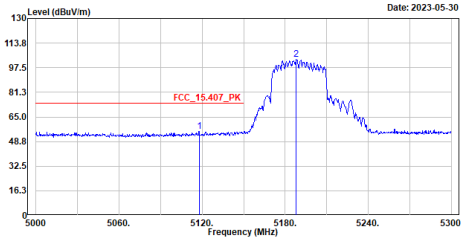
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_ax40_5190MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5147.600	43.96	54.00	-10.04	28.26	15.70	Average
2	5188.400	91.71	------	------	75.83	15.88	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

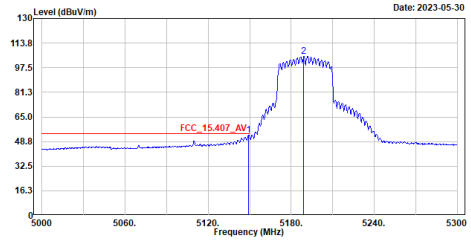
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_ax40_5190MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5117.900	55.65	74.00	-18.35	39.98	15.67	Peak
2	5188.100	102.81	------	------	86.93	15.88	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

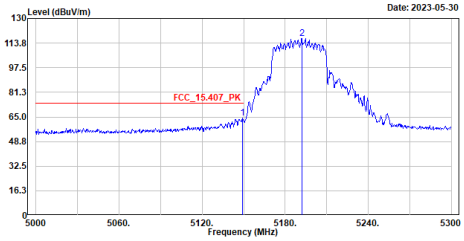
Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_ax40_5190MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5149.100	53.10	54.00	-0.90	37.40	15.70	Average
2	5189.000	105.21	------	------	89.33	15.88	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

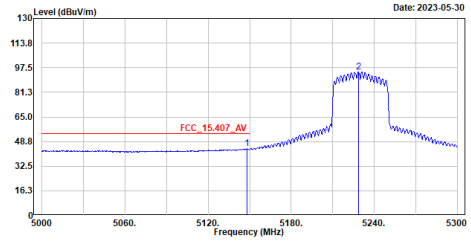
Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_ax40_5190MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5149.400	64.25	74.00	-9.75	48.54	15.71	Peak
2	5192.000	116.95	------	------	101.07	15.88	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

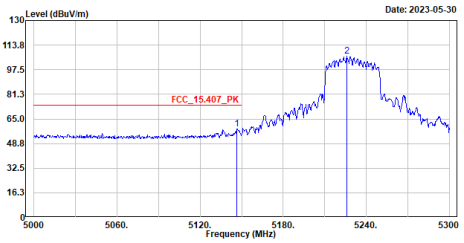
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_ax40_5230MHz_B1
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5147.900	44.03	54.00	-9.97	28.33	15.70	Average
2	5228.600	94.83	------	------	78.93	15.90	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

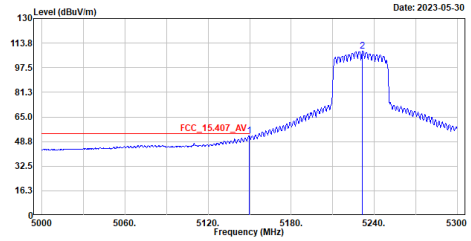
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_ax40_5230MHz_B1
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5146.700	58.61	74.00	-15.39	42.90	15.71	Peak
2	5225.900	106.69	------	------	90.79	15.90	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

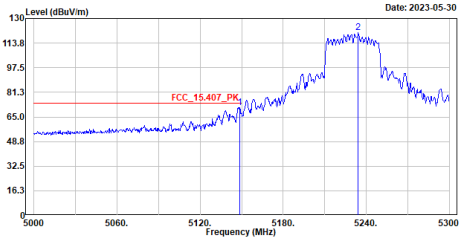
Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_ax40_5230MHz_B1
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5149.700	52.70	54.00	-1.30	36.99	15.71	Average
2	5231.600	108.34	------	------	92.43	15.91	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

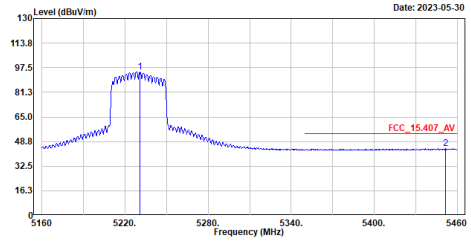
Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_ax40_5230MHz_B1
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5148.500	71.30	74.00	-2.70	55.60	15.70	Peak
2	5234.300	120.82	------	------	104.92	15.90	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

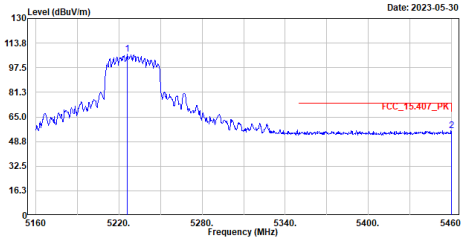
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_ax40_5230MHz_B2
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5230.800	94.69	------	------	78.78	15.91	Average
2	5451.600	44.02	54.00	-9.98	27.85	16.17	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

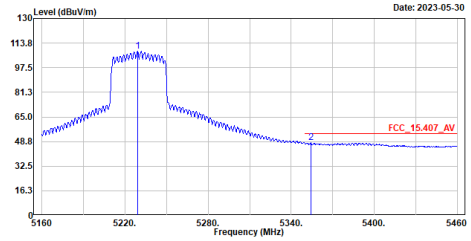
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_ax40_5230MHz_B2
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5226.000	106.31	------	------	90.41	15.90	Peak
2	5460.000	56.13	68.22	-12.09	39.93	16.20	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

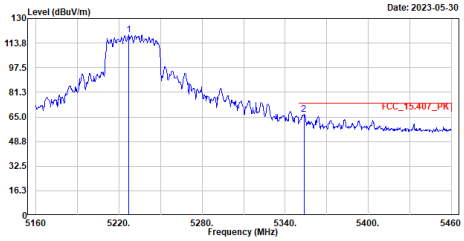
Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_ax40_5230MHz_B2
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5229.000	108.35	------	------	92.44	15.91	Average
2	5354.100	47.90	54.00	-6.10	32.05	15.85	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

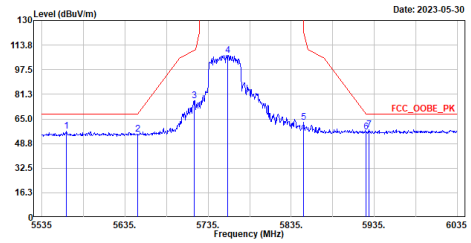
Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_ax40_5230MHz_B2
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5227.200	119.15	------	------	103.25	15.90	Peak
2	5353.500	66.88	74.00	-7.12	51.03	15.85	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

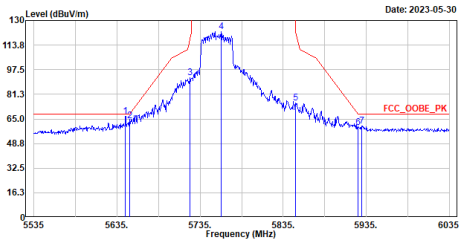
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_ax40_5755MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5564.500	56.78	68.20	-11.42	39.93	16.85	Peak
2	5650.000	55.17	68.21	-13.04	38.20	16.97	Peak
3	5718.500	77.20	110.38	-33.18	59.76	17.44	Peak
4	5759.000	106.93	------	------	89.23	17.70	Peak
5	5850.000	62.97	122.20	-59.23	44.97	18.00	Peak
6	5925.000	56.35	68.21	-11.86	38.47	17.88	Peak
7	5928.500	57.90	68.20	-10.30	40.04	17.86	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

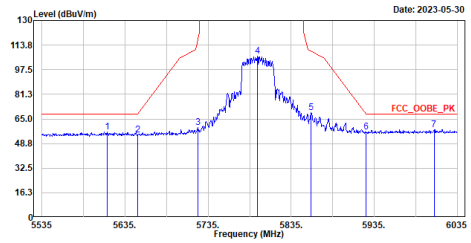
Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_ax40_5755MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5645.000	66.90	68.20	-1.30	49.92	16.98	Peak
2	5650.000	63.96	68.21	-4.25	46.99	16.97	Peak
3	5723.000	92.32	117.64	-25.32	74.85	17.47	Peak
4	5760.000	122.66	------	------	104.96	17.70	Peak
5	5850.000	75.34	122.20	-46.86	57.34	18.00	Peak
6	5925.000	59.55	68.21	-8.66	41.67	17.88	Peak
7	5929.500	60.34	68.20	-7.86	42.49	17.85	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

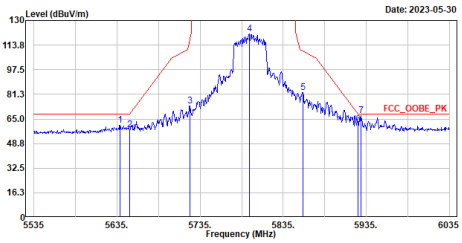
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_ax40_5795MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5613.500	56.26	68.20	-11.94	39.21	17.05	Peak
2	5650.000	54.32	68.21	-13.89	37.35	16.97	Peak
3	5722.500	59.17	116.50	-57.33	41.70	17.47	Peak
4	5794.000	106.38	------	------	88.52	17.86	Peak
5	5859.000	68.97	109.68	-40.71	50.97	18.00	Peak
6	5925.000	56.22	68.21	-11.99	38.34	17.88	Peak
7	6007.000	58.03	68.20	-10.17	40.23	17.80	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

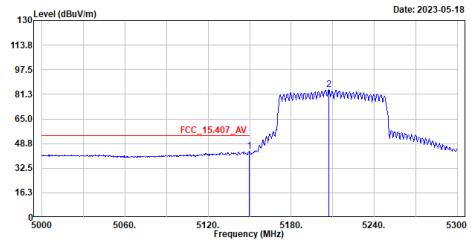
Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_ax40_5795MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5638.500	61.02	68.20	-7.18	44.03	16.99	Peak
2	5650.000	57.81	68.21	-10.40	40.84	16.97	Peak
3	5722.500	73.48	116.50	-43.02	56.01	17.47	Peak
4	5794.000	120.98	------	------	103.12	17.86	Peak
5	5858.500	82.47	109.82	-27.35	64.47	18.00	Peak
6	5925.000	61.55	68.21	-6.66	43.67	17.88	Peak
7	5928.500	67.36	68.20	-0.84	49.50	17.86	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

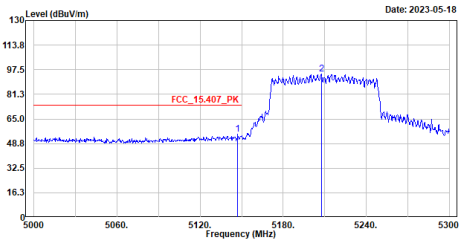
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_ax80_5210MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5149.700	43.57	54.00	-10.43	27.76	15.81	Average
2	5207.000	84.39	------	------	68.60	15.79	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

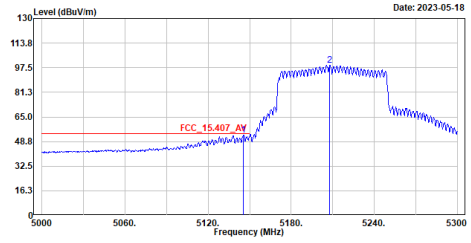
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_ax80_5210MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5147.300	55.11	74.00	-18.89	39.30	15.81	Peak
2	5207.600	94.56	------	------	78.78	15.78	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

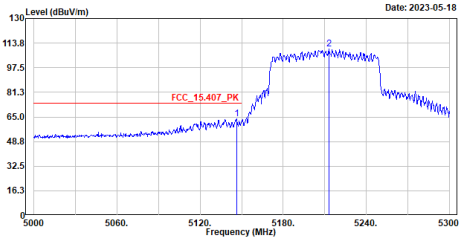
Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_ax80_5210MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5145.500	53.06	54.00	-0.94	37.25	15.81	Average
2	5207.900	99.23	------	------	83.45	15.78	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

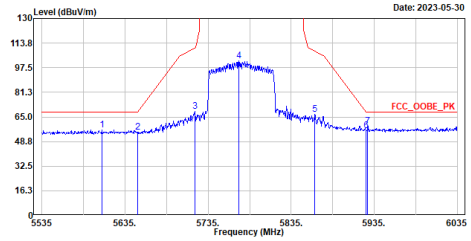
Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_ax80_5210MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5146.400	63.70	74.00	-10.30	47.89	15.81	Peak
2	5213.300	109.65	------	------	93.90	15.75	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

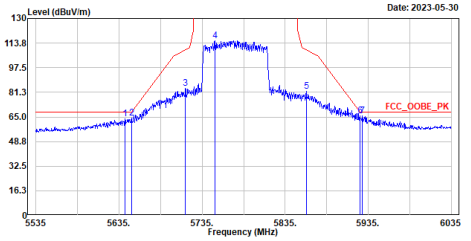
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_ax80_5775MHz
TEST BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5607.000	56.49	68.20	-11.71	39.44	17.05	Peak
2	5650.000	55.04	68.21	-13.17	38.07	16.97	Peak
3	5719.500	68.65	110.66	-42.01	51.20	17.45	Peak
4	5772.000	101.88	------	------	84.14	17.74	Peak
5	5863.500	66.60	108.42	-41.82	48.60	18.00	Peak
6	5925.000	56.17	68.21	-12.04	38.29	17.88	Peak
7	5927.000	58.84	68.20	-9.36	40.98	17.86	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_ax80_5775MHz
TEST BY :Peter

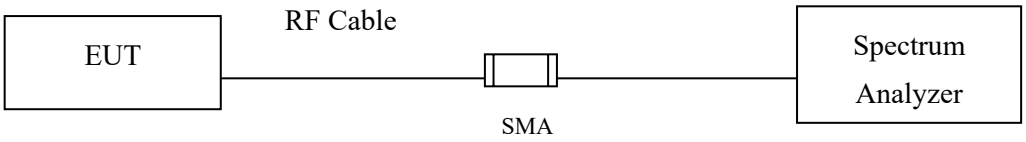


No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5642.500	63.62	68.20	-4.58	46.63	16.99	Peak
2	5650.000	64.13	68.21	-4.08	47.16	16.97	Peak
3	5715.000	83.72	109.40	-25.68	66.31	17.41	Peak
4	5750.500	115.46	------	------	97.80	17.66	Peak
5	5860.500	81.94	109.26	-27.32	63.94	18.00	Peak
6	5925.000	65.79	68.21	-2.42	47.91	17.88	Peak
7	5928.000	65.94	68.20	-2.26	48.08	17.86	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

7. Occupied Bandwidth

7.1. Test Setup



7.2. Limits

For the 5.725-5.85 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

7.3. Test Procedure

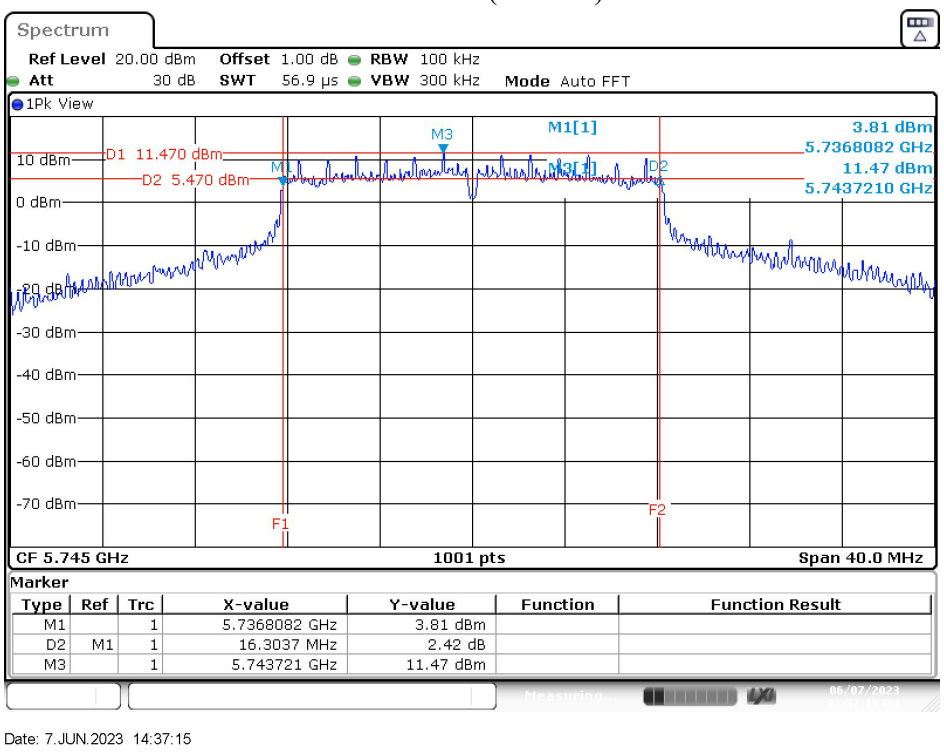
The EUT was setup to ANSI C63.10, 2013; tested to UNII test procedure of FCC KDB-789033 for compliance to FCC 47CFR Subpart E requirements.

7.4. Test Result of Occupied Bandwidth

Product : WiFi 6 ax3000 2x2 dual concurrent MiniPCIe interface Module
Test Item : Occupied Bandwidth Data
Test Mode : Transmit (802.11a-CDD)
Test Date : 2023/06/07

Channel No.	Chain	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
149	A	5745	16264	>500	Pass
157	A	5785	16304	>500	Pass
165	A	5825	16264	>500	Pass
149	B	5745	16304	>500	Pass
157	B	5785	16304	>500	Pass
165	B	5825	16304	>500	Pass

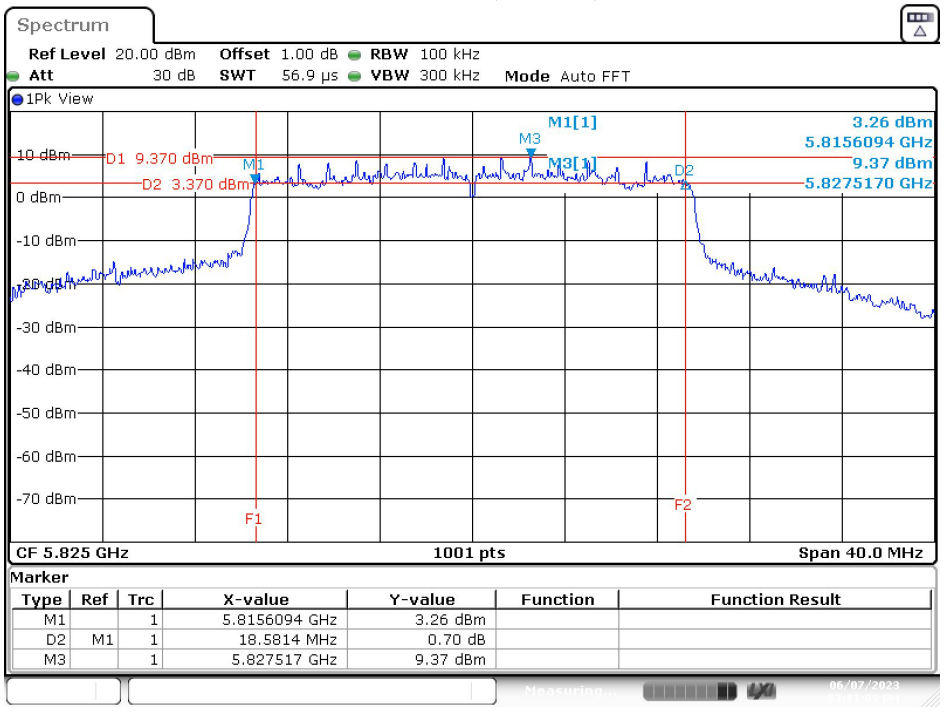
Channel 149 (Chain B):



Product : WiFi 6 ax3000 2x2 dual concurrent MiniPCIe interface Module
Test Item : Occupied Bandwidth Data
Test Mode : Transmit (802.11ax-20 MHz-CDD)
Test Date : 2023/06/07

Channel No.	Chain	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
149	A	5745	18502	>500	Pass
157	A	5785	18502	>500	Pass
165	A	5825	18581	>500	Pass
149	B	5745	17982	>500	Pass
157	B	5785	18102	>500	Pass
165	B	5825	18262	>500	Pass

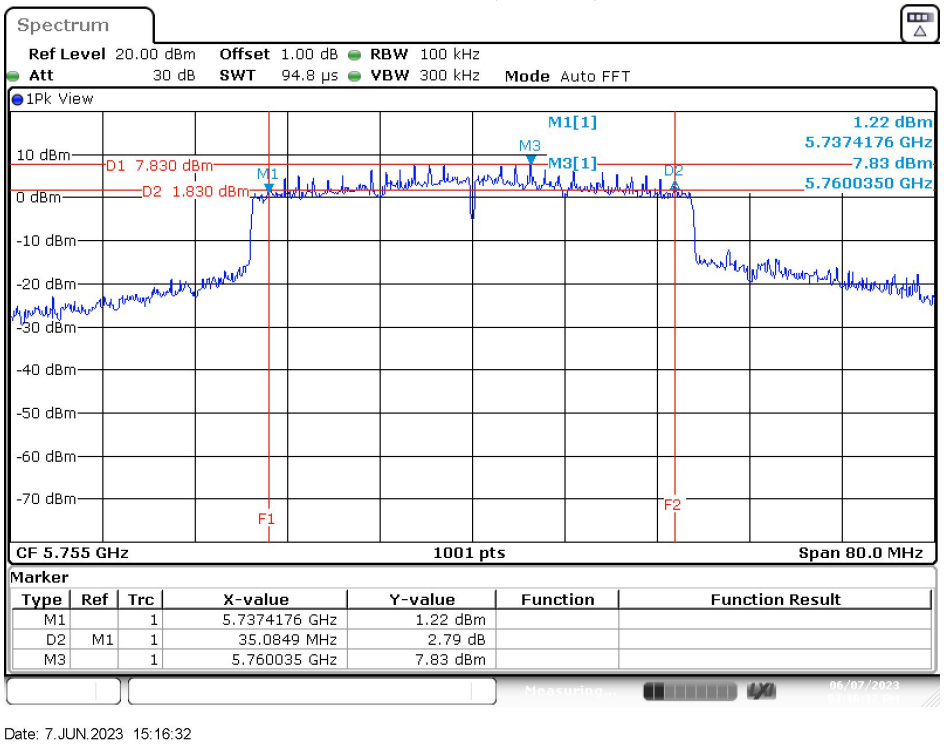
Channel 165 (Chain A):



Product : WiFi 6 ax3000 2x2 dual concurrent MiniPCIe interface Module
Test Item : Occupied Bandwidth Data
Test Mode : Transmit (802.11ax-40 MHz-CDD)
Test Date : 2023/06/07

Channel No.	Chain	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
151	A	5755	35085	>500	Pass
159	A	5795	35085	>500	Pass
151	B	5755	35085	>500	Pass
159	B	5795	35085	>500	Pass

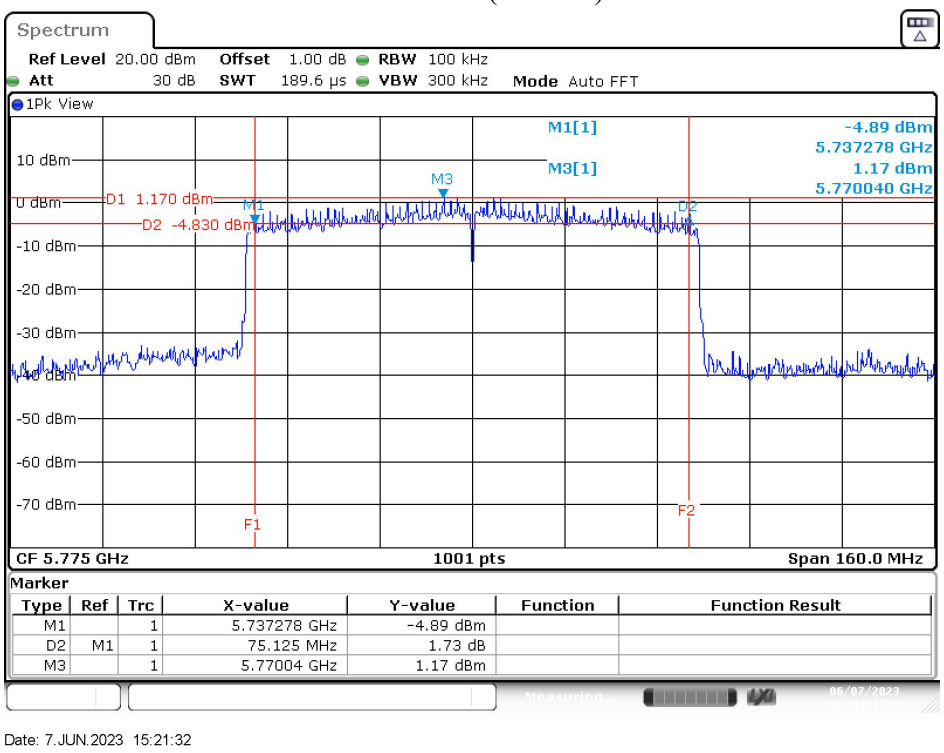
Channel 151 (Chain A):



Product : WiFi 6 ax3000 2x2 dual concurrent MiniPCIe interface Module
Test Item : Occupied Bandwidth Data
Test Mode : Transmit (802.11ax-80 MHz-CDD)
Test Date : 2023/06/07

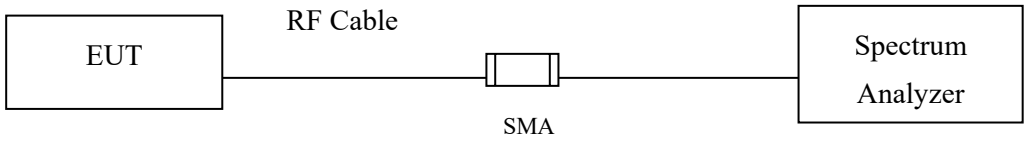
Channel No.	Chain	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
155	A	5775	75125	>500	Pass
155	B	5775	75125	>500	Pass

Channel 155 (Chain A):



8. Duty Cycle

8.1. Test Setup



8.2. Test Procedure

The EUT was setup according to ANSI C63.10 2013; tested according to U-NII test procedure of KDB789033 for compliance to FCC 47CFR 15.407 requirements.

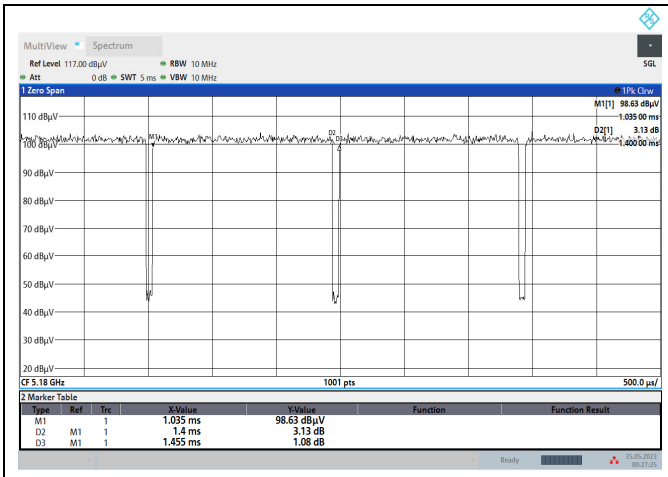
8.3. Test Result of Duty Cycle

Product : WiFi 6 ax3000 2x2 dual concurrent MiniPCIe interface Module
Test Item : Duty Cycle
Test Mode : Transmit-CDD mode

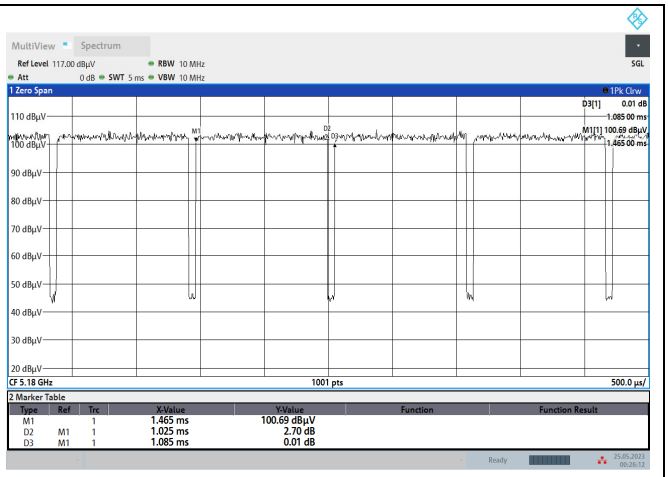
Duty Cycle Formula:
Duty Cycle = Ton / (Ton + Toff)
Duty Factor = 10 Log (1/Duty Cycle)

Results:

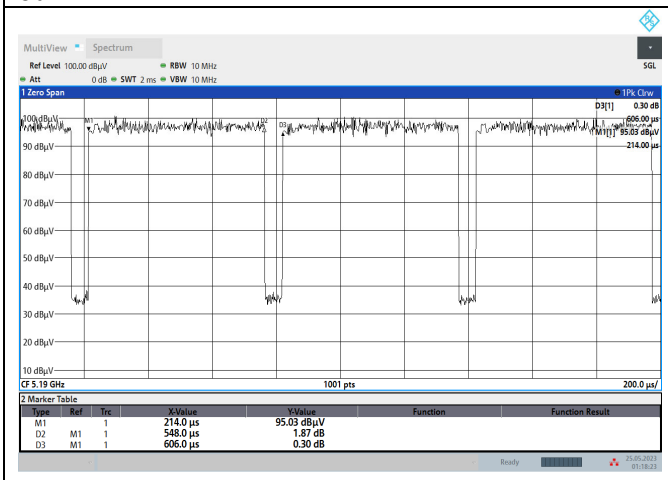
5GHz band	Ton (ms)	Ton + Toff (ms)	Duty Cycle (%)	Duty Factor (dB)
802.11a	1.4000	1.4550	96.22	0.17
802.11ax-20 MHz	1.0250	1.0850	94.47	0.25
802.11ax-40 MHz	0.5480	0.6060	90.43	0.44
802.11ax-80 MHz	0.2960	0.3550	83.38	0.79



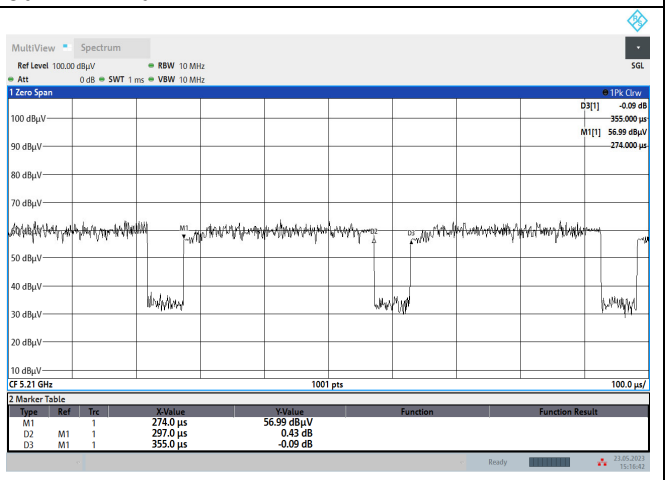
802.11a



802.11ax-20 MHz



802.11ax-40 MHz



802.11ax-80 MHz