Testing Laboratory
3023

Test report No.: 2330619R-RFUSV03S-A

TEST REPORT

Product Name	802.11AX Outdoor AP
Trademark	emplus
Model and /or type reference	WAP683EXT
FCC ID	2AL6XWAP683EXT
Applicant´s name / address	Emplus Technologies, Inc Bld B, 10F, No.209, Sec.1, Nangang Rd., Taipei City, 115 Taiwan
Manufacturer´s name	Emplus Technologies, 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	2023/03/16
Date of Issue	2023/07/13
Report Version	V1.0

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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
2330619R-RFUSV03S-A	V1.0	Initial issue of report.	2023/07/13

1. General Information

1.1. EUT Description

Product Name	802.11AX Outdoor AP
Trademark	emplus
Model and /or type reference	WAP683EXT
EUT Rated Voltage	AC 100-240V, 50-60Hz
EUT Test Voltage	AC 120V/ 60Hz
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 Mbps 802.11ac: up to 866.7 Mbps, 802.11ax: up to 1201 Mbps
Type of Modulation	OFDM, BPSK, QPSK, 16QAM, 64QAM, 256QAM OFDMA, BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM
Channel Control	Auto
PoE Adapter	MFR: EnGenius, M/N: EPA5006GR Input: AC 100-240V~, 0.8A, 50-60Hz Output: 54V⎓0.6A

Antenna List

No.	Manufacturer	Part No.	Antenna Type	Peak Gain
1	Master Wave	98143URSX000	Dipole	5.12 dBi for 5150-5250 MHz 5.17 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: 5.12 dBi for 5150-5250 MHz 5.17 dBi for 5725-5850 MHz
For CDD mode: 5150-5250 MHz: Directional gain = 5.12 dBi 5725-5850 MHz: Directional gain = 5.17 dBi (Directional gain = $G_{ANT\ MAX}$ + Array Gain, Array Gain = 0 dB for $N_{ANT} \leq 4$)
For power Beamforming Directional gain: 8.13 dBi for 5150-5250 MHz 8.18 dBi for 5725-5850 MHz
For Beamforming mode: 5150-5250 MHz: Directional gain = 8.13 dBi 5725-5850 MHz: Directional gain = 8.18 dBi Directional gain = $G_{ANT\ MAX}$ + Array Gain, Array Gain = 10*log(2) = 3.01 dB)

For PSD Directional gain: 8.13 dBi for 5150-5250 MHz 8.18 dBi for 5725-5850 MHz
For PSD mode: 5150-5250 MHz: Directional gain = 8.13 dBi 5725-5850 MHz: Directional gain = 8.18 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 an 802.11AX Outdoor AP, with built-in WLAN, this report for 5 GHz WLAN.
2. Regarding to the operation frequency, the lowest, middle and highest frequency are selected to perform the test.
3. 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)
4. 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.
5. The spectrum plot against conducted item only shows the worst case.
6. This device does not support partial RU function.
7. 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

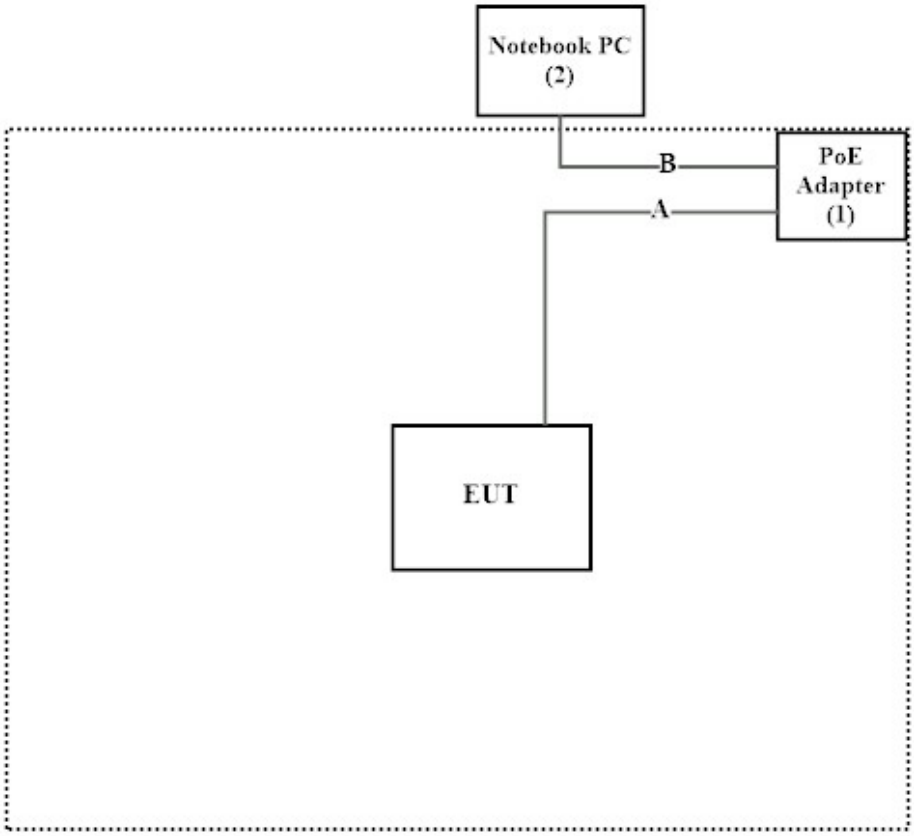
1.2. Tested System Datails

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	PoE Adapter	EnGenius	EPA5006GR	N/A	N/A
2	Notebook PC	DELL	Latitude 5501	9V4JL13	N/A

Cable Type		Cable Description
A	LAN Cable	Non-shielded, 1.2m
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 “QSPR Version 5.0-00202” 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	25.7 °C
	Humidity (%RH)	10~90 %	57.1 %
Radiated Emission	Temperature (°C)	10~40 °C	22.7 °C
	Humidity (%RH)	10~90 %	61.8 %
Conductive	Temperature (°C)	10~40 °C	22.0 °C
	Humidity (%RH)	10~90 %	55.0 %

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	2023/06/20	2024/06/19
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	ESR3	102793	2022/12/05	2023/12/04
V	Spectrum Analyzer	R&S	FSV3044	101114	2023/02/16	2024/02/15
V	Coaxial Cable	SGH	SGH18	2021005-1	2023/01/10	2024/01/09
	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.

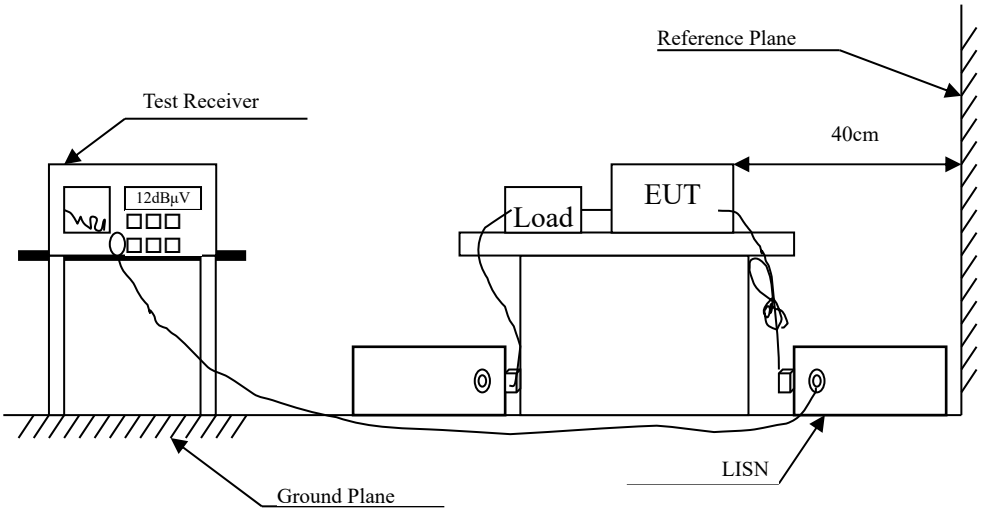
The reported expanded uncertainties are based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95%.

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

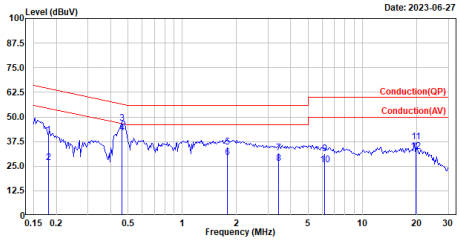
The EUT and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50 ohm /50μH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm /50μH coupling 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

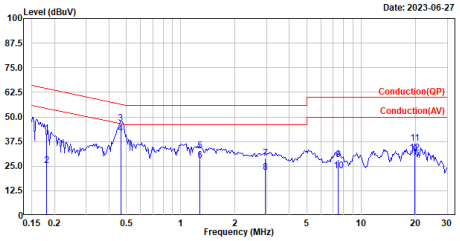
Site :HY-SR01
Condition :Line
Mode :ax80_5775MHz_TX
test by :Shane



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	0.182	40.93	64.41	-23.48	31.25	9.68	QP
2	0.182	26.74	54.41	-27.67	17.06	9.68	Average
3	0.465	46.90	56.61	-9.71	37.22	9.68	QP
4	0.465	41.96	46.61	-4.65	32.28	9.68	Average
5	1.787	34.73	56.00	-21.27	24.93	9.80	QP
6	1.787	29.33	46.00	-16.67	19.53	9.80	Average
7	3.432	31.88	56.00	-24.12	21.57	10.31	QP
8	3.432	26.23	46.00	-19.77	15.92	10.31	Average
9	6.152	31.24	60.00	-28.76	20.41	10.83	QP
10	6.152	25.81	50.00	-24.19	14.98	10.83	Average
11	19.708	37.39	60.00	-22.61	26.71	10.68	QP
12	19.708	32.49	50.00	-17.51	21.81	10.68	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 :ax80_5775MHz_TX
test by :Shane



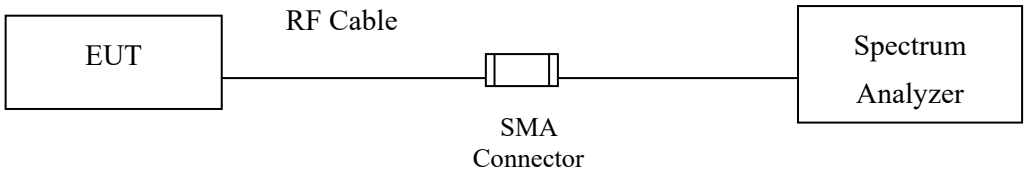
No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	0.181	41.45	64.44	-22.99	31.79	9.66	QP
2	0.181	25.24	54.44	-29.20	15.58	9.66	Average
3	0.465	46.66	56.60	-9.94	37.00	9.66	QP
4	0.465	41.60	46.60	-5.00	31.94	9.66	Average
5	1.273	32.79	56.00	-23.21	23.07	9.72	QP
6	1.273	27.79	46.00	-18.21	18.07	9.72	Average
7	2.937	28.93	56.00	-27.07	18.81	10.12	QP
8	2.937	21.88	46.00	-24.12	11.76	10.12	Average
9	7.472	28.28	60.00	-31.72	17.47	10.81	QP
10	7.472	22.55	50.00	-27.45	11.74	10.81	Average
11	19.710	36.53	60.00	-23.47	25.76	10.77	QP
12	19.710	31.78	50.00	-18.22	21.01	10.77	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

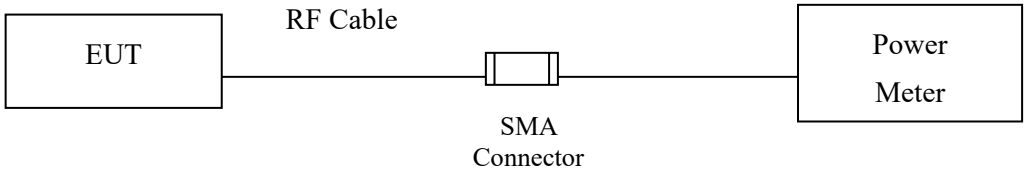
3.1. Test Setup

26 dB Occupied Bandwidth

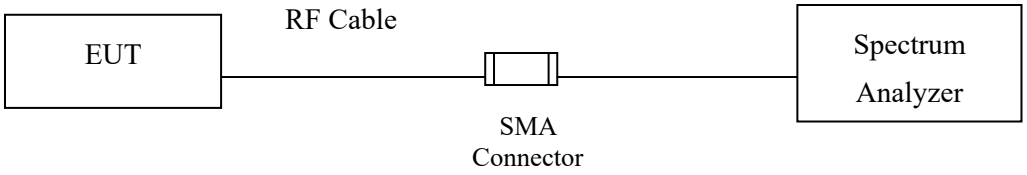


Conduction Power Measurement

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 = 5.12 dBi, Limit= 30 dBm

5725-5850 MHz: Directional gain = 5.17 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 = 8.13 dBi, Limit= 27.87 dBm

5725-5850 MHz: Directional gain = 8.18 dBi, Limit= 27.82 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 : 802.11AX Outdoor AP
Test Item : Maximum conducted output power
Test Mode : Transmit (802.11a)-CDD
Test Date : 2023/04/19

Maximum conducted output power Measurement

Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	Chain A Power (dBm)	Chain B Power (dBm)	Output Power (dBm)	Duty factor (dB)	Output Power Limit	
							(dBm)	dBm+10log(BW)
36	5180	--	19.16	19.23	22.21	--	30	--
44	5220	--	18.87	19.17	22.03	--	30	--
48	5240	--	19.17	19.27	22.23	--	30	--
149	5745	--	22.53	22.86	25.71	--	30	
157	5785	--	22.15	22.98	25.60	--	30	--
165	5825	--	22.41	22.97	25.71	--	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.

Maximum EIRP Measurement

Channel No.	Frequency (MHz)	Output Power (dBm)	Antenna gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)
36	5180	22.21	-1.28	20.93	21
44	5220	22.03	-1.28	20.75	21
48	5240	22.23	-1.28	20.95	21

Note: The antenna gain is elevation angle above 30 degrees as measured.

Product : 802.11AX Outdoor AP
Test Item : Maximum conducted output power
Test Mode : Transmit (802.11ax-20 MHz)-CDD
Test Date : 2023/04/19

Maximum conducted output power Measurement

Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	Chain A Power (dBm)	Chain B Power (dBm)	Output Power (dBm)	Duty factor (dB)	Output Power Limit	
							(dBm)	dBm+10log(BW)
36	5180	--	18.83	19.09	21.97	--	30	--
44	5220	--	18.77	18.96	21.88	--	30	--
48	5240	--	18.99	19.02	22.02	--	30	--
149	5745	--	22.80	23.11	25.97	--	30	--
157	5785	--	22.41	23.21	25.84	--	30	--
165	5825	--	22.58	23.30	25.97	--	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.

Maximum EIRP Measurement

Channel No.	Frequency (MHz)	Output Power (dBm)	Antenna gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)
36	5180	21.97	-1.28	20.69	21
44	5220	21.88	-1.28	20.60	21
48	5240	22.02	-1.28	20.74	21

Note: The antenna gain is elevation angle above 30 degrees as measured.

Product	:	802.11AX Outdoor AP
Test Item	:	Maximum conducted output power
Test Mode	:	Transmit (802.11ax-40 MHz)-CDD
Test Date	:	2023/04/19

Maximum conducted output power Measurement

Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	Chain A Power (dBm)	Chain B Power (dBm)	Output Power (dBm)	Duty factor (dB)	Output Power Limit	
							(dBm)	dBm+10log(BW)
38	5190	--	18.41	18.52	21.48	--	30	--
46	5230	--	19.02	19.22	22.13	--	30	--
151	5755	--	22.59	22.77	25.69	--	30	--
159	5795	--	22.18	23.09	25.67	--	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.

Maximum EIRP Measurement

Channel No.	Frequency (MHz)	Output Power (dBm)	Antenna gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)
38	5190	21.48	-1.28	20.20	21
46	5230	22.13	-1.28	20.85	21

Note: The antenna gain is elevation angle above 30 degrees as measured.

Product : 802.11AX Outdoor AP
Test Item : Maximum conducted output power
Test Mode : Transmit (802.11ax-80 MHz)-CDD
Test Date : 2023/04/19

Maximum conducted output power Measurement

Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	Chain A Power (dBm)	Chain B Power (dBm)	Output Power (dBm)	Duty factor (dB)	Output Power Limit	
							(dBm)	dBm+10log(BW)
42	5210	--	18.23	18.88	21.58	--	30	--
155	5775	--	21.38	22.04	24.73	--	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.

Maximum EIRP Measurement

Channel No.	Frequency (MHz)	Output Power (dBm)	Antenna gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)
42	5210	21.58	-1.28	20.30	21

Note: The antenna gain is elevation angle above 30 degrees as measured.

Product : 802.11AX Outdoor AP
Test Item : Maximum conducted output power
Test Mode : Transmit (802.11ax-20 MHz)-Beamforming
Test Date : 2023/04/18

Maximum conducted output power Measurement:

Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	Chain A Power (dBm)	Chain B Power (dBm)	Output Power (dBm)	Duty factor (dB)	Output Power Limit	
							(dBm)	dBm+10log(BW)
36	5180	--	15.82	16.08	18.96	--	27.87	--
44	5220	--	15.76	15.95	18.87	--	27.87	--
48	5240	--	15.98	16.01	19.01	--	27.87	--
149	5745	--	19.79	20.10	22.96	--	27.82	--
157	5785	--	19.40	20.20	22.83	--	27.82	--
165	5825	--	19.57	20.29	22.96	--	27.82	--

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.

Maximum EIRP Measurement:

Channel No.	Frequency (MHz)	Output Power (dBm)	Antenna gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)
36	5180	18.96	-1.28	17.68	21
44	5220	18.87	-1.28	17.59	21
48	5240	19.01	-1.28	17.73	21

Note: The antenna gain is elevation angle above 30 degrees as measured.

Product	:	802.11AX Outdoor AP
Test Item	:	Maximum conducted output power
Test Mode	:	Transmit (802.11ax-40 MHz)-Beamforming
Test Date	:	2023/04/18

Maximum conducted output power Measurement

Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	Chain A Power (dBm)	Chain B Power (dBm)	Output Power (dBm)	Duty factor (dB)	Output Power Limit	
							(dBm)	dBm+10log(BW)
38	5190	--	15.40	15.51	18.47	--	27.87	--
46	5230	--	16.01	16.21	19.12	--	27.87	--
151	5755	--	19.58	19.76	22.68	--	27.82	--
159	5795	--	19.17	20.08	22.66	--	27.82	--

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.

Maximum EIRP Measurement

Channel No.	Frequency (MHz)	Output Power (dBm)	Antenna gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)
38	5190	18.47	-1.28	17.19	21
46	5230	19.12	-1.28	17.84	21

Note: The antenna gain is elevation angle above 30 degrees as measured.

Product : 802.11AX Outdoor AP
Test Item : Maximum conducted output power
Test Mode : Transmit (802.11ax-80 MHz)-Beamforming
Test Date : 2023/04/18

Maximum conducted output power Measurement

Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	Chain A Power (dBm)	Chain B Power (dBm)	Output Power (dBm)	Duty factor (dB)	Output Power Limit	
							(dBm)	dBm+10log(BW)
42	5210	--	15.22	15.87	18.57	--	27.87	--
155	5775	--	18.37	19.03	21.72	--	27.82	--

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.

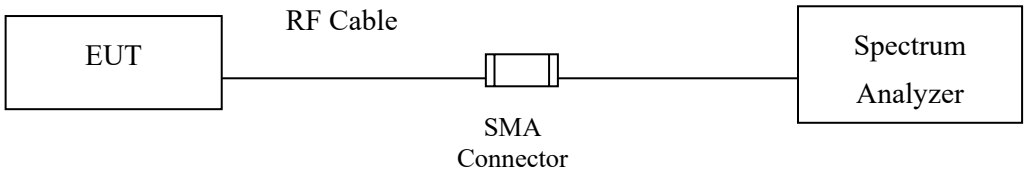
Maximum EIRP Measurement

Channel No.	Frequency (MHz)	Output Power (dBm)	Antenna gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)
42	5210	18.57	-1.28	17.29	21

Note: The antenna gain is elevation angle above 30 degrees as measured.

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 = 8.13 dBi, Limit= 14.84 dBm
5725-5850 MHz: Directional gain = 8.18 dBi, Limit= 27.82 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

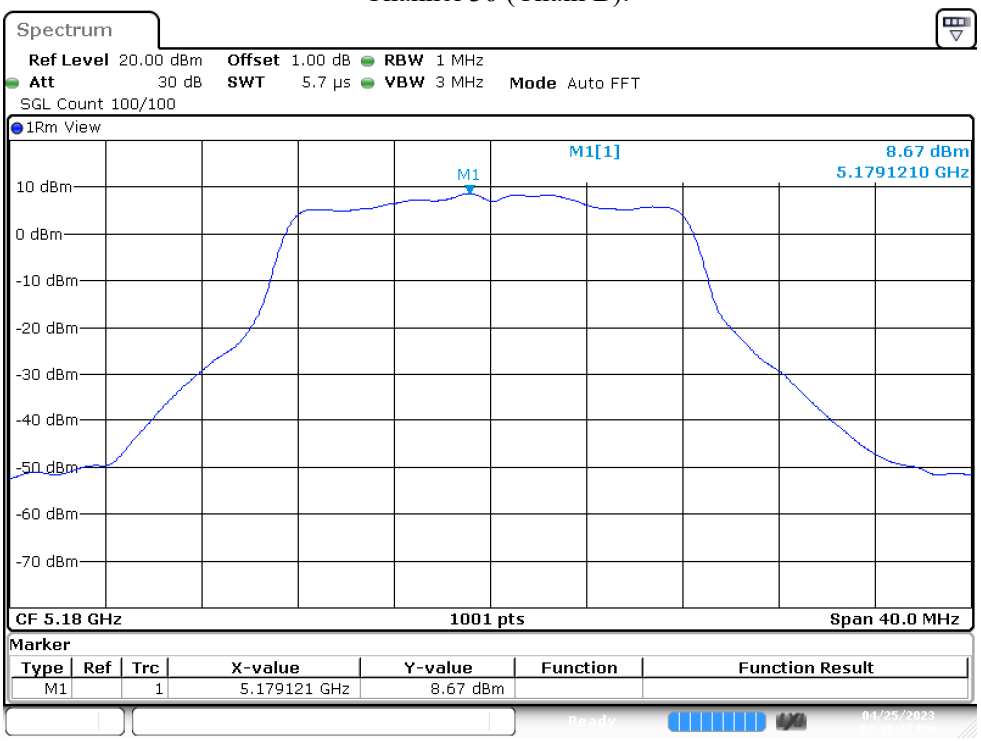
Product : 802.11AX Outdoor AP
Test Item : Maximum Power Spectral Density
Test Mode : Transmit (802.11a)-CDD

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	8.11	0.39	11.80	14.87	Pass
			B	8.67				
44	5220	6	A	8.05	0.39	11.55	14.87	Pass
			B	8.24				
48	5240	6	A	8.21	0.39	11.77	14.87	Pass
			B	8.52				

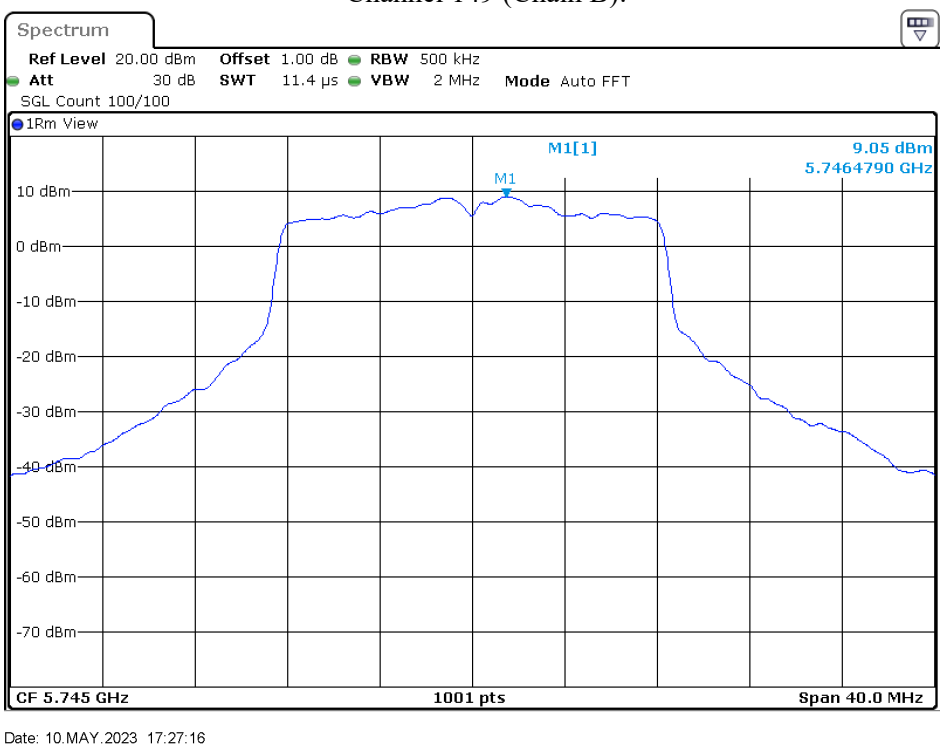
Channel No.	Frequency (MHz)	Data Rate (Mbps)	Chain	PPSD/MHz (dBm)	Duty factor (dB)	Total PPSD/MHz (dBm)	Limit (dBm)	Result
149	5745	6	A	8.43	0.39	12.15	27.82	Pass
			B	9.05				
157	5785	6	A	8.32	0.39	11.91	27.82	Pass
			B	8.70				
165	5825	6	A	8.77	0.39	12.23	27.82	Pass
			B	8.90				

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

Channel 36 (Chain B):



Channel 149 (Chain B):



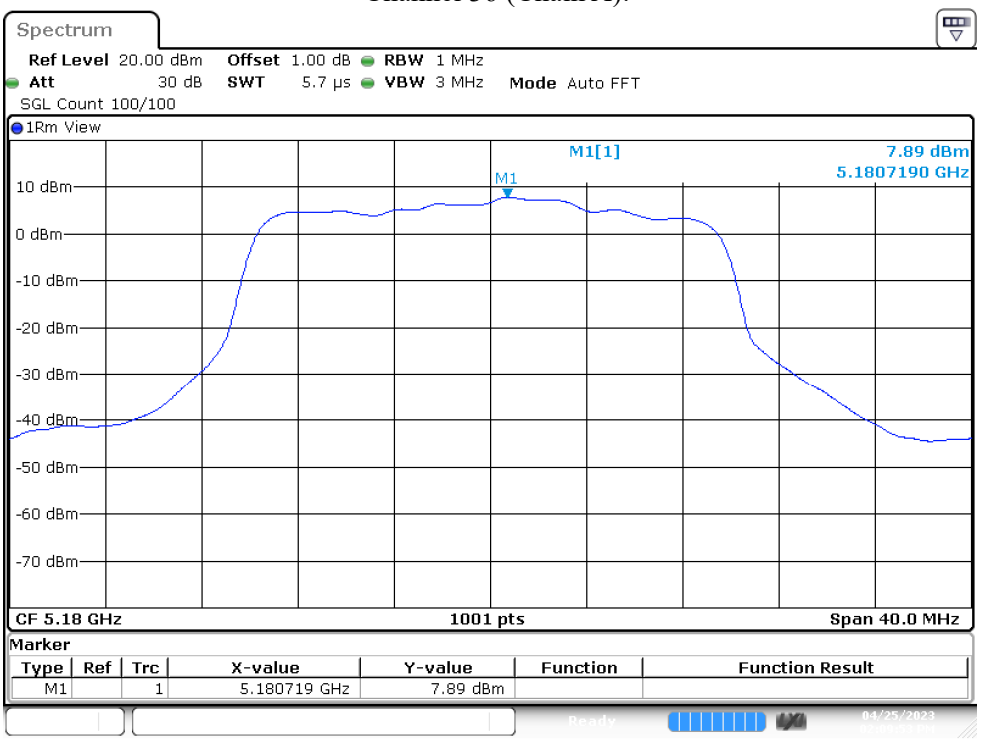
Product : 802.11AX Outdoor AP
Test Item : Maximum Power Spectral Density
Test Mode : Transmit (802.11ax-20 MHz)-CDD

Channel No.	Frequency (MHz)	Data Rate	Chain	PPSD/MHz (dBm)	Duty factor (dB)	Total PPSD/MHz (dBm)	Limit (dBm)	Result
36	5180	MCS0	A	7.89	0.40	11.20	14.87	Pass
			B	7.69				
44	5220	MCS0	A	6.32	0.40	10.24	14.87	Pass
			B	7.29				
48	5240	MCS0	A	6.96	0.40	10.29	14.87	Pass
			B	6.79				

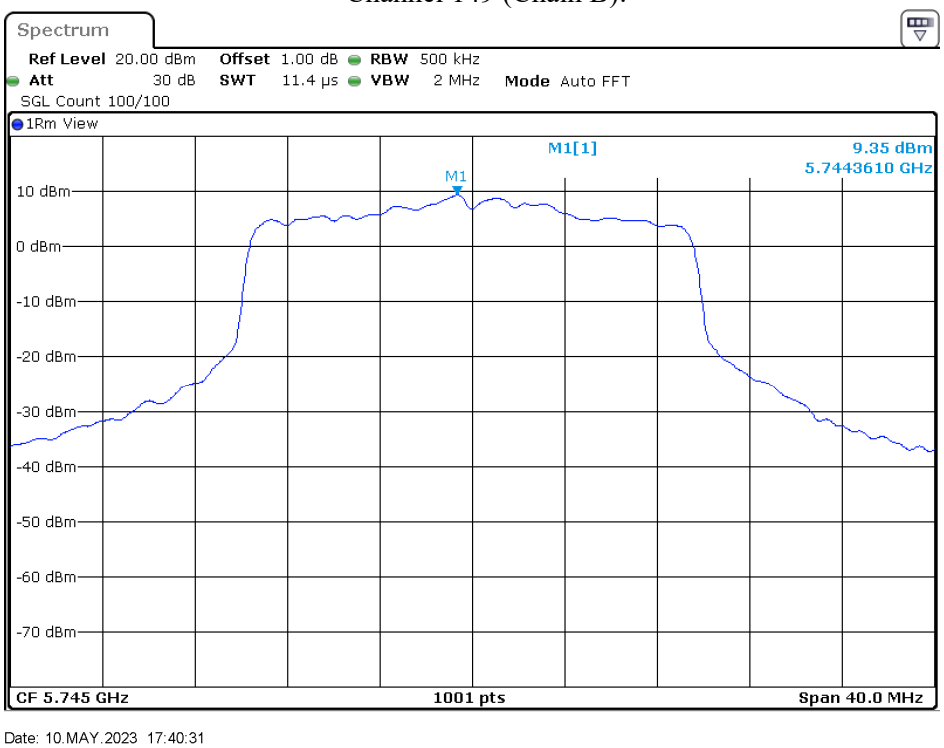
Channel No.	Frequency (MHz)	Data Rate	Chain	PPSD/MHz (dBm)	Duty factor (dB)	Total PPSD/MHz (dBm)	Limit (dBm)	Result
149	5745	MCS0	A	7.82	0.40	12.06	27.82	Pass
			B	9.35				
157	5785	MCS0	A	7.19	0.40	11.12	27.82	Pass
			B	8.17				
165	5825	MCS0	A	8.24	0.40	11.71	27.82	Pass
			B	8.36				

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

Channel 36 (Chain A):



Channel 149 (Chain B):



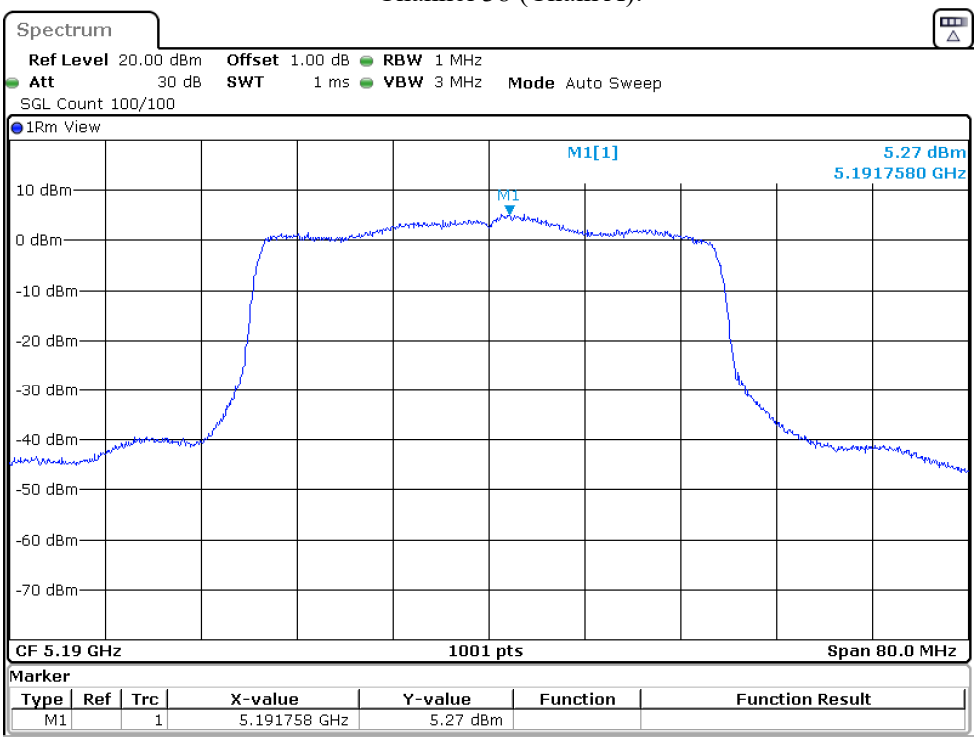
Product : 802.11AX Outdoor AP
Test Item : Maximum Power Spectral Density
Test Mode : Transmit (802.11ax-40 MHz)-CDD

Channel No.	Frequency (MHz)	Data Rate	Chain	PPSD/MHz (dBm)	Duty factor (dB)	Total PPSD/MHz (dBm)	Limit (dBm)	Result
38	5190	MCS0	A	5.27	0.37	8.55	14.87	Pass
			B	5.08				
46	5230	MCS0	A	4.88	0.37	8.26	14.87	Pass
			B	4.89				

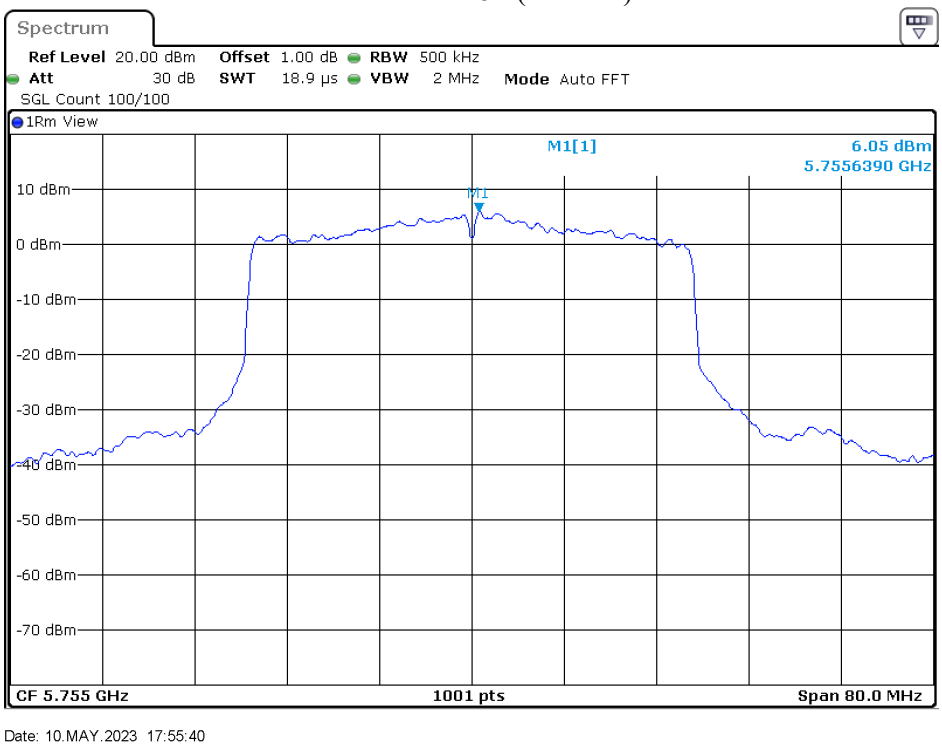
Channel No.	Frequency (MHz)	Data Rate	Chain	PPSD/MHz (dBm)	Duty factor (dB)	Total PPSD/MHz (dBm)	Limit (dBm)	Result
151	5755	MCS0	A	6.02	0.37	9.41	27.82	Pass
			B	6.05				
159	5795	MCS0	A	5.02	0.37	8.82	27.82	Pass
			B	5.83				

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

Channel 38 (Chain A):



Channel 151 (Chain B):



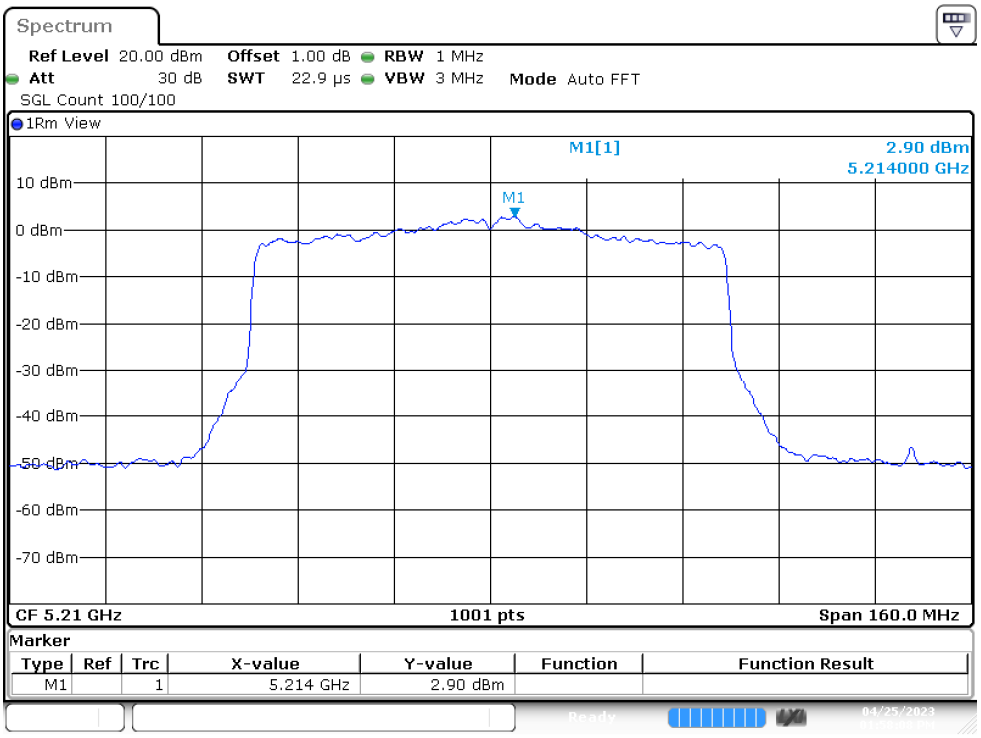
Product : 802.11AX Outdoor AP
Test Item : Maximum Power Spectral Density
Test Mode : Transmit (802.11ax-80 MHz)-CDD

Channel No.	Frequency (MHz)	Data Rate	Chain	PPSD/MHz (dBm)	Duty factor (dB)	Total PPSD/MHz (dBm)	Limit (dBm)	Result
42	5210	MCS0	A	2.22	0.42	6.01	14.87	Pass
			B	2.90				

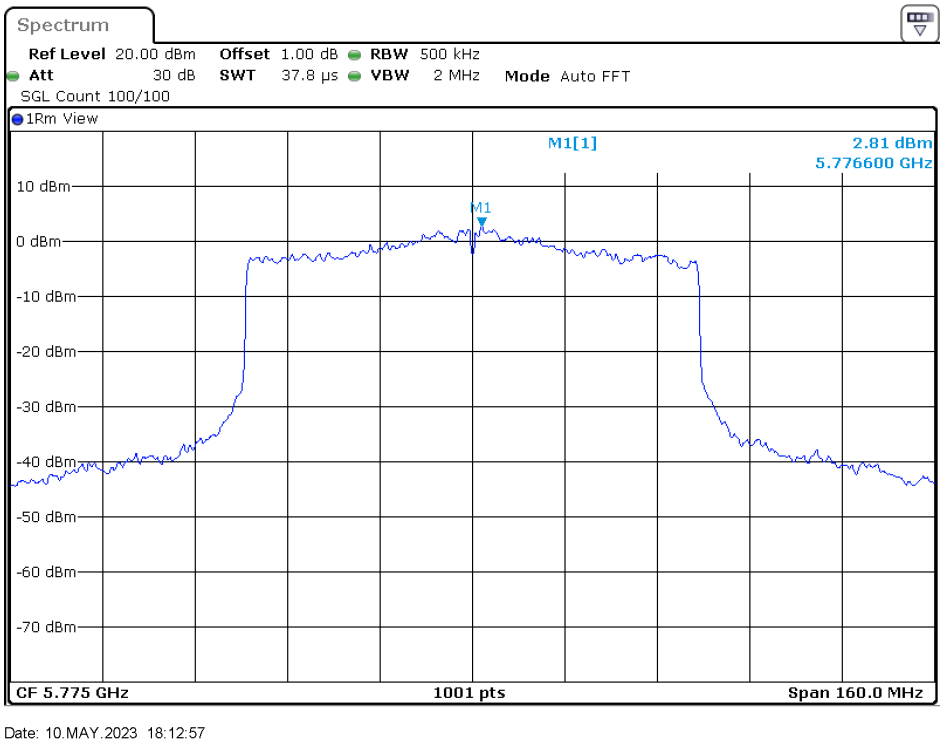
Channel No.	Frequency (MHz)	Data Rate	Chain	PPSD/MHz (dBm)	Duty factor (dB)	Total PPSD/MHz (dBm)	Limit (dBm)	Result
155	5775	MCS0	A	2.31	0.42	6.00	27.82	Pass
			B	2.81				

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

Channel 42 (Chain B):



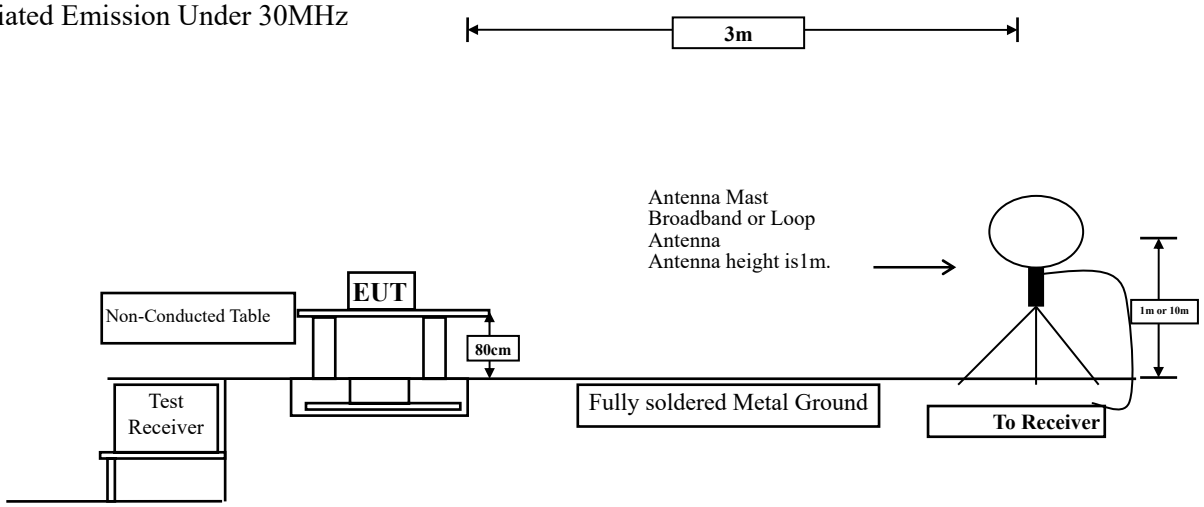
Channel 155 (Chain B):



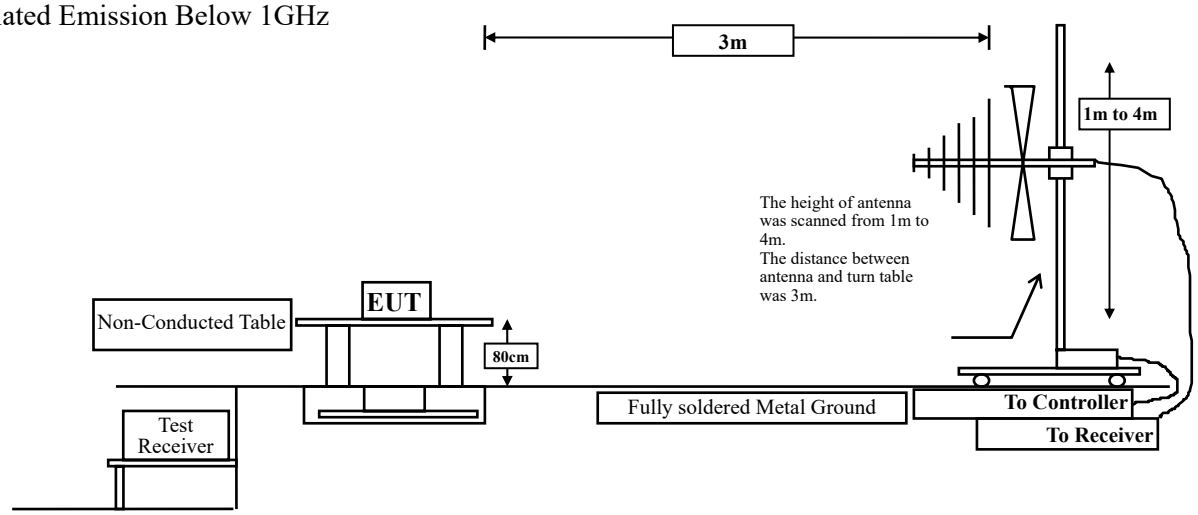
5. Radiated Emission

5.1. Test Setup

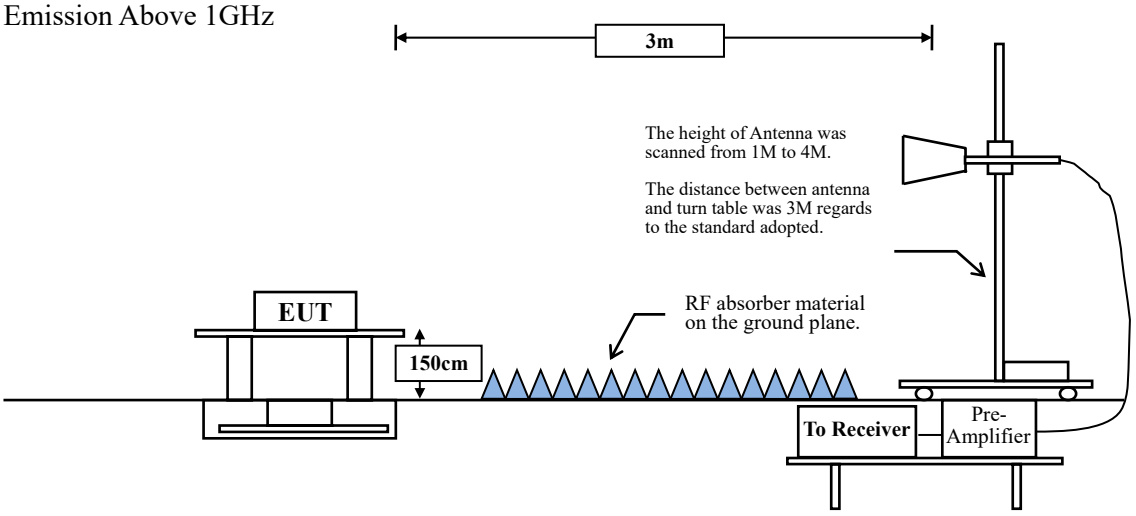
Radiated Emission Under 30MHz



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 %

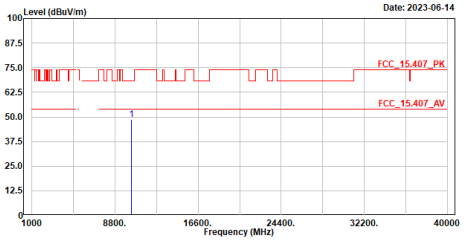
(T refers to the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.)

5GHz band	Duty Cycle (%)	T (ms)	1/T (Hz)	VBW (Hz)
802.11a	91.44	1.9750	506	1000
802.11ax-20 MHz	91.18	5.4300	184	200
802.11ax-40 MHz	91.88	5.4300	184	200
802.11ax-80 MHz	90.73	5.4300	184	200

Note: Duty Cycle Refer to Section 8.

5.4. Test Result of Radiated Emission

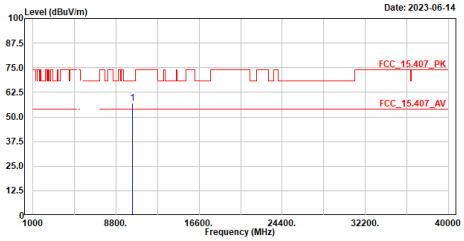
Site :HY-CB03
Condition :3m ,HORIZONTAL
Mode :TX_a_5180MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	10360.000	48.55	68.22	-19.67	53.07	-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.

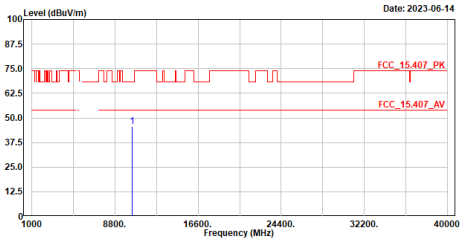
Site :HY-CB03
Condition :3m ,VERTICAL
Mode :TX_a_5180MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	10360.000	57.17	68.22	-11.05	61.69	-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.

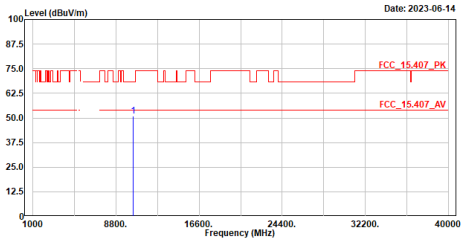
Site :HY-CB03
Condition :3m ,HORIZONTAL
Mode :TX_a_5220MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	10440.000	45.58	68.22	-22.64	50.06	-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.

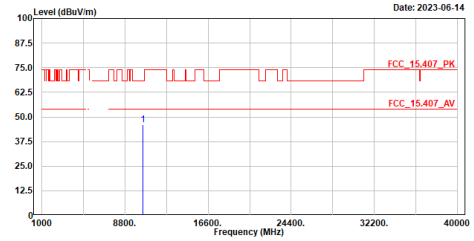
Site :HY-CB03
Condition :3m ,VERTICAL
Mode :TX_a_5220MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	10440.000	50.95	68.22	-17.27	55.43	-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.

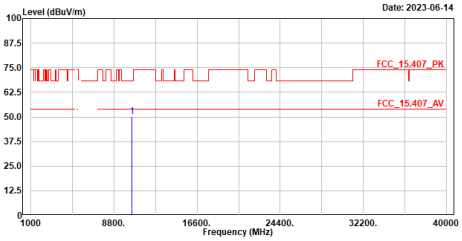
Site :HY-CB03
Condition :3m ,HORIZONTAL
Mode :TX_a_5240MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	10480.000	45.96	68.22	-22.26	50.30	-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.

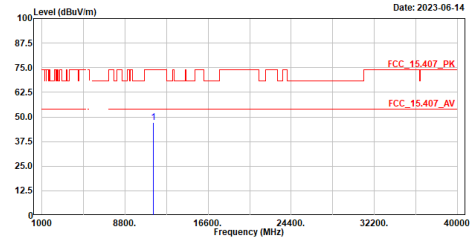
Site :HY-CB03
Condition :3m ,VERTICAL
Mode :TX_a_5240MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	10480.000	50.09	68.22	-18.13	54.43	-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.

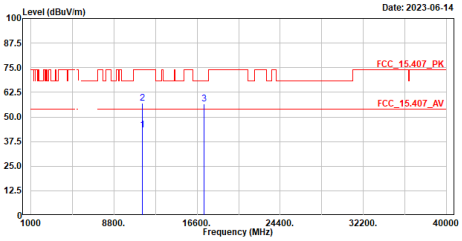
Site :HY-CB03
Condition :3m ,HORIZONTAL
Mode :TX_a_5745MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	11490.000	47.32	74.00	-26.68	49.42	-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.

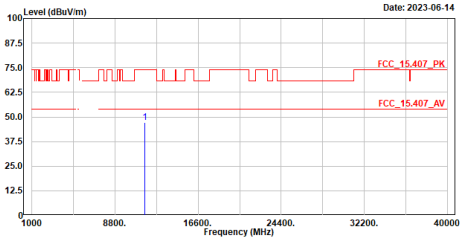
Site :HY-CB03
Condition :3m ,VERTICAL
Mode :TX_a_5745MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	11490.000	43.57	54.00	-10.43	45.67	-2.10	Average
2	11490.000	56.79	74.00	-17.21	58.89	-2.10	Peak
3	17235.000	56.62	68.22	-11.60	57.56	-0.94	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.

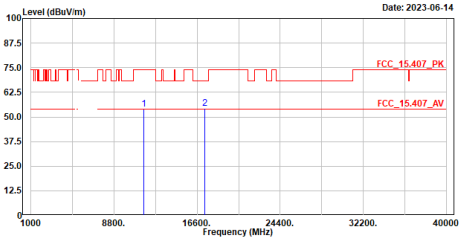
Site :HY-CB03
Condition :3m ,HORIZONTAL
Mode :TX_a_5785MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	11570.000	47.33	74.00	-26.67	49.18	-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.

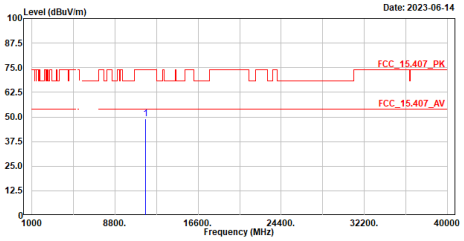
Site :HY-CB03
Condition :3m ,VERTICAL
Mode :TX_a_5785MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	11570.000	53.83	74.00	-20.17	55.68	-1.85	Peak
2	17355.000	54.44	68.22	-13.78	55.05	-0.61	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.

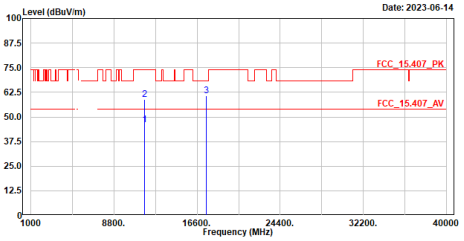
Site :HY-CB03
Condition :3m ,HORIZONTAL
Mode :TX_a_5825MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	11650.000	49.01	74.00	-24.99	50.93	-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.

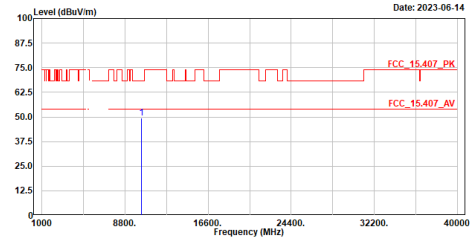
Site :HY-CB03
Condition :3m ,VERTICAL
Mode :TX_a_5825MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	11650.000	45.89	54.00	-8.11	47.81	-1.92	Average
2	11650.000	59.00	74.00	-15.00	60.92	-1.92	Peak
3	17475.000	60.72	68.22	-7.50	61.11	-0.39	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.

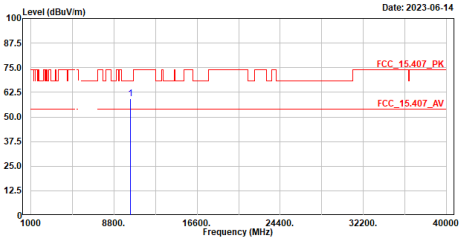
Site :HY-CB03
Condition :3m ,HORIZONTAL
Mode :TX_ax20_5180MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	10360.000	49.34	68.22	-18.88	53.86	-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.

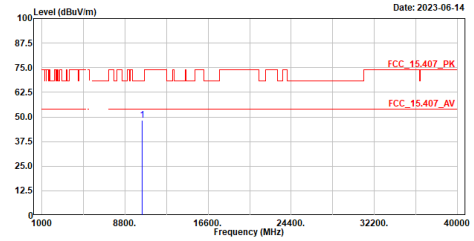
Site :HY-CB03
Condition :3m ,VERTICAL
Mode :TX_ax20_5180MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	10360.000	59.27	68.22	-8.95	63.79	-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.

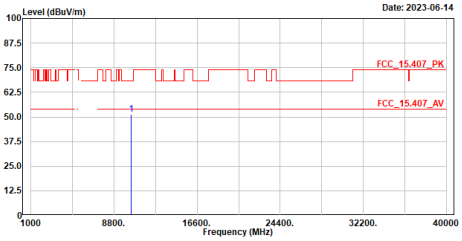
Site :HY-CB03
Condition :3m ,HORIZONTAL
Mode :TX_ax20_5220MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	10440.000	48.31	68.22	-19.91	52.79	-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.

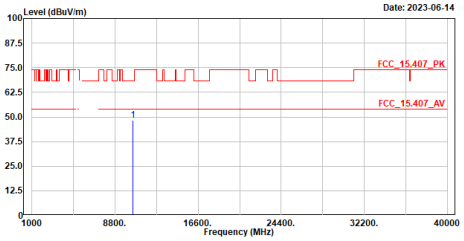
Site :HY-CB03
Condition :3m ,VERTICAL
Mode :TX_ax20_5220MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	10440.000	51.22	68.22	-17.00	55.70	-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.

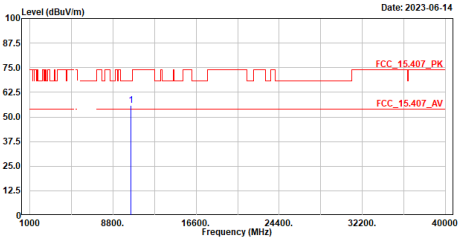
Site :HY-CB03
Condition :3m ,HORIZONTAL
Mode :TX_ax20_5240MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	10480.000	48.45	68.22	-19.77	52.79	-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.

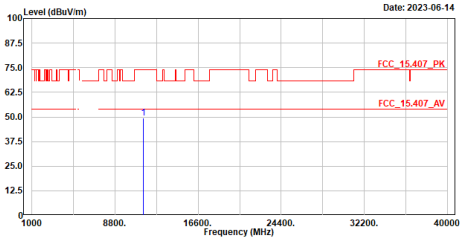
Site :HY-CB03
Condition :3m ,VERTICAL
Mode :TX_ax20_5240MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	10480.000	55.72	68.22	-12.50	60.06	-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.

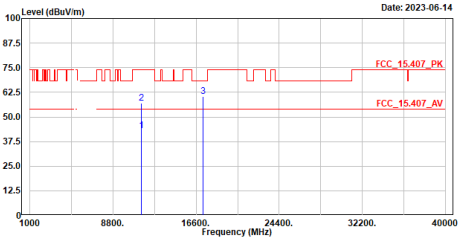
Site :HY-CB03
Condition :3m ,HORIZONTAL
Mode :TX_ax20_5745MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	11490.000	49.27	74.00	-24.73	51.37	-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.

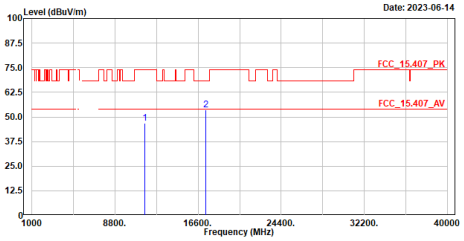
Site :HY-CB03
Condition :3m ,VERTICAL
Mode :TX_ax20_5745MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	11490.000	43.20	54.00	-10.80	45.30	-2.10	Average
2	11490.000	56.81	74.00	-17.19	58.91	-2.10	Peak
3	17235.000	60.37	68.22	-7.85	61.31	-0.94	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.

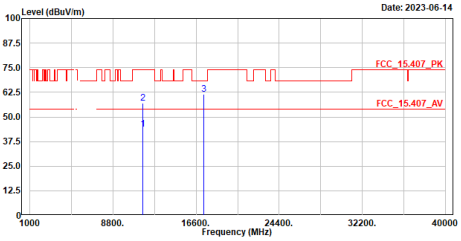
Site :HY-CB03
Condition :3m ,HORIZONTAL
Mode :TX_ax20_5785MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	11570.000	46.79	74.00	-27.21	48.64	-1.85	Peak
2	17355.000	53.57	68.22	-14.65	54.18	-0.61	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.

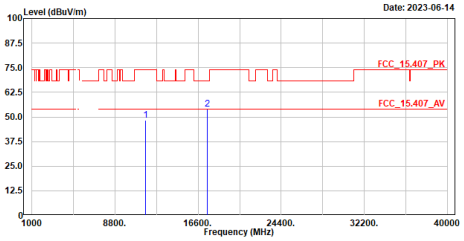
Site :HY-CB03
Condition :3m ,VERTICAL
Mode :TX_ax20_5785MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	11570.000	43.89	54.00	-10.11	45.74	-1.85	Average
2	11570.000	56.98	74.00	-17.02	58.83	-1.85	Peak
3	17355.000	61.61	68.22	-6.61	62.22	-0.61	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.

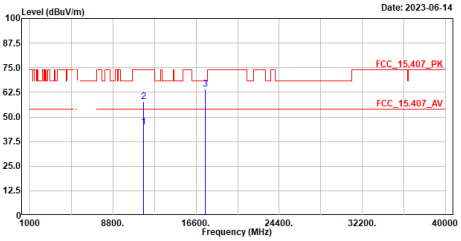
Site :HY-CB03
Condition :3m ,HORIZONTAL
Mode :TX_ax20_5825MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	11650.000	48.13	74.00	-25.87	50.05	-1.92	Peak
2	17475.000	53.87	68.22	-14.35	54.26	-0.39	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.

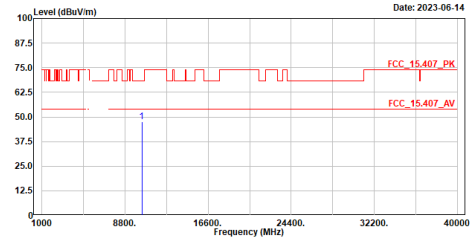
Site :HY-CB03
Condition :3m ,VERTICAL
Mode :TX_ax20_5825MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	11650.000	44.93	54.00	-9.07	46.85	-1.92	Average
2	11650.000	57.78	74.00	-16.22	59.70	-1.92	Peak
3	17475.000	64.13	68.22	-4.09	64.52	-0.39	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.

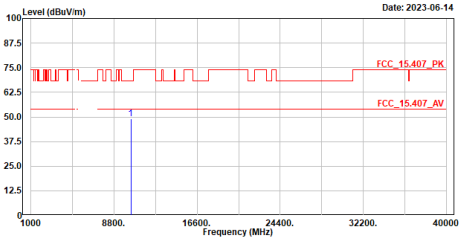
Site :HY-CB03
Condition :3m ,HORIZONTAL
Mode :TX_ax40_5190MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	10380.000	47.39	68.22	-20.83	51.88	-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.

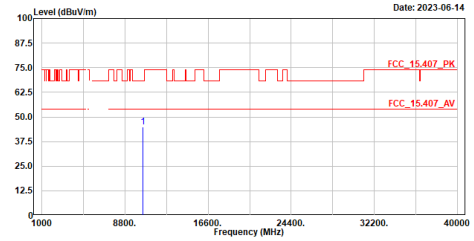
Site :HY-CB03
Condition :3m ,VERTICAL
Mode :TX_ax40_5190MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	10380.000	49.10	68.22	-19.12	53.59	-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.

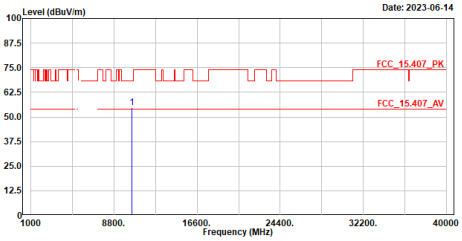
Site :HY-CB03
Condition :3m ,HORIZONTAL
Mode :TX_ax40_5230MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	10460.000	44.91	68.22	-23.31	49.35	-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.

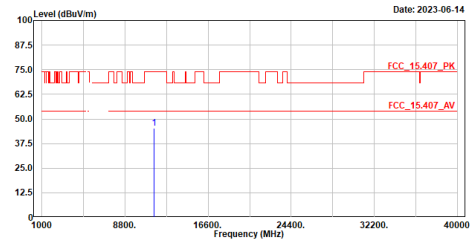
Site :HY-CB03
Condition :3m ,VERTICAL
Mode :TX_ax40_5230MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	10460.000	54.79	68.22	-13.43	59.23	-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.

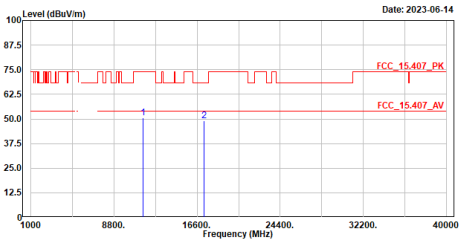
Site :HY-CB03
Condition :3m ,HORIZONTAL
Mode :TX_ax40_5755MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	11510.000	45.44	74.00	-28.56	47.44	-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.

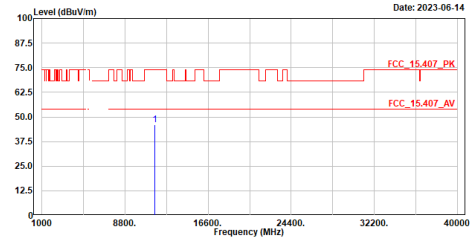
Site :HY-CB03
Condition :3m ,VERTICAL
Mode :TX_ax40_5755MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	11510.000	50.38	74.00	-23.62	52.38	-2.00	Peak
2	17265.000	49.23	68.22	-18.99	50.02	-0.79	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.

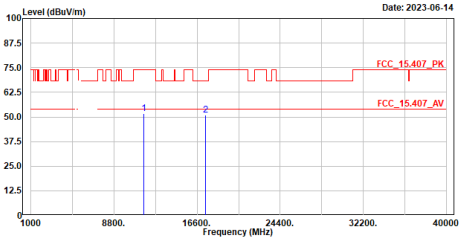
Site :HY-CB03
Condition :3m ,HORIZONTAL
Mode :TX_ax40_5795MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	11590.000	45.92	74.00	-28.08	47.83	-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.

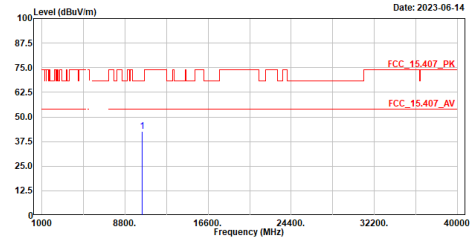
Site :HY-CB03
Condition :3m ,VERTICAL
Mode :TX_ax40_5795MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	11590.000	51.65	74.00	-22.35	53.56	-1.91	Peak
2	17385.000	50.89	68.22	-17.33	51.47	-0.58	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.

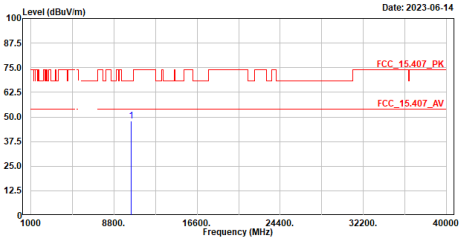
Site :HY-CB03
Condition :3m ,HORIZONTAL
Mode :TX_ax80_5210MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	10420.000	42.73	68.22	-25.49	47.20	-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.

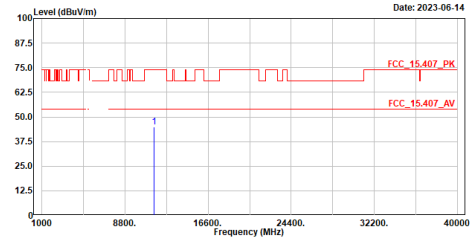
Site :HY-CB03
Condition :3m ,VERTICAL
Mode :TX_ax80_5210MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	10420.000	47.92	68.22	-20.30	52.39	-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.

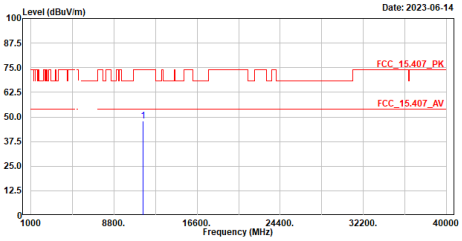
Site :HY-CB03
Condition :3m ,HORIZONTAL
Mode :TX_ax80_5775MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	11550.000	44.82	74.00	-29.18	46.61	-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.

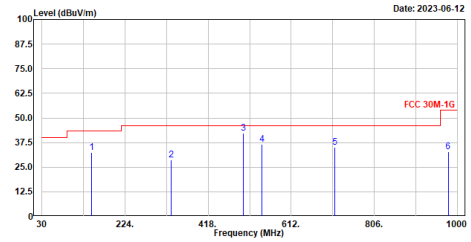
Site :HY-CB03
Condition :3m ,VERTICAL
Mode :TX_ax80_5775MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	11550.000	47.75	74.00	-26.25	49.54	-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.

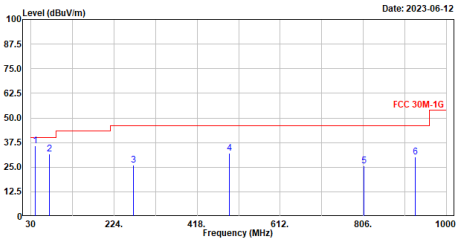
Site :HY-CB03
Condition :3m ,HORIZONTAL
Mode :TX_ax80_5775MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	146.400	32.43	43.50	-11.07	56.83	-24.40	QP
2	331.670	28.64	46.00	-17.36	51.32	-22.68	QP
3	500.450	42.28	46.00	-3.72	60.66	-18.38	QP
4	544.100	36.51	46.00	-9.49	54.37	-17.86	QP
5	713.850	35.11	46.00	-10.89	49.84	-14.73	QP
6	978.660	33.01	54.00	-20.99	44.41	-11.40	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 :Peter

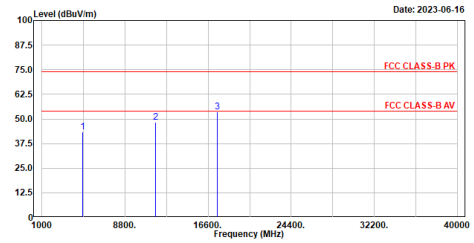


No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	39.700	35.92	40.00	-4.08	60.19	-24.27	QP
2	72.680	31.86	40.00	-8.14	58.78	-26.92	QP
3	269.590	26.00	46.00	-20.00	50.76	-24.76	QP
4	492.690	32.05	46.00	-13.95	50.91	-18.86	QP
5	807.940	25.78	46.00	-20.22	39.06	-13.28	QP
6	927.250	30.09	46.00	-15.91	42.03	-11.94	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.

Co-location

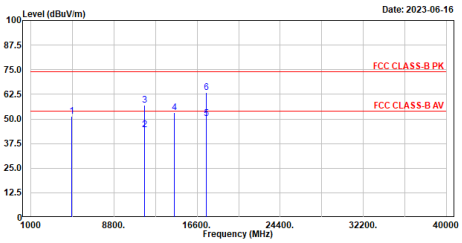
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_b_2412MHz+ax_5825MHz
Test BY :Ashton



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	4824.000	43.25	74.00	-30.75	57.12	-13.87	Peak
2	11650.000	48.24	74.00	-25.76	50.16	-1.92	Peak
3	17475.000	53.63	74.00	-20.37	54.02	-0.39	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.

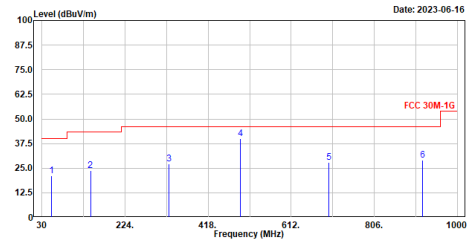
Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_b_2412MHz+ax_5825MHz
Test BY :Ashton



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	4824.000	51.26	74.00	-22.74	65.13	-13.87	Peak
2	11650.000	44.68	54.00	-9.32	46.60	-1.92	Average
3	11650.000	57.07	74.00	-16.93	58.99	-1.92	Peak
4	14472.000	53.17	74.00	-20.83	52.13	1.04	Peak
5	17475.000	50.23	54.00	-3.77	50.62	-0.39	Average
6	17475.000	63.43	74.00	-10.57	63.82	-0.39	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.

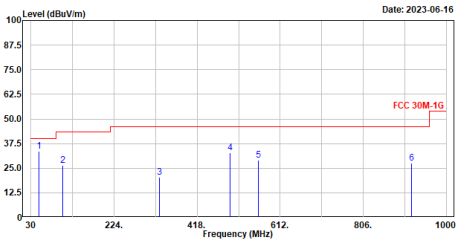
Site :HY-CB03
Condition :3m ,HORIZONTAL
Mode :TX_b_2412MHz+ax_5825MHz
Test BY :Ashton



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	52.310	21.14	40.00	-18.86	45.42	-24.28	QP
2	143.490	23.82	43.50	-19.68	48.25	-24.43	QP
3	325.850	27.07	46.00	-18.93	49.89	-22.82	QP
4	493.660	39.83	46.00	-6.17	58.67	-18.84	QP
5	700.270	27.87	46.00	-18.13	42.64	-14.77	QP
6	919.490	28.90	46.00	-17.10	40.86	-11.96	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_b_2412MHz+ax_5825MHz
Test BY :Ashton



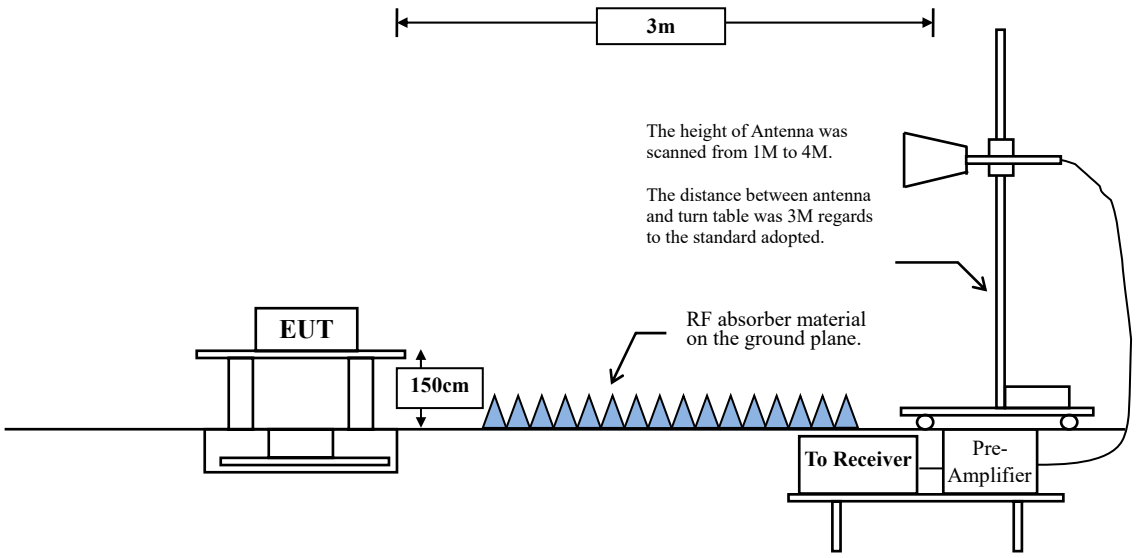
No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	48.430	33.69	40.00	-6.31	57.81	-24.12	QP
2	104.690	26.56	43.50	-16.94	54.59	-28.03	QP
3	329.730	20.38	46.00	-25.62	43.12	-22.74	QP
4	494.630	32.68	46.00	-13.32	51.49	-18.81	QP
5	561.560	29.17	46.00	-16.83	46.71	-17.54	QP
6	919.490	27.45	46.00	-18.55	39.41	-11.96	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.

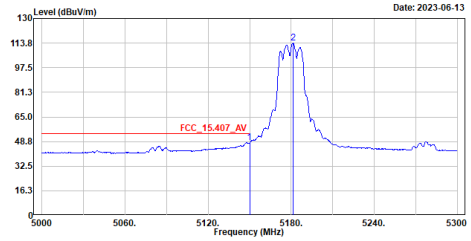
According to KDB 789033 section II.G.6 Procedures for Average Unwanted Emissions Measurements above 1000 MHz.
RBW = 1MHz.
VBW = 10Hz, when duty cycle ≥ 98 %
VBW ≥ 1/T, when duty cycle < 98 %
(T refers to the minimum transmission duration over which the transmitter is on and is transmitting at its maximum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

5GHz band	Duty Cycle (%)	T (ms)	1/T (Hz)	VBW (Hz)
802.11a	91.44	1.9750	506	1000
802.11ax-20 MHz	91.18	5.4300	184	200
802.11ax-40 MHz	91.88	5.4300	184	200
802.11ax-80 MHz	90.73	5.4300	184	200

Note: Duty Cycle Refer to Section 8.

6.4. Test Result of Band Edge

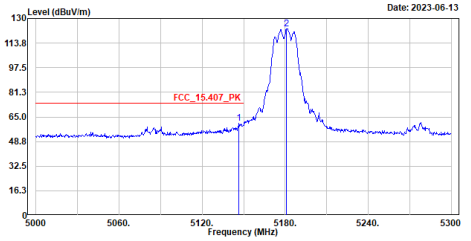
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_a_5180MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5150.000	47.97	54.00	-6.03	32.25	15.72	Average
2	5181.200	113.61	------	------	97.77	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.

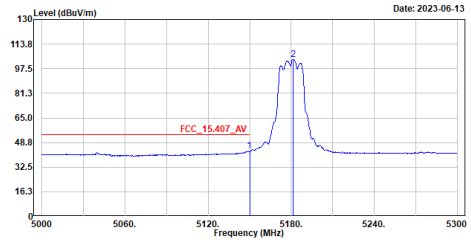
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_a_5180MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5146.700	60.66	74.00	-13.34	44.95	15.71	Peak
2	5180.900	123.13	------	------	107.29	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.

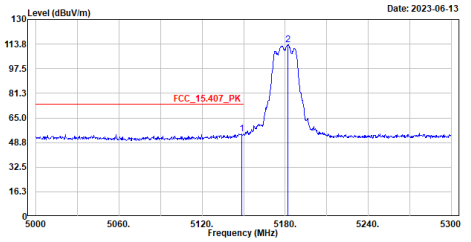
Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_a_5180MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5150.000	42.95	54.00	-11.05	27.23	15.72	Average
2	5181.500	103.73	------	------	87.89	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.

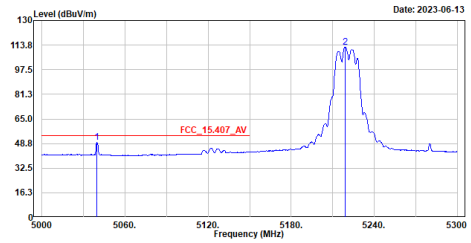
Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_a_5180MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5148.800	54.69	74.00	-19.31	38.99	15.70	Peak
2	5182.100	113.43	------	------	97.59	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.

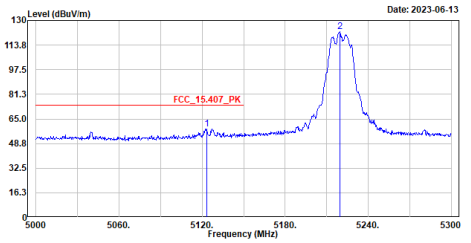
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_a_5220MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5039.900	49.43	54.00	-4.57	33.68	15.75	Average
2	5219.000	112.57	------	------	96.66	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.

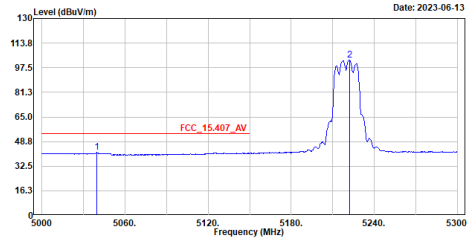
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_a_5220MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5123.600	58.36	74.00	-15.64	42.68	15.68	Peak
2	5219.300	122.43	------	------	106.52	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.

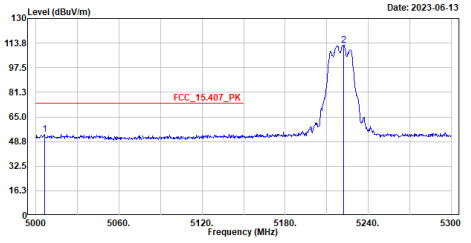
Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_a_5220MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5039.600	41.50	54.00	-12.50	25.75	15.75	Average
2	5222.000	102.68	------	------	86.77	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.

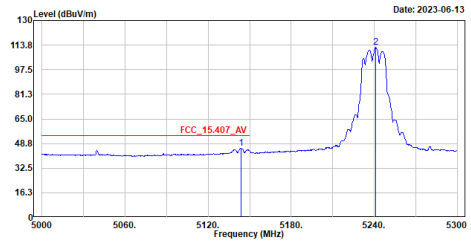
Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_a_5220MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5006.300	53.49	74.00	-20.51	37.64	15.85	Peak
2	5222.000	112.44	------	------	96.53	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.

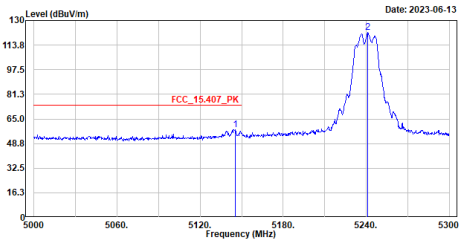
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_a_5240MHz_B1
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5143.700	45.78	54.00	-8.22	30.08	15.70	Average
2	5241.200	112.52	------	------	96.62	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.

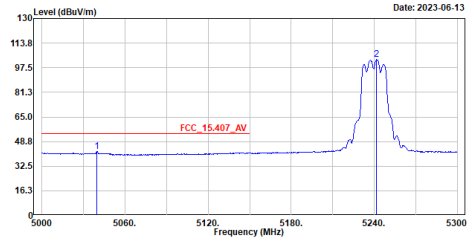
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_a_5240MHz_B1
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5145.200	57.98	74.00	-16.02	42.27	15.71	Peak
2	5241.200	121.98	------	------	106.08	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.

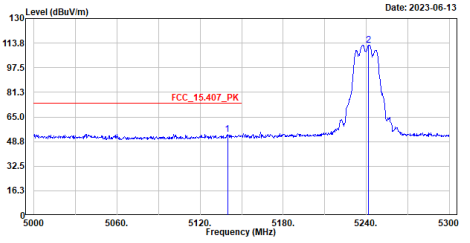
Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_a_5240MHz_B1
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5039.900	42.23	54.00	-11.77	26.48	15.75	Average
2	5241.800	102.90	------	------	87.00	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.

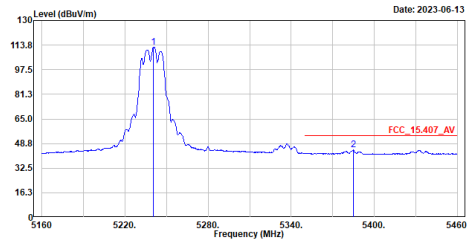
Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_a_5240MHz_B1
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5139.800	53.57	74.00	-20.43	37.87	15.70	Peak
2	5241.800	112.56	------	------	96.66	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.

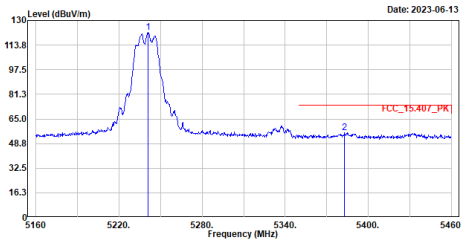
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_a_5240MHz_B2
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5240.700	112.52	------	------	96.62	15.90	Average
2	5384.700	44.40	54.00	-9.60	28.51	15.89	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.

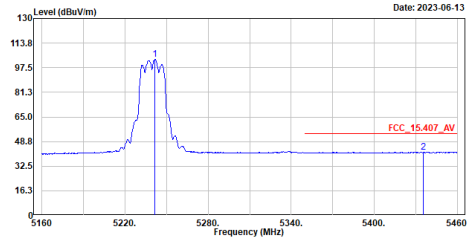
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_a_5240MHz_B2
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5241.000	122.13	------	------	106.23	15.90	Peak
2	5382.900	56.11	74.00	-17.89	40.23	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.

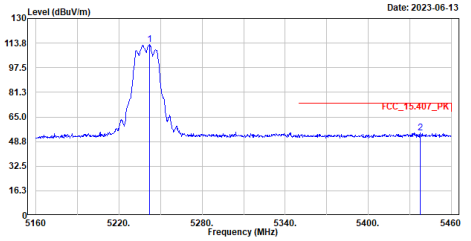
Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_a_5240MHz_B2
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5241.600	102.82	------	------	86.92	15.90	Average
2	5435.400	41.91	54.00	-12.09	25.83	16.08	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.

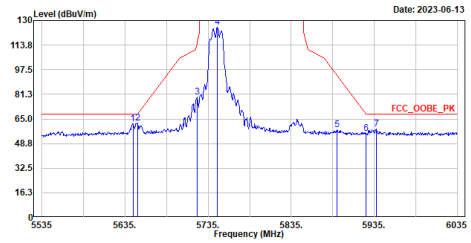
Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_a_5240MHz_B2
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5242.200	112.70	------	------	96.80	15.90	Peak
2	5437.500	54.61	74.00	-19.39	38.52	16.09	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.

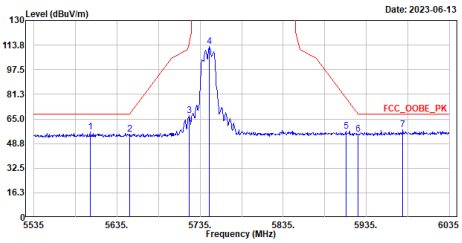
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_a_5745MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5644.500	62.05	68.20	-6.15	45.07	16.98	Peak
2	5650.000	62.12	68.21	-6.09	45.15	16.97	Peak
3	5721.500	79.69	114.22	-34.53	62.23	17.46	Peak
4	5746.000	125.47	------	------	107.83	17.64	Peak
5	5890.500	57.69	93.73	-36.04	39.70	17.99	Peak
6	5925.000	55.19	68.21	-13.02	37.31	17.88	Peak
7	5938.000	58.24	68.20	-9.96	40.41	17.83	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.

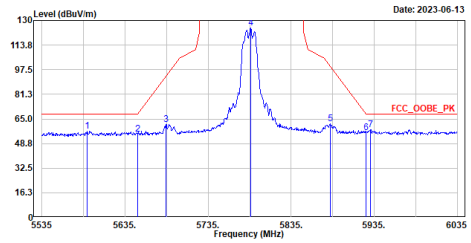
Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_a_5745MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5602.500	56.40	68.20	-11.80	39.34	17.06	Peak
2	5650.000	54.83	68.21	-13.38	37.86	16.97	Peak
3	5721.500	67.20	114.22	-47.02	49.74	17.46	Peak
4	5746.500	112.78	------	------	95.14	17.64	Peak
5	5910.500	56.98	78.94	-21.96	39.04	17.94	Peak
6	5925.000	55.13	68.21	-13.08	37.25	17.88	Peak
7	5979.000	57.66	68.20	-10.54	39.88	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.

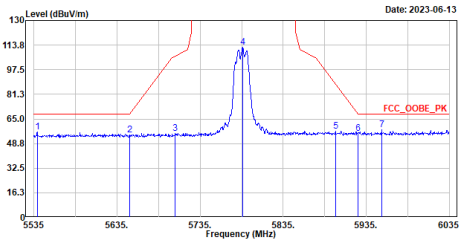
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_a_5785MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5589.500	57.03	68.20	-11.17	39.96	17.07	Peak
2	5650.000	54.79	68.21	-13.42	37.82	16.97	Peak
3	5684.500	61.55	93.73	-32.18	44.38	17.17	Peak
4	5786.000	125.28	------	------	107.47	17.81	Peak
5	5882.500	61.99	99.65	-37.66	44.00	17.99	Peak
6	5925.000	56.14	68.21	-12.07	38.26	17.88	Peak
7	5930.500	57.71	68.20	-10.49	39.86	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.

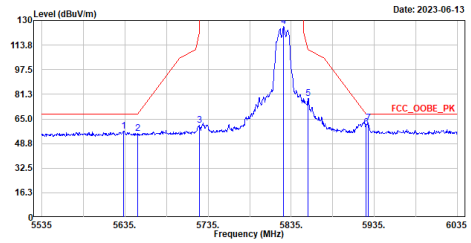
Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_a_5785MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5539.000	56.54	68.20	-11.66	39.88	16.66	Peak
2	5650.000	54.35	68.21	-13.86	37.38	16.97	Peak
3	5705.000	55.68	106.60	-50.92	38.34	17.34	Peak
4	5786.000	112.46	------	------	94.65	17.81	Peak
5	5898.000	57.07	88.18	-31.11	39.09	17.98	Peak
6	5925.000	55.55	68.21	-12.66	37.67	17.88	Peak
7	5953.500	58.12	68.20	-10.08	40.34	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.

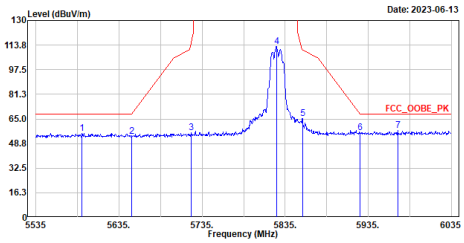
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_a_5825MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5633.000	56.90	68.20	-11.30	39.89	17.01	Peak
2	5650.000	55.26	68.21	-12.95	38.29	16.97	Peak
3	5724.500	60.90	121.06	-60.16	43.42	17.48	Peak
4	5826.000	126.14	------	------	108.19	17.95	Peak
5	5855.500	78.70	110.66	-31.96	60.70	18.00	Peak
6	5925.000	59.54	68.21	-8.67	41.66	17.88	Peak
7	5927.500	62.12	68.20	-6.08	44.26	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.

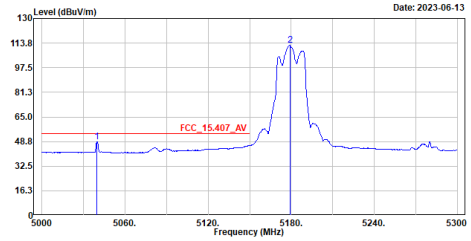
Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_a_5825MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5590.500	55.59	68.20	-12.61	38.52	17.07	Peak
2	5650.000	53.35	68.21	-14.86	36.38	16.97	Peak
3	5721.500	55.91	114.22	-58.31	38.45	17.46	Peak
4	5824.500	112.95	------	------	95.00	17.95	Peak
5	5856.000	65.36	110.52	-45.16	47.36	18.00	Peak
6	5925.000	55.91	68.21	-12.30	38.03	17.88	Peak
7	5970.500	57.30	68.20	-10.90	39.52	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.

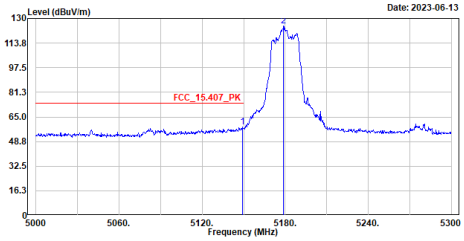
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_ax20_5180MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5039.900	48.75	54.00	-5.25	33.00	15.75	Average
2	5179.100	112.34	------	------	96.50	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.

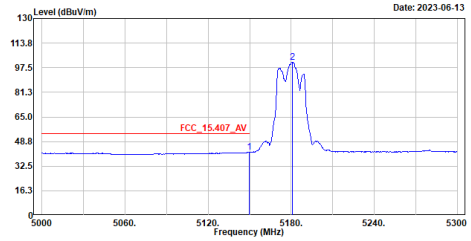
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_ax20_5180MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5149.100	58.58	74.00	-15.42	42.88	15.70	Peak
2	5178.800	125.23	------	------	109.39	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.

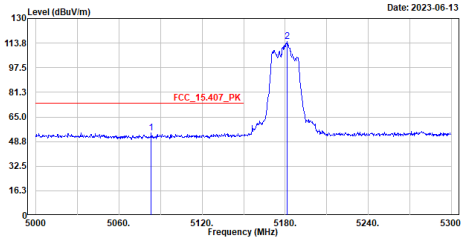
Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_ax20_5180MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5149.700	41.63	54.00	-12.37	25.92	15.71	Average
2	5180.900	101.11	------	------	85.27	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.

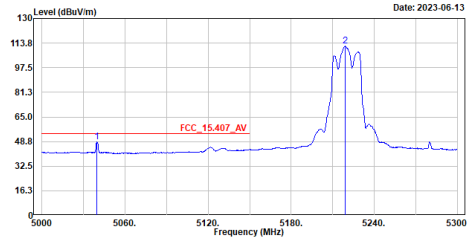
Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_ax20_5180MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5083.400	54.34	74.00	-19.66	38.70	15.64	Peak
2	5181.500	114.57	------	------	98.73	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.

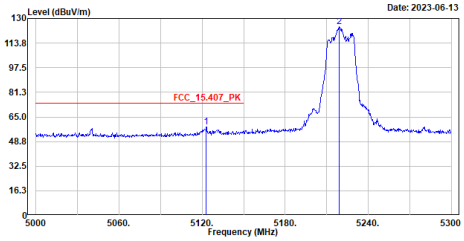
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_ax20_5220MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5039.900	48.70	54.00	-5.30	32.95	15.75	Average
2	5219.000	111.70	------	------	95.79	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.

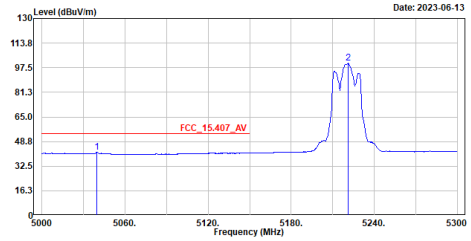
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_ax20_5220MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5123.000	58.34	74.00	-15.66	42.66	15.68	Peak
2	5219.000	124.59	------	------	108.68	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.

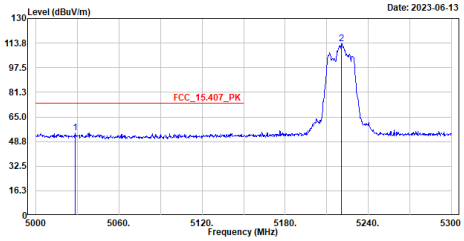
Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_ax20_5220MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5039.600	41.53	54.00	-12.47	25.78	15.75	Average
2	5221.100	100.33	------	------	84.42	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.

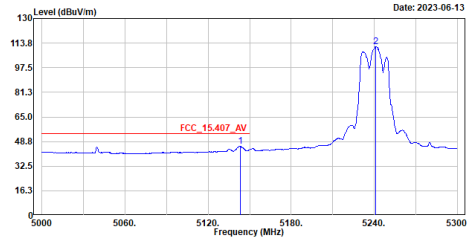
Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_ax20_5220MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5028.200	54.43	74.00	-19.57	38.65	15.78	Peak
2	5220.800	113.47	------	------	97.56	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.

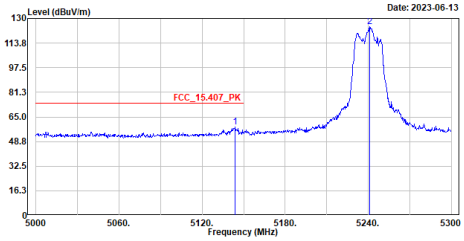
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_ax20_5240MHz_B1
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5143.100	45.73	54.00	-8.27	30.03	15.70	Average
2	5241.200	111.41	------	------	95.51	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.

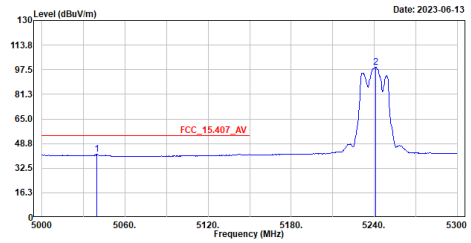
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_ax20_5240MHz_B1
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5144.000	58.40	74.00	-15.60	42.70	15.70	Peak
2	5241.200	124.53	------	------	108.63	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.

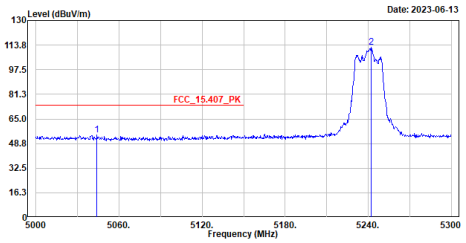
Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_ax20_5240MHz_B1
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5039.900	41.94	54.00	-12.06	26.19	15.75	Average
2	5240.900	99.27	------	------	83.37	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.

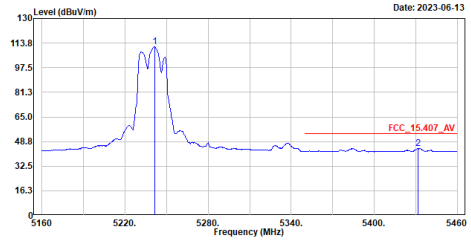
Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_ax20_5240MHz_B1
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5044.100	54.39	74.00	-19.61	38.66	15.73	Peak
2	5242.100	112.39	------	------	96.49	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.

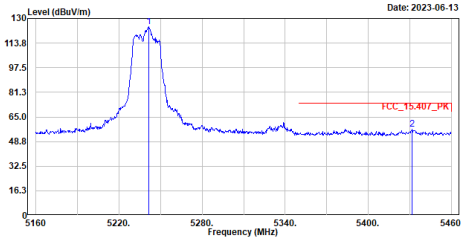
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_ax20_5240MHz_B2
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5241.300	111.43	------	------	95.53	15.90	Average
2	5431.500	44.11	54.00	-9.89	28.04	16.07	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.

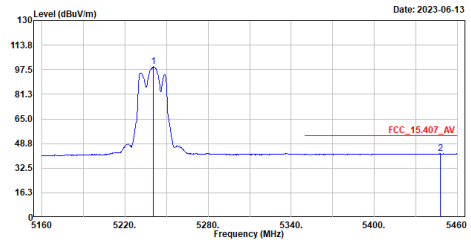
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_ax20_5240MHz_B2
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5241.600	124.45	------	------	108.55	15.90	Peak
2	5431.800	56.96	74.00	-17.04	40.89	16.07	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.

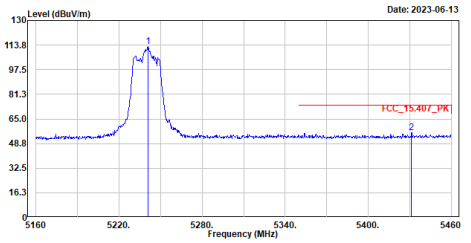
Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_ax20_5240MHz_B2
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5240.700	99.41	------	------	83.51	15.90	Average
2	5447.700	42.01	54.00	-11.99	25.87	16.14	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.

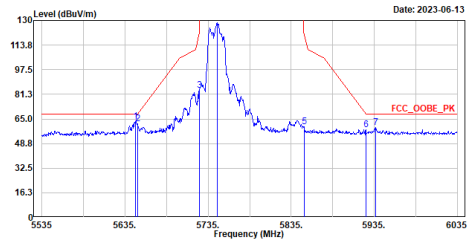
Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_ax20_5240MHz_B2
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5241.000	112.70	------	------	96.80	15.90	Peak
2	5431.200	55.82	74.00	-18.18	39.76	16.06	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.

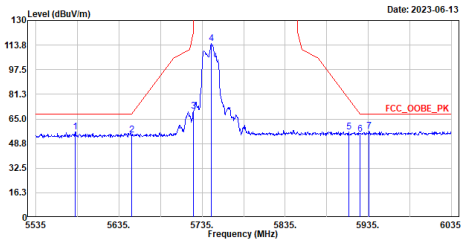
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_ax20_5745MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5648.000	63.32	68.20	-4.88	46.34	16.98	Peak
2	5650.000	62.02	68.21	-6.19	45.05	16.97	Peak
3	5725.000	83.80	122.20	-38.40	66.32	17.48	Peak
4	5746.500	128.62	------	------	110.98	17.64	Peak
5	5850.500	59.74	121.06	-61.32	41.74	18.00	Peak
6	5925.000	57.96	68.21	-10.25	40.08	17.88	Peak
7	5937.000	59.32	68.20	-8.88	41.49	17.83	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.

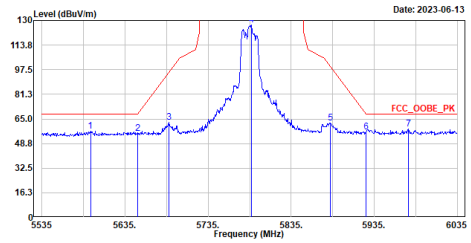
Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_ax20_5745MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5582.500	56.40	68.20	-11.80	39.39	17.01	Peak
2	5650.000	54.43	68.21	-13.78	37.46	16.97	Peak
3	5725.000	70.30	122.20	-51.90	52.82	17.48	Peak
4	5746.500	115.01	------	------	97.37	17.64	Peak
5	5911.500	56.62	78.20	-21.58	38.69	17.93	Peak
6	5925.000	55.11	68.21	-13.10	37.23	17.88	Peak
7	5936.000	56.90	68.20	-11.30	39.06	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.

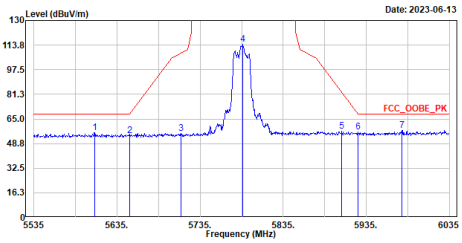
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_ax20_5785MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5593.500	57.05	68.20	-11.15	39.99	17.06	Peak
2	5650.000	55.29	68.21	-12.92	38.32	16.97	Peak
3	5687.500	62.97	95.95	-32.98	45.78	17.19	Peak
4	5787.000	126.81	------	------	108.99	17.82	Peak
5	5882.000	62.53	100.02	-37.49	44.54	17.99	Peak
6	5925.000	56.32	68.21	-11.89	38.44	17.88	Peak
7	5976.500	58.39	68.20	-9.81	40.62	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.

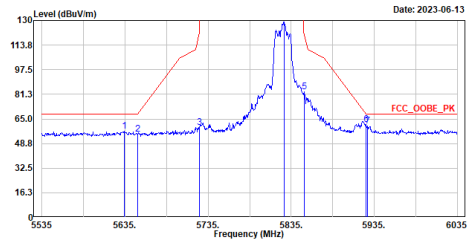
Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_ax20_5785MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5608.000	56.03	68.20	-12.17	38.97	17.06	Peak
2	5650.000	53.75	68.21	-14.46	36.78	16.97	Peak
3	5712.000	55.41	108.56	-53.15	38.03	17.38	Peak
4	5786.500	114.49	------	------	96.68	17.81	Peak
5	5905.500	56.71	82.63	-25.92	38.74	17.97	Peak
6	5925.000	56.58	68.21	-11.63	38.70	17.88	Peak
7	5978.000	57.30	68.20	-10.90	39.52	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.

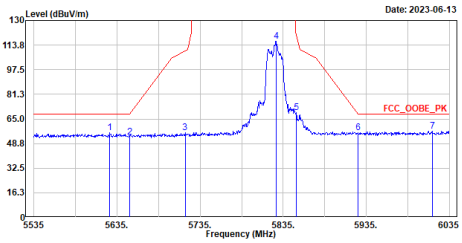
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_ax20_5825MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5634.000	56.97	68.20	-11.23	39.97	17.00	Peak
2	5650.000	54.88	68.21	-13.33	37.91	16.97	Peak
3	5724.500	59.44	121.06	-61.62	41.96	17.48	Peak
4	5827.000	129.21	------	------	111.26	17.95	Peak
5	5850.500	83.04	121.06	-38.02	65.04	18.00	Peak
6	5925.000	61.12	68.21	-7.09	43.24	17.88	Peak
7	5927.000	60.34	68.20	-7.86	42.48	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.

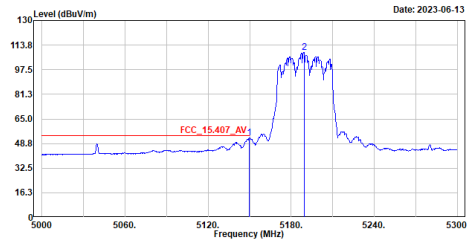
Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_ax20_5825MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5626.500	55.83	68.20	-12.37	38.81	17.02	Peak
2	5650.000	53.12	68.21	-15.09	36.15	16.97	Peak
3	5717.000	56.00	109.96	-53.96	38.58	17.42	Peak
4	5826.500	116.08	------	------	98.13	17.95	Peak
5	5851.000	68.93	119.92	-50.99	50.93	18.00	Peak
6	5925.000	55.81	68.21	-12.40	37.93	17.88	Peak
7	6014.500	57.02	68.20	-11.18	39.19	17.83	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.

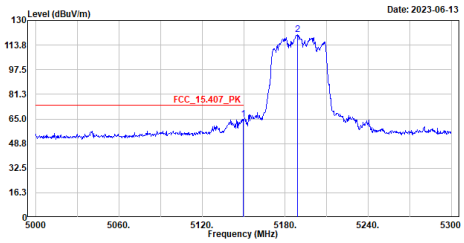
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_ax40_5190MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5149.700	52.37	54.00	-1.63	36.66	15.71	Average
2	5189.300	108.86	------	------	92.98	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.

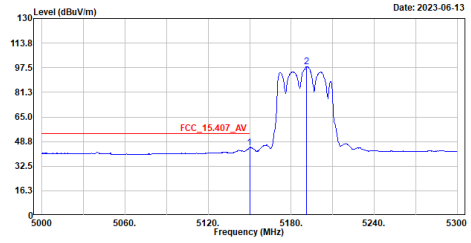
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_ax40_5190MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5149.700	64.95	74.00	-9.05	49.24	15.71	Peak
2	5188.700	120.62	------	------	104.74	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.

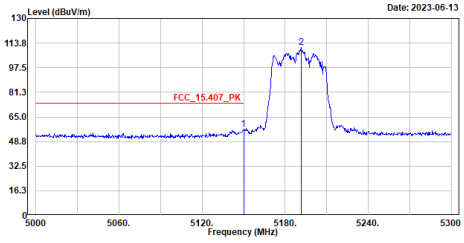
Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_ax40_5190MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5150.000	44.84	54.00	-9.16	29.12	15.72	Average
2	5191.100	98.32	------	------	82.44	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.

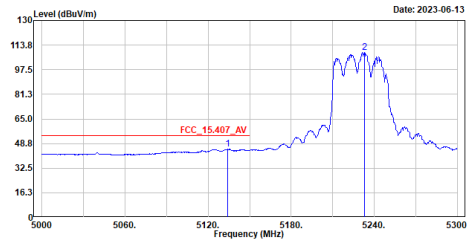
Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_ax40_5190MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5150.000	56.98	74.00	-17.02	41.26	15.72	Peak
2	5191.400	110.82	------	------	94.94	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.

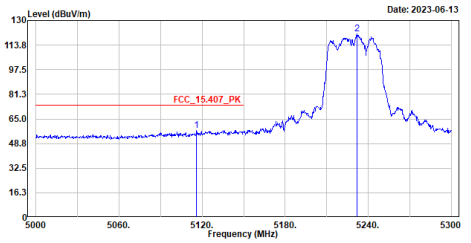
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_ax40_5230MHz_B1
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5134.100	44.96	54.00	-9.04	29.27	15.69	Average
2	5233.100	108.78	------	------	92.88	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.

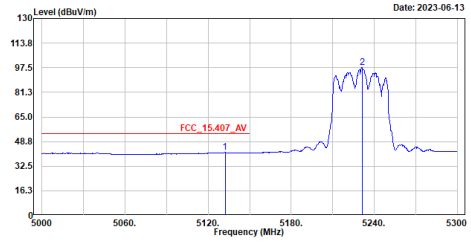
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_ax40_5230MHz_B1
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5116.100	57.57	74.00	-16.43	41.90	15.67	Peak
2	5231.900	121.26	------	------	105.35	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.

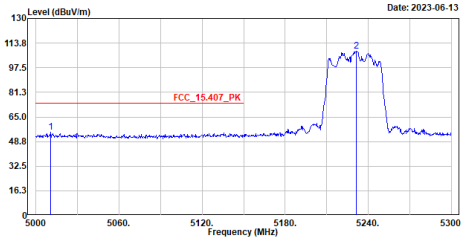
Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_ax40_5230MHz_B1
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5132.300	41.56	54.00	-12.44	25.86	15.70	Average
2	5231.300	97.52	------	------	81.61	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.

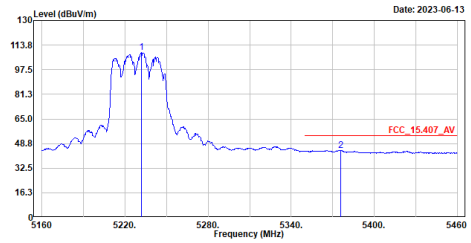
Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_ax40_5230MHz_B1
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5010.800	54.95	74.00	-19.05	39.12	15.83	Peak
2	5231.300	108.51	------	------	92.60	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.

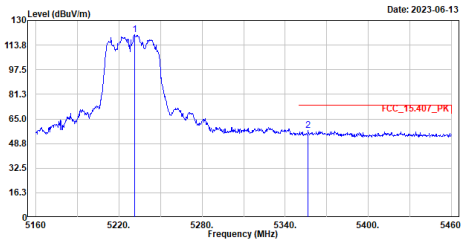
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_ax40_5230MHz_B2
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5232.000	108.68	------	------	92.77	15.91	Average
2	5375.700	44.32	54.00	-9.68	28.44	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.

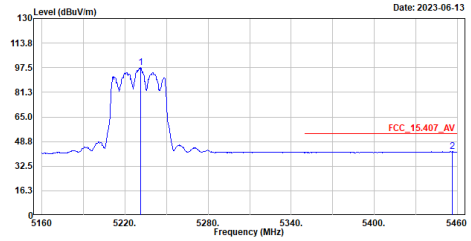
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_ax40_5230MHz_B2
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5231.100	120.75	------	------	104.84	15.91	Peak
2	5356.500	57.33	74.00	-16.67	41.47	15.86	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.

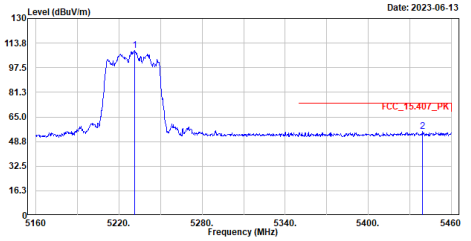
Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_ax40_5230MHz_B2
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5231.100	97.40	------	------	81.49	15.91	Average
2	5456.400	42.05	54.00	-11.95	25.86	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.

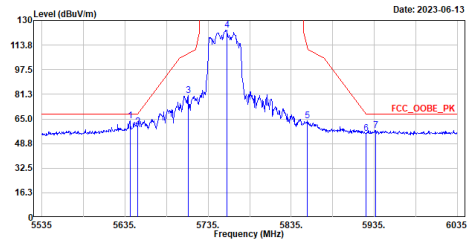
Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_ax40_5230MHz_B2
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5231.400	108.87	------	------	92.96	15.91	Peak
2	5439.300	55.45	74.00	-18.55	39.34	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.

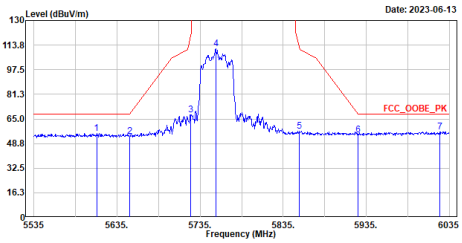
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_ax40_5755MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5641.000	63.73	68.20	-4.47	46.74	16.99	Peak
2	5650.000	59.83	68.21	-8.38	42.86	16.97	Peak
3	5711.000	80.41	108.28	-27.87	63.03	17.38	Peak
4	5757.500	123.64	------	------	105.94	17.70	Peak
5	5854.000	63.60	113.08	-49.48	45.60	18.00	Peak
6	5925.000	55.48	68.21	-12.73	37.60	17.88	Peak
7	5937.000	57.52	68.20	-10.68	39.69	17.83	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.

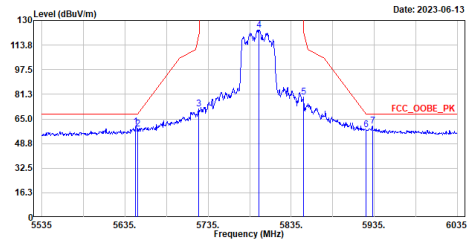
Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_ax40_5755MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5610.500	55.51	68.20	-12.69	38.46	17.05	Peak
2	5650.000	53.49	68.21	-14.72	36.52	16.97	Peak
3	5724.000	67.65	119.92	-52.27	50.18	17.47	Peak
4	5754.000	111.25	------	------	93.57	17.68	Peak
5	5854.000	57.13	113.08	-55.95	39.13	18.00	Peak
6	5925.000	54.39	68.21	-13.82	36.51	17.88	Peak
7	6023.500	56.50	68.20	-11.70	38.60	17.90	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.

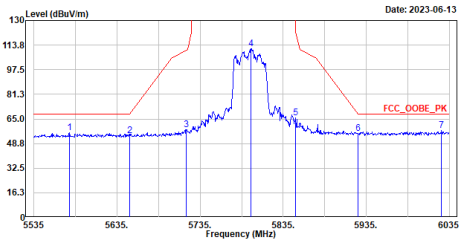
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_ax40_5795MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5648.000	60.02	68.20	-8.18	43.04	16.98	Peak
2	5650.000	58.55	68.21	-9.66	41.58	16.97	Peak
3	5723.500	71.41	118.78	-47.37	53.94	17.47	Peak
4	5796.000	123.83	------	------	105.97	17.86	Peak
5	5850.000	79.57	122.20	-42.63	61.57	18.00	Peak
6	5925.000	58.10	68.21	-10.11	40.22	17.88	Peak
7	5933.000	60.10	68.20	-8.10	42.26	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.

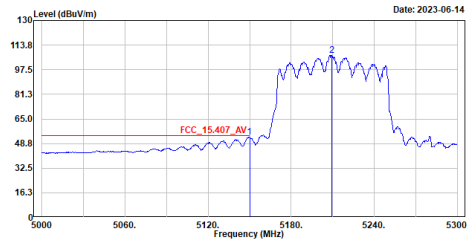
Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_ax40_5795MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5577.500	56.06	68.20	-12.14	39.10	16.96	Peak
2	5650.000	53.75	68.21	-14.46	36.78	16.97	Peak
3	5718.500	58.04	110.38	-52.34	40.60	17.44	Peak
4	5796.000	111.46	------	------	93.60	17.86	Peak
5	5850.000	65.93	122.20	-56.27	47.93	18.00	Peak
6	5925.000	55.58	68.21	-12.63	37.70	17.88	Peak
7	6025.500	57.50	68.20	-10.70	39.58	17.92	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.

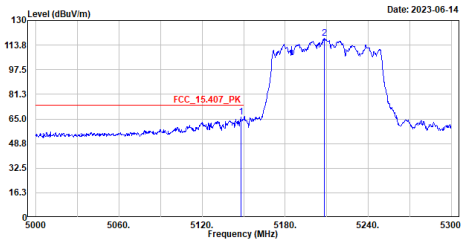
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_ax80_5210MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5150.000	53.02	54.00	-0.98	37.30	15.72	Average
2	5209.400	107.08	------	------	91.17	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.

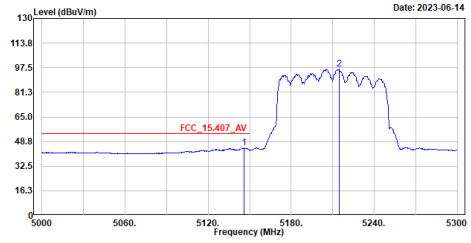
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_ax80_5210MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5147.900	66.19	74.00	-7.81	50.49	15.70	Peak
2	5208.200	118.41	------	------	102.50	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.

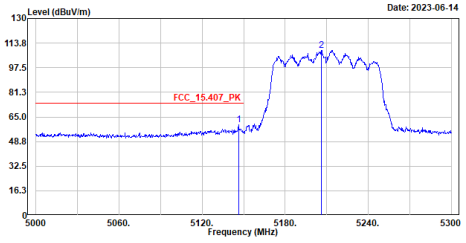
Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_ax80_5210MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5146.100	44.46	54.00	-9.54	28.75	15.71	Average
2	5214.500	96.52	------	------	80.62	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.

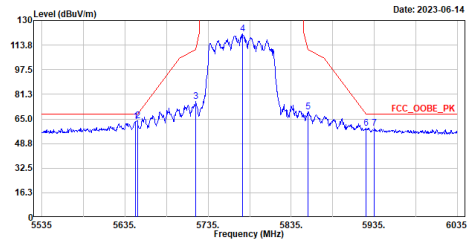
Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_ax80_5210MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5146.400	59.65	74.00	-14.35	43.94	15.71	Peak
2	5206.100	108.85	------	------	92.93	15.92	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.

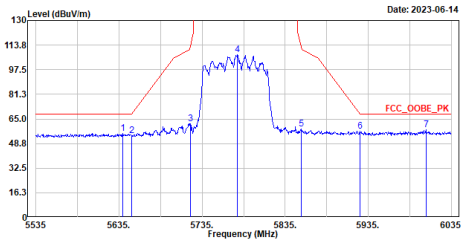
Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_ax80_5775MHz
Test BY :Peter



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5648.000	63.26	68.20	-4.94	46.28	16.98	Peak
2	5650.000	63.57	68.21	-4.64	46.60	16.97	Peak
3	5720.500	76.72	111.94	-35.22	59.27	17.45	Peak
4	5776.500	121.22	------	------	103.45	17.77	Peak
5	5855.000	69.48	110.80	-41.32	51.48	18.00	Peak
6	5925.000	58.83	68.21	-9.38	40.95	17.88	Peak
7	5935.000	58.83	68.20	-9.37	40.99	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_ax80_5775MHz
Test BY :Peter

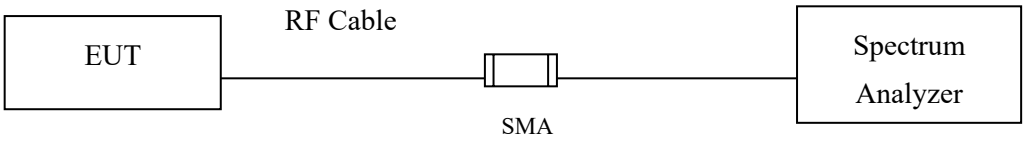


No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	5640.000	55.49	68.20	-12.71	38.50	16.99	Peak
2	5650.000	53.98	68.21	-14.23	37.01	16.97	Peak
3	5721.000	61.91	113.08	-51.17	44.45	17.46	Peak
4	5777.500	107.57	------	------	89.79	17.78	Peak
5	5854.500	58.39	111.94	-53.55	40.39	18.00	Peak
6	5925.000	57.15	68.21	-11.06	39.27	17.88	Peak
7	6004.500	57.79	68.20	-10.41	39.99	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.

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

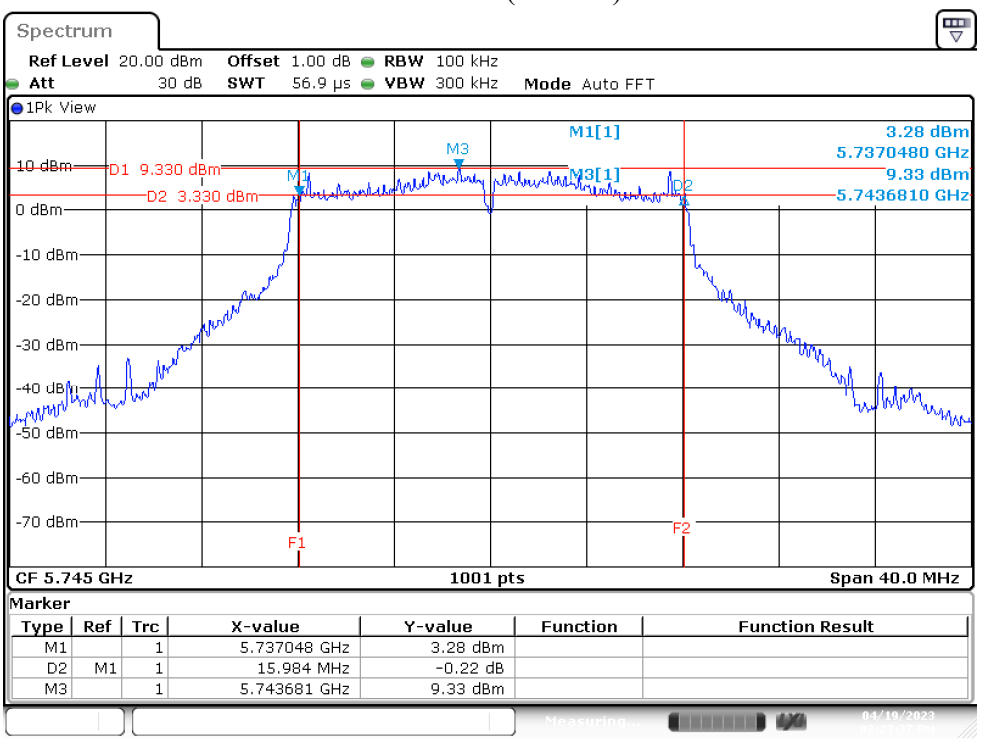
The EUT was setup to ANSI C63.10, 2013; tested to UNII test procedure of FCC KDB-789033 for compliance to FCC 47CFR Subpart E requirements.

7.4. Test Result of Occupied Bandwidth

Product : 802.11AX Outdoor AP
Test Item : Occupied Bandwidth Data
Test Mode : Transmit (802.11a)-CDD
Test Date : 2023/04/19

Channel No.	Chain	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
149	A	5745	15984	>500	Pass
157	A	5785	15105	>500	Pass
165	A	5825	15345	>500	Pass
149	B	5745	15065	>500	Pass
157	B	5785	15025	>500	Pass
165	B	5825	15105	>500	Pass

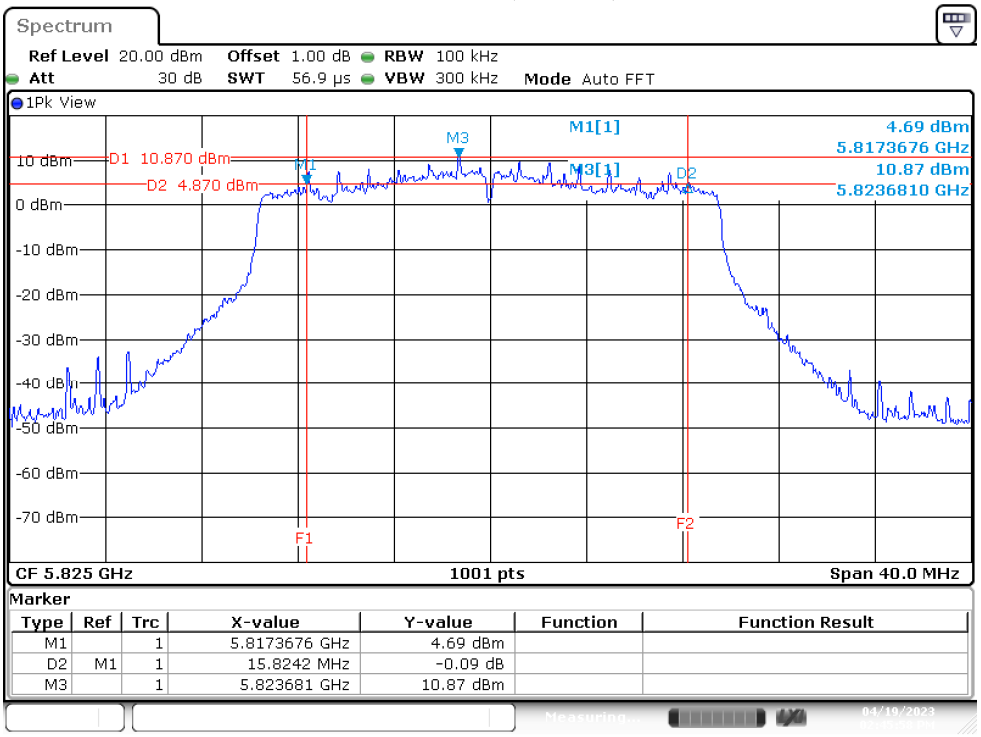
Channel 149 (Chain A):



Product : 802.11AX Outdoor AP
Test Item : Occupied Bandwidth Data
Test Mode : Transmit (802.11ax-20 MHz)-CDD
Test Date : 2023/04/19

Channel No.	Chain	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
149	A	5745	14985	>500	Pass
157	A	5785	15105	>500	Pass
165	A	5825	15824	>500	Pass
149	B	5745	18542	>500	Pass
157	B	5785	15065	>500	Pass
165	B	5825	15105	>500	Pass

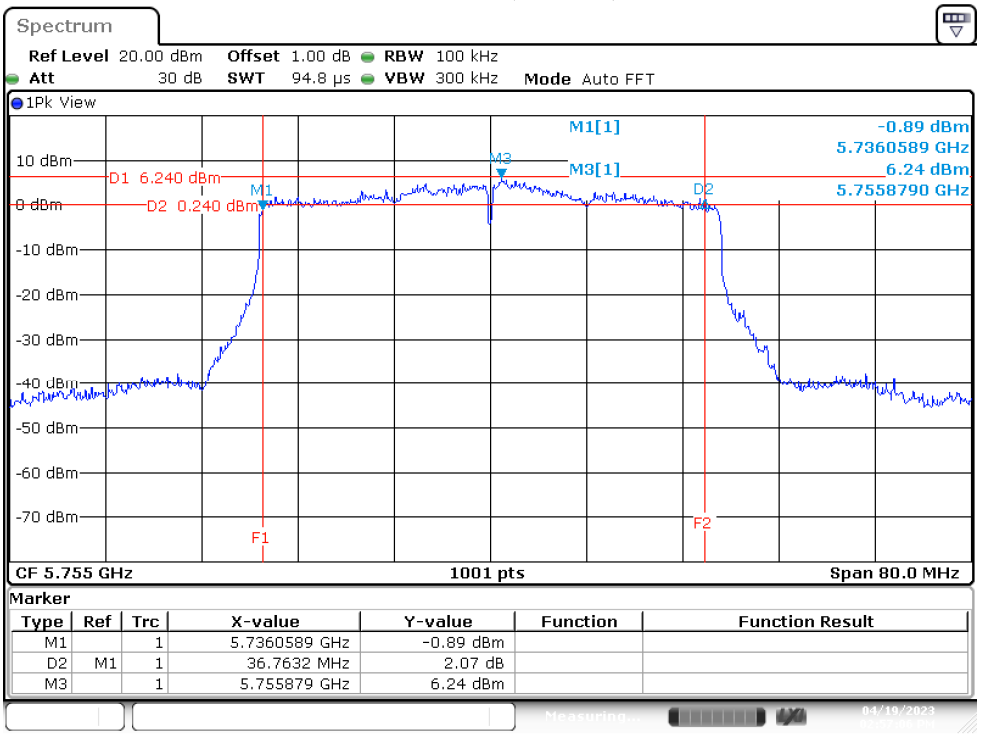
Channel 165 (Chain A):



Product : 802.11AX Outdoor AP
Test Item : Occupied Bandwidth Data
Test Mode : Transmit (802.11ax-40 MHz)-CDD
Test Date : 2023/04/19

Channel No.	Chain	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
151	A	5755	35085	>500	Pass
159	A	5795	35005	>500	Pass
151	B	5755	36763	>500	Pass
159	B	5795	35085	>500	Pass

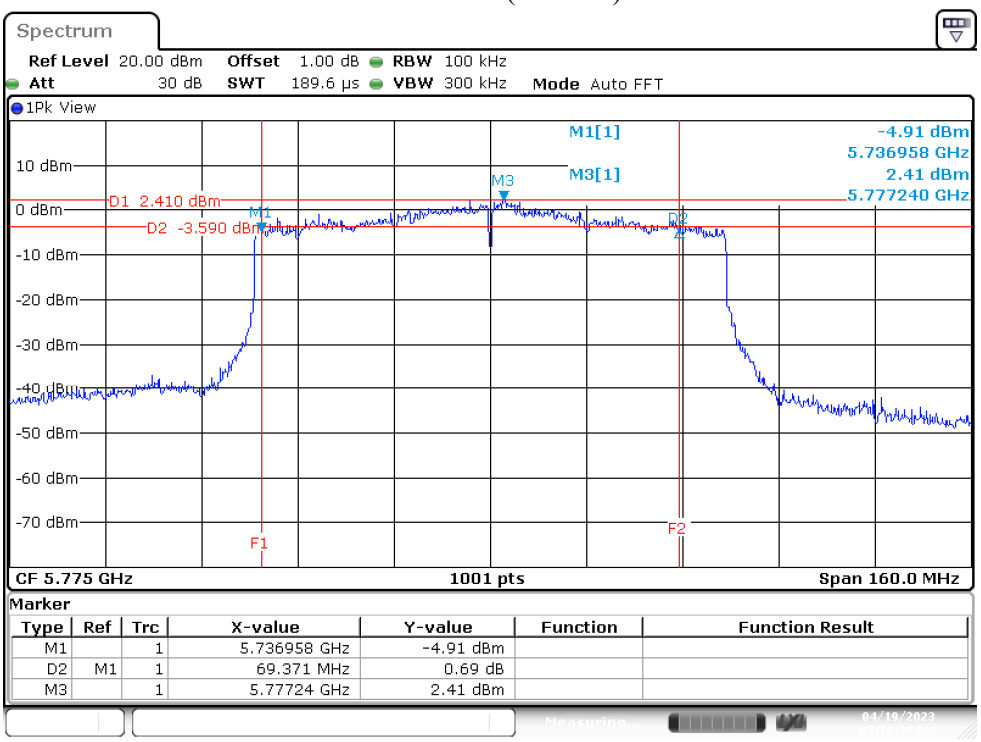
Channel 151 (Chain B):



Product : 802.11AX Outdoor AP
Test Item : Occupied Bandwidth Data
Test Mode : Transmit (802.11ax-80 MHz)-CDD
Test Date : 2023/04/19

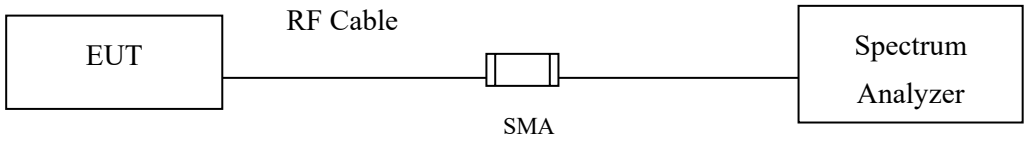
Channel No.	Chain	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
155	A	5775	45874	>500	Pass
155	B	5775	69371	>500	Pass

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 : 802.11AX Outdoor AP
Test Item : Duty Cycle
Test Mode : Transmit-CDD mode

Duty Cycle Formula:

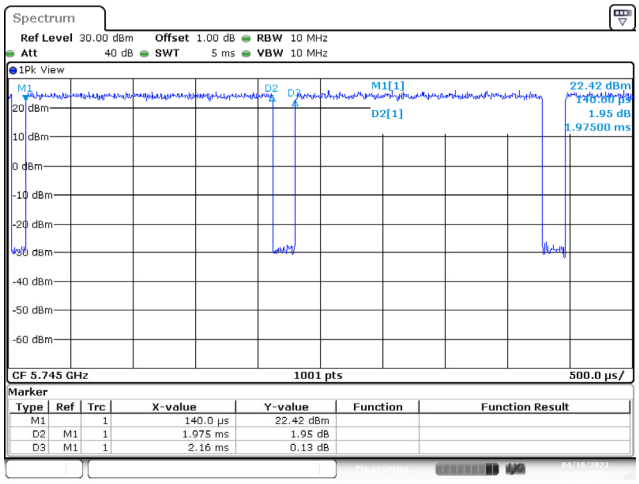
Duty Cycle = Ton / (Ton + Toff)

Duty Factor = 10 Log (1/Duty Cycle)

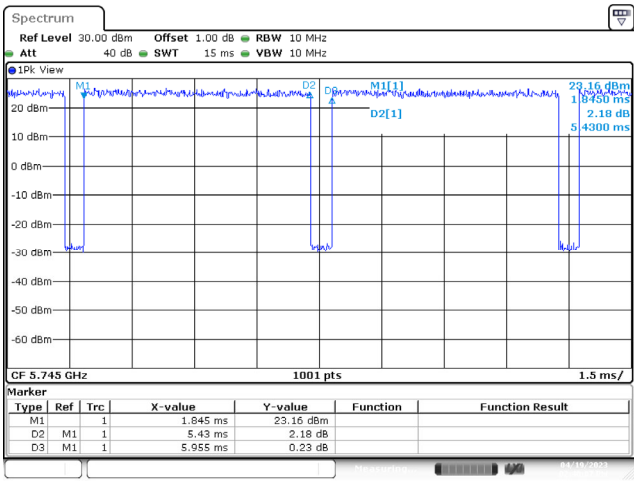
Results:

5GHz band	Ton (ms)	Ton + Toff (ms)	Duty Cycle (%)	Duty Factor (dB)
802.11a	1.9750	2.1600	91.44	0.39
802.11ax-20 MHz	5.4300	5.9550	91.18	0.40
802.11ax-40 MHz	5.4300	5.9100	91.88	0.37
802.11ax-80 MHz	5.4300	5.9850	90.73	0.42

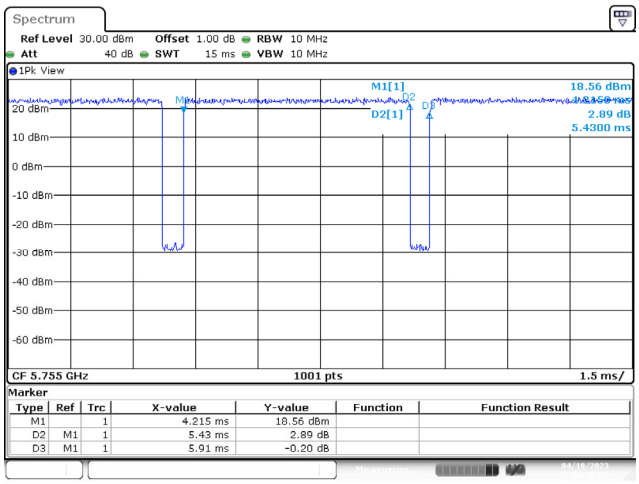
802.11a



802.11ax-20 MHz



802.11ax-40 MHz



802.11ax-80 MHz