Testing Laboratory
3023

Test report No.: 2380300R-RFUSV18S-C

TEST REPORT

Product Name	Notebook Computer
Trademark	LG
Model and /or type reference	15Z90S, 15ZD90S, 15ZG90S,15ZB90S,15ZW90S,15ZN90S * (* can be 0 to 9 or A to Z or blank denoting buyer request)
FCC ID	BEJNT-15Z90S
Applicant´s name / address	LG Electronics USA, Inc. 111 Sylvan Avenue North Building Englewood Cliffs, NJ 07632 United States
Manufacturer´s name	LG ELECTRONICS INC.
Test method requested, standard	FCC CFR Title 47 Part 15 Subpart E ANSI C63.4: 2014, ANSI C63.10: 2013 KDB Publication 987594
Verdict Summary	IN COMPLIANCE
Documented By (Senior Project Specialist / Genie Chang)	Genie Chang
Tested By (Senior Engineer / Bill Lin)	Bill Lin
Approved By (Senior Engineer / Alan Chen)	Alan Chen
Date of Receipt	2023/08/10
Date of Issue	2023/11/02
Report Version	V1.0

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Appendix 1: EUT Test Photographs
Appendix 2: Product Photos-Please refer to the file: 2380300R-Product Photos

Competences and Guarantees

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

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

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

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

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

IMPORTANT: No parts of this report may be reproduced or quoted out of context, in any form or by any means, except in full, without the previous written permission of DEKRA.

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
2380300R-RFUSV18S-C	V1.0	Initial issue of report.	2023/11/02

1. General Information

1.1. EUT Description

Product Name	Notebook Computer
Trademark	LG
Model and /or type reference	15Z90S, 15ZD90S, 15ZG90S,15ZB90S,15ZW90S,15ZN90S * (* can be 0 to 9 or A to Z or blank denoting buyer request)
EUT Rated Voltage	AC 100-240V, 50/60Hz
EUT Test Voltage	AC 120V/60Hz
Frequency Range	802.11ax-20MHz: 5955-6415 MHz, 6435-6515 MHz, 6535-6855 MHz, 6875-7115 MHz 802.11ax-40MHz: 5965-6405 MHz, 6445-6485 MHz, 6525-6845 MHz, 6885-7085 MHz 802.11ax-80MHz: 5985-6385 MHz, 6465-6545 MHz, 6625-6785 MHz, 6865-7025 MHz 802.11ax-160MHz: 6025-6345 MHz, 6505 MHz, 6665 MHz, 6985 MHz
Number of Channels	802.11ax-20MHz: 59CH 802.11ax-40MHz: 29CH 802.11ax-80MHz: 14CH 802.11ax-160MHz: 7CH
Data Rate	802.11ax: up to 2402Mbps
Type of Modulation	802.11ax: OFDMA (BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM)
Channel Control	Auto
Type C to Type C Cable	Shielded, 2m
Power Adapter	Bao Hui / LP65WFC20P-NJ W Input: AC 100-240 V~1.6A, 50-60 Hz Output: 5.0V⎓3A, 15W or 9V⎓3A, 27W or 15V⎓3A, 45W or 20V⎓3.25A, 65W

Antenna List

No.	Manufacturer	Part No.	Antenna Type	Peak Gain
1	INPAQ	DQ6WAPLEL33 (WA-P-LELE-02-018) (Main)	PIFA	2.81 dBi for 5925-6425MHz 1.08 dBi for 6425-6525MHz 3.24 dBi for 6525-6875MHz 3.24 dBi for 6875-7125MHz
		DQ6WAPLEL33 (WA-P-LELE-02-018) (Aux)	PIFA	3.52 dBi for 5925-6425MHz 0.51 dBi for 6425-6525MHz 1.25 dBi for 6525-6875MHz 3.81 dBi for 6875-7125MHz
2	Pulse	DQ602701000 (TQ27010) (Main)	PIFA	2.52 dBi for 5925-6425MHz 0.94 dBi for 6425-6525MHz 2.97 dBi for 6525-6875MHz 3.15 dBi for 6875-7125MHz
		DQ602701000 (TQ27010) (Aux)	PIFA	3.36 dBi for 5925-6425MHz 0.42 dBi for 6425-6525MHz 0.98 dBi for 6525-6875MHz 3.63 dBi for 6875-7125MHz

Note:

1. The antenna of EUT is conforming to FCC 15.203.
2. The antenna gain as by the manufacturer provided.
3. Each antenna has been evaluated and only the worst case (higher gain antenna) is presented in the report.
4. The device uses Space Time Block Codes (STBC) technical, not support CDD and Beamforming modes. STBC mode signals are completely uncorrelated, the Directional gain = GANT (According to KDB 662911 D01 F)2)a)ii)).

802.11ax-20 MHz Center Working Frequency of Each Channel:

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
01	5955	05	5975	09	5995	13	6015
17	6035	21	6055	25	6075	29	6095
33	6115	37	6135	41	6155	45	6175
49	6195	53	6215	57	6235	61	6255
65	6275	69	6295	73	6315	77	6335
81	6355	85	6375	89	6395	93	6415
97	6435	101	6455	105	6475	109	6495
113	6515	117	6535	121	6555	125	6575
129	6595	133	6615	137	6635	141	6655
145	6675	149	6695	153	6715	157	6735
161	6755	165	6775	169	6795	173	6815
177	6835	181	6855	185	6875	189	6895
193	6915	197	6935	201	6955	205	6975
209	6995	213	7015	217	7035	221	7055
225	7075	229	7095	223	7115	--	--

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

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
03	5965	11	6005	19	6045	27	6085
35	6125	43	6165	51	6205	59	6245
67	6285	75	6325	83	6365	91	6405
99	6445	107	6485	115	6525	123	6565
131	6605	139	6645	147	6685	155	6725
163	6765	171	6805	179	6845	187	6885
195	6925	203	6965	211	7005	219	7045
227	7085	--	--	--	--	--	--

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

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
07	5985	23	6065	39	6145	55	6225
71	6305	87	6385	103	6465	119	6545
135	6625	151	6705	167	6785	183	6865
199	6945	215	7025	--	--	--	--

802.11ax-160 MHz Center Working Frequency of Each Channel:

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
15	6025	47	6185	79	6345	111	6505
143	6665	175	6825	207	6985	--	--

Note:

1. This device is a Notebook Computer with built-in WLAN and Bluetooth transceiver, this report for WLAN 6GHz.
2. It's declared by manufacture about all models are electrically identical, different model names for marketing purpose. The different of each model is shown as below

Model Number	System
15Z90S	(B2C, Windows)
15ZD90S	(NonOS)
15ZG90S	(B2G, Windows)
15ZB90S	(B2B, Windows)
15ZW90S	(B2C/B2B, Whale OS)
15ZN90S*(* can be 0 to 9 or A to Z or blank denoting buyer request)	(All, Whale OS)
The identification of test sample is 15Z90S.	

3. Regarding to the operation frequency, the lowest, middle and highest frequency are selected to perform the test.
4. Lowest data rates are tested in each mode. Only worst case is shown in the report. (802.11ax is MCS0)
5. The spectrum plot against conducted item only shows the worst case.
6. This device does not support partial RU function.
7. DEKRA has evaluated each test mode. Only the worst case is shown in the report.
8. These tests were conducted on a sample for the purpose of demonstrating compliance of 802.11ax transmitter with Part 15 Subpart E for Unlicensed National Information Infrastructure devices.

Test Mode	Mode 1	Transmit (802.11ax-20 MHz) Transmit (802.11ax-40 MHz) Transmit (802.11ax-80 MHz) Transmit (802.11ax-160 MHz)

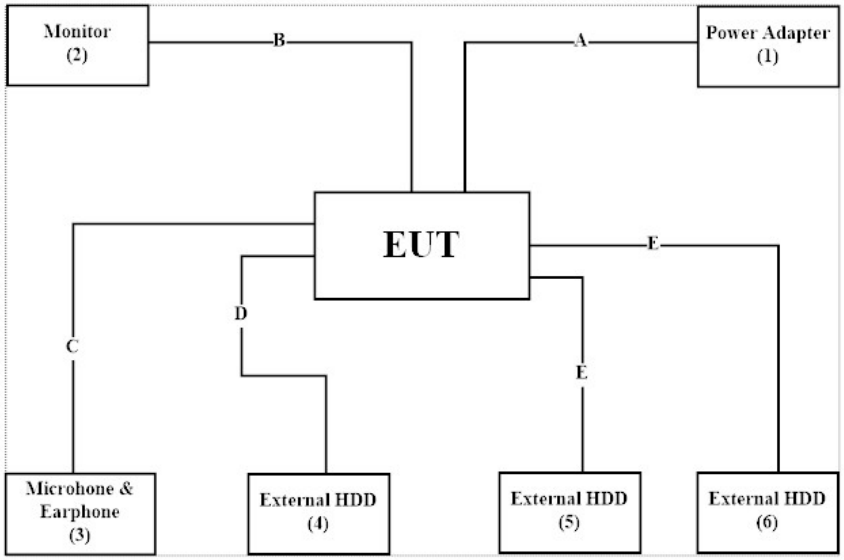
1.2. Tested System Details

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

Product		Manufacturer	Model No.	Serial No.	Power Cord
1	Power Adapter	Bao Hui	LP65WFC20P-NJ W	N/A	N/A
2	Monitor	DELL	U2415	CN-01RMGX-74261-63H-09UL-A02	Non-shielded, 1.8m
3	Microphone & Earphone	Verbatim	C09024VB	N/A	N/A
4	External HDD	Transcend	TS1TSJ25MC	F30467-0011	N/A
5	External HDD	Transcend	TS1TSJ25H3B	F21786-0019	N/A
6	External HDD	Transcend	TS1TSJ25H3B	F21786-0103	N/A

Cable Type		Cable Description
A	Type C to Type C Cable	Shielded, 2m
B	HDMI Cable	Shielded, 1.8m
C	Microphone & Earphone Cable	Non-shielded, 1.2m
D	USB Cable	Shielded, 0.5m
E	USB Cable	Shielded, 0.5m
F	USB Cable	Shielded, 0.5m

1.3. Configuration of tested System



1.4. EUT Exercise Software

1	Setup the EUT as shown in Section 1.3.
2	Execute software “DRTU Version 04824.23” 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 ℃	25.1 ℃
	Humidity (%RH)	10~90 %	56.0 %
Radiated Emission	Temperature (°C)	10~40 ℃	24.1 ℃
	Humidity (%RH)	10~90 %	65.7 %
Conductive	Temperature (°C)	10~40 ℃	26.4 ℃
	Humidity (%RH)	10~90 %	59.0 %

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	2023/08/17	2024/08/16
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	Spectrum Analyzer	KEYSIGHT	N9010A	MY53470892	2022/11/07	2023/11/06
V	Peak Power Analyzer	KEYSIGHT	8990B	MY51000539	2023/05/15	2024/05/14
V	Wideband Power Sensor	KEYSIGHT	N1923A	MY59240002	2023/05/18	2024/05/18
V	Wideband Power Sensor	KEYSIGHT	N1923A	MY59240003	2023/05/18	2024/05/17

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-CB01

	Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Due Date
V	Loop Antenna	AMETEK	HLA6121	56736	2023/05/23	2024/05/24
V	Bi-Log Antenna	SCHWARZBECK	VULB9168	9168-0678	2021/09/23	2023/09/22
V	Horn Antenna	RF SPIN	DRH18-E	210802A18ES	2023/03/23	2024/03/22
V	Horn Antenna	Com-Power	AH-840	101101	2021/11/30	2023/11/29
V	Pre-Amplifier	SGH	0301	20211007-7	2023/01/10	2024/01/09
V	Pre-Amplifier	EMCI	EMC051845SE	980632	2023/01/10	2024/01/09
V	Pre-Amplifier	EMCI	EMC05820SE	980362	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		
	Filter	MICRO TRONICS	BRM50702	G251	2023/01/05	2024/01/04
	Filter	MICRO TRONICS	BRM50716	067	2023/01/05	2024/01/04
	WIFI 6E Filter	MVE	MFN-5850/5895/S1	A80006N	2023/01/05	2024/01/04
V	WIFI 6E Filter	MVE	MFN-5925/6425/S1	A80007N	2023/01/05	2024/01/04
V	WIFI 6E Filter	MVE	MFN-6425/6525/S1	A80008N	2023/01/05	2024/01/04
V	WIFI 6E Filter	MVE	MFN-6525/6875/S1	A80009N	2023/01/05	2024/01/04
V	WIFI 6E Filter	MVE	MFN-6875/7125/S1	A80010N	2023/01/05	2024/01/04
V	EMI Test Receiver	R&S	ESR3	102792	2022/12/29	2023/12/28
V	Spectrum Analyzer	R&S	FSV3044	101115	2023/01/06	2024/01/05
V	Coaxial Cable	SUHNER	SUCOFLEX 106	25450/6	2023/01/10	2024/01/09
	Coaxial Cable	SGH	HA800	GD20110222-8		
	Coaxial Cable	SGH	SGH18	2021003-8		
	Coaxial Cable	EMCI	EMC106	151113		

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.

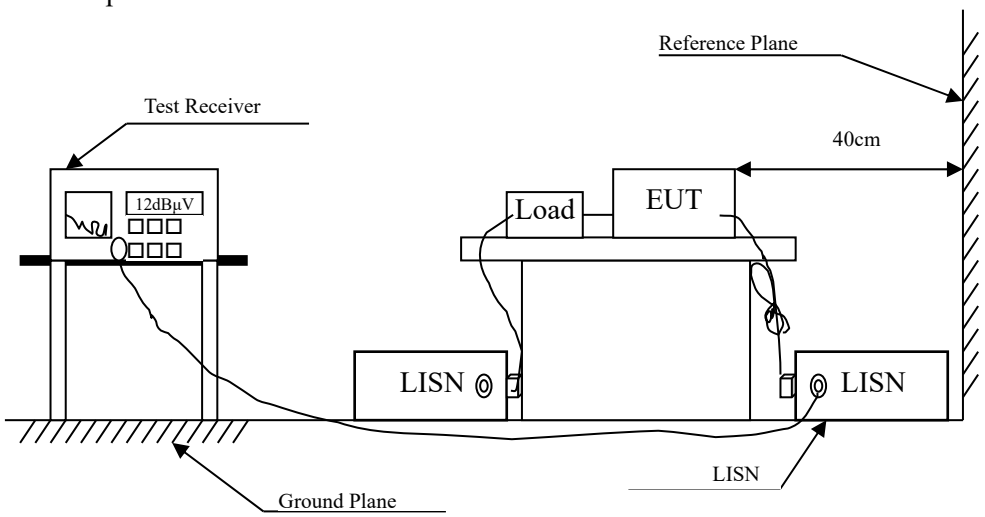
The reported expanded uncertainties are based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95%.

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
99% & 26dB Bandwidth	±1580.61 Hz
Transmit Output	Spectrum Analyzer: ±2.14 dB Power Meter: ±1.05 dB
Maximum Power Spectrum 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
In-Band Emission (Mask)	±2.14 dB
Contention Based Protocol	±2.14 dB
Duty Cycle	±0.53 %

2. Conducted Emission

2.1. Test Setup



2.2. Limits

FCC CFR Title 47 Part 15 Subpart C Paragraph 15.207 Limits (dBµV)		
Frequency MHz	QP	AV
0.15 - 0.50	66 - 56	56 - 46
0.50 - 5.0	56	46
5.0 - 30	60	50

Remark: In the above table, the tighter Limit applies at the band edges.

2.3. Test Procedure

The EUT was setup according to ANSI C63.10: 2013. The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 80 cm from any other grounded conducting surface. The EUT and simulators are connected to the main power through a line impedance stabilization network (LISN). The LISN provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN. (Please refer to the block diagram of the test setup and photographs.)

Each current-carrying conductor of the EUT power cord, except the ground (safety) conductor, was individually connected through a LISN to the input power source.

The excess length of the power cord between the EUT and the LISN receptacle were folded back and forth at the center of the lead to form a bundle not exceeding 40 cm in length.

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

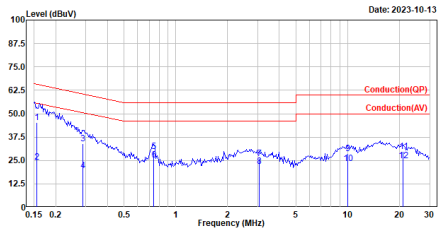
2.4. Test Specification

According to FCC CFR Title 47 Part 15 Subpart C Paragraph 15.207.

2.5. Test Result of Conducted Emission

SISO A

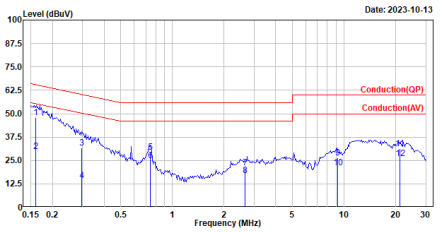
Site :HY-SR01
Condition :Line
Mode :ax160_5985MHz_TX
test by :Neko



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	0.156	45.45	65.68	-20.23	35.77	9.68	QP
2	0.156	24.14	55.68	-31.54	14.46	9.68	Average
3	0.288	33.96	60.59	-26.63	24.29	9.67	QP
4	0.288	19.47	50.59	-31.12	9.80	9.67	Average
5	0.744	29.85	56.00	-26.15	20.15	9.70	QP
6	0.744	25.19	46.00	-20.81	15.49	9.70	Average
7	3.048	26.14	56.00	-29.86	15.96	10.18	QP
8	3.048	21.98	46.00	-24.02	11.80	10.18	Average
9	10.041	28.70	60.00	-31.30	17.90	10.80	QP
10	10.041	23.48	50.00	-26.52	12.68	10.80	Average
11	21.000	29.93	60.00	-30.07	19.27	10.66	QP
12	21.000	24.93	50.00	-25.07	14.27	10.66	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 :ax160_5985MHz_TX
test by :Neko

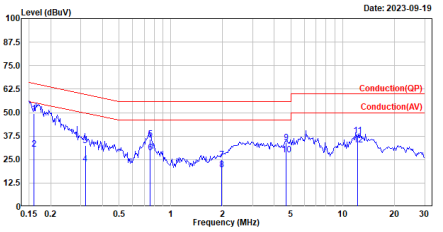


No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	0.161	48.06	65.43	-17.37	38.40	9.66	QP
2	0.161	29.98	55.43	-25.45	20.32	9.66	Average
3	0.296	31.80	60.36	-28.56	22.15	9.65	QP
4	0.296	14.34	50.36	-36.02	4.69	9.65	Average
5	0.741	29.31	56.00	-26.69	19.63	9.68	QP
6	0.741	24.91	46.00	-21.09	15.23	9.68	Average
7	2.652	21.11	56.00	-34.89	11.09	10.02	QP
8	2.652	16.97	46.00	-29.03	6.95	10.02	Average
9	9.148	26.38	60.00	-33.62	15.58	10.80	QP
10	9.148	21.05	50.00	-28.95	10.25	10.80	Average
11	21.091	31.13	60.00	-28.87	20.37	10.76	QP
12	21.091	26.07	50.00	-23.93	15.31	10.76	Average

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

MIMO

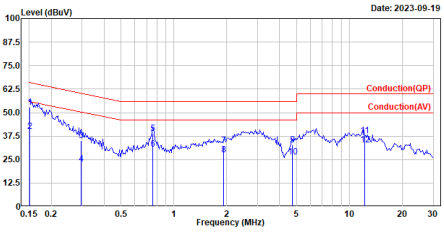
Site :HY-SR01
Condition :Line
Mode :TX_AX160_6985MHz
test by :JAMES



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	0.160	49.32	65.48	-16.16	39.64	9.68	QP
2	0.160	30.52	55.48	-24.96	20.84	9.68	Average
3	0.318	32.56	59.75	-27.19	22.89	9.67	QP
4	0.318	22.48	49.75	-27.27	12.81	9.67	Average
5	0.758	35.70	56.00	-20.30	25.99	9.71	QP
6	0.758	28.66	46.00	-17.34	18.95	9.71	Average
7	1.979	24.86	56.00	-31.14	15.04	9.82	QP
8	1.979	19.76	46.00	-26.24	9.94	9.82	Average
9	4.696	33.78	56.00	-22.22	23.04	10.74	QP
10	4.696	27.44	46.00	-18.56	16.70	10.74	Average
11	12.198	37.74	60.00	-22.26	26.95	10.79	QP
12	12.198	32.77	50.00	-17.23	21.98	10.79	Average

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

Site :HY-SR01
Condition :Neutral
Mode :TX_AX160_6985MHz
test by :JAMES

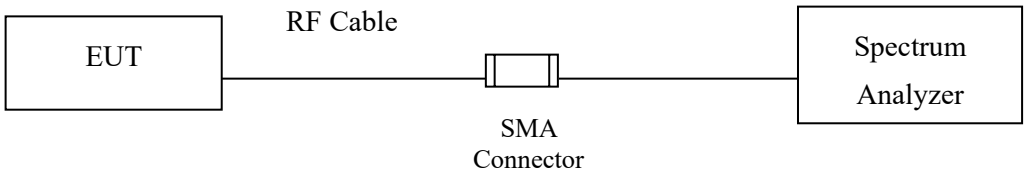


No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	0.151	52.93	65.95	-13.02	43.27	9.66	QP
2	0.151	40.01	55.95	-15.94	30.35	9.66	Average
3	0.297	35.09	60.31	-25.22	25.44	9.65	QP
4	0.297	22.51	50.31	-27.80	12.86	9.65	Average
5	0.760	38.74	56.00	-17.26	29.05	9.69	QP
6	0.760	30.58	46.00	-15.42	20.89	9.69	Average
7	1.913	32.47	56.00	-23.53	22.68	9.79	QP
8	1.913	27.67	46.00	-18.33	17.88	9.79	Average
9	4.722	32.94	56.00	-23.06	22.21	10.73	QP
10	4.722	26.25	46.00	-19.75	15.52	10.73	Average
11	12.198	37.83	60.00	-22.17	27.02	10.81	QP
12	12.198	32.74	50.00	-17.26	21.93	10.81	Average

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

3. 99% & 26dB Bandwidth

3.1. Test Setup



3.2. Limits

According to FCC guidance, the 26 dB bandwidth has been applied for all channels below 320MHz. For 320MHz, the 99% bandwidth has been used.

3.3. Test Procedure

The EUT was tested according to U-NII test procedure of KDB 789033.D02 V02r01
Set RBW 1% of the emission bandwidth, VBW equal to 3 times the RBW.

3.4. Test Result of 99% & 26dB Bandwidth

Product : Notebook Computer
Test Item : 99% & 26dB Bandwidth
Test Mode : Transmit (802.11ax-20 MHz)-SISO A
Test Date : 2023/10/11

Channel No.	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Limit (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Result
01	5955	19.540	--	24.815	320	Pass
45	6175	19.261	--	24.815	320	Pass
93	6415	19.341	--	25.135	320	Pass
97	6435	19.381	--	24.016	320	Pass
105	6475	19.261	--	26.534	320	Pass
113	6515	19.301	--	23.936	320	Pass
117	6535	19.341	--	24.296	320	Pass
149	6695	19.261	--	24.935	320	Pass
181	6855	19.301	--	24.336	320	Pass
185	6875	19.301	--	24.895	320	Pass
209	6995	19.341	--	25.415	320	Pass
229	7095	19.341	--	24.935	320	Pass
233	7115	19.381	--	24.016	320	Pass

Product : Notebook Computer
Test Item : 99% & 26dB Bandwidth
Test Mode : Transmit (802.11ax-40 MHz)-SISO A
Test Date : 2023/10/11

Channel No.	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Limit (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Result
03	5965	37.802	--	44.516	320	Pass
43	6165	37.802	--	45.315	320	Pass
91	6405	38.042	--	44.835	320	Pass
99	6445	38.042	--	44.755	320	Pass
107	6485	37.962	--	44.835	320	Pass
115	6525	37.962	--	43.317	320	Pass
147	6685	38.042	--	45.475	320	Pass
179	6845	37.962	--	44.595	320	Pass
187	6885	38.042	--	44.755	320	Pass
227	7085	37.962	--	45.155	320	Pass

Product : Notebook Computer
Test Item : 99% & 26dB Bandwidth
Test Mode : Transmit (802.11ax-80 MHz)-SISO A
Test Date : 2023/10/11

Channel No.	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Limit (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Result
07	5985	76.404	--	82.797	320	Pass
39	6145	76.563	--	82.478	320	Pass
87	6385	76.563	--	83.916	320	Pass
103	6465	77.043	--	80.400	320	Pass
119	6545	76.883	--	81.359	320	Pass
135	6625	76.723	--	82.797	320	Pass
167	6785	76.404	--	81.838	320	Pass
183	6865	76.563	--	81.518	320	Pass
199	6945	76.244	--	81.838	320	Pass
215	7025	76.404	--	81.359	320	Pass

Product : Notebook Computer
Test Item : 99% & 26dB Bandwidth
Test Mode : Transmit (802.11ax-160 MHz)-SISO A
Test Date : 2023/10/11

Channel No.	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Limit (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Result
15	6025	154.725	--	162.398	320	Pass
79	6345	154.725	--	161.439	320	Pass
111	6505	155.045	--	161.758	320	Pass
143	6665	154.725	--	162.078	320	Pass
207	6985	154.086	--	161.758	320	Pass

Product : Notebook Computer
Test Item : 99% & 26dB Bandwidth
Test Mode : Transmit (802.11ax-20 MHz)-MIMO
Test Date : 2023/09/06

Channel No.	Frequency (MHz)	99% Occupied Bandwidth (MHz)		Limit	26dB Bandwidth (MHz)		Limit	Result
		Chain A	Chain B	(MHz)	Chain A	Chain B	(MHz)	
1	5955	19.38	19.38	--	24.62	24.62	320	Pass
45	6175	19.34	19.26	--	24.94	24.18	320	Pass
93	6415	19.22	19.62	--	23.74	25.25	320	Pass
97	6435	19.30	19.30	--	24.14	24.70	320	Pass
105	6475	19.30	19.38	--	24.34	23.90	320	Pass
113	6515	19.22	19.46	--	24.50	24.78	320	Pass
117	6535	19.38	19.14	--	24.30	25.41	320	Pass
149	6695	19.38	19.26	--	24.54	24.46	320	Pass
181	6855	19.50	19.46	--	24.42	24.58	320	Pass
185	6875	19.26	19.54	--	25.05	24.50	320	Pass
209	6995	19.34	19.34	--	23.74	24.34	320	Pass
229	7095	19.38	19.38	--	25.49	24.78	320	Pass
233	7115	19.42	19.34	--	24.58	23.78	320	Pass

Product : Notebook Computer
Test Item : 99% & 26dB Bandwidth
Test Mode : Transmit (802.11ax-40 MHz)-MIMO
Test Date : 2023/09/06

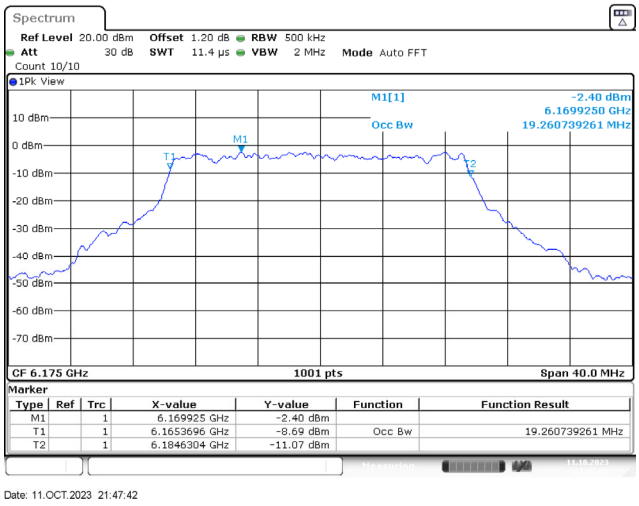
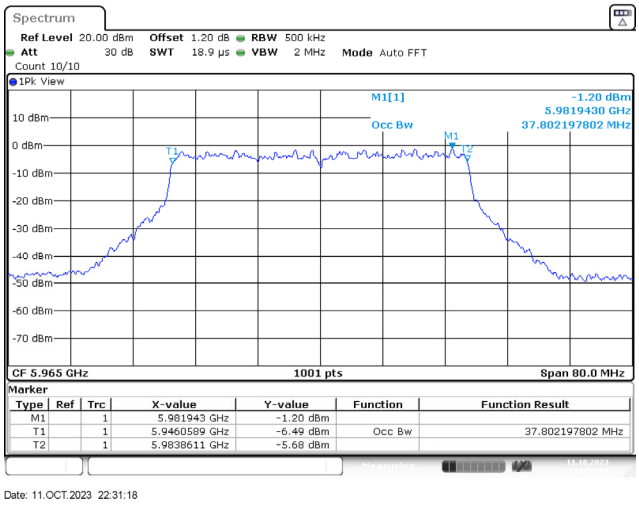
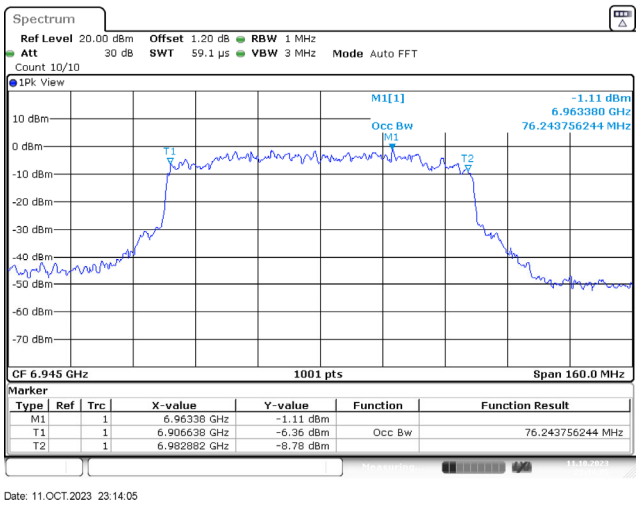
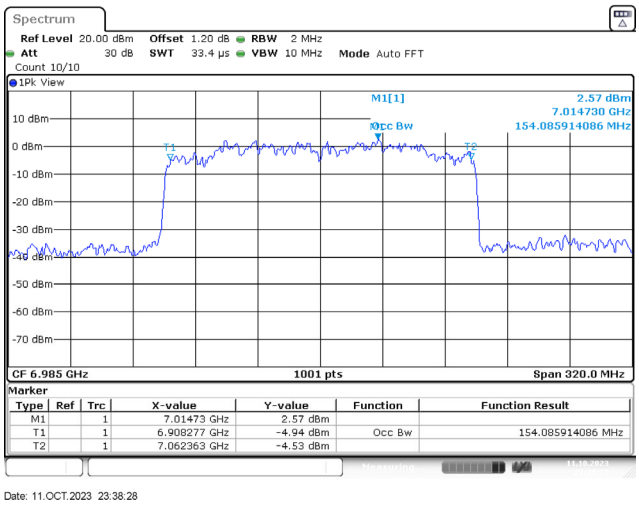
Channel No.	Frequency (MHz)	99% Occupied Bandwidth (MHz)		Limit	26dB Bandwidth (MHz)		Limit	Result
		Chain A	Chain B	(MHz)	Chain A	Chain B	(MHz)	
3	5965	37.88	37.88	--	43.88	45.15	320	Pass
43	6165	37.80	37.96	--	43.96	44.12	320	Pass
91	6405	38.04	37.88	--	44.28	44.92	320	Pass
99	6445	37.88	37.88	--	45.55	43.72	320	Pass
107	6485	38.04	38.04	--	43.48	45.47	320	Pass
115	6525	38.04	37.96	--	43.64	43.64	320	Pass
147	6685	37.88	37.96	--	43.96	45.15	320	Pass
179	6845	37.80	37.88	--	44.76	44.68	320	Pass
187	6885	37.88	37.80	--	44.60	44.84	320	Pass
227	7085	37.96	37.96	--	44.76	44.28	320	Pass

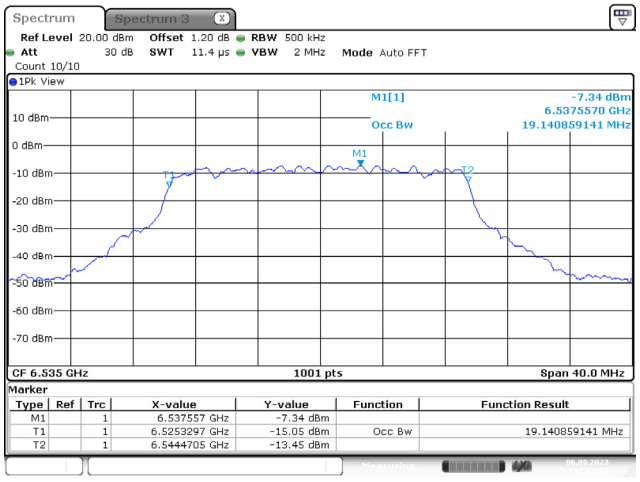
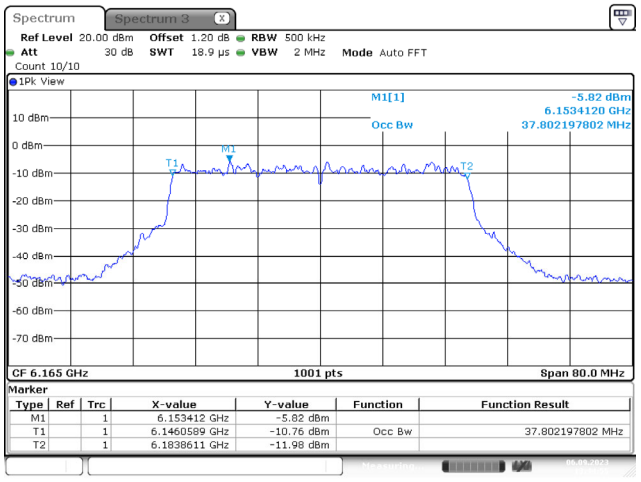
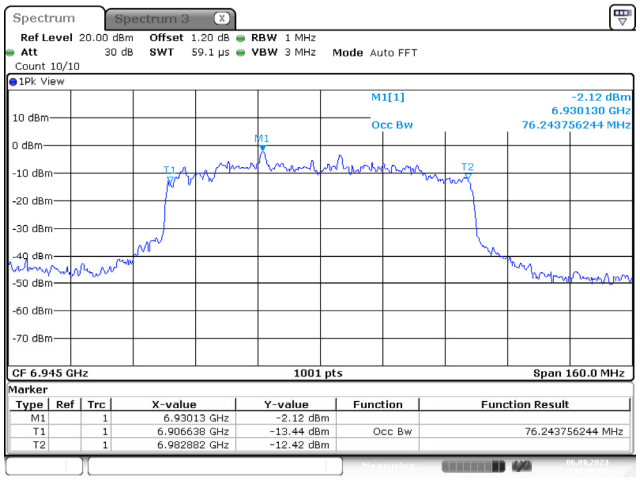
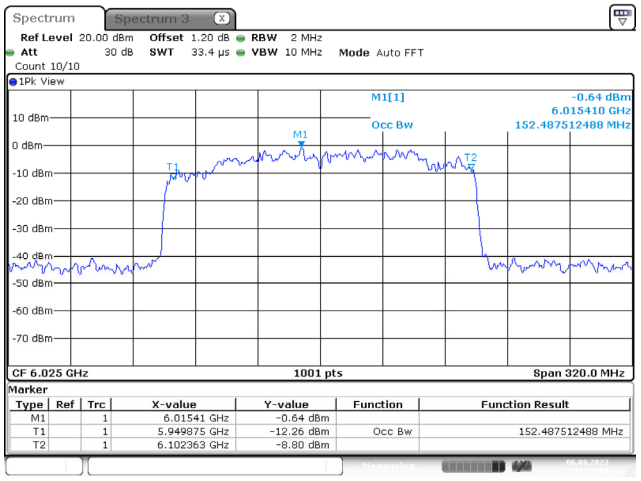
Product : Notebook Computer
Test Item : 99% & 26dB Bandwidth
Test Mode : Transmit (802.11ax-80 MHz)-MIMO
Test Date : 2023/09/06

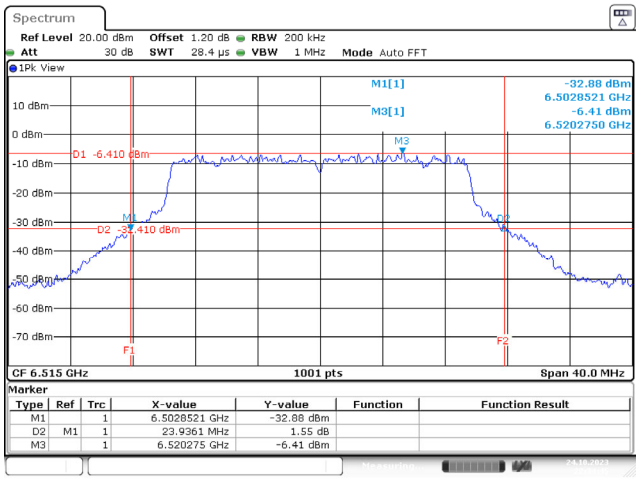
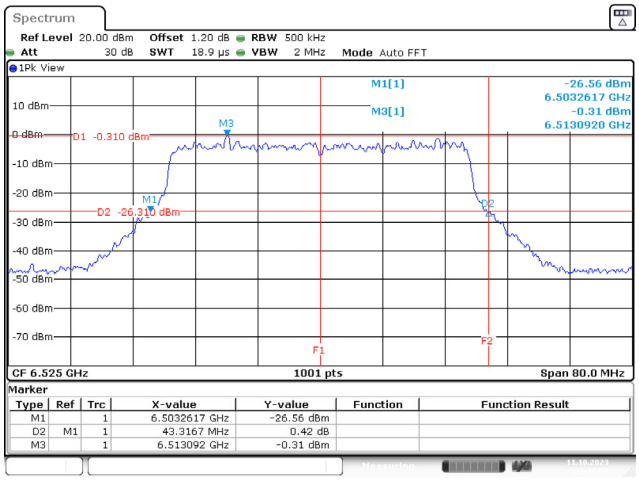
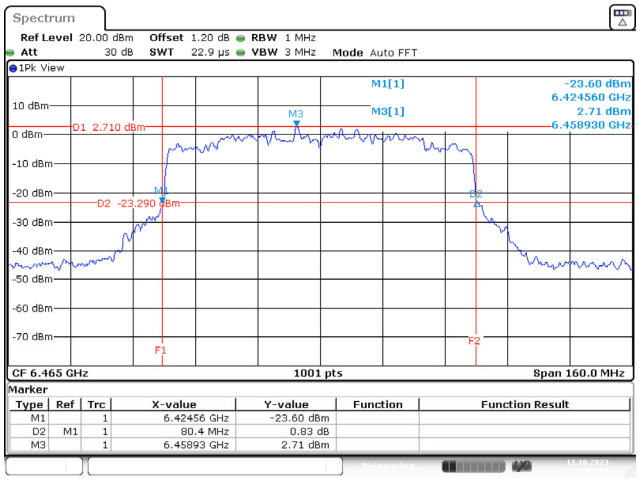
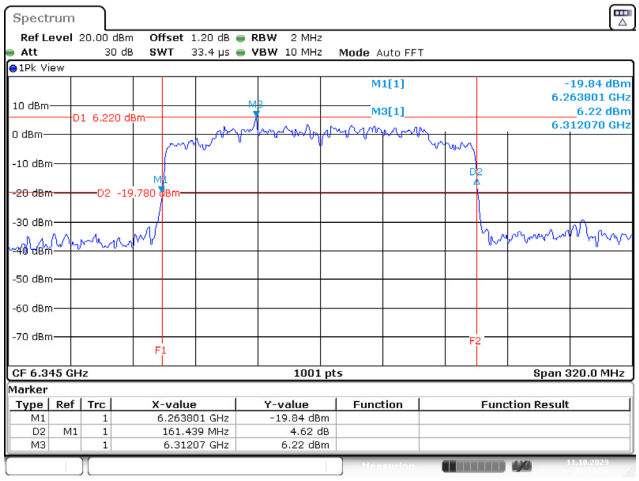
Channel No.	Frequency (MHz)	99% Occupied Bandwidth (MHz)		Limit	26dB Bandwidth (MHz)		Limit	Result
		Chain A	Chain B	(MHz)	Chain A	Chain B	(MHz)	
7	5985	76.88	76.40	--	81.36	82.64	320	Pass
39	6145	76.56	76.72	--	82.48	83.44	320	Pass
87	6385	76.88	76.56	--	81.36	82.32	320	Pass
103	6465	76.72	76.56	--	82.96	85.51	320	Pass
119	6545	76.72	76.56	--	82.32	81.36	320	Pass
135	6625	76.40	76.88	--	83.60	81.84	320	Pass
167	6785	76.88	76.72	--	82.00	81.52	320	Pass
183	6865	76.56	76.56	--	82.96	81.20	320	Pass
199	6945	76.56	76.24	--	81.04	81.52	320	Pass
215	7025	75.76	76.56	--	81.36	81.52	320	Pass

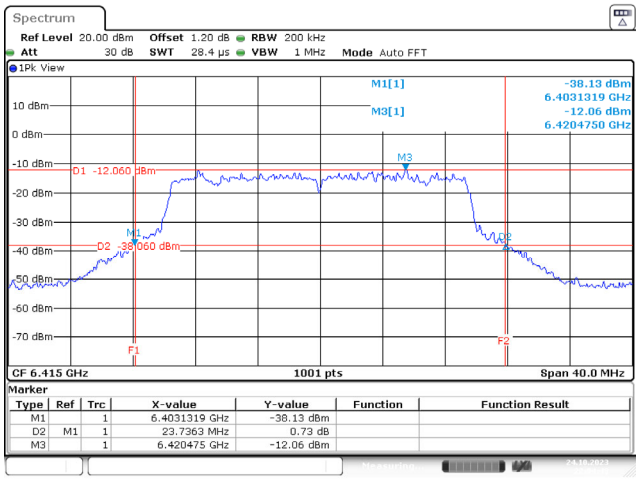
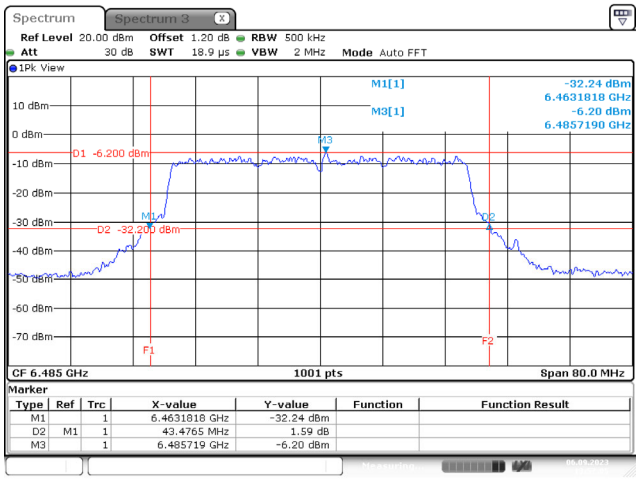
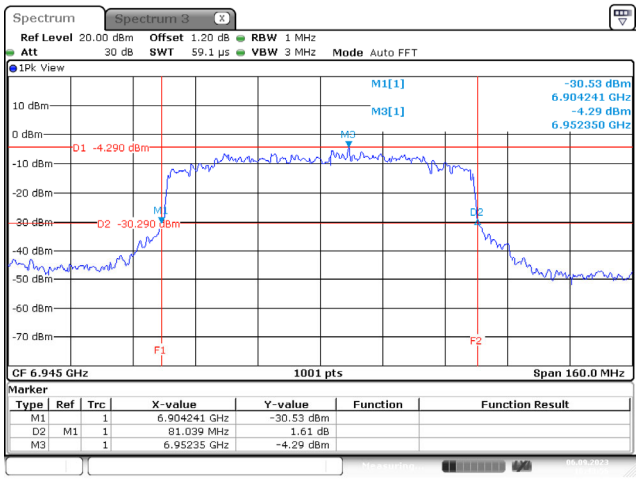
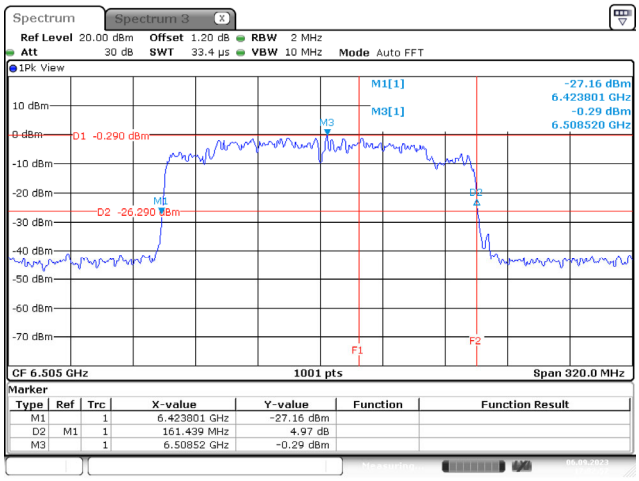
Product : Notebook Computer
Test Item : 99% & 26dB Bandwidth
Test Mode : Transmit (802.11ax-160 MHz)-MIMO
Test Date : 2023/09/06

Channel No.	Frequency (MHz)	99% Occupied Bandwidth (MHz)		Limit	26dB Bandwidth (MHz)		Limit	Result
		Chain A	Chain B	(MHz)	Chain A	Chain B	(MHz)	
15	6025	154.09	152.49	--	161.76	162.40	320	Pass
79	6345	154.09	153.13	--	161.76	162.08	320	Pass
111	6505	154.09	153.13	--	163.04	161.44	320	Pass
143	6665	153.45	153.77	--	161.76	162.08	320	Pass
207	6985	152.81	152.49	--	161.76	162.72	320	Pass

Spectrum plot of worst value (99% Occupied Bandwidth) - SISO A	
802.11ax (20MHz) / 6175MHz	802.11ax (40MHz) / 5965MHz
	
802.11ax (80MHz) / 6945MHz	802.11ax (160MHz) / 6985MHz
	

Spectrum plot of worst value (99% Occupied Bandwidth) - MIMO	
802.11ax (20MHz) / 6535MHz / Chain B	802.11ax (40MHz) / 6165MHz / Chain A
	
802.11ax (80MHz) / 6945MHz / Chain B	802.11ax (160MHz) / 6025MHz / Chain B
	

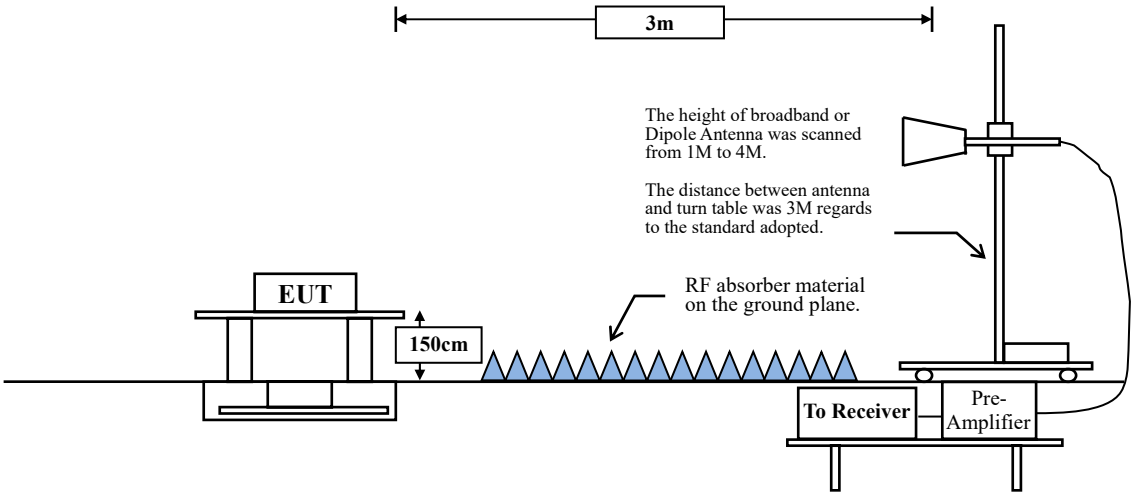
Spectrum plot of worst value (26dB Bandwidth) - SISO A	
802.11ax (20MHz) / 6515MHz	802.11ax (40MHz) / 6525MHz
 Date: 24.OCT.2023 22:34:45	 Date: 11.OCT.2023 22:48:00
802.11ax (80MHz) / 6465MHz	802.11ax (160MHz) / 6345MHz
 Date: 11.OCT.2023 23:01:04	 Date: 11.OCT.2023 23:33:56

Spectrum plot of worst value (26dB Bandwidth) - MIMO	
802.11ax (20MHz) / 6415MHz / Chain A	802.11ax (40MHz) / 6485MHz / Chain A
	
802.11ax (80MHz) / 6945MHz / Chain A	802.11ax (160MHz) / 6505MHz / Chain B
	

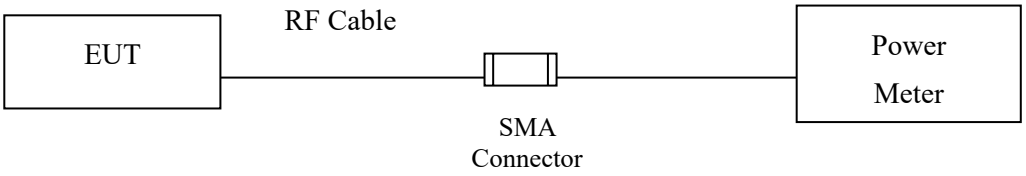
4. Transmit Output

4.1. Test Setup

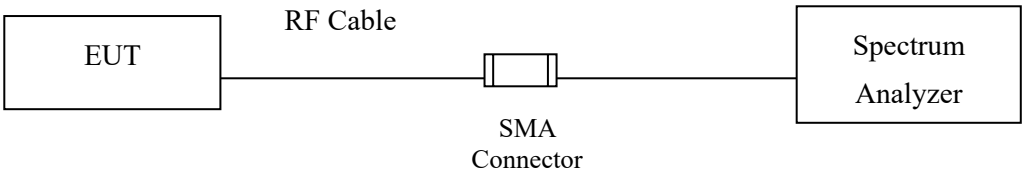
Radiated Power Measurement



Conducted Power Measurement



Conducted Power Measurement



4.2. Limits

1. For the 5.925~6.425 GHz band:

   For standard power access point and fixed client device : e.i.r.p < 36 dBm , For outdoor devices, the maximum e.i.r.p. at any elevation angle above 30 degrees not exceed 125 mW (21 dBm).

   For indoor access point : e.i.r.p < 30 dBm.

   For subordinate device control of an indoor access point : e.i.r.p < 30 dBm.

   For client device control of a standard power access point : e.i.r.p < 30 dBm.

   For client device control of an indoor access point : e.i.r.p < 24 dBm.

2. For the 6.425~6.525 GHz band:

   For indoor access point : e.i.r.p < 30 dBm.

   For client device control of an indoor access point : e.i.r.p < 24 dBm.

3. For the 6.525~6.875 GHz band:

   For standard power access point and fixed client device : e.i.r.p < 36 dBm , For outdoor devices, the maximum e.i.r.p. at any elevation angle above 30 degrees not exceed 125 mW (21 dBm).

   For indoor access point : e.i.r.p < 30 dBm.

   For subordinate device control of an indoor access point : e.i.r.p < 30 dBm.

   For client device control of a standard power access point : e.i.r.p < 30 dBm.

   For client device control of an indoor access point : e.i.r.p < 24 dBm.

4. For the 6.87~7.125 GHz band:

   For indoor access point : e.i.r.p < 30 dBm.

   For client device control of an indoor access point : e.i.r.p < 24 dBm.

4.3. Test Procedure

☐**Radiated**

1. The EUT was setup to ANSI C63.10: 2013; tested to U-NII test procedure of KDB 789033 D02 v02r01 Method SA-2 for compliance to FCC CFR Title 47 Part 15 Subpart E requirements.
2. The EUT is placed on a turn table which is 1.5 meter above ground and 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.
3. Perform a field strength measuremrnt following ANSI C63.10 and record thr worse field strength value via spectrm reading obtained corrected for antenna factor, cable loss and pre-amplifier factor and then convert the measured field strength level to EIRP level.
4. Following ANSI C63.10 and KDB 412172 D01 v01r01,
   EIRP value (dBm) = Field strength value (dBμV/m) + Correction factor (dB) @3m
   Correction factor (dB) @3m = 20*log(3) -104.77 = -95.23dB

☒**Conducted**

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≦160MHz) 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, (KEYSIGHT / 8990B video bandwidth: 160MHz)

802.11ac/ax (BW≧160MHz) 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.

4.4. Test Result of Transmit Output

Product : Notebook Computer
Test Item : Transmit Output
Test Mode : Transmit (802.11ax-20 MHz)-SISO A
Test Date : 2023/10/16

Channel No.	Frequency (MHz)	Output Power (dBm)	Max Ant Gain (dBi)	EIRP Output Power (dBm)	EIRP Limit (dBm)	Result
01	5955	4.45	3.52	7.97	24	Pass
45	6175	4.39	3.52	7.91	24	Pass
93	6415	4.44	3.52	7.96	24	Pass
97	6435	4.41	1.08	5.49	24	Pass
105	6475	4.43	1.08	5.51	24	Pass
113	6515	4.37	1.08	5.45	24	Pass
117	6535	3.53	3.24	6.77	24	Pass
149	6695	3.64	3.24	6.88	24	Pass
181	6855	3.57	3.24	6.81	24	Pass
185	6875	3.59	3.81	7.40	24	Pass
209	6995	3.62	3.81	7.43	24	Pass
229	7095	3.67	3.81	7.48	24	Pass
233	7115	-0.67	3.81	3.14	24	Pass

Product : Notebook Computer
Test Item : Transmit Output
Test Mode : Transmit (802.11ax-40 MHz)-SISO A
Test Date : 2023/10/16

Channel No.	Frequency (MHz)	Output Power (dBm)	Max Ant Gain (dBi)	EIRP Output Power (dBm)	EIRP Limit (dBm)	Result
03	5965	7.66	3.52	11.18	24	Pass
43	6165	7.62	3.52	11.14	24	Pass
91	6405	7.54	3.52	11.06	24	Pass
99	6445	7.40	1.08	8.48	24	Pass
107	6485	7.43	1.08	8.51	24	Pass
115	6525	7.37	3.24	10.61	24	Pass
147	6685	6.92	3.24	10.16	24	Pass
179	6845	6.95	3.24	10.19	24	Pass
187	6885	6.87	3.81	10.68	24	Pass
227	7085	6.89	3.81	10.70	24	Pass

Product : Notebook Computer
Test Item : Transmit Output
Test Mode : Transmit (802.11ax-80 MHz)-SISO A
Test Date : 2023/10/16

Channel No.	Frequency (MHz)	Output Power (dBm)	Max Ant Gain (dBi)	EIRP Output Power (dBm)	EIRP Limit (dBm)	Result
07	5985	10.17	3.52	13.69	24	Pass
39	6145	10.09	3.52	13.61	24	Pass
87	6385	10.18	3.52	13.70	24	Pass
103	6465	10.14	1.08	11.22	24	Pass
119	6545	10.16	3.24	13.40	24	Pass
135	6625	9.41	3.24	12.65	24	Pass
167	6785	9.45	3.24	12.69	24	Pass
183	6865	9.38	3.81	13.19	24	Pass
199	6945	9.36	3.81	13.17	24	Pass
215	7025	9.40	3.81	13.21	24	Pass

Product : Notebook Computer
Test Item : Transmit Output
Test Mode : Transmit (802.11ax-160 MHz)-SISO A
Test Date : 2023/10/16

Channel No.	Frequency (MHz)	Output Power (dBm)	Max Ant Gain (dBi)	EIRP Output Power (dBm)	EIRP Limit (dBm)	Result
15	6025	12.81	3.52	16.33	24	Pass
79	6345	12.86	3.52	16.38	24	Pass
111	6505	12.94	3.24	16.18	24	Pass
143	6665	12.17	3.24	15.41	24	Pass
207	6985	12.11	3.81	15.92	24	Pass

Product : Notebook Computer
Test Item : Transmit Output
Test Mode : Transmit (802.11ax-20 MHz)-SISO B
Test Date : 2023/10/16

Channel No.	Frequency (MHz)	Output Power (dBm)	Max Ant Gain (dBi)	EIRP Output Power (dBm)	EIRP Limit (dBm)	Result
01	5955	4.14	3.52	7.66	24	Pass
45	6175	4.16	3.52	7.68	24	Pass
93	6415	4.19	3.52	7.71	24	Pass
97	6435	4.20	1.08	5.28	24	Pass
105	6475	4.27	1.08	5.35	24	Pass
113	6515	4.23	1.08	5.31	24	Pass
117	6535	3.34	3.24	6.58	24	Pass
149	6695	3.42	3.24	6.66	24	Pass
181	6855	3.39	3.24	6.63	24	Pass
185	6875	3.37	3.81	7.18	24	Pass
209	6995	3.42	3.81	7.23	24	Pass
229	7095	3.44	3.81	7.25	24	Pass
233	7115	-0.72	3.81	3.09	24	Pass

Product : Notebook Computer
Test Item : Transmit Output
Test Mode : Transmit (802.11ax-40 MHz)-SISO B
Test Date : 2023/10/16

Channel No.	Frequency (MHz)	Output Power (dBm)	Max Ant Gain (dBi)	EIRP Output Power (dBm)	EIRP Limit (dBm)	Result
03	5965	7.45	3.52	10.97	24	Pass
43	6165	7.48	3.52	11.00	24	Pass
91	6405	7.33	3.52	10.85	24	Pass
99	6445	7.28	1.08	8.36	24	Pass
107	6485	7.29	1.08	8.37	24	Pass
115	6525	7.23	3.24	10.47	24	Pass
147	6685	6.77	3.24	10.01	24	Pass
179	6845	6.76	3.24	10.00	24	Pass
187	6885	6.71	3.81	10.52	24	Pass
227	7085	6.69	3.81	10.50	24	Pass

Product : Notebook Computer
Test Item : Transmit Output
Test Mode : Transmit (802.11ax-80 MHz)-SISO B
Test Date : 2023/10/16

Channel No.	Frequency (MHz)	Output Power (dBm)	Max Ant Gain (dBi)	EIRP Output Power (dBm)	EIRP Limit (dBm)	Result
07	5985	10.03	3.52	13.55	24	Pass
39	6145	9.84	3.52	13.36	24	Pass
87	6385	9.95	3.52	13.47	24	Pass
103	6465	9.93	1.08	11.01	24	Pass
119	6545	9.98	3.24	13.22	24	Pass
135	6625	9.25	3.24	12.49	24	Pass
167	6785	9.31	3.24	12.55	24	Pass
183	6865	9.19	3.81	13.00	24	Pass
199	6945	9.16	3.81	12.97	24	Pass
215	7025	9.18	3.81	12.99	24	Pass

Product : Notebook Computer
Test Item : Transmit Output
Test Mode : Transmit (802.11ax-160 MHz)-SISO B
Test Date : 2023/10/16

Channel No.	Frequency (MHz)	Output Power (dBm)	Max Ant Gain (dBi)	EIRP Output Power (dBm)	EIRP Limit (dBm)	Result
15	6025	12.59	3.52	16.11	24	Pass
79	6345	12.72	3.52	16.24	24	Pass
111	6505	12.69	3.24	15.93	24	Pass
143	6665	11.93	3.24	15.17	24	Pass
207	6985	12.05	3.81	15.86	24	Pass

Product : Notebook Computer
Test Item : Transmit Output
Test Mode : Transmit (802.11ax-20 MHz)-MIMO
Test Date : 2023/09/06

Channel No.	Frequency (MHz)	Chain A Power (dBm)	Chain B Power (dBm)	Total Output Power (dBm)	Max Ant Gain (dBi)	EIRP Output Power (dBm)	EIRP Limit (dBm)	Result
1	5955	-1.51	-1.75	1.38	3.52	4.90	24	Pass
45	6175	-1.54	-1.87	1.31	3.52	4.83	24	Pass
93	6415	-1.18	-2.22	1.34	3.52	4.86	24	Pass
97	6435	-1.63	-2.15	1.13	1.08	2.21	24	Pass
105	6475	-1.66	-2.07	1.15	1.08	2.23	24	Pass
113	6515	-1.65	-2.11	1.14	1.08	2.22	24	Pass
117	6535	-2.05	-2.53	0.73	3.24	3.97	24	Pass
149	6695	-2.22	-2.43	0.69	3.24	3.93	24	Pass
181	6855	-2.21	-3.05	0.40	3.24	3.64	24	Pass
185	6875	-2.28	-2.87	0.45	3.81	4.26	24	Pass
209	6995	-1.99	-2.65	0.70	3.81	4.51	24	Pass
229	7095	-1.99	-2.83	0.62	3.81	4.43	24	Pass
233	7115	-5.99	-6.83	-3.38	3.81	0.43	24	Pass

Product : Notebook Computer
Test Item : Transmit Output
Test Mode : Transmit (802.11ax-40 MHz)-MIMO
Test Date : 2023/09/06

Channel No.	Frequency (MHz)	Chain A Power (dBm)	Chain B Power (dBm)	Total Output Power (dBm)	Max Ant Gain (dBi)	EIRP Output Power (dBm)	EIRP Limit (dBm)	Result
3	5965	1.73	1.43	4.59	3.52	8.11	24	Pass
43	6165	1.86	1.29	4.59	3.52	8.11	24	Pass
91	6405	1.87	1.17	4.54	3.52	8.06	24	Pass
99	6445	1.60	1.55	4.59	1.08	5.67	24	Pass
107	6485	1.78	1.12	4.47	1.08	5.55	24	Pass
115	6525	1.77	1.21	4.51	3.24	7.75	24	Pass
147	6685	1.08	0.82	3.96	3.24	7.20	24	Pass
179	6845	1.03	0.88	3.97	3.24	7.21	24	Pass
187	6885	0.96	0.96	3.97	3.81	7.78	24	Pass
227	7085	0.99	0.79	3.90	3.81	7.71	24	Pass

Product : Notebook Computer
Test Item : Transmit Output
Test Mode : Transmit (802.11ax-80 MHz)-MIMO
Test Date : 2023/09/06

Channel No.	Frequency (MHz)	Chain A Power (dBm)	Chain B Power (dBm)	Total Output Power (dBm)	Max Ant Gain (dBi)	EIRP Output Power (dBm)	EIRP Limit (dBm)	Result
7	5985	4.32	4.00	7.17	3.52	10.69	24	Pass
39	6145	4.42	3.89	7.17	3.52	10.69	24	Pass
87	6385	4.29	3.90	7.11	3.52	10.63	24	Pass
103	6465	4.16	3.90	7.04	1.08	8.12	24	Pass
119	6545	4.44	3.96	7.22	3.24	10.46	24	Pass
135	6625	3.46	3.40	6.44	3.24	9.68	24	Pass
167	6785	3.50	3.37	6.45	3.24	9.69	24	Pass
183	6865	3.48	3.37	6.44	3.81	10.25	24	Pass
199	6945	3.52	3.39	6.47	3.81	10.28	24	Pass
215	7025	3.48	3.41	6.46	3.81	10.27	24	Pass

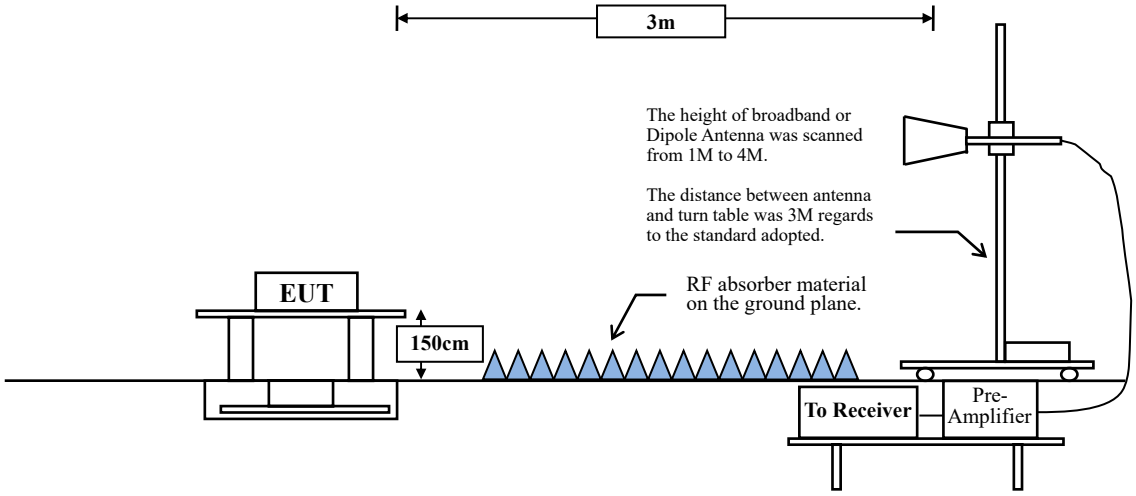
Product : Notebook Computer
Test Item : Transmit Output
Test Mode : Transmit (802.11ax-160 MHz)-MIMO
Test Date : 2023/09/06

Channel No.	Frequency (MHz)	Chain A Power (dBm)	Chain B Power (dBm)	Total Output Power (dBm)	Max Ant Gain (dBi)	EIRP Output Power (dBm)	EIRP Limit (dBm)	Result
15	6025	7.09	6.80	9.96	3.52	13.48	24	Pass
79	6345	7.17	6.55	9.88	3.52	13.40	24	Pass
111	6505	7.13	6.57	9.87	3.24	13.11	24	Pass
143	6665	6.24	6.05	9.16	3.24	12.40	24	Pass
207	6985	6.36	6.06	9.22	3.81	13.03	24	Pass

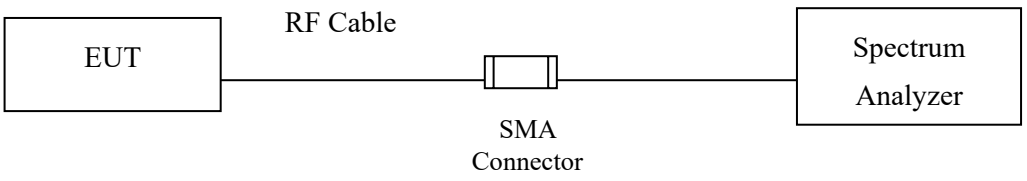
5. Maximun Power Spectrum Density

5.1. Test Setup

Radiated PSD Measurement



Conducted PSD Measurement



5.2. Limits

1. For the 5.925~6.425 GHz band:
   For standard power access point and fixed client device : e.i.r.p PSD < 23 dBm/MHz.
   For indoor access point : e.i.r.p PSD < 5 dBm/MHz.
   For subordinate device control of an indoor access point : e.i.r.p PSD < 5 dBm/MHz.
   For client device control of a standard power access point : e.i.r.p PSD < 17 dBm/MHz.
   For client device control of an indoor access point : e.i.r.p PSD < -1 dBm/MHz.
2. For the 6.425~6.525 GHz band:
   For indoor access point : e.i.r.p PSD < 5 dBm/MHz.
   For client device control of an indoor access point : e.i.r.p PSD < -1 dBm/MHz.
3. For the 6.525~6.875 GHz band:
   For standard power access point and fixed client device : e.i.r.p PSD < 23 dBm/MHz.
   For indoor access point : e.i.r.p PSD < 5 dBm/MHz.
   For subordinate device control of an indoor access point : e.i.r.p PSD < 5 dBm/MHz.
   For client device control of a standard power access point : e.i.r.p PSD < 17 dBm/MHz.
   For client device control of an indoor access point : e.i.r.p PSD < -1 dBm/MHz.
4. For the 6.875~7.125 GHz band:
   For indoor access point : e.i.r.p PSD < 5 dBm/MHz.
   For client device control of an indoor access point : e.i.r.p PSD < -1 dBm/MHz.

5.3. Test Procedure

☐**Radiated**

1. The EUT was setup to ANSI C63.10: 2013; tested to U-NII test procedure of KDB 789033 D02 v02r01 Method SA-2 for compliance to FCC CFR Title 47 Part 15 Subpart E requirements.
2. The EUT is placed on a turn table which is 1.5 meter above ground and 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.
3. Perform a field strength measuremrnt following ANSI C63.10 and record thr worse field strength value via spectrm reading obtained corrected for antenna factor, cable loss and pre-amplifier factor and then convert the measured field strength level to EIRP level.
4. Following ANSI C63.10 and KDB 412172 D01 v01r01,
   EIRP value (dBm) = Field strength value (dBμV/m) + Correction factor (dB) @3m
   Correction factor (dB) @3m = 20*log(3) -104.77 = -95.23dB

☒**Conducted**

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..

5.4. Test Result of Maximun Power Spectral Density

Product : Notebook Computer
Test Item : Maximum Power Spectral Density
Test Mode : Transmit (802.11ax-20 MHz)-SISO A
Test Date : 2023/10/11

Channel No.	Frequency (MHz)	Data Rate	PPSD /MHz (dBm)	Duty factor (dB)	Total PPSD/MHz (dBm)	Max Ant. Gain (dBi)	EIRP PPSD /MHz (dBm)	EIRP Limit (dBm)	Result
01	5955	MCS0	-8.12	0.00	-8.12	3.52	-4.60	-1	Pass
45	6175	MCS0	-8.46	0.00	-8.46	3.52	-4.94	-1	Pass
93	6415	MCS0	-7.81	0.00	-7.81	3.52	-4.29	-1	Pass
97	6435	MCS0	-8.45	0.00	-8.45	1.08	-7.37	-1	Pass
105	6475	MCS0	-8.18	0.00	-8.18	1.08	-7.10	-1	Pass
113	6515	MCS0	-8.55	0.00	-8.55	1.08	-7.47	-1	Pass
117	6535	MCS0	-9.39	0.00	-9.39	3.24	-6.15	-1	Pass
149	6695	MCS0	-9.36	0.00	-9.36	3.24	-6.12	-1	Pass
181	6855	MCS0	-10.06	0.00	-10.06	3.24	-6.82	-1	Pass
185	6875	MCS0	-10.00	0.00	-10.00	3.81	-6.19	-1	Pass
209	6995	MCS0	-8.93	0.00	-8.93	3.81	-5.12	-1	Pass
229	7095	MCS0	-8.95	0.00	-8.95	3.81	-5.14	-1	Pass
233	7115	MCS0	-14.59	0.00	-14.59	3.81	-10.78	-1	Pass

Note:

1. Total PPSD/MHz = PPSD/MHz + Duty factor.
2. EIRP PPSD/MHz = Total PPSD/MHz + Max Ant. Gain.

Product : Notebook Computer
Test Item : Maximum Power Spectral Density
Test Mode : Transmit (802.11ax-40 MHz)-SISO A
Test Date : 2023/10/11

Channel No.	Frequency (MHz)	Data Rate	PPSD /MHz (dBm)	Duty factor (dB)	Total PPSD/MHz (dBm)	Max Ant. Gain (dBi)	EIRP PPSD /MHz (dBm)	EIRP Limit (dBm)	Result
03	5965	MCS0	-8.08	0.00	-8.08	3.52	-4.56	-1	Pass
43	6165	MCS0	-8.01	0.00	-8.01	3.52	-4.49	-1	Pass
91	6405	MCS0	-8.08	0.00	-8.08	3.52	-4.56	-1	Pass
99	6445	MCS0	-8.32	0.00	-8.32	1.08	-7.24	-1	Pass
107	6485	MCS0	-8.37	0.00	-8.37	1.08	-7.29	-1	Pass
115	6525	MCS0	-8.31	0.00	-8.31	3.24	-5.07	-1	Pass
147	6685	MCS0	-9.06	0.00	-9.06	3.24	-5.82	-1	Pass
179	6845	MCS0	-9.31	0.00	-9.31	3.24	-6.07	-1	Pass
187	6885	MCS0	-9.11	0.00	-9.11	3.81	-5.30	-1	Pass
227	7085	MCS0	-8.55	0.00	-8.55	3.81	-4.74	-1	Pass

Note:

1. Total PPSD/MHz = PPSD/MHz + Duty factor.
2. EIRP PPSD/MHz = Total PPSD/MHz + Max Ant. Gain.

Product : Notebook Computer
Test Item : Maximum Power Spectral Density
Test Mode : Transmit (802.11ax-80 MHz)-SISO A
Test Date : 2023/10/11

Channel No.	Frequency (MHz)	Data Rate	PPSD /MHz (dBm)	Duty factor (dB)	Total PPSD/MHz (dBm)	Max Ant. Gain (dBi)	EIRP PPSD /MHz (dBm)	EIRP Limit (dBm)	Result
07	5985	MCS0	-7.73	0.00	-7.73	3.52	-4.21	-1	Pass
39	6145	MCS0	-7.76	0.00	-7.76	3.52	-4.24	-1	Pass
87	6385	MCS0	-8.01	0.00	-8.01	3.52	-4.49	-1	Pass
103	6465	MCS0	-8.14	0.00	-8.14	1.08	-7.06	-1	Pass
119	6545	MCS0	-7.80	0.00	-7.80	3.24	-4.56	-1	Pass
135	6625	MCS0	-9.00	0.00	-9.00	3.24	-5.76	-1	Pass
167	6785	MCS0	-8.83	0.00	-8.83	3.24	-5.59	-1	Pass
183	6865	MCS0	-8.78	0.00	-8.78	3.81	-4.97	-1	Pass
199	6945	MCS0	-8.78	0.00	-8.78	3.81	-4.97	-1	Pass
215	7025	MCS0	-8.26	0.00	-8.26	3.81	-4.45	-1	Pass

Note:
1. Total PPSD/MHz = PPSD/MHz + Duty factor.
2. EIRP PPSD/MHz = Total PPSD/MHz + Max Ant. Gain.

Product : Notebook Computer
Test Item : Maximum Power Spectral Density
Test Mode : Transmit (802.11ax-160 MHz)-SISO A
Test Date : 2023/10/11

Channel No.	Frequency (MHz)	Data Rate	PPSD /MHz (dBm)	Duty factor (dB)	Total PPSD/MHz (dBm)	Max Ant. Gain (dBi)	EIRP PPSD /MHz (dBm)	EIRP Limit (dBm)	Result
15	6025	MCS0	-7.88	0.00	-7.88	3.52	-4.36	-1	Pass
79	6345	MCS0	-8.01	0.00	-8.01	3.52	-4.49	-1	Pass
111	6505	MCS0	-7.76	0.00	-7.76	3.24	-4.52	-1	Pass
143	6665	MCS0	-8.77	0.00	-8.77	3.24	-5.53	-1	Pass
207	6985	MCS0	-8.40	0.00	-8.40	3.81	-4.59	-1	Pass

Note:
1. Total PPSD/MHz = PPSD/MHz + Duty factor.
2. EIRP PPSD/MHz = Total PPSD/MHz + Max Ant. Gain.

Product : Notebook Computer
Test Item : Maximun Power Spectral Density
Test Mode : Transmit (802.11ax-20 MHz)-MIMO
Test Date : 2023/09/06

Channel No.	Frequency (MHz)	Data Rate (Mbps)	Chain	PPSD/ MHz (dBm)	10*log(2) (dB)	Duty factor (dB)	Total PPSD/MHz (dBm)	Max Ant. Gain (dBi)	EIRP PPSD/ MHz (dBm)	EIRP Limit (dBm)	Result
01	5955	MCS0	A	-14.35	3.01	0.00	-11.34	3.52	-7.82	-1	Pass
			B	-13.42	3.01	0.00	-10.41	3.52	-6.89		Pass
45	6175	MCS0	A	-13.61	3.01	0.00	-10.60	3.52	-7.08	-1	Pass
			B	-12.49	3.01	0.00	-9.48	3.52	-5.96		Pass
93	6415	MCS0	A	-13.30	3.01	0.00	-10.29	3.52	-6.77	-1	Pass
			B	-13.22	3.01	0.00	-10.21	3.52	-6.69		Pass
97	6435	MCS0	A	-13.89	3.01	0.00	-10.88	1.08	-9.80	-1	Pass
			B	-13.30	3.01	0.00	-10.29	1.08	-9.21		Pass
105	6475	MCS0	A	-13.93	3.01	0.00	-10.92	1.08	-9.84	-1	Pass
			B	-13.50	3.01	0.00	-10.49	1.08	-9.41		Pass
113	6515	MCS0	A	-14.18	3.01	0.00	-11.17	1.08	-10.09	-1	Pass
			B	-13.56	3.01	0.00	-10.55	1.08	-9.47		Pass
117	6535	MCS0	A	-14.16	3.01	0.00	-11.15	3.24	-7.91	-1	Pass
			B	-12.67	3.01	0.00	-9.66	3.24	-6.42		Pass
149	6695	MCS0	A	-13.86	3.01	0.00	-10.85	3.24	-7.61	-1	Pass
			B	-14.34	3.01	0.00	-11.33	3.24	-8.09		Pass
181	6855	MCS0	A	-14.06	3.01	0.00	-11.05	3.24	-7.81	-1	Pass
			B	-14.47	3.01	0.00	-11.46	3.24	-8.22		Pass
185	6875	MCS0	A	-14.74	3.01	0.00	-11.73	3.81	-7.92	-1	Pass
			B	-14.74	3.01	0.00	-11.73	3.81	-7.92		Pass
209	6995	MCS0	A	-13.81	3.01	0.00	-10.80	3.81	-6.99	-1	Pass
			B	-13.85	3.01	0.00	-10.84	3.81	-7.03		Pass
229	7095	MCS0	A	-14.81	3.01	0.00	-11.80	3.81	-7.99	-1	Pass
			B	-14.89	3.01	0.00	-11.88	3.81	-8.07		Pass
233	7115	MCS0	A	-18.57	3.01	0.00	-15.56	3.81	-11.75	-1	Pass
			B	-18.68	3.01	0.00	-15.67	3.81	-11.86		Pass

Note:

1. Total PPSD/MHz = PPSD/MHz + 10*log(2) + Duty factor.
2. EIRP PPSD/MHz = Total PPSD/MHz + Max Ant. Gain.

Product : Notebook Computer
Test Item : Maximun Power Spectral Density
Test Mode : Transmit (802.11ax-40 MHz)-MIMO
Test Date : 2023/09/06

Channel No.	Frequency (MHz)	Data Rate (Mbps)	Chain	PPSD/ MHz (dBm)	10*log(2) (dB)	Duty factor (dB)	Total PPSD/MHz (dBm)	Max Ant. Gain (dBi)	EIRP PPSD/ MHz (dBm)	EIRP Limit (dBm)	Result
03	5965	MCS0	A	-12.62	3.01	0.00	-9.61	3.52	-6.09	-1	Pass
			B	-12.74	3.01	0.00	-9.73	3.52	-6.21		Pass
43	6165	MCS0	A	-13.23	3.01	0.00	-10.22	3.52	-6.70	-1	Pass
			B	-12.18	3.01	0.00	-9.17	3.52	-5.65		Pass
91	6405	MCS0	A	-13.16	3.01	0.00	-10.15	3.52	-6.63	-1	Pass
			B	-12.86	3.01	0.00	-9.85	3.52	-6.33		Pass
99	6445	MCS0	A	-13.31	3.01	0.00	-10.30	1.08	-9.22	-1	Pass
			B	-12.94	3.01	0.00	-9.93	1.08	-8.85		Pass
107	6485	MCS0	A	-13.45	3.01	0.00	-10.44	1.08	-9.36	-1	Pass
			B	-12.87	3.01	0.00	-9.86	1.08	-8.78		Pass
115	6525	MCS0	A	-13.56	3.01	0.00	-10.55	3.24	-7.31	-1	Pass
			B	-13.74	3.01	0.00	-10.73	3.24	-7.49		Pass
147	6685	MCS0	A	-12.87	3.01	0.00	-9.86	3.24	-6.62	-1	Pass
			B	-13.55	3.01	0.00	-10.54	3.24	-7.30		Pass
179	6845	MCS0	A	-13.28	3.01	0.00	-10.27	3.24	-7.03	-1	Pass
			B	-13.75	3.01	0.00	-10.74	3.24	-7.50		Pass
187	6885	MCS0	A	-14.01	3.01	0.00	-11.00	3.81	-7.19	-1	Pass
			B	-14.18	3.01	0.00	-11.17	3.81	-7.36		Pass
227	7085	MCS0	A	-14.30	3.01	0.00	-11.29	3.81	-7.48	-1	Pass
			B	-14.29	3.01	0.00	-11.28	3.81	-7.47		Pass

Note:

1. Total PPSD/MHz = PPSD/MHz + 10*log(2) + Duty factor.
2. EIRP PPSD/MHz = Total PPSD/MHz + Max Ant. Gain.

Product : Notebook Computer
Test Item : Maximun Power Spectral Density
Test Mode : Transmit (802.11ax-80 MHz)-MIMO
Test Date : 2023/09/06

Channel No.	Frequency (MHz)	Data Rate (Mbps)	Chain	PPSD/ MHz (dBm)	10*log(2) (dB)	Duty factor (dB)	Total PPSD/MHz (dBm)	Max Ant. Gain (dBi)	EIRP PPSD/ MHz (dBm)	EIRP Limit (dBm)	Result
07	5985	MCS0	A	-12.54	3.01	0.00	-9.53	3.52	-6.01	-1	Pass
			B	-11.98	3.01	0.00	-8.97	3.52	-5.45		Pass
39	6145	MCS0	A	-12.86	3.01	0.00	-9.85	3.52	-6.33	-1	Pass
			B	-12.59	3.01	0.00	-9.58	3.52	-6.06		Pass
87	6385	MCS0	A	-12.61	3.01	0.00	-9.60	3.52	-6.08	-1	Pass
			B	-12.37	3.01	0.00	-9.36	3.52	-5.84		Pass
103	6465	MCS0	A	-12.61	3.01	0.00	-9.60	1.08	-8.52	-1	Pass
			B	-12.29	3.01	0.00	-9.28	1.08	-8.20		Pass
119	6545	MCS0	A	-13.23	3.01	0.00	-10.22	3.24	-6.98	-1	Pass
			B	-12.98	3.01	0.00	-9.97	3.24	-6.73		Pass
135	6625	MCS0	A	-12.84	3.01	0.00	-9.83	3.24	-6.59	-1	Pass
			B	-13.68	3.01	0.00	-10.67	3.24	-7.43		Pass
167	6785	MCS0	A	-13.17	3.01	0.00	-10.16	3.24	-6.92	-1	Pass
			B	-13.33	3.01	0.00	-10.32	3.24	-7.08		Pass
183	6865	MCS0	A	-14.20	3.01	0.00	-11.19	3.81	-7.38	-1	Pass
			B	-13.79	3.01	0.00	-10.78	3.81	-6.97		Pass
199	6945	MCS0	A	-13.64	3.01	0.00	-10.63	3.81	-6.82	-1	Pass
			B	-13.35	3.01	0.00	-10.34	3.81	-6.53		Pass
215	7025	MCS0	A	-12.98	3.01	0.00	-9.97	3.81	-6.16	-1	Pass
			B	-13.78	3.01	0.00	-10.77	3.81	-6.96		Pass

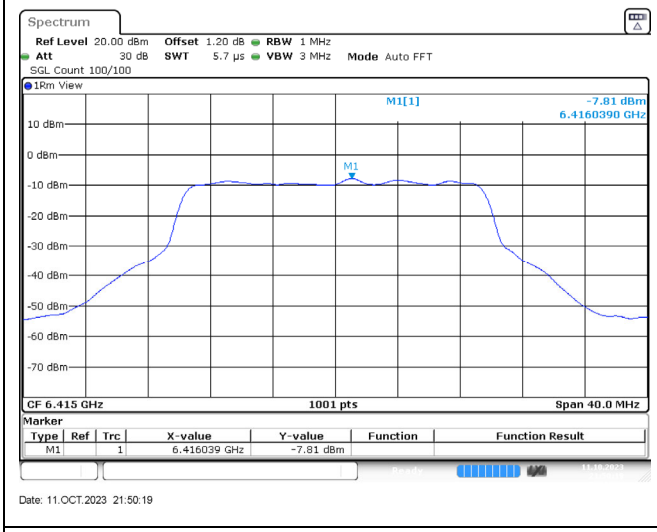
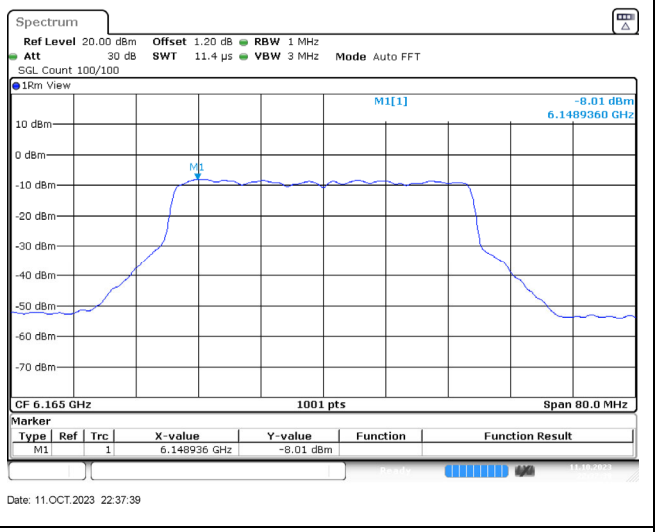
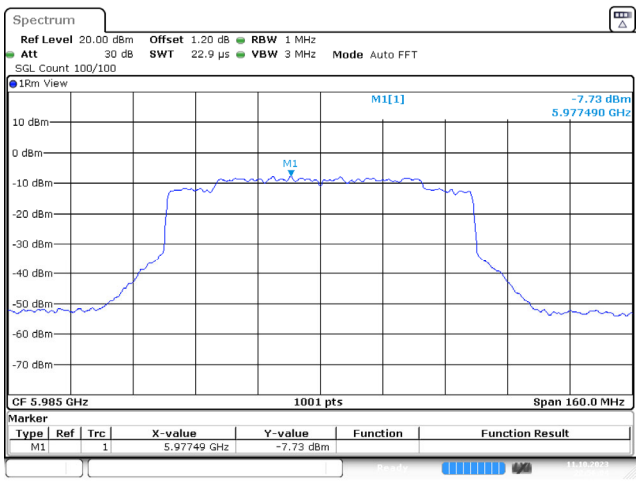
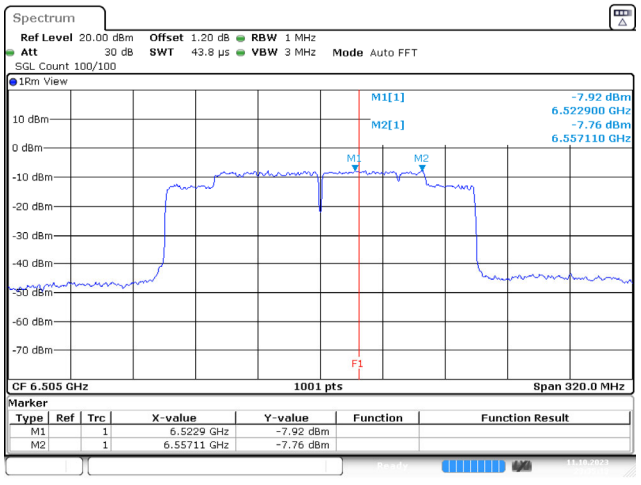
Note:

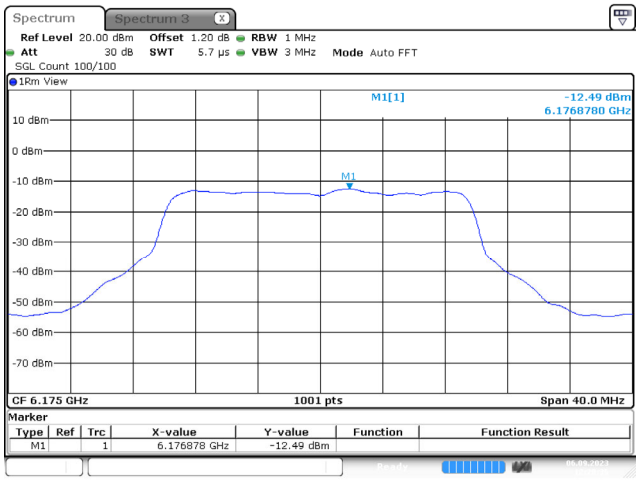
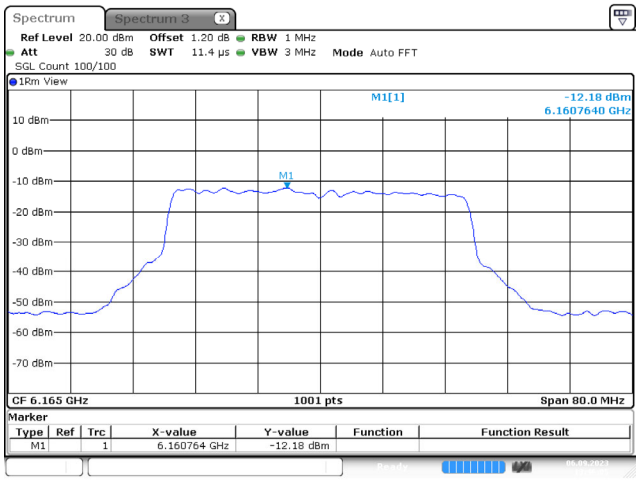
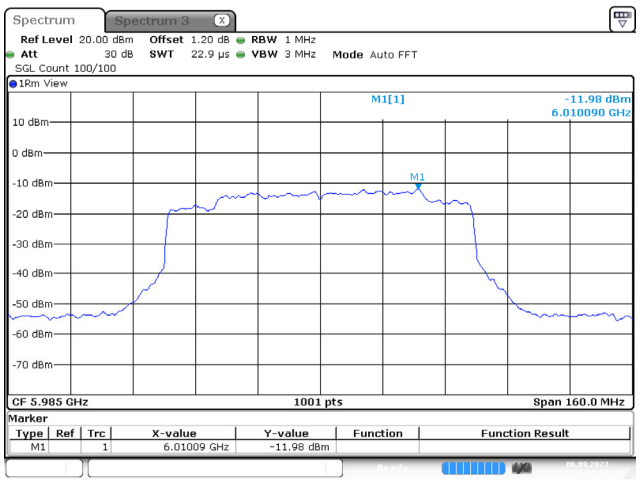
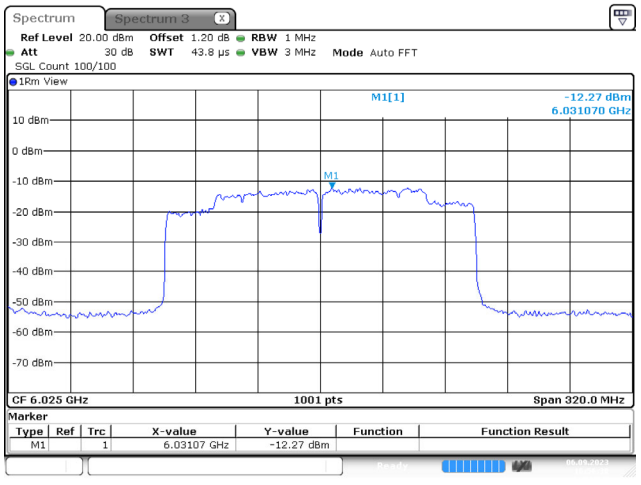
1. Total PPSD/MHz = PPSD/MHz + 10*log(2) + Duty factor.
2. EIRP PPSD/MHz = Total PPSD/MHz + Max Ant. Gain.

Product : Notebook Computer
Test Item : Maximun Power Spectral Density
Test Mode : Transmit (802.11ax-160 MHz)-MIMO
Test Date : 2023/09/06

Channel No.	Frequency (MHz)	Data Rate (Mbps)	Chain	PPSD/ MHz (dBm)	10*log(2) (dB)	Duty factor (dB)	Total PPSD/MHz (dBm)	Max Ant. Gain (dBi)	EIRP PPSD/ MHz (dBm)	EIRP Limit (dBm)	Result
15	6025	MCS0	A	-13.27	3.01	0.00	-10.26	3.52	-6.74	-1	Pass
			B	-12.27	3.01	0.00	-9.26	3.52	-5.74		Pass
79	6345	MCS0	A	-12.84	3.01	0.00	-9.83	3.52	-6.31	-1	Pass
			B	-12.75	3.01	0.00	-9.74	3.52	-6.22		Pass
111	6505	MCS0	A	-12.98	3.01	0.00	-9.97	3.24	-6.73	-1	Pass
			B	-13.11	3.01	0.00	-10.10	3.24	-6.86		Pass
143	6665	MCS0	A	-13.50	3.01	0.00	-10.49	3.24	-7.25	-1	Pass
			B	-13.59	3.01	0.00	-10.58	3.24	-7.34		Pass
207	6985	MCS0	A	-13.79	3.01	0.00	-10.78	3.81	-6.97	-1	Pass
			B	-13.66	3.01	0.00	-10.65	3.81	-6.84		Pass

Note:
1. Total PPSD/MHz = PPSD/MHz + 10*log(2) + Duty factor.
2. EIRP PPSD/MHz = Total PPSD/MHz + Max Ant. Gain.

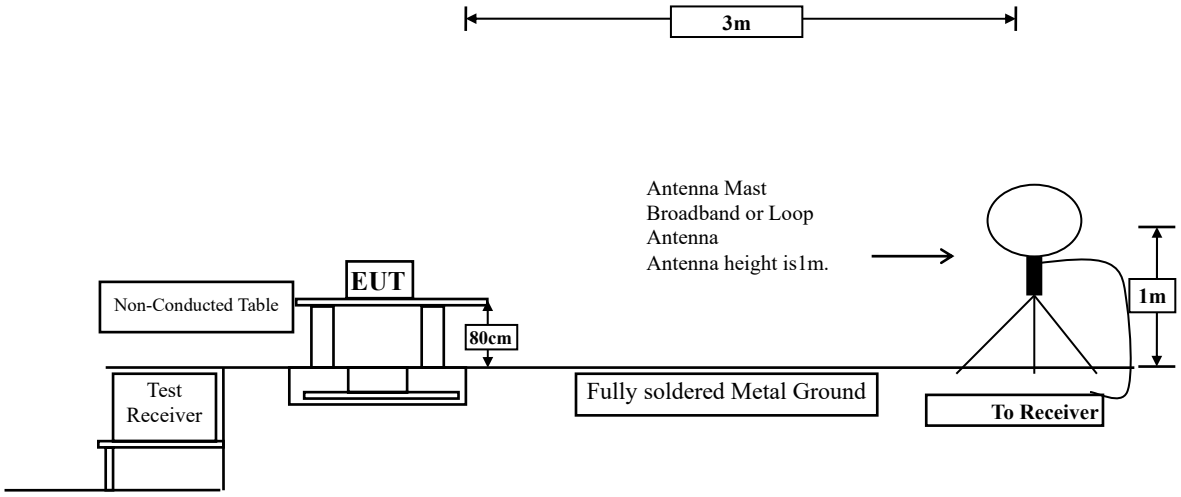
Spectrum plot of worst value - SISO A	
802.11ax (20MHz) / 6415MHz	802.11ax (40MHz) / 6165MHz
	
802.11ax (80MHz) / 5985MHz	802.11ax (160MHz) / 6505MHz
	

Spectrum plot of worst value - MIMO	
802.11ax (20MHz) / 6175MHz / Chain B	802.11ax (40MHz) / 6165MHz / Chain B
	
802.11ax (80MHz) / 5985MHz / Chain B	802.11ax (160MHz) / 6025MHz / Chain B
	

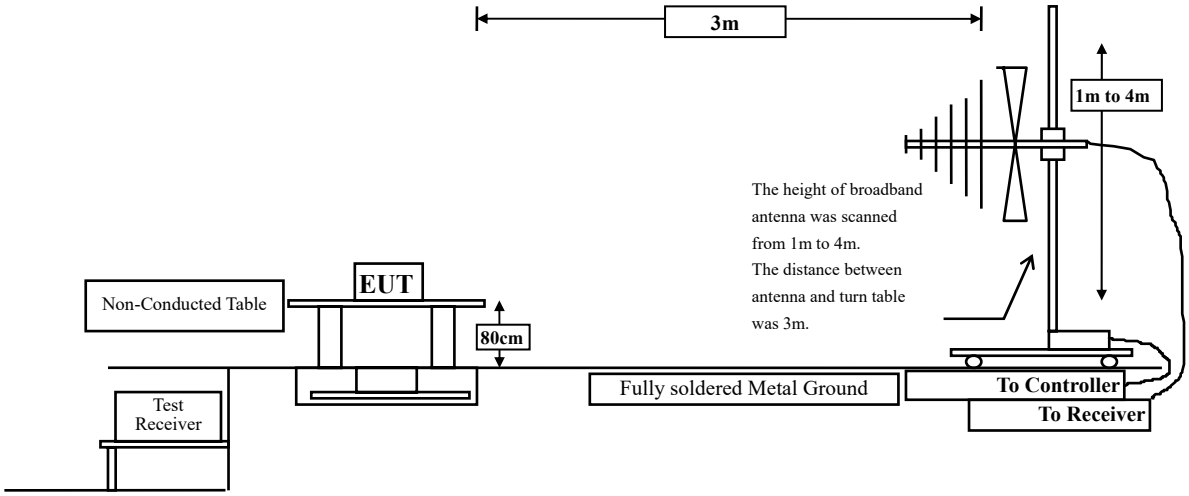
6. Radiated Emission

6.1. Test Setup

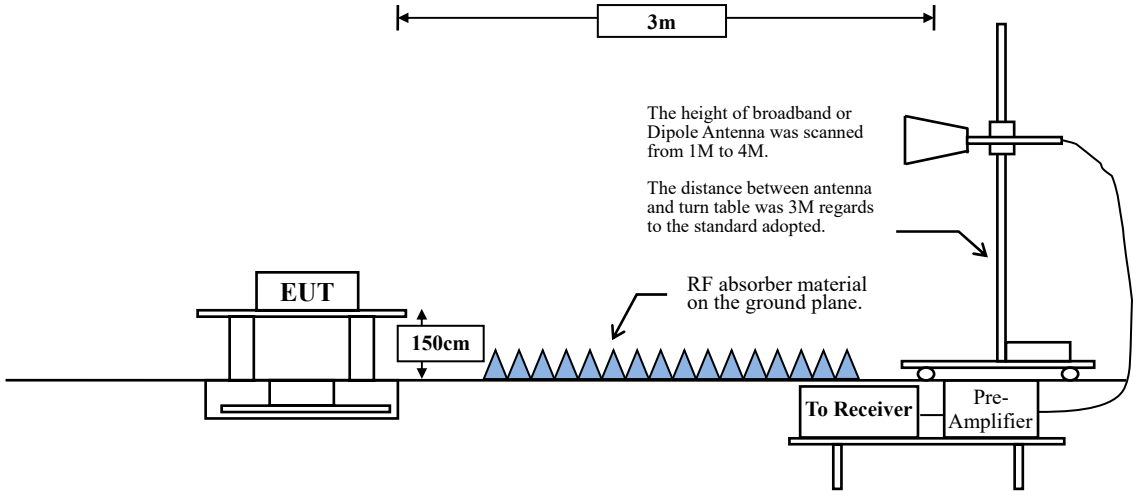
Radiated Emission Under 30MHz



Radiated Emission Below 1GHz



Radiated Emission Above 1GHz



6.2. Limits

General Radiated Emission 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 CFR Title 47 Part 15 Subpart C Paragraph 15.209 Limits		
Frequency MHz	uV/m @3m	dBμV/m@3m
30 - 88	100	40
88 - 216	150	43.5
216 - 960	200	46
Above 960	500	54

Remark:

1. RF Voltage (dBμV) = 20 log RF Voltage (uV)
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.

Unwanted Emission out of the restricted bands Limits

FCC CFR Title 47 Part 15 Subpart E Paragraph 15.407(b) Limits		
Frequency (MHz)	EIRP Limit (dBm/MHz)	Equivalent Field Strength (dBμV/m@3m)
5925 MHz > F 7125 MHz	Peak: -7	88.2
	Average: -27	68.2

Remark:

The following for mula is used to convert the equipment isotropic radiated power (eirp) to field strength:

$E = \frac{1000000\sqrt{30P}}{3}$ uV/m, where P is the eirp (Watts).

6.3. Test Procedure

The EUT and its simulators are placed on a turn table which is 0.8 or 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 additional latch filter below 1GHz was used to measure the level of harmonics radiated emission during field dtrength of harmonics measurement.
The bandwidth below 1GHz setting on the field strength meter is 120 KHz, above 1GHz are 1 MHz.
The frequency range from 30MHz to 10th harmonics and included The frequency range from the lowest oscillator frequency generated within the device up to the 10th harmonic was checked is checked.

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

According to KDB 789033 section II.G.6 Procedures for Average Unwanted Emissions Measurements above 1000 MHz.
RBW = 1 MHz.
VBW = 10 Hz, 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.)

SISO A

6 GHz band	Duty Cycle (%)	T (ms)	1/T (Hz)	VBW (Hz)
802.11 ax20	98.51	3.9750	252	10
802.11 ax40	98.88	3.9900	251	10
802.11 ax80	98.88	3.9900	251	10
802.11 ax160	98.51	3.9750	252	10

SISO B

6 GHz band	Duty Cycle (%)	T (ms)	1/T (Hz)	VBW (Hz)
802.11 ax20	98.51	3.9750	252	10
802.11 ax40	98.51	3.9750	252	10
802.11 ax80	98.88	3.9900	251	10
802.11 ax160	98.88	3.9900	251	10

MIMO

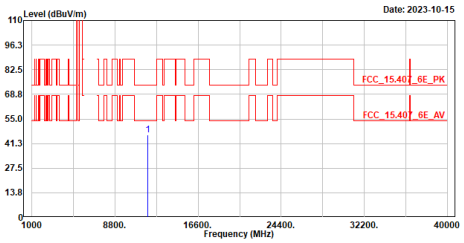
6 GHz band	Duty Cycle (%)	T (ms)	1/T (Hz)	VBW (Hz)
802.11 ax20	98.99	3.9990	250	10
802.11 ax40	98.99	3.9990	250	10
802.11 ax80	98.26	3.9990	250	10
802.11 ax160	98.30	2.3120	433	10

Note: Duty Cycle Refer to Section 10.

6.4. Test Result of Radiated Emissions

SISO A

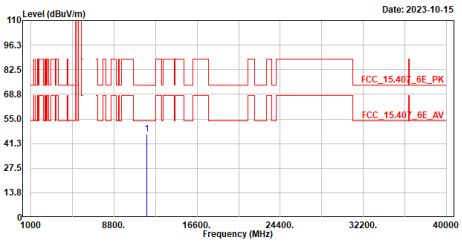
Site :HY-CB01
Condition :3m ,HORIZONTAL
Mode :TX_ax20_5955MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	11910.000	46.01	74.00	-27.99	53.04	-7.03	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.

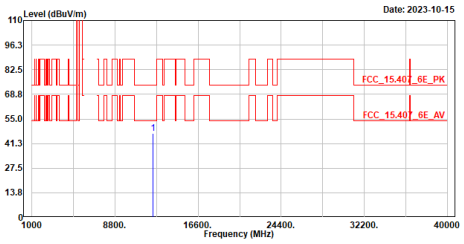
Site :HY-CB01
Condition :3m ,VERTICAL
Mode :TX_ax20_5955MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	11910.000	46.33	74.00	-27.67	53.36	-7.03	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.

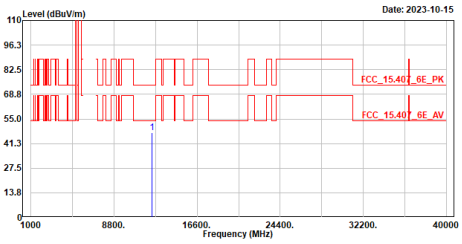
Site :HY-CB01
Condition :3m ,HORIZONTAL
Mode :TX_ax20_6175MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	12350.000	46.74	74.00	-27.26	53.16	-6.42	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.

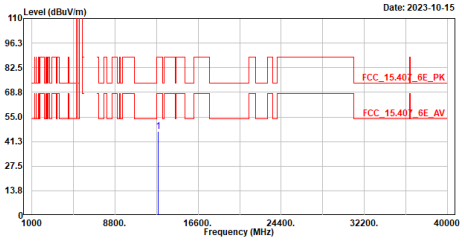
Site :HY-CB01
Condition :3m ,VERTICAL
Mode :TX_ax20_6175MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	12350.000	47.25	74.00	-26.75	53.67	-6.42	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.

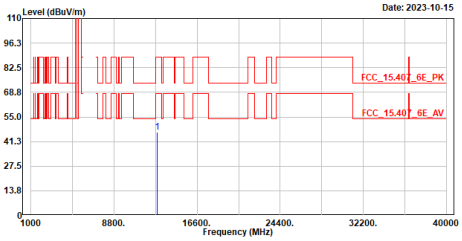
Site :HY-CB01
Condition :3m ,HORIZONTAL
Mode :TX_ax20_6415MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	12830.000	46.83	88.22	-41.39	51.95	-5.12	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.

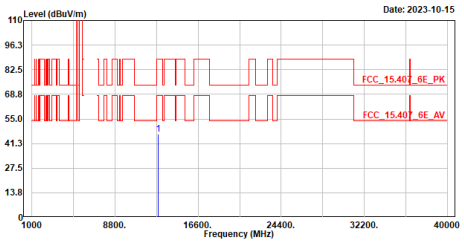
Site :HY-CB01
Condition :3m ,VERTICAL
Mode :TX_ax20_6415MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	12830.000	46.68	88.22	-41.54	51.80	-5.12	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.

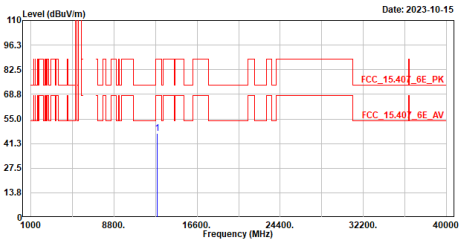
Site :HY-CB01
Condition :3m ,HORIZONTAL
Mode :TX_ax20_6435MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	12870.000	46.46	88.22	-41.76	51.59	-5.13	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.

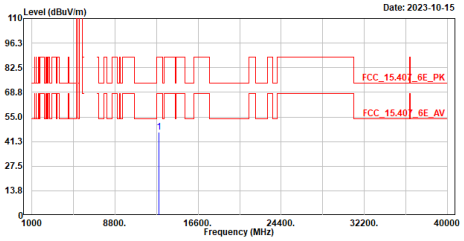
Site :HY-CB01
Condition :3m ,VERTICAL
Mode :TX_ax20_6435MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	12870.000	46.88	88.22	-41.34	52.01	-5.13	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.

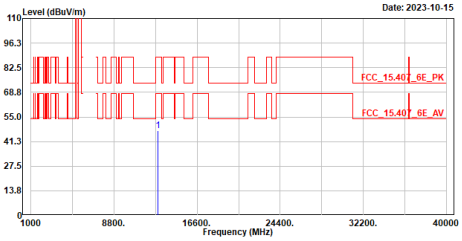
Site :HY-CB01
Condition :3m ,HORIZONTAL
Mode :TX_ax20_6475MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	12950.000	46.68	88.22	-41.54	51.86	-5.18	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.

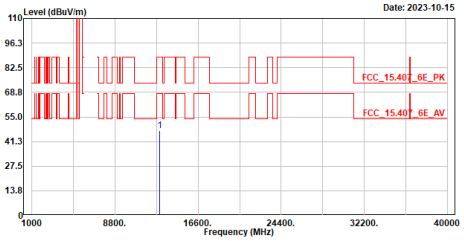
Site :HY-CB01
Condition :3m ,VERTICAL
Mode :TX_ax20_6475MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	12950.000	47.51	88.22	-40.71	52.69	-5.18	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.

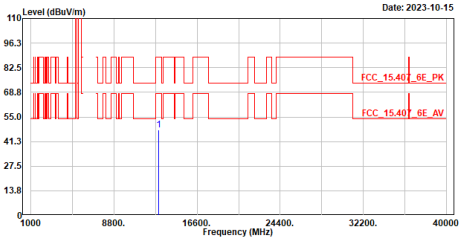
Site :HY-CB01
Condition :3m ,HORIZONTAL
Mode :TX_ax20_6515MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	13030.000	47.45	88.22	-40.77	52.49	-5.04	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.

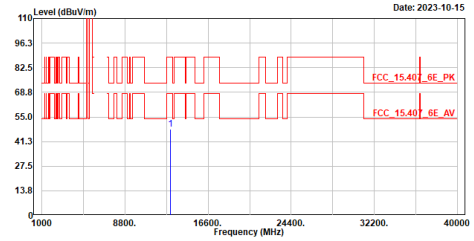
Site :HY-CB01
Condition :3m ,VERTICAL
Mode :TX_ax20_6515MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	13030.000	47.75	88.22	-40.47	52.79	-5.04	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.

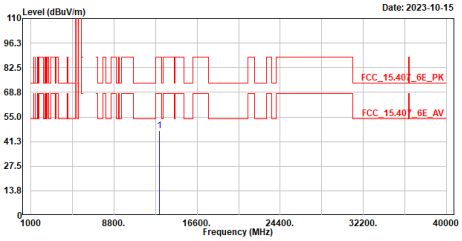
Site :HY-CB01
Condition :3m ,HORIZONTAL
Mode :TX_ax20_6535MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	13070.000	47.98	88.22	-40.24	52.84	-4.86	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.

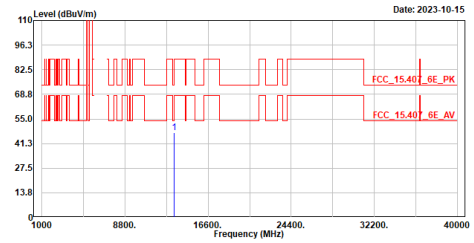
Site :HY-CB01
Condition :3m ,VERTICAL
Mode :TX_ax20_6535MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	13070.000	47.15	88.22	-41.07	52.01	-4.86	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.

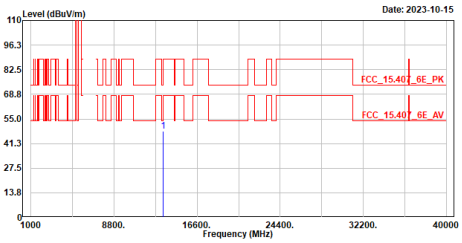
Site :HY-CB01
Condition :3m ,HORIZONTAL
Mode :TX_ax20_6695MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	13390.000	47.39	74.00	-26.61	51.74	-4.35	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.

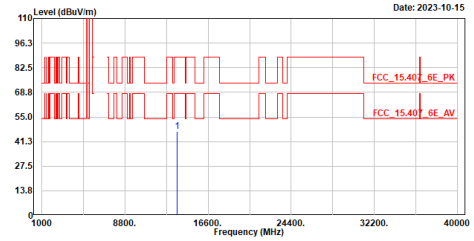
Site :HY-CB01
Condition :3m ,VERTICAL
Mode :TX_ax20_6695MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	13390.000	48.24	74.00	-25.76	52.59	-4.35	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.

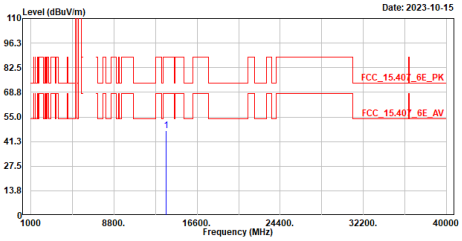
Site :HY-CB01
Condition :3m ,HORIZONTAL
Mode :TX_ax20_6855MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	13710.000	46.92	88.22	-41.30	51.50	-4.58	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.

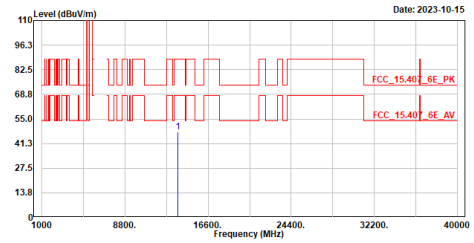
Site :HY-CB01
Condition :3m ,VERTICAL
Mode :TX_ax20_6855MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	13710.000	47.28	88.22	-40.94	51.86	-4.58	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.

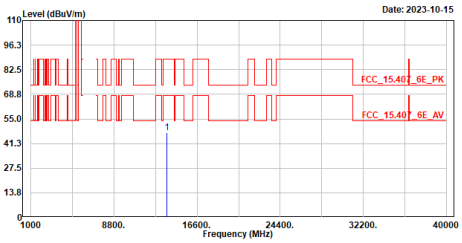
Site :HY-CB01
Condition :3m ,HORIZONTAL
Mode :TX_ax20_6875MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	13750.000	47.93	88.22	-40.29	52.38	-4.45	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.

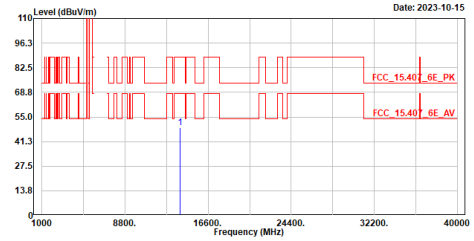
Site :HY-CB01
Condition :3m ,VERTICAL
Mode :TX_ax20_6875MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	13750.000	47.47	88.22	-40.75	51.92	-4.45	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.

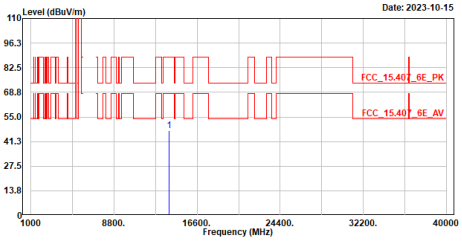
Site :HY-CB01
Condition :3m ,HORIZONTAL
Mode :TX_ax20_6995MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	13990.000	48.96	88.22	-39.26	52.75	-3.79	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.

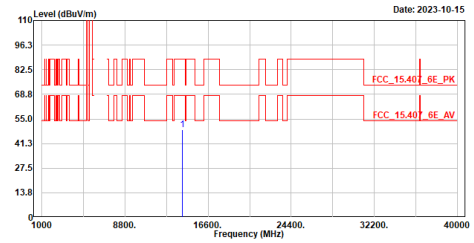
Site :HY-CB01
Condition :3m ,VERTICAL
Mode :TX_ax20_6995MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	13990.000	47.44	88.22	-40.78	51.23	-3.79	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.

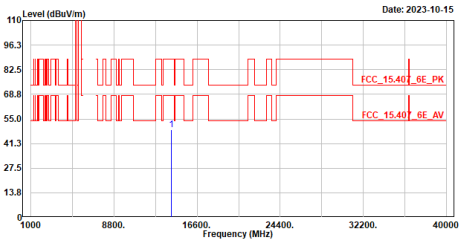
Site :HY-CB01
Condition :3m ,HORIZONTAL
Mode :TX_ax20_7095MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	14190.000	49.14	88.22	-39.08	52.00	-2.86	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.

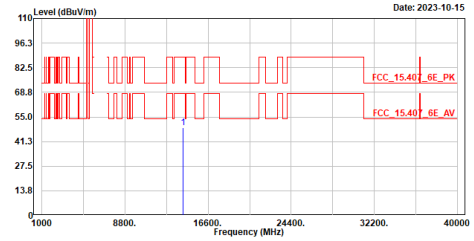
Site :HY-CB01
Condition :3m ,VERTICAL
Mode :TX_ax20_7095MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	14190.000	48.97	88.22	-39.25	51.83	-2.86	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.

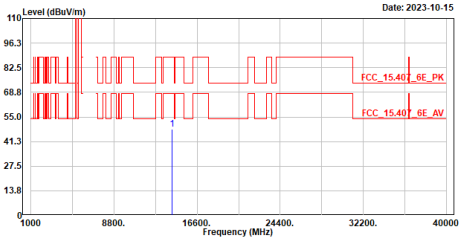
Site :HY-CB01
Condition :3m ,HORIZONTAL
Mode :TX_ax20_7115MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	14230.000	49.01	88.22	-39.21	51.83	-2.82	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.

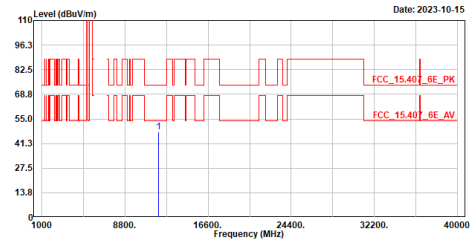
Site :HY-CB01
Condition :3m ,VERTICAL
Mode :TX_ax20_7115MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	14230.000	48.03	88.22	-40.19	50.85	-2.82	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.

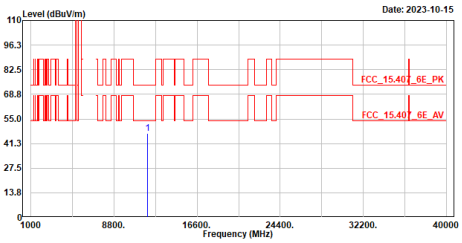
Site :HY-CB01
Condition :3m ,HORIZONTAL
Mode :TX_ax40_5965MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	11930.000	47.61	74.00	-26.39	54.56	-6.95	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.

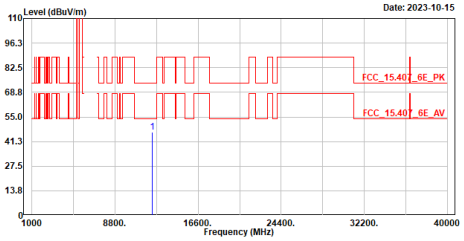
Site :HY-CB01
Condition :3m ,VERTICAL
Mode :TX_ax40_5965MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	11930.000	46.82	74.00	-27.18	53.77	-6.95	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.

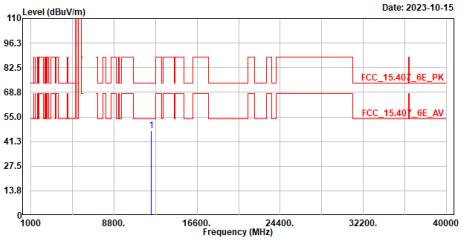
Site :HY-CB01
Condition :3m ,HORIZONTAL
Mode :TX_ax40_6165MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	12330.000	46.55	74.00	-27.45	53.02	-6.47	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.

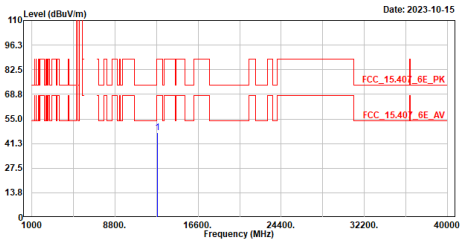
Site :HY-CB01
Condition :3m ,VERTICAL
Mode :TX_ax40_6165MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	12330.000	47.12	74.00	-26.88	53.59	-6.47	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.

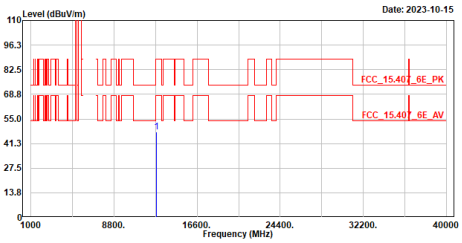
Site :HY-CB01
Condition :3m ,HORIZONTAL
Mode :TX_ax40_6405MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	12810.000	47.18	88.22	-41.04	52.30	-5.12	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.

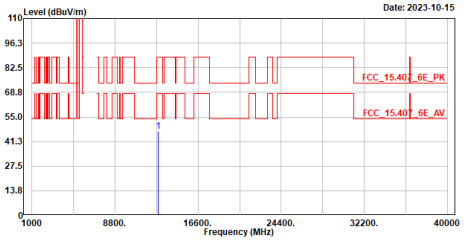
Site :HY-CB01
Condition :3m ,VERTICAL
Mode :TX_ax40_6405MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	12810.000	47.73	88.22	-40.49	52.85	-5.12	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.

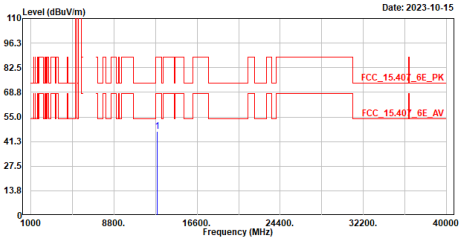
Site :HY-CB01
Condition :3m ,HORIZONTAL
Mode :TX_ax40_6445MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	12890.000	46.93	88.22	-41.29	52.05	-5.12	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.

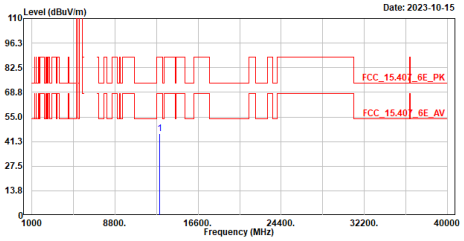
Site :HY-CB01
Condition :3m ,VERTICAL
Mode :TX_ax40_6445MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	12890.000	46.75	88.22	-41.47	51.87	-5.12	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.

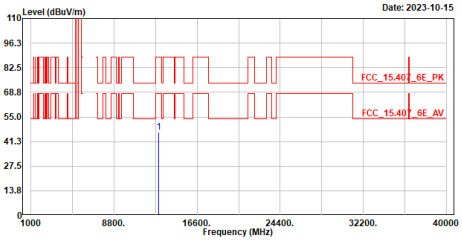
Site :HY-CB01
Condition :3m ,HORIZONTAL
Mode :TX_ax40_6485MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	12970.000	45.78	88.22	-42.44	50.98	-5.20	Peak

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

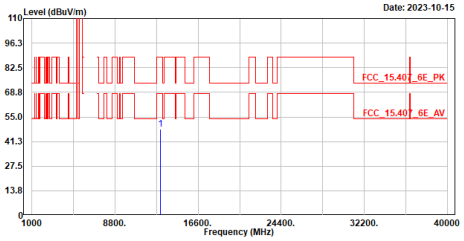
Site :HY-CB01
Condition :3m ,VERTICAL
Mode :TX_ax40_6485MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	12970.000	46.65	88.22	-41.57	51.85	-5.20	Peak

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

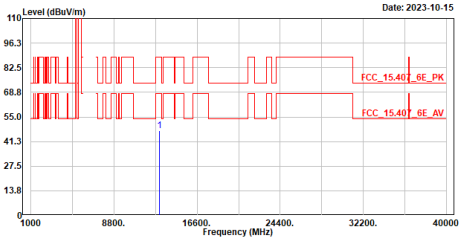
Site :HY-CB01
Condition :3m ,HORIZONTAL
Mode :TX_ax40_6525MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	13050.000	48.24	88.22	-39.98	53.19	-4.95	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.

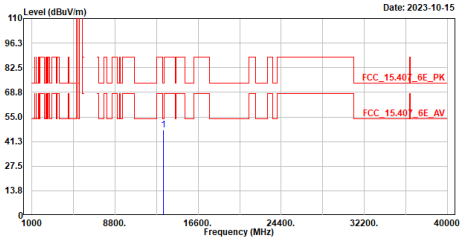
Site :HY-CB01
Condition :3m ,VERTICAL
Mode :TX_ax40_6525MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	13050.000	47.50	88.22	-40.72	52.45	-4.95	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.

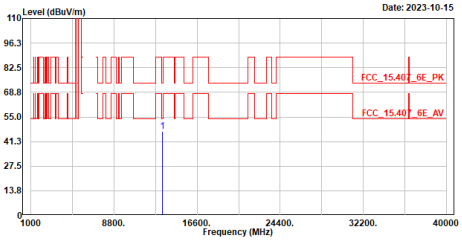
Site :HY-CB01
Condition :3m ,HORIZONTAL
Mode :TX_ax40_6685MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	13370.000	47.82	74.00	-26.18	52.20	-4.38	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.

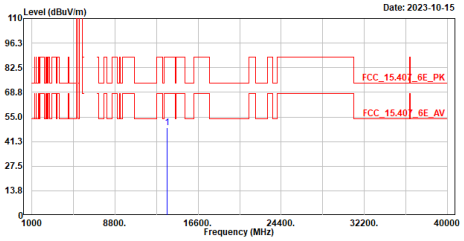
Site :HY-CB01
Condition :3m ,VERTICAL
Mode :TX_ax40_6685MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	13370.000	46.86	74.00	-27.14	51.24	-4.38	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.

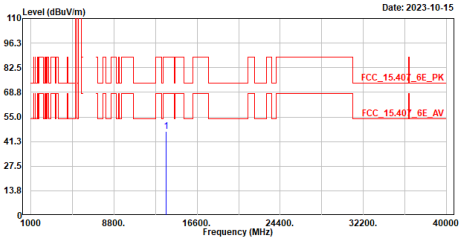
Site :HY-CB01
Condition :3m ,HORIZONTAL
Mode :TX_ax40_6845MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	13690.000	49.04	88.22	-39.18	53.69	-4.65	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.

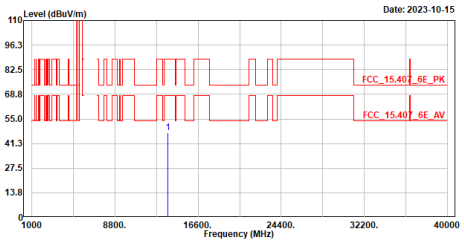
Site :HY-CB01
Condition :3m ,VERTICAL
Mode :TX_ax40_6845MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	13690.000	46.71	88.22	-41.51	51.36	-4.65	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.

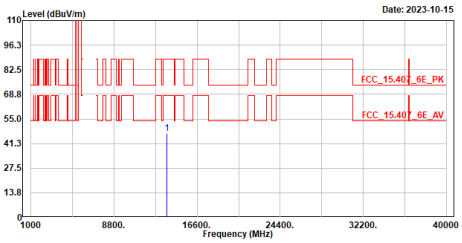
Site :HY-CB01
Condition :3m ,HORIZONTAL
Mode :TX_ax40_6885MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	13770.000	47.24	88.22	-40.98	51.55	-4.31	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.

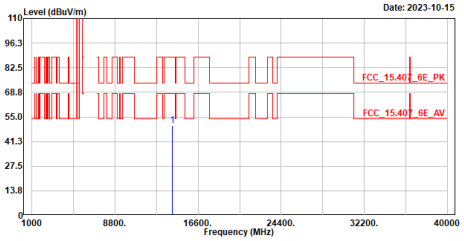
Site :HY-CB01
Condition :3m ,VERTICAL
Mode :TX_ax40_6885MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	13770.000	47.07	88.22	-41.15	51.38	-4.31	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.

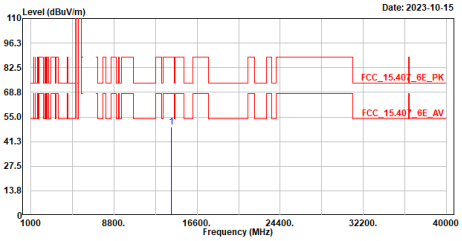
Site :HY-CB01
Condition :3m ,HORIZONTAL
Mode :TX_ax40_7085MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	14170.000	50.11	88.22	-38.11	53.05	-2.94	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.

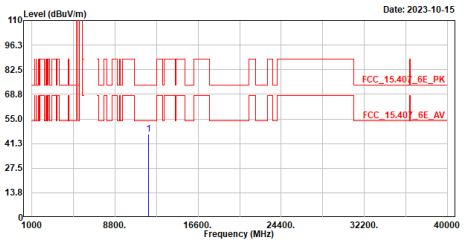
Site :HY-CB01
Condition :3m ,VERTICAL
Mode :TX_ax40_7085MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	14170.000	49.34	88.22	-38.88	52.28	-2.94	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.

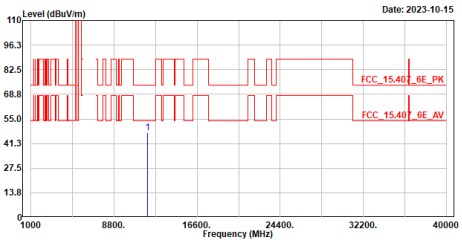
Site :HY-CB01
Condition :3m ,HORIZONTAL
Mode :TX_ax80_5985MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	11970.000	46.37	74.00	-27.63	53.14	-6.77	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.

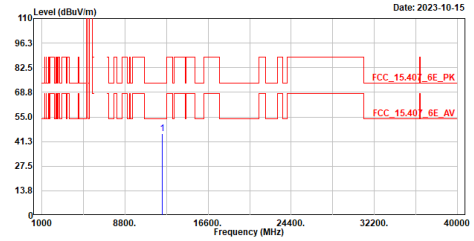
Site :HY-CB01
Condition :3m ,VERTICAL
Mode :TX_ax80_5985MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	11970.000	47.38	74.00	-26.62	54.15	-6.77	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.

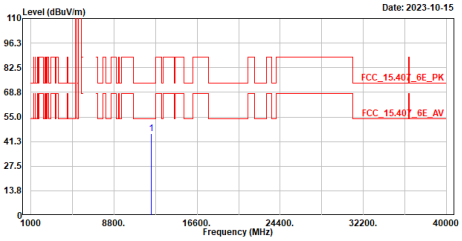
Site :HY-CB01
Condition :3m ,HORIZONTAL
Mode :TX_ax80_6145MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	12290.000	45.66	74.00	-28.34	52.29	-6.63	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.

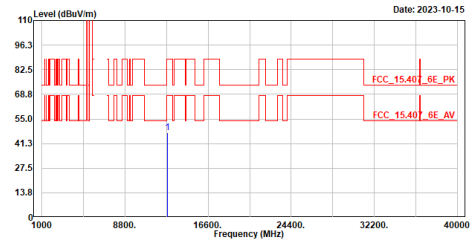
Site :HY-CB01
Condition :3m ,VERTICAL
Mode :TX_ax80_6145MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	12290.000	45.76	74.00	-28.24	52.39	-6.63	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.

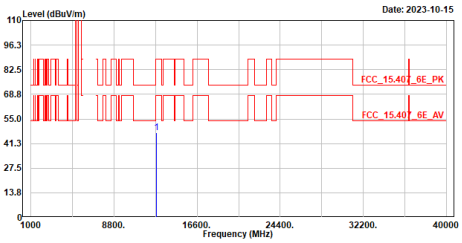
Site :HY-CB01
Condition :3m ,HORIZONTAL
Mode :TX_ax80_6385MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	12770.000	47.46	88.22	-40.76	52.63	-5.17	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.

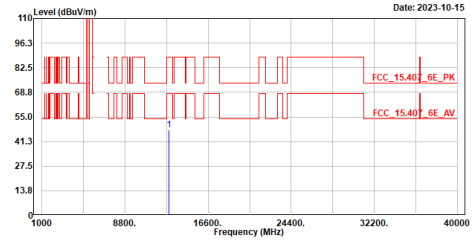
Site :HY-CB01
Condition :3m ,VERTICAL
Mode :TX_ax80_6385MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	12770.000	47.21	88.22	-41.01	52.38	-5.17	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.

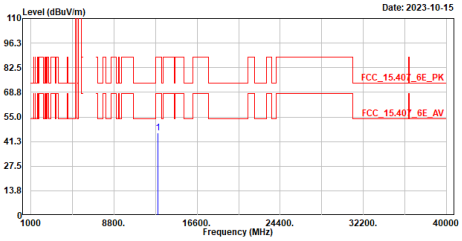
Site :HY-CB01
Condition :3m ,HORIZONTAL
Mode :TX_ax80_6465MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	12930.000	47.58	88.22	-40.64	52.74	-5.16	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.

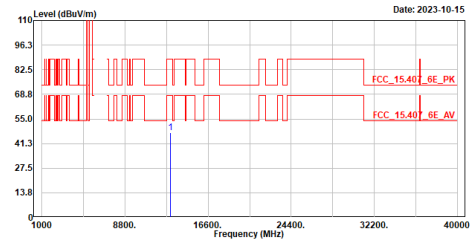
Site :HY-CB01
Condition :3m ,VERTICAL
Mode :TX_ax80_6465MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	12930.000	46.02	88.22	-42.20	51.18	-5.16	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.

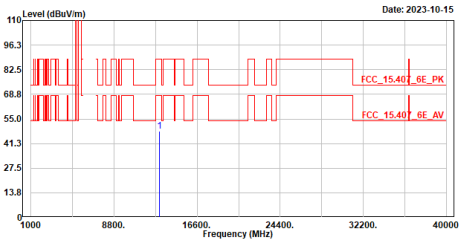
Site :HY-CB01
Condition :3m ,HORIZONTAL
Mode :TX_ax80_6545MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	13090.000	47.30	88.22	-40.92	52.22	-4.92	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.

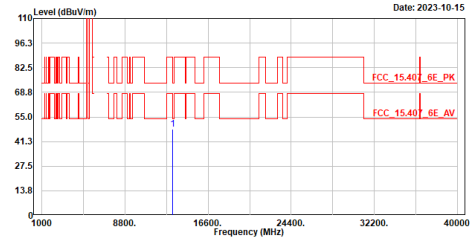
Site :HY-CB01
Condition :3m ,VERTICAL
Mode :TX_ax80_6545MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	13090.000	47.95	88.22	-40.27	52.87	-4.92	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.

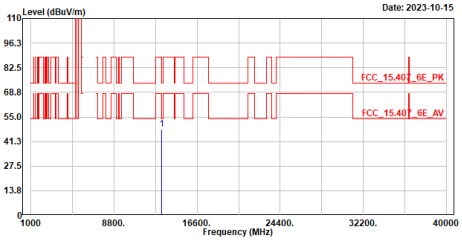
Site :HY-CB01
Condition :3m ,HORIZONTAL
Mode :TX_ax80_6625MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	13250.000	48.19	74.00	-25.81	52.79	-4.60	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.

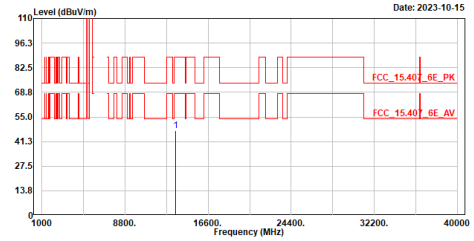
Site :HY-CB01
Condition :3m ,VERTICAL
Mode :TX_ax80_6625MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	13250.000	48.32	74.00	-25.68	52.92	-4.60	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.

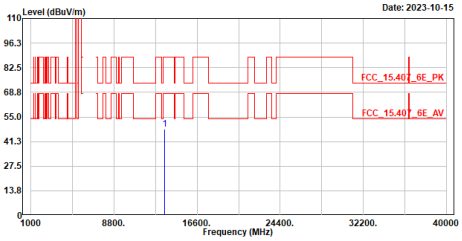
Site :HY-CB01
Condition :3m ,HORIZONTAL
Mode :TX_ax80_6785MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	13570.000	47.20	88.22	-41.02	51.37	-4.17	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.

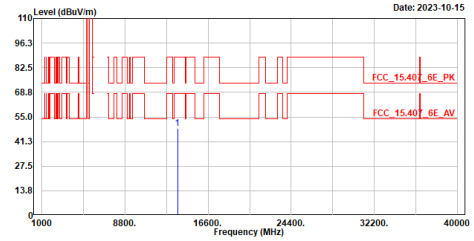
Site :HY-CB01
Condition :3m ,VERTICAL
Mode :TX_ax80_6785MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	13570.000	48.04	88.22	-40.18	52.21	-4.17	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.

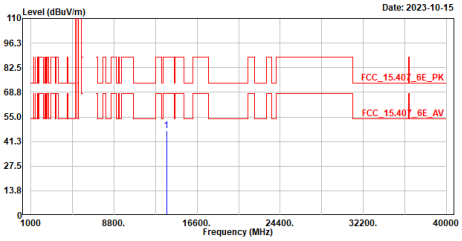
Site :HY-CB01
Condition :3m ,HORIZONTAL
Mode :TX_ax80_6865MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	13730.000	48.52	88.22	-39.70	53.04	-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.

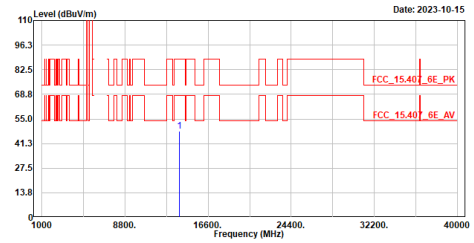
Site :HY-CB01
Condition :3m ,VERTICAL
Mode :TX_ax80_6865MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	13730.000	47.19	88.22	-41.03	51.71	-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.

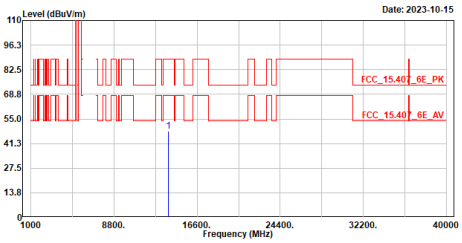
Site :HY-CB01
Condition :3m ,HORIZONTAL
Mode :TX_ax80_6945MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	13890.000	48.30	88.22	-39.92	52.14	-3.84	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.

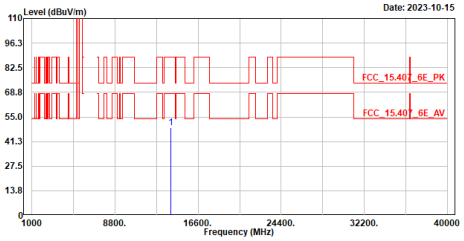
Site :HY-CB01
Condition :3m ,VERTICAL
Mode :TX_ax80_6945MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	13890.000	48.09	88.22	-40.13	51.93	-3.84	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.

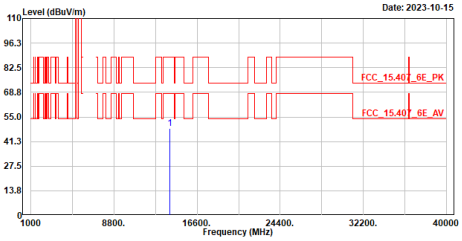
Site :HY-CB01
Condition :3m ,HORIZONTAL
Mode :TX_ax80_7025MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	14050.000	48.84	88.22	-39.38	52.51	-3.67	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.

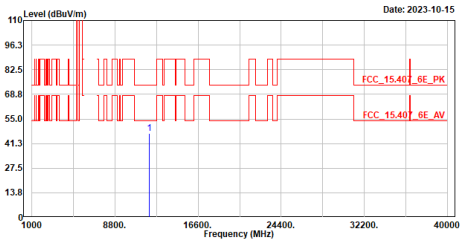
Site :HY-CB01
Condition :3m ,VERTICAL
Mode :TX_ax80_7025MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	14050.000	48.39	88.22	-39.83	52.06	-3.67	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.

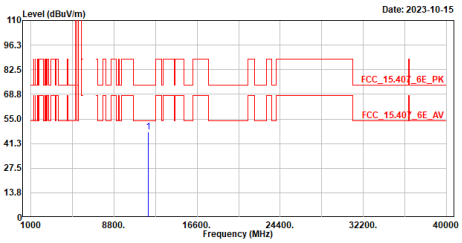
Site :HY-CB01
Condition :3m ,HORIZONTAL
Mode :TX_ax160_6025MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	12050.000	46.94	74.00	-27.06	53.60	-6.66	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.

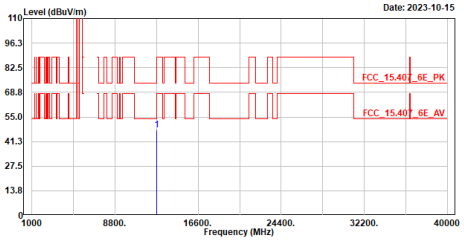
Site :HY-CB01
Condition :3m ,VERTICAL
Mode :TX_ax160_6025MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	12050.000	47.73	74.00	-26.27	54.39	-6.66	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.

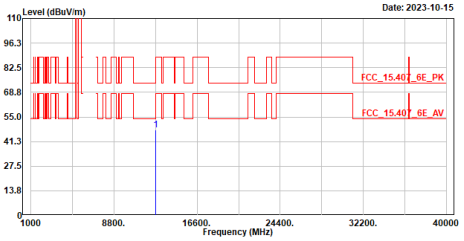
Site :HY-CB01
Condition :3m ,HORIZONTAL
Mode :TX_ax160_6345MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	12690.000	47.91	74.00	-26.09	53.20	-5.29	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.

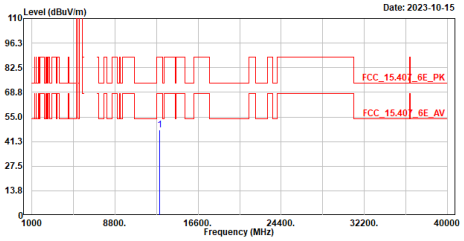
Site :HY-CB01
Condition :3m ,VERTICAL
Mode :TX_ax160_6345MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	12690.000	47.90	74.00	-26.10	53.19	-5.29	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.

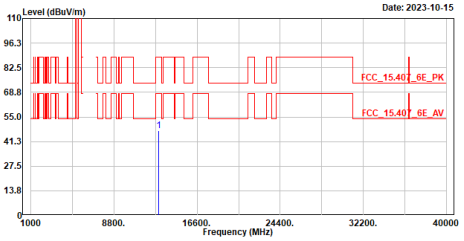
Site :HY-CB01
Condition :3m ,HORIZONTAL
Mode :TX_ax160_6505MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	13010.000	47.55	88.22	-40.67	52.67	-5.12	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.

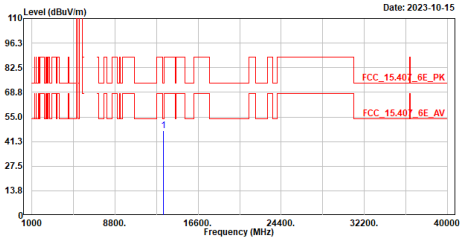
Site :HY-CB01
Condition :3m ,VERTICAL
Mode :TX_ax160_6505MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	13010.000	47.14	88.22	-41.08	52.26	-5.12	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.

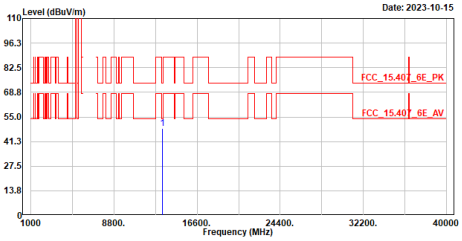
Site :HY-CB01
Condition :3m ,HORIZONTAL
Mode :TX_ax160_6665MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	13330.000	47.45	74.00	-26.55	51.89	-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.

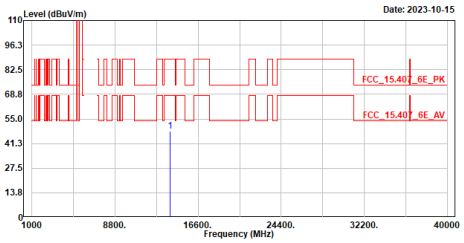
Site :HY-CB01
Condition :3m ,VERTICAL
Mode :TX_ax160_6665MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	13330.000	48.44	74.00	-25.56	52.88	-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.

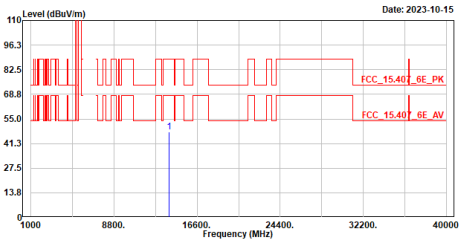
Site :HY-CB01
Condition :3m ,HORIZONTAL
Mode :TX_ax160_6985MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	13970.000	48.29	88.22	-39.93	52.09	-3.80	Peak

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

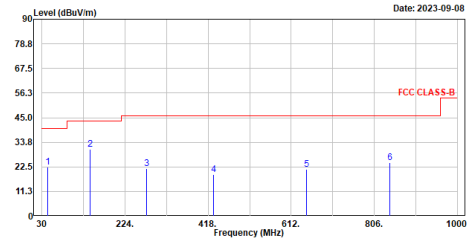
Site :HY-CB01
Condition :3m ,VERTICAL
Mode :TX_ax160_6985MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	13970.000	47.68	88.22	-40.54	51.48	-3.80	Peak

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

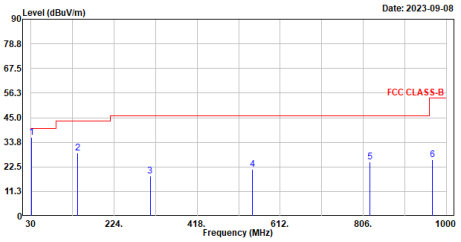
Site :HY-CB01
Condition :3m ,HORIZONTAL
Mode :TX_ax160_6985MHz
TEST BY :Sam



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	43.580	22.29	40.00	-17.71	46.07	-23.78	QP
2	142.520	30.59	43.50	-12.91	54.54	-23.95	QP
3	274.440	21.80	46.00	-24.20	45.79	-23.99	QP
4	431.580	19.09	46.00	-26.91	38.61	-19.52	QP
5	647.890	21.47	46.00	-24.53	36.35	-14.88	QP
6	842.860	24.51	46.00	-21.49	36.63	-12.12	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-CB01
Condition :3m ,VERTICAL
Mode :TX_ax160_6985MHz
TEST BY :Sam

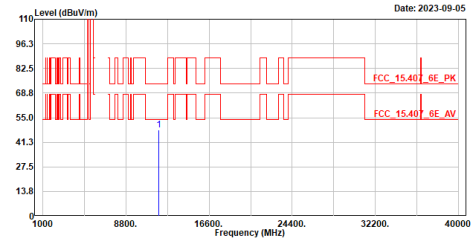


No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	30.970	35.87	40.00	-4.13	60.99	-25.12	QP
2	138.640	28.99	43.50	-14.51	53.29	-24.30	QP
3	308.390	18.41	46.00	-27.59	41.25	-22.84	QP
4	547.980	21.33	46.00	-24.67	38.50	-17.17	QP
5	821.520	24.82	46.00	-21.18	37.37	-12.55	QP
6	967.990	25.77	54.00	-28.23	36.69	-10.92	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.

MIMO

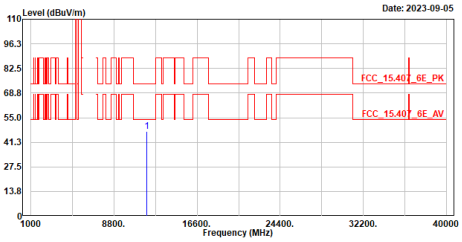
Site :HY-CB01
Condition :3m ,HORIZONTAL
Mode :TX_ax20_5955MHz
TEST BY :Caster



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	11910.000	48.33	74.00	-25.67	55.36	-7.03	Peak

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.

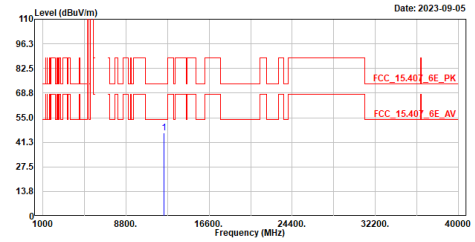
Site :HY-CB01
Condition :3m ,VERTICAL
Mode :TX_ax20_5955MHz
TEST BY :Caster



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	11910.000	47.15	74.00	-26.85	54.18	-7.03	Peak

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.

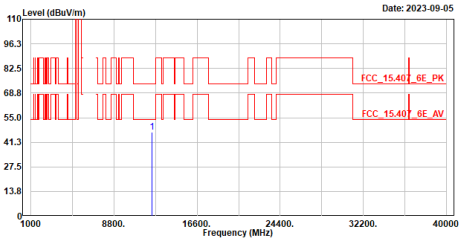
Site :HY-CB01
Condition :3m ,HORIZONTAL
Mode :TX_ax20_6175MHz
TEST BY :Caster



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	12350.000	46.29	74.00	-27.71	52.71	-6.42	Peak

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-CB01
Condition :3m ,VERTICAL
Mode :TX_ax20_6175MHz
TEST BY :Caster



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	12350.000	46.80	74.00	-27.20	53.22	-6.42	Peak

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.