FCC Test Report

Product Name	:	Mesh Wi-Fi Router
Trade Name	:	CastleNet
Model No.	:	EBM522U, EBM522
FCC ID	:	RK9-EBM522

Applicant	:	CastleNet Technology Inc.
Address	:	No. 14, Ln. 141, Sec. 3, Beishen Rd. Shenkeng Dist., New Taipei City, 22244 Taiwan

Date of Receipt	:	Apr. 19, 2021
Issued Date	:	Sep. 11, 2021
Report No.	:	2140542R-E3032110113
Report Version	:	V1.0

Testing Laboratory
3024

Test Report Certification

Issued Date: Sep. 11, 2021
Report No.: 2140542R-E3032110113

Product Name	:	Mesh Wi-Fi Router
Applicant	:	CastleNet Technology Inc.
Address	:	No. 14, Ln. 141, Sec. 3, Beishen Rd. Shenkeng Dist., New Taipei City, 22244 Taiwan
Manufacturer	:	CastleNet Technology Inc.
Address	:	No. 14, Ln. 141, Sec. 3, Beishen Rd. Shenkeng Dist., New Taipei City, 22244 Taiwan
Trade Name	:	CastleNet
Model No.	:	EBM522U, EBM522
FCC ID	:	RK9-EBM522
EUT Voltage	:	AC 100-240V, 50/60Hz
Testing Voltage	:	AC 120V/60Hz
Applicable Standard	:	FCC CFR Title 47 Part 15 Subpart C Section 15.247: 2019 ANSI C63.10: 2013
Laboratory Name	:	Hsin Chu Laboratory
Address	:	No.372-2, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County 310, Taiwan, R.O.C. TEL: +886-3-582-8001 / FAX: +886-3-582-8958
Test Result	:	Complied

Documented By : Dem-Chang

(Demi Chang / Senior Engineering Adm. Specialist)

Tested By : Clemens Fang

(Clemens Fang / Senior Engineer)

Approved By : Louis Hsu

(Louis Hsu / Deputy Manager)

Revision History

Version	Description	Issued Date
V1.0	Initial issue of report	Sep. 11, 2021

TABLE OF CONTENTS

1. General Information

1.1. EUT Description

Product Name	Mesh Wi-Fi Router	
Trade Name	CastleNet	
Model No.	EBM522U, EBM522	
Frequency Range/ Channel Number	IEEE 802.11b/g IEEE 802.11n/ac/ax (20MHz)	2412~2462MHz / 11 Channels
	IEEE 802.11n/ac/ax (40MHz)	2422~2452MHz / 7 Channels
Type of Modulation	IEEE 802.11b	Direct Sequence Spread Spectrum
	IEEE 802.11g/n/ac/ax	Orthogonal Frequency Division Multiplexing
Data Speed	IEEE 802.11b	1, 2, 5.5, 11Mbps
	IEEE 802.11g	6, 12, 18, 24, 36, 48, 54Mbps
	IEEE 802.11n	Support a subset of the combination of GI, MCS 0~MCS 15 and bandwidth defined in 802.11n
	IEEE 802.11ac	Support a subset of the combination of GI, MCS 0~MCS 9 and bandwidth defined in 802.11ac
	IEEE 802.11ax	Support a subset of the combination of GI, MCS 0~MCS 11 and bandwidth defined in 802.11ax

Accessories Information	
LAN Cable	EKSON, PF01-C102 Non-Shielded, 1m
Power Adapter 1	MOSO, MSA-C1500CS12.0-18G-US I/P: 100-240V~50/60Hz 0.6A max. O/P: 12.0V⎓1.5A Cable Out: Non-Shielded, 1.5m
Power Adapter 2	MOSO, AE180AAE00 I/P: 100-240V~50/60Hz 0.6A max. O/P: 12.0V⎓1.5A 18W Cable Out: Non-Shielded, 1.5m

Ant. No.	Brand	Model No.	Antenna Type	Antenna Gain
0	Taiwan Anjie	AJDP1J-B0092	Dipole Antenna	2.4GHz: 3.0 dBi 5GHz: 2.5 dBi
1	Taiwan Anjie	AJDP1J-W0060	Dipole Antenna	2.4GHz: 2.0 dBi 5GHz: 2.5 dBi

ANT-TX / RX & Bandwidth

ANT-TX / RX	TX		RX	
Mode/ Channel Bandwidth	20MHz	40MHz	20MHz	40MHz
IEEE802.11b	✓		✓	
IEEE802.11g	✓		✓	
IEEE802.11n/ac/ax	✓	✓	✓	✓

IEEE 802.11b/g & IEEE 802.11n/ac/ax(20MHz)

Working Frequency of Each Channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
001	2412 MHz	002	2417 MHz	003	2422 MHz	004	2427 MHz
005	2432 MHz	006	2437 MHz	007	2442 MHz	008	2447 MHz
009	2452 MHz	010	2457 MHz	011	2462 MHz		

IEEE 802.11n/ac/ax(40MHz)

Working Frequency of Each Channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
003	2422 MHz	004	2427 MHz	005	2432 MHz	006	2437 MHz
007	2442 MHz	008	2447 MHz	009	2452 MHz		

Note:

1. This device is a Mesh Wi-Fi Router including 2.4GHz 2.4GHz b/g/n/ac/ax and 5GHz a/n/ac/ax transmitting and receiving functions.
2. Regards to the frequency band operation; the lowest、middle and highest frequency of channel were selected to perform the test, and then shown on this report.
3. The different of each model is shown as below:

Model Number	USB Port
EBM522U	With
EBM522	Without

4. The EUT description is from the customer declaration.

1.2. Test Mode

DEKRA has verified the construction and function in typical operation. The preliminary tests were performed in different data rate, and to find the worst condition, which was shown in this test report. The following table is the final test mode.

Test Mode	Mode 1: Transmit_Non-BF_EBM522U Mode 2: Transmit_Non-BF_EBM522

Note: BF = Beamforming

Test Items	Modulation	Channel	Antenna	Result
Conducted Emission	11b	6	0+1	Complies
Maximum peak conducted output power	11b	1/6/11	0+1	Complies
	11g	1/6/11	0+1	Complies
	11ax(20MHz)	1/6/11	0+1	Complies
	11ax(40MHz)	3/6/9	0+1	Complies
Radiated Emission	11b	1/6/11	0+1	Complies
	11g	1/6/11	0+1	Complies
	11ax(20MHz)	1/6/11	0+1	Complies
	11ax(40MHz)	3/6/9	0+1	Complies
RF antenna conducted test	11b	1/6/11	0/1	Complies
	11g	1/6/11	0/1	Complies
	11ax(20MHz)	1/6/11	0/1	Complies
	11ax(40MHz)	3/6/9	0/1	Complies
Radiated Emission Band Edge	11b	1/6/11	0+1	Complies
	11g	1/6/11	0+1	Complies
	11ax(20MHz)	1/6/11	0+1	Complies
	11ax(40MHz)	3/6/9	0+1	Complies
DTS Bandwidth	11b	1/6/11	0/1	Complies
	11g	1/6/11	0/1	Complies
	11ax(20MHz)	1/6/11	0/1	Complies
	11ax(40MHz)	3/6/9	0/1	Complies

Test Items	Modulation	Channel	Antenna	Result
Occupied Bandwidth	11b	1/6/11	0/1	Complies
	11g	1/6/11	0/1	Complies
	11ax(20MHz)	1/6/11	0/1	Complies
	11ax(40MHz)	3/6/9	0/1	Complies
Power Density	11b	1/6/11	0+1	Complies
	11g	1/6/11	0+1	Complies
	11ax(20MHz)	1/6/11	0+1	Complies
	11ax(40MHz)	3/6/9	0+1	Complies

Note 1: Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

Note 2: Determining compliance shall be based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

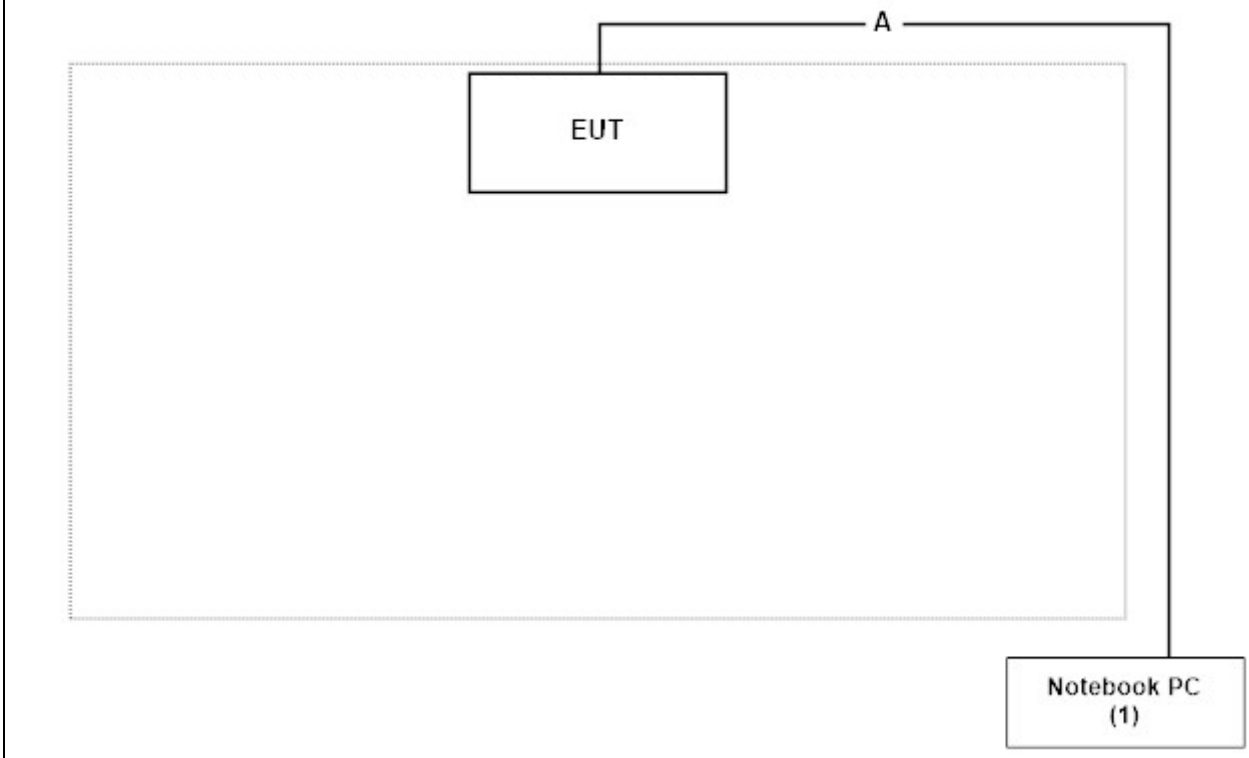
1.3. Tested System Details

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

Product		Manufacturer	Model No.	Serial No.	FCC ID	Power Cord
1	Notebook PC	Lenove	80SJ	MP16Z7TB	DoC	Non-Shielded, 1.8m

1.4. Configuration of tested System

Connection Diagram



Signal Cable Type		Signal cable Description
A	Ethernet Cable	Non-Shielded, 10m

1.5. EUT Exercise Software

1	Set the EUT as shown in Section 1.4.
2	Execute the Broadcom command from software CMD.exe
3	Configure test mode, test channel and data rate.
4	Let the EUT start transmitting or receiving signal continuously.
5	Verify that the EUT works properly.

1.6. Comments and Remarks

The product specification and testing instructions for the EUT declared in the report are provided by the manufacturer who will take all responsibilities for the accuracy.

1.7. Test Facility

Ambient conditions in the laboratory:

Items	Test Item	Required	Test Site
Temperature (°C)	FCC PART 15 C 15.207	15 - 35	2
Humidity (%RH)	Conducted Emission	25 - 75	
Temperature (°C)	FCC PART 15 C 15.247	15 - 35	1
Humidity (%RH)	Maximum peak conducted output power	25 - 75	
Temperature (°C)	FCC PART 15 C 15.247	15 - 35	1
Humidity (%RH)	Radiated Emission	25 - 75	
Temperature (°C)	FCC PART 15 C 15.247	15 - 35	1
Humidity (%RH)	RF antenna conducted test	25 - 75	
Temperature (°C)	FCC PART 15 C 15.247	15 - 35	1
Humidity (%RH)	Radiated Emission Band Edge	25 - 75	
Temperature (°C)	FCC PART 15 C 15.247	15 - 35	1
Humidity (%RH)	Occupied Bandwidth & DTS Bandwidth	25 - 75	
Temperature (°C)	FCC PART 15 C 15.247	15 - 35	1
Humidity (%RH)	Power Density	25 - 75	

Note: Test site information refers to Laboratory Information.

Laboratory Information

USA	**:**	**FCC Registration Number: TW3024**
Canada	**:**	**IC Registration Number: 22397-1 / 22397-2 / 22397-3**

The address and introduction of DEKRA Testing and Certification Co., Ltd. laboratories can be founded in our Web site: http://www.dekra.com.tw

If you have any comments, please don't hesitate to contact us. Our test sites as below:

Test Laboratory	DEKRA Testing and Certification Co., Ltd.
Address	1. No.372, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County 31061, Taiwan, R.O.C. 2. No.372-2, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County 31061, Taiwan, R.O.C.
Phone number	1. +886-3-582-8001 2. +886-3-582-8001
Fax number	1. +886-3-582-8958 2. +886-3-582-8958
Email address	info.tw@dekra.com
Website	http://www.dekra.com.tw

1.8. List of Test Equipment

Conducted Emission / SR2-H

Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date
Artificial Mains Network	R&S	ENV4200	848411/010	2020/12/24	2021/12/23
Test Receiver	R&S	ESCS 30	836858/022	2021/02/22	2022/02/21
LISN	R&S	ENV216	100092	2020/06/22	2021/06/21

Conducted / SR12-H

Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date
High Speed Peak Power Meter Dual Input	Anritsu	ML2496A	1602004	2020/11/30	2021/11/29
Pulse Power Sensor	Anritsu	MA2411B	1531043	2020/11/30	2021/11/29
EXA Signal Analyzer	Keysight	N9010A	MY51440132	2021/01/25	2022/01/24
Pulse Power Sensor	Anritsu	MA2411B	1531044	2020/11/30	2021/11/29
Power Meter	Keysight	8990B	MY51000248	2021/05/21	2022/05/20
Power Sensor	Keysight	N1923A	MY57240005	2021/05/21	2022/05/20
Spectrum Analyzer	Keysight	N9030B	MY57140404	2021/05/14	2022/05/13
Spectrum Analyzer	Keysight	N9010B	MY57110159	2021/03/29	2022/03/28
Wideband Radio Communication Tester	R&S	CMW500	106071	2021/01/27	2022/01/26
Wireless Conn. Tseter	R&S	CMW500	157118	2020/07/23	2021/07/22
Spectrum Analyzer	Agilent	N9010A	US47140172	2021/05/28	2022/05/27
Signal & Spectrum Analyzer	R&S	FSV40	101049	2021/03/31	2022/03/30

Radiated / CB4-H

Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date
Signal Analyzer	R&S	FSVA40	101455	2020/10/12	2021/10/11
Signal & Spectrum Analyzer	R&S	FSV40	101049	2021/03/31	2022/03/30
Signal Analyzer	R&S	FSVA40	101435	2021/06/04	2022/06/03
EXA Signal Analyzer	Keysight	N9010A	MY51440132	2021/01/25	2022/01/24
Trilog Broadband Antenna	Schwarzbeck	VULB 9168	1209	2021/05/28	2022/05/27
Horn Antenna	Schwarzbeck	BBHA 9120D	01640	2020/09/17	2021/09/16
Horn Antenna	Schwarzbeck	BBHA 9170	203	2021/03/11	2022/03/10
Pre-Amplifier	EMCI	EMC01820I	980364	2020/09/14	2021/09/13
Pre-Amplifier	EMCI	EMC0031835	980233	2020/12/07	2021/12/06
Pre-Amplifier	DEKRA	AP-400C	201801231	2020/11/16	2021/11/15
Band Reject Filter	Micro-Tronics	BRM50702	G192	2021/03/04	2022/03/03
Band Reject Filter	Micro-Tronics	BRM50716	G089	2021/03/11	2022/03/10
Wideband Radio Communication Tester	R&S	CMW500	106071	2021/01/27	2022/01/26
Wireless Conn. Tseter	R&S	CMW500	157118	2020/07/23	2021/07/22
Coaxial Cable(10m)	Suhner	SF102_SF104	CB4-H	2021/04/25	2022/04/24
DEKRA Testing System	DEKRA	Version 2.0	CB4-H	NA	NA
Signal Analyzer	R&S	FSVA40	101455	2020/10/12	2021/10/11

Note: All equipment upon which need to calibrated are with calibration period of 1 year.

1.9. Uncertainty

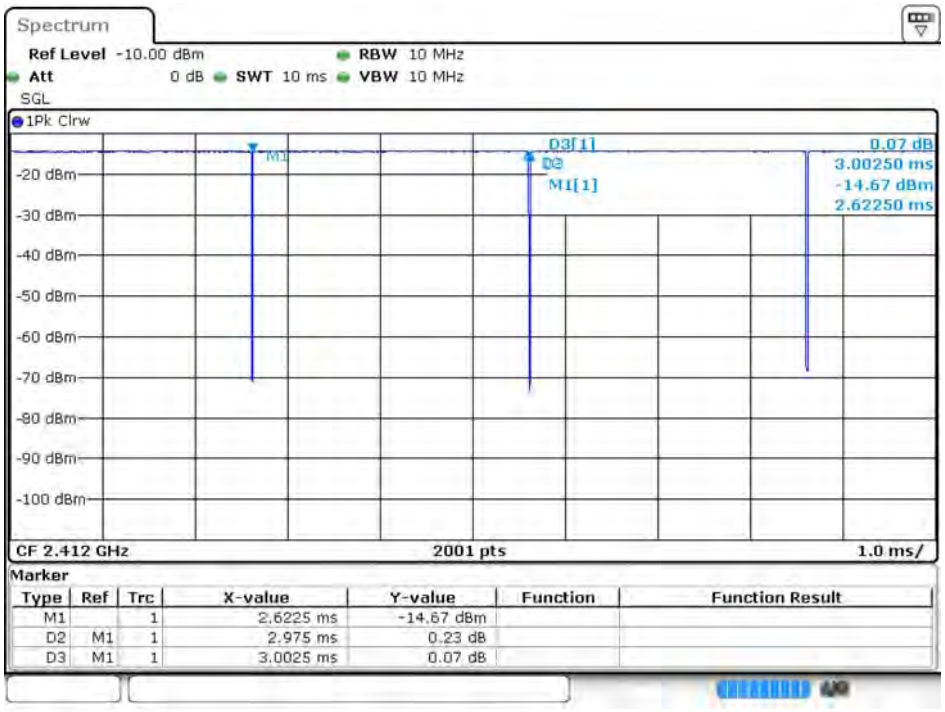
Test item	Uncertainty
Conducted Emission	± 2.26 dB
Maximum peak conducted output power	± 1.27 dB
Radiated Emission	30MHz~1GHz as ±3.43 dB 1GHz~26.5GHz as ±3.65 dB
RF antenna conducted test	± 1.27 dB
Radiated Emission Band Edge	± 3.9 dB
DTS Bandwidth	± 50 Hz
Occupied Bandwidth	± 50 Hz
Power Density	±1.27 dB

1.10. Duty Cycle

Mode 1: Transmit_Non-BF_EBM522U

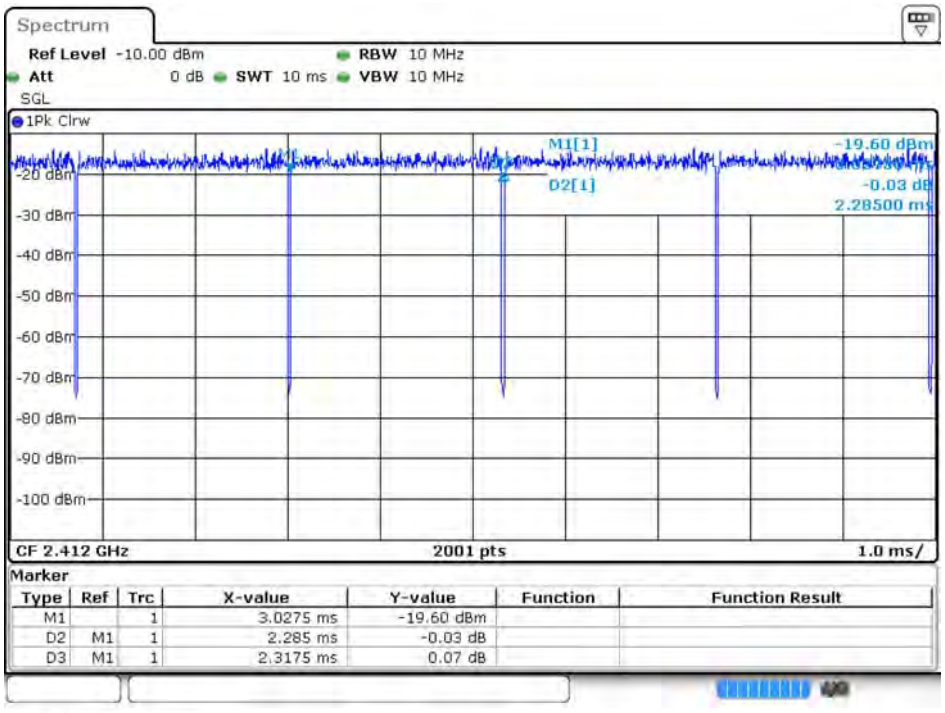
Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor(dB) linear voltage	Duty Factor(dB) Power	1/T Minimum VBW (kHz)
11B	2.975	3.003	99.08%	0.079921	0.04	0.010
11G	2.285	2.318	98.60%	0.122671	0.06	0.010
AX HE20	2.280	2.318	98.38%	0.141698	0.07	0.010
AX HE40	2.365	2.403	98.44%	0.136645	0.07	0.010

802.11b



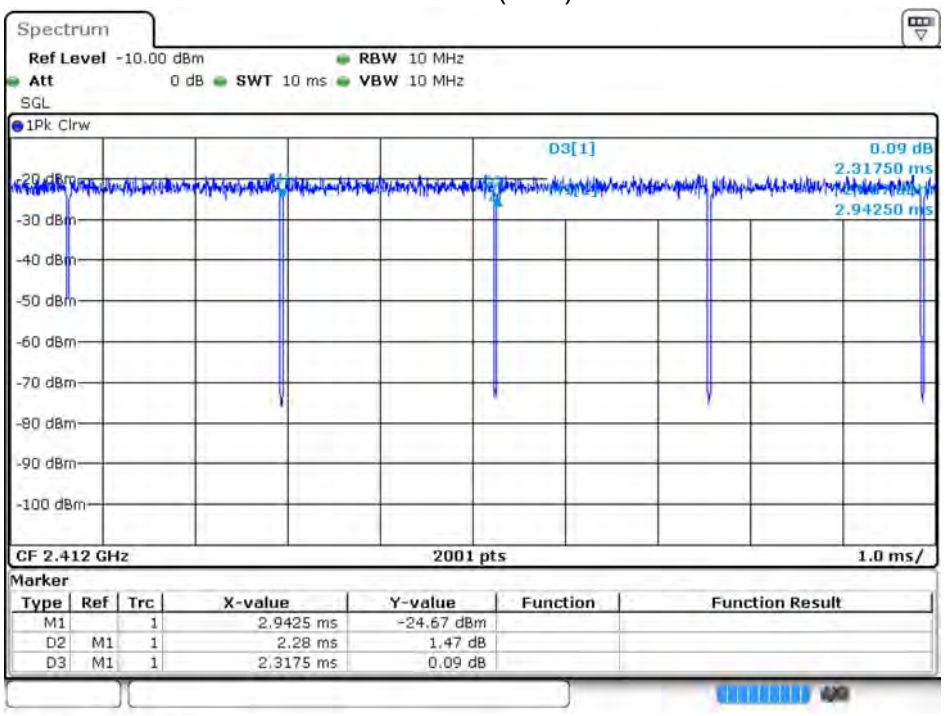
Date: 23.JUN.2021 16:44:44

802.11g



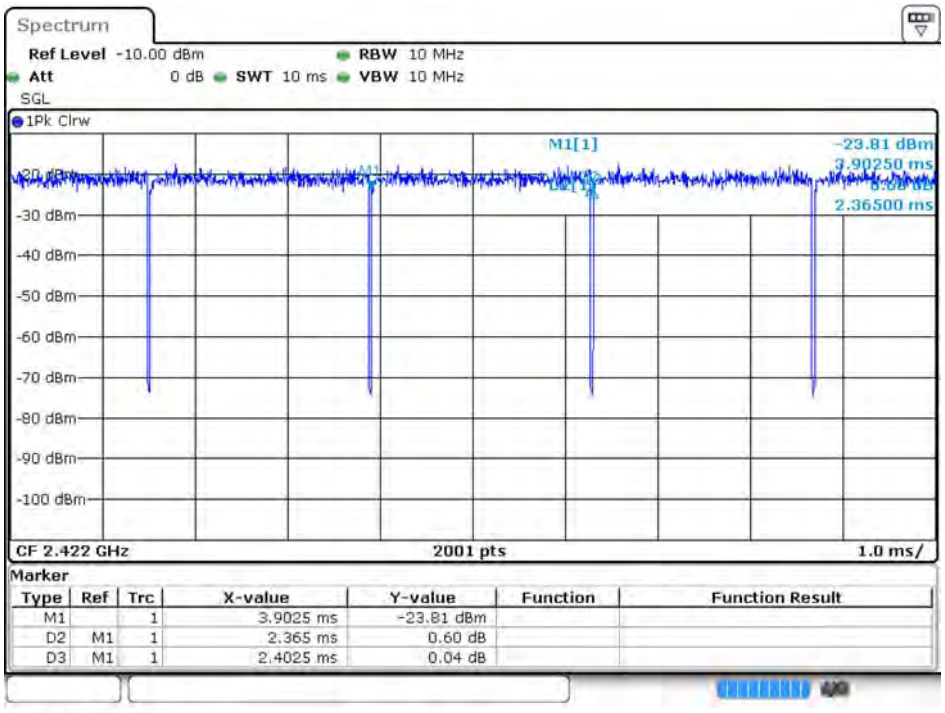
Date: 23.JUN.2021 16:46:59

802.11ax (20M)



Date: 23.JUN.2021 16:47:30

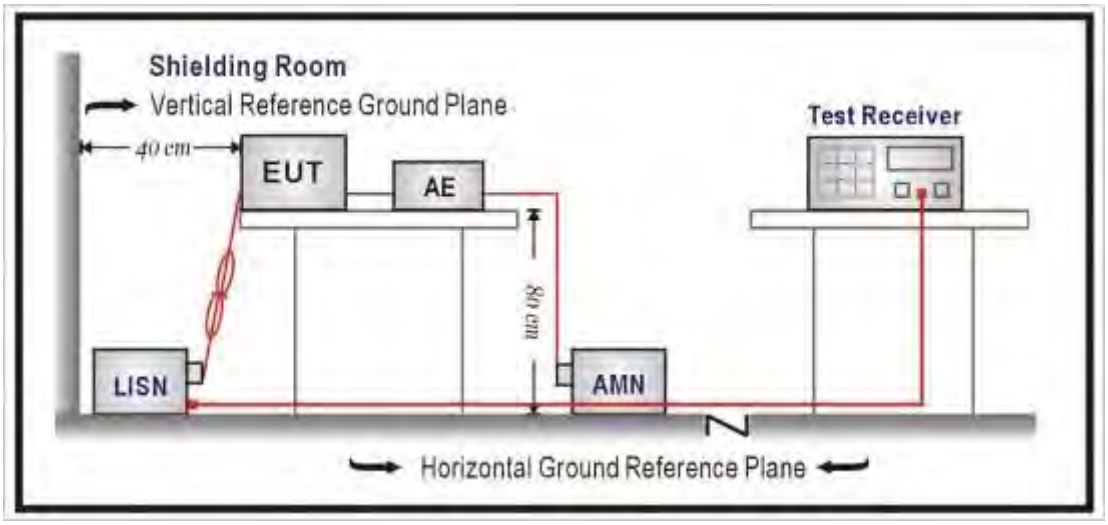
802.11ax (40M)



Date: 23.JUN.2021 16:49:13

2. Conducted Emission

2.1. Test Setup



2.2. Limits

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

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

2.3. Test Procedure

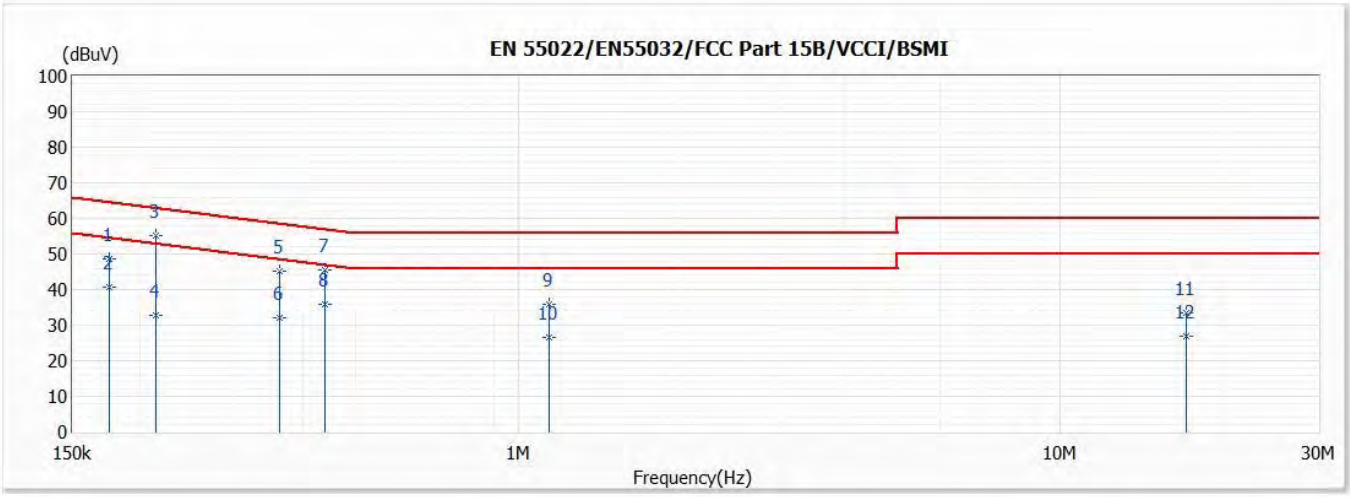
The EUT was setup according to ANSI C63.4: 2013 and tested according to DTS test procedure of KDB 558074 for compliance to FCC 47CFR 15.247 requirements.
The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The vertical conducting plane was located 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 Part 15 Subpart C Paragraph 15.207: 2019

2.5. Test Result

Model No	EBM522U	Site	SR2-H
Test Voltage	AC 120/60Hz	Test Date	2021/5/19
Test Mode	Mode 1: Transmit_Non-BF_EBM522U	Engineer	Scott Lin
Phase	L	Temperature (℃)	25.5
Test Condition	802.11b_2437MHz_CE-TX(MSA-C1500CS12.0-18G-US)	Humidity (%RH)	58

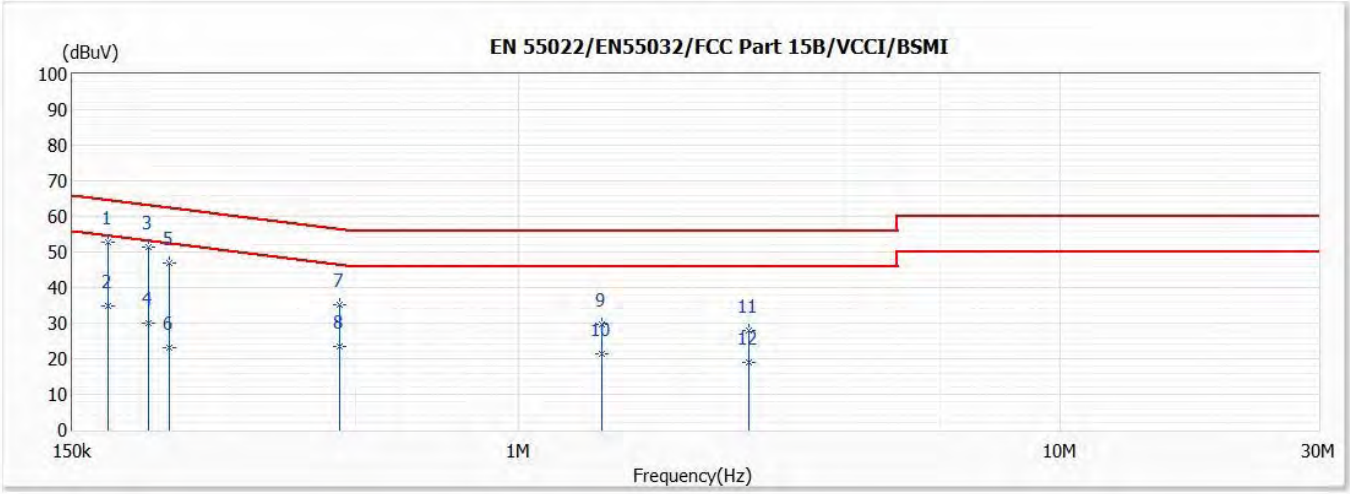


No	Frequency (MHz)	Emission Level (dBuV)	Limit (dBuV)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	0.175	48.54	64.72	-16.18	38.89	9.65	QP
2	0.175	40.66	54.72	-14.06	31.01	9.65	AV
*3	0.214	55.18	63.04	-7.86	45.53	9.65	QP
4	0.214	32.63	53.04	-20.41	22.98	9.65	AV
5	0.361	45.25	58.70	-13.45	35.58	9.67	QP
6	0.361	32.00	48.70	-16.70	22.33	9.67	AV
7	0.439	45.51	57.09	-11.58	35.83	9.68	QP
8	0.439	35.87	47.09	-11.22	26.19	9.68	AV
9	1.137	35.95	56.00	-20.05	26.20	9.75	QP
10	1.137	26.55	46.00	-19.45	16.80	9.75	AV
11	17.132	33.34	60.00	-26.66	23.03	10.31	QP
12	17.132	26.79	50.00	-23.21	16.48	10.31	AV

Remark:

1. "*" means this data is the worst emission level.
2. Emission Level = Reading Level + Correct Factor (Correct Factor = LISN Insertion Loss + Cable Loss).
3. Margin = Emission Level - Limit.

Model No	EBM522U	Site	SR2-H
Test Voltage	AC 120/60Hz	Test Date	2021/5/19
Test Mode	Mode 1: Transmit_Non-BF_EBM522U	Engineer	Scott Lin
Phase	N	Temperature (℃)	25.5
Test Condition	802.11b_2437MHz_CE-TX(MSA-C1500CS12.0-18G-US)	Humidity (%RH)	58

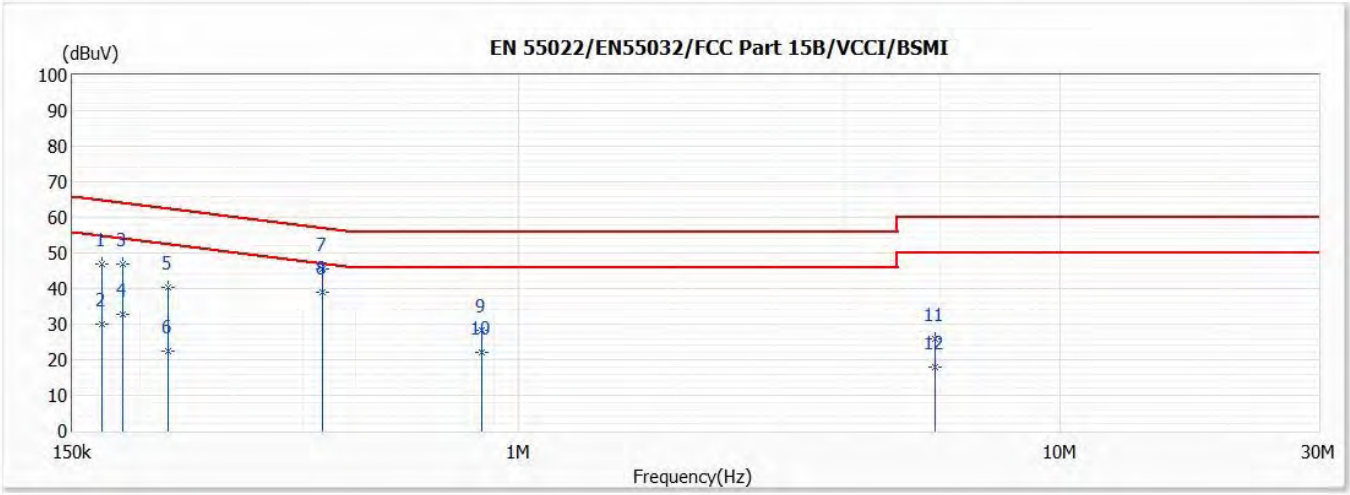


No	Frequency (MHz)	Emission Level (dBuV)	Limit (dBuV)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	0.175	52.70	64.74	-12.04	43.06	9.64	QP
2	0.175	34.99	54.74	-19.75	25.35	9.64	AV
*3	0.207	51.48	63.34	-11.86	41.84	9.64	QP
4	0.207	29.98	53.34	-23.36	20.34	9.64	AV
5	0.226	47.02	62.60	-15.58	37.38	9.64	QP
6	0.226	23.25	52.60	-29.35	13.61	9.64	AV
7	0.466	35.09	56.59	-21.50	25.41	9.68	QP
8	0.466	23.34	46.59	-23.25	13.66	9.68	AV
9	1.427	29.67	56.00	-26.33	19.93	9.74	QP
10	1.427	21.45	46.00	-24.55	11.71	9.74	AV
11	2.660	27.86	56.00	-28.14	18.04	9.82	QP
12	2.660	18.81	46.00	-27.19	8.99	9.82	AV

Remark:

1. "*" means this data is the worst emission level.
2. Emission Level = Reading Level + Correct Factor (Correct Factor = LISN Insertion Loss + Cable Loss).
3. Margin = Emission Level – Limit.

Model No	EBM522U	Site	SR2-H
Test Voltage	AC 120/60Hz	Test Date	2021/5/19
Test Mode	Mode 1: Transmit_Non-BF_EBM522U	Engineer	Scott Lin
Phase	L	Temperature (℃)	25.5
Test Condition	802.11b_2437MHz_CE-TX(AE180AA00)	Humidity (%RH)	58

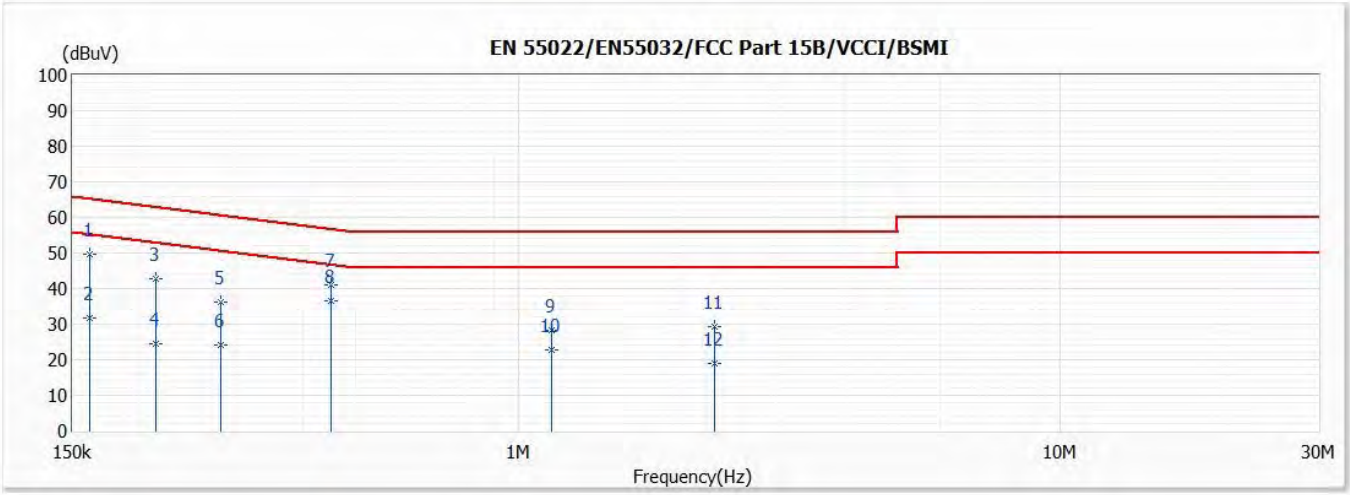


No	Frequency (MHz)	Emission Level (dBuV)	Limit (dBuV)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	0.170	47.01	64.97	-17.96	37.36	9.65	QP
2	0.170	30.10	54.97	-24.87	20.45	9.65	AV
3	0.185	46.99	64.25	-17.26	37.35	9.64	QP
4	0.185	32.60	54.25	-21.65	22.96	9.64	AV
5	0.226	40.37	62.61	-22.24	30.72	9.65	QP
6	0.226	22.57	52.61	-30.04	12.92	9.65	AV
7	0.435	45.36	57.16	-11.80	35.68	9.68	QP
*8	0.435	38.95	47.16	-8.21	29.27	9.68	AV
9	0.853	28.23	56.00	-27.77	18.50	9.73	QP
10	0.853	22.00	46.00	-24.00	12.27	9.73	AV
11	5.875	25.76	60.00	-34.24	15.79	9.97	QP
12	5.875	17.87	50.00	-32.13	7.90	9.97	AV

Remark:

1. "*" means this data is the worst emission level.
2. Emission Level = Reading Level + Correct Factor (Correct Factor = LISN Insertion Loss + Cable Loss).
3. Margin = Emission Level - Limit.

Model No	EBM522U	Site	SR2-H
Test Voltage	AC 120/60Hz	Test Date	2021/5/19
Test Mode	Mode 1: Transmit_Non-BF_EBM522U	Engineer	Scott Lin
Phase	N	Temperature (℃)	25.5
Test Condition	802.11b_2437MHz_CE-TX(AE180AA00)	Humidity (%RH)	58

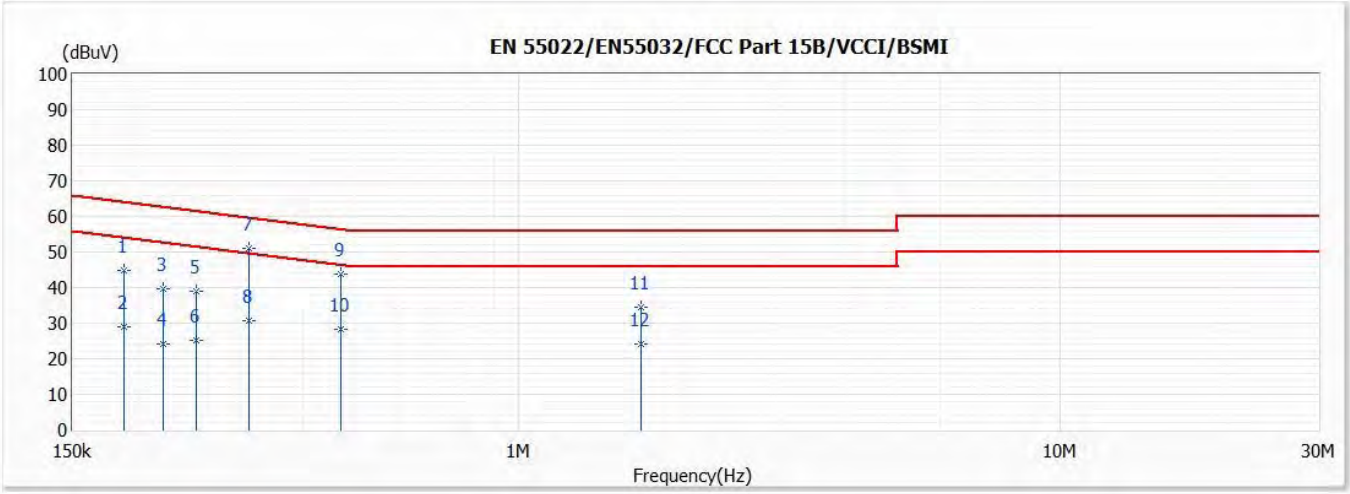


No	Frequency (MHz)	Emission Level (dBuV)	Limit (dBuV)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	0.162	49.65	65.38	-15.73	40.01	9.64	QP
2	0.162	31.71	55.38	-23.67	22.07	9.64	AV
3	0.214	42.60	63.06	-20.46	32.96	9.64	QP
4	0.214	24.47	53.06	-28.59	14.83	9.64	AV
5	0.282	36.36	60.76	-24.40	26.71	9.65	QP
6	0.282	24.25	50.76	-26.51	14.60	9.65	AV
7	0.450	41.19	56.87	-15.68	31.52	9.67	QP
*8	0.450	36.39	46.87	-10.48	26.72	9.67	AV
9	1.149	28.41	56.00	-27.59	18.68	9.73	QP
10	1.149	22.74	46.00	-23.26	13.01	9.73	AV
11	2.300	29.41	56.00	-26.59	19.62	9.79	QP
12	2.300	19.07	46.00	-26.93	9.28	9.79	AV

Remark:

1. "*" means this data is the worst emission level.
2. Emission Level = Reading Level + Correct Factor (Correct Factor = LISN Insertion Loss + Cable Loss).
3. Margin = Emission Level - Limit.

Model No	EBM522U	Site	SR2-H
Test Voltage	AC 120/60Hz	Test Date	2021/5/19
Test Mode	Mode 2: Transmit_Non-BF_EBM522	Engineer	Scott Lin
Phase	L	Temperature (℃)	25.5
Test Condition	802.11b_2437MHz_CE-TX(MSA-C1500CS12.0-18G-US)	Humidity (%RH)	58

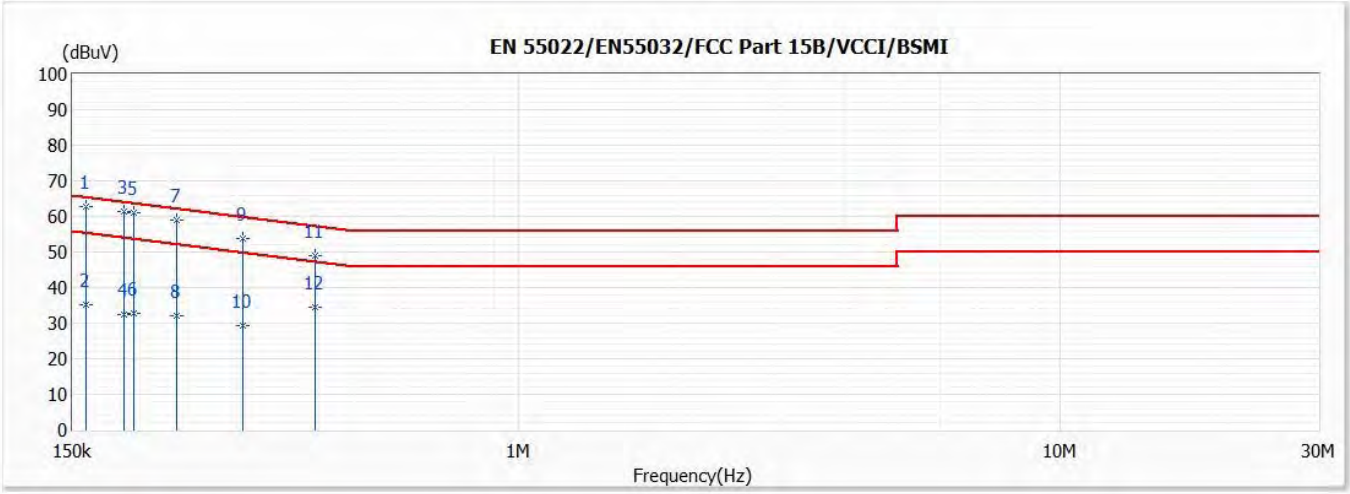


No	Frequency (MHz)	Emission Level (dBuV)	Limit (dBuV)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	0.186	44.77	64.19	-19.42	35.13	9.64	QP
2	0.186	29.10	54.19	-25.09	19.46	9.64	AV
3	0.221	39.75	62.78	-23.03	30.10	9.65	QP
4	0.221	24.26	52.78	-28.52	14.61	9.65	AV
5	0.253	39.08	61.64	-22.56	29.43	9.65	QP
6	0.253	25.31	51.64	-26.33	15.66	9.65	AV
*7	0.317	50.98	59.78	-8.80	41.31	9.67	QP
8	0.317	30.56	49.78	-19.22	20.89	9.67	AV
9	0.470	43.94	56.52	-12.58	34.25	9.69	QP
10	0.470	28.43	46.52	-18.09	18.74	9.69	AV
11	1.685	34.38	56.00	-21.62	24.61	9.77	QP
12	1.685	24.14	46.00	-21.86	14.37	9.77	AV

Remark:

1. "*" means this data is the worst emission level.
2. Emission Level = Reading Level + Correct Factor (Correct Factor = LISN Insertion Loss + Cable Loss).
3. Margin = Emission Level - Limit.

Model No	EBM522U	Site	SR2-H
Test Voltage	AC 120/60Hz	Test Date	2021/5/19
Test Mode	Mode 2: Transmit_Non-BF_EBM522	Engineer	Scott Lin
Phase	N	Temperature (℃)	25.5
Test Condition	802.11b_2437MHz_CE-TX(MSA-C1500CS12.0-18G-US)	Humidity (%RH)	58

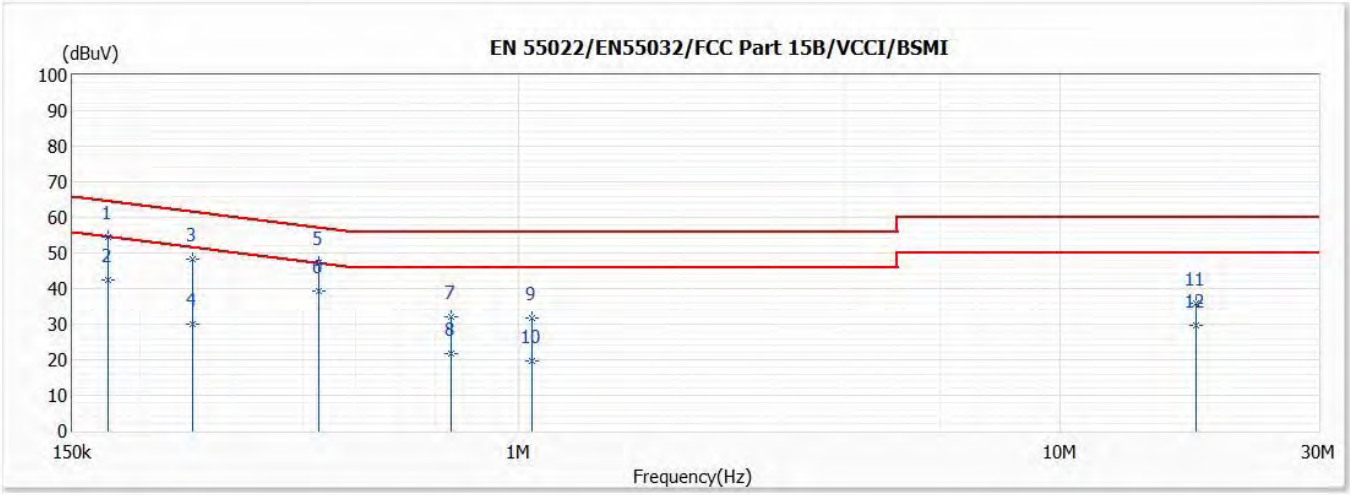


No	Frequency (MHz)	Emission Level (dBuV)	Limit (dBuV)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
*1	0.159	62.82	65.52	-2.70	53.18	9.64	QP
2	0.159	35.24	55.52	-20.28	25.60	9.64	AV
3	0.186	61.24	64.20	-2.96	51.61	9.63	QP
4	0.186	32.31	54.20	-21.89	22.68	9.63	AV
5	0.195	61.05	63.83	-2.78	51.41	9.64	QP
6	0.195	32.74	53.83	-21.09	23.10	9.64	AV
7	0.233	59.01	62.33	-3.32	49.37	9.64	QP
8	0.233	32.07	52.33	-20.26	22.43	9.64	AV
9	0.309	53.68	59.99	-6.31	44.02	9.66	QP
10	0.309	29.16	49.99	-20.83	19.50	9.66	AV
11	0.422	48.83	57.41	-8.58	39.16	9.67	QP
12	0.422	34.54	47.41	-12.87	24.87	9.67	AV

Remark:

1. "*" means this data is the worst emission level.
2. Emission Level = Reading Level + Correct Factor (Correct Factor = LISN Insertion Loss + Cable Loss).
3. Margin = Emission Level - Limit.

Model No	EBM522U	Site	SR2-H
Test Voltage	AC 120/60Hz	Test Date	2021/5/19
Test Mode	Mode 2: Transmit_Non-BF_EBM522	Engineer	Scott Lin
Phase	L	Temperature (℃)	25.5
Test Condition	802.11b_2437MHz_CE-TX(AE180AA00)	Humidity (%RH)	58

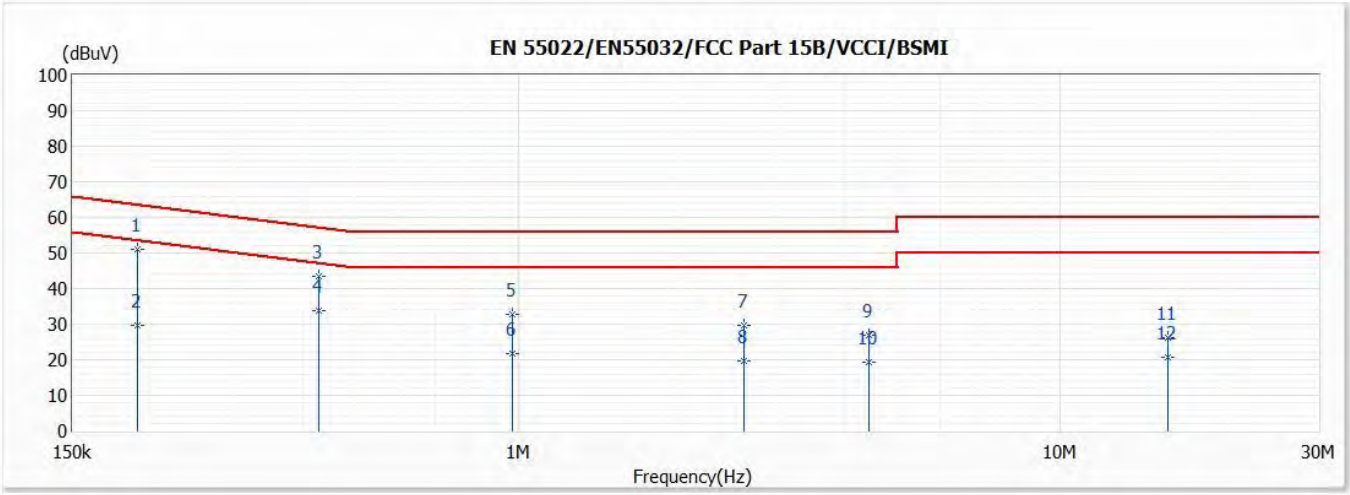


No	Frequency (MHz)	Emission Level (dBuV)	Limit (dBuV)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	0.174	54.46	64.76	-10.30	44.81	9.65	QP
2	0.174	42.40	54.76	-12.36	32.75	9.65	AV
3	0.250	48.34	61.77	-13.43	38.69	9.65	QP
4	0.250	30.03	51.77	-21.74	20.38	9.65	AV
5	0.427	47.40	57.32	-9.92	37.72	9.68	QP
*6	0.427	39.19	47.32	-8.13	29.51	9.68	AV
7	0.752	31.96	56.00	-24.04	22.24	9.72	QP
8	0.752	21.82	46.00	-24.18	12.10	9.72	AV
9	1.060	31.83	56.00	-24.17	22.09	9.74	QP
10	1.060	19.66	46.00	-26.34	9.92	9.74	AV
11	17.813	35.97	60.00	-24.03	25.64	10.33	QP
12	17.813	29.68	50.00	-20.32	19.35	10.33	AV

Remark:

1. "*" means this data is the worst emission level.
2. Emission Level = Reading Level + Correct Factor (Correct Factor = LISN Insertion Loss + Cable Loss).
3. Margin = Emission Level - Limit.

Model No	EBM522U	Site	SR2-H
Test Voltage	AC 120/60Hz	Test Date	2021/5/19
Test Mode	Mode 2: Transmit_Non-BF_EBM522	Engineer	Scott Lin
Phase	N	Temperature (℃)	25.5
Test Condition	802.11b_2437MHz_CE-TX(AE180AA00)	Humidity (%RH)	58



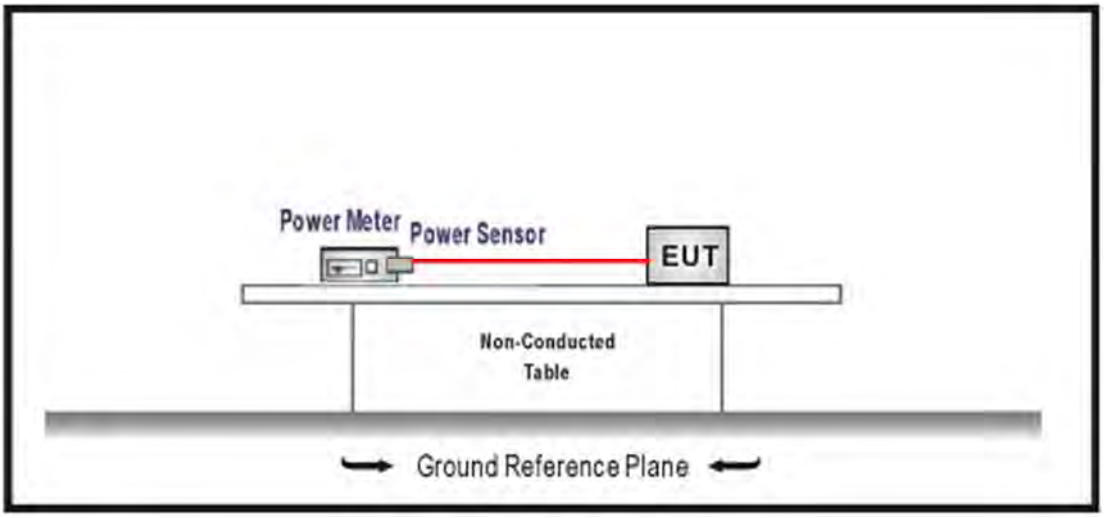
No	Frequency (MHz)	Emission Level (dBuV)	Limit (dBuV)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
*1	0.198	51.14	63.70	-12.56	41.50	9.64	QP
2	0.198	29.62	53.70	-24.08	19.98	9.64	AV
3	0.426	43.45	57.32	-13.87	33.78	9.67	QP
4	0.426	33.82	47.32	-13.50	24.15	9.67	AV
5	0.975	32.79	56.00	-23.21	23.07	9.72	QP
6	0.975	21.67	46.00	-24.33	11.95	9.72	AV
7	2.604	29.53	56.00	-26.47	19.72	9.81	QP
8	2.604	19.82	46.00	-26.18	10.01	9.81	AV
9	4.437	27.03	56.00	-28.97	17.12	9.91	QP
10	4.437	19.46	46.00	-26.54	9.55	9.91	AV
11	15.812	26.16	60.00	-33.84	15.79	10.37	QP
12	15.812	20.80	50.00	-29.20	10.43	10.37	AV

Remark:

1. "*" means this data is the worst emission level.
2. Emission Level = Reading Level + Correct Factor (Correct Factor = LISN Insertion Loss + Cable Loss).
3. Margin = Emission Level - Limit.

3. Maximum peak conducted output power

3.1. Test Setup



3.2. Test procedures

The EUT was tested according to DTS test procedure section 8.3.1.3 of KDB 558074 D01 v05r02 & Subclause 11.9.1.3 of ANSI C63.10 Measurement to FCC 47CFR 15.247 requirements.

3.3. Limits

The maximum peak power shall be less 1 Watt.

3.4. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2019.

3.5. Test Result

Product	Mesh Wi-Fi Router		
Test Item	Maximum peak conducted output power		
Test Mode	Mode 1: Transmit_Non-BF_EBM522U		
Date of Test	2021/05/18	Test Site	SR12-H
Temperature (°C)	25.5	Humidity (%RH)	60.0

11b					
Channel No.	Frequency (MHz)	Maximum peak conducted output power (dBm)			Limit (dBm)
		Ant. 0	Ant. 1	Total	
1	2412	19.410	20.510	23.005	≦30
6	2437	20.440	21.650	24.097	≦30
11	2462	18.590	19.150	21.889	≦30

The worst emission of data rate is 1Mbps

11g					
Channel No.	Frequency (MHz)	Maximum peak conducted output power (dBm)			Limit (dBm)
		Ant. 0	Ant. 1	Total	
1	2412	16.310	16.350	19.340	≦30
6	2437	19.260	19.610	22.449	≦30
11	2462	14.570	14.680	17.636	≦30

The worst emission of data rate is 6Mbps

Product	Mesh Wi-Fi Router		
Test Item	Maximum peak conducted output power		
Test Mode	Mode 1: Transmit_Non-BF_EBM522U		
Date of Test	2021/05/18	Test Site	SR12-H
Temperature (°C)	25.5	Humidity (%RH)	60.0

11ax(20M)					
Channel No.	Frequency (MHz)	Maximum peak conducted output power (dBm)			Limit (dBm)
		Ant. 0	Ant. 1	Total	
1	2412	14.870	14.950	17.920	≦30
6	2437	19.330	19.620	22.488	≦30
11	2462	12.860	12.250	15.576	≦30

The worst emission of data rate is MCS 0

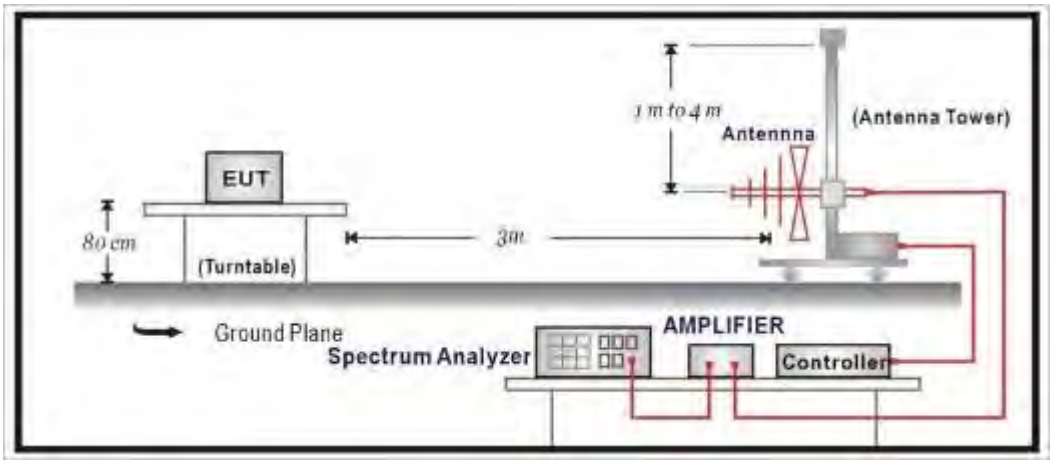
11ax(40M)					
Channel No.	Frequency (MHz)	Maximum peak conducted output power (dBm)			Limit (dBm)
		Ant. 0	Ant. 1	Total	
3	2422	15.15	15.01	18.091	≦30
6	2437	17.56	17.64	20.610	≦30
9	2452	14.51	14.33	17.431	≦30

The worst emission of data rate is MCS 0

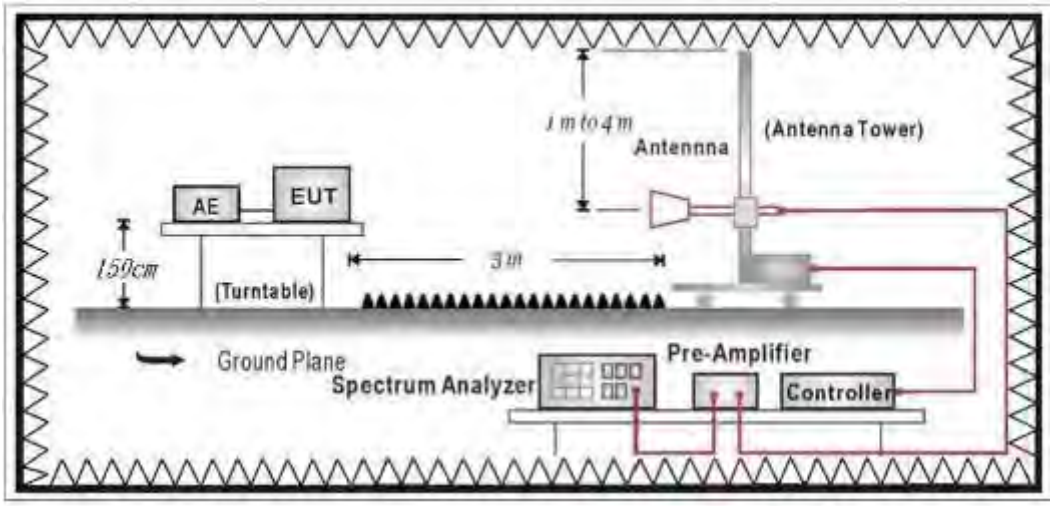
4. Radiated Emission

4.1. Test Setup

Under 1GHz Test Setup:



Above 1GHz Test Setup:



4.2. Limits

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

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

Remarks: E field strength (dBuV/m) = 20 log E field strength (uV/m)

4.3. Test Procedure

The EUT was setup according to ANSI C63.10:2013 and tested according to DTS test procedure of KDB 558074 D01 v05r02 for compliance to FCC 47CFR 15.247 requirements.
The EUT and its simulators are placed on a turn table which is 1.5 meter above ground(under 1GHz) or 1.5 meter above ground (above 1GHz). The turn table can rotate 360 degrees to determine the position of the maximum emission level.
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.
On any frequency or frequencies below or equal to 1000 MHz, the limits shown are based on measuring equipment employing a quasi-peak detector function and on any frequency or frequencies above 1000 MHz the radiated limits shown are based upon the use of measurement instrumentation employing an average detector function. When average radiated emission measurement are included emission measurement below 1000 MHz, there also is a limit on the radio frequency emissions, as measured using instrumentation with a peak detector function, corresponding to 20 dB above the maximum permitted average limit.
The bandwidth below 1GHz setting on the field strength meter is 120 kHz and above 1GHz is 1MHz.

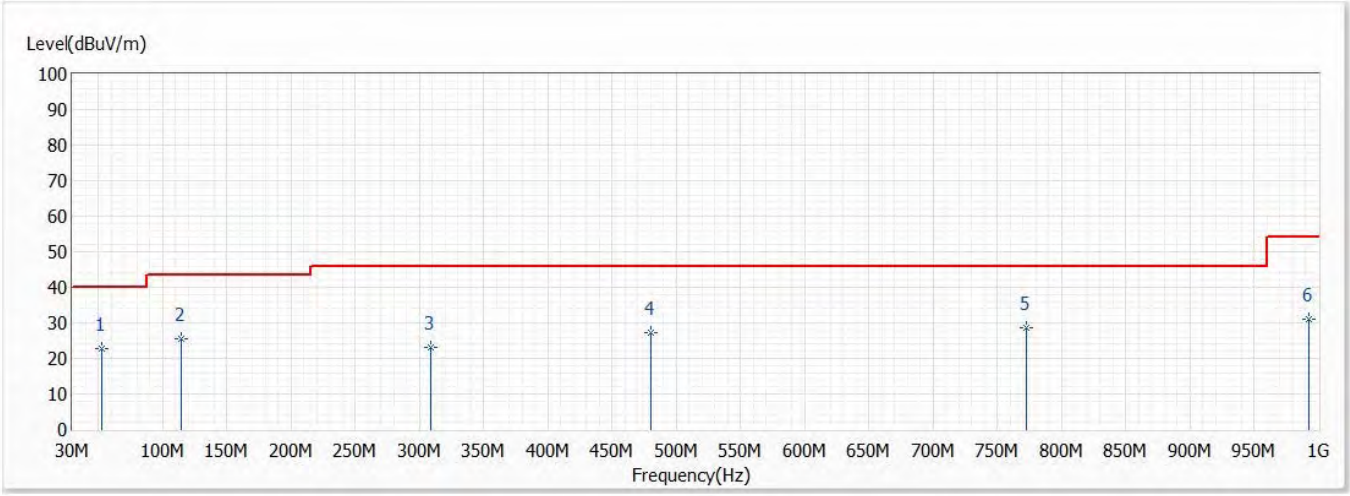
4.4. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2019.

4.5. Test Result

30MHz-1GHz

Model No	EBM522U	Site	CB4-H
Test Voltage	AC 120/60Hz	Test Date	2021/5/10
Test Mode	Mode 1: Transmit_Non-BF_EBM522U	Engineer	Scott Chang
Polarity	Horizontal	Temperature (℃)	25.2
Test Condition	802.11g,Ant0+1,Ch 6,2.462G,BW20M (MSA-C1500CS12.0-18G-US)	Humidity (%RH)	58.0

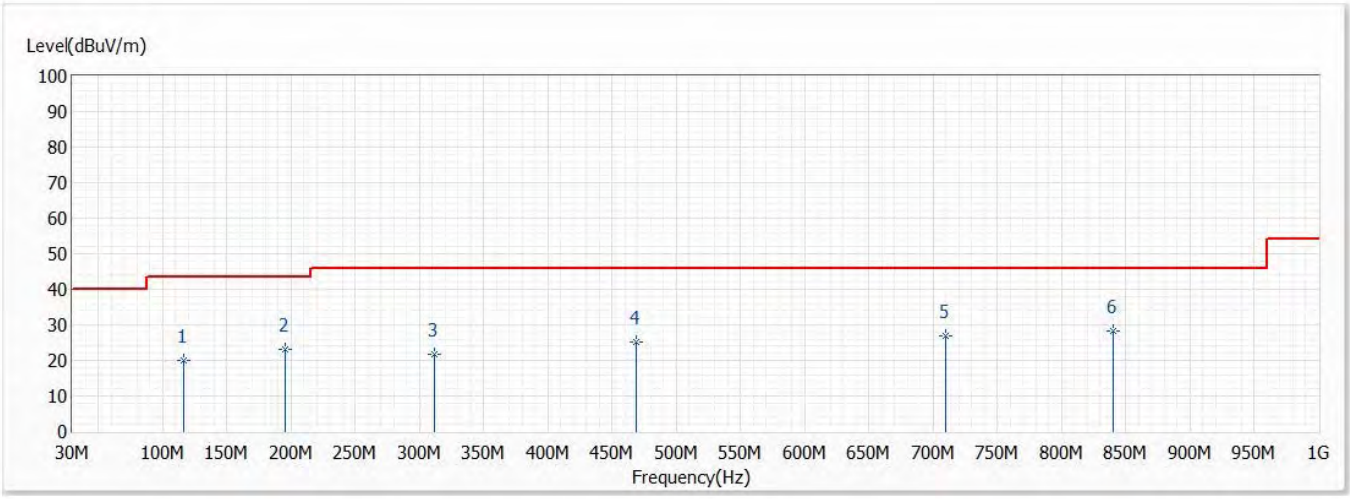


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
* 1	52.795	22.65	40.00	-17.35	31.27	-8.62	QP
2	114.390	25.62	43.50	-17.88	29.33	-3.71	QP
3	308.875	22.98	46.00	-23.02	25.26	-2.28	QP
4	480.080	27.24	46.00	-18.76	24.97	2.27	QP
5	772.535	28.47	46.00	-17.53	22.55	5.92	QP
6	992.725	30.94	54.00	-23.06	23.13	7.81	QP

Note:

1. All reading levels is Quasi-Peak value.
2. " * ", means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor
4. The emission under 30MHz were not included is because their levels are lower than 20dB from limit.

Model No	EBM522U	Site	CB4-H
Test Voltage	AC 120/60Hz	Test Date	2021/5/10
Test Mode	Mode 1: Transmit_Non-BF_EBM522U	Engineer	Scott Chang
Polarity	Vertical	Temperature (℃)	25.2
Test Condition	802.11g,Ant0+1,Ch 6,2.62G,BW20M (MSA-C1500CS12.0-18G-US)	Humidity (%RH)	58.0

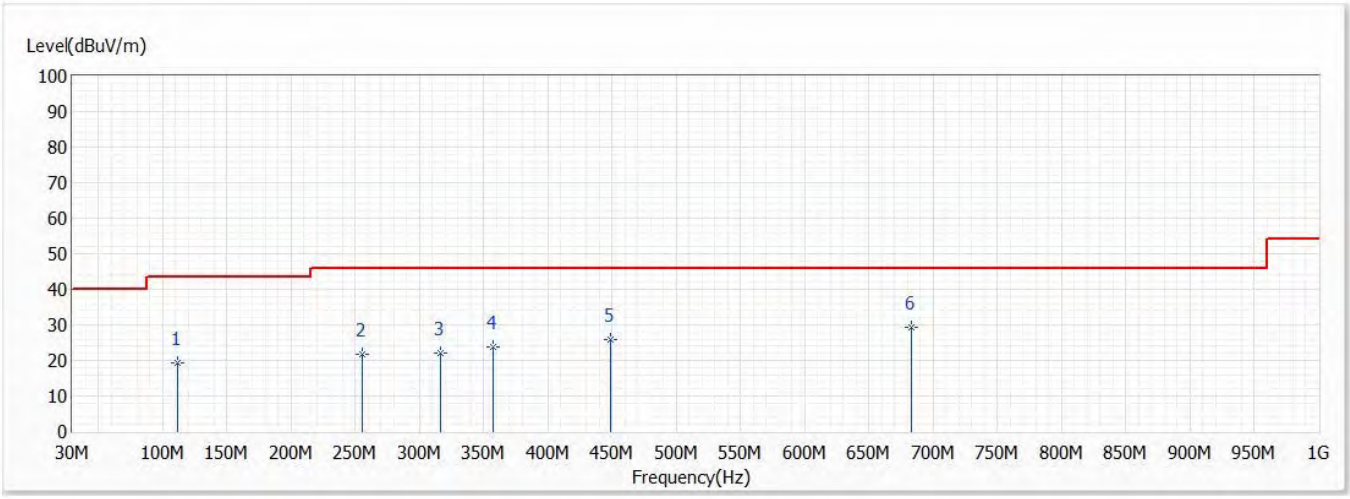


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	116.330	19.96	43.50	-23.54	23.79	-3.83	QP
2	195.385	23.04	43.50	-20.46	29.98	-6.94	QP
3	311.300	21.80	46.00	-24.20	24.01	-2.21	QP
4	468.925	25.17	46.00	-20.83	23.08	2.09	QP
5	709.970	26.78	46.00	-19.22	22.17	4.61	QP
* 6	839.950	28.12	46.00	-17.88	21.75	6.37	QP

Note:

1. All reading levels is Quasi-Peak value.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor
4. The emission under 30MHz were not included is because their levels are lower than 20dB from limit.

Model No	EBM522U	Site	CB4-H
Test Voltage	AC 120/60Hz	Test Date	2021/5/19
Test Mode	Mode 1: Transmit_Non-BF_EBM522U	Engineer	Ling Chen
Polarity	Horizontal	Temperature (℃)	25.2
Test Condition	802.11g,Ant0+1,Ch 11,2.462G,BW20M (AE180AAE00)	Humidity (%RH)	58.0

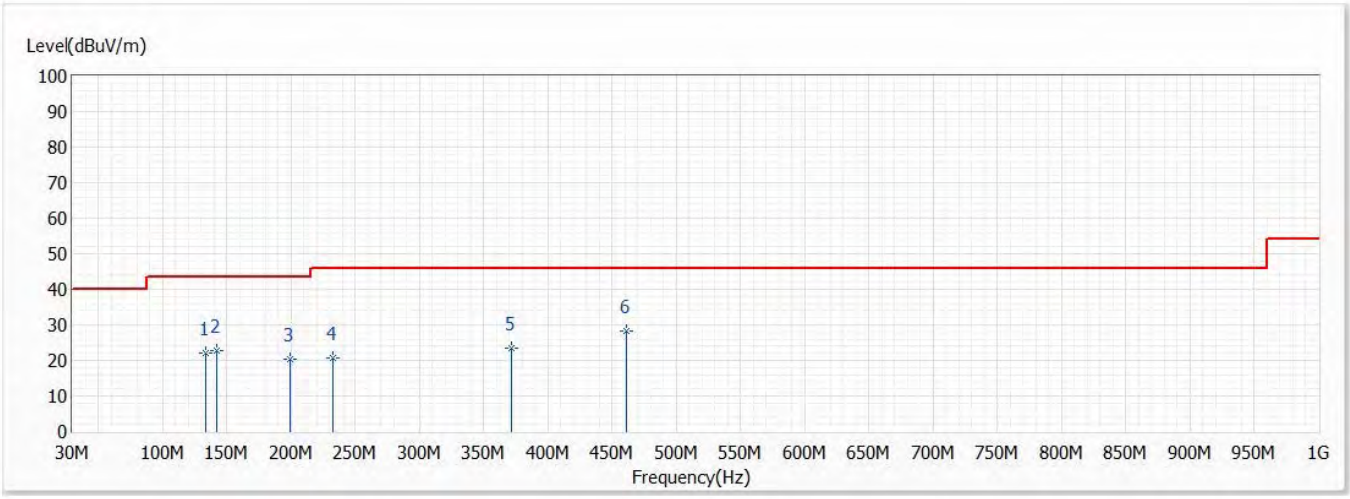


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	111.965	19.28	43.50	-24.22	23.39	-4.11	QP
2	255.525	21.82	46.00	-24.18	24.93	-3.11	QP
3	316.635	22.22	46.00	-23.78	24.53	-2.31	QP
4	357.860	23.86	46.00	-22.14	25.11	-1.25	QP
5	449.040	25.95	46.00	-20.05	24.77	1.18	QP
* 6	683.295	29.27	46.00	-16.73	25.11	4.16	QP

Note:

1. All reading levels is Quasi-Peak value.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor
4. The emission under 30MHz were not included is because their levels are lower than 20dB from limit.

Model No	EBM522U	Site	CB4-H
Test Voltage	AC 120/60Hz	Test Date	2021/5/19
Test Mode	Mode 1: Transmit_Non-BF_EBM522U	Engineer	Ling Chen
Polarity	Vertical	Temperature (℃)	25.2
Test Condition	802.11g,Ant0+1,Ch 11,2.462G,BW20M (AE180AAE00)	Humidity (%RH)	58.0

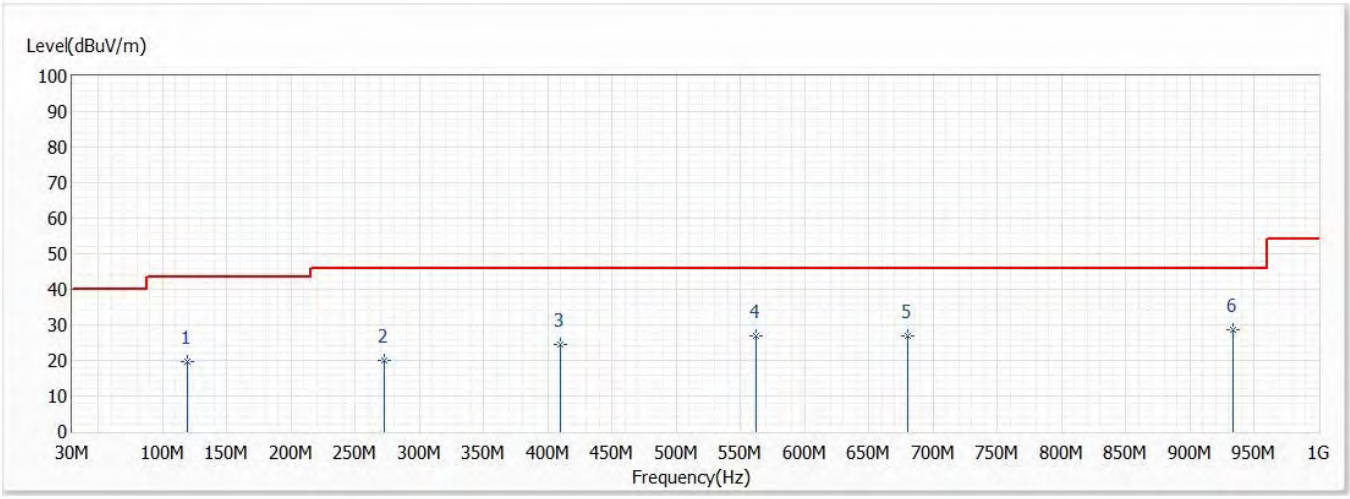


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	133.790	22.14	43.50	-21.36	26.78	-4.64	QP
2	142.520	22.84	43.50	-20.66	28.12	-5.28	QP
3	199.750	20.47	43.50	-23.03	27.51	-7.04	QP
4	232.730	20.70	46.00	-25.30	26.49	-5.79	QP
5	371.925	23.57	46.00	-22.43	24.49	-0.92	QP
* 6	461.650	28.38	46.00	-17.62	26.92	1.46	QP

Note:

1. All reading levels is Quasi-Peak value.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor
4. The emission under 30MHz were not included is because their levels are lower than 20dB from limit.

Model No	EBM522U	Site	CB4-H
Test Voltage	AC 120/60Hz	Test Date	2021/5/31
Test Mode	Mode 2: Transmit_Non-BF_EBM522	Engineer	Ling Chen
Polarity	Horizontal	Temperature (℃)	25.2
Test Condition	802.11g,Ant0+1,Ch 11,2.462G,BW20M (MSA-C1500CS12.0-18G-US)	Humidity (%RH)	58.0

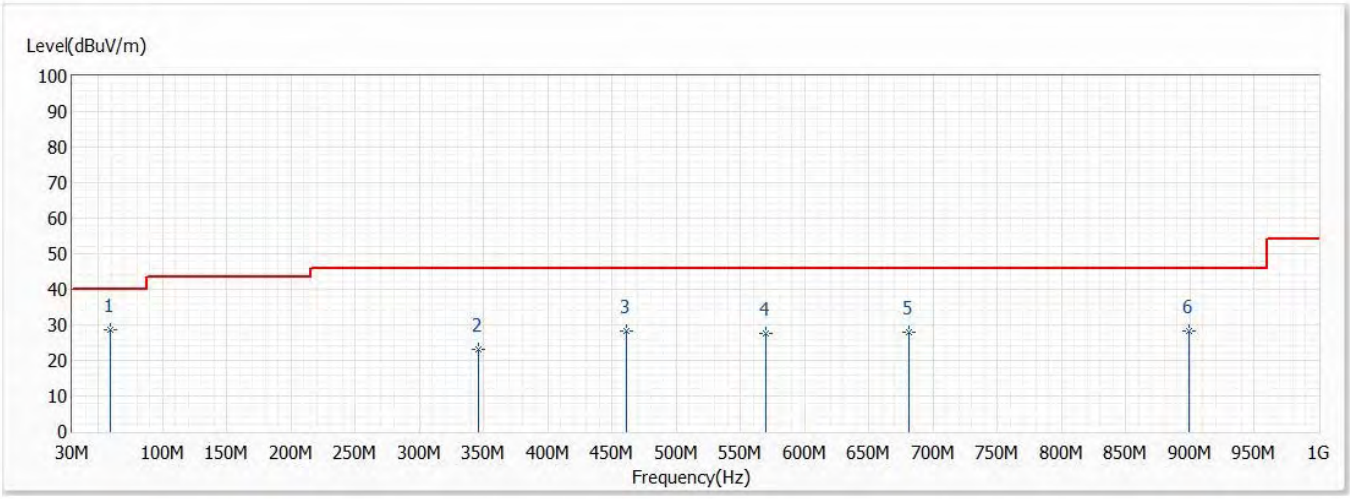


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	119.725	19.55	43.50	-23.95	23.60	-4.05	QP
2	272.985	20.14	46.00	-25.86	23.47	-3.33	QP
3	410.240	24.53	46.00	-21.47	23.87	0.66	QP
4	562.530	26.91	46.00	-19.09	23.41	3.50	QP
5	679.900	26.73	46.00	-19.27	22.58	4.15	QP
* 6	933.555	28.74	46.00	-17.26	21.89	6.85	QP

Note:

1. All reading levels is Quasi-Peak value.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor
4. The emission under 30MHz were not included is because their levels are lower than 20dB from limit.

Model No	EBM522U	Site	CB4-H
Test Voltage	AC 120/60Hz	Test Date	2021/5/31
Test Mode	Mode 2: Transmit_Non-BF_EBM522	Engineer	Ling Chen
Polarity	Vertical	Temperature (℃)	25.2
Test Condition	802.11g,Ant0+1,Ch 11,2.462G,BW20M (MSA-C1500CS12.0-18G-US)	Humidity (%RH)	58.0

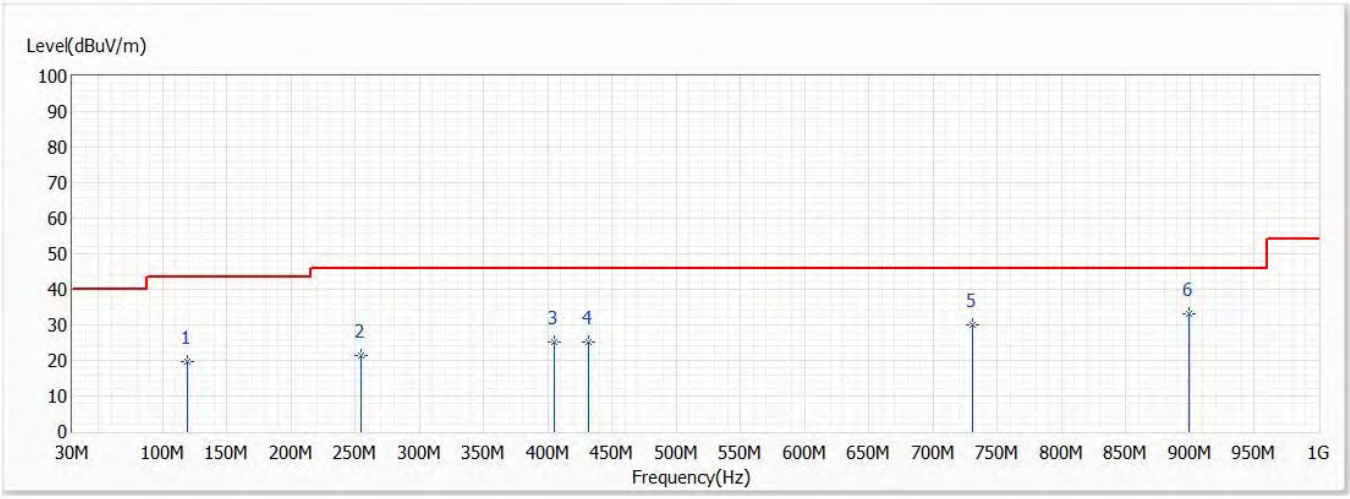


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
* 1	59.585	28.51	40.00	-11.49	38.82	-10.31	QP
2	345.735	23.20	46.00	-22.80	24.81	-1.61	QP
3	461.650	28.38	46.00	-17.62	26.92	1.46	QP
4	569.320	27.46	46.00	-18.54	23.93	3.53	QP
5	681.355	27.98	46.00	-18.02	23.83	4.15	QP
6	899.120	28.44	46.00	-17.56	21.96	6.48	QP

Note:

1. All reading levels is Quasi-Peak value.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor
4. The emission under 30MHz were not included is because their levels are lower than 20dB from limit.

Model No	EBM522U	Site	CB4-H
Test Voltage	AC 120/60Hz	Test Date	2021/5/19
Test Mode	Mode 2: Transmit_Non-BF_EBM522	Engineer	Ling Chen
Polarity	Horizontal	Temperature (℃)	25.2
Test Condition	802.11g,Ant0+1,Ch 11,2.462G,BW20M (AE180AAE00)	Humidity (%RH)	58.0

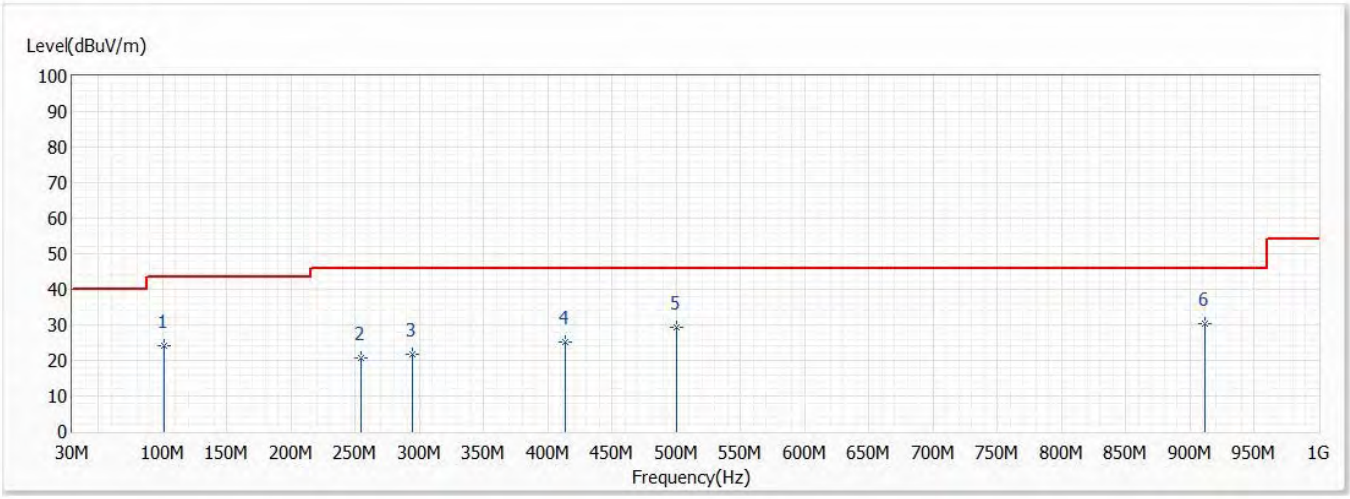


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	119.725	19.55	43.50	-23.95	23.60	-4.05	QP
2	254.555	21.33	46.00	-24.67	24.52	-3.19	QP
3	404.905	25.19	46.00	-20.81	24.66	0.53	QP
4	431.580	25.30	46.00	-20.70	24.33	0.97	QP
5	730.340	29.99	46.00	-16.01	25.14	4.85	QP
* 6	898.635	33.04	46.00	-12.96	26.56	6.48	QP

Note:

1. All reading levels is Quasi-Peak value.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor
4. The emission under 30MHz were not included is because their levels are lower than 20dB from limit.

Model No	EBM522U	Site	CB4-H
Test Voltage	AC 120/60Hz	Test Date	2021/5/19
Test Mode	Mode 2: Transmit_Non-BF_EBM522	Engineer	Ling Chen
Polarity	Vertical	Temperature (℃)	25.2
Test Condition	802.11g,Ant0+1,Ch 11,2.462G,BW20M (AE180AAE00)	Humidity (%RH)	58.0



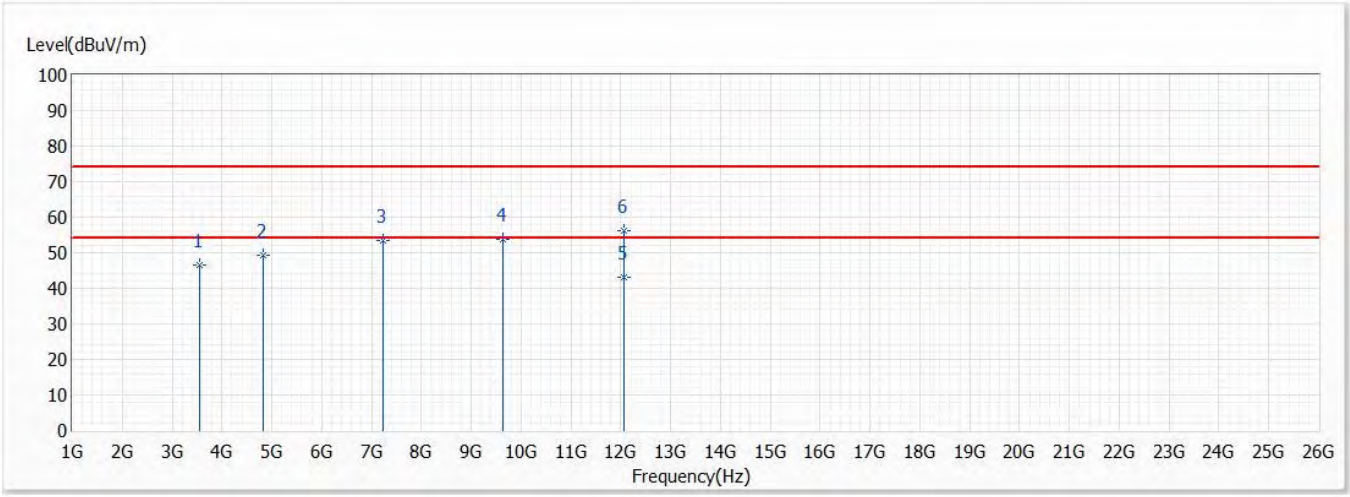
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	101.295	24.12	43.50	-19.38	29.31	-5.19	QP
2	255.040	20.82	46.00	-25.18	23.96	-3.14	QP
3	294.325	21.60	46.00	-24.40	24.52	-2.92	QP
4	413.635	25.10	46.00	-20.90	24.36	0.74	QP
5	499.965	29.30	46.00	-16.70	27.13	2.17	QP
* 6	911.245	30.33	46.00	-15.67	23.70	6.63	QP

Note:

1. All reading levels is Quasi-Peak value.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor
4. The emission under 30MHz were not included is because their levels are lower than 20dB from limit.

Above 1GHz

Model No	EBM522U	Site	CB4-H
Test Voltage	AC 120/60Hz	Test Date	2021/5/7
Test Mode	Mode 1: Transmit_Non-BF_EBM522U	Engineer	Scott Chang
Polarity	Horizontal	Temperature (℃)	25.2
Test Condition	802.11b,Ant0+1,Ch 1,2.412G,BW20M (MSA-C1500CS12.0-18G-US)	Humidity (%RH)	58.0



No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	3548.000	46.69	74.00	-27.31	52.16	-5.47	PK
2	4824.000	49.16	74.00	-24.84	50.60	-1.44	PK
3	7236.000	53.33	74.00	-20.67	46.94	6.39	PK
4	9648.000	53.72	74.00	-20.28	42.24	11.48	PK
* 5	12060.000	43.14	54.00	-10.86	29.61	13.53	AV
6	12060.000	56.24	74.00	-17.76	42.71	13.53	PK

Note:

1.All reading above 1GHz is performed with peak and/or average measurements as necessary.

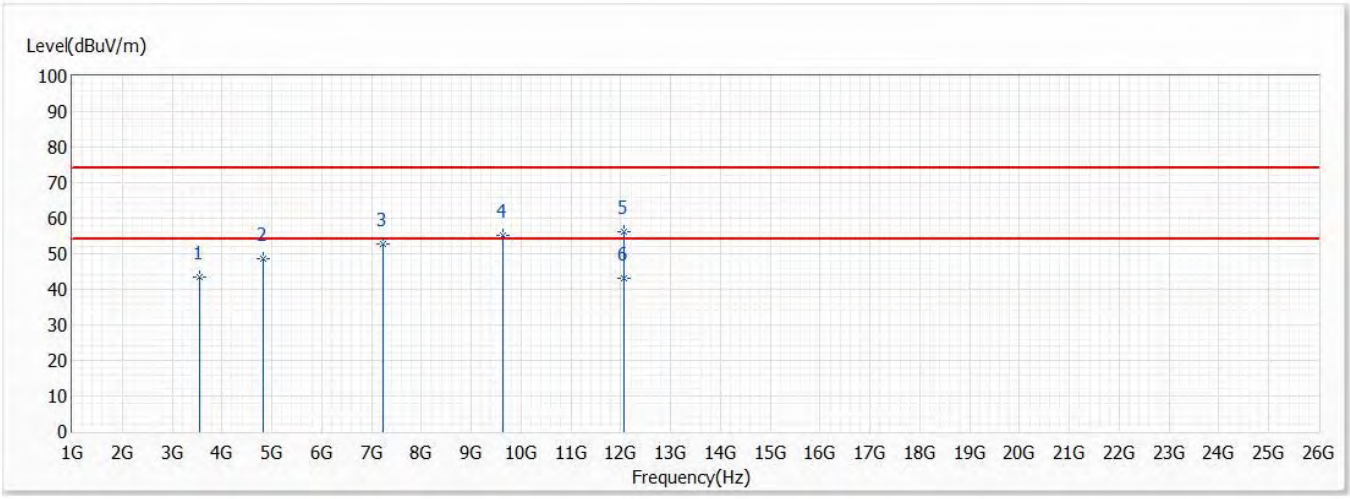
2. “ * ”, means this data is the worst value.

3.Emission Level = Reading Level + Correct Factor.

4.The average measurement was not performed when the peak measured data under the limit of average detection.

5.The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

Model No	EBM522U	Site	CB4-H
Test Voltage	AC 120/60Hz	Test Date	2021/5/7
Test Mode	Mode 1: Transmit_Non-BF_EBM522U	Engineer	Scott Chang
Polarity	Vertical	Temperature (℃)	25.2
Test Condition	802.11b,Ant0+1,Ch 1,2.412G,BW20M (MSA-C1500CS12.0-18G-US)	Humidity (%RH)	58.0



No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	3548.000	43.62	74.00	-30.38	49.09	-5.47	PK
2	4824.000	48.70	74.00	-25.30	50.14	-1.44	PK
3	7236.000	52.89	74.00	-21.11	46.50	6.39	PK
4	9648.000	55.31	74.00	-18.69	43.83	11.48	PK
5	12060.000	56.28	74.00	-17.72	42.75	13.53	PK
* 6	12060.000	43.27	54.00	-10.73	29.74	13.53	AV

Note:

1.All reading above 1GHz is performed with peak and/or average measurements as necessary.

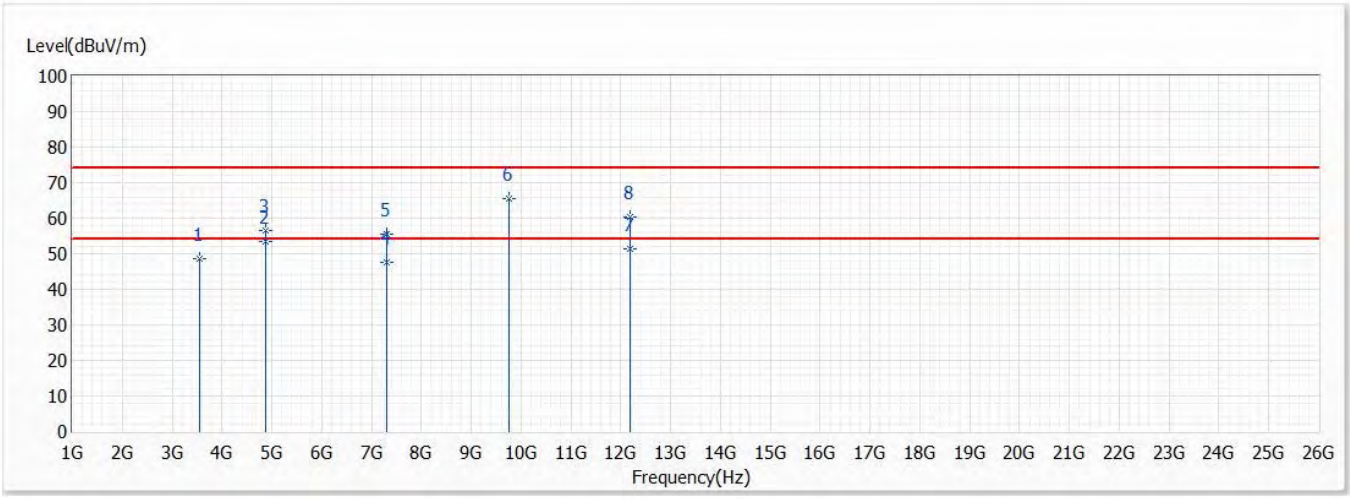
2. “ * ”, means this data is the worst value.

3.Emission Level = Reading Level + Correct Factor.

4.The average measurement was not performed when the peak measured data under the limit of average detection.

5.The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

Model No	EBM522U	Site	CB4-H
Test Voltage	AC 120/60Hz	Test Date	2021/5/7
Test Mode	Mode 1: Transmit_Non-BF_EBM522U	Engineer	Scott Chang
Polarity	Horizontal	Temperature (℃)	25.2
Test Condition	802.11b,Ant0+1,,Ch 6,2.437G,BW20M (MSA-C1500CS12.0-18G-US)	Humidity (%RH)	58.0



No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	3548.300	48.66	74.00	-25.34	54.13	-5.47	PK
* 2	4874.000	53.52	54.00	-0.48	54.92	-1.40	AV
3	4874.000	56.38	74.00	-17.62	57.78	-1.40	PK
4	7311.000	47.66	54.00	-6.34	41.42	6.24	AV
5	7311.000	55.44	74.00	-18.56	49.20	6.24	PK
6	9748.000	65.52	74.00	-8.48	53.88	11.64	PK
7	12185.000	51.33	54.00	-2.67	37.77	13.56	AV
8	12185.000	60.33	74.00	-13.67	46.77	13.56	PK

Note:

1.All reading above 1GHz is performed with peak and/or average measurements as necessary.

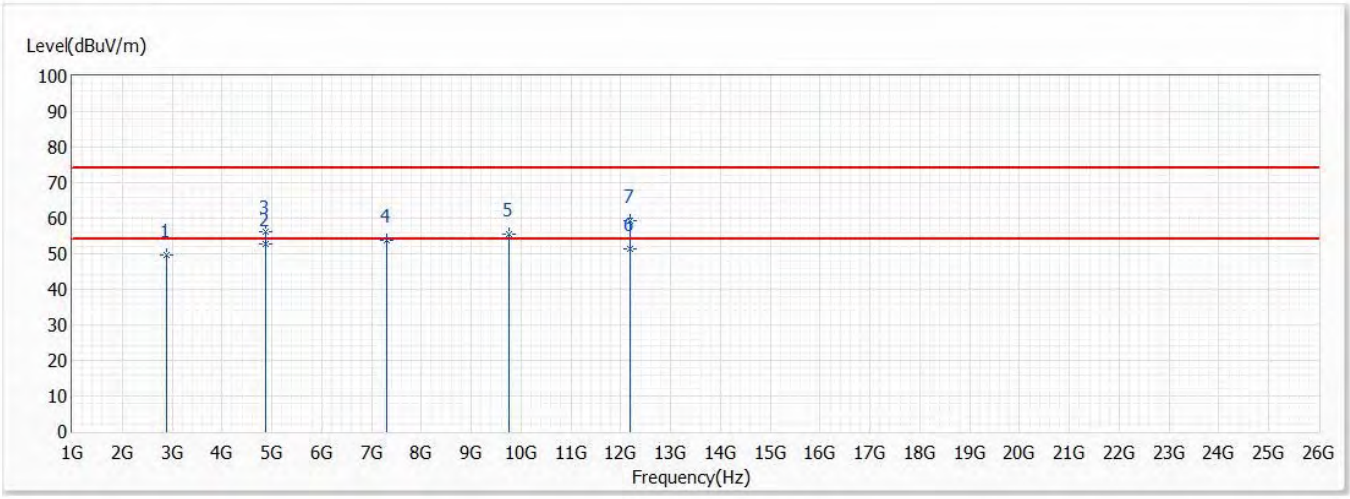
2. “ * ”, means this data is the worst value.

3.Emission Level = Reading Level + Correct Factor.

4.The average measurement was not performed when the peak measured data under the limit of average detection.

5.The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

Model No	EBM522U	Site	CB4-H
Test Voltage	AC 120/60Hz	Test Date	2021/5/7
Test Mode	Mode 1: Transmit_Non-BF_EBM522U	Engineer	Scott Chang
Polarity	Vertical	Temperature (℃)	25.2
Test Condition	802.11b,Ant0+1,,Ch 6,2.437G,BW20M (MSA-C1500CS12.0-18G-US)	Humidity (%RH)	58.0



No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	2877.600	49.59	74.00	-24.41	56.72	-7.13	PK
* 2	4874.000	52.88	54.00	-1.12	54.28	-1.40	AV
3	4874.000	56.10	74.00	-17.90	57.50	-1.40	PK
4	7311.000	53.86	74.00	-20.14	47.62	6.24	PK
5	9748.000	55.59	74.00	-18.41	43.95	11.64	PK
6	12185.000	51.33	54.00	-2.67	37.77	13.56	AV
7	12185.000	59.34	74.00	-14.66	45.78	13.56	PK

Note:

1.All reading above 1GHz is performed with peak and/or average measurements as necessary.

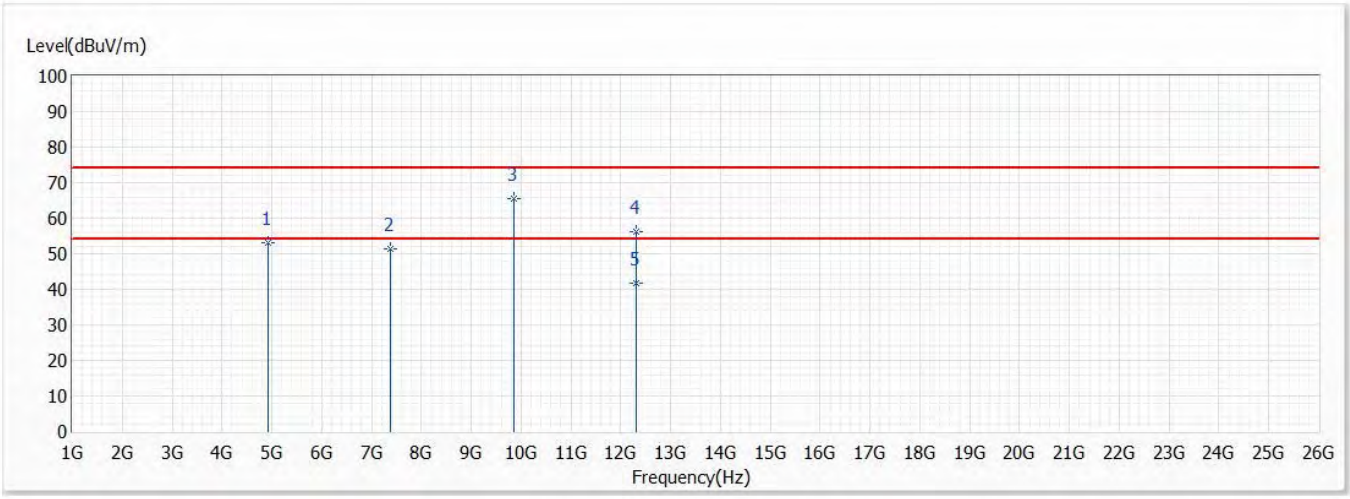
2. “ * ”, means this data is the worst value.

3.Emission Level = Reading Level + Correct Factor.

4.The average measurement was not performed when the peak measured data under the limit of average detection.

5.The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

Model No	EBM522U	Site	CB4-H
Test Voltage	AC 120/60Hz	Test Date	2021/5/7
Test Mode	Mode 1: Transmit_Non-BF_EBM522U	Engineer	Scott Chang
Polarity	Horizontal	Temperature (℃)	25.2
Test Condition	802.11b,Ant0+1,Ch 11,2.462G,BW20M (MSA-C1500CS12.0-18G-US)	Humidity (%RH)	58.0



No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	4924.000	52.97	74.00	-21.03	54.28	-1.31	PK
2	7386.000	51.24	74.00	-22.76	44.75	6.49	PK
* 3	9848.000	65.52	74.00	-8.48	53.49	12.03	PK
4	12310.000	56.21	74.00	-17.79	42.78	13.43	PK
5	12310.000	41.81	54.00	-12.19	28.38	13.43	AV

Note:

1.All reading above 1GHz is performed with peak and/or average measurements as necessary.

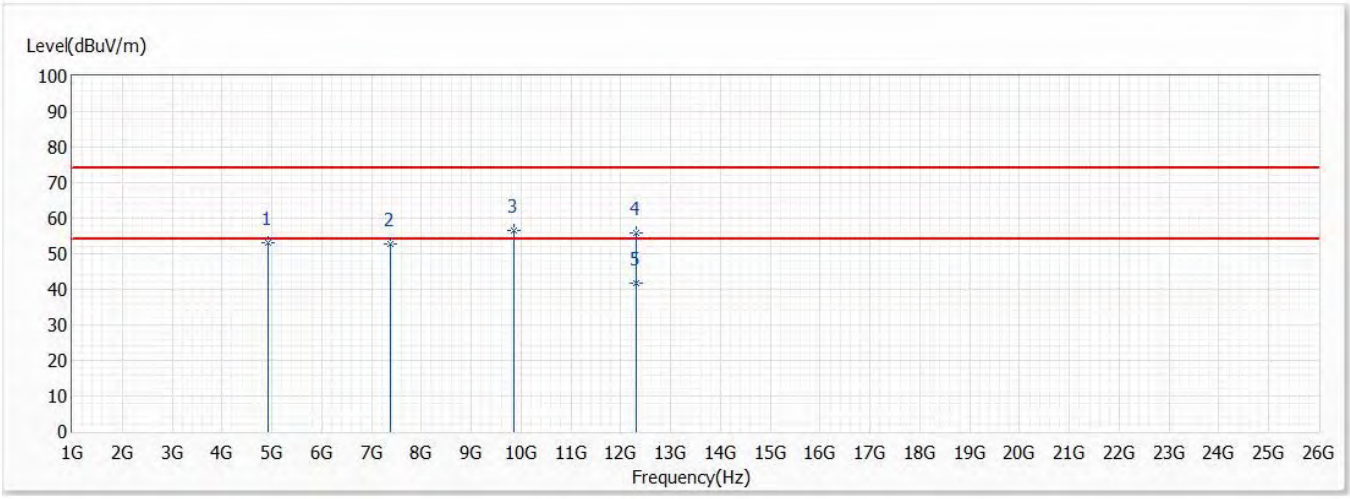
2. “ * ”, means this data is the worst value.

3.Emission Level = Reading Level + Correct Factor.

4.The average measurement was not performed when the peak measured data under the limit of average detection.

5.The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

Model No	EBM522U	Site	CB4-H
Test Voltage	AC 120/60Hz	Test Date	2021/5/7
Test Mode	Mode 1: Transmit_Non-BF_EBM522U	Engineer	Scott Chang
Polarity	Vertical	Temperature (℃)	25.2
Test Condition	802.11b,Ant0+1,Ch 11,2.462G,BW20M (MSA-C1500CS12.0-18G-US)	Humidity (%RH)	58.0



No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	4924.000	53.18	74.00	-20.82	54.49	-1.31	PK
2	7386.000	52.66	74.00	-21.34	46.17	6.49	PK
3	9848.000	56.72	74.00	-17.28	44.69	12.03	PK
4	12310.000	55.96	74.00	-18.04	42.53	13.43	PK
* 5	12310.000	41.56	54.00	-12.44	28.13	13.43	AV

Note:

1.All reading above 1GHz is performed with peak and/or average measurements as necessary.

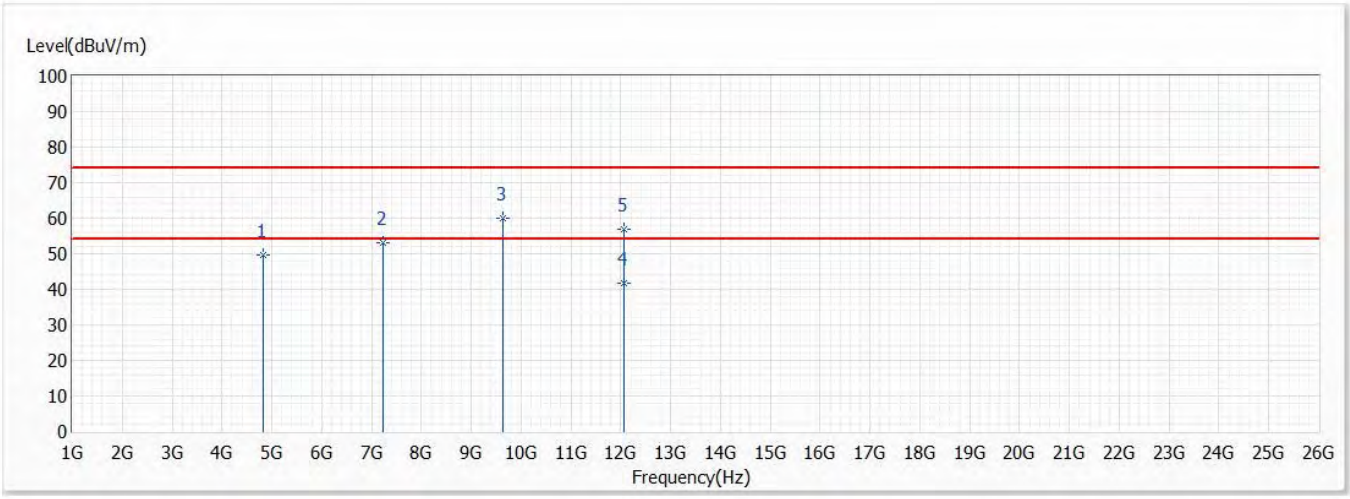
2. “ * ”, means this data is the worst value.

3.Emission Level = Reading Level + Correct Factor.

4.The average measurement was not performed when the peak measured data under the limit of average detection.

5.The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

Model No	EBM522U	Site	CB4-H
Test Voltage	AC 120/60Hz	Test Date	2021/5/7
Test Mode	Mode 1: Transmit_Non-BF_EBM522U	Engineer	Scott Chang
Polarity	Horizontal	Temperature (℃)	25.2
Test Condition	802.11g,Ant0+1,Ch 1,2.412G,BW20M (MSA-C1500CS12.0-18G-US)	Humidity (%RH)	58.0



No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	4824.000	49.54	74.00	-24.46	50.98	-1.44	PK
2	7236.000	52.94	74.00	-21.06	46.55	6.39	PK
3	9648.000	60.12	74.00	-13.88	48.64	11.48	PK
* 4	12060.000	41.63	54.00	-12.37	28.10	13.53	AV
5	12060.000	56.77	74.00	-17.23	43.24	13.53	PK

Note:

1.All reading above 1GHz is performed with peak and/or average measurements as necessary.

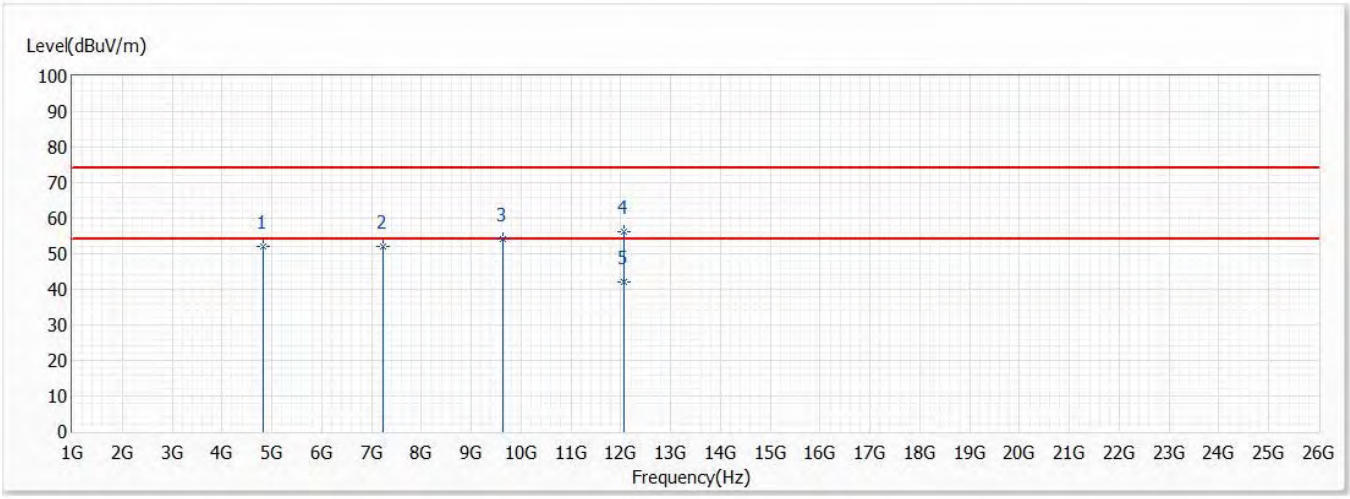
2. “ * ”, means this data is the worst value.

3.Emission Level = Reading Level + Correct Factor.

4.The average measurement was not performed when the peak measured data under the limit of average detection.

5.The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

Model No	EBM522U	Site	CB4-H
Test Voltage	AC 120/60Hz	Test Date	2021/5/7
Test Mode	Mode 1: Transmit_Non-BF_EBM522U	Engineer	Scott Chang
Polarity	Vertical	Temperature (℃)	25.2
Test Condition	802.11g,Ant0+1,Ch 1,2.412G,BW20M (MSA-C1500CS12.0-18G-US)	Humidity (%RH)	58.0



No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	4824.000	51.92	74.00	-22.08	53.36	-1.44	PK
2	7236.000	52.24	74.00	-21.76	45.85	6.39	PK
3	9648.000	54.22	74.00	-19.78	42.74	11.48	PK
4	12060.000	56.23	74.00	-17.77	42.70	13.53	PK
* 5	12060.000	42.09	54.00	-11.91	28.56	13.53	AV

Note:

1.All reading above 1GHz is performed with peak and/or average measurements as necessary.

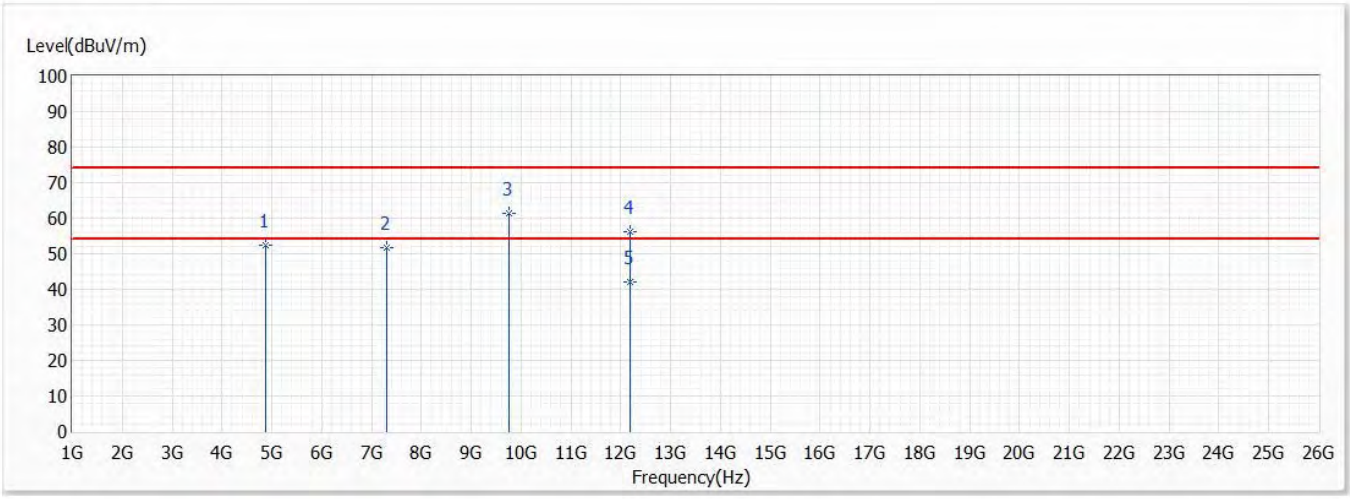
2. “ * ”, means this data is the worst value.

3.Emission Level = Reading Level + Correct Factor.

4.The average measurement was not performed when the peak measured data under the limit of average detection.

5.The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

Model No	EBM522U	Site	CB4-H
Test Voltage	AC 120/60Hz	Test Date	2021/5/7
Test Mode	Mode 1: Transmit_Non-BF_EBM522U	Engineer	Scott Chang
Polarity	Horizontal	Temperature (℃)	25.2
Test Condition	802.11g,Ant0+1,Ch 6,2.437G,BW20M (MSA-C1500CS12.0-18G-US)	Humidity (%RH)	58.0



No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	4874.000	52.36	74.00	-21.64	53.76	-1.40	PK
2	7311.000	51.84	74.00	-22.16	45.60	6.24	PK
3	9748.000	61.33	74.00	-12.67	49.69	11.64	PK
4	12185.000	56.32	74.00	-17.68	42.76	13.56	PK
* 5	12185.000	42.24	54.00	-11.76	28.68	13.56	AV

Note:

1.All reading above 1GHz is performed with peak and/or average measurements as necessary.

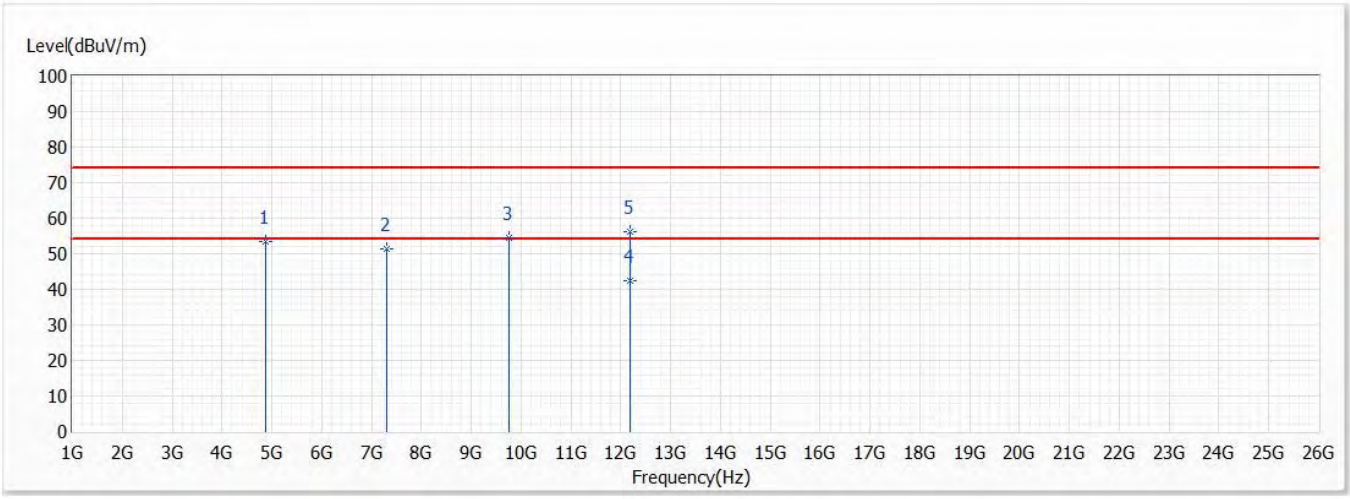
2. “ * ”, means this data is the worst value.

3.Emission Level = Reading Level + Correct Factor.

4.The average measurement was not performed when the peak measured data under the limit of average detection.

5.The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

Model No	EBM522U	Site	CB4-H
Test Voltage	AC 120/60Hz	Test Date	2021/5/7
Test Mode	Mode 1: Transmit_Non-BF_EBM522U	Engineer	Scott Chang
Polarity	Vertical	Temperature (℃)	25.2
Test Condition	802.11g,Ant0+1,Ch 6,2.437G,BW20M (MSA-C1500CS12.0-18G-US)	Humidity (%RH)	58.0



No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	4874.000	53.49	74.00	-20.51	54.89	-1.40	PK
2	7311.000	51.55	74.00	-22.45	45.31	6.24	PK
3	9748.000	54.42	74.00	-19.58	42.78	11.64	PK
* 4	12185.000	42.44	54.00	-11.56	28.88	13.56	AV
5	12185.000	56.35	74.00	-17.65	42.79	13.56	PK

Note:

1.All reading above 1GHz is performed with peak and/or average measurements as necessary.

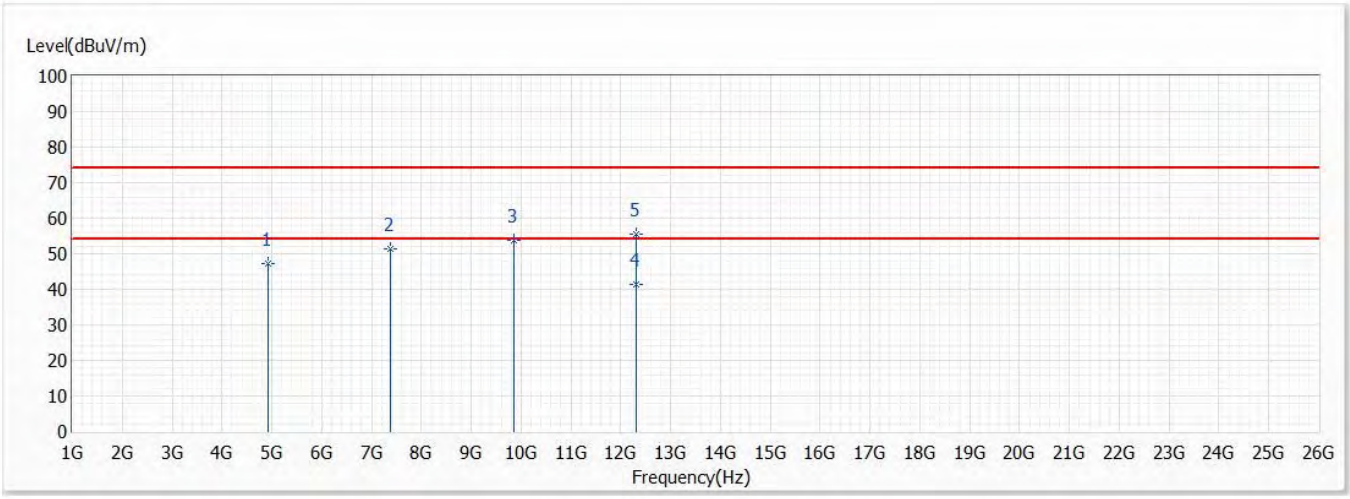
2. “ * ”, means this data is the worst value.

3.Emission Level = Reading Level + Correct Factor.

4.The average measurement was not performed when the peak measured data under the limit of average detection.

5.The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

Model No	EBM522U	Site	CB4-H
Test Voltage	AC 120/60Hz	Test Date	2021/5/7
Test Mode	Mode 1: Transmit_Non-BF_EBM522U	Engineer	Scott Chang
Polarity	Horizontal	Temperature (℃)	25.2
Test Condition	802.11g,Ant0+1,Ch 11,2.462G,BW20M (MSA-C1500CS12.0-18G-US)	Humidity (%RH)	58.0



No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	4924.000	47.18	74.00	-26.82	48.49	-1.31	PK
2	7386.000	51.23	74.00	-22.77	44.74	6.49	PK
3	9848.000	53.96	74.00	-20.04	41.93	12.03	PK
* 4	12310.000	41.52	54.00	-12.48	28.09	13.43	AV
5	12310.000	55.64	74.00	-18.36	42.21	13.43	PK

Note:

1.All reading above 1GHz is performed with peak and/or average measurements as necessary.

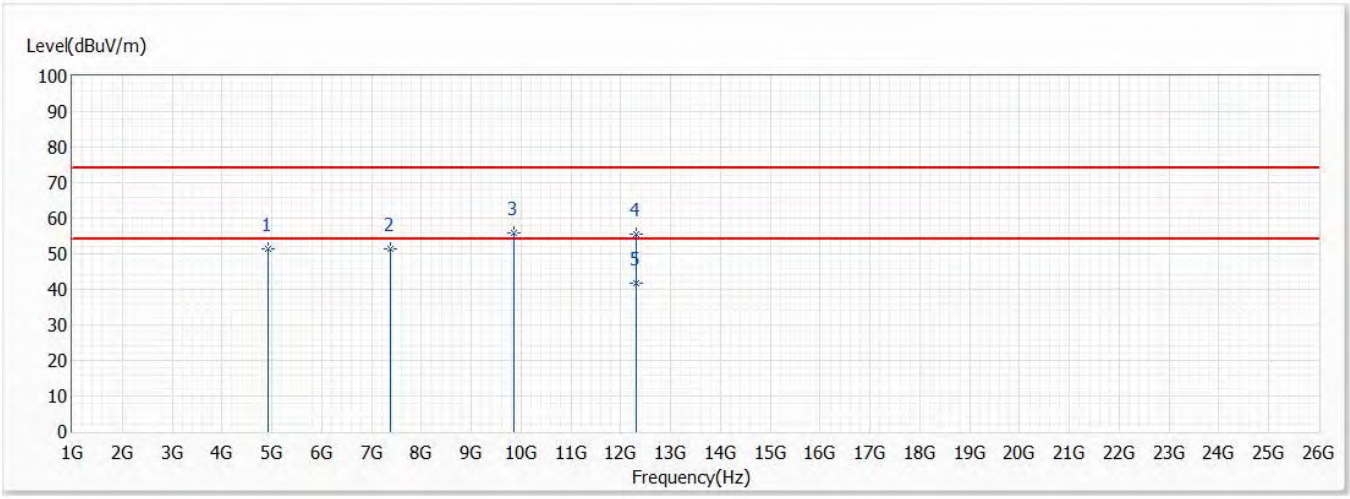
2. “ * ”, means this data is the worst value.

3.Emission Level = Reading Level + Correct Factor.

4.The average measurement was not performed when the peak measured data under the limit of average detection.

5.The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

Model No	EBM522U	Site	CB4-H
Test Voltage	AC 120/60Hz	Test Date	2021/5/7
Test Mode	Mode 1: Transmit_Non-BF_EBM522U	Engineer	Scott Chang
Polarity	Vertical	Temperature (℃)	25.2
Test Condition	802.11g,Ant0+1,Ch 11,2.462G,BW20M (MSA-C1500CS12.0-18G-US)	Humidity (%RH)	58.0



No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	4924.000	51.22	74.00	-22.78	52.53	-1.31	PK
2	7386.000	51.23	74.00	-22.77	44.74	6.49	PK
3	9848.000	55.73	74.00	-18.27	43.70	12.03	PK
4	12310.000	55.38	74.00	-18.62	41.95	13.43	PK
* 5	12310.000	41.87	54.00	-12.13	28.44	13.43	AV

Note:

1.All reading above 1GHz is performed with peak and/or average measurements as necessary.

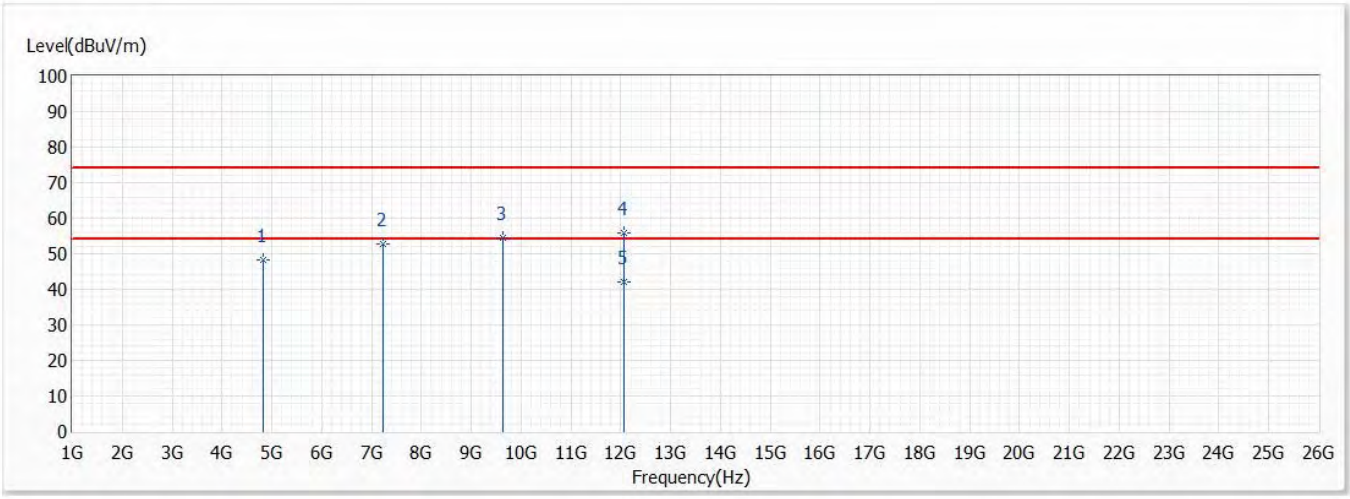
2. “ * ”, means this data is the worst value.

3.Emission Level = Reading Level + Correct Factor.

4.The average measurement was not performed when the peak measured data under the limit of average detection.

5.The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

Model No	EBM522U	Site	CB4-H
Test Voltage	AC 120/60Hz	Test Date	2021/5/7
Test Mode	Mode 1: Transmit_Non-BF_EBM522U	Engineer	Scott Chang
Polarity	Horizontal	Temperature (℃)	25.2
Test Condition	802.11ax,Ant0+1,Ch 1,2.412G,BW20M (MSA-C1500CS12.0-18G-US)	Humidity (%RH)	58.0



No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	4824.000	48.33	74.00	-25.67	49.77	-1.44	PK
2	7236.000	52.72	74.00	-21.28	46.33	6.39	PK
3	9648.000	54.37	74.00	-19.63	42.89	11.48	PK
4	12060.000	55.93	74.00	-18.07	42.40	13.53	PK
* 5	12060.000	41.98	54.00	-12.02	28.45	13.53	AV

Note:

1.All reading above 1GHz is performed with peak and/or average measurements as necessary.

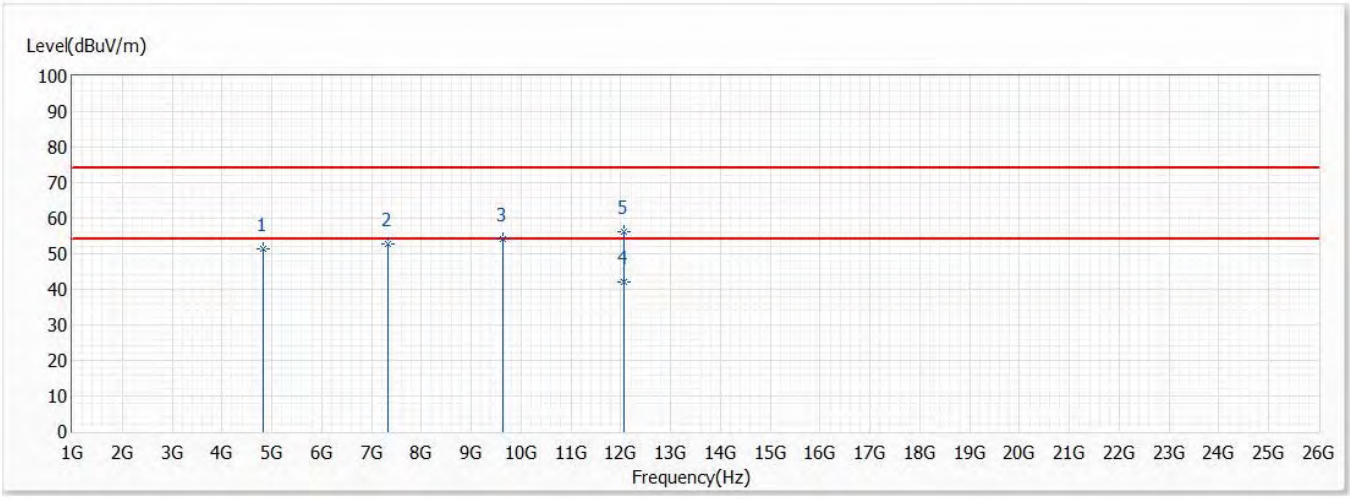
2. “ * ”, means this data is the worst value.

3.Emission Level = Reading Level + Correct Factor.

4.The average measurement was not performed when the peak measured data under the limit of average detection.

5.The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

Model No	EBM522U	Site	CB4-H
Test Voltage	AC 120/60Hz	Test Date	2021/5/7
Test Mode	Mode 1: Transmit_Non-BF_EBM522U	Engineer	Scott Chang
Polarity	Vertical	Temperature (℃)	25.2
Test Condition	802.11ax,Ant0+1,Ch 1,2.412G,BW20M (MSA-C1500CS12.0-18G-US)	Humidity (%RH)	58.0



No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	4824.000	51.23	74.00	-22.77	52.67	-1.44	PK
2	7326.000	52.87	74.00	-21.13	46.63	6.24	PK
3	9648.000	54.18	74.00	-19.82	42.70	11.48	PK
* 4	12060.000	42.13	54.00	-11.87	28.60	13.53	AV
5	12060.000	56.08	74.00	-17.92	42.55	13.53	PK

Note:

1.All reading above 1GHz is performed with peak and/or average measurements as necessary.

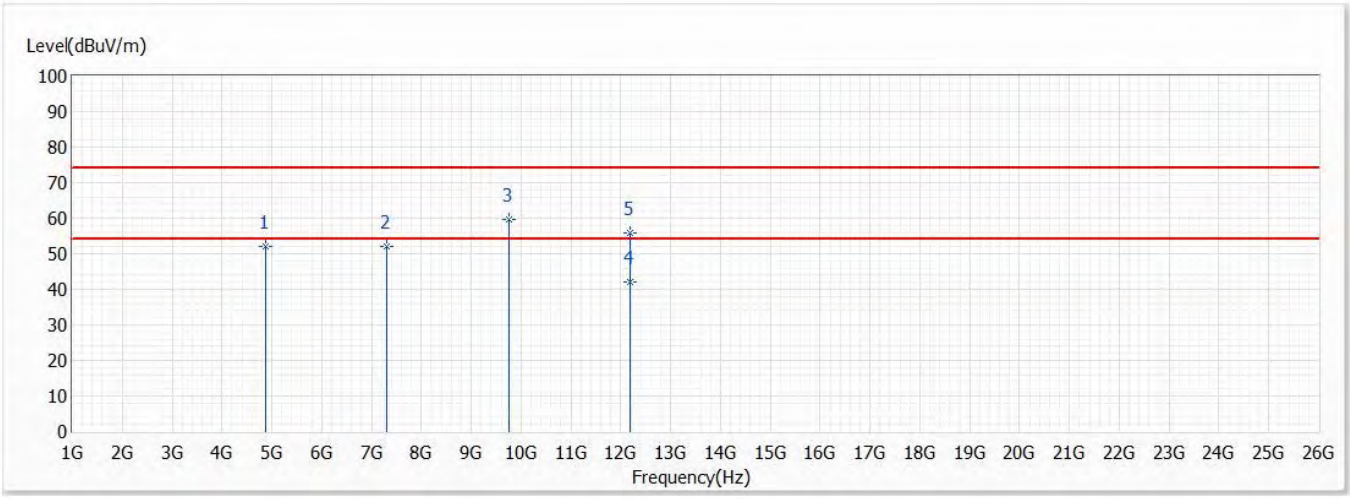
2. “ * ”, means this data is the worst value.

3.Emission Level = Reading Level + Correct Factor.

4.The average measurement was not performed when the peak measured data under the limit of average detection.

5.The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

Model No	EBM522U	Site	CB4-H
Test Voltage	AC 120/60Hz	Test Date	2021/5/7
Test Mode	Mode 1: Transmit_Non-BF_EBM522U	Engineer	Scott Chang
Polarity	Horizontal	Temperature (℃)	25.2
Test Condition	802.11ax,Ant0+1,Ch 6,2.437G,BW20M (MSA-C1500CS12.0-18G-US)	Humidity (%RH)	58.0



No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	4874.000	52.11	74.00	-21.89	53.51	-1.40	PK
2	7311.000	52.13	74.00	-21.87	45.89	6.24	PK
3	9748.000	59.55	74.00	-14.45	47.91	11.64	PK
* 4	12185.000	42.13	54.00	-11.87	28.57	13.56	AV
5	12185.000	56.01	74.00	-17.99	42.45	13.56	PK

Note:

1.All reading above 1GHz is performed with peak and/or average measurements as necessary.

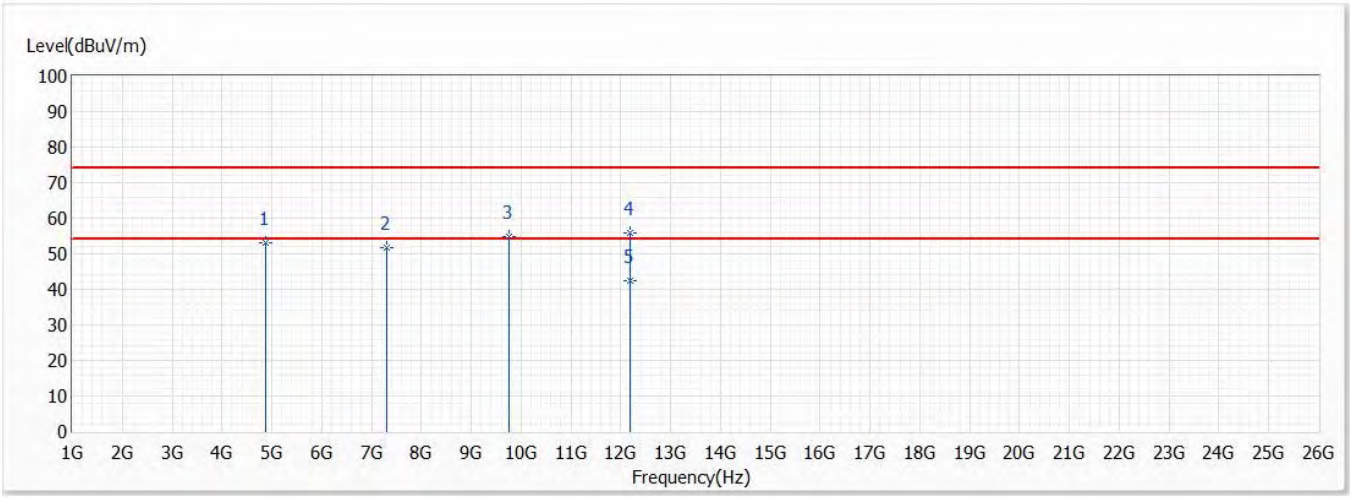
2. “ * ”, means this data is the worst value.

3.Emission Level = Reading Level + Correct Factor.

4.The average measurement was not performed when the peak measured data under the limit of average detection.

5.The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

Model No	EBM522U	Site	CB4-H
Test Voltage	AC 120/60Hz	Test Date	2021/5/7
Test Mode	Mode 1: Transmit_Non-BF_EBM522U	Engineer	Scott Chang
Polarity	Vertical	Temperature (℃)	25.2
Test Condition	802.11ax,Ant0+1,Ch 6,2.437G,BW20M (MSA-C1500CS12.0-18G-US)	Humidity (%RH)	58.0



No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	4874.000	53.26	74.00	-20.74	54.66	-1.40	PK
2	7311.000	51.63	74.00	-22.37	45.39	6.24	PK
3	9748.000	54.74	74.00	-19.26	43.10	11.64	PK
4	12185.000	55.80	74.00	-18.20	42.24	13.56	PK
* 5	12185.000	42.34	54.00	-11.66	28.78	13.56	AV

Note:

1.All reading above 1GHz is performed with peak and/or average measurements as necessary.

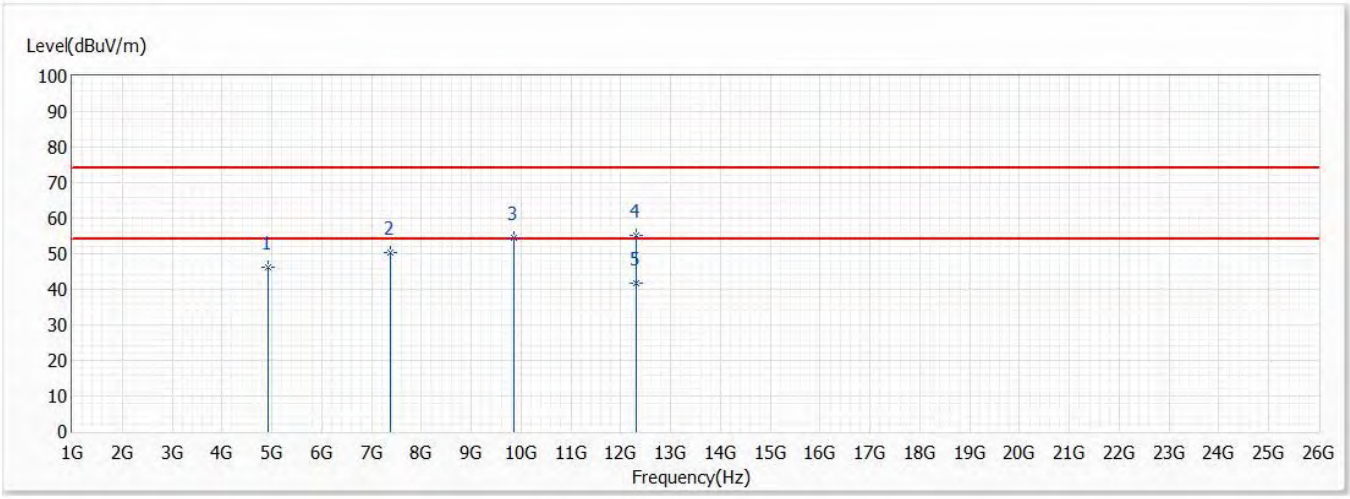
2. “ * ”, means this data is the worst value.

3.Emission Level = Reading Level + Correct Factor.

4.The average measurement was not performed when the peak measured data under the limit of average detection.

5.The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

Model No	EBM522U	Site	CB4-H
Test Voltage	AC 120/60Hz	Test Date	2021/5/7
Test Mode	Mode 1: Transmit_Non-BF_EBM522U	Engineer	Scott Chang
Polarity	Horizontal	Temperature (℃)	25.2
Test Condition	802.11ax,Ant0+1,Ch 11,2.462G,BW20M (MSA-C1500CS12.0-18G-US)	Humidity (%RH)	58.0



No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	4924.000	46.13	74.00	-27.87	47.44	-1.31	PK
2	7386.000	50.22	74.00	-23.78	43.73	6.49	PK
3	9848.000	54.55	74.00	-19.45	42.52	12.03	PK
4	12310.000	55.24	74.00	-18.76	41.81	13.43	PK
* 5	12310.000	41.85	54.00	-12.15	28.42	13.43	AV

Note:

1.All reading above 1GHz is performed with peak and/or average measurements as necessary.

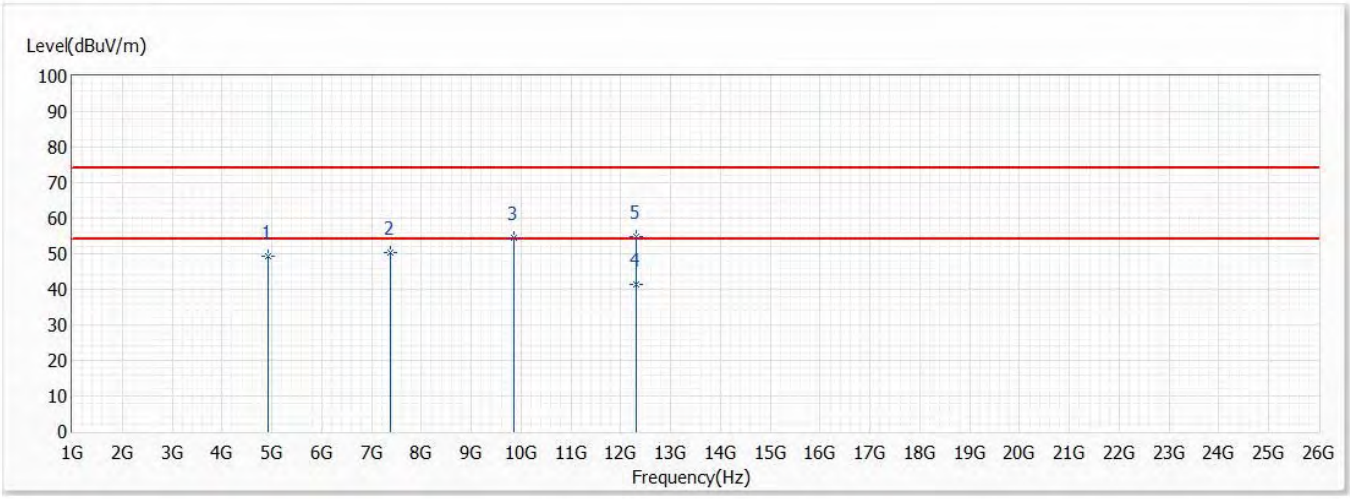
2. “ * ”, means this data is the worst value.

3.Emission Level = Reading Level + Correct Factor.

4.The average measurement was not performed when the peak measured data under the limit of average detection.

5.The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

Model No	EBM522U	Site	CB4-H
Test Voltage	AC 120/60Hz	Test Date	2021/5/7
Test Mode	Mode 1: Transmit_Non-BF_EBM522U	Engineer	Scott Chang
Polarity	Vertical	Temperature (℃)	25.2
Test Condition	802.11ax,Ant0+1,Ch 11,2.462G,BW20M (MSA-C1500CS12.0-18G-US)	Humidity (%RH)	58.0



No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	4924.000	49.38	74.00	-24.62	50.69	-1.31	PK
2	7386.000	50.21	74.00	-23.79	43.72	6.49	PK
3	9848.000	54.63	74.00	-19.37	42.60	12.03	PK
* 4	12310.000	41.33	54.00	-12.67	27.90	13.43	AV
5	12310.000	54.82	74.00	-19.18	41.39	13.43	PK

Note:

1.All reading above 1GHz is performed with peak and/or average measurements as necessary.

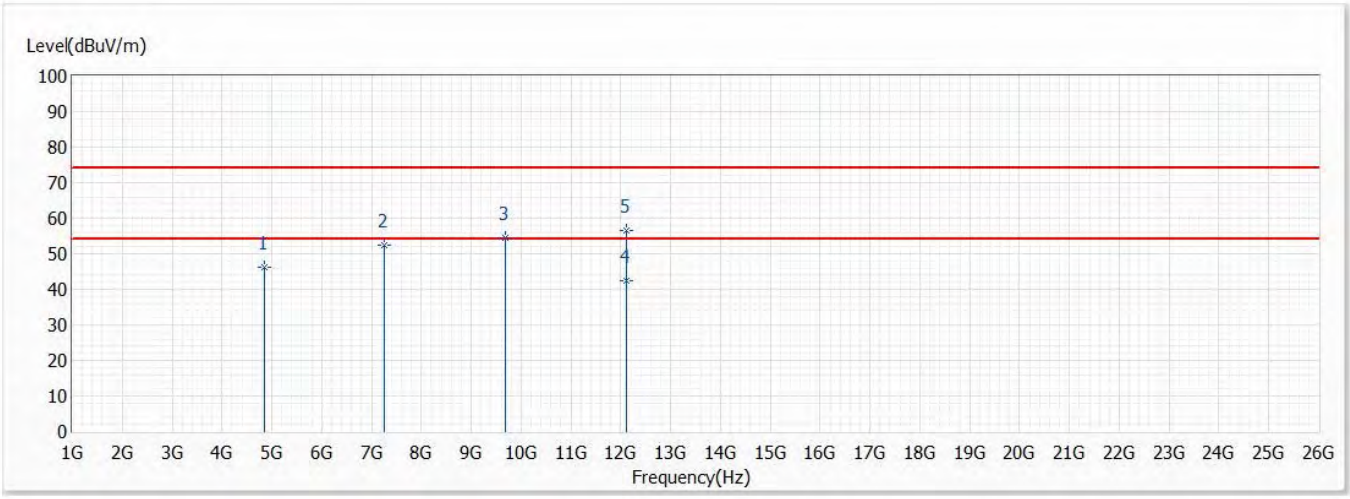
2. “ * ”, means this data is the worst value.

3.Emission Level = Reading Level + Correct Factor.

4.The average measurement was not performed when the peak measured data under the limit of average detection.

5.The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

Model No	EBM522U	Site	CB4-H
Test Voltage	AC 120/60Hz	Test Date	2021/5/7
Test Mode	Mode 1: Transmit_Non-BF_EBM522U	Engineer	Scott Chang
Polarity	Horizontal	Temperature (℃)	25.2
Test Condition	802.11ax,Ant0+1,Ch 3,2.422G,BW40M (MSA-C1500CS12.0-18G-US)	Humidity (%RH)	58.0



No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	4844.000	46.12	74.00	-27.88	47.52	-1.40	PK
2	7266.000	52.45	74.00	-21.55	46.06	6.39	PK
3	9688.000	54.57	74.00	-19.43	43.07	11.50	PK
* 4	12110.000	42.37	54.00	-11.63	28.75	13.62	AV
5	12110.000	56.44	74.00	-17.56	42.82	13.62	PK

Note:

1.All reading above 1GHz is performed with peak and/or average measurements as necessary.

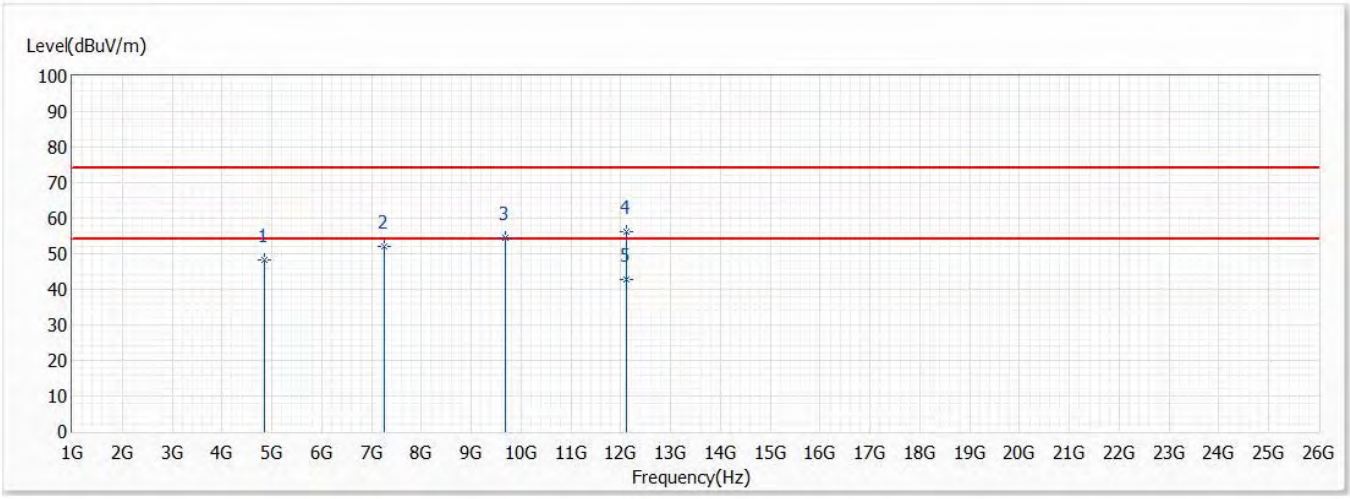
2. “ * ”, means this data is the worst value.

3.Emission Level = Reading Level + Correct Factor.

4.The average measurement was not performed when the peak measured data under the limit of average detection.

5.The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

Model No	EBM522U	Site	CB4-H
Test Voltage	AC 120/60Hz	Test Date	2021/5/7
Test Mode	Mode 1: Transmit_Non-BF_EBM522U	Engineer	Scott Chang
Polarity	Vertical	Temperature (℃)	25.2
Test Condition	802.11ax,Ant0+1,Ch 3,2.422G,BW40M (MSA-C1500CS12.0-18G-US)	Humidity (%RH)	58.0



No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	4844.000	48.11	74.00	-25.89	49.51	-1.40	PK
2	7266.000	51.98	74.00	-22.02	45.59	6.39	PK
3	9688.000	54.33	74.00	-19.67	42.83	11.50	PK
4	12110.000	56.36	74.00	-17.64	42.74	13.62	PK
* 5	12110.000	42.84	54.00	-11.16	29.22	13.62	AV

Note:

1.All reading above 1GHz is performed with peak and/or average measurements as necessary.

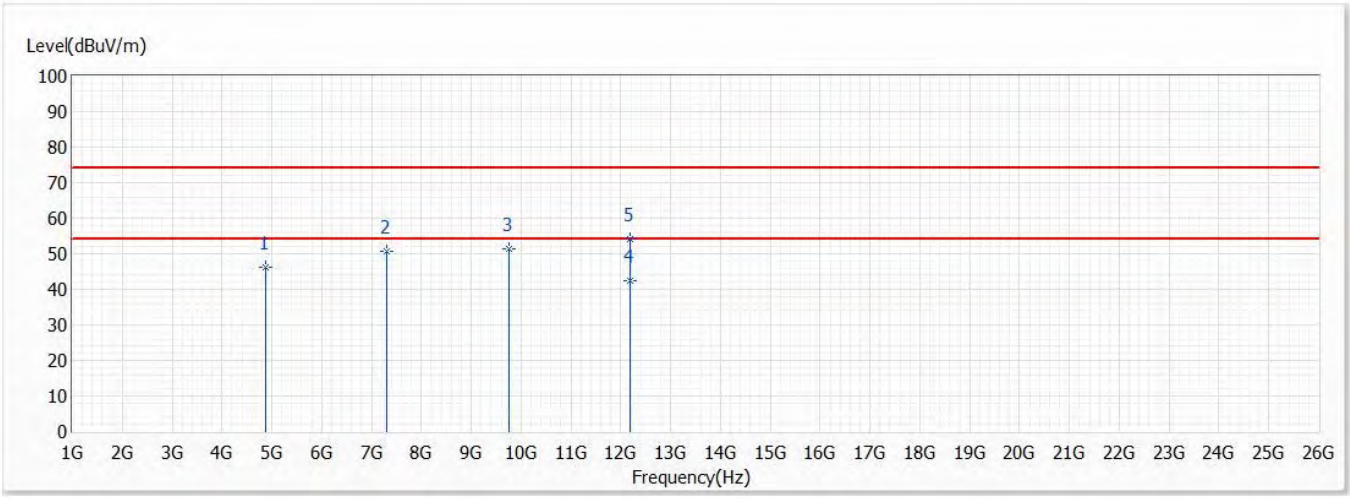
2. “ * ”, means this data is the worst value.

3.Emission Level = Reading Level + Correct Factor.

4.The average measurement was not performed when the peak measured data under the limit of average detection.

5.The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

Model No	EBM522U	Site	CB4-H
Test Voltage	AC 120/60Hz	Test Date	2021/5/7
Test Mode	Mode 1: Transmit_Non-BF_EBM522U	Engineer	Scott Chang
Polarity	Horizontal	Temperature (℃)	25.2
Test Condition	802.11ax,Ant0+1,Ch 6,2.437G,BW40M (MSA-C1500CS12.0-18G-US)	Humidity (%RH)	58.0



No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	4874.000	46.21	74.00	-27.79	47.61	-1.40	PK
2	7311.000	50.63	74.00	-23.37	44.39	6.24	PK
3	9748.000	51.22	74.00	-22.78	39.58	11.64	PK
* 4	12185.000	42.25	54.00	-11.75	28.69	13.56	AV
5	12185.000	54.23	74.00	-19.77	40.67	13.56	PK

Note:

1.All reading above 1GHz is performed with peak and/or average measurements as necessary.

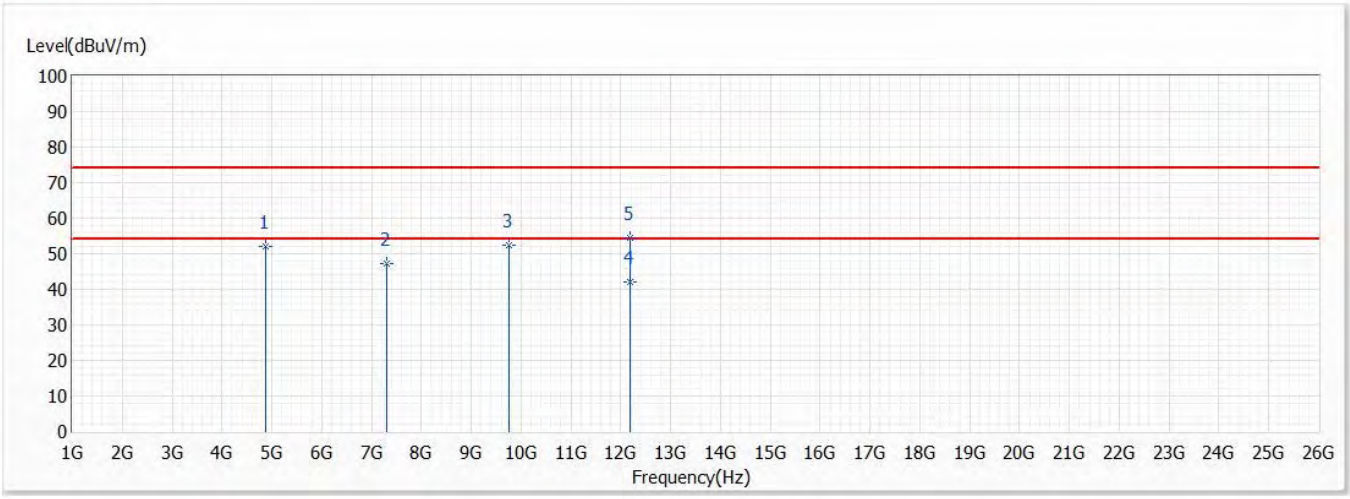
2. “ * ”, means this data is the worst value.

3.Emission Level = Reading Level + Correct Factor.

4.The average measurement was not performed when the peak measured data under the limit of average detection.

5.The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

Model No	EBM522U	Site	CB4-H
Test Voltage	AC 120/60Hz	Test Date	2021/5/7
Test Mode	Mode 1: Transmit_Non-BF_EBM522U	Engineer	Scott Chang
Polarity	Vertical	Temperature (℃)	25.2
Test Condition	802.11ax,Ant0+1,Ch 6,2.437G,BW40M (MSA-C1500CS12.0-18G-US)	Humidity (%RH)	58.0



No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	4874.000	52.21	74.00	-21.79	53.61	-1.40	PK
2	7311.000	47.35	74.00	-26.65	41.11	6.24	PK
3	9748.000	52.36	74.00	-21.64	40.72	11.64	PK
* 4	12185.000	42.18	54.00	-11.82	28.62	13.56	AV
5	12185.000	54.63	74.00	-19.37	41.07	13.56	PK

Note:

1.All reading above 1GHz is performed with peak and/or average measurements as necessary.

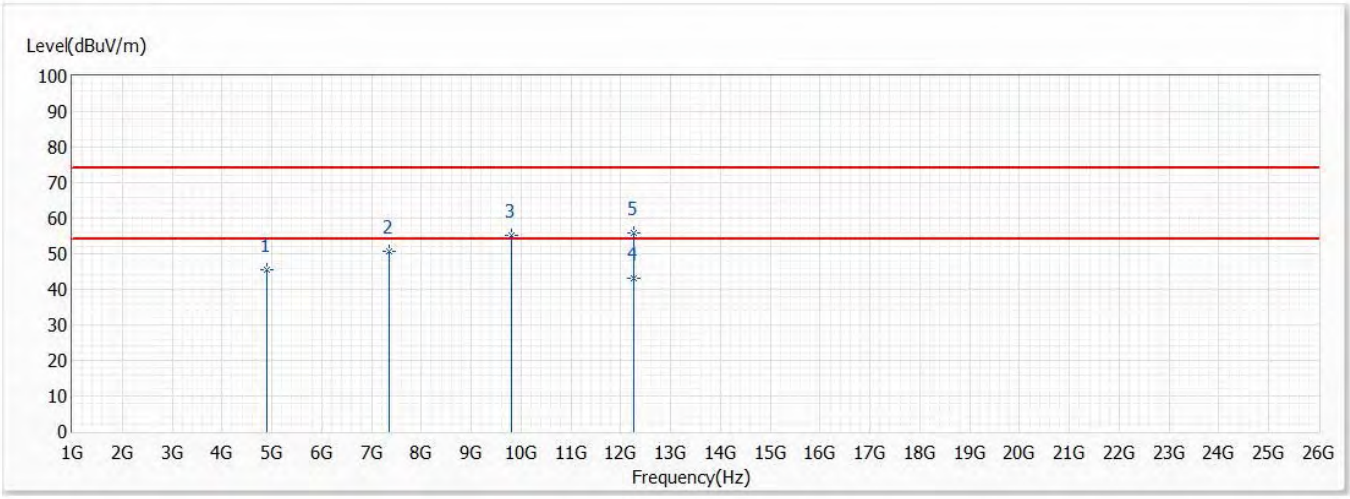
2. “ * ”, means this data is the worst value.

3.Emission Level = Reading Level + Correct Factor.

4.The average measurement was not performed when the peak measured data under the limit of average detection.

5.The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

Model No	EBM522U	Site	CB4-H
Test Voltage	AC 120/60Hz	Test Date	2021/5/7
Test Mode	Mode 1: Transmit_Non-BF_EBM522U	Engineer	Scott Chang
Polarity	Horizontal	Temperature (℃)	25.2
Test Condition	802.11ax,Ant0+1,Ch 9,2.452G,BW40M (MSA-C1500CS12.0-18G-US)	Humidity (%RH)	58.0



No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	4904.000	45.43	74.00	-28.57	46.82	-1.39	PK
2	7356.000	50.65	74.00	-23.35	44.39	6.26	PK
3	9808.000	55.12	74.00	-18.88	43.25	11.87	PK
* 4	12260.000	43.01	54.00	-10.99	29.50	13.51	AV
5	12260.000	55.94	74.00	-18.06	42.43	13.51	PK

Note:

1.All reading above 1GHz is performed with peak and/or average measurements as necessary.

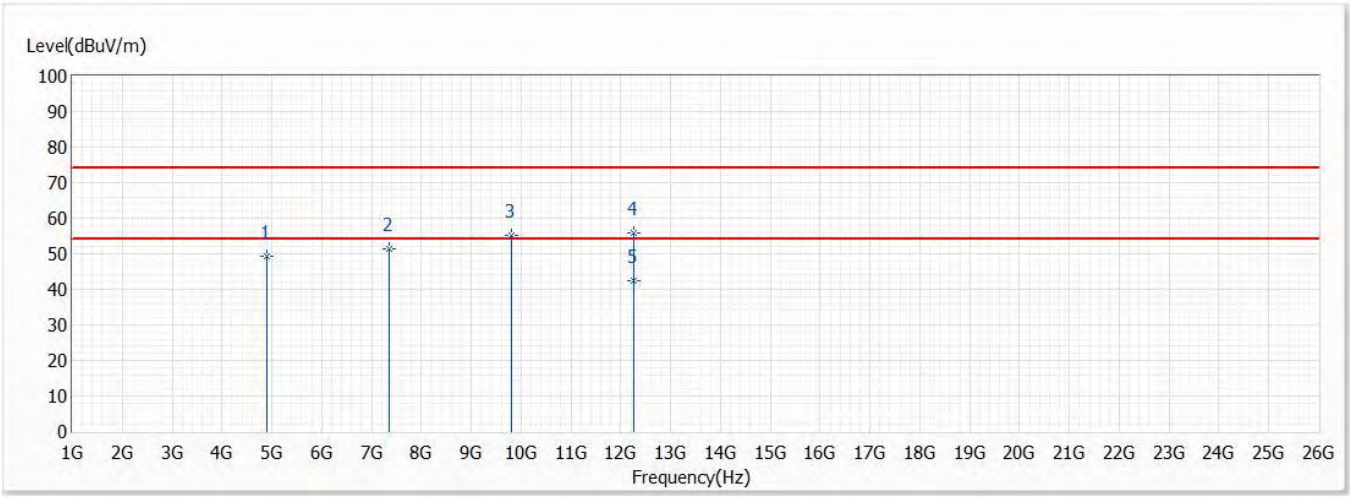
2. “ * ”, means this data is the worst value.

3.Emission Level = Reading Level + Correct Factor.

4.The average measurement was not performed when the peak measured data under the limit of average detection.

5.The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

Model No	EBM522U	Site	CB4-H
Test Voltage	AC 120/60Hz	Test Date	2021/5/7
Test Mode	Mode 1: Transmit_Non-BF_EBM522U	Engineer	Scott Chang
Polarity	Vertical	Temperature (℃)	25.2
Test Condition	802.11ax,Ant0+1,Ch 9,2.452G,BW40M (MSA-C1500CS12.0-18G-US)	Humidity (%RH)	58.0



No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	4904.000	49.38	74.00	-24.62	50.77	-1.39	PK
2	7356.000	51.54	74.00	-22.46	45.28	6.26	PK
3	9808.000	55.23	74.00	-18.77	43.36	11.87	PK
4	12260.000	55.88	74.00	-18.12	42.37	13.51	PK
* 5	12260.000	42.29	54.00	-11.71	28.78	13.51	AV

Note:

1.All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. “ * ”, means this data is the worst value.

3.Emission Level = Reading Level + Correct Factor.

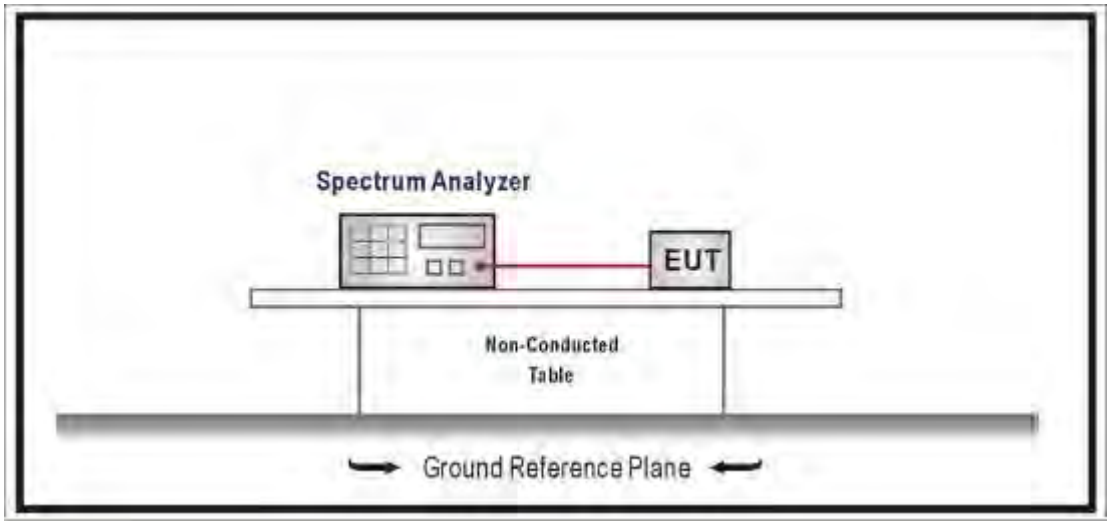
4.The average measurement was not performed when the peak measured data under the limit of average detection.

5.The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

5. RF antenna conducted test

5.1. Test Setup

RF Antenna Conducted Measurement:



5.2. Limits

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on an RF conducted or radiated measurement. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

5.3. Test Procedure

The EUT was setup according to ANSI C63.10: 2013 and tested according to DTS test procedure section 11.2 of KDB 558074 D01 v05r02 for compliance to FCC 47CFR 15.247 requirements. Set RBW = 100 kHz, Set VBW> RBW, scan up through 10th harmonic.

5.4. Test Specification

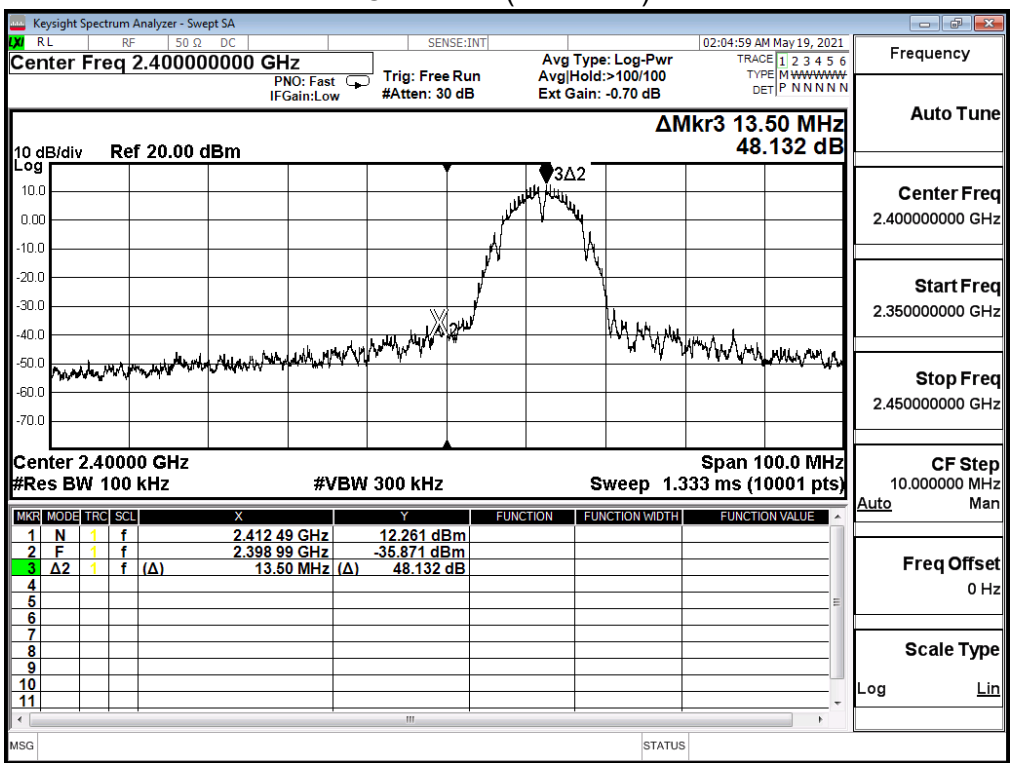
According to FCC Part 15 Subpart C Paragraph 15.247: 2019

5.5. Test Result

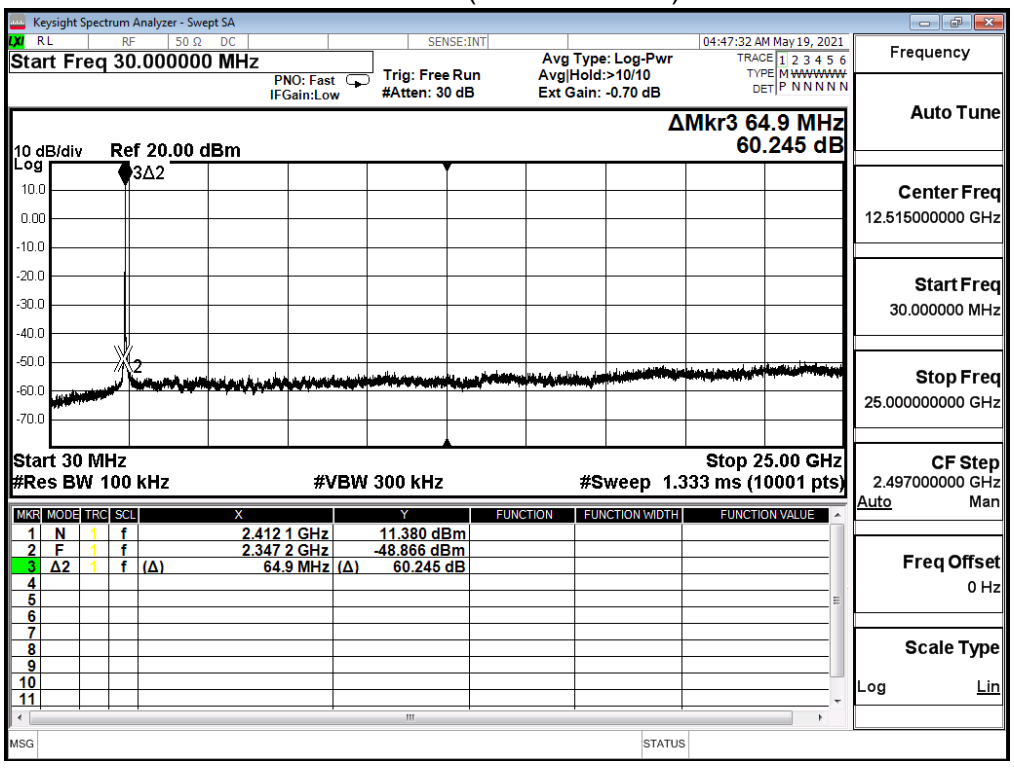
Product	Mesh Wi-Fi Router		
Test Item	RF antenna conducted test		
Test Mode	Mode 1: Transmit_Non-BF_EBM522U		
Date of Test	2021/05/19	Test Site	SR12-H
Temperature (°C)	24	Humidity (%RH)	67

IEEE 802.11b (ANT 0)				
Channel	Frequency (MHz)	Measure Level (dBc)	Limit (dBc)	Result
1	2412	48.132	≧30	Pass
6	2437	58.539	≧30	Pass
11	2462	58.414	≧30	Pass

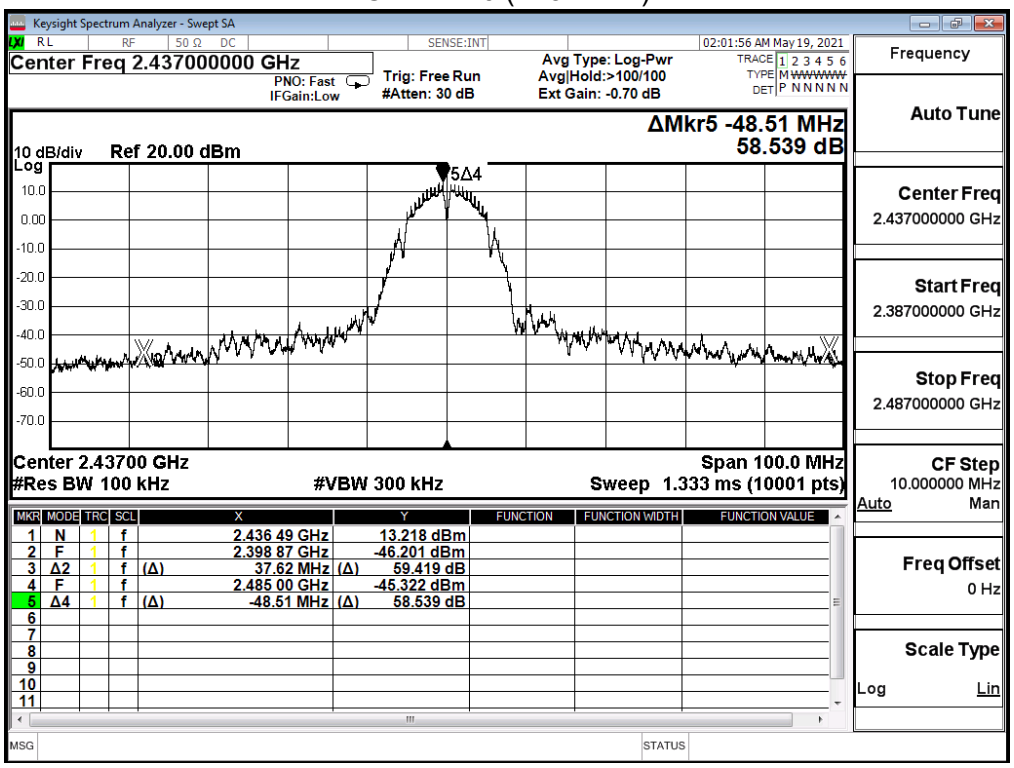
Channel 1 (2412MHz)



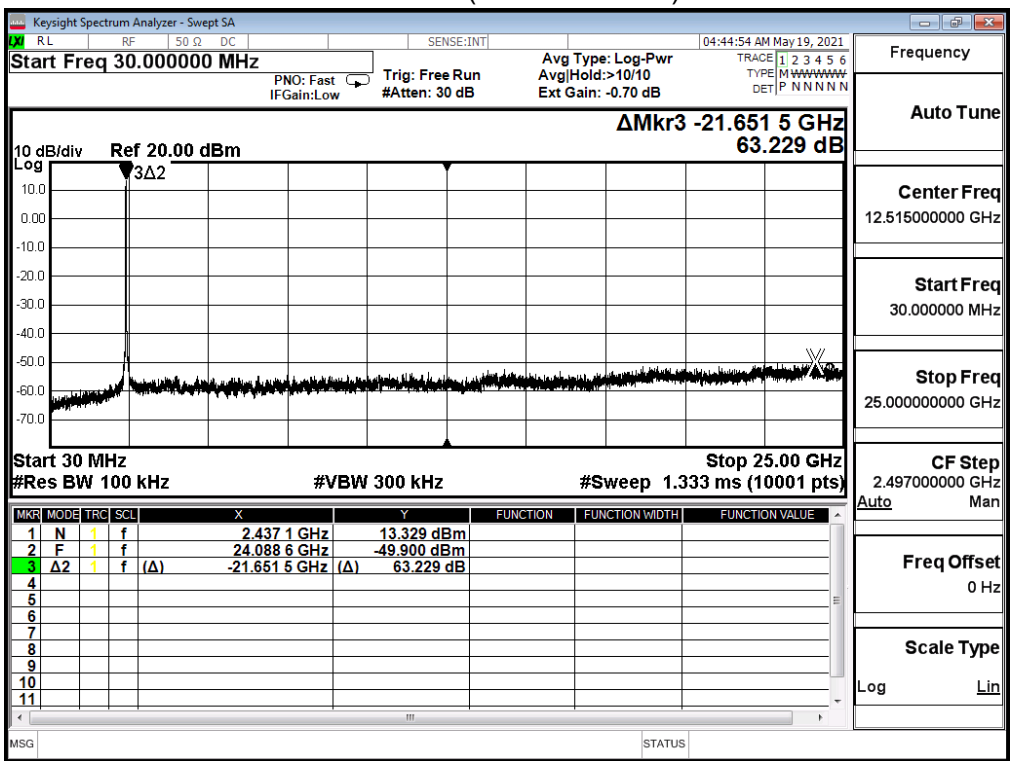
2412MHz (30MHz-25GHz)



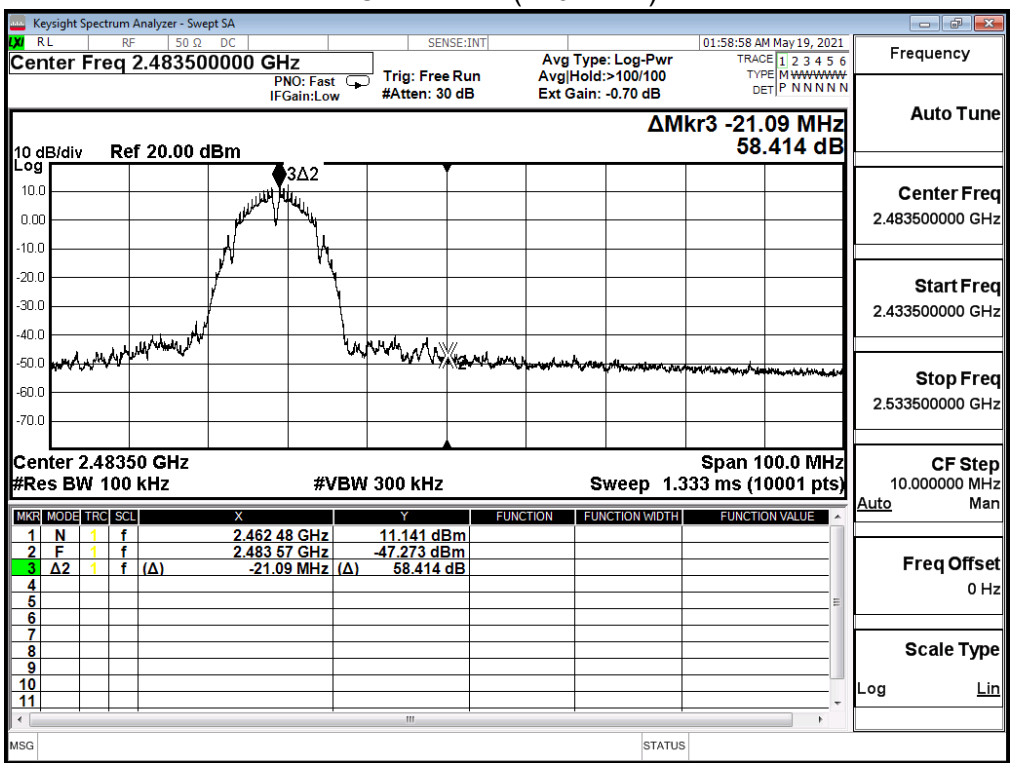
Channel 6 (2437MHz)



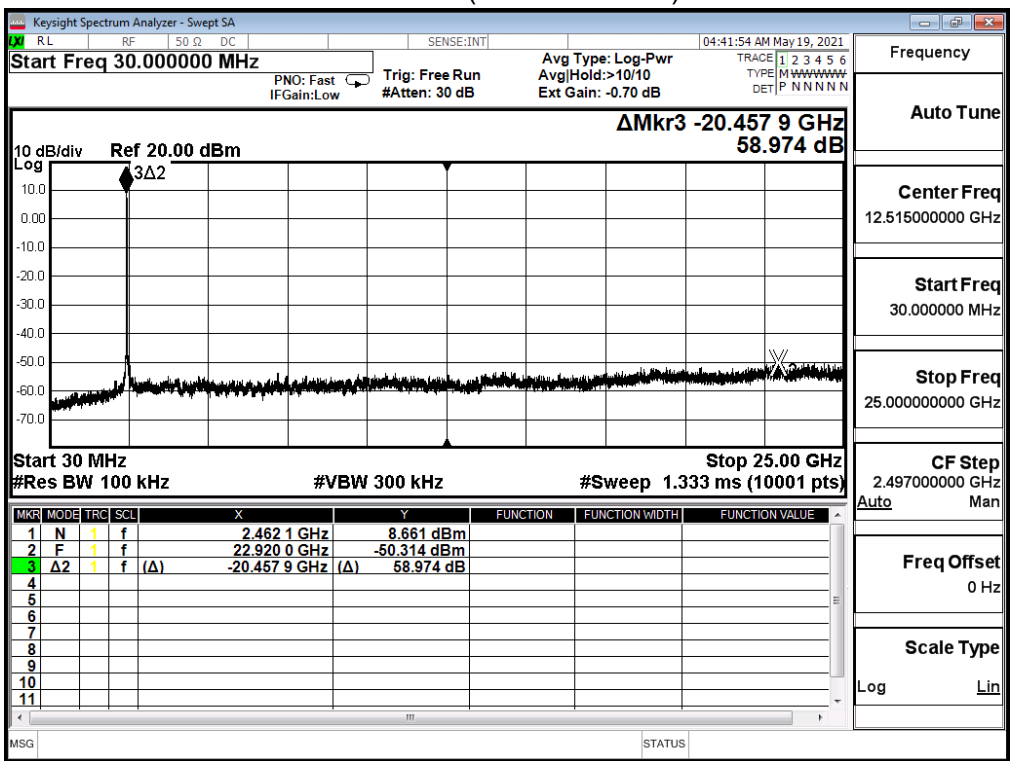
2437MHz (30MHz-25GHz)



Channel 11 (2462MHz)



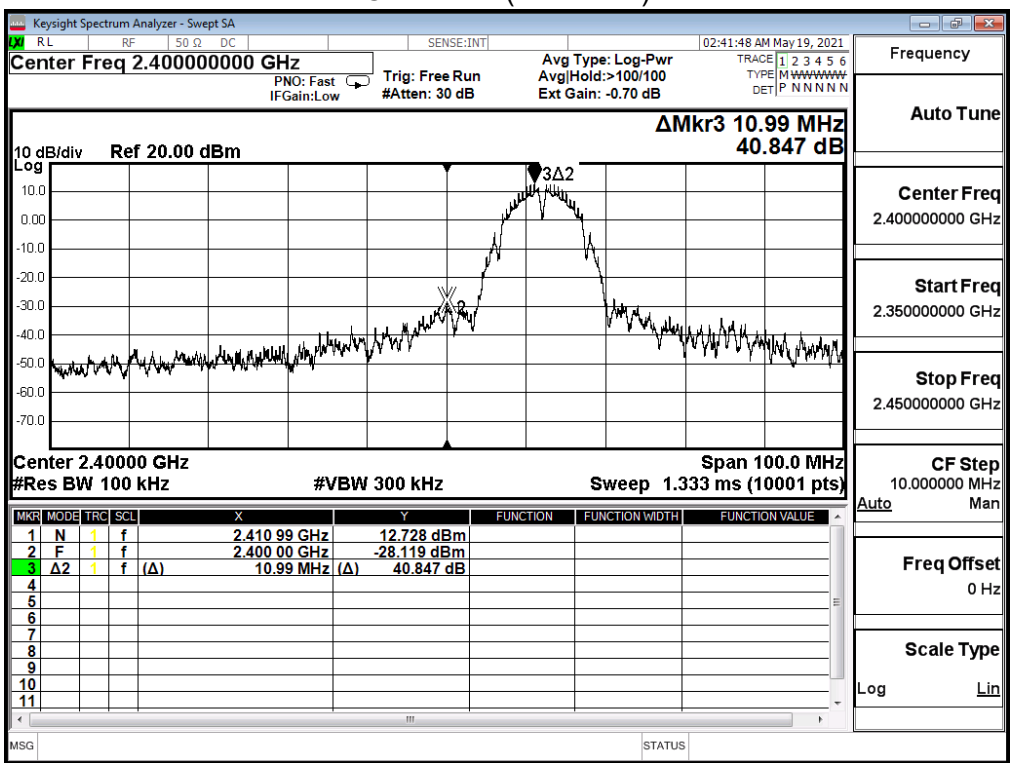
2462MHz (30MHz-25GHz)



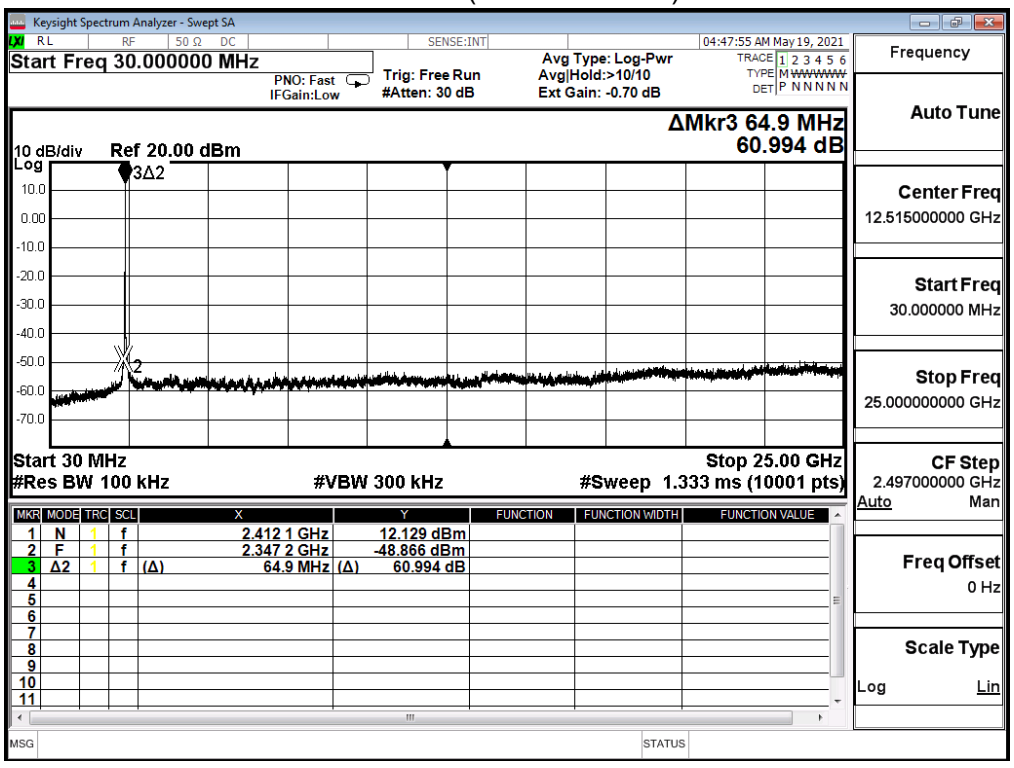
Product	Mesh Wi-Fi Router		
Test Item	RF antenna conducted test		
Test Mode	Mode 1: Transmit_Non-BF_EBM522U		
Date of Test	2021/05/19	Test Site	SR12-H
Temperature (°C)	24	Humidity (%RH)	67

IEEE 802.11b (ANT 1)				
Channel	Frequency (MHz)	Measure Level (dBc)	Limit (dBc)	Result
1	2412	40.847	≧30	Pass
6	2437	57.162	≧30	Pass
11	2462	55.414	≧30	Pass

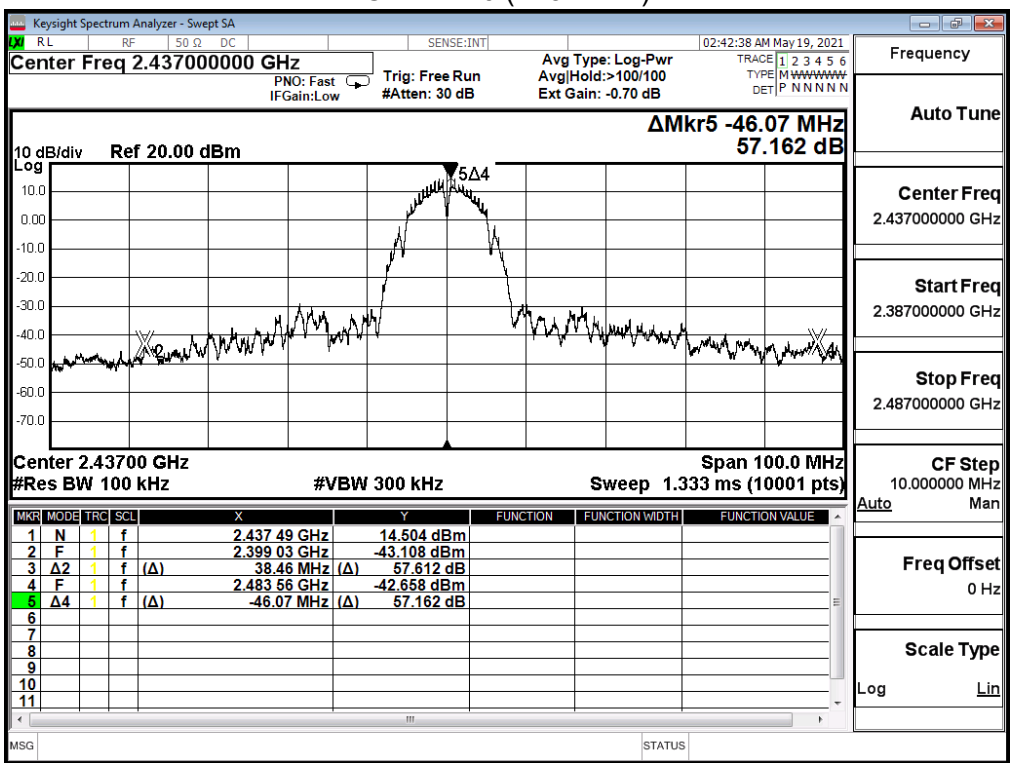
Channel 1 (2412MHz)



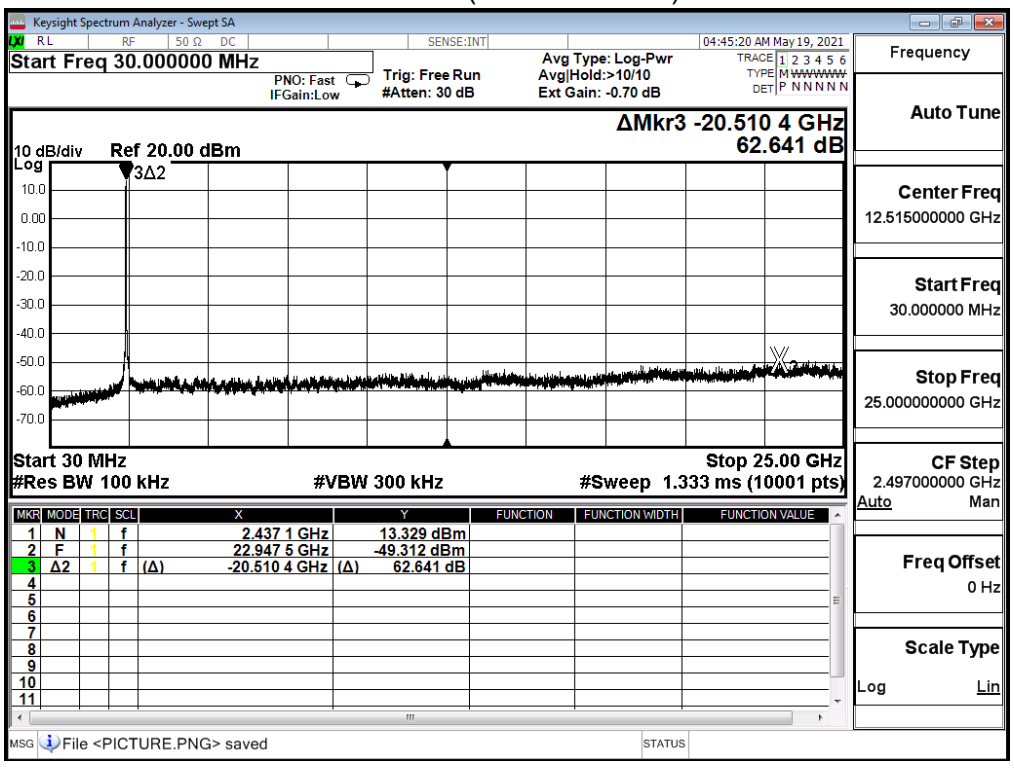
2412MHz (30MHz-25GHz)



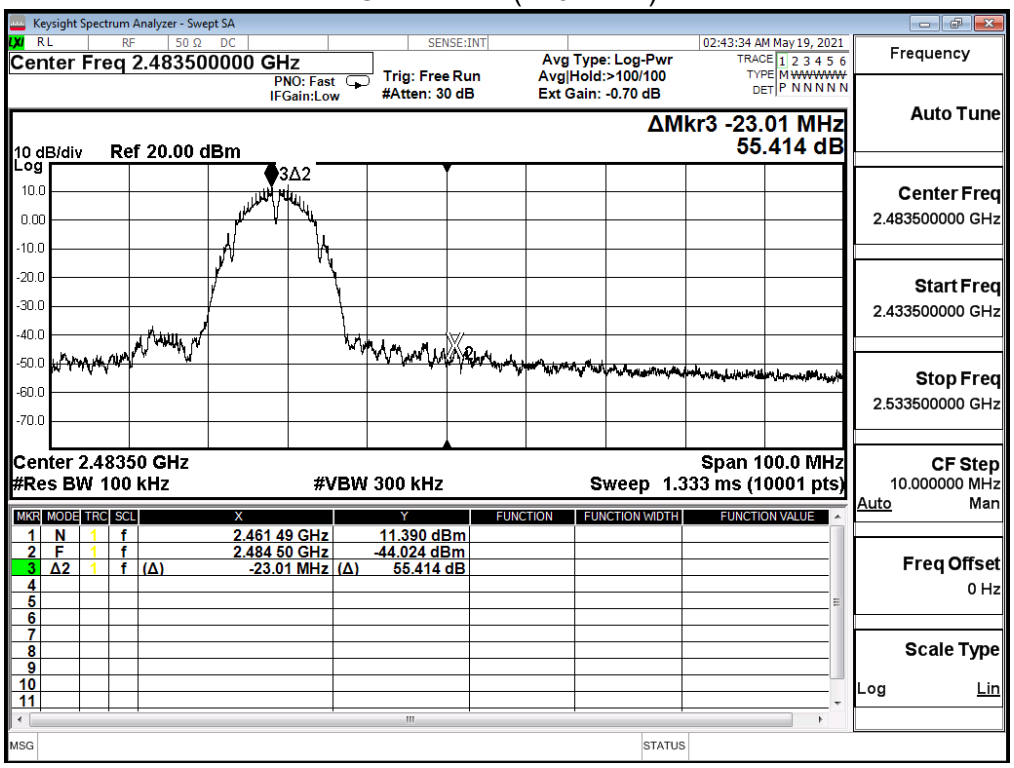
Channel 6 (2437MHz)



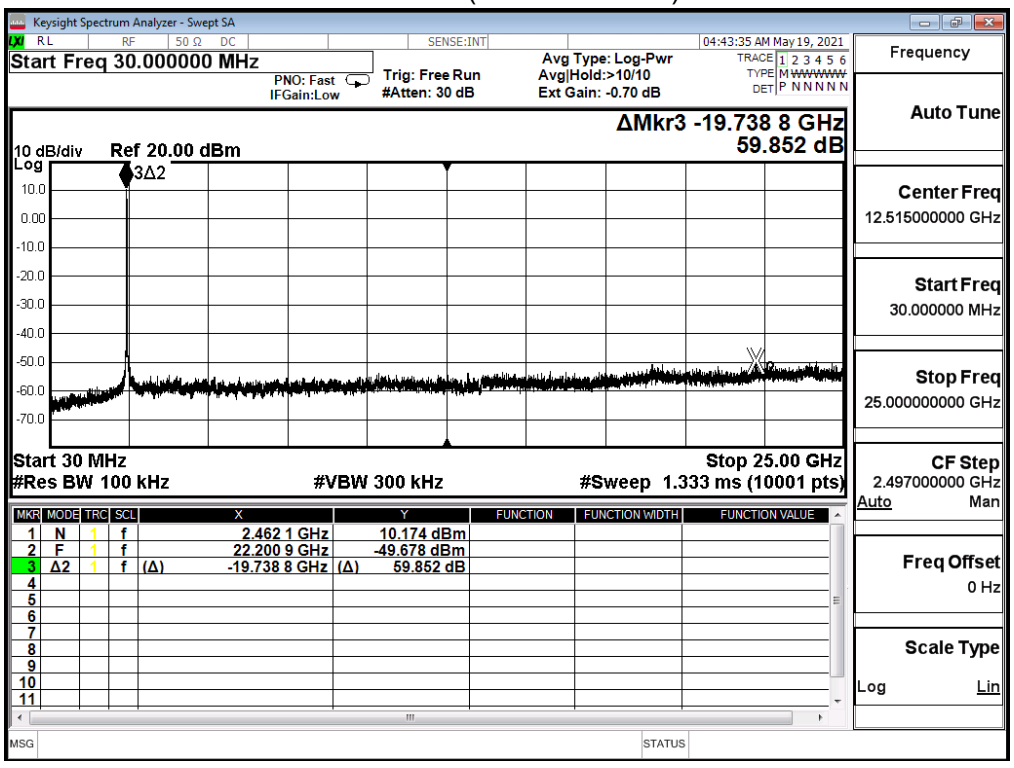
2437MHz (30MHz-25GHz)



Channel 11 (2462MHz)



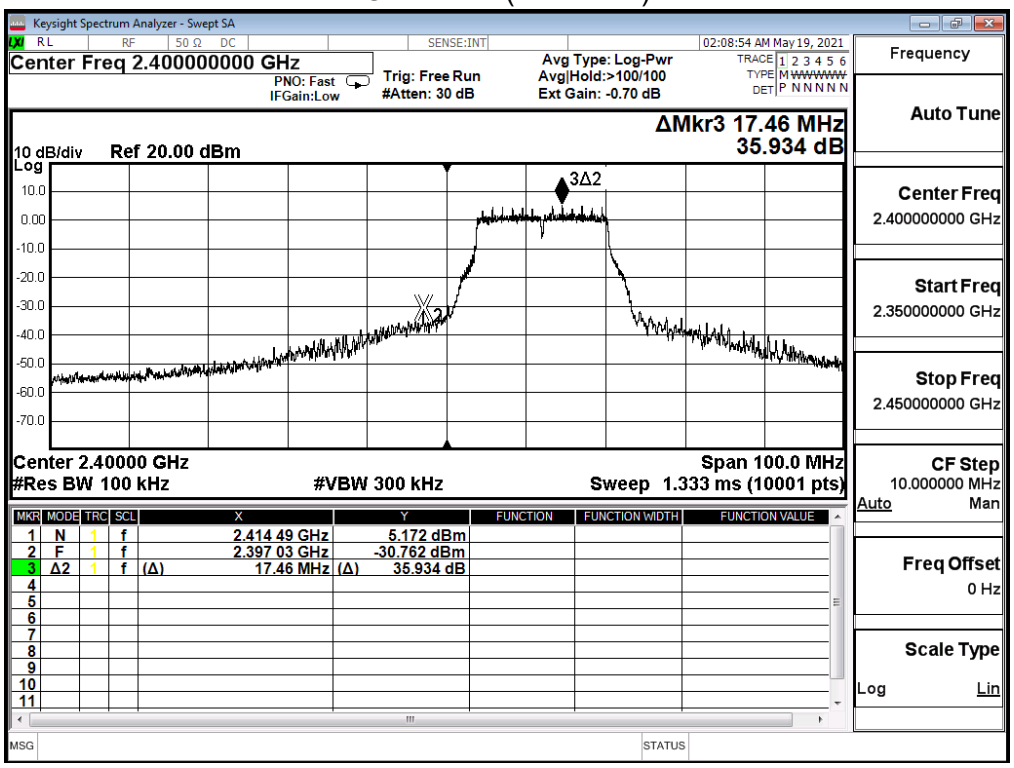
2462MHz (30MHz-25GHz)



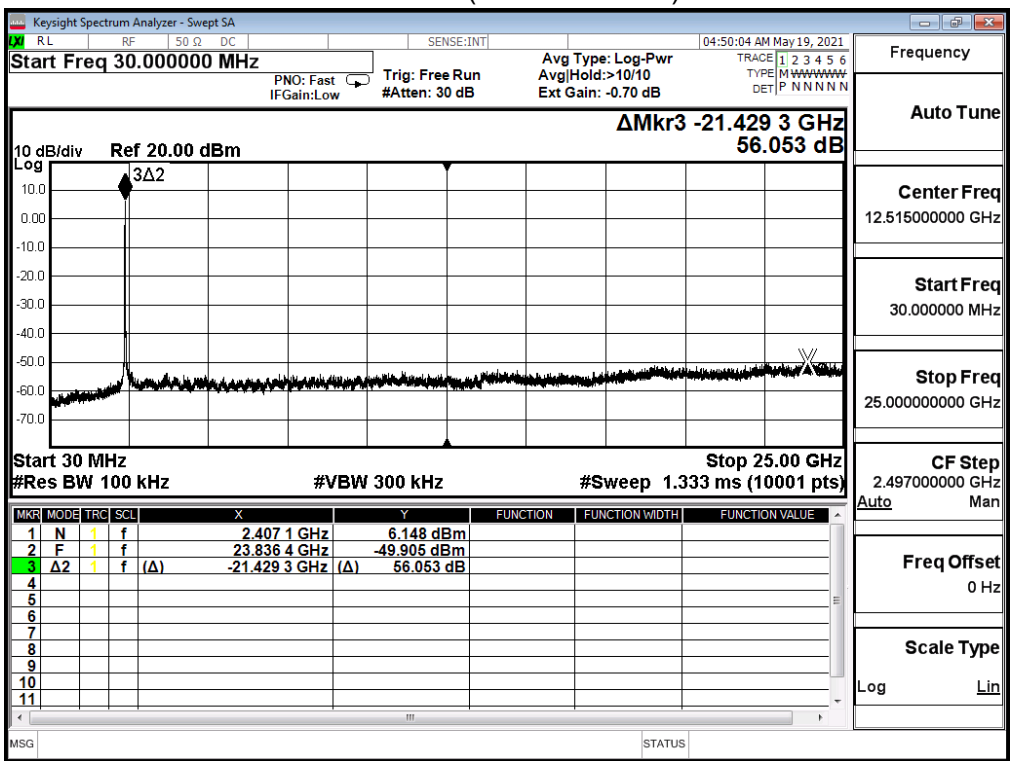
Product	Mesh Wi-Fi Router		
Test Item	RF antenna conducted test		
Test Mode	Mode 1: Transmit_Non-BF_EBM522U		
Date of Test	2021/05/19	Test Site	SR12-H
Temperature (°C)	24	Humidity (%RH)	67

IEEE 802.11g (ANT 0)				
Channel	Frequency (MHz)	Measure Level (dBc)	Limit (dBc)	Result
1	2412	35.934	≧30	Pass
6	2437	46.867	≧30	Pass
11	2462	49.536	≧30	Pass

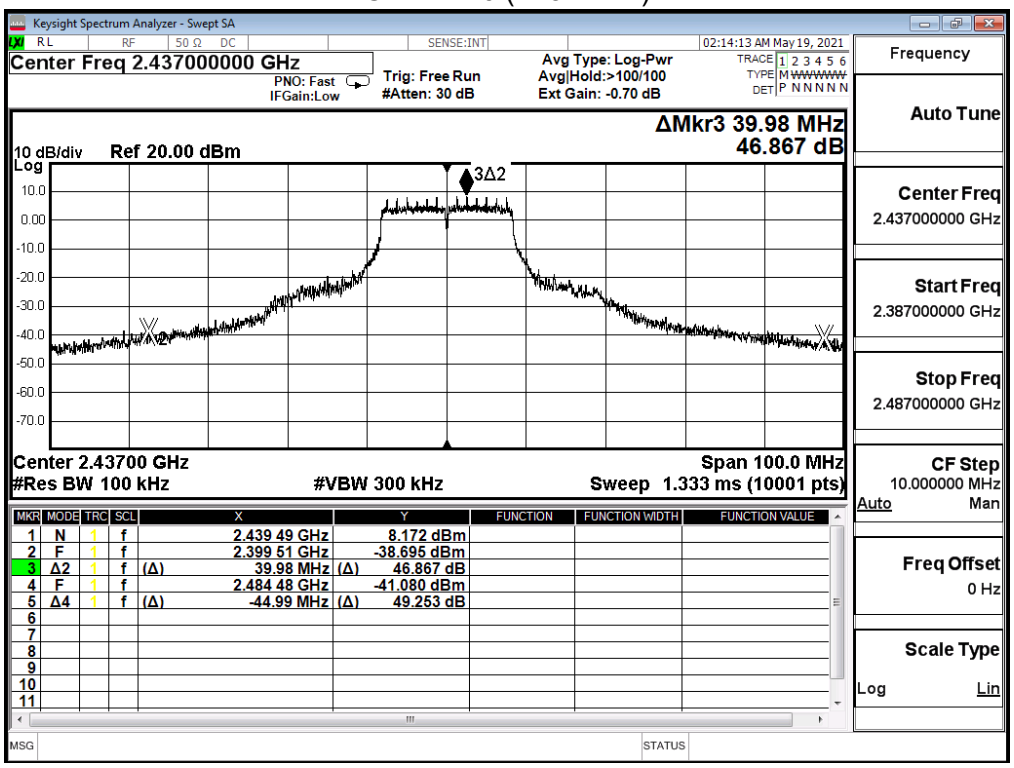
Channel 1 (2412MHz)



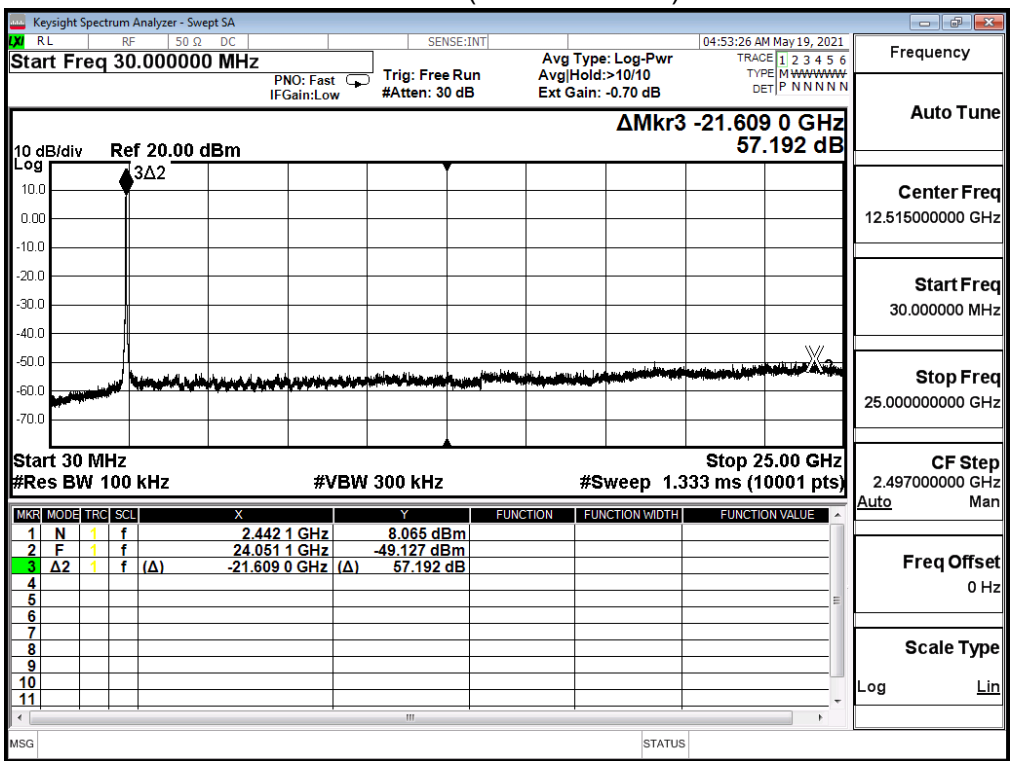
2412MHz (30MHz-25GHz)



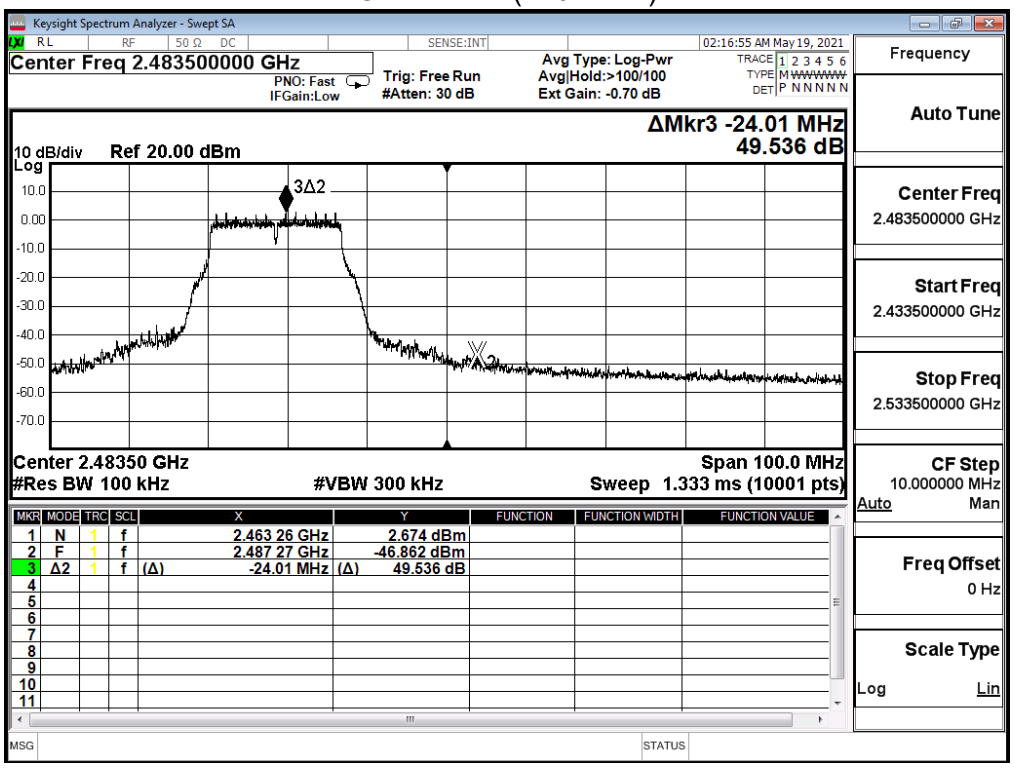
Channel 6 (2437MHz)



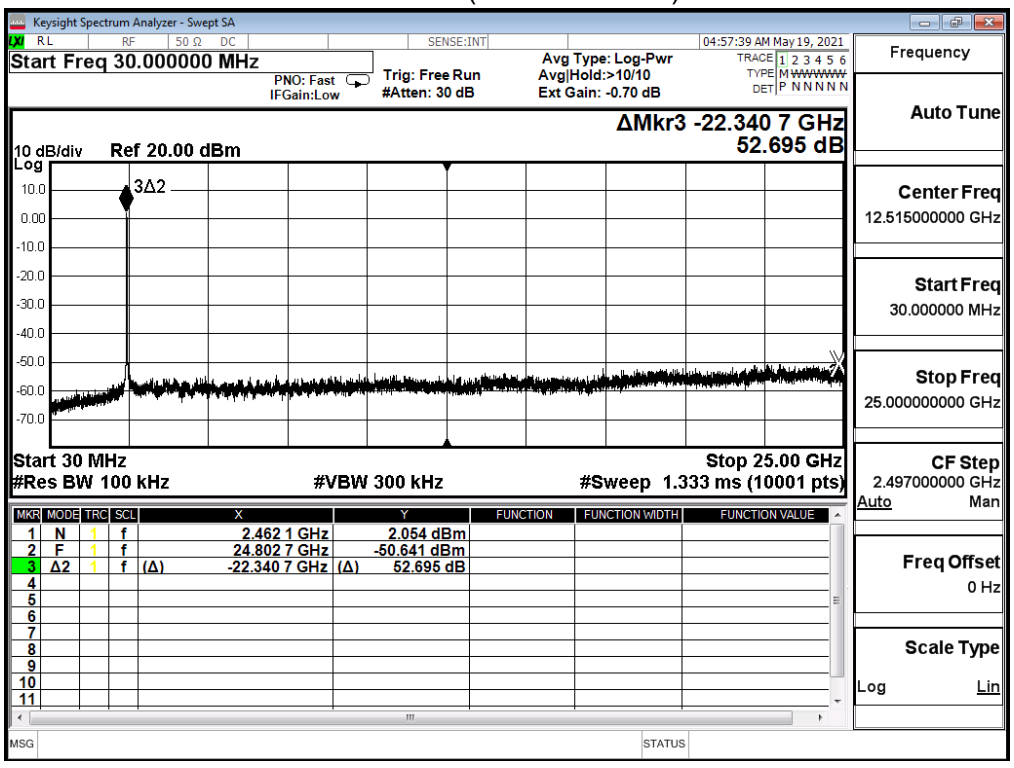
2437MHz (30MHz-25GHz)



Channel 11 (2462MHz)



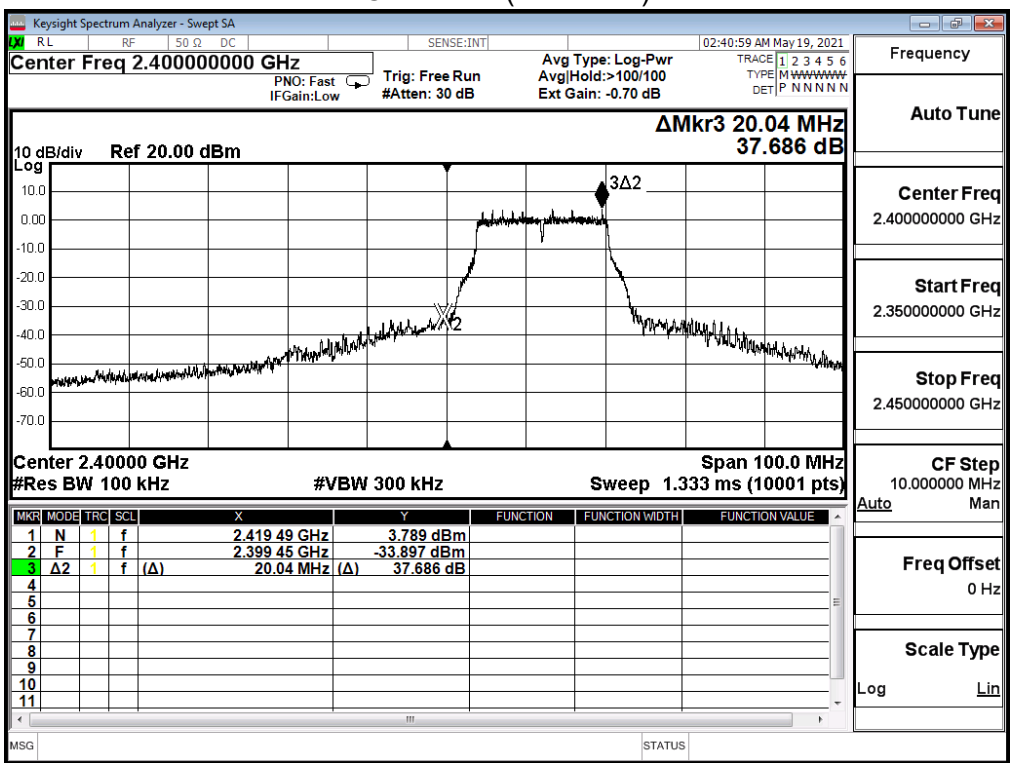
2462MHz (30MHz-25GHz)



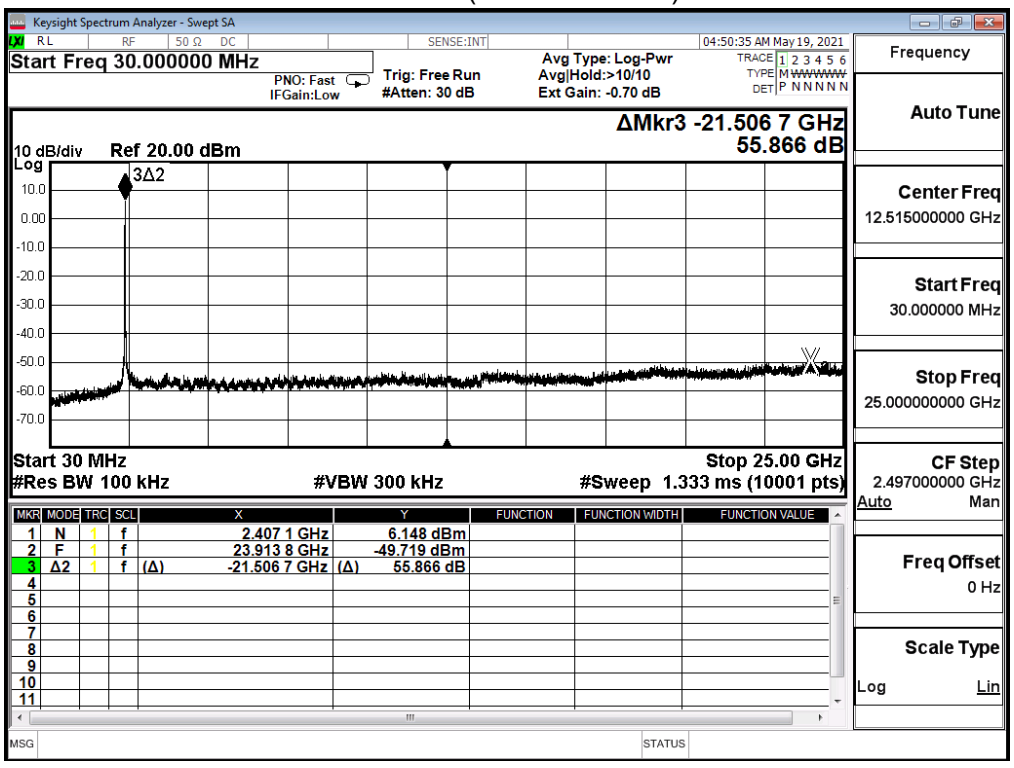
Product	Mesh Wi-Fi Router		
Test Item	RF antenna conducted test		
Test Mode	Mode 1: Transmit_Non-BF_EBM522U		
Date of Test	2021/05/19	Test Site	SR12-H
Temperature (°C)	24	Humidity (%RH)	67

IEEE 802.11g (ANT 1)				
Channel	Frequency (MHz)	Measure Level (dBc)	Limit (dBc)	Result
1	2412	37.686	≧30	Pass
6	2437	45.404	≧30	Pass
11	2462	46.728	≧30	Pass

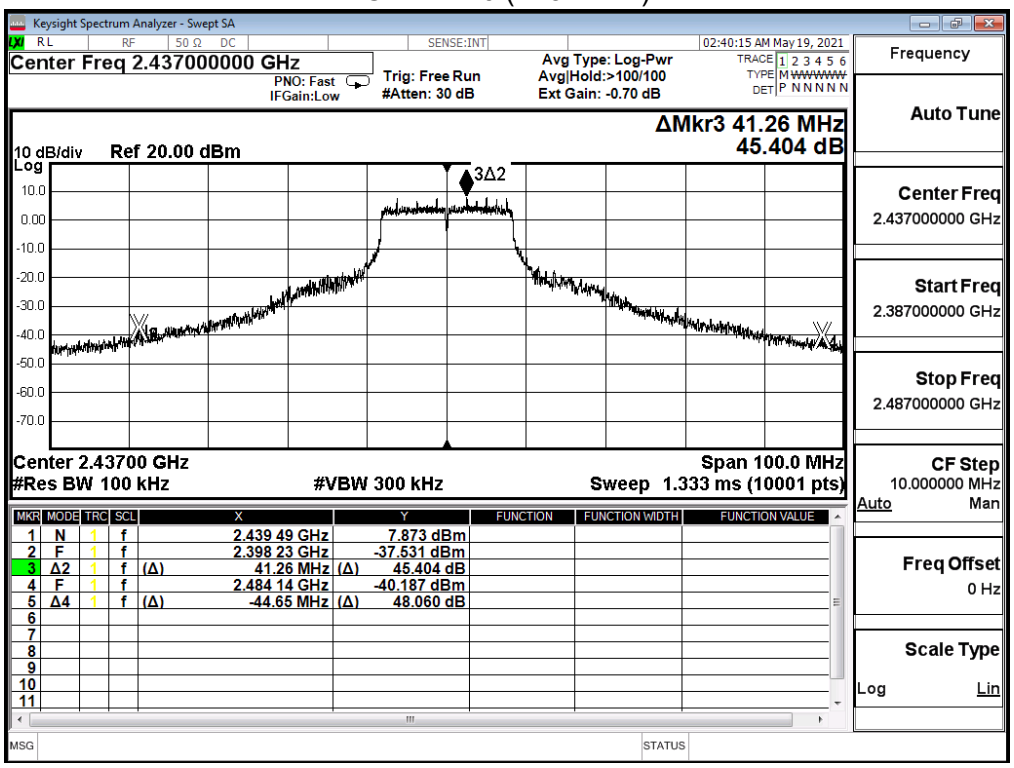
Channel 1 (2412MHz)



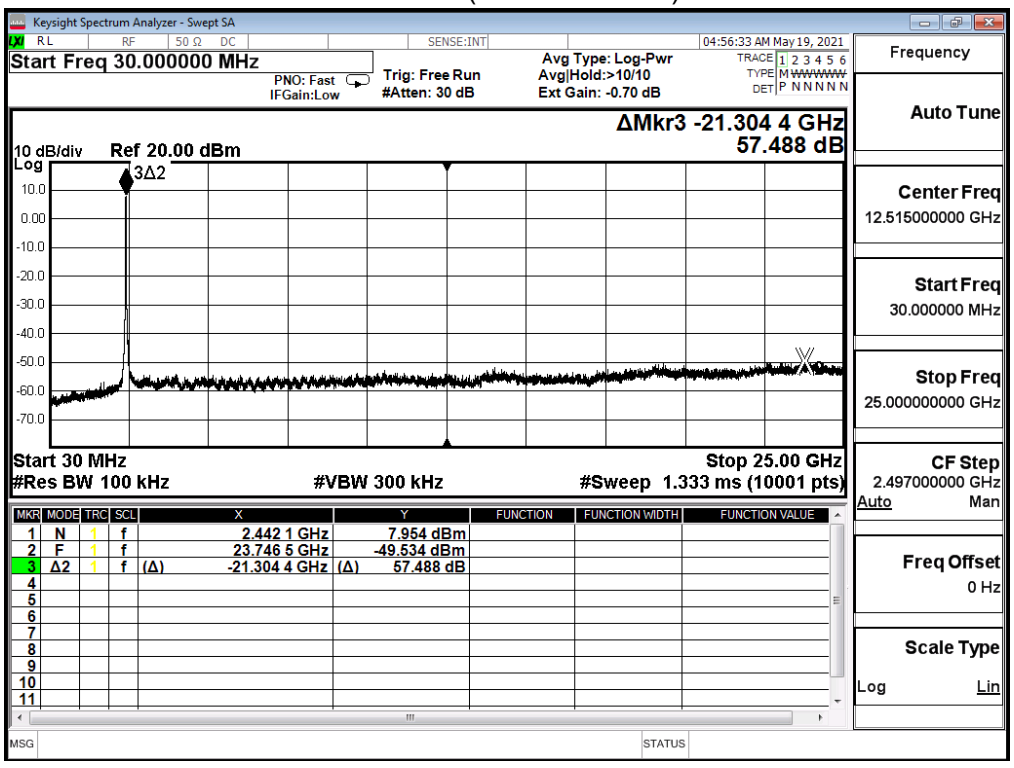
2412MHz (30MHz-25GHz)



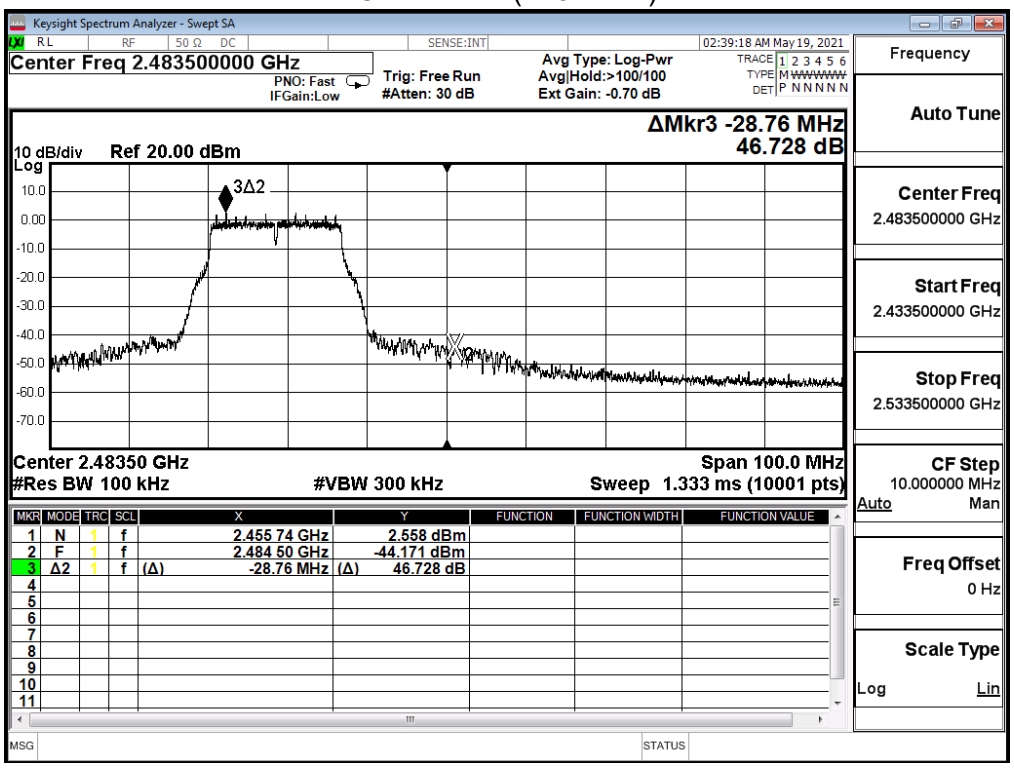
Channel 6 (2437MHz)



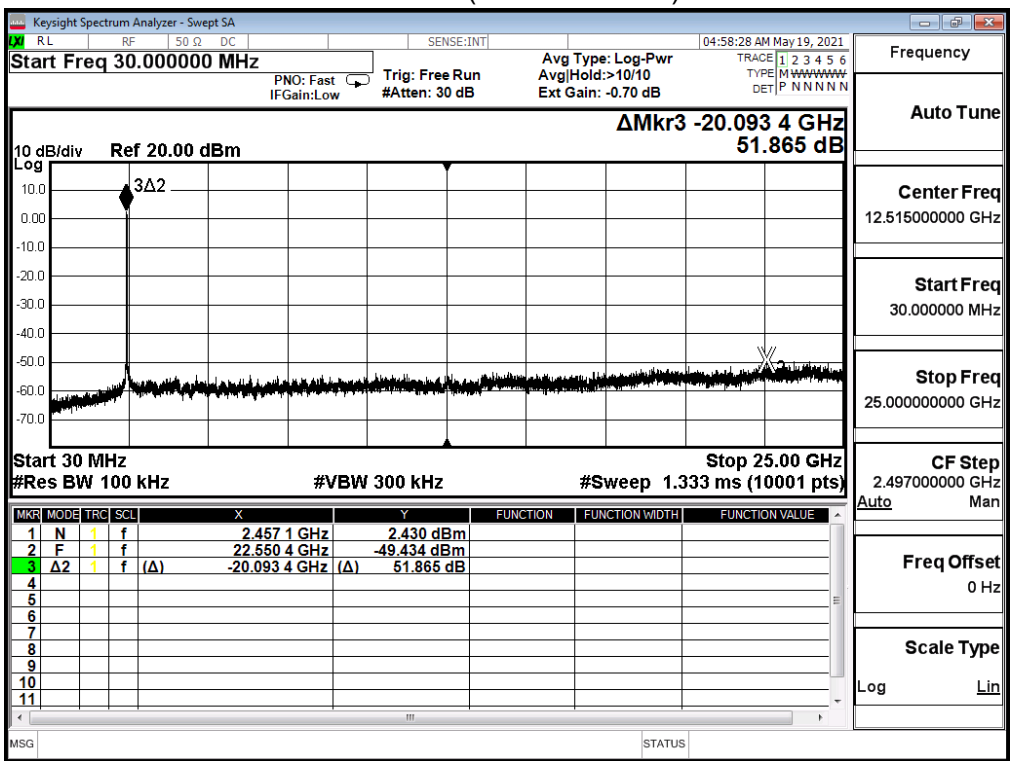
2437MHz (30MHz-25GHz)



Channel 11 (2462MHz)



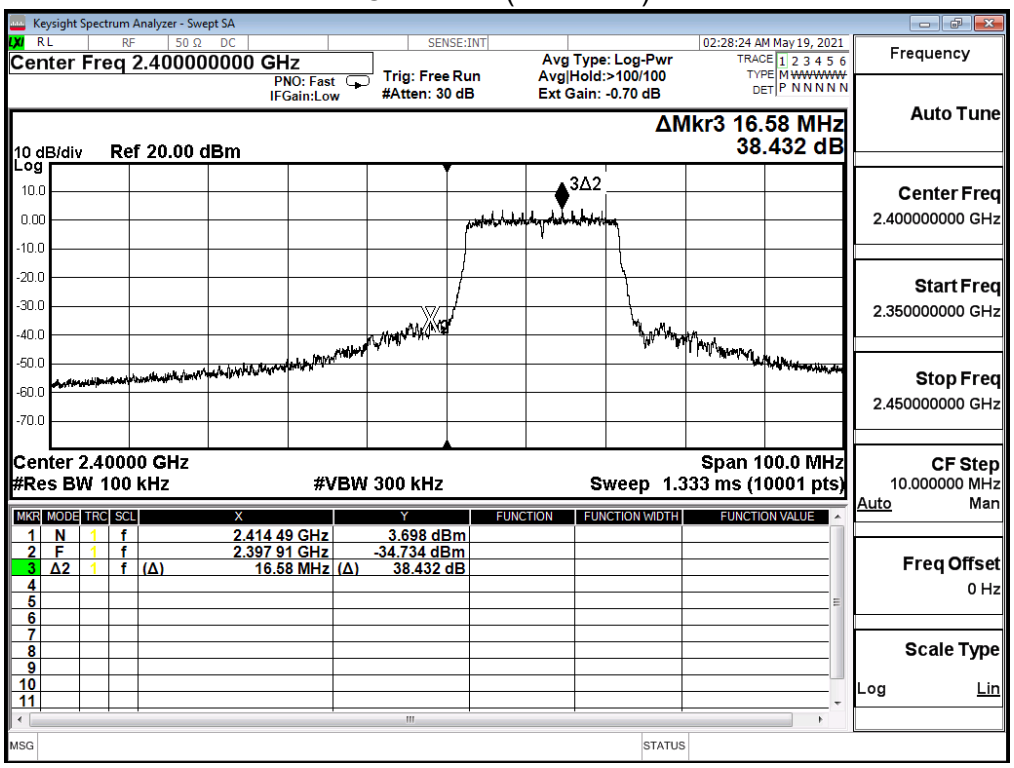
2462MHz (30MHz-25GHz)



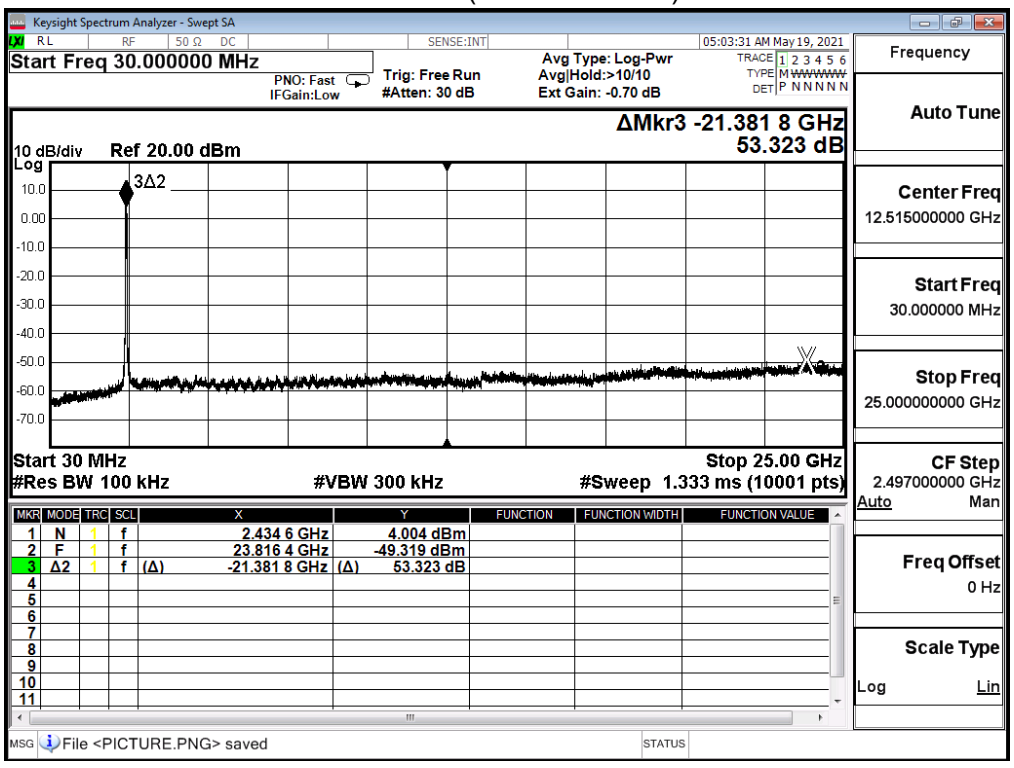
Product	Mesh Wi-Fi Router		
Test Item	RF antenna conducted test		
Test Mode	Mode 1: Transmit_Non-BF_EBM522U		
Date of Test	2021/05/19	Test Site	SR12-H
Temperature (°C)	24	Humidity (%RH)	67

IEEE 802.11ax(20M)(ANT 0)				
Channel	Frequency (MHz)	Measure Level (dBc)	Limit (dBc)	Result
1	2412	38.432	≧30	Pass
6	2437	44.920	≧30	Pass
11	2462	49.500	≧30	Pass

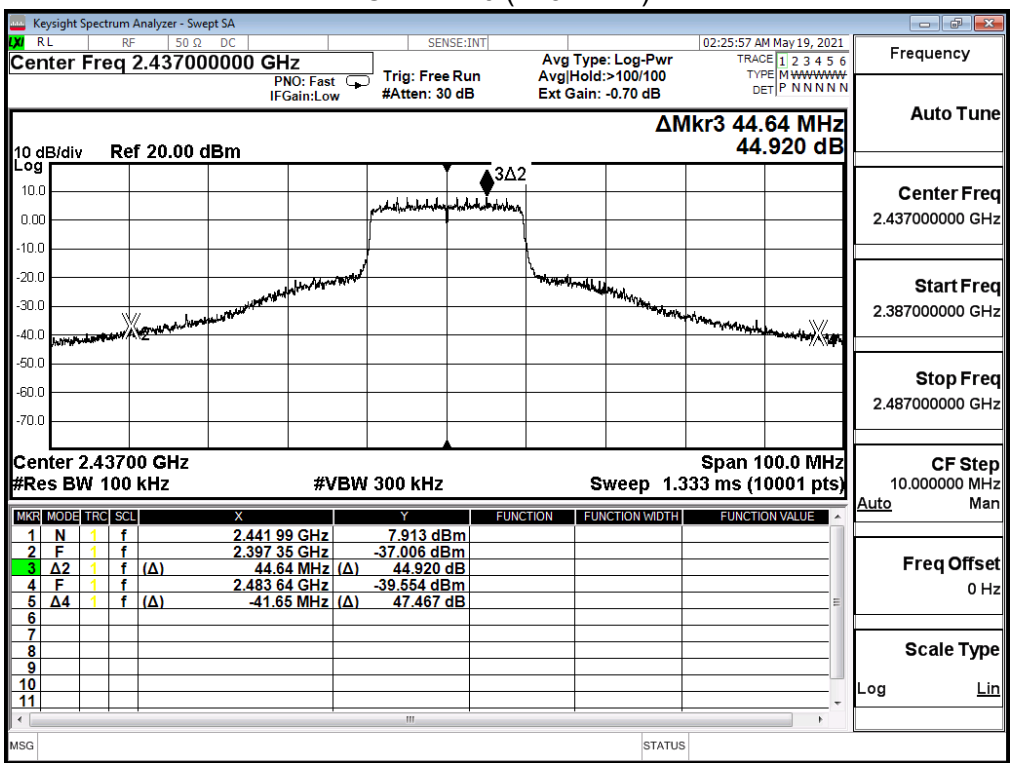
Channel 1 (2412MHz)



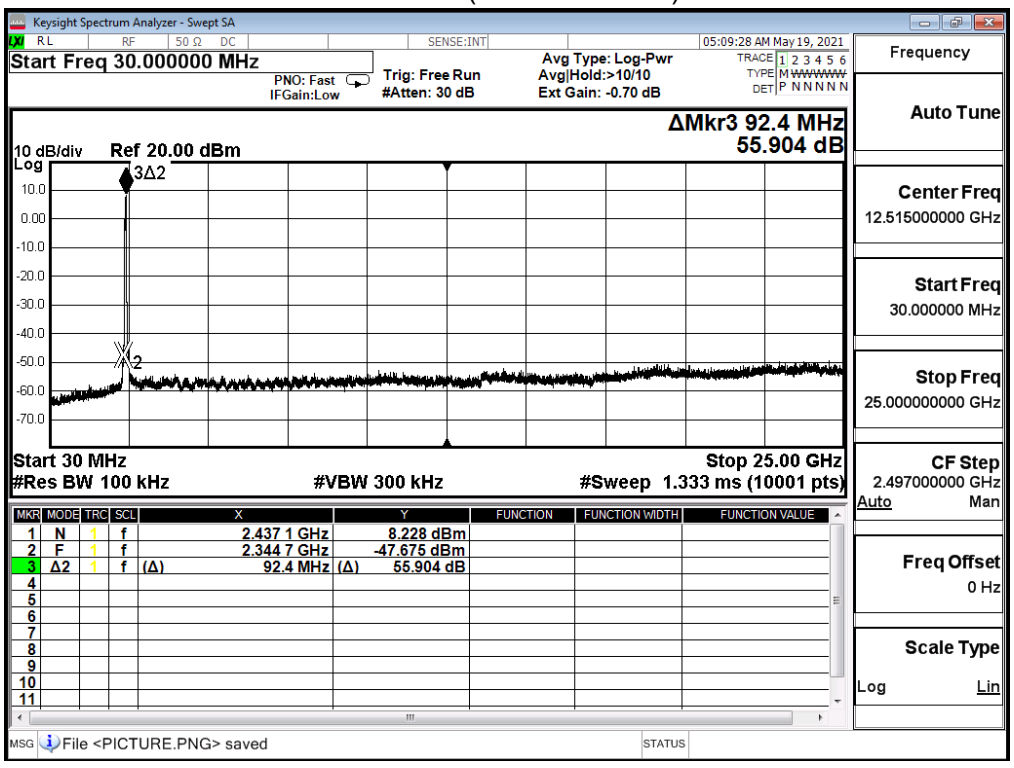
2412MHz (30MHz-25GHz)



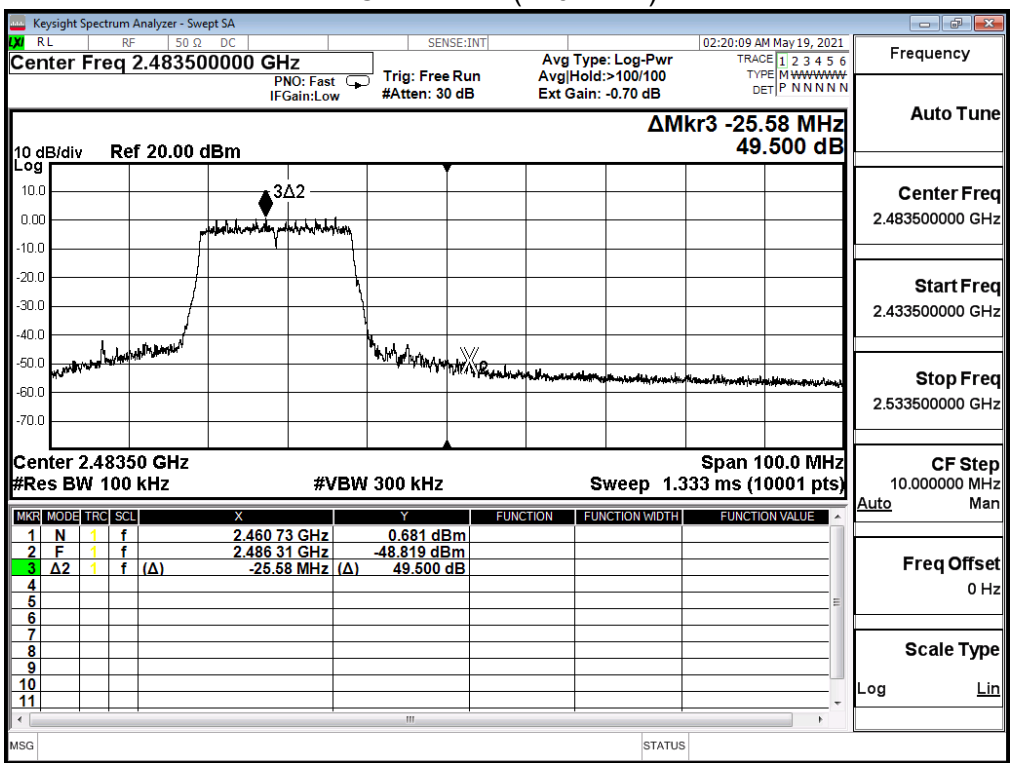
Channel 6 (2437MHz)



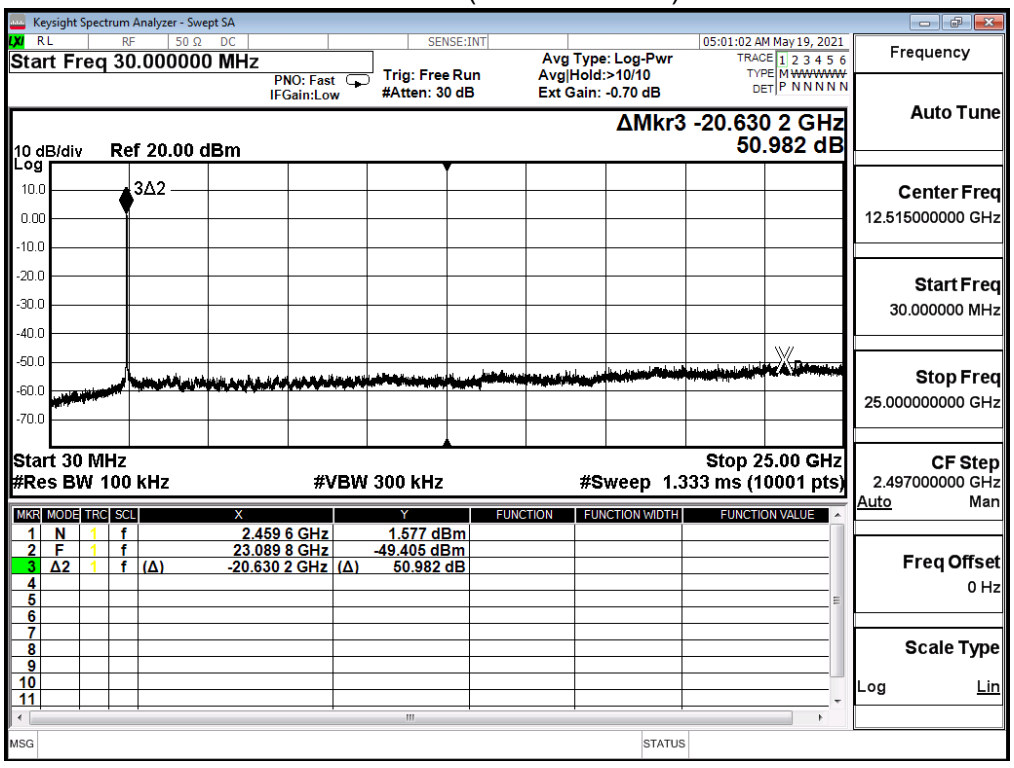
2437MHz (30MHz-25GHz)



Channel 11 (2462MHz)



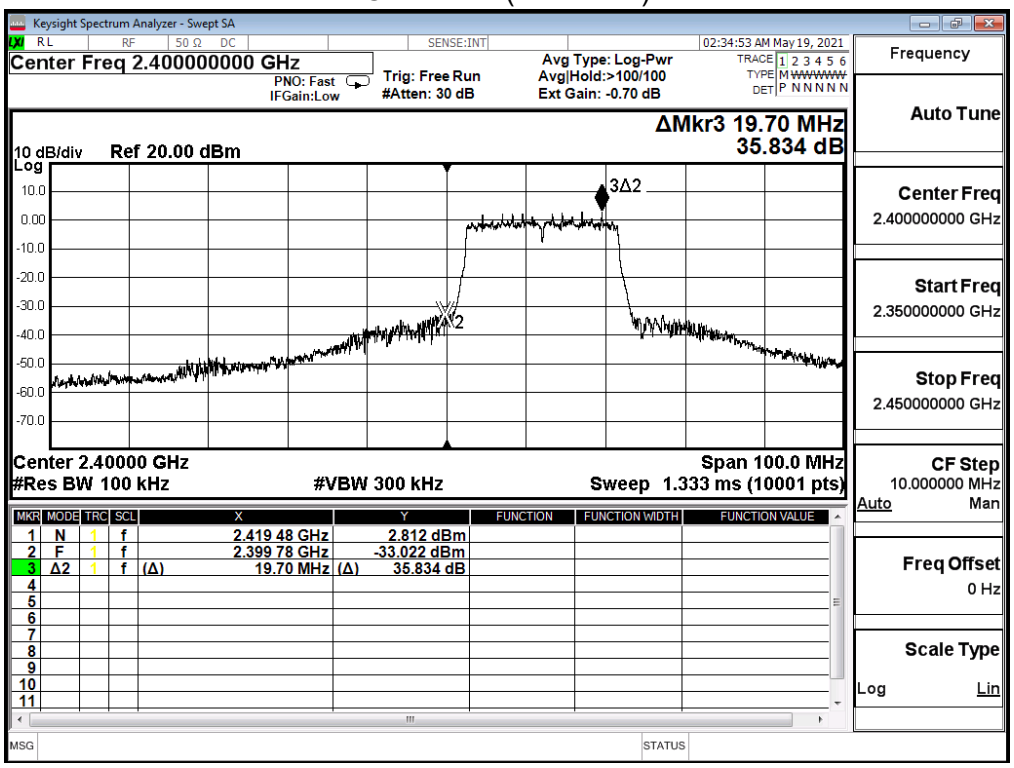
2462MHz (30MHz-25GHz)



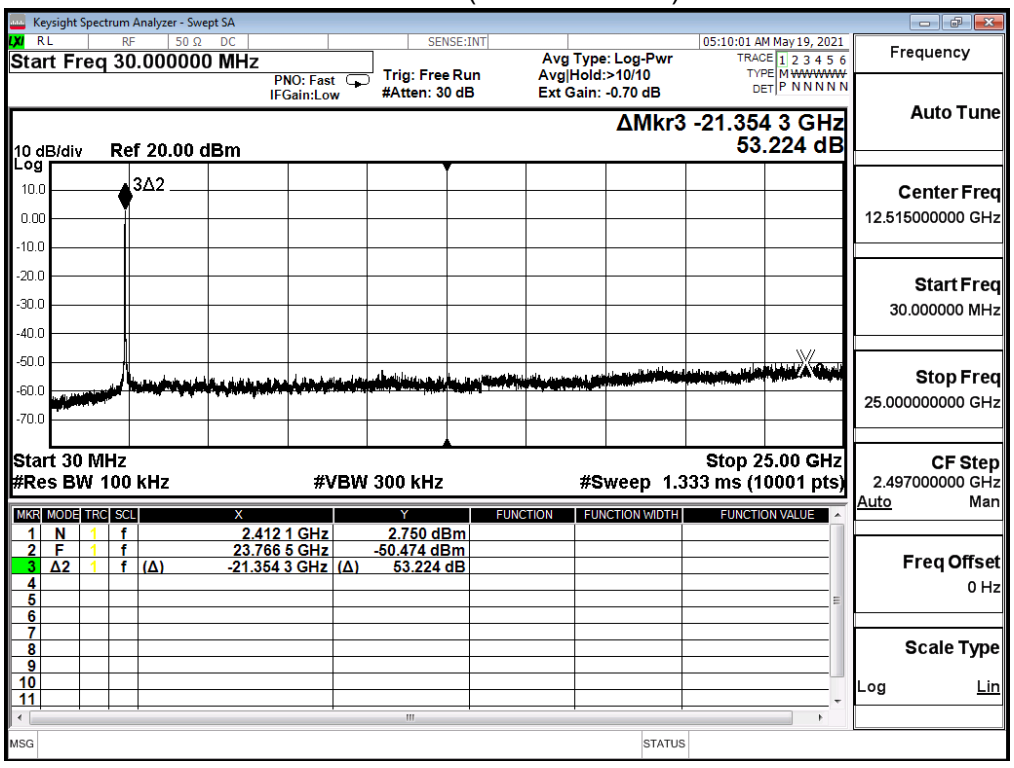
Product	Mesh Wi-Fi Router		
Test Item	RF antenna conducted test		
Test Mode	Mode 1: Transmit_Non-BF_EBM522U		
Date of Test	2021/05/19	Test Site	SR12-H
Temperature (°C)	24	Humidity (%RH)	67

IEEE 802.11ax(20M)(ANT 1)				
Channel	Frequency (MHz)	Measure Level (dBc)	Limit (dBc)	Result
1	2412	35.834	≧30	Pass
6	2437	41.103	≧30	Pass
11	2462	46.676	≧30	Pass

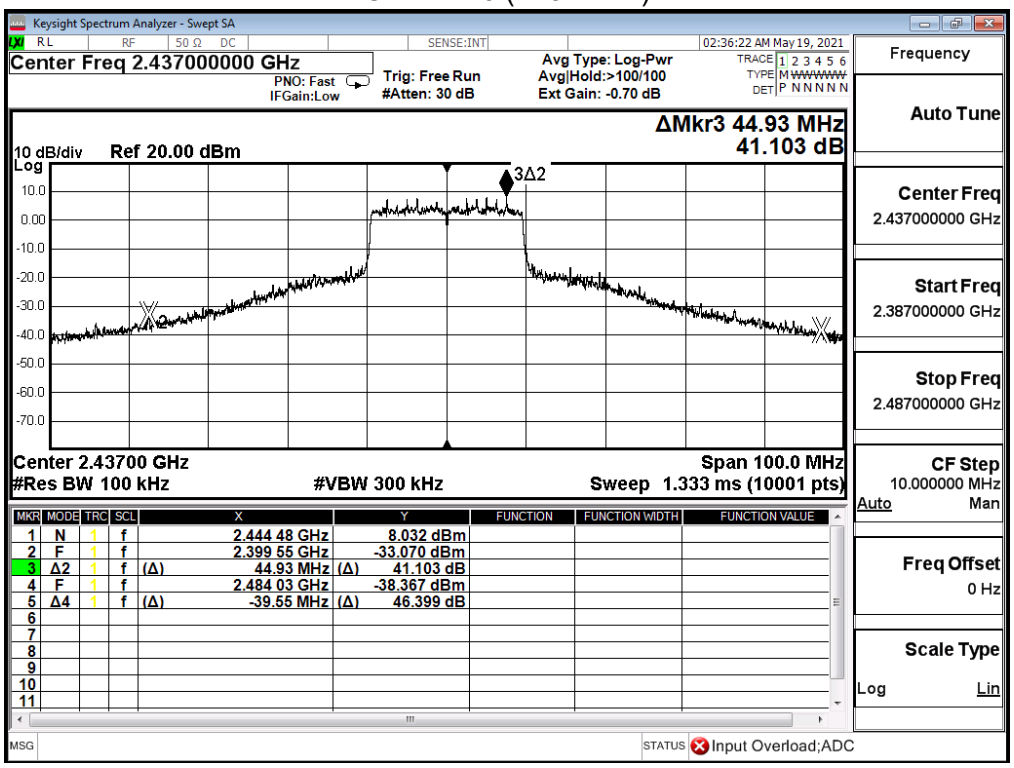
Channel 1 (2412MHz)



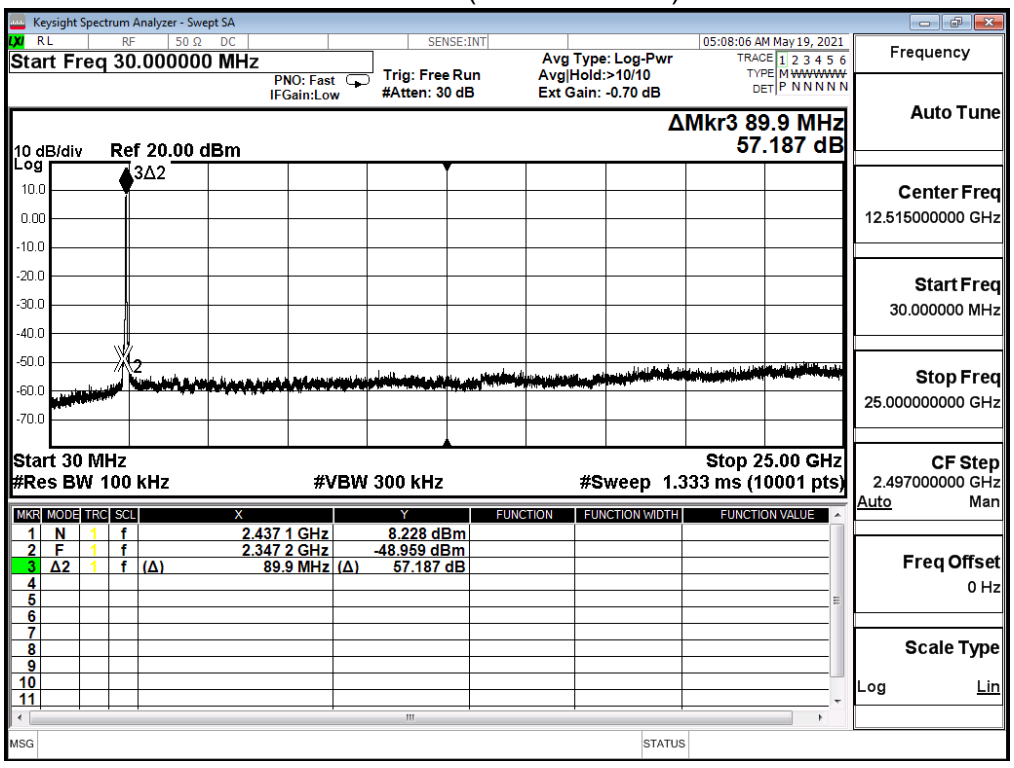
2412MHz (30MHz-25GHz)



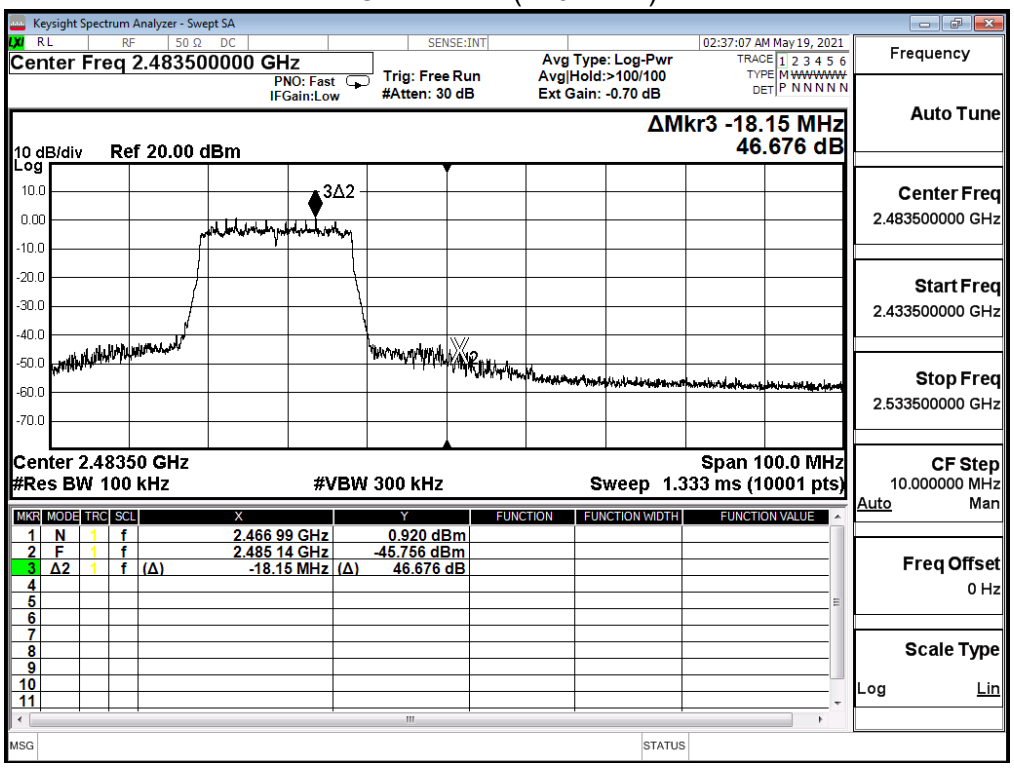
Channel 6 (2437MHz)



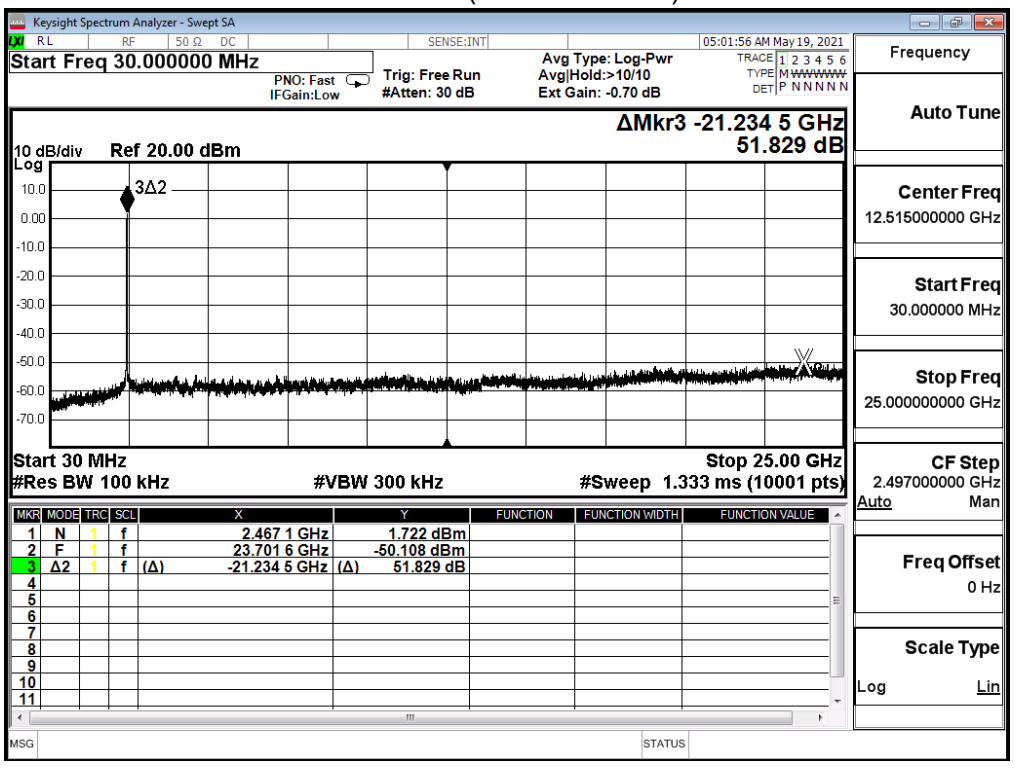
2437MHz (30MHz-25GHz)



Channel 11 (2462MHz)



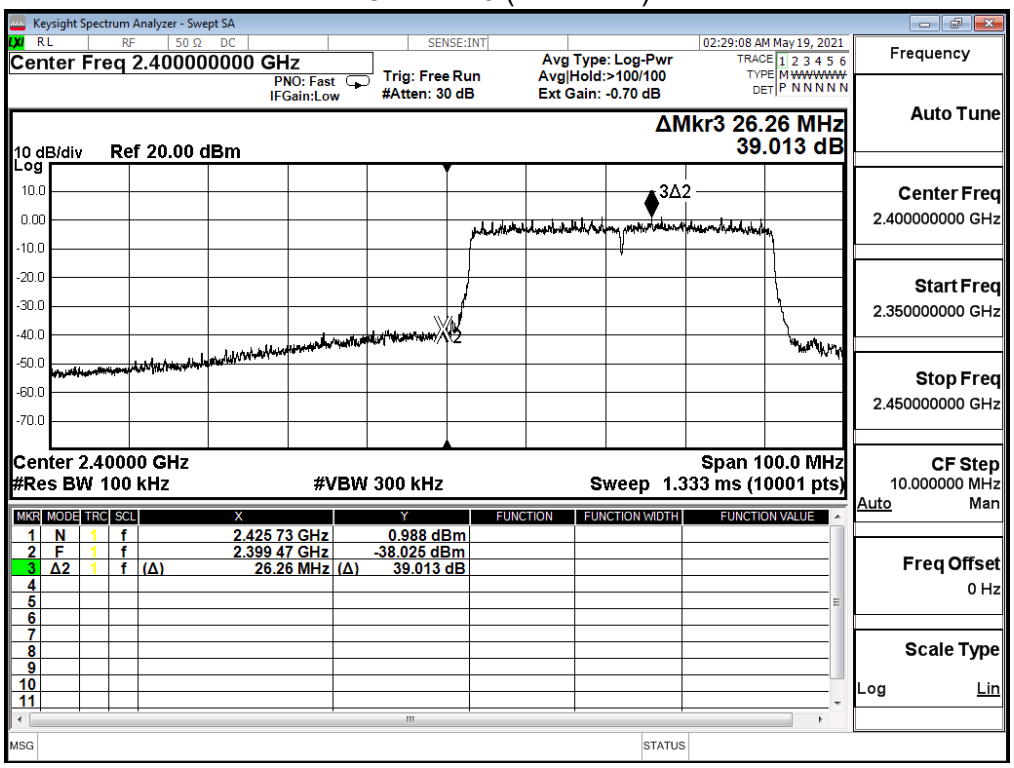
2462MHz (30MHz-25GHz)



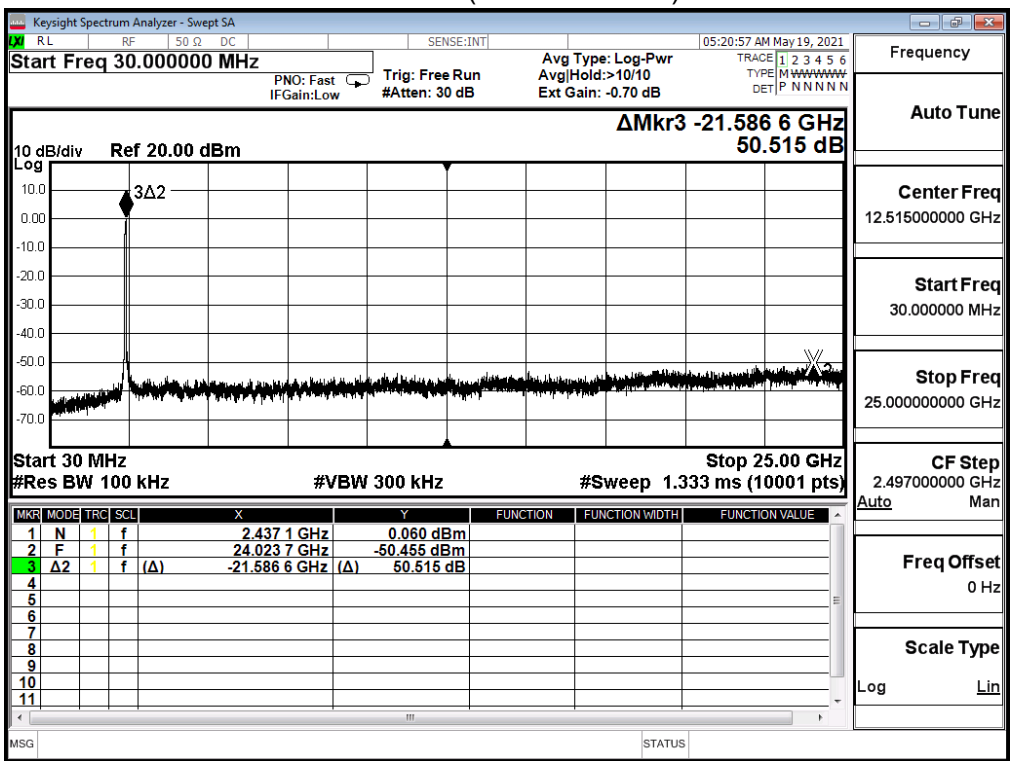
Product	Mesh Wi-Fi Router		
Test Item	RF antenna conducted test		
Test Mode	Mode 1: Transmit_Non-BF_EBM522U		
Date of Test	2021/05/19	Test Site	SR12-H
Temperature (°C)	24	Humidity (%RH)	67

IEEE 802.11ax(40M)(ANT 0)				
Channel	Frequency (MHz)	Measure Level (dBc)	Limit (dBc)	Result
3	2422	39.013	≧30	Pass
6	2437	35.966	≧30	Pass
9	2452	42.869	≧30	Pass

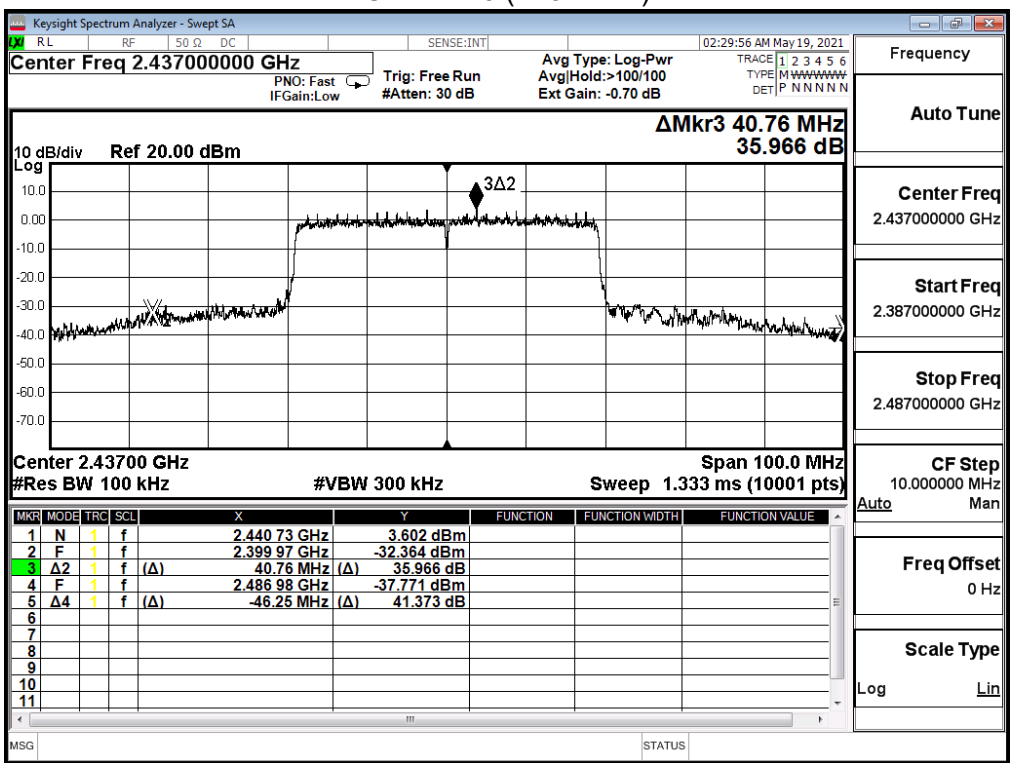
Channel 3 (2422MHz)



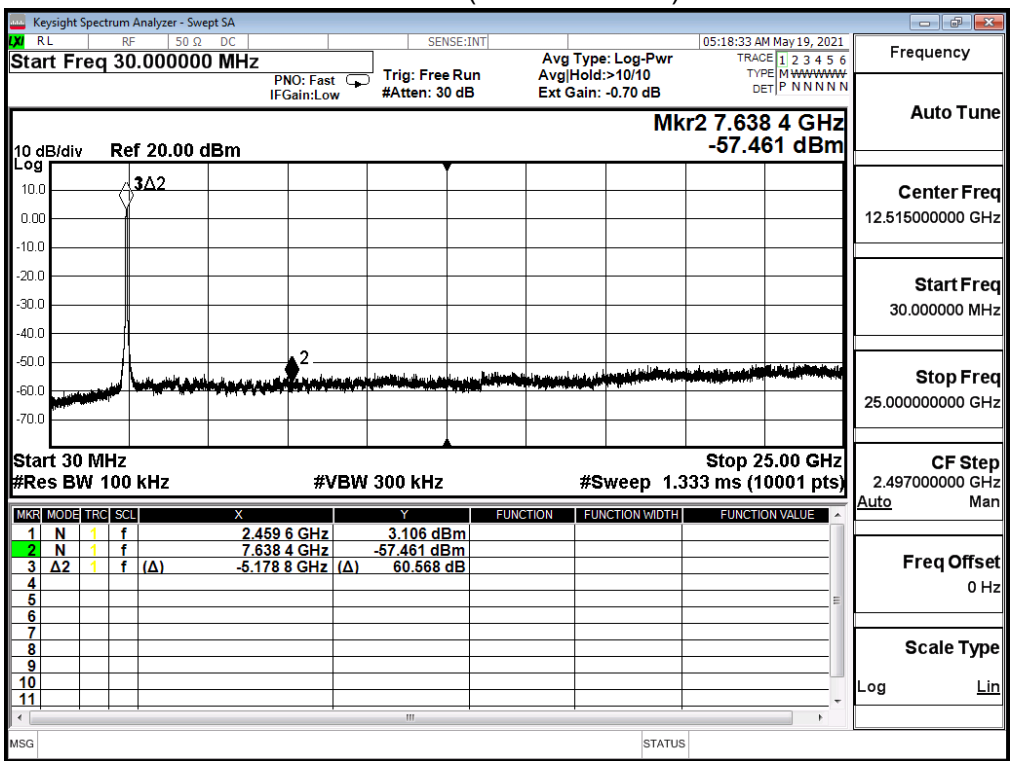
2422MHz (30MHz-25GHz)



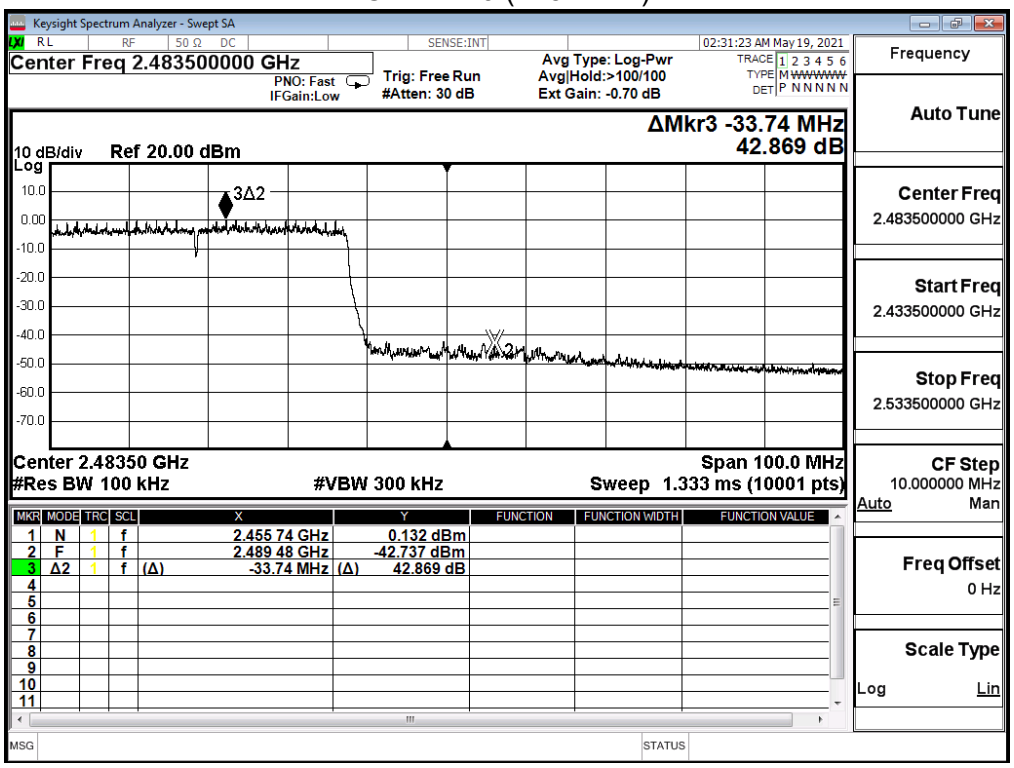
Channel 6 (2437MHz)



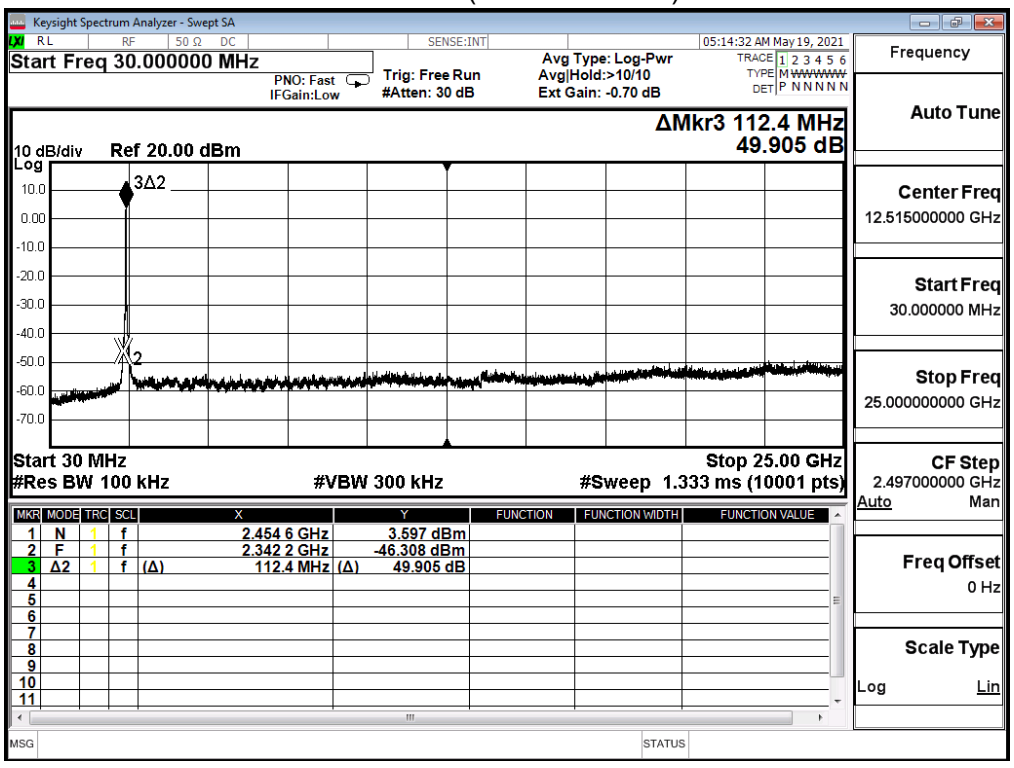
2437MHz (30MHz-25GHz)



Channel 9 (2452MHz)



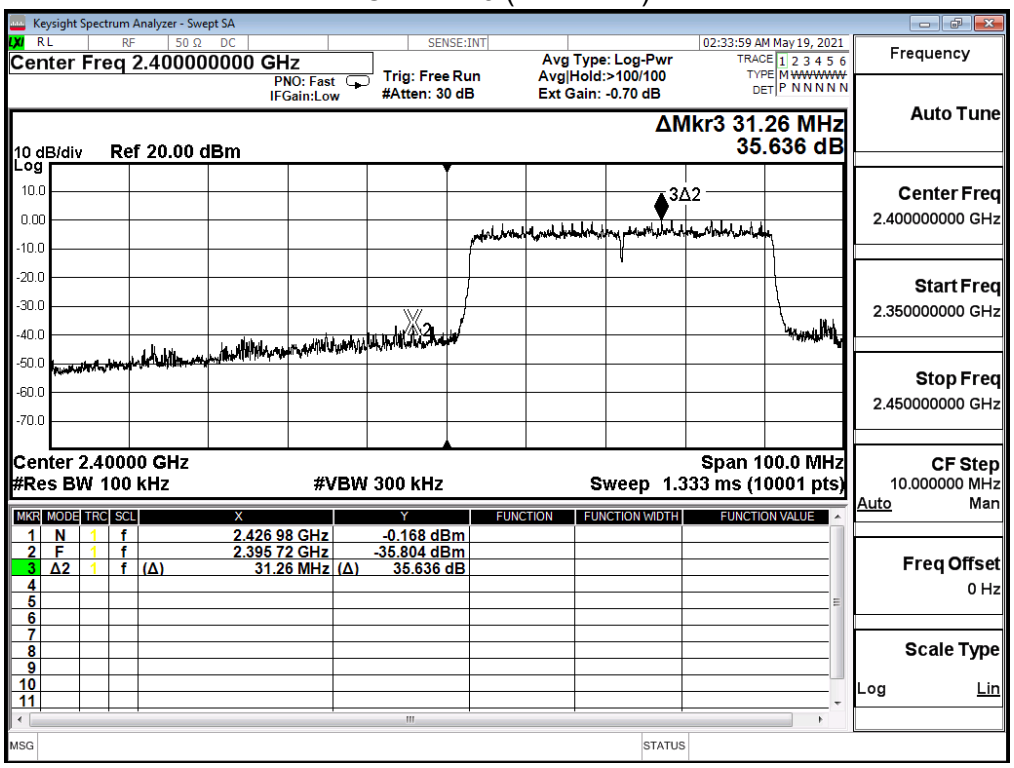
2452MHz (30MHz-25GHz)



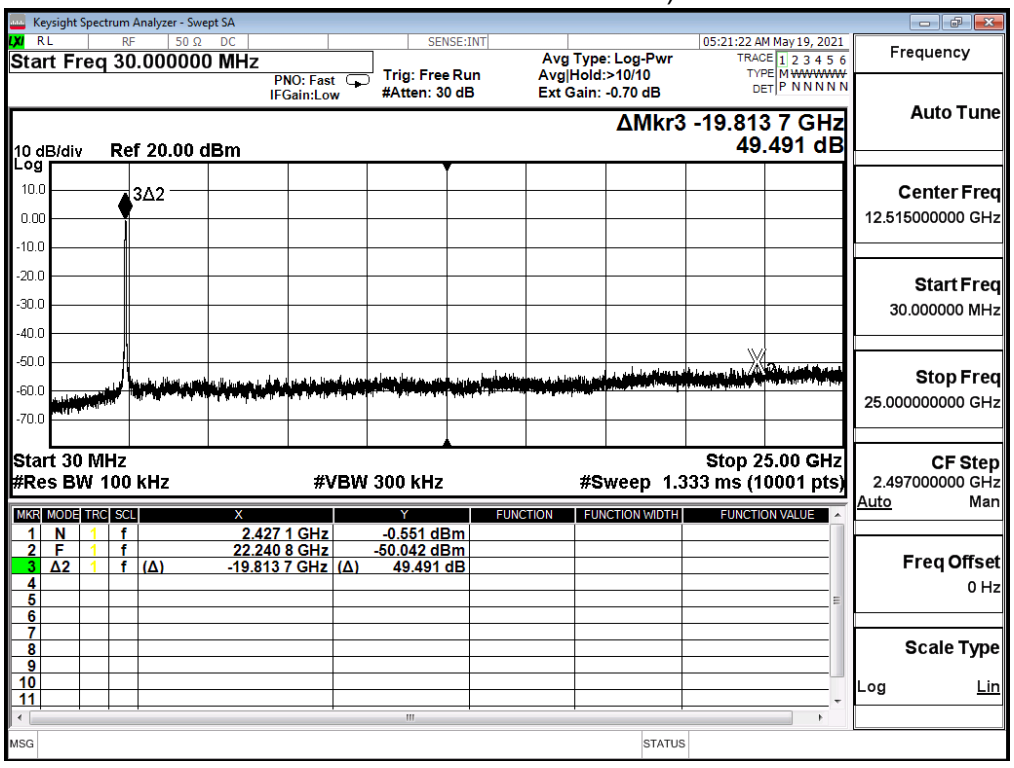
Product	Mesh Wi-Fi Router		
Test Item	RF antenna conducted test		
Test Mode	Mode 1: Transmit_Non-BF_EBM522U		
Date of Test	2021/05/19	Test Site	SR12-H
Temperature (°C)	24	Humidity (%RH)	67

IEEE 802.11ax(40M)(ANT 1)				
Channel	Frequency (MHz)	Measure Level (dBc)	Limit (dBc)	Result
3	2422	35.636	≧30	Pass
6	2437	31.619	≧30	Pass
9	2452	38.954	≧30	Pass

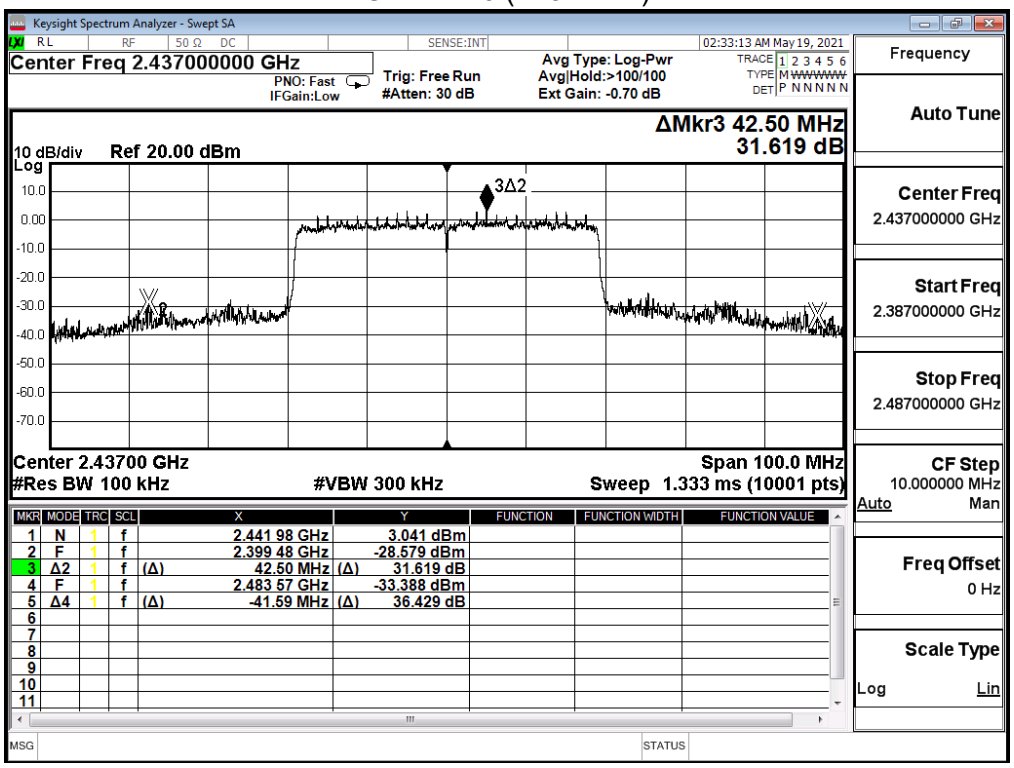
Channel 3 (2422MHz)



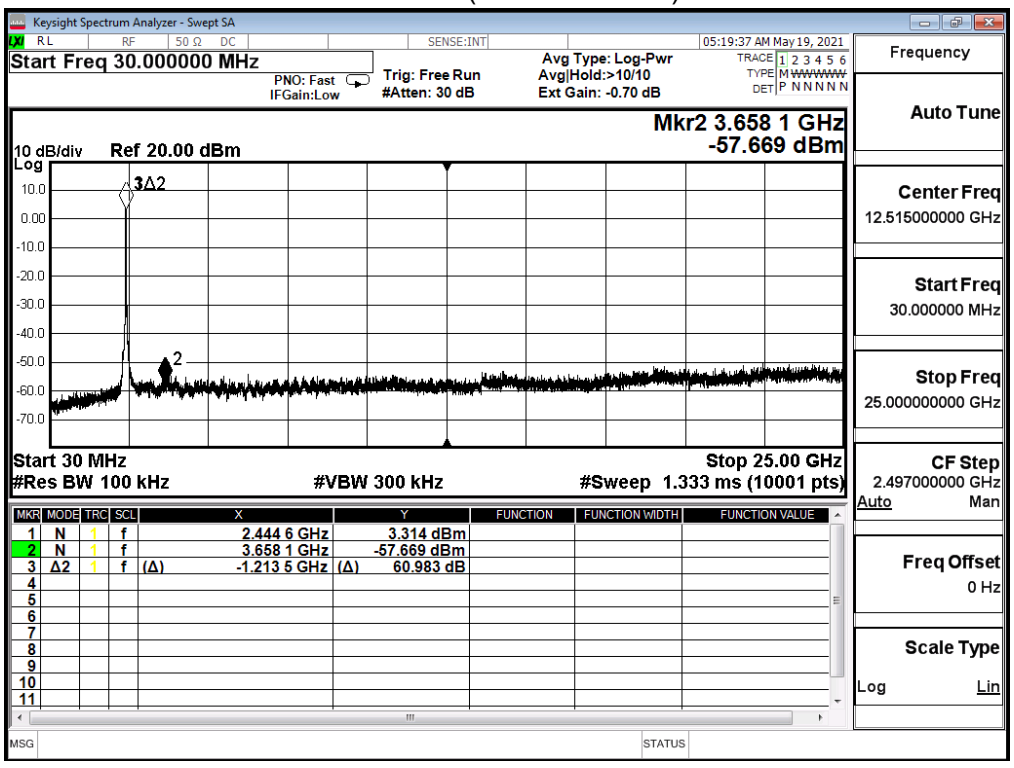
2422MHz 30MHz-25GHz)



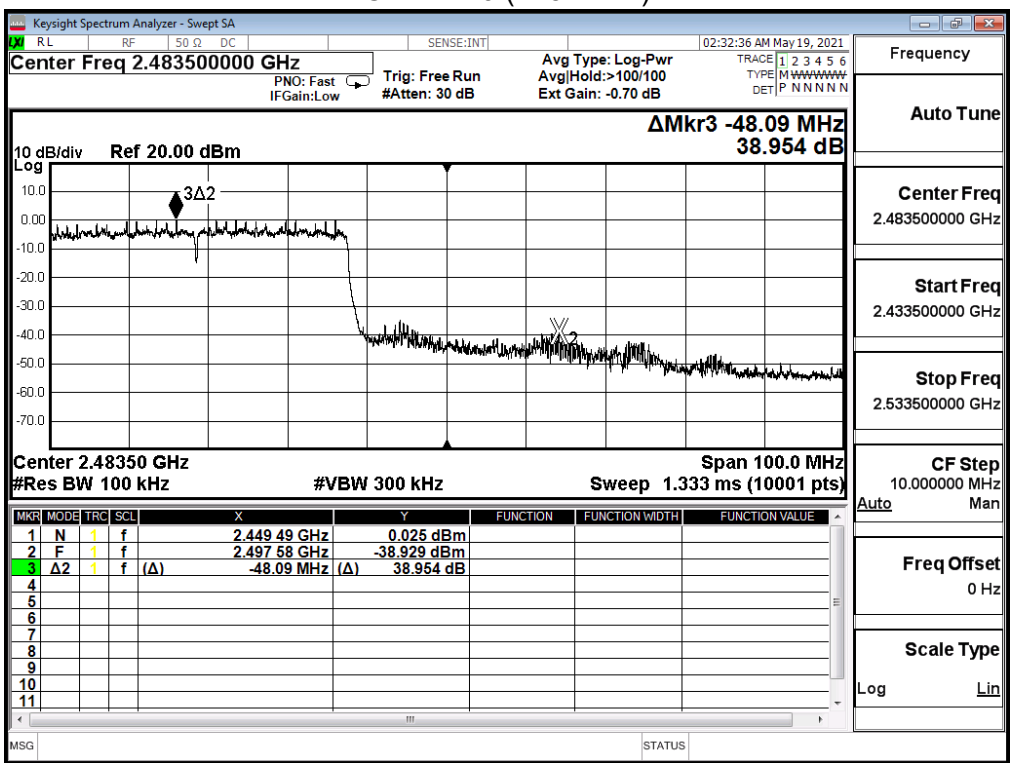
Channel 6 (2437MHz)



2437MHz (30MHz-25GHz)



Channel 9 (2452MHz)



2452MHz (30MHz-25GHz)