

TEST REPORT

Applicant: Binatone Electronics International Ltd.
Address of Applicant: Floor 23A, 9 Des Voeux Road West, Sheung Wan, Hong Kong

Equipment Under Test (EUT)

Product Name: Baby Unit (2.8" HD Wi-Fi® Video Baby and Home Monitor; 5" HD Wi-Fi® Video Baby and Home Monitor)
Model Name.: CN28BU, COMFORT40BU, CN50BU, COMFORT60BU
Trade mark: motorola

FCC ID: VLJ-CN28BU
Canada IC: 4522A-CN28BU
HVIN: CN28BU

Applicable standards: CFR47 FCC Part 15: Subpart C Section 15.247
CFR47 FCC Part 15: Subpart C Section 15.207
CFR47 FCC Part 15: Subpart C Section 15.209
CFR47 FCC Part 15: Subpart B Section 15.107
CFR47 FCC Part 15: Subpart B Section 15.109
RSS-247 Issue 2 February 2017
RSS-Gen Issue 5 April 2018
ICES-003 Issue 6 January 2016

Date of sample receipt: 20 Nov. 2018
Date of Test: 20 Nov. 2018 to 15 Jun. 2019
Date of report issued: 08 Jul. 2019
Test Result: PASS*

* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:



Bruce Zhang
Laboratory Manager

This report details the results of the testing carried out on one sample. The results contained in this test report do not relate to other samples of the same product and does not permit the use of the CCIS product certification mark. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

This report may only be reproduced and distributed in full. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards.

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Revision History

Rev.	Issue Date	Report NO.	Effect Page	Contents
00	08 Jul. 2019	CCISE190703601	ALL	Initial Issue

Tested by: Carrey Chen **Date:** 20 Nov. 2018 - 15 Jun. 2019
Test Engineer

Reviewed by: Wimor Zhang **Date:** 08 Jul. 2019
Project Engineer

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1 SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

KDB 558074 D01 DTS Meas Guidance v05

FCC Part 15, Subpart C RSS-247 Issue 2			
StandardSection	Test Item	Judgment	Remark
FCC Part 15.207(a) RSS-Gen Clause 8.8	Conducted Emission	PASS	
FCC Part 15.247(a)(2) RSS-247 Clause 5.2(a)	6dB Bandwidth	PASS	
RSS-Gen Clause 6.7	99% Bandwidth	PASS	
FCC Part 15.247(b)(3) RSS-247 Clause 5.4(d)	Output Power	PASS	
FCC Part 15.247(d) RSS-247 Clause 3.3	Radiated Spurious Emission	PASS	
FCC Part 15.247(d) RSS-247 Clause 5.5	Conducted Spurious & Band Edge Emission	PASS	
FCC Part 15.247(e) RSS-247 Clause 5.2(b)	Power Spectral Density	PASS	
FCC Part 15.205	Restricted Band Edge Emission	PASS	
FCC Part 15.247(d)&15.209(a) RSS-247 Clause 5.5	Band Edge Emission	PASS	
FCC Part 15.247(b)(4) &15.203	Antenna Requirement	PASS	

FCC Part 15, Subpart B ICES-003 Issue 6			
StandardSection	Test Item	Judgment	Remark
FCC Part 15.107(a) ICES-003	Conducted Emission	PASS	Class B limit
FCC Part 15.109(a) ICES-003	Radiated Emission	PASS	Class B limit

NOTE:

- 1) 'N/A' denotes test is not applicable in this test report
- 2) All tests were performed according to the procedures in ANSI C63.10: 2013 and ANSI C63.4: 2014.

1.1 TEST FACTORY

Shenzhen Zhongjian Nanfang Testing Co., Ltd.
 Address: No. B-C, 1/F., Building 2, Laodong No.2 Industrial Park, Xixiang Road,
 Bao'an District, Shenzhen, Guangdong, China
 Tel: +86-755-23118282, Fax: +86-755-23116366
 Email: info@ccis-cb.com, Website: http://www.ccis-cb.com

The test facility is recognized, certified, or accredited by the following organizations:

- FCC - Designation No.: CN1211

Shenzhen Zhongjian Nanfang Testing Co., Ltd. has been accredited as a testing laboratory by FCC(Federal Communications Commission). The test firm Registration No. is 727551.

- ISED - CAB identifier.: CN0021

The 3m Semi-anechoic chamber of Shenzhen Zhongjian Nanfang Testing Co., Ltd. has been Registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 10106A-1.

- CNAS - Registration No.: CNAS L6048

Shenzhen Zhongjian Nanfang Testing Co., Ltd. is accredited to ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration laboratories for the competence of testing. The Registration No. is CNAS L6048.

A2LA - Registration No.: 4346.01

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 General requirements for the competence of testing and calibration laboratories.

The test scope can be found as below link: <https://portal.a2la.org/scopepdf/4346-01.pdf>

1.2 MEASUREMENT UNCERTAINTY

Parameters	Expanded Uncertainty
Conducted Emission (9kHz ~ 30MHz)	±2.22 dB (k=2)
Radiated Emission (9kHz ~ 30MHz)	±2.76 dB (k=2)
Radiated Emission (30MHz ~ 1000MHz)	±4.28 dB (k=2)
Radiated Emission (1GHz ~ 18GHz)	±5.72 dB (k=2)
Radiated Emission (18GHz ~ 40GHz)	±2.88 dB (k=2)

2 GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Product Name	Baby Unit (2.8" HD Wi-Fi® Video Baby and Home Monitor; 5" HD Wi-Fi® Video Baby and Home Monitor)	
Trade Name	motorola	
Model Name	CN28BU	
Series Model	COMFORT40BU, CN50BU, COMFORT60BU	
Model Difference	All models are fully identical except model name.	
Product Description	The EUT is a Baby Unit(2.8" HD Wi-Fi® Video Baby and Home Monitor; 5" HD Wi-Fi® Video Baby and Home Monitor) of one of the Video Baby Monitor With Wi-Fi® which supports 2.4GHz FHSS and Wi-Fi 802.11b/g/n wireless technologies. This report for Wi-Fi 802.11b/g/n operation only.	
	Operation Frequency:	2412 - 2462 MHz for 802.11b/g/n(HT20) 2422 - 2452 MHz for 802.11n(HT40)
	Modulation Type:	DSSS(DBPSK/DQPSK/CCK) OFDM(BPSK/QPSK/16QAM/64QAM)
	Bit Rate of Transmitter:	1/2/5.5/11 Mbps for 802.11b 6/9/12/18/24/36/48/54 Mbps for 802.11g MCS0 ~ MCS7 for 802.11n
	Number Of Channel:	11 channels for 802.11b/g/n(HT20) 7 channels for 802.11n(HT40)
	Antenna Designation:	Please see Note 4
	AntennaGain(dBi):	0dBi
	Duty Cycle:	>98%
Channel List	Please refer to the Note 2.	
Adapter 1#	Model: S005BNU0500100 (Tenpao) Input: AC 100-240V, 0.15mA, 50/60Hz Output: DC 5.0V, 1000mA	
Adapter 2#	Model: CS6F050100FUF (Csec) Input: AC 100-240V, 0.20mA, 50/60Hz Output: DC 5.0V, 1000mA	
Battery	N/A	
Hardware version	N/A	
Software version	N/A	
Radio Hardware version	N/A	
Radio Software version	N/A	
Test Software	SecureCRT	
RF Power Setting TEST Software (power class)	1	
Connecting I/O Port(s)	Please refer to the User's Manual	

Note:

- 1 For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

2

RF Channel and Frequency of Wi-Fi 802.11 b/g/n			
802.11b/g/n (HT20)		802.11n (HT40)	
RF Channel	Freq.(MHz)	RF Channel	Freq.(MHz)
01	2412	03	2422
02	2417	04	2427
03	2422	05	2432
04	2427	06	2437
05	2432	07	2442
06	2437	08	2447
07	2442	09	2452
08	2447	/	/
09	2452	/	/
10	2457	/	/
11	2462	/	/

3 Note:

- 1) In section 15.31(m), regards to the operating frequency range over 10 MHz, the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test;
- 2) Test frequencies are lowest channel: 2412 MHz, middle channel: 2437 MHz and highest channel: 2462 MHz for 802.11b/g/n(HT20)
- 3) Test frequencies are lowest channel: 2422 MHz, middle channel: 2437 MHz and highest channel: 2452 MHz for 802.11n(HT40)

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Ant	Brand	Model Name	Antenna Type	Connector	Gain (dBi)	NOTE
1	N/A	CN28BU	Integral Antenna	N/A	0	WLAN Antenna

2.2 DESCRIPTION OF TEST MODES

Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

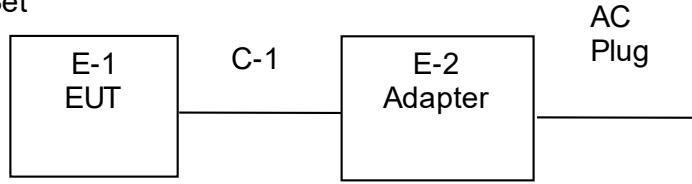
Worst Mode	Description	Data Rate
Mode 1	TX IEEE 802.11b CH1	1 Mbps
Mode 2	TX IEEE 802.11b CH6	1 Mbps
Mode 3	TX IEEE 802.11 b CH11	1 Mbps
Mode 4	TX IEEE 802.11g CH1	6 Mbps
Mode 5	TX IEEE 802.11g CH6	6 Mbps
Mode 6	TX IEEE 802.11g CH11	6 Mbps
Mode 7	TX IEEE 802.11n HT20 CH1	MCS 0
Mode 8	TX IEEE 802.11n HT20 CH6	MCS 0
Mode 9	TX IEEE 802.11n HT20 CH11	MCS 0
Mode 10	TX IEEE 802.11n HT40 CH3	MCS 0
Mode 11	TX IEEE 802.11n HT40 CH6	MCS 0
Mode 12	TX IEEE 802.11n HT40 CH9	MCS 0
Mode13	Wi-Fi transmitting mode	/
Mode 14	Operating mode	/

Note:

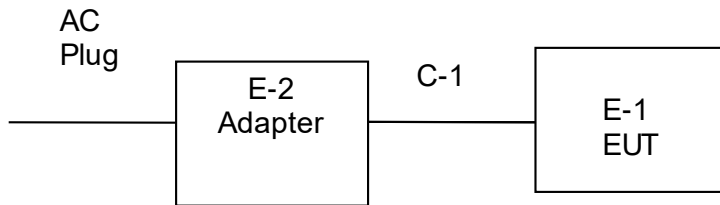
- 1) The measurements are performed at all Bit Rate of Transmitter, the worst data was reported
- 2) We have be tested for all avaiable U.S. voltage and frequencies(For 120V,50/60Hz and 240V, 50/60Hz) for which the device is capable of operation , and the worst case of 120V/60Hz is shown in the report
- 3) Controlled using a bespoke application on the laptop PC supplied by the customer. The application was used to enable a continuous transmission mode and to select the test channels, data rates and modulation schemes as required.

2.3 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

Radiation Test Set



Conduction Test Set



2.4 DESCRIPTION OF NECESSARY ACCESSORIES AND SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Mfr/Brand	Model/Type No.	Serial No.	Note
E-2	Adapter	Tenpao	S005BNU0500100	N/A	Accessories Equipment
E-2	Adapter	Csec	CS6F050100FUF	N/A	
E-3	Personal computer	HP	500-320cx	4CV428DQYN	Auxiliary Equipment

Item	Shielded Type	Ferrite Core	Length	Note
C-1	Adapter DC Cable	NO	200cm	N/A

Note:

- 1) The support equipment was authorized by Declaration of Confirmation.
- 2) For detachable type I/O cable should be specified the length in cm in 『Length』 column.
- 3) “YES” is means “shielded” “with core”; “NO” is means “unshielded” “without core”.

2.5 EQUIPMENTS LIST

Radio Spectrum Testing				
Equipment	Manufacturer	Model No.	Serial No.	Cal. Until
USB RF power sensor	DARE	RPR3006W	15I00041SNO09	05.03.2020
Spectrum analyzer	Agilent	N9020A	MY51110123	01.03.2020
Spurious Emission				
Equipment	Manufacturer	Model No.	Serial No.	Cal. Until
Loop Antenna	Schwarzbeck	FMZB1519B	00044	14.03.2020
Bilog Antenna	Schwarzbeck	VULB9163	497	14.03.2020
Horn Antenna	Schwarzbeck	BBHA 9120D	1805	21.06.2020
SHF-EHF Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170582	20.11.2019
Pre-amplifier	HP	8447D	2944A09358	05.03.2020
Pre-amplifier	CD	PAP-1G18	11804	05.03.2020
EMI Test Receiver	R&S	ESRP7	101070	05.03.2020
Spectrum analyzer	R&S	FSP30	101454	05.03.2020
Spectrum analyzer	R&S	FSP40	100363	05.03.2020
Cable	ZDECL	Z108-NJ-NJ-81	1608458	05.03.2020
Cable	MICRO-COAX	MFR64639	K10742-5	05.03.2020
Cable	SUHNER	SUCOFLEX100	58193/4PE	05.03.2020
Conducted Emission on AC Mains				
Equipment	Manufacturer	Model No.	Serial No.	Cal. Until
EMI Test Receiver	R&S	ESCI	101189	05.03.2020
Pulse Limiter	Schwarzbeck	OSRAM 2306	9731	05.03.2020
LISN	CHASE	MN2050D	1447	17.03.2020
LISN	R&S	ESH3-Z5	8438621/010	20.07.2019

3 EMC EMISSION TEST

3.1 CONDUCTED EMISSION MEASUREMENT

3.1.1 POWER LINE CONDUCTED EMISSION LIMITS

operating frequency band. In case the emission fall within the restricted band specified on Part 15. 207(a), 107(a), RSS-Gen Table3 and ICES-003 Table2 limit in the table below has to be followed. This item was performed according to the procedures in ANSI C63.10: 2013 and ANSI C63.4: 2014.

FREQUENCY (MHz)	Conducted Emissionlimit (dBuV)	
	Quasi-peak	Average
0.15 -0.5	66 - 56 *	56 - 46 *
0.50 -5.0	56.00	46.00
5.0 -30.0	60.00	50.00

Note:

- 1) The tighter limit applies at the band edges.
- 2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

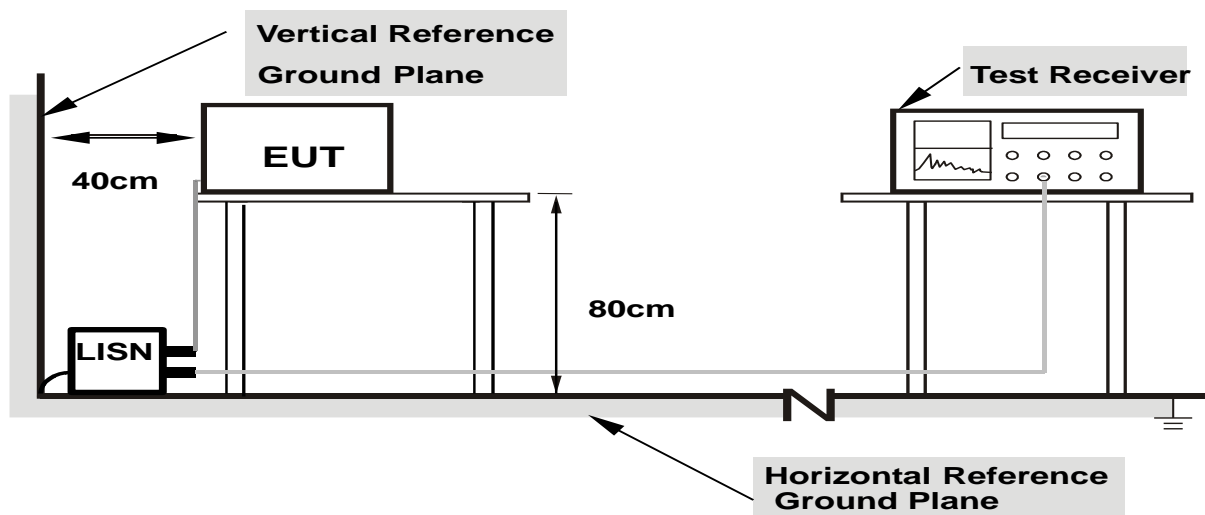
The following table is the setting of the receiver

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

3.1.2 TEST PROCEDURE

- a. The EUT was 0.8 meters from the horizontal ground plane and 0.4 meters from the vertical ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- d. LISN at least 80 cm from nearest part of EUT chassis.
- e. For the actual test configuration, please refer to the related Item –EUT Test Photos.

3.1.3 TEST SETUP



- Note: 1.Support units were connected to second LISN.**
2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

3.1.4 EUT OPERATING CONDITIONS

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

3.1.5 TEST RESULT

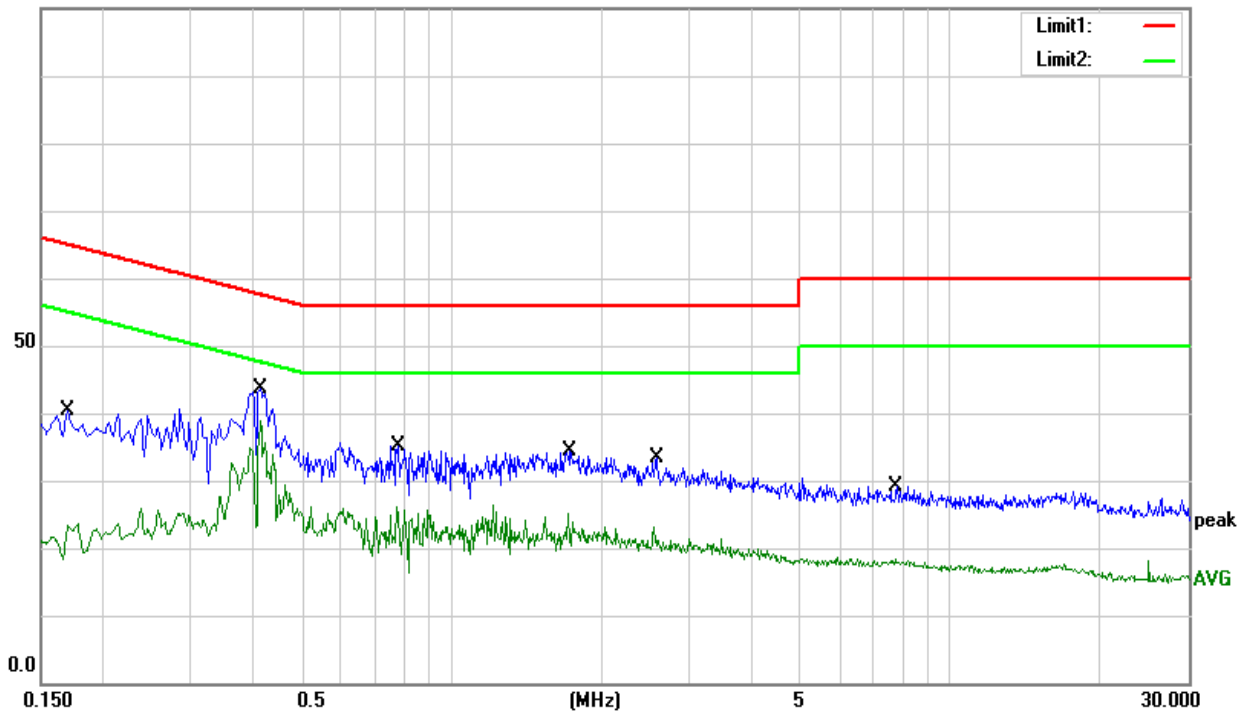
Temperature:	22°C	Relative Humidity:	55%
Test Voltage:	AC 120V/60Hz	Phase:	L
Test Mode:	Mode 13	Test Date:	2019-06-15
Note:	Adapter(Tenpao)		

Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
0.1700	20.22	20.23	40.45	64.96	-24.51	QP
0.1700	3.36	20.23	23.59	54.96	-31.37	AVG
0.4140	23.05	20.49	43.54	57.57	-14.03	QP
0.4140	18.36	20.49	38.85	47.57	-8.72	AVG
0.7820	15.00	20.23	35.23	56.00	-20.77	QP
0.7820	6.25	20.23	26.48	46.00	-19.52	AVG
1.7300	14.26	20.09	34.35	56.00	-21.65	QP
1.7300	4.93	20.09	25.02	46.00	-20.98	AVG
2.5780	13.29	20.01	33.30	56.00	-22.70	QP
2.5780	1.32	20.01	21.33	46.00	-24.67	AVG
7.8340	9.15	19.97	29.12	60.00	-30.88	QP
7.8340	-1.91	19.97	18.06	50.00	-31.94	AVG

Remark:

1. All readings are Quasi-Peak and Average values.
2. Margin = Result (Result =Reading + Factor)–Limit

100.0 dBuV



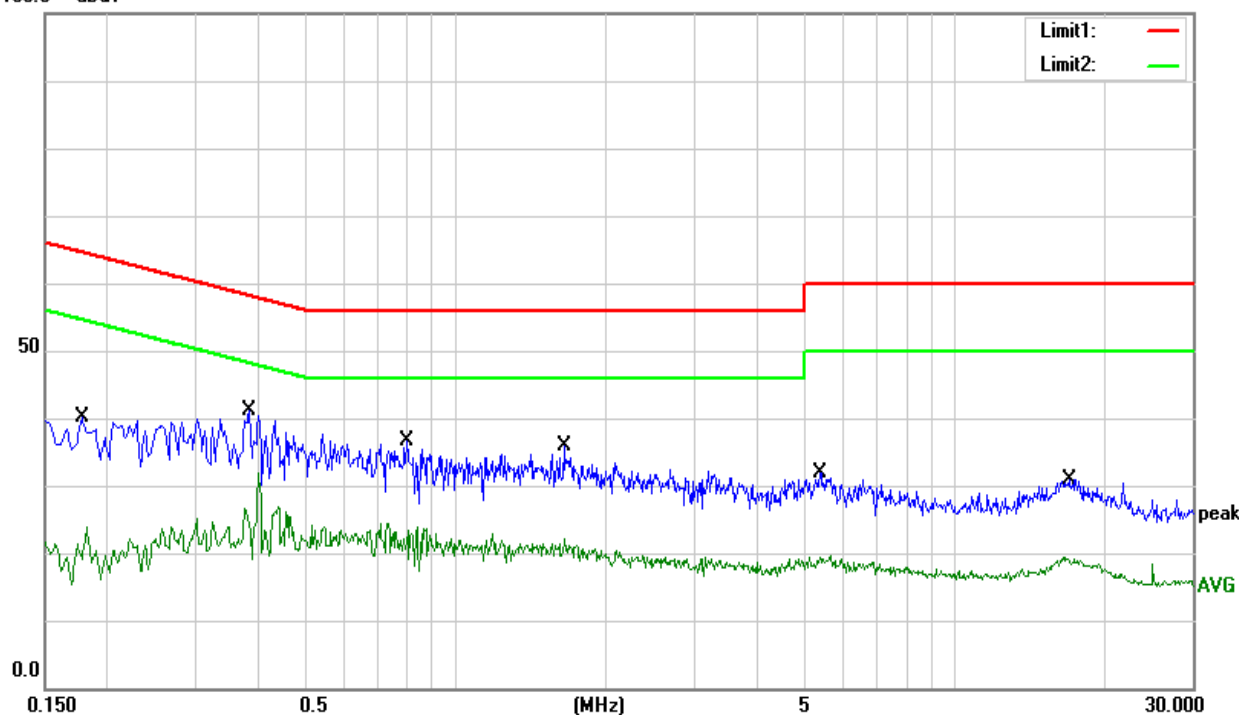
Temperature:	22°C	Relative Humidity:	55%
Test Voltage:	AC 120V/60Hz	Phase:	N
Test Mode:	Mode 13	Test Date:	2019-06-15
Note:	Adapter(Tenpao)		

Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
0.1780	20.01	20.23	40.24	64.58	-24.34	QP
0.1780	3.65	20.23	23.88	54.58	-30.70	AVG
0.3860	20.53	20.53	41.06	58.15	-17.09	QP
0.3860	11.36	20.53	31.89	48.15	-16.26	AVG
0.7980	16.33	20.22	36.55	56.00	-19.45	QP
0.7980	3.55	20.22	23.77	46.00	-22.23	AVG
1.6500	15.66	20.10	35.76	56.00	-20.24	QP
1.6500	1.92	20.10	22.02	46.00	-23.98	AVG
5.3700	11.94	19.92	31.86	60.00	-28.14	QP
5.3700	-0.30	19.92	19.62	50.00	-30.38	AVG
16.9820	11.02	19.97	30.99	60.00	-29.01	QP
16.9820	-0.79	19.97	19.18	50.00	-30.82	AVG

Remark:

1. All readings are Quasi-Peak and Average values.
2. Margin = Result (Result =Reading + Factor)–Limit

100.0 dBuV

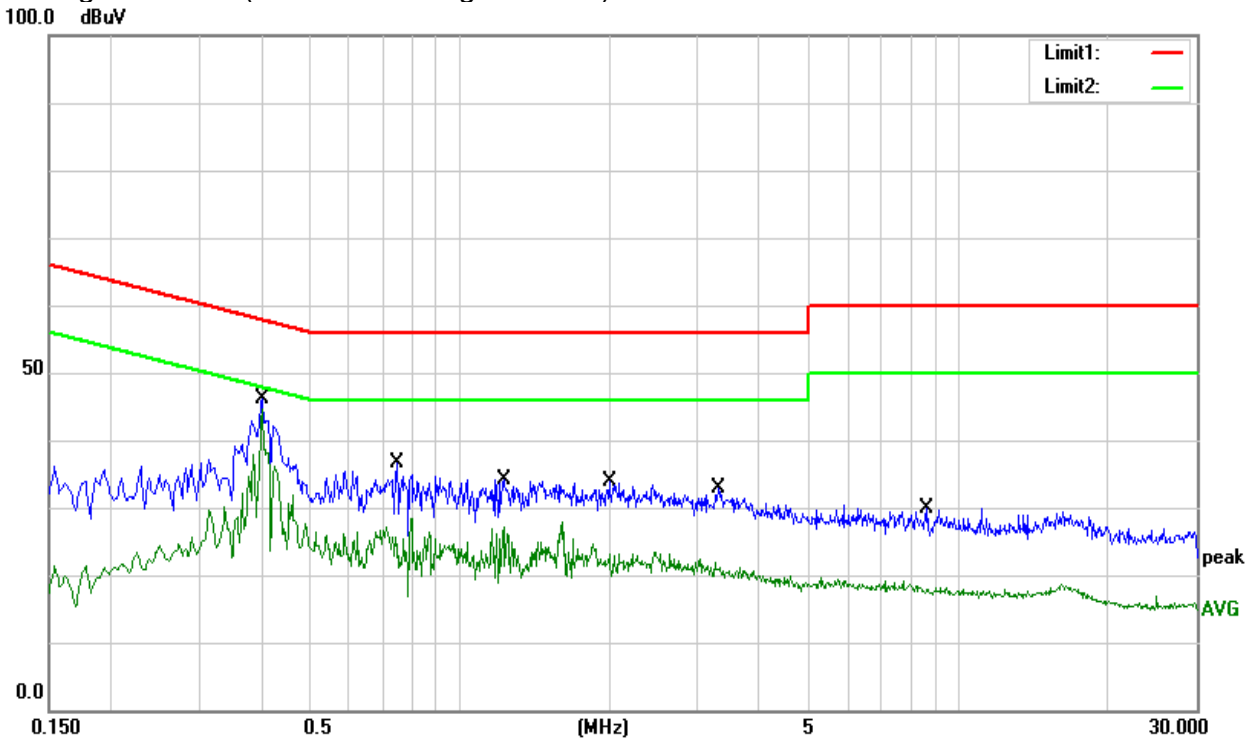


Temperature:	25.3 °C	Relative Humidity:	54%
Test Voltage:	AC 120V/60Hz	Phase:	L
Test Mode:	Mode 14 (Part 15B & ICES-003)	Test Date:	2019-06-15
Note:	Adapter(Tenpao)		

Frequency (MHz)	Reading (dBUV)	Correct Factor(dB)	Result (dBUV)	Limit (dBUV)	Margin (dB)	Remark
0.4020	25.65	20.49	46.14	57.81	-11.67	QP
0.4020	24.09	20.49	44.58	47.81	-3.23	AVG
0.7500	16.48	20.24	36.72	56.00	-19.28	QP
0.7500	8.18	20.24	28.42	46.00	-17.58	AVG
1.2260	13.90	20.14	34.04	56.00	-21.96	QP
1.2260	7.70	20.14	27.84	46.00	-18.16	AVG
1.9940	13.83	20.06	33.89	56.00	-22.11	QP
1.9940	3.41	20.06	23.47	46.00	-22.53	AVG
3.3020	13.01	19.97	32.98	56.00	-23.02	QP
3.3020	1.26	19.97	21.23	46.00	-24.77	AVG
8.6620	9.75	20.03	29.78	60.00	-30.22	QP
8.6620	-1.48	20.03	18.55	50.00	-31.45	AVG

Remark:

1. All readings are Quasi-Peak and Average values.
2. Margin = Result (Result =Reading + Factor)–Limit

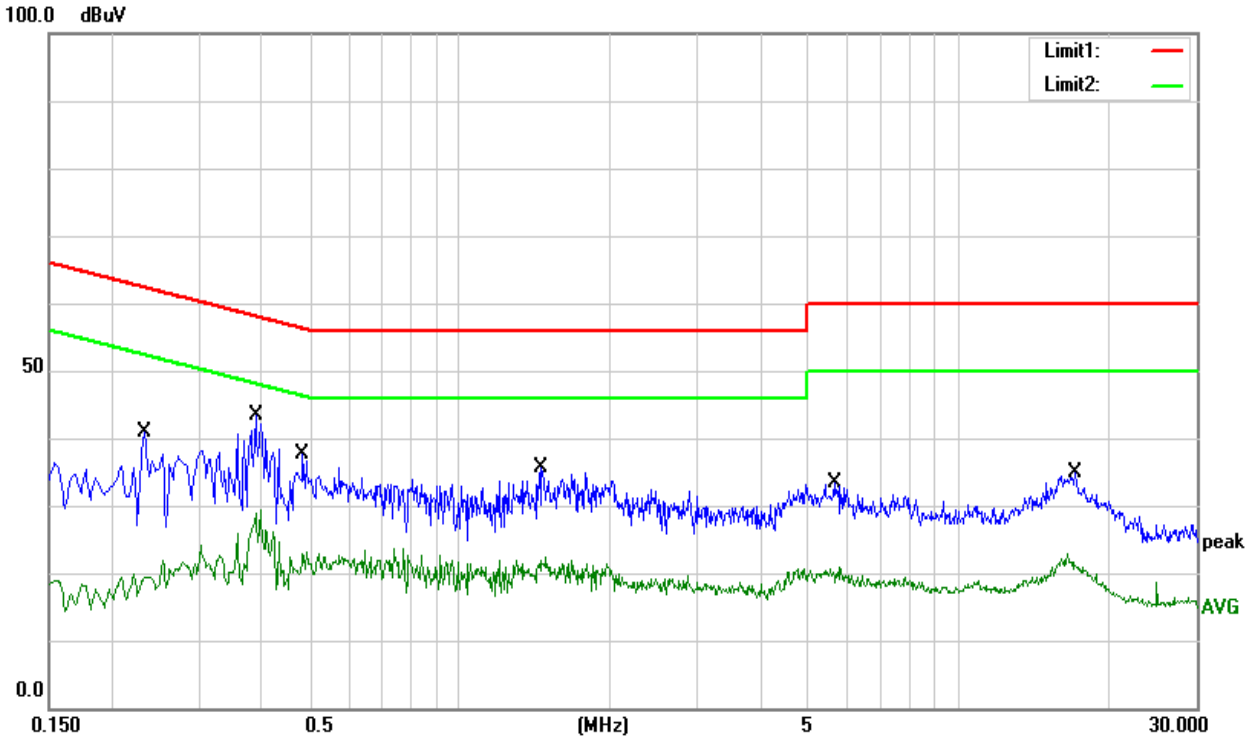


Temperature:	25.3 °C	Relative Humidity:	54%
Test Voltage:	AC 120V/60Hz	Phase:	N
Test Mode:	Mode 14 (Part 15B & ICES-003)	Test Date:	2019-06-15
Note:	Adapter(Tenpao)		

Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
0.2340	20.54	20.40	40.94	62.31	-21.37	QP
0.2340	3.65	20.40	24.05	52.31	-28.26	AVG
0.3900	22.75	20.52	43.27	58.06	-14.79	QP
0.3900	8.95	20.52	29.47	48.06	-18.59	AVG
0.4860	17.06	20.48	37.54	56.24	-18.70	QP
0.4860	2.70	20.48	23.18	46.24	-23.06	AVG
1.4620	15.42	20.11	35.53	56.00	-20.47	QP
1.4620	2.20	20.11	22.31	46.00	-23.69	AVG
5.6380	13.44	19.92	33.36	60.00	-26.64	QP
5.6380	0.88	19.92	20.80	50.00	-29.20	AVG
17.1940	14.86	19.96	34.82	60.00	-25.18	QP
17.1940	0.95	19.96	20.91	50.00	-29.09	AVG

Remark:

1. All readings are Quasi-Peak and Average values.
2. Margin = Result (Result =Reading + Factor)–Limit

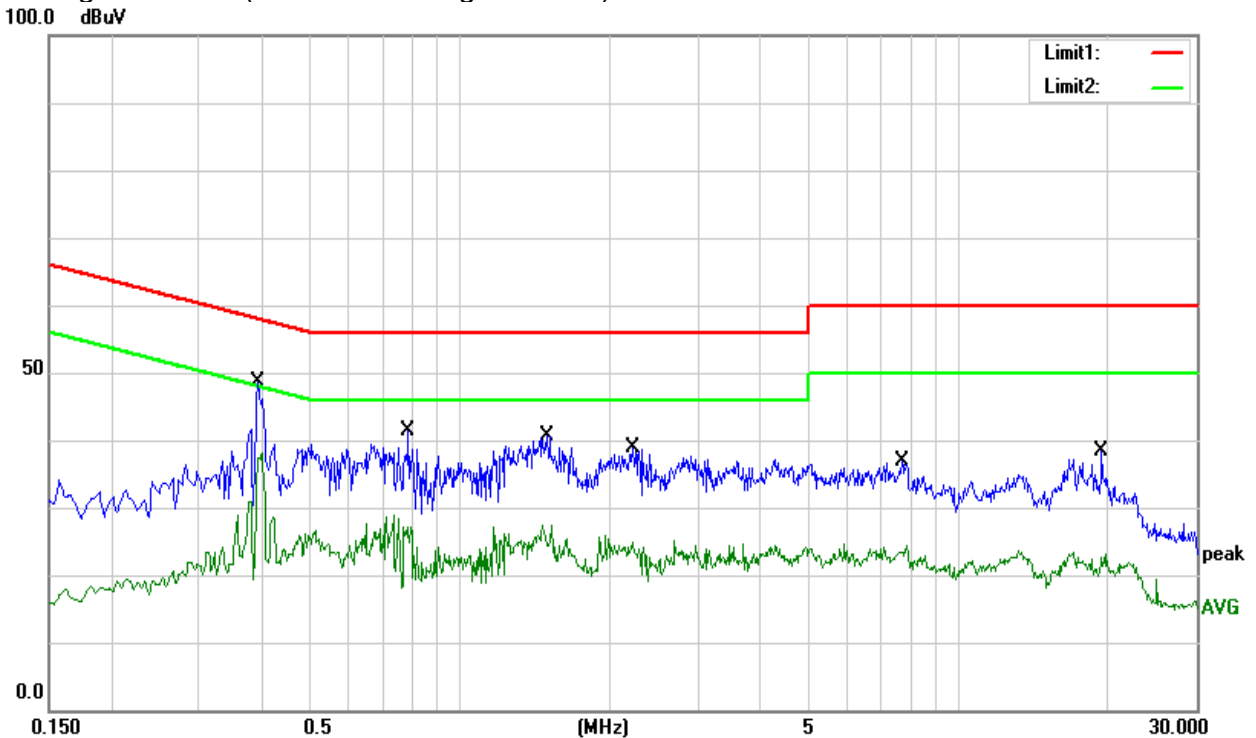


Temperature:	25.3 °C	Relative Humidity:	54%
Test Voltage:	AC 120V/60Hz	Phase:	L
Test Mode:	Mode 14 (Part 15B & ICES-003)	Test Date:	2019-06-15
Note:	Adapter(Csec)		

Frequency (MHz)	Reading (dBUV)	Correct Factor(dB)	Result (dBUV)	Limit (dBUV)	Margin (dB)	Remark
0.3940	28.06	20.51	48.57	57.98	-9.41	QP
0.3940	17.67	20.51	38.18	47.98	-9.80	AVG
0.7900	21.08	20.23	41.31	56.00	-14.69	QP
0.7900	8.62	20.23	28.85	46.00	-17.15	AVG
1.5020	20.58	20.11	40.69	56.00	-15.31	QP
1.5020	7.35	20.11	27.46	46.00	-18.54	AVG
2.2300	18.85	20.04	38.89	56.00	-17.11	QP
2.2300	5.43	20.04	25.47	46.00	-20.53	AVG
7.6900	17.02	19.95	36.97	60.00	-23.03	QP
7.6900	4.68	19.95	24.63	50.00	-25.37	AVG
19.3420	18.36	19.94	38.30	60.00	-21.70	QP
19.3420	3.34	19.94	23.28	50.00	-26.72	AVG

Remark:

1. All readings are Quasi-Peak and Average values.
2. Margin = Result (Result =Reading + Factor)–Limit

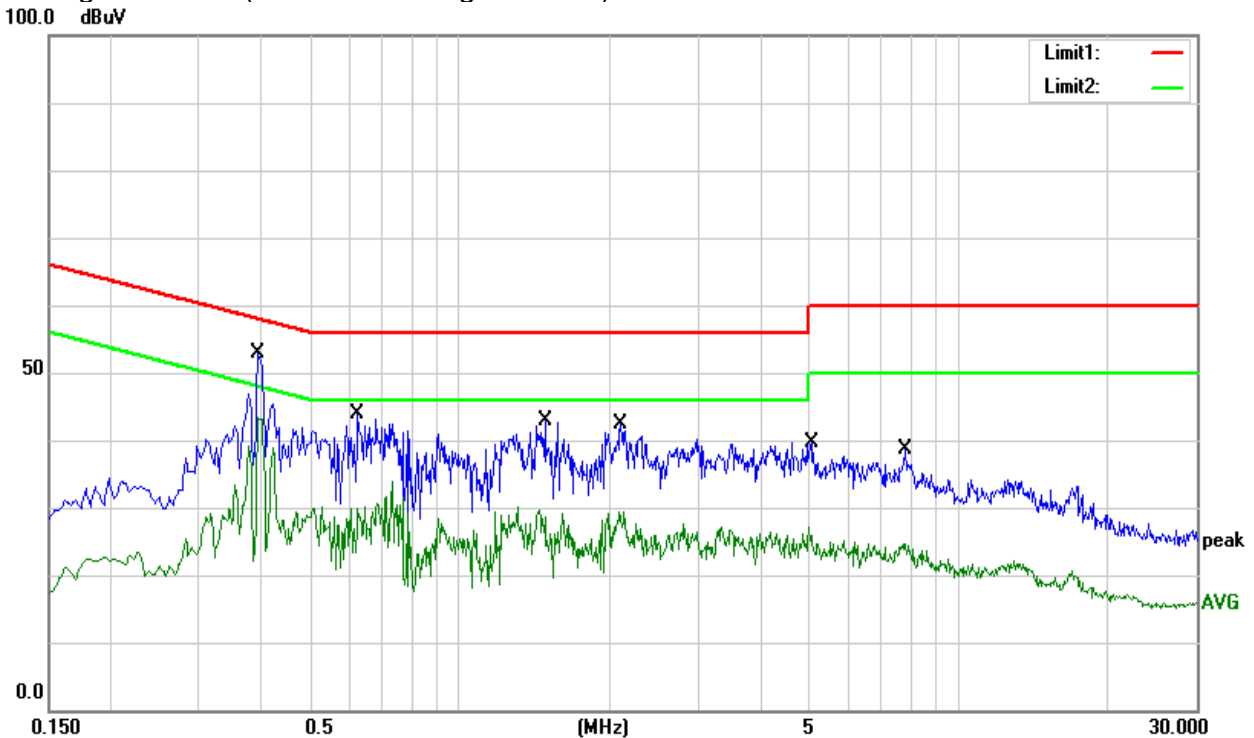


Temperature:	25.3 °C	Relative Humidity:	54%
Test Voltage:	AC 120V/60Hz	Phase:	N
Test Mode:	Mode 14 (Part 15B & ICES-003)	Test Date:	2019-06-15
Note:	Adapter(Csec)		

Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
0.3940	32.43	20.51	52.94	57.98	-5.04	QP
0.3940	22.79	20.51	43.30	47.98	-4.68	AVG
0.6260	23.51	20.34	43.85	56.00	-12.15	QP
0.6260	13.65	20.34	33.99	46.00	-12.01	AVG
1.4820	22.64	20.11	42.75	56.00	-13.25	QP
1.4820	8.98	20.11	29.09	46.00	-16.91	AVG
2.1060	22.41	20.05	42.46	56.00	-13.54	QP
2.1060	9.27	20.05	29.32	46.00	-16.68	AVG
5.0700	19.75	19.95	39.70	60.00	-20.30	QP
5.0700	7.21	19.95	27.16	50.00	-22.84	AVG
7.8380	18.62	19.97	38.59	60.00	-21.41	QP
7.8380	4.69	19.97	24.66	50.00	-25.34	AVG

Remark:

1. All readings are Quasi-Peak and Average values.
2. Margin = Result (Result =Reading + Factor)–Limit



3.2 RADIATED EMISSION MEASUREMENT

3.2.1 RADIATED EMISSION LIMITS

Frequencies (MHz)	Class A (at 10m) dBuV/m	Class B (at 3m) dBuV/m
30~88	39.0	40.0
88~216	43.5	43.5
216~960	46.5	46.0
Above 960	49.5	54.0

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000MHz)

FREQUENCY (MHz)	Class A (dBuV/m) (at 3M)		Class B (dBuV/m) (at 3M)	
	PEAK	AVERAGE	PEAK	AVERAGE
Above 1000	80	60	74	54

Note:

- 1) The tighter limit applies at the band edges.
- 2) Emission level (dBuV/m)=20log Emission level (uV/m).

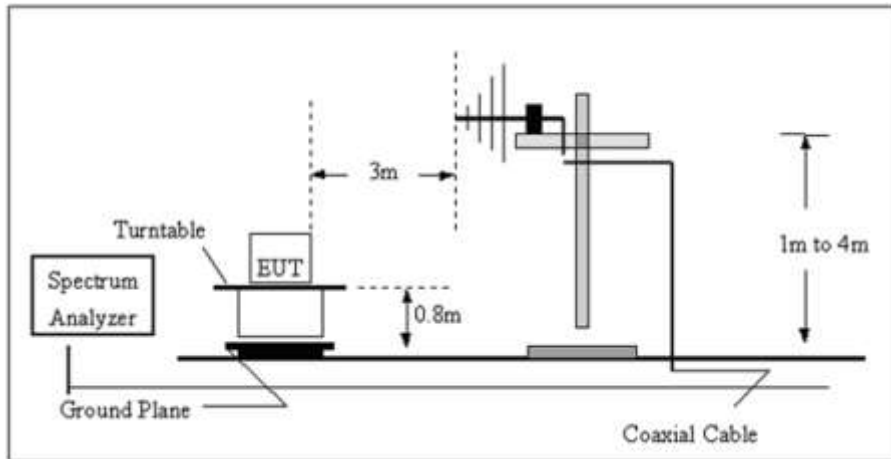
3.2.2 TEST PROCEDURE

- a) The measuring distance of at 3 m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.
- b) The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter open area test site. The table was rotated 360 degrees to determine the position of the highest radiation.
- c) The height of the equipment or of the substitution antenna shall be 0.8 m; the height of the test antenna shall vary between 0.8 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d) The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- e) If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.
- f) For the actual test configuration, please refer to the related Item –EUT Test Photos.

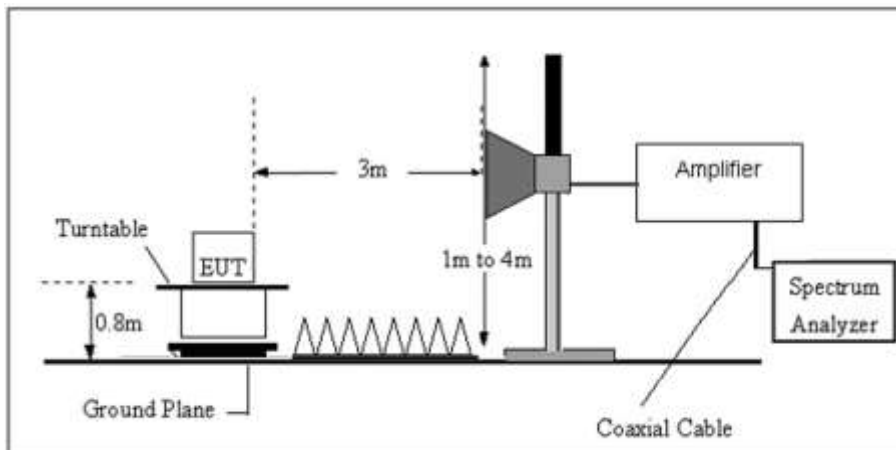
Note: Both horizontal and vertical antenna polarities were tested and performed pretest to three orthogonal axis. The worst case emissions were reported

3.2.3 TEST SETUP

a) Radiated Emission Test-Up Frequency 30MHz~1GHz



b) Radiated Emission Test-Up Frequency Above 1GHz



3.2.4 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

3.2.5 TEST RESULTS

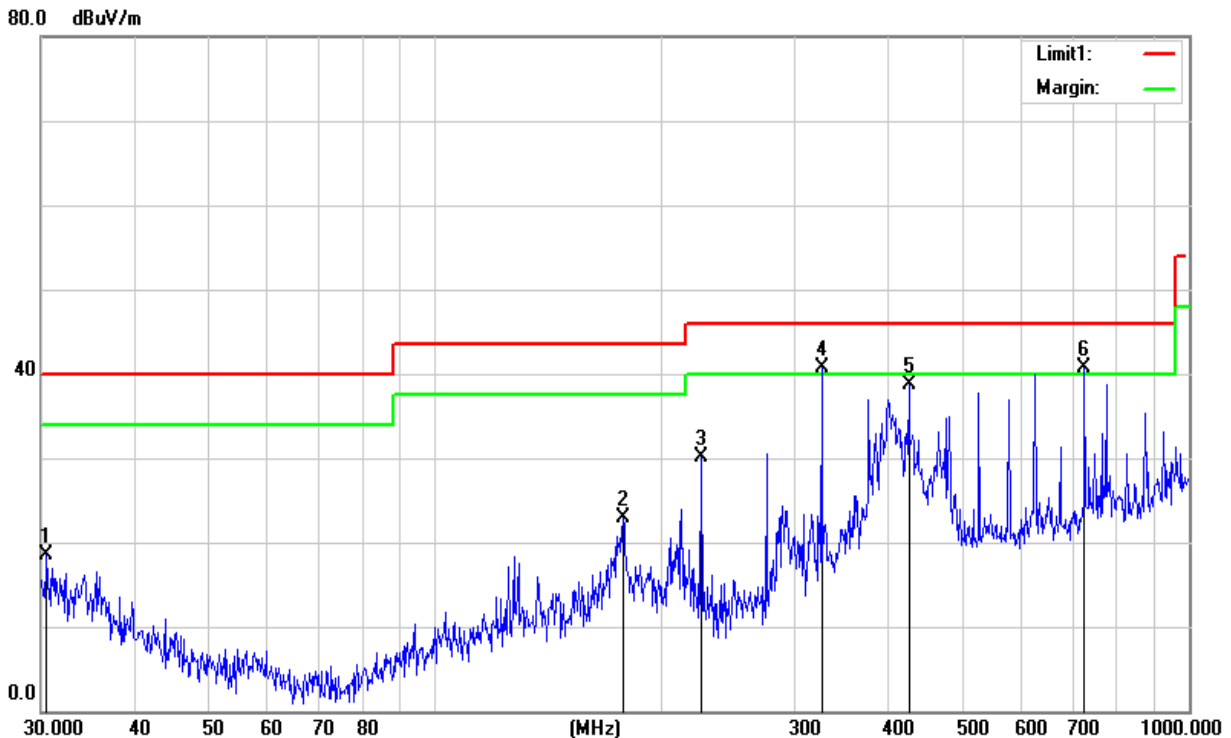
Between 30-1000MHz:

Temperature:	25.4 °C	Relative Humidity:	56%
Pressure:	1010hPa	Phase:	Horizontal
Test Voltage:	AC 120V/60Hz	Test Mode:	Mode 14 (Part 15B & ICES-003)
Note:	Adapter(Tenpao)	Test Date:	2019-06-15

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	30.5304	29.95	-11.47	18.48	40.00	-21.52	QP
2	177.5090	42.31	-19.41	22.90	43.50	-20.60	QP
3	225.3080	48.84	-18.77	30.07	46.00	-15.93	QP
4	325.5957	54.75	-14.12	40.63	46.00	-5.37	QP
5	425.0280	49.56	-10.90	38.66	46.00	-7.34	QP
6	726.8052	44.93	-4.26	40.67	46.00	-5.33	QP

Remark:

1. All readings are Quasi-Peak .
2. Margin = Result (Result =Reading + Factor)–Limit

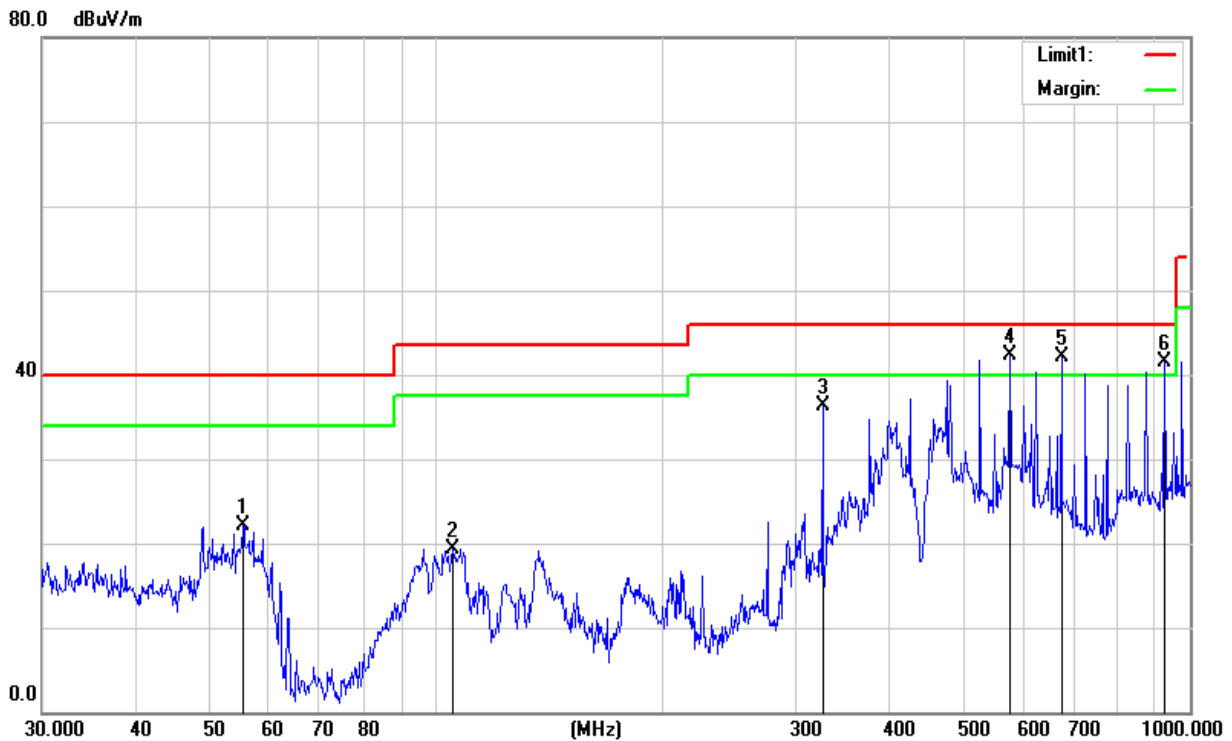


Temperature:	25.4 °C	Relative Humidity:	56%
Pressure:	1010hPa	Phase:	Vertical
Test Voltage:	AC 120V/60Hz	Test Mode:	Mode 14 (Part 15B & ICES-003)
Note:	Adapter(Tenpao)	Test Date:	2019-06-15

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	55.4147	45.10	-23.03	22.07	40.00	-17.93	QP
2	105.2716	38.12	-18.74	19.38	43.50	-24.12	QP
3	325.5957	50.34	-14.12	36.22	46.00	-9.78	QP
4	576.6443	48.98	-6.69	42.29	46.00	-3.71	QP
5	675.2080	48.00	-5.87	42.13	46.00	-3.87	QP
6	925.7563	42.81	-1.33	41.48	46.00	-4.52	QP

Remark:

1. All readings are Quasi-Peak .
2. Margin = Result (Result =Reading + Factor)–Limit

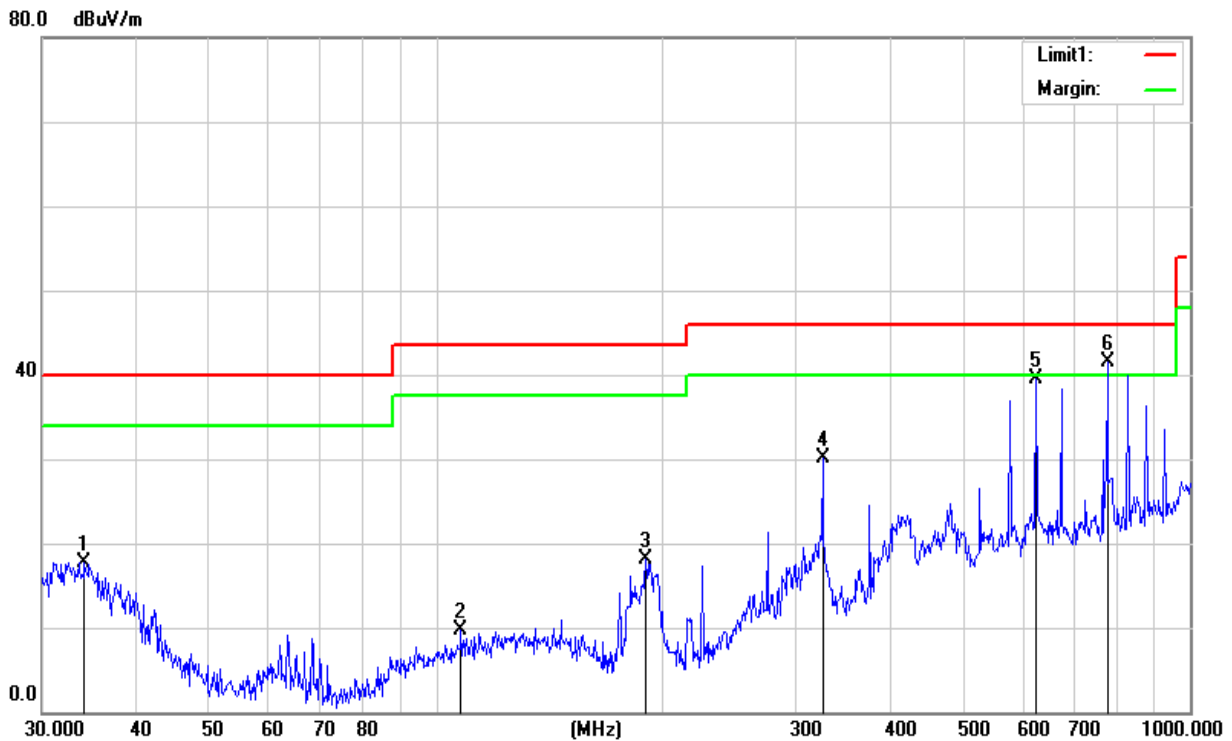


Temperature:	25.4 °C	Relative Humidity:	56%
Pressure:	1010hPa	Phase:	Horizontal
Test Voltage:	AC 120V/60Hz	Test Mode:	Mode 14 (Part 15B & ICES-003)
Note:	Adapter(Csec)	Test Date:	2019-06-15

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	34.1561	31.05	-13.32	17.73	40.00	-22.27	QP
2	107.8876	28.26	-18.52	9.74	43.50	-33.76	QP
3	189.7384	38.42	-20.24	18.18	43.50	-25.32	QP
4	325.5957	44.15	-14.12	30.03	46.00	-15.97	QP
5	625.0780	45.94	-6.43	39.51	46.00	-6.49	QP
6	776.8777	44.70	-3.18	41.52	46.00	-4.48	QP

Remark:

1. All readings are Quasi-Peak .
2. Margin = Result (Result =Reading + Factor)–Limit

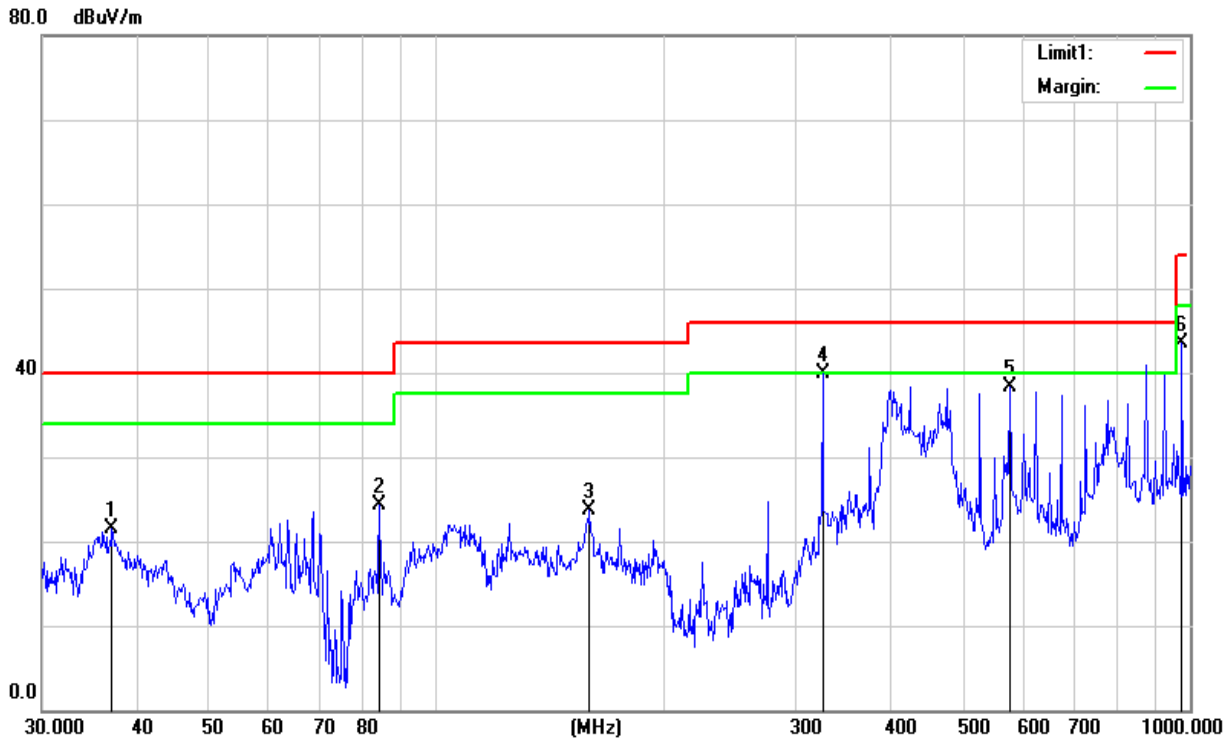


Temperature:	25.4 °C	Relative Humidity:	56%
Pressure:	1010hPa	Phase:	Vertical
Test Voltage:	AC 120V/60Hz	Test Mode:	Mode 14 (Part 15B & ICES-003)
Note:	Adapter(Csec)	Test Date:	2019-06-15

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	37.1550	36.44	-14.86	21.58	40.00	-18.42	QP
2	84.1100	45.95	-21.66	24.29	40.00	-15.71	QP
3	159.7844	42.19	-18.49	23.70	43.50	-19.80	QP
4	325.5957	53.97	-14.12	39.85	46.00	-6.15	QP
5	576.6443	44.99	-6.69	38.30	46.00	-7.70	QP
6	975.7527	43.65	-0.14	43.51	54.00	-10.49	QP

Remark:

1. All readings are Quasi-Peak .
2. Margin = Result (Result =Reading + Factor)–Limit



Between 1GHz – 6GHz:

Temperature:	25 °C	Relative Humidity:	65%
Pressure:	1010hPa	Phase:	Horizontal
Test Mode:	Mode 14 (Part 15B & ICES-003)	Test Date:	2019-06-15
Note:	Adapter(Tenpao)		

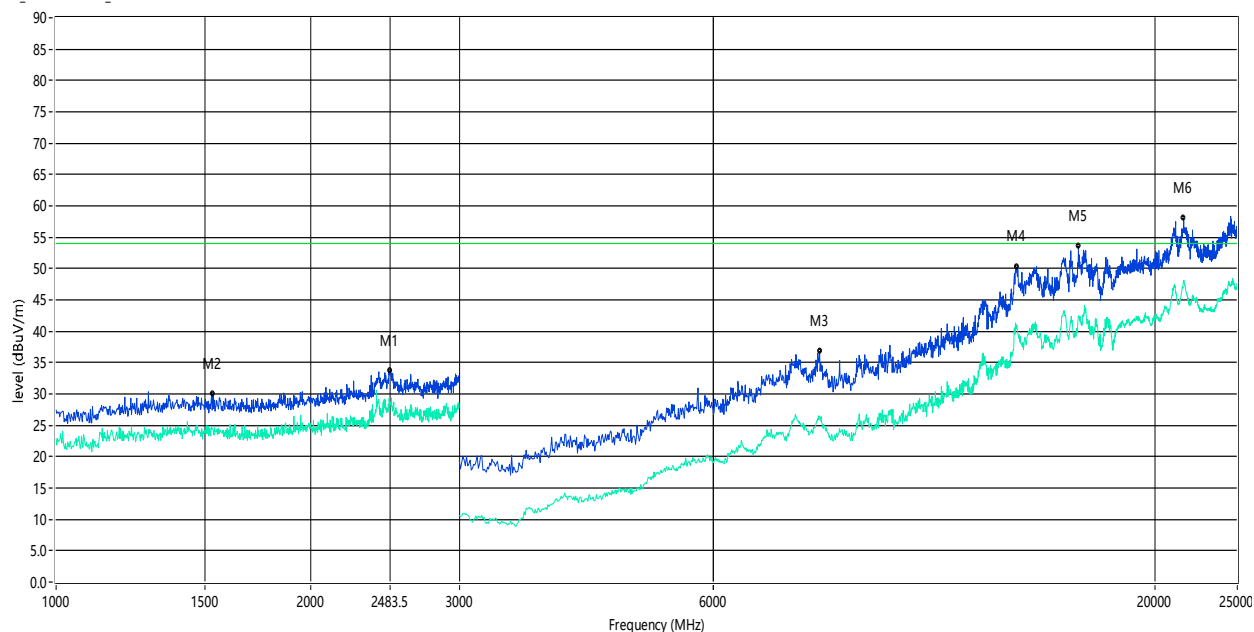
RE_FCC Test Case_FCC 15B 1GHz-25GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	ANT	Verdict
1**	2484.000	29.31	-13.55	54.0	-24.69	AV	H	Pass
1	2484.000	34.13	-13.55	74.0	-39.87	Peak	H	Pass
2**	1520.000	25.05	-19.14	54.0	-28.95	AV	H	Pass
2	1520.000	30.26	-19.14	74.0	-43.74	Peak	H	Pass
3**	7530.000	26.18	10.47	54.0	-27.82	AV	H	Pass
3	7530.000	36.10	10.47	74.0	-37.90	Peak	H	Pass
4**	14368.000	40.96	24.92	54.0	-13.04	AV	H	Pass
4	14368.000	51.13	24.92	74.0	-22.87	Peak	H	Pass
5**	16540.000	43.73	22.12	54.0	-10.27	AV	H	Pass
5	16540.000	53.15	22.12	74.0	-20.85	Peak	H	Pass
6**	21556.001	47.27	24.00	54.0	-6.73	AV	H	Pass
6	21556.001	58.43	24.00	74.0	-15.57	Peak	H	Pass

Temperature:	25 °C	Relative Humidity:	65%
Pressure:	1010hPa	Phase:	Vertical
Test Mode:	Mode 14 (Part 15B & ICES-003)	Test Date:	2019-06-15
Note:	Adapter(Tenpao)		

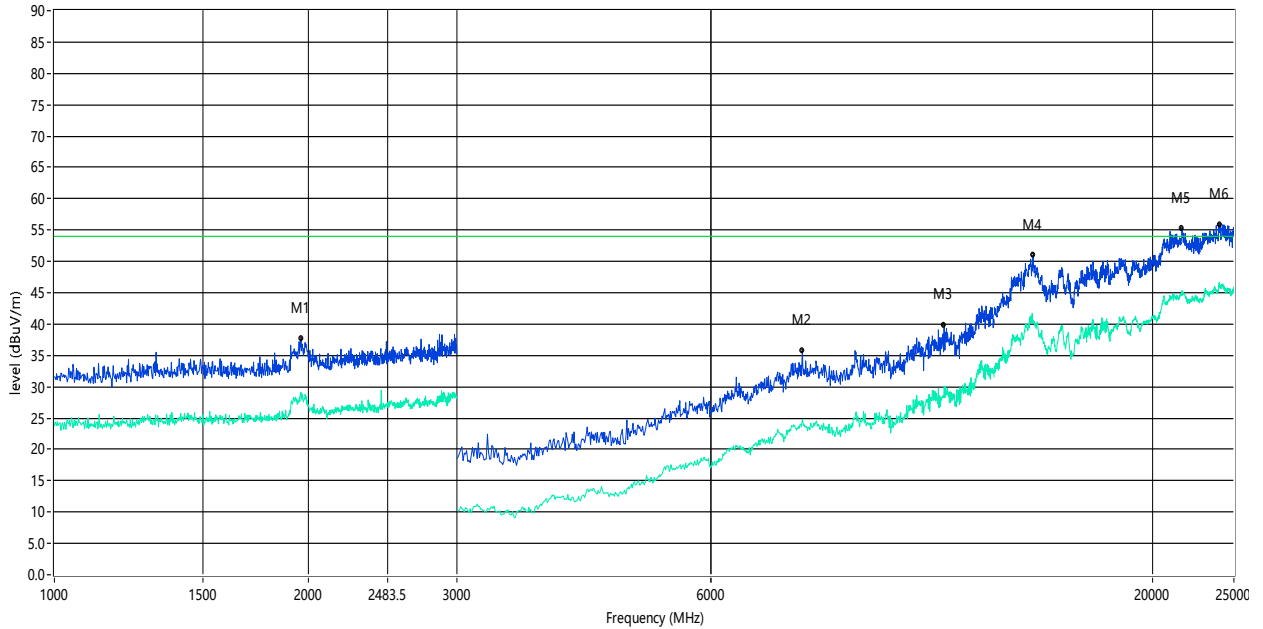
RE_FCC Test Case_FCC 15B 1GHz-25GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	ANT	Verdict
1**	2486.000	28.67	-13.50	54.0	-25.33	AV	V	Pass
1	2486.000	33.66	-13.50	74.0	-40.34	Peak	V	Pass
2**	1534.000	24.28	-19.06	54.0	-29.72	AV	V	Pass
2	1534.000	29.92	-19.06	74.0	-44.08	Peak	V	Pass
3**	8010.000	26.19	10.42	54.0	-27.81	AV	V	Pass
3	8010.000	36.77	10.42	74.0	-37.23	Peak	V	Pass
4**	13696.000	40.78	23.26	54.0	-13.22	AV	V	Pass
4	13696.000	50.22	23.26	74.0	-23.78	Peak	V	Pass
5**	16216.001	42.48	21.69	54.0	-11.52	AV	V	Pass
5	16216.001	53.48	21.69	74.0	-20.52	Peak	V	Pass
6**	21604.000	48.01	23.98	54.0	-5.99	AV	V	Pass
6	21604.000	57.96	23.98	74.0	-16.04	Peak	V	Pass

Temperature:	25 °C	Relative Humidity:	65%
Pressure:	1010hPa	Phase:	Horizontal
Test Mode:	Mode 14 (Part 15B & ICES-003)	Test Date:	2019-06-15
Note:	Adapter(Csec)		

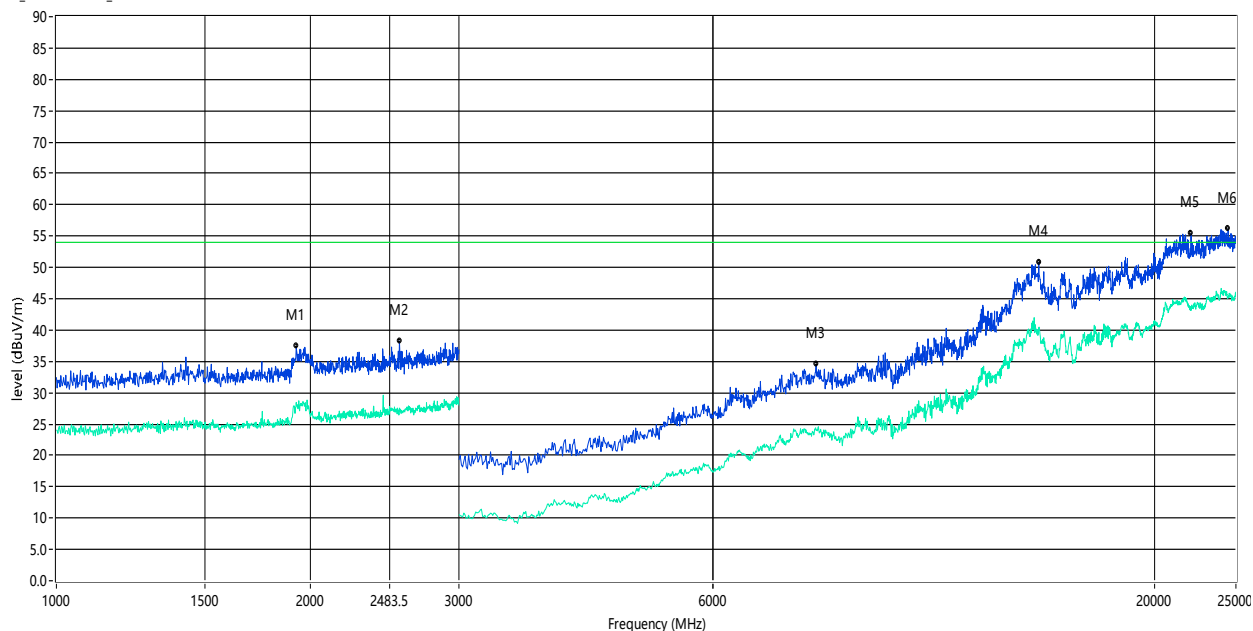
RE_FCC Test Case_FCC 15B 1GHz-25GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	ANT	Verdict
1**	1960.000	29.11	-0.62	54.0	-24.89	AV	H	Pass
1	1960.000	37.65	-0.62	74.0	-36.35	Peak	H	Pass
2**	7700.000	24.80	10.88	54.0	-29.20	AV	H	Pass
2	7700.000	35.78	10.88	74.0	-38.22	Peak	H	Pass
3**	11340.000	30.06	16.89	54.0	-23.94	AV	H	Pass
3	11340.000	39.75	16.89	74.0	-34.25	Peak	H	Pass
4**	14452.000	40.66	24.56	54.0	-13.34	AV	H	Pass
4	14452.000	50.89	24.56	74.0	-23.11	Peak	H	Pass
5**	21700.000	45.34	23.96	54.0	-8.66	AV	H	Pass
5	21700.000	55.30	23.96	74.0	-18.70	Peak	H	Pass
6**	24052.001	45.98	23.29	54.0	-8.02	AV	H	Pass
6	24052.001	55.88	23.29	74.0	-18.12	Peak	H	Pass

Temperature:	25 °C	Relative Humidity:	65%
Pressure:	1010hPa	Phase:	Vertical
Test Mode:	Mode 14 (Part 15B & ICES-003)	Test Date:	2019-06-15
Note:	Adapter(Csec)		

RE_FCC Test Case_FCC 15B 1GHz-25GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	ANT	Verdict
1**	1924.000	28.45	-1.06	54.0	-25.55	AV	V	Pass
1	1924.000	37.44	-1.06	74.0	-36.56	Peak	V	Pass
2**	2550.000	27.57	-0.27	54.0	-26.43	AV	V	Pass
2	2550.000	38.26	-0.27	74.0	-35.74	Peak	V	Pass
3**	7950.000	24.03	10.24	54.0	-29.97	AV	V	Pass
3	7950.000	34.50	10.24	74.0	-39.50	Peak	V	Pass
4**	14596.000	40.33	24.15	54.0	-13.67	AV	V	Pass
4	14596.000	50.78	24.15	74.0	-23.22	Peak	V	Pass
5**	22119.999	43.15	23.86	54.0	-10.85	AV	V	Pass
5	22119.999	55.41	23.86	74.0	-18.59	Peak	V	Pass
6**	24472.001	45.26	23.15	54.0	-8.74	AV	V	Pass
6	24472.001	56.15	23.15	74.0	-17.85	Peak	V	Pass

3.3 RADIATED SPURIOUS EMISSION MEASUREMENT

3.3.1 RADIATED EMISSION LIMITS

in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the Restricted band specified on Part15.205(a)&209(a) and RSS-247 Issue 2 limit in the table and according to ANSI C63.10-2013 below has to be followed.

LIMITS OF RADIATED EMISSION MEASUREMENT (0.009MHz - 1000MHz)

Frequencies (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

LIMITS OF RADIATED EMISSION MEASUREMENT (1000MHz-25GHz)

FREQUENCY (MHz)	(dBuV/m) (at 3M)	
	PEAK	AVERAGE
Above 1000	74	54

Notes:

- (1) The limit for radiated test was performed according to FCC PART 15C.
- (2) The tighter limit applies at the band edges.
- (3) Emission level (dBuV/m)=20log Emission level (uV/m).

For Radiated Emission

Spectrum Parameter	Setting
Attenuation	Auto
Detector	Peak/AV
Start Frequency	1000 MHz(Peak/AV)
Stop Frequency	10th carrier hamonic(Peak/AV)
RB / VB (emission in restricted	1 MHz /3MHz

For Band edge

Spectrum Parameter	Setting
Detector	Peak/AV
Start/Stop Frequency	Lower Band Edge: 2300 to 2422 MHz Upper Band Edge: 2452to 2500 MHz
RB / VB (emission in restricted band)	1 MHz /3MHz

Receiver Parameter	Setting
Start ~ Stop Frequency	9kHz~90kHz / RB 200Hz for PK & AV
Start ~ Stop Frequency	90kHz~110kHz / RB 200Hz for QP
Start ~ Stop Frequency	110kHz~490kHz / RB 200Hz for PK & AV
Start ~ Stop Frequency	490kHz~30MHz / RB 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RB 120kHz for QP

3.3.2 TEST PROCEDURE

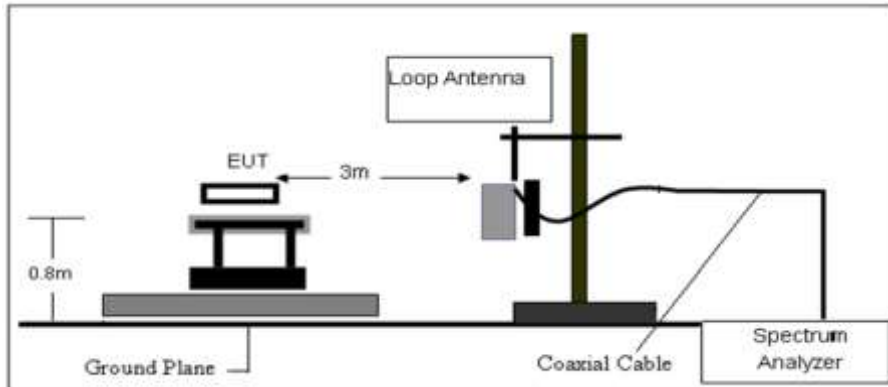
- a) The measuring distance of at 3 m shall be used for measurements at frequency 0.009MHz up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used .
- b) The EUT was placed on the top of a rotating table 0.8 meters(above 1GHz is 1.5 m) above the ground at a 3 meter anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- c) The height of the equipment shall be 0.8 m(above 1GHz is 1.5 m); the height of the test antenna shall vary between 1 m to 4 m. Horizontal and vertical polarizations of the antenna are set to make the measurement
- d) The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- e) If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.
- f) For the actual test configuration, please refer to the related Item –EUT Test Photos.

Note:

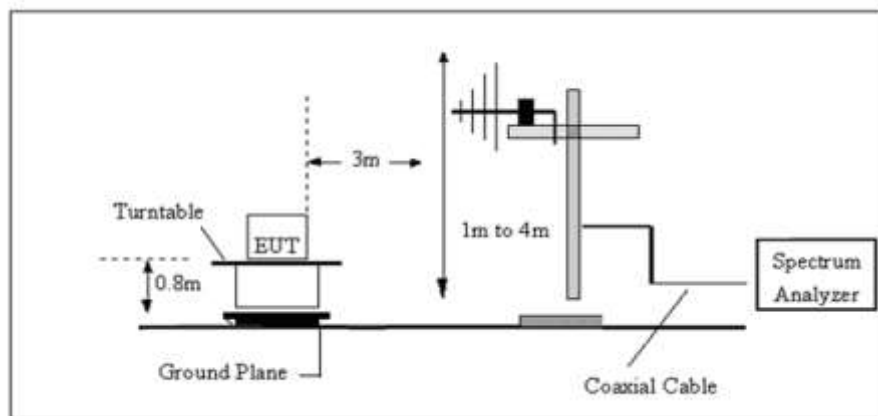
Both horizontal and vertical antenna polarities were tested and performed test to three orthogonal axis. The worst case emissions were reported

3.3.3 TEST SETUP

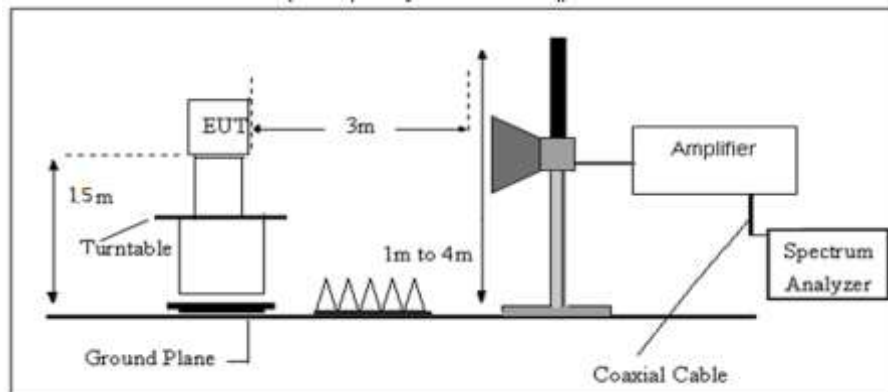
a) Radiated Emission Test-Up Frequency Below 30MHz



b) Radiated Emission Test-Up Frequency 30MHz~1GHz



c) Radiated Emission Test-Up Frequency Above 1GHz



3.3.4 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of 2.3 Unless otherwise a special operating condition is specified in the follows during the testing.

3.3.5 FIELD STRENGTH CALCULATION

The field strength is calculated by adding the Antenna Factor and Cable Factor and subtracting the Amplifier Gain and Duty Cycle Correction Factor (if any) from the measured reading. The basic equation with a sample calculation is as follows:

$$FS = RA + AF + CL - AG$$

Where

FS = Field Strength

CL = Cable Attenuation Factor (Cable Loss)

RA = Reading Amplitude

AG = Amplifier Gain

AF = Antenna Factor

For example

Frequency (MHz)	FS (dB μ V/m)	RA (dB μ V/m)	AF (dB)	CL (dB)	AG (dB)	Factor (dB)
300	40	58.1	12.2	1.6	31.9	-18.1

$$\text{Factor} = AF + CL - AG$$

3.3.6 TEST RESULT

9KHz-30MHz

Temperature:	25.4°C	Relative Humidity:	56%
Test Voltage:	AC 120V/60Hz	Polarization:	--
Test Mode:	TX Mode		

Freq. (MHz)	Reading (dBuV/m)	Limit (dBuV/m)	Margin (dB)	State P/F	Test Result
--	--	--	--	--	PASS
--	--	--	--	--	PASS

Note:

The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

Distance extrapolation factor = 40 log (specific distance/test distance)(dB);

Limit line = specific limits(dBuV) + distance extrapolation factor.

(30MHz - 1000MHz)

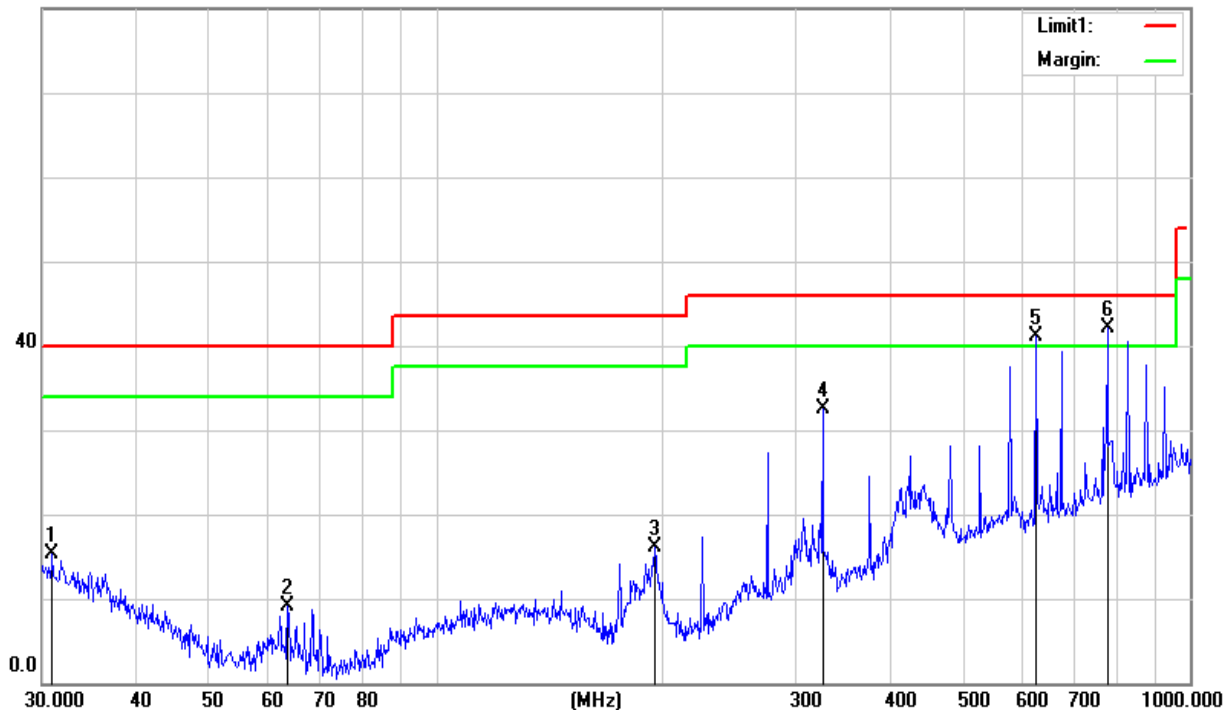
Temperature:	25.4°C	Relative Humidity:	56%
Test Voltage:	AC 120V/60Hz	Polarization:	Horizontal
Test Mode:	Mode 1 (worst mode)	Test Date:	2019-06-15
Note:	Adapter(Tenpao)		

Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
30.9618	27.03	-11.68	15.35	40.00	-24.65	QP
63.5356	33.36	-24.26	9.10	40.00	-30.90	QP
195.1365	36.30	-20.21	16.09	43.50	-27.41	QP
325.5957	46.65	-14.12	32.53	46.00	-13.47	QP
625.0780	47.44	-6.43	41.01	46.00	-4.99	QP
776.8777	45.20	-3.18	42.02	46.00	-3.98	QP

Remark:

1. Margin = Result (Result =Reading + Factor)–Limit

80.0 dBuV/m



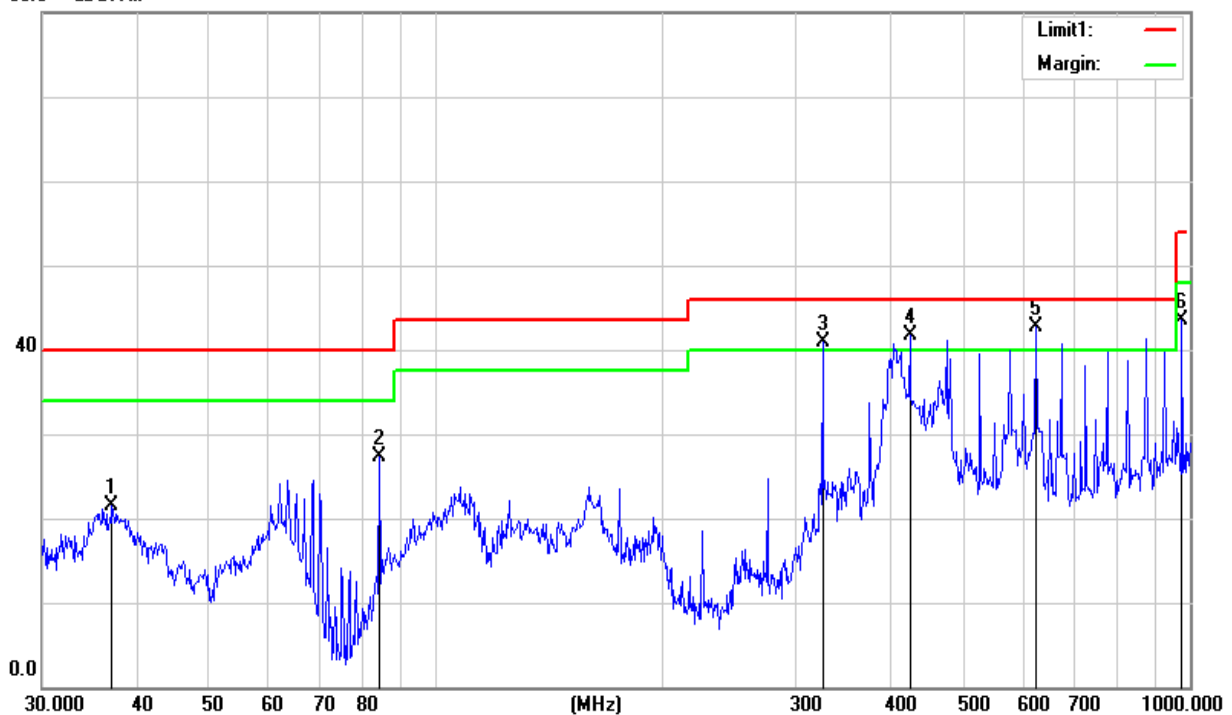
Temperature:	25.4°C	Relative Humidity:	56%
Test Voltage:	AC 120V/60Hz	Polarization:	Vertical
Test Mode:	Mode 1 (worst mode)	Test Date:	2019-06-15
Note:	Adapter(Tenpao)		

Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
37.1550	36.44	-14.86	21.58	40.00	-18.42	QP
84.1100	48.95	-21.66	27.29	40.00	-12.71	QP
325.5957	54.97	-14.12	40.85	46.00	-5.15	QP
425.0280	52.62	-10.90	41.72	46.00	-4.28	QP
625.0780	49.15	-6.43	42.72	46.00	-3.28	QP
975.7527	43.65	-0.14	43.51	54.00	-10.49	QP

Remark:.

1. Margin = Result (Result =Reading + Factor)–Limit

80.0 dBuV/m

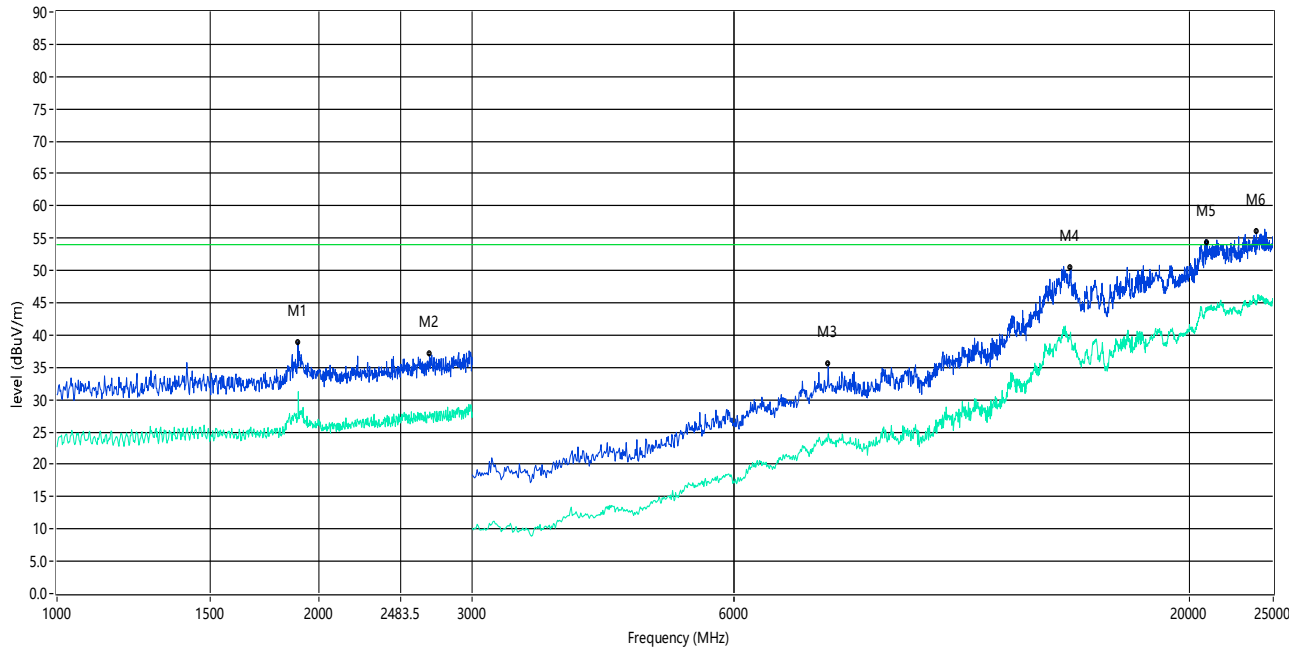


(Above 1000MHz) Restricted band and Spurious emission Requirements

802.11 b_Low

vertical

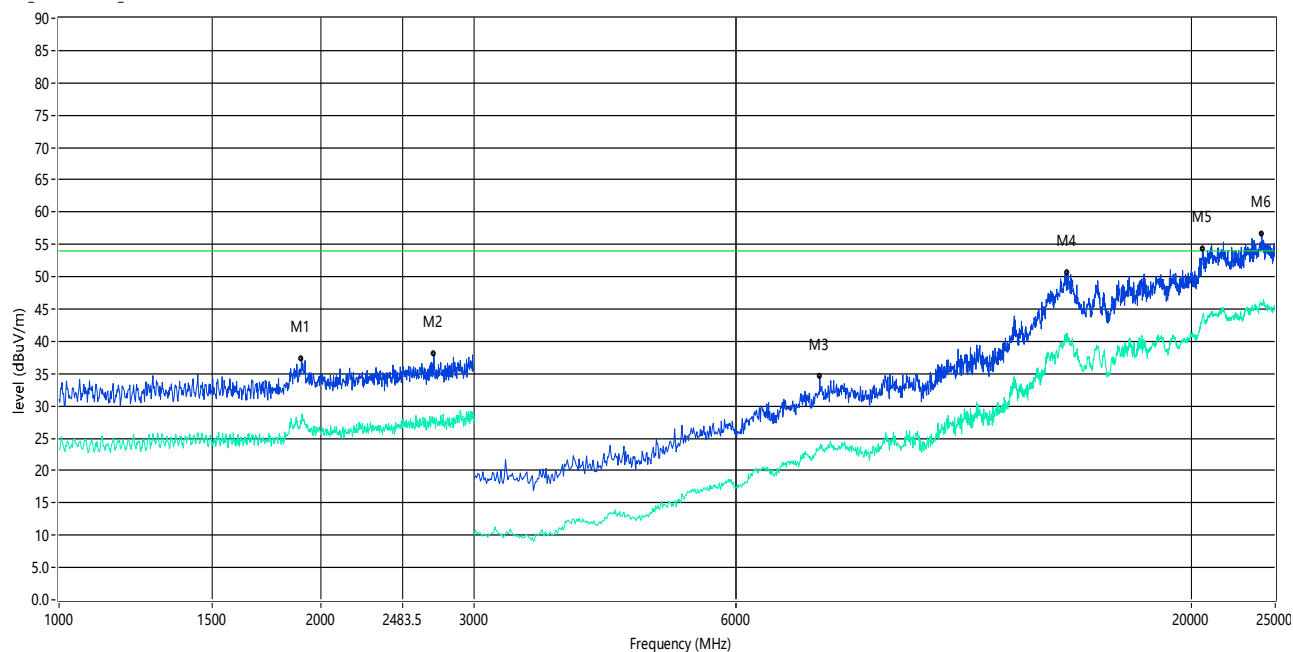
RSE_FCC Test Case_FCC 15C 1GHz-25GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	OverLimit (dB)	Detector	ANT	Verdict
1**	1892.000	27.00	-0.76	54.0	-27.00	AV	V	Pass
1	1892.000	38.91	-0.76	74.0	-35.09	Peak	V	Pass
2**	2680.000	27.93	0.43	54.0	-26.07	AV	V	Pass
2	2680.000	37.03	0.43	74.0	-36.97	Peak	V	Pass
3**	7700.000	24.76	10.88	54.0	-29.24	AV	V	Pass
3	7700.000	35.52	10.88	74.0	-38.48	Peak	V	Pass
4**	14631.999	39.26	23.56	54.0	-14.74	AV	V	Pass
4	14631.999	50.37	23.56	74.0	-23.63	Peak	V	Pass
5**	20992.000	44.28	24.14	54.0	-9.72	AV	V	Pass
5	20992.000	54.36	24.14	74.0	-19.64	Peak	V	Pass
6**	23908.000	44.69	23.34	54.0	-9.31	AV	V	Pass
6	23908.000	55.96	23.34	74.0	-18.04	Peak	V	Pass

Horizontal

RSE_FCC Test Case_FCC 15C 1GHz-25GHz

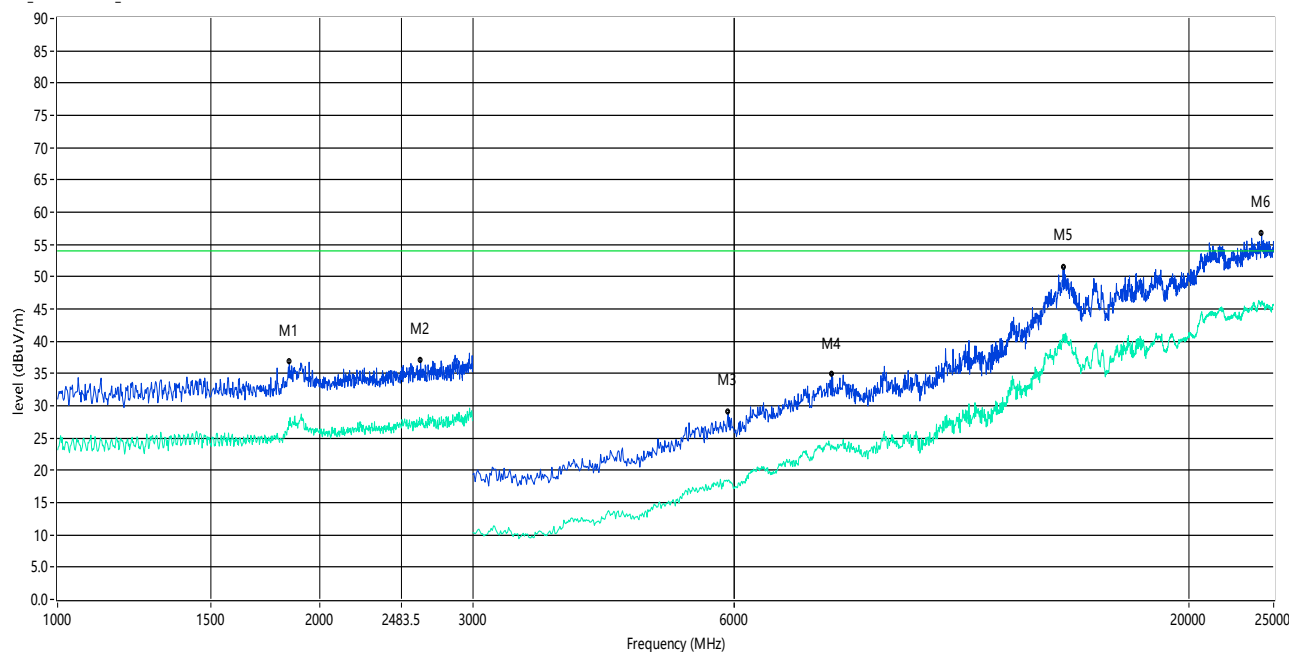


No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	OverLimit (dB)	Detector	ANT	Verdict
1**	1900.000	27.36	-0.69	54.0	-26.64	AV	H	Pass
1	1900.000	37.36	-0.69	74.0	-36.64	Peak	H	Pass
2**	2698.000	28.23	0.41	54.0	-25.77	AV	H	Pass
2	2698.000	38.03	0.41	74.0	-35.97	Peak	H	Pass
3**	7490.000	23.43	10.47	54.0	-30.57	AV	H	Pass
3	7490.000	34.58	10.47	74.0	-39.42	Peak	H	Pass
4**	14404.000	40.35	24.76	54.0	-13.65	AV	H	Pass
4	14404.000	50.60	24.76	74.0	-23.40	Peak	H	Pass
5**	20656.001	43.62	23.85	54.0	-10.38	AV	H	Pass
5	20656.001	54.26	23.85	74.0	-19.74	Peak	H	Pass
6**	24124.000	45.68	23.27	54.0	-8.32	AV	H	Pass
6	24124.000	56.64	23.27	74.0	-17.36	Peak	H	Pass

802.11 b_Middle

vertical

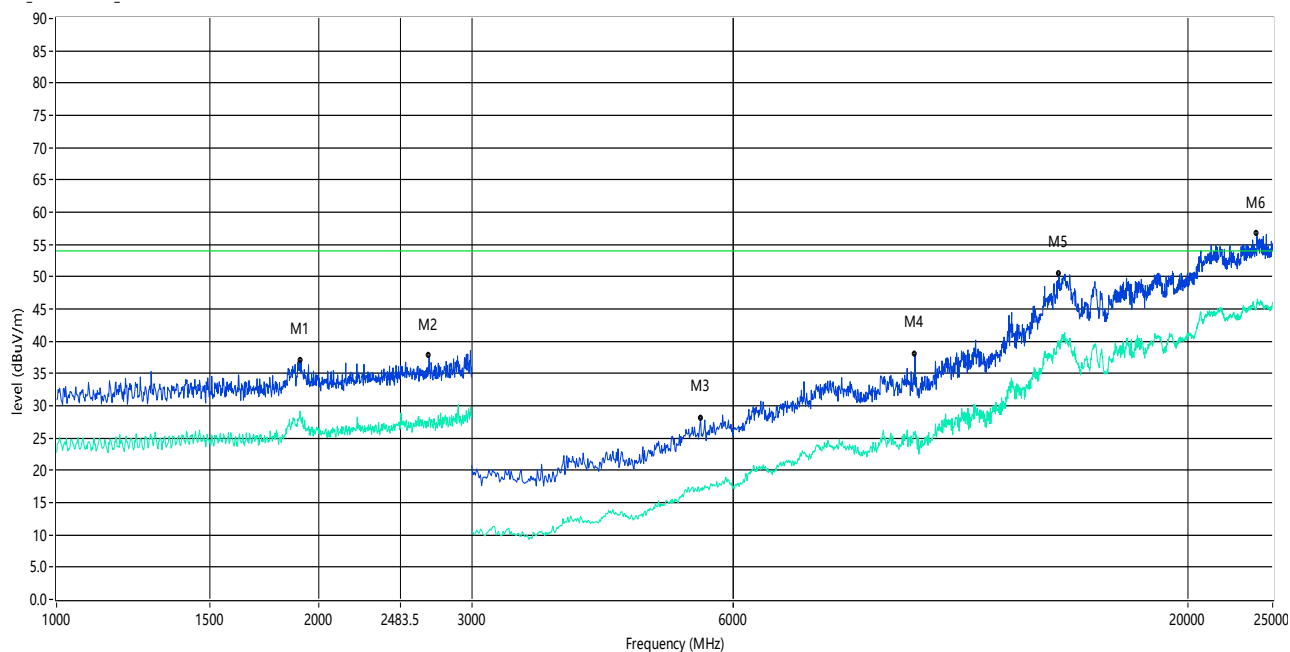
RSE_FCC Test Case_FCC 15C 1GHz-25GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	OverLimit (dB)	Detector	ANT	Verdict
1**	1846.000	26.92	-1.29	54.0	-27.08	AV	V	Pass
1	1846.000	36.76	-1.29	74.0	-37.24	Peak	V	Pass
2**	2614.000	27.15	0.13	54.0	-26.85	AV	V	Pass
2	2614.000	37.07	0.13	74.0	-36.93	Peak	V	Pass
3**	5900.000	18.48	4.31	54.0	-35.52	AV	V	Pass
3	5900.000	29.00	4.31	74.0	-45.00	Peak	V	Pass
4**	7760.000	23.93	10.10	54.0	-30.07	AV	V	Pass
4	7760.000	34.85	10.10	74.0	-39.15	Peak	V	Pass
5**	14356.000	41.10	25.12	54.0	-12.90	AV	V	Pass
5	14356.000	51.46	25.12	74.0	-22.54	Peak	V	Pass
6**	24220.000	46.12	23.23	54.0	-7.88	AV	V	Pass
6	24220.000	56.70	23.23	74.0	-17.30	Peak	V	Pass

Horizontal

RSE_FCC Test Case_FCC 15C 1GHz-25GHz

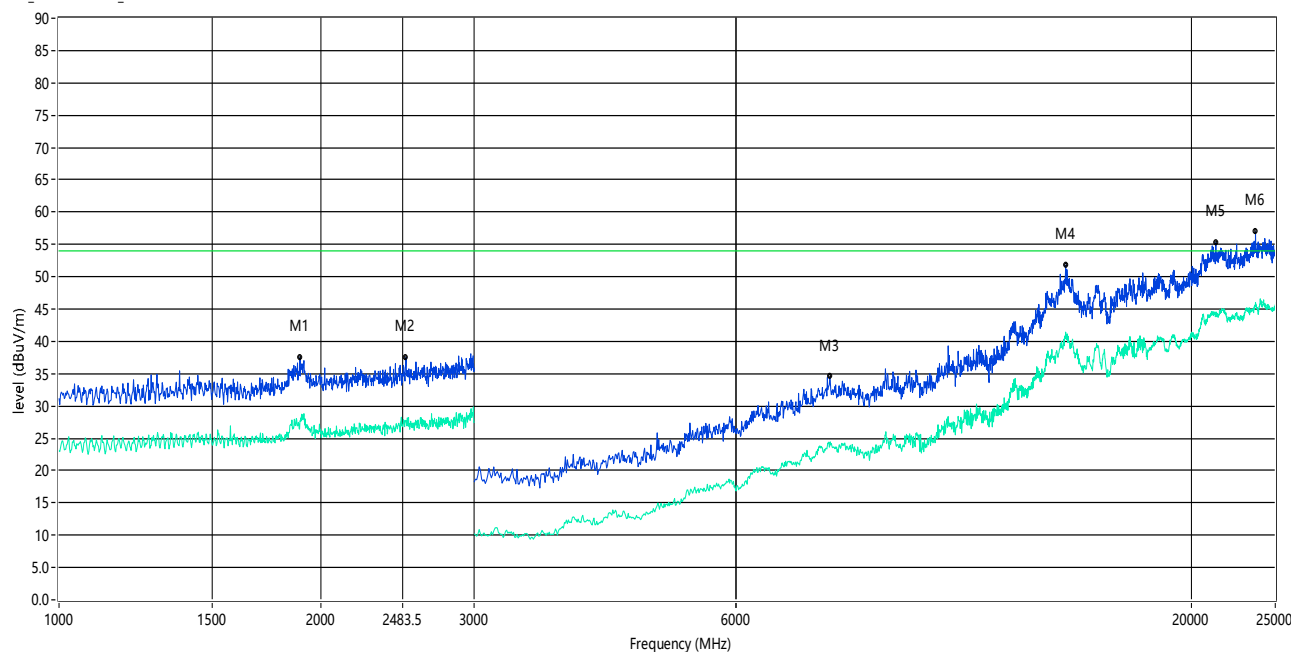


No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	OverLimit (dB)	Detector	ANT	Verdict
1**	1906.000	29.03	-0.65	54.0	-24.97	AV	H	Pass
1	1906.000	37.00	-0.65	74.0	-37.00	Peak	H	Pass
2**	2680.000	27.92	0.43	54.0	-26.08	AV	H	Pass
2	2680.000	37.71	0.43	74.0	-36.29	Peak	H	Pass
3**	5500.000	17.12	3.45	54.0	-36.88	AV	H	Pass
3	5500.000	28.09	3.45	74.0	-45.91	Peak	H	Pass
4**	9700.000	26.04	13.01	54.0	-27.96	AV	H	Pass
4	9700.000	38.07	13.01	74.0	-35.93	Peak	H	Pass
5**	14200.001	40.03	24.06	54.0	-13.97	AV	H	Pass
5	14200.001	50.45	24.06	74.0	-23.55	Peak	H	Pass
6**	23979.999	45.73	23.31	54.0	-8.27	AV	H	Pass
6	23979.999	56.64	23.31	74.0	-17.36	Peak	H	Pass

802.11 b_High

vertical

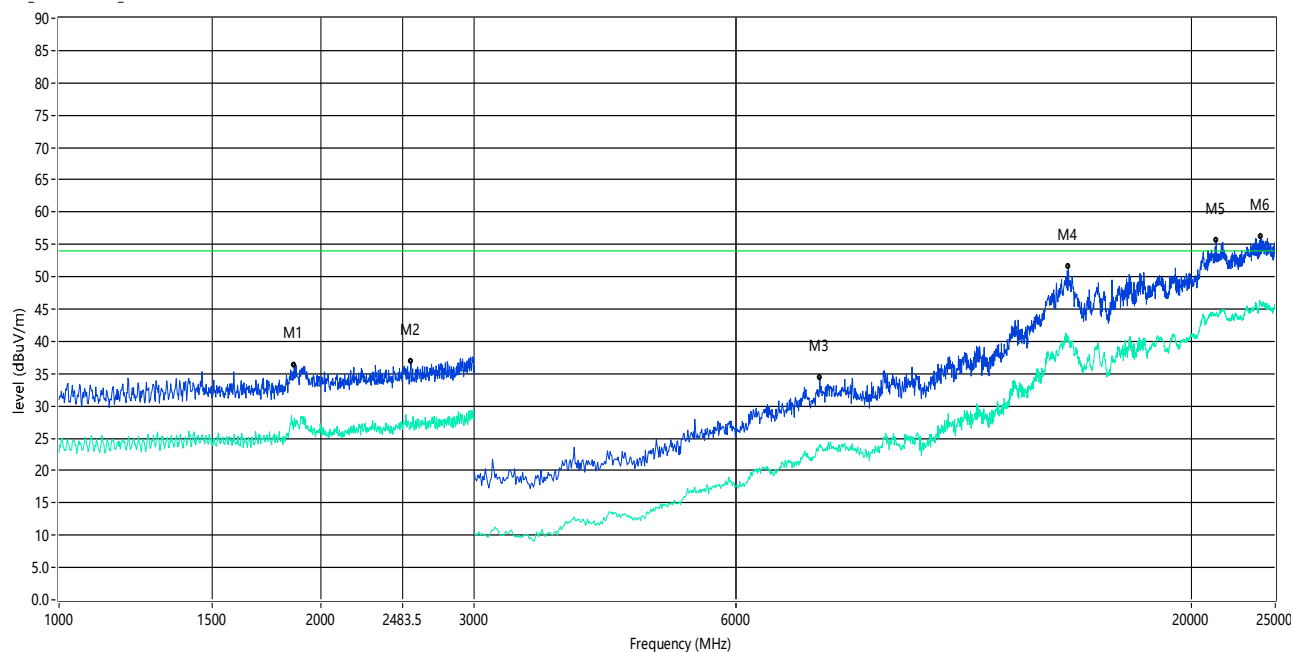
RSE_FCC Test Case_FCC 15C 1GHz-25GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	OverLimit (dB)	Detector	ANT	Verdict
1**	1892.000	27.70	-0.76	54.0	-26.30	AV	V	Pass
1	1892.000	37.50	-0.76	74.0	-36.50	Peak	V	Pass
2**	2504.000	27.67	-0.42	54.0	-26.33	AV	V	Pass
2	2504.000	37.54	-0.42	74.0	-36.46	Peak	V	Pass
3**	7690.000	23.81	10.40	54.0	-30.19	AV	V	Pass
3	7690.000	34.49	10.40	74.0	-39.51	Peak	V	Pass
4**	14356.000	41.08	25.12	54.0	-12.92	AV	V	Pass
4	14356.000	51.79	25.12	74.0	-22.21	Peak	V	Pass
5**	21364.001	43.84	24.04	54.0	-10.16	AV	V	Pass
5	21364.001	55.27	24.04	74.0	-18.73	Peak	V	Pass
6**	23728.001	46.03	23.39	54.0	-7.97	AV	V	Pass
6	23728.001	56.96	23.39	74.0	-17.04	Peak	V	Pass

Horizontal

RSE_FCC Test Case_FCC 15C 1GHz-25GHz

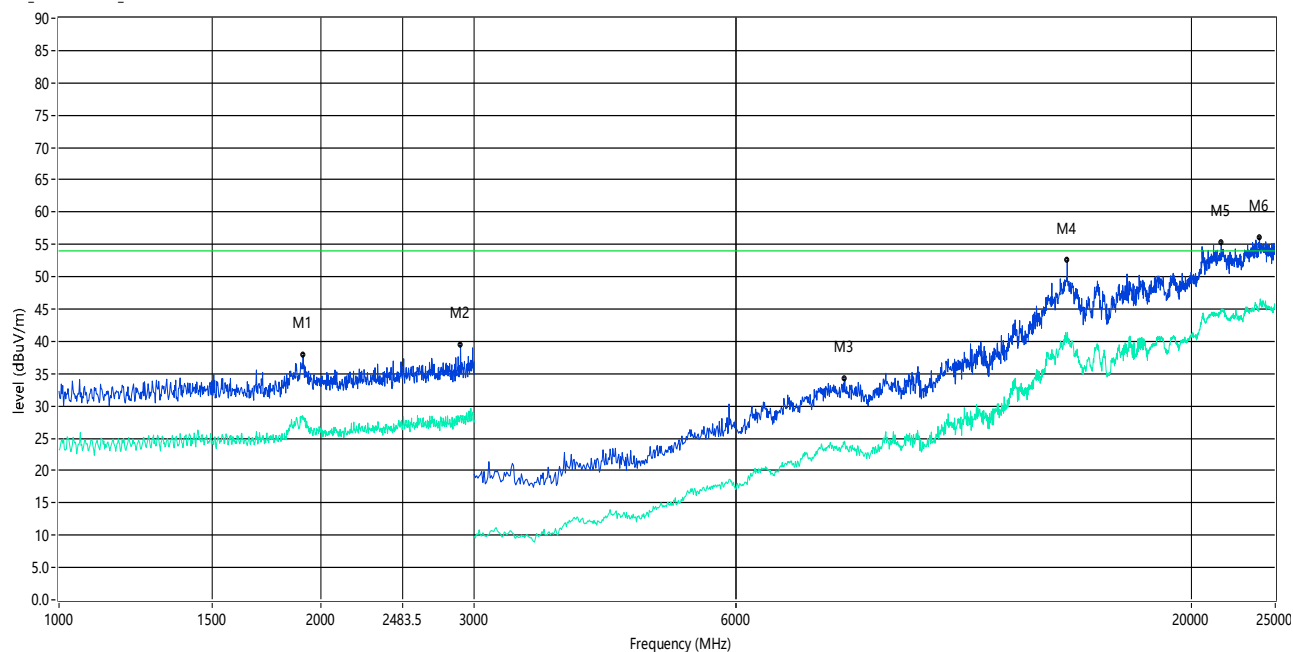


No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	OverLimit (dB)	Detector	ANT	Verdict
1**	1864.000	28.10	-1.06	54.0	-25.90	AV	H	Pass
1	1864.000	36.39	-1.06	74.0	-37.61	Peak	H	Pass
2**	2538.000	27.57	-0.18	54.0	-26.43	AV	H	Pass
2	2538.000	36.83	-0.18	74.0	-37.17	Peak	H	Pass
3**	7490.000	23.68	10.47	54.0	-30.32	AV	H	Pass
3	7490.000	34.43	10.47	74.0	-39.57	Peak	H	Pass
4**	14464.000	40.25	24.63	54.0	-13.75	AV	H	Pass
4	14464.000	51.53	24.63	74.0	-22.47	Peak	H	Pass
5**	21387.999	44.07	24.04	54.0	-9.93	AV	H	Pass
5	21387.999	55.68	24.04	74.0	-18.32	Peak	H	Pass
6**	24052.001	45.96	23.29	54.0	-8.04	AV	H	Pass
6	24052.001	56.13	23.29	74.0	-17.87	Peak	H	Pass

802.11 g_Low

vertical

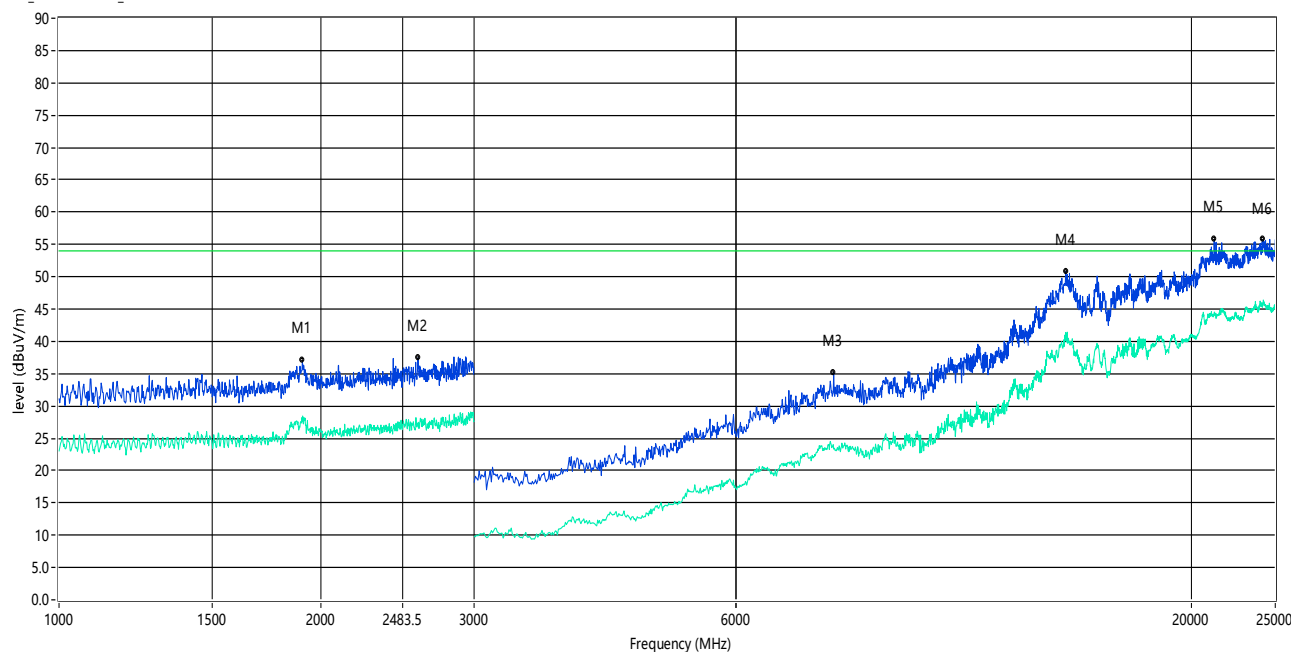
RSE_FCC Test Case_FCC 15C 1GHz-25GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	OverLimit (dB)	Detector	ANT	Verdict
1**	1908.000	27.84	-0.64	54.0	-26.16	AV	V	Pass
1	1908.000	37.84	-0.64	74.0	-36.16	Peak	V	Pass
2**	2894.000	28.32	1.84	54.0	-25.68	AV	V	Pass
2	2894.000	39.44	1.84	74.0	-34.56	Peak	V	Pass
3**	8000.000	24.48	10.93	54.0	-29.52	AV	V	Pass
3	8000.000	34.18	10.93	74.0	-39.82	Peak	V	Pass
4**	14416.000	41.10	25.52	54.0	-12.90	AV	V	Pass
4	14416.000	52.59	25.52	74.0	-21.41	Peak	V	Pass
5**	21675.999	44.82	23.97	54.0	-9.18	AV	V	Pass
5	21675.999	55.25	23.97	74.0	-18.75	Peak	V	Pass
6**	23979.999	45.78	23.31	54.0	-8.22	AV	V	Pass
6	23979.999	56.09	23.31	74.0	-17.91	Peak	V	Pass

Horizontal

RSE_FCC Test Case_FCC 15C 1GHz-25GHz

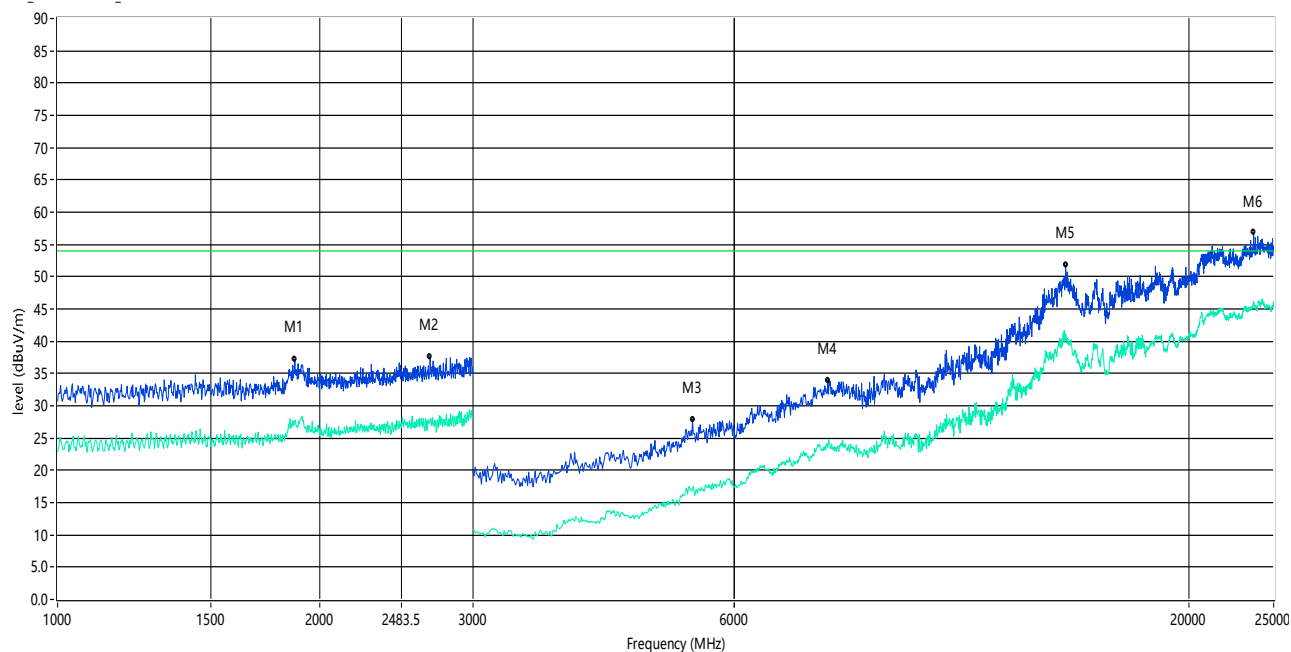


No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	OverLimit (dB)	Detector	ANT	Verdict
1**	1904.000	27.69	-0.66	54.0	-26.31	AV	H	Pass
1	1904.000	37.02	-0.66	74.0	-36.98	Peak	H	Pass
2**	2586.000	27.17	-0.04	54.0	-26.83	AV	H	Pass
2	2586.000	37.45	-0.04	74.0	-36.55	Peak	H	Pass
3**	7770.000	23.33	9.90	54.0	-30.67	AV	H	Pass
3	7770.000	35.17	9.90	74.0	-38.83	Peak	H	Pass
4**	14356.000	41.37	25.12	54.0	-12.63	AV	H	Pass
4	14356.000	50.79	25.12	74.0	-23.21	Peak	H	Pass
5**	21268.001	44.35	24.07	54.0	-9.65	AV	H	Pass
5	21268.001	55.79	24.07	74.0	-18.21	Peak	H	Pass
6**	24207.999	45.86	23.24	54.0	-8.14	AV	H	Pass
6	24207.999	55.73	23.24	74.0	-18.27	Peak	H	Pass

802.11 g_Middle

vertical

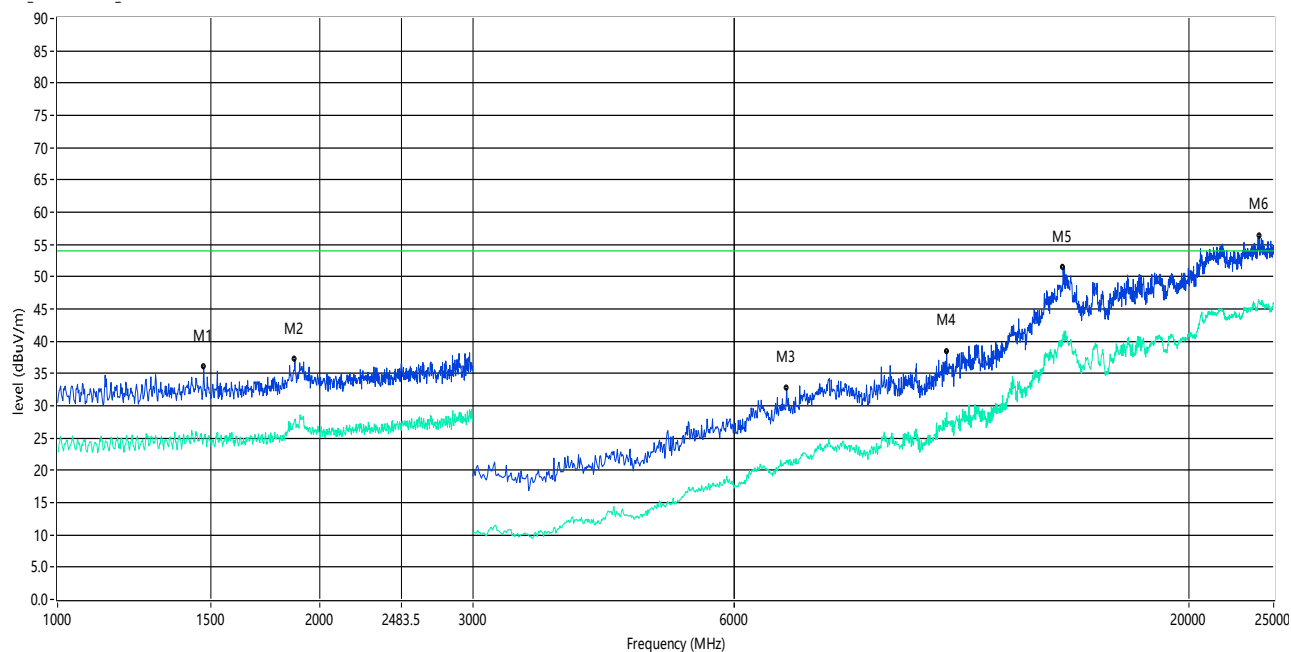
RSE_FCC Test Case_FCC 15C 1GHz-25GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	OverLimit (dB)	Detector	ANT	Verdict
1**	1874.000	27.71	-0.93	54.0	-26.29	AV	V	Pass
1	1874.000	37.20	-0.93	74.0	-36.80	Peak	V	Pass
2**	2680.000	27.39	0.43	54.0	-26.61	AV	V	Pass
2	2680.000	37.60	0.43	74.0	-36.40	Peak	V	Pass
3**	5370.000	16.99	3.08	54.0	-37.01	AV	V	Pass
3	5370.000	27.85	3.08	74.0	-46.15	Peak	V	Pass
4**	7680.000	23.55	9.91	54.0	-30.45	AV	V	Pass
4	7680.000	33.93	9.91	74.0	-40.07	Peak	V	Pass
5**	14416.000	41.13	25.52	54.0	-12.87	AV	V	Pass
5	14416.000	51.81	25.52	74.0	-22.19	Peak	V	Pass
6**	23716.000	46.19	23.40	54.0	-7.81	AV	V	Pass
6	23716.000	56.79	23.40	74.0	-17.21	Peak	V	Pass

Horizontal

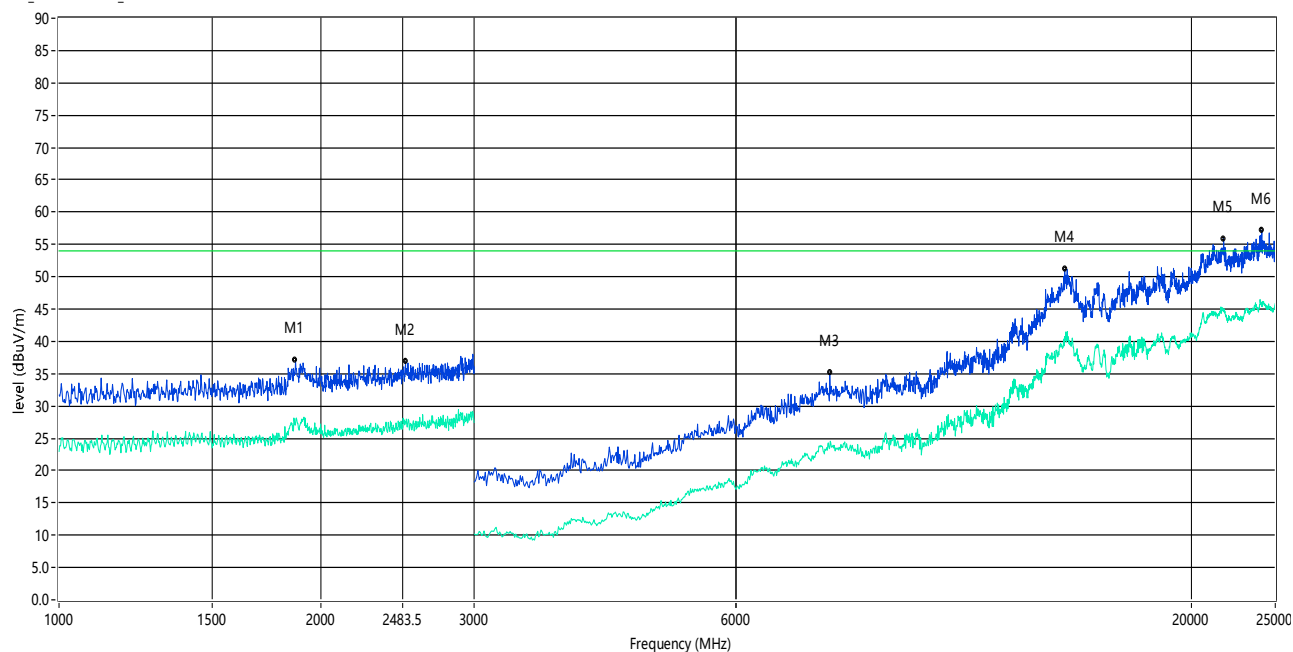
RSE_FCC Test Case_FCC 15C 1GHz-25GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	OverLimit (dB)	Detector	ANT	Verdict
1**	1472.000	24.93	-4.28	54.0	-29.07	AV	H	Pass
1	1472.000	36.00	-4.28	74.0	-38.00	Peak	H	Pass
2**	1874.000	27.75	-0.93	54.0	-26.25	AV	H	Pass
2	1874.000	37.12	-0.93	74.0	-36.88	Peak	H	Pass
3**	6890.000	21.29	7.88	54.0	-32.71	AV	H	Pass
3	6890.000	32.64	7.88	74.0	-41.36	Peak	H	Pass
4**	10520.001	28.97	15.39	54.0	-25.03	AV	H	Pass
4	10520.001	38.39	15.39	74.0	-35.61	Peak	H	Pass
5**	14320.000	41.06	24.92	54.0	-12.94	AV	H	Pass
5	14320.000	51.38	24.92	74.0	-22.62	Peak	H	Pass
6**	24088.001	46.00	23.28	54.0	-8.00	AV	H	Pass
6	24088.001	56.32	23.28	74.0	-17.68	Peak	H	Pass

802.11 g_High vertical

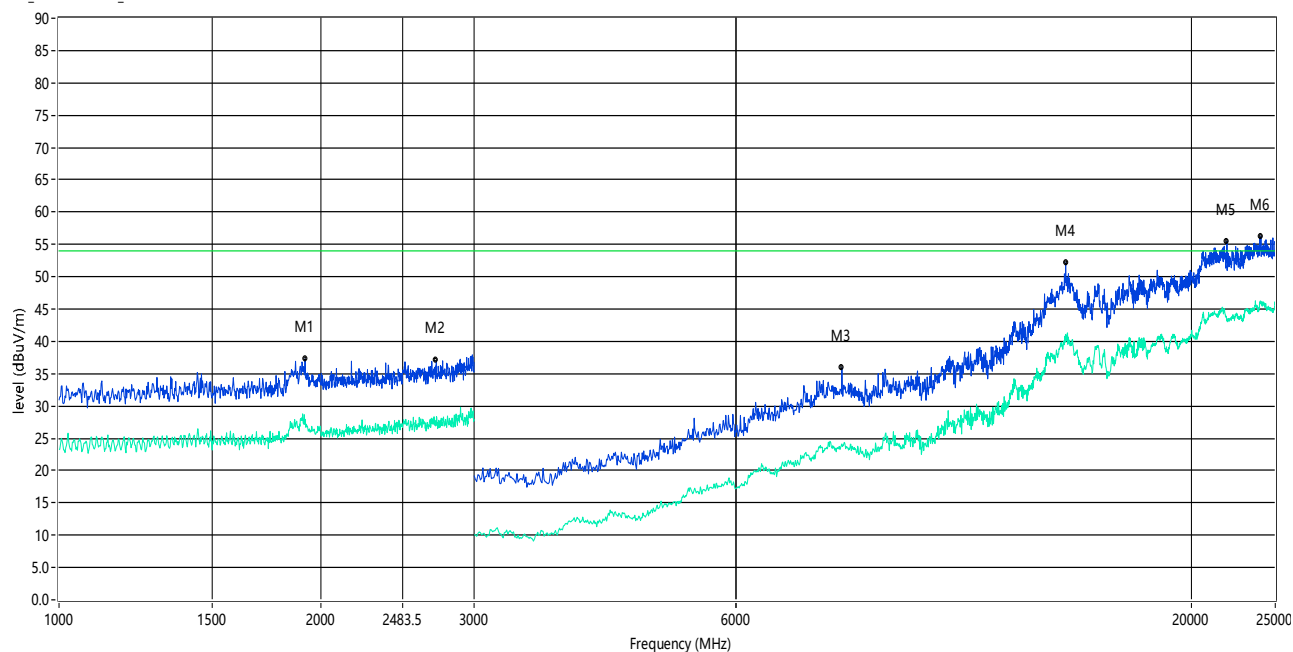
RSE_FCC Test Case_FCC 15C 1GHz-25GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	OverLimit (dB)	Detector	ANT	Verdict
1**	1870.000	27.35	-0.98	54.0	-26.65	AV	V	Pass
1	1870.000	37.09	-0.98	74.0	-36.91	Peak	V	Pass
2**	2502.000	27.55	-0.45	54.0	-26.45	AV	V	Pass
2	2502.000	36.81	-0.45	74.0	-37.19	Peak	V	Pass
3**	7690.000	23.51	10.40	54.0	-30.49	AV	V	Pass
3	7690.000	35.08	10.40	74.0	-38.92	Peak	V	Pass
4**	14320.000	40.75	24.92	54.0	-13.25	AV	V	Pass
4	14320.000	51.14	24.92	74.0	-22.86	Peak	V	Pass
5**	21808.001	44.64	23.93	54.0	-9.36	AV	V	Pass
5	21808.001	55.90	23.93	74.0	-18.10	Peak	V	Pass
6**	24124.000	45.59	23.27	54.0	-8.41	AV	V	Pass
6	24124.000	57.16	23.27	74.0	-16.84	Peak	V	Pass

Horizontal

RSE_FCC Test Case_FCC 15C 1GHz-25GHz

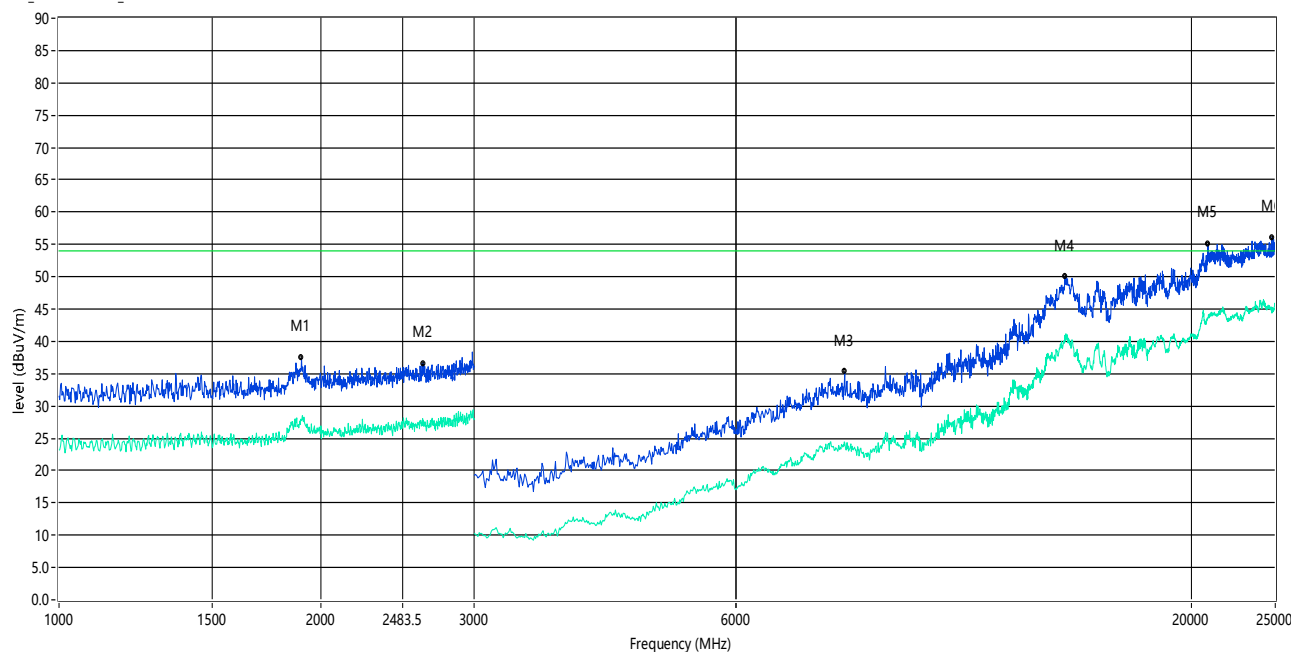


No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	OverLimit (dB)	Detector	ANT	Verdict
1**	1918.000	27.92	-0.58	54.0	-26.08	AV	H	Pass
1	1918.000	37.29	-0.58	74.0	-36.71	Peak	H	Pass
2**	2714.000	27.51	0.28	54.0	-26.49	AV	H	Pass
2	2714.000	37.06	0.28	74.0	-36.94	Peak	H	Pass
3**	7940.000	24.12	10.34	54.0	-29.88	AV	H	Pass
3	7940.000	35.92	10.34	74.0	-38.08	Peak	H	Pass
4**	14356.000	40.81	25.12	54.0	-13.19	AV	H	Pass
4	14356.000	52.14	25.12	74.0	-21.86	Peak	H	Pass
5**	22000.001	43.13	23.88	54.0	-10.87	AV	H	Pass
5	22000.001	55.52	23.88	74.0	-18.48	Peak	H	Pass
6**	24064.000	45.98	23.28	54.0	-8.02	AV	H	Pass
6	24064.000	56.19	23.28	74.0	-17.81	Peak	H	Pass

802.11 n(HT20)_Low

vertical

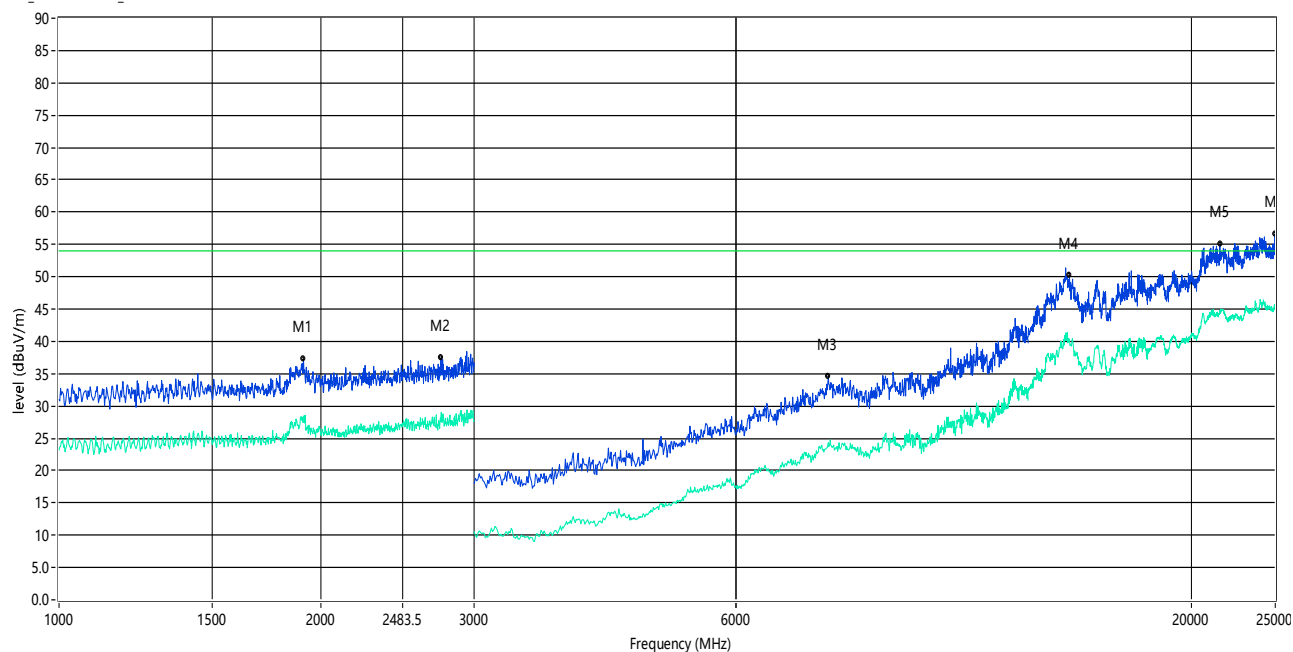
RSE_FCC Test Case_FCC 15C 1GHz-25GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	OverLimit (dB)	Detector	ANT	Verdict
1**	1900.000	27.73	-0.69	54.0	-26.27	AV	V	Pass
1	1900.000	37.42	-0.69	74.0	-36.58	Peak	V	Pass
2**	2620.000	27.61	0.19	54.0	-26.39	AV	V	Pass
2	2620.000	36.58	0.19	74.0	-37.42	Peak	V	Pass
3**	8000.000	24.28	10.93	54.0	-29.72	AV	V	Pass
3	8000.000	35.26	10.93	74.0	-38.74	Peak	V	Pass
4**	14343.999	40.31	24.17	54.0	-13.69	AV	V	Pass
4	14343.999	49.93	24.17	74.0	-24.07	Peak	V	Pass
5**	20920.001	43.49	24.15	54.0	-10.51	AV	V	Pass
5	20920.001	55.01	24.15	74.0	-18.99	Peak	V	Pass
6**	24783.999	45.05	23.05	54.0	-8.95	AV	V	Pass
6	24783.999	56.06	23.05	74.0	-17.94	Peak	V	Pass

Horizontal

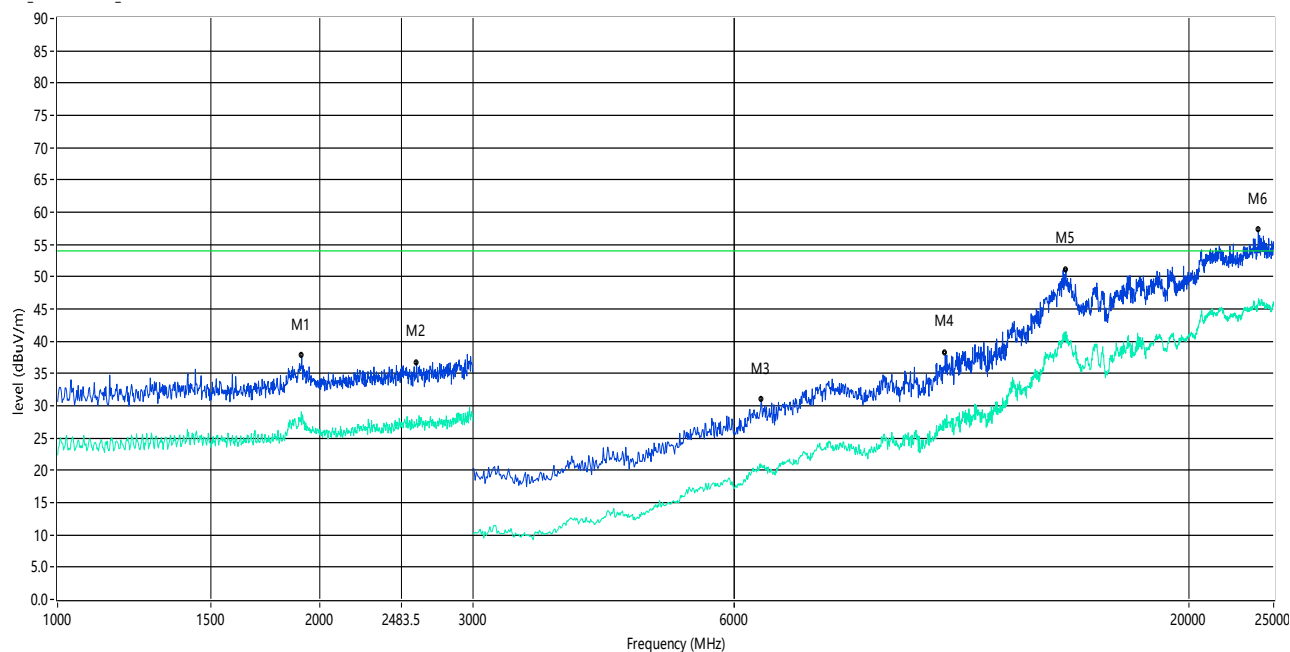
RSE_FCC Test Case_FCC 15C 1GHz-25GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	OverLimit (dB)	Detector	ANT	Verdict
1**	1910.000	28.11	-0.63	54.0	-25.89	AV	H	Pass
1	1910.000	37.29	-0.63	74.0	-36.71	Peak	H	Pass
2**	2748.000	27.92	0.63	54.0	-26.08	AV	H	Pass
2	2748.000	37.43	0.63	74.0	-36.57	Peak	H	Pass
3**	7660.000	24.34	10.67	54.0	-29.66	AV	H	Pass
3	7660.000	34.57	10.67	74.0	-39.43	Peak	H	Pass
4**	14500.000	40.37	24.08	54.0	-13.63	AV	H	Pass
4	14500.000	50.18	24.08	74.0	-23.82	Peak	H	Pass
5**	21592.001	44.62	23.99	54.0	-9.38	AV	H	Pass
5	21592.001	55.05	23.99	74.0	-18.95	Peak	H	Pass
6**	24988.000	45.28	23.02	54.0	-8.72	AV	H	Pass
6	24988.000	56.64	23.02	74.0	-17.36	Peak	H	Pass

802.11 n(HT20)_Middle vertical

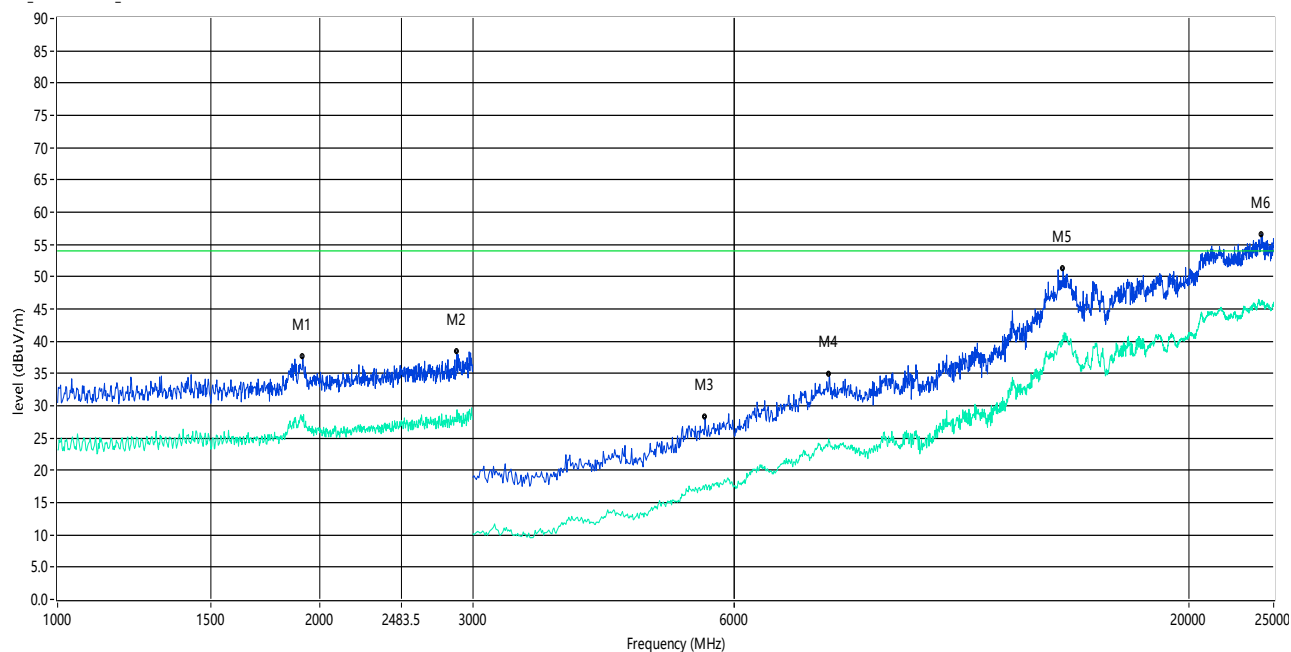
RSE_FCC Test Case_FCC 15C 1GHz-25GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	OverLimit (dB)	Detector	ANT	Verdict
1**	1908.000	27.06	-0.64	54.0	-26.94	AV	V	Pass
1	1908.000	37.71	-0.64	74.0	-36.29	Peak	V	Pass
2**	2586.000	27.91	-0.04	54.0	-26.09	AV	V	Pass
2	2586.000	36.70	-0.04	74.0	-37.30	Peak	V	Pass
3**	6440.000	20.68	6.09	54.0	-33.32	AV	V	Pass
3	6440.000	31.02	6.09	74.0	-42.98	Peak	V	Pass
4**	10480.000	27.90	14.66	54.0	-26.10	AV	V	Pass
4	10480.000	38.15	14.66	74.0	-35.85	Peak	V	Pass
5**	14428.000	41.52	25.10	54.0	-12.48	AV	V	Pass
5	14428.000	51.13	25.10	74.0	-22.87	Peak	V	Pass
6**	24004.000	46.15	23.30	54.0	-7.85	AV	V	Pass
6	24004.000	57.18	23.30	74.0	-16.82	Peak	V	Pass

Horizontal

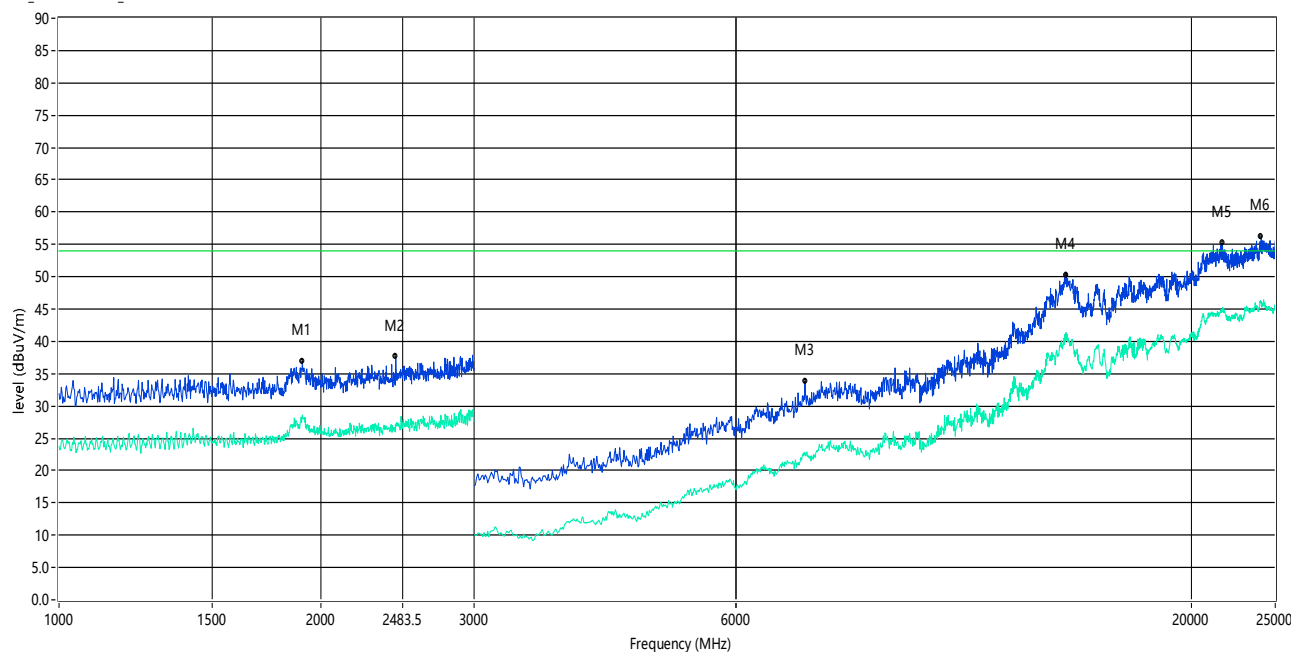
RSE_FCC Test Case_FCC 15C 1GHz-25GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	OverLimit (dB)	Detector	ANT	Verdict
1**	1914.000	27.53	-0.60	54.0	-26.47	AV	H	Pass
1	1914.000	37.59	-0.60	74.0	-36.41	Peak	H	Pass
2**	2876.000	28.22	1.46	54.0	-25.78	AV	H	Pass
2	2876.000	38.36	1.46	74.0	-35.64	Peak	H	Pass
3**	5550.000	17.61	3.63	54.0	-36.39	AV	H	Pass
3	5550.000	28.27	3.63	74.0	-45.73	Peak	H	Pass
4**	7710.000	24.33	10.52	54.0	-29.67	AV	H	Pass
4	7710.000	34.87	10.52	74.0	-39.13	Peak	H	Pass
5**	14320.000	40.96	24.92	54.0	-13.04	AV	H	Pass
5	14320.000	51.23	24.92	74.0	-22.77	Peak	H	Pass
6**	24196.000	46.19	23.24	54.0	-7.81	AV	H	Pass
6	24196.000	56.58	23.24	74.0	-17.42	Peak	H	Pass

802.11 n(HT20)_High vertical

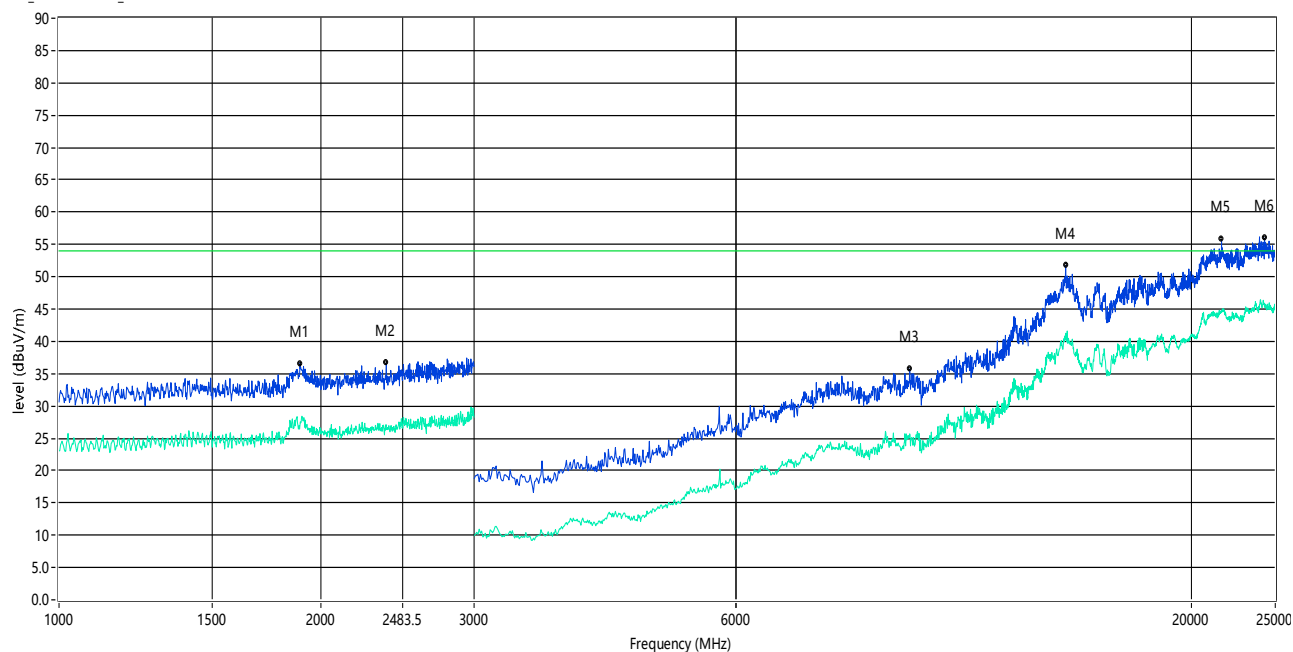
RSE_FCC Test Case_FCC 15C 1GHz-25GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	OverLimit (dB)	Detector	ANT	Verdict
1**	1904.000	28.60	-0.66	54.0	-25.40	AV	V	Pass
1	1904.000	36.86	-0.66	74.0	-37.14	Peak	V	Pass
2**	2438.000	26.74	-0.94	54.0	-27.26	AV	V	Pass
2	2438.000	37.58	-0.94	74.0	-36.42	Peak	V	Pass
3**	7200.000	22.81	9.19	54.0	-31.19	AV	V	Pass
3	7200.000	33.82	9.19	74.0	-40.18	Peak	V	Pass
4**	14368.000	41.36	24.92	54.0	-12.64	AV	V	Pass
4	14368.000	50.29	24.92	74.0	-23.71	Peak	V	Pass
5**	21735.999	44.63	23.95	54.0	-9.37	AV	V	Pass
5	21735.999	55.15	23.95	74.0	-18.85	Peak	V	Pass
6**	24088.001	45.48	23.28	54.0	-8.52	AV	V	Pass
6	24088.001	56.27	23.28	74.0	-17.73	Peak	V	Pass

Horizontal

RSE_FCC Test Case_FCC 15C 1GHz-25GHz

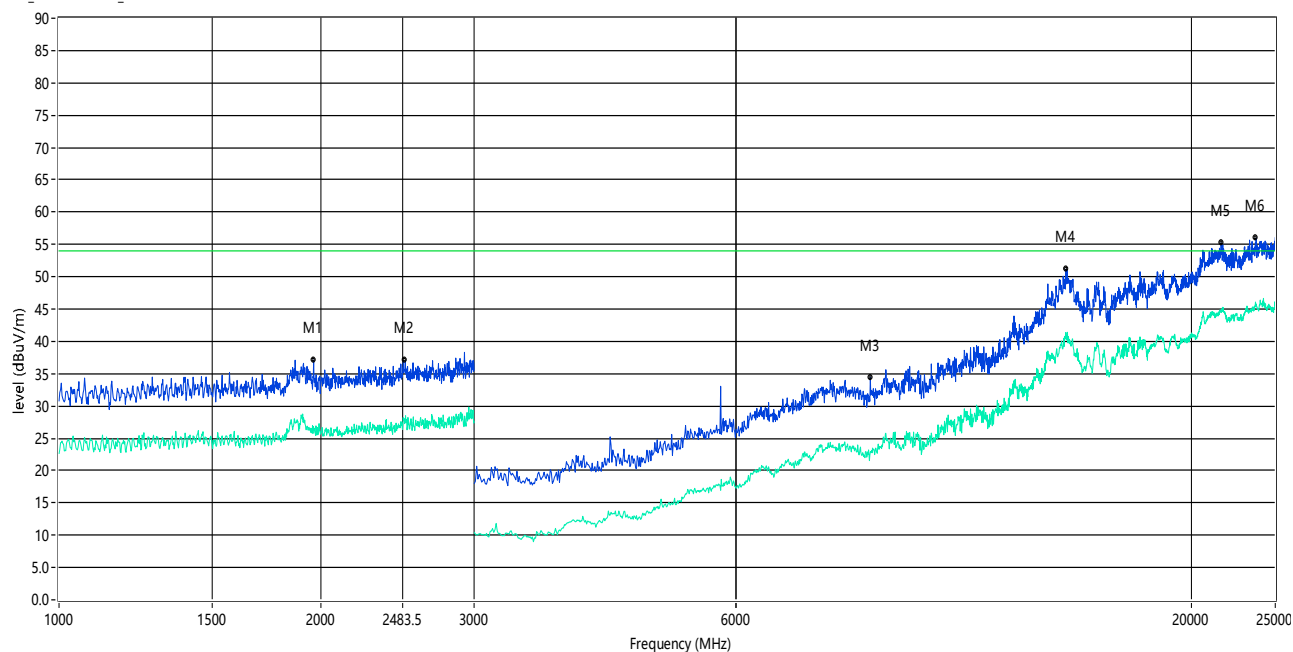


No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	OverLimit (dB)	Detector	ANT	Verdict
1**	1892.000	27.05	-0.76	54.0	-26.95	AV	H	Pass
1	1892.000	36.60	-0.76	74.0	-37.40	Peak	H	Pass
2**	2378.000	26.44	-1.14	54.0	-27.56	AV	H	Pass
2	2378.000	36.65	-1.14	74.0	-37.35	Peak	H	Pass
3**	9500.000	25.69	12.18	54.0	-28.31	AV	H	Pass
3	9500.000	35.74	12.18	74.0	-38.26	Peak	H	Pass
4**	14356.000	41.01	25.12	54.0	-12.99	AV	H	Pass
4	14356.000	51.72	25.12	74.0	-22.28	Peak	H	Pass
5**	21688.001	44.46	23.96	54.0	-9.54	AV	H	Pass
5	21688.001	55.74	23.96	74.0	-18.26	Peak	H	Pass
6**	24304.001	45.60	23.21	54.0	-8.40	AV	H	Pass
6	24304.001	55.97	23.21	74.0	-18.03	Peak	H	Pass

802.11 n(HT40)_Low

vertical

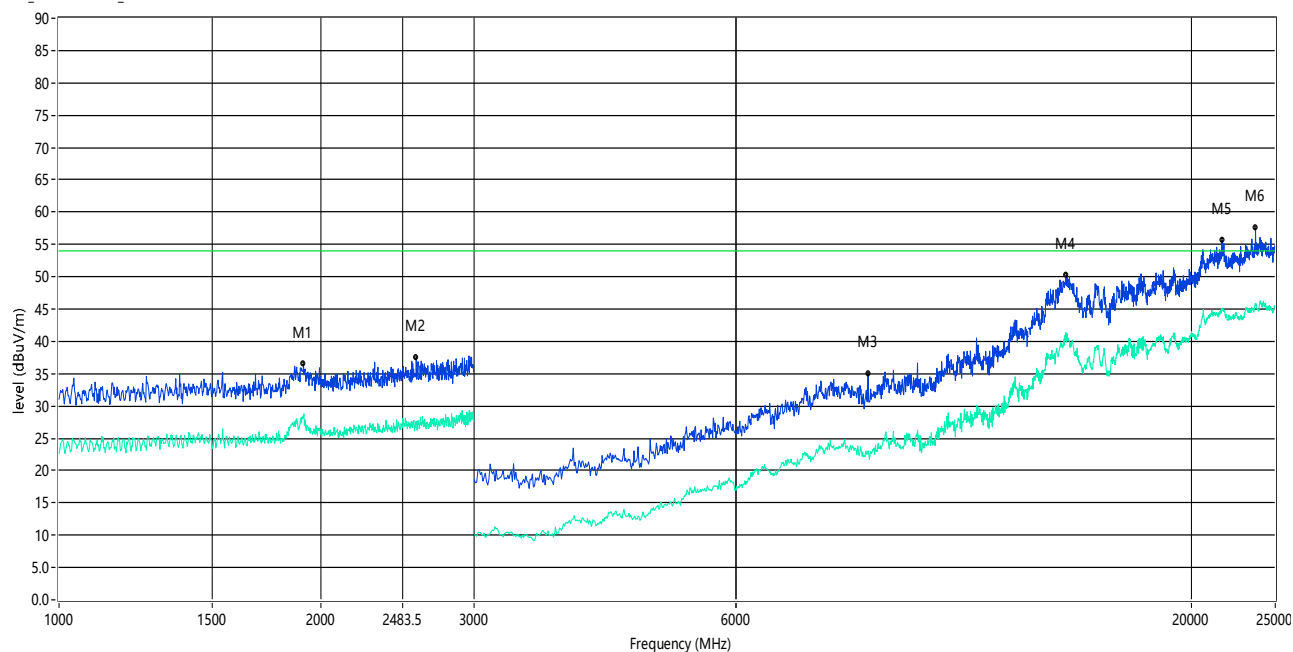
RSE_FCC Test Case_FCC 15C 1GHz-25GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	OverLimit (dB)	Detector	ANT	Verdict
1**	1962.000	26.28	-2.55	54.0	-27.72	AV	V	Pass
1	1962.000	37.10	-2.55	74.0	-36.90	Peak	V	Pass
2**	2500.000	27.69	-0.48	54.0	-26.31	AV	V	Pass
2	2500.000	37.02	-0.48	74.0	-36.98	Peak	V	Pass
3**	8560.000	22.88	10.68	54.0	-31.12	AV	V	Pass
3	8560.000	34.43	10.68	74.0	-39.57	Peak	V	Pass
4**	14368.000	40.92	24.92	54.0	-13.08	AV	V	Pass
4	14368.000	51.18	24.92	74.0	-22.82	Peak	V	Pass
5**	21664.000	44.92	23.97	54.0	-9.08	AV	V	Pass
5	21664.000	55.24	23.97	74.0	-18.76	Peak	V	Pass
6**	23764.001	45.78	23.38	54.0	-8.22	AV	V	Pass
6	23764.001	56.01	23.38	74.0	-17.99	Peak	V	Pass

Horizontal

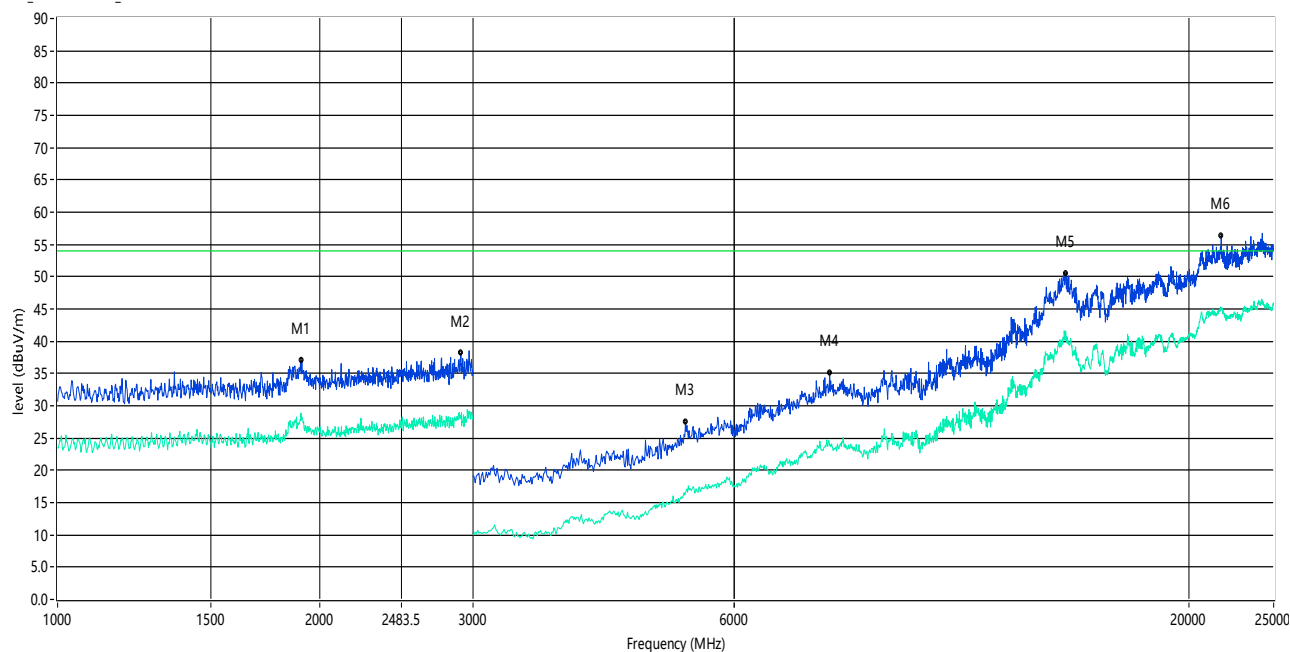
RSE_FCC Test Case_FCC 15C 1GHz-25GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	ANT	Verdict
1**	1910.000	28.25	-0.63	54.0	-25.75	AV	H	Pass
1	1910.000	36.41	-0.63	74.0	-37.59	Peak	H	Pass
2**	2574.000	27.39	-0.26	54.0	-26.61	AV	H	Pass
2	2574.000	37.51	-0.26	74.0	-36.49	Peak	H	Pass
3**	8510.000	23.06	10.36	54.0	-30.94	AV	H	Pass
3	8510.000	34.89	10.36	74.0	-39.11	Peak	H	Pass
4**	14392.001	40.22	24.36	54.0	-13.78	AV	H	Pass
4	14392.001	50.15	24.36	74.0	-23.85	Peak	H	Pass
5**	21724.000	44.92	23.95	54.0	-9.08	AV	H	Pass
5	21724.000	55.55	23.95	74.0	-18.45	Peak	H	Pass
6**	23728.001	45.76	23.39	54.0	-8.24	AV	H	Pass
6	23728.001	57.55	23.39	74.0	-16.45	Peak	H	Pass

802.11 n(HT40)_Middle vertical

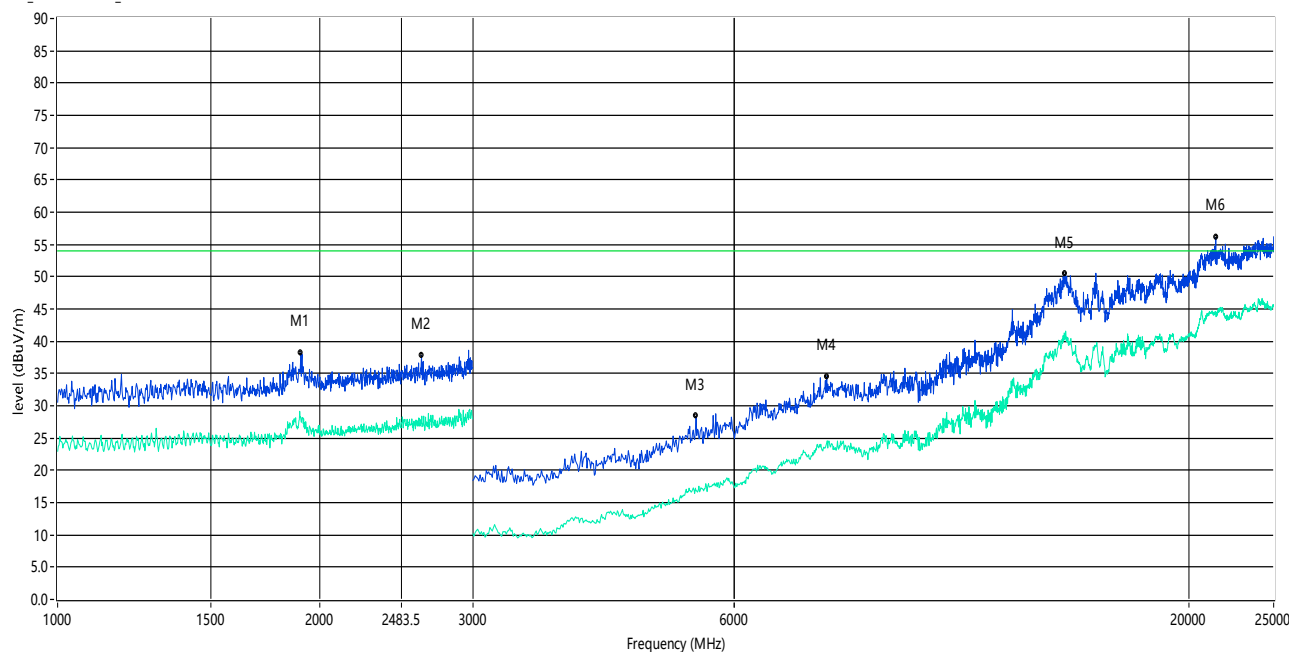
RSE_FCC Test Case_FCC 15C 1GHz-25GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	OverLimit (dB)	Detector	ANT	Verdict
1**	1908.000	28.27	-0.64	54.0	-25.73	AV	V	Pass
1	1908.000	37.08	-0.64	74.0	-36.92	Peak	V	Pass
2**	2908.000	28.49	1.55	54.0	-25.51	AV	V	Pass
2	2908.000	38.18	1.55	74.0	-35.82	Peak	V	Pass
3**	5270.000	16.52	3.03	54.0	-37.48	AV	V	Pass
3	5270.000	27.49	3.03	74.0	-46.51	Peak	V	Pass
4**	7720.000	23.86	10.16	54.0	-30.14	AV	V	Pass
4	7720.000	35.15	10.16	74.0	-38.85	Peak	V	Pass
5**	14416.000	41.59	25.52	54.0	-12.41	AV	V	Pass
5	14416.000	50.54	25.52	74.0	-23.46	Peak	V	Pass
6**	21760.000	44.91	23.94	54.0	-9.09	AV	V	Pass
6	21760.000	56.35	23.94	74.0	-17.65	Peak	V	Pass

Horizontal

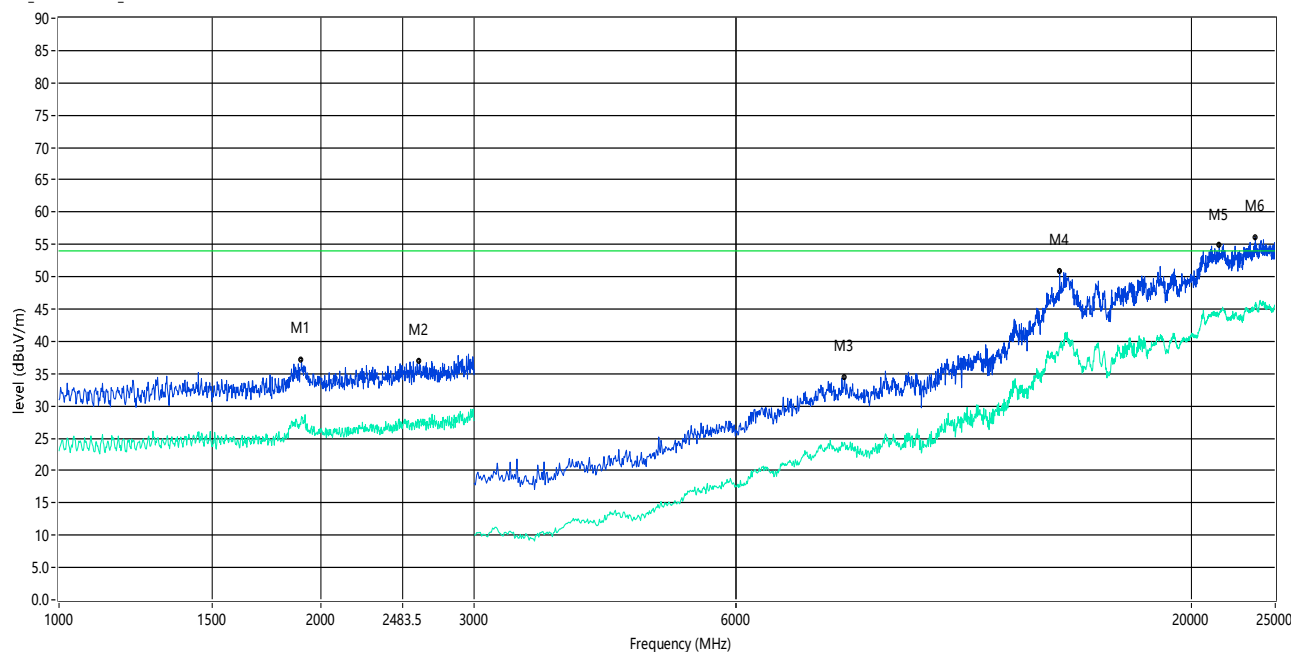
RSE_FCC Test Case_FCC 15C 1GHz-25GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	OverLimit (dB)	Detector	ANT	Verdict
1**	1904.000	27.86	-0.66	54.0	-26.14	AV	H	Pass
1	1904.000	38.22	-0.66	74.0	-35.78	Peak	H	Pass
2**	2620.000	27.21	0.19	54.0	-26.79	AV	H	Pass
2	2620.000	37.78	0.19	74.0	-36.22	Peak	H	Pass
3**	5420.000	16.83	3.14	54.0	-37.17	AV	H	Pass
3	5420.000	28.38	3.14	74.0	-45.62	Peak	H	Pass
4**	7660.000	24.26	10.67	54.0	-29.74	AV	H	Pass
4	7660.000	34.52	10.67	74.0	-39.48	Peak	H	Pass
5**	14392.001	40.38	24.36	54.0	-13.62	AV	H	Pass
5	14392.001	50.39	24.36	74.0	-23.61	Peak	H	Pass
6**	21447.999	44.11	24.02	54.0	-9.89	AV	H	Pass
6	21447.999	56.10	24.02	74.0	-17.90	Peak	H	Pass

802.11 n(HT40)_High vertical

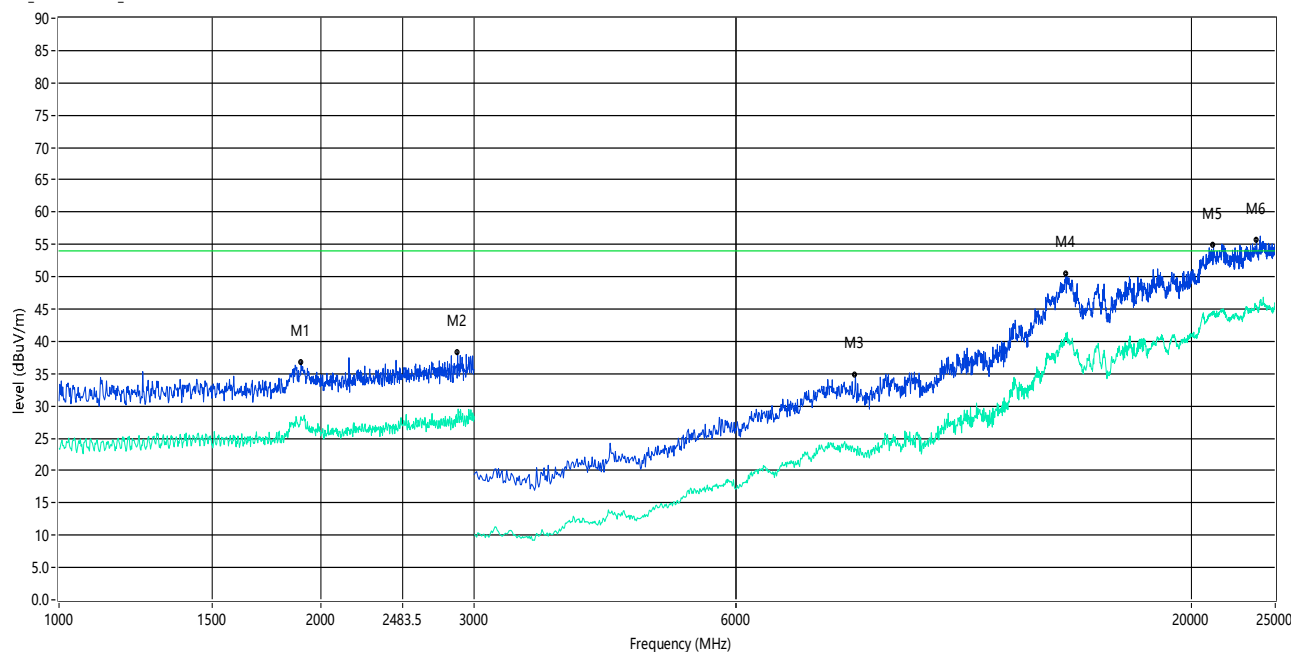
RSE_FCC Test Case_FCC 15C 1GHz-25GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	OverLimit (dB)	Detector	ANT	Verdict
1**	1900.000	28.39	-0.69	54.0	-25.61	AV	V	Pass
1	1900.000	37.03	-0.69	74.0	-36.97	Peak	V	Pass
2**	2596.000	27.31	-0.03	54.0	-26.69	AV	V	Pass
2	2596.000	36.96	-0.03	74.0	-37.04	Peak	V	Pass
3**	8000.000	24.26	10.93	54.0	-29.74	AV	V	Pass
3	8000.000	34.33	10.93	74.0	-39.67	Peak	V	Pass
4**	14128.000	39.05	23.50	54.0	-14.95	AV	V	Pass
4	14128.000	50.74	23.50	74.0	-23.26	Peak	V	Pass
5**	21556.001	44.18	24.00	54.0	-9.82	AV	V	Pass
5	21556.001	54.76	24.00	74.0	-19.24	Peak	V	Pass
6**	23716.000	45.87	23.40	54.0	-8.13	AV	V	Pass
6	23716.000	56.10	23.40	74.0	-17.90	Peak	V	Pass

Horizontal

RSE_FCC Test Case_FCC 15C 1GHz-25GHz

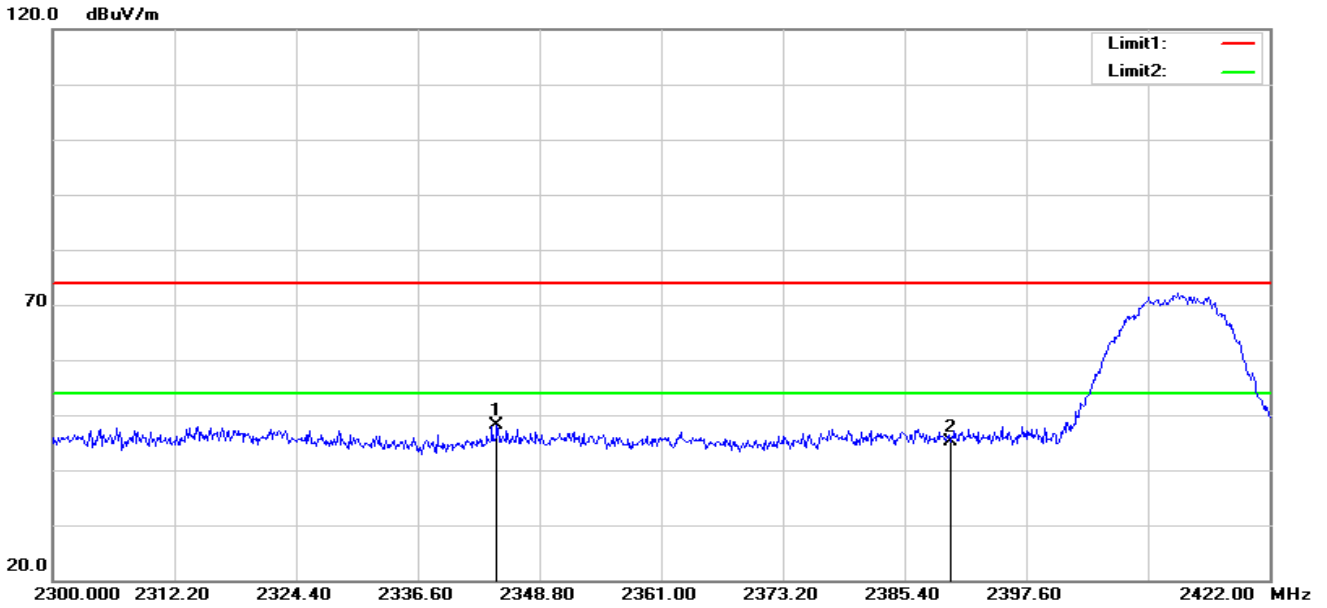


No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	OverLimit (dB)	Detector	ANT	Verdict
1**	1898.000	28.30	-0.71	54.0	-25.70	AV	H	Pass
1	1898.000	36.77	-0.71	74.0	-37.23	Peak	H	Pass
2**	2872.000	27.51	1.44	54.0	-26.49	AV	H	Pass
2	2872.000	38.26	1.44	74.0	-35.74	Peak	H	Pass
3**	8230.000	23.18	10.05	54.0	-30.82	AV	H	Pass
3	8230.000	34.80	10.05	74.0	-39.20	Peak	H	Pass
4**	14356.000	40.94	25.12	54.0	-13.06	AV	H	Pass
4	14356.000	50.39	25.12	74.0	-23.61	Peak	H	Pass
5**	21232.001	43.87	24.08	54.0	-10.13	AV	H	Pass
5	21232.001	54.89	24.08	74.0	-19.11	Peak	H	Pass
6**	23787.999	45.18	23.37	54.0	-8.82	AV	H	Pass
6	23787.999	55.67	23.37	74.0	-18.33	Peak	H	Pass

3.3.7 TEST RESULTS (RESTRICTED BAND REQUIREMENTS)

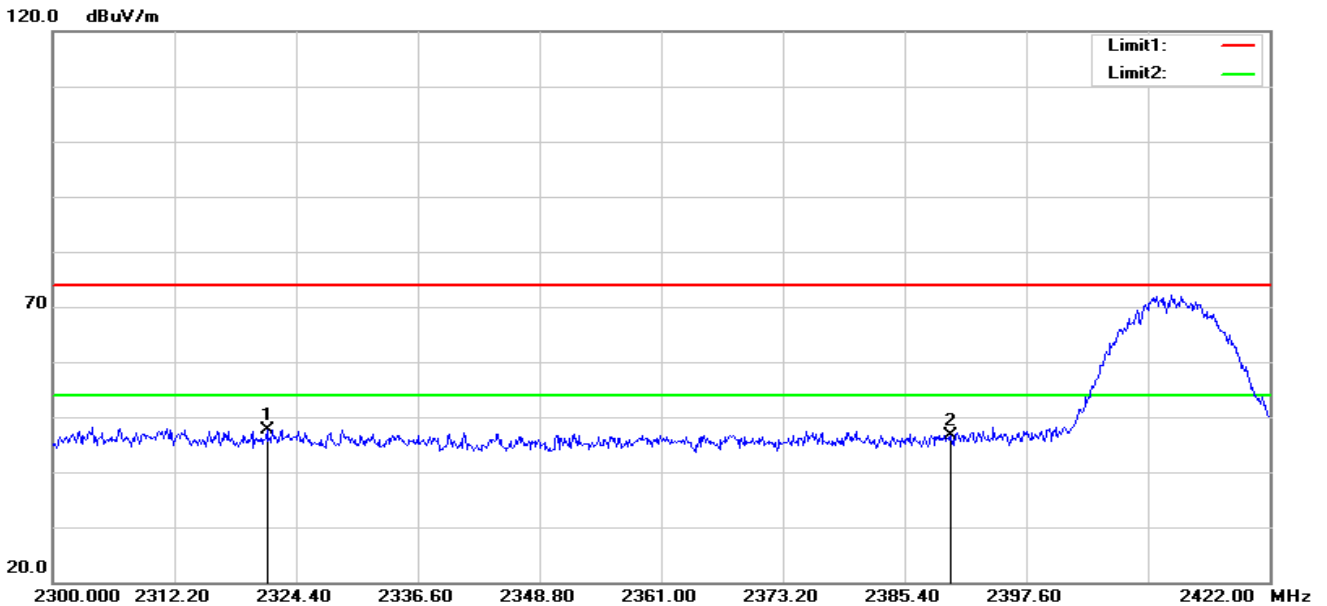
802.11 b-Low

Horizontal



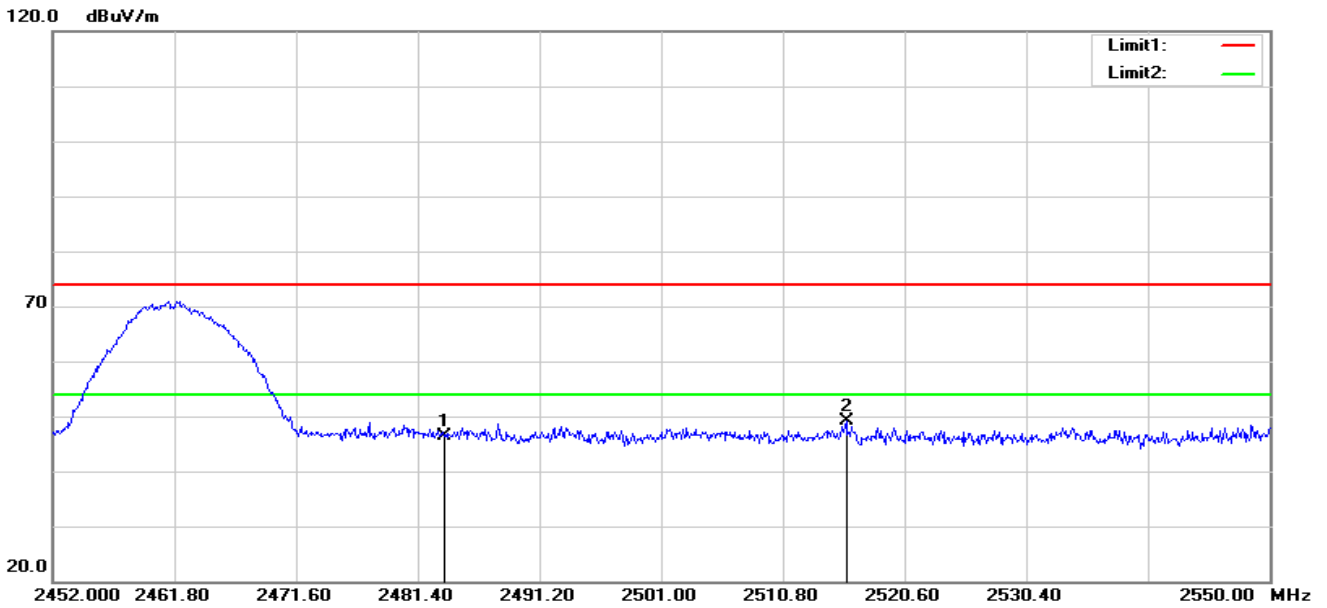
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2344.530	59.14	-11.05	48.09	74.00	-25.91	peak
2	2390.000	55.82	-10.75	45.07	74.00	-28.93	peak

Vertical



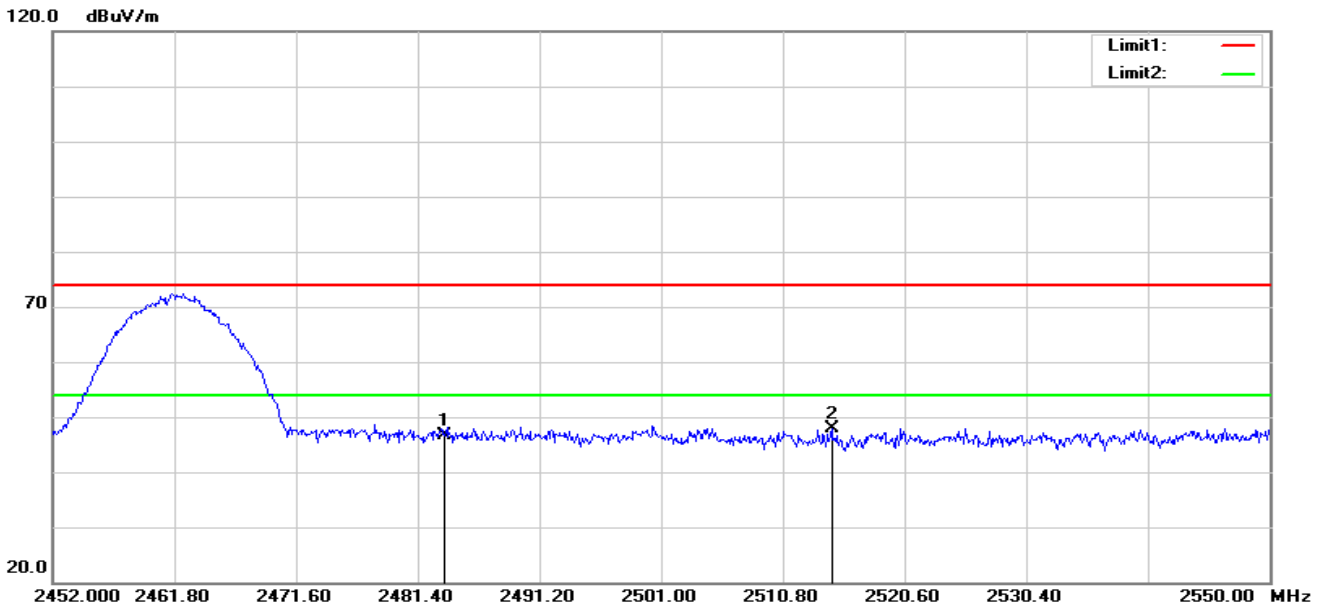
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2321.472	58.92	-11.21	47.71	74.00	-26.29	peak
2	2390.000	57.42	-10.75	46.67	74.00	-27.33	peak

802.11 b-High Horizontal



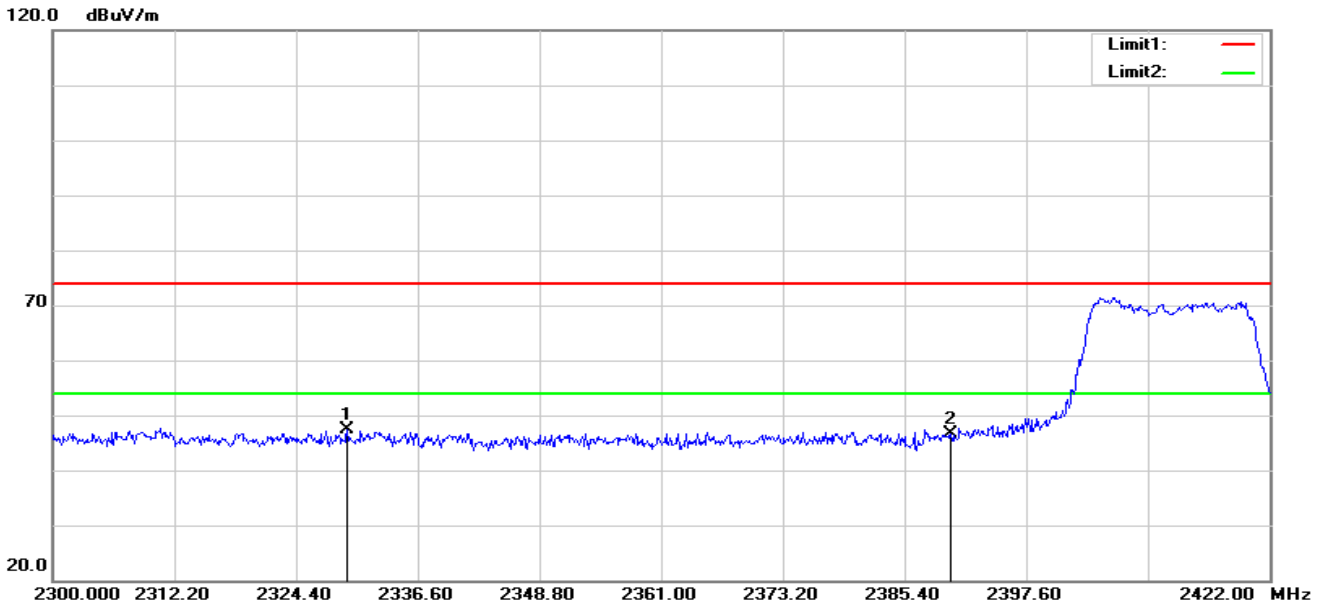
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	56.68	-10.29	46.39	74.00	-27.61	peak
2	2515.896	59.35	-10.17	49.18	74.00	-24.82	peak

Vertical



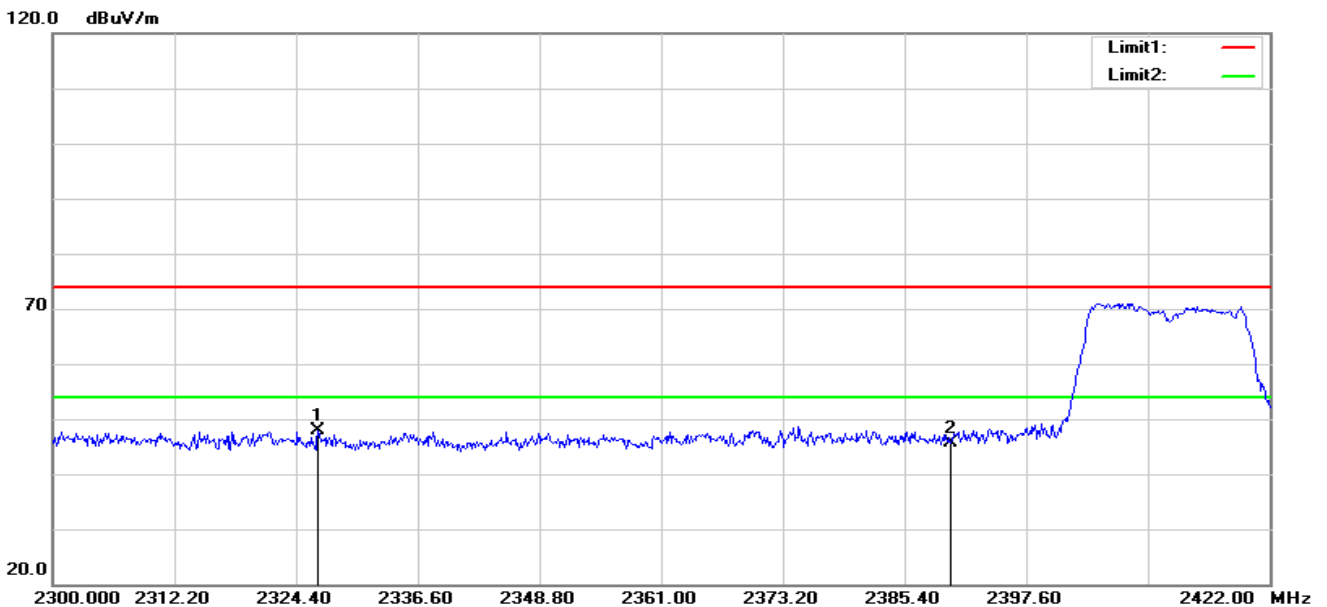
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	56.87	-10.29	46.58	74.00	-27.42	peak
2	2514.720	58.09	-10.17	47.92	74.00	-26.08	peak

802.11 g-Low Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2329.524	58.43	-11.15	47.28	74.00	-26.72	peak
2	2390.000	57.27	-10.75	46.52	74.00	-27.48	peak

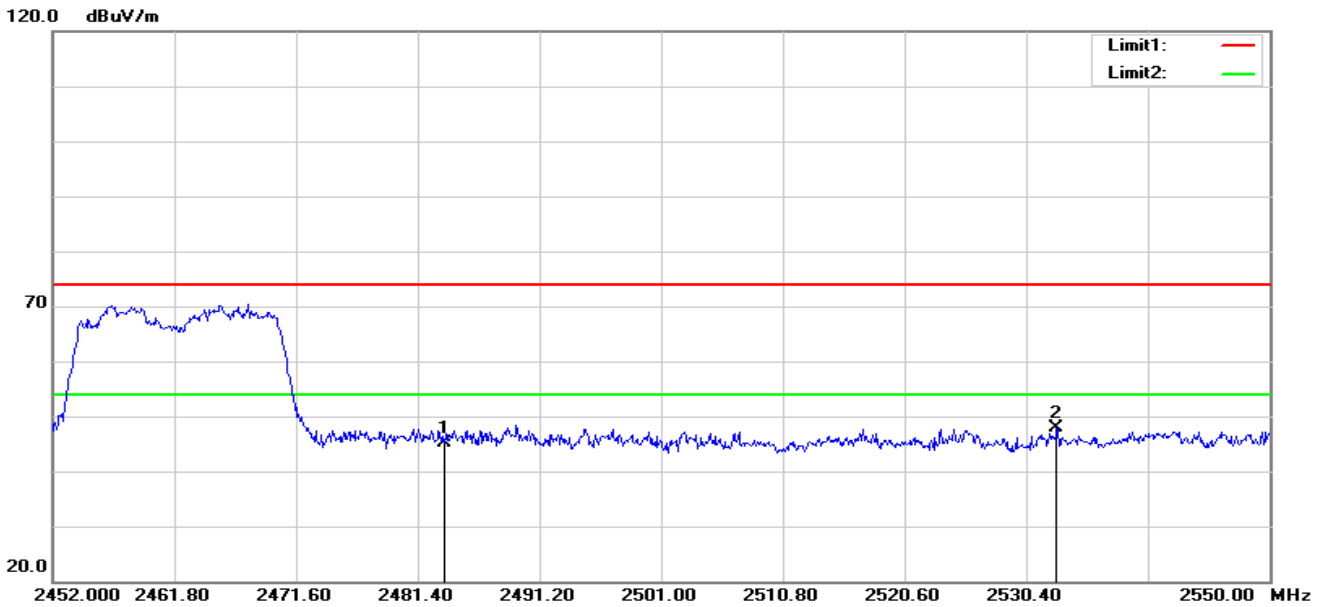
Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2326.596	58.97	-11.17	47.80	74.00	-26.20	peak
2	2390.000	56.45	-10.75	45.70	74.00	-28.30	peak

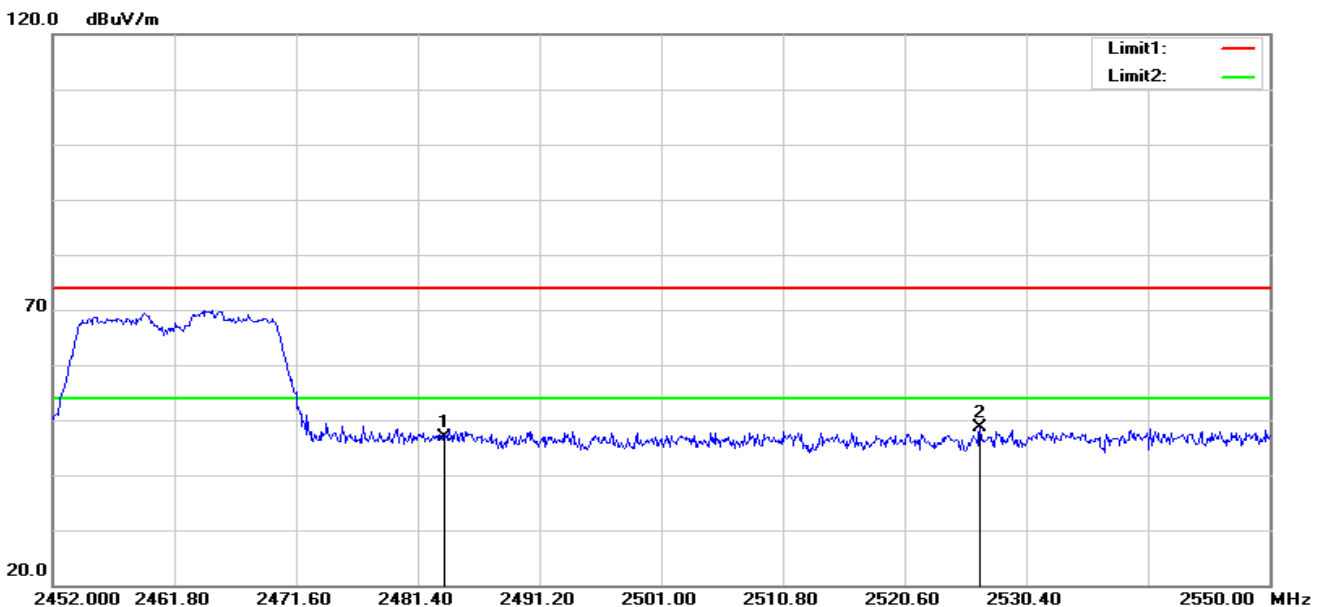
802.11 g-High

Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	55.43	-10.29	45.14	74.00	-28.86	peak
2	2532.850	58.00	-10.12	47.88	74.00	-26.12	peak

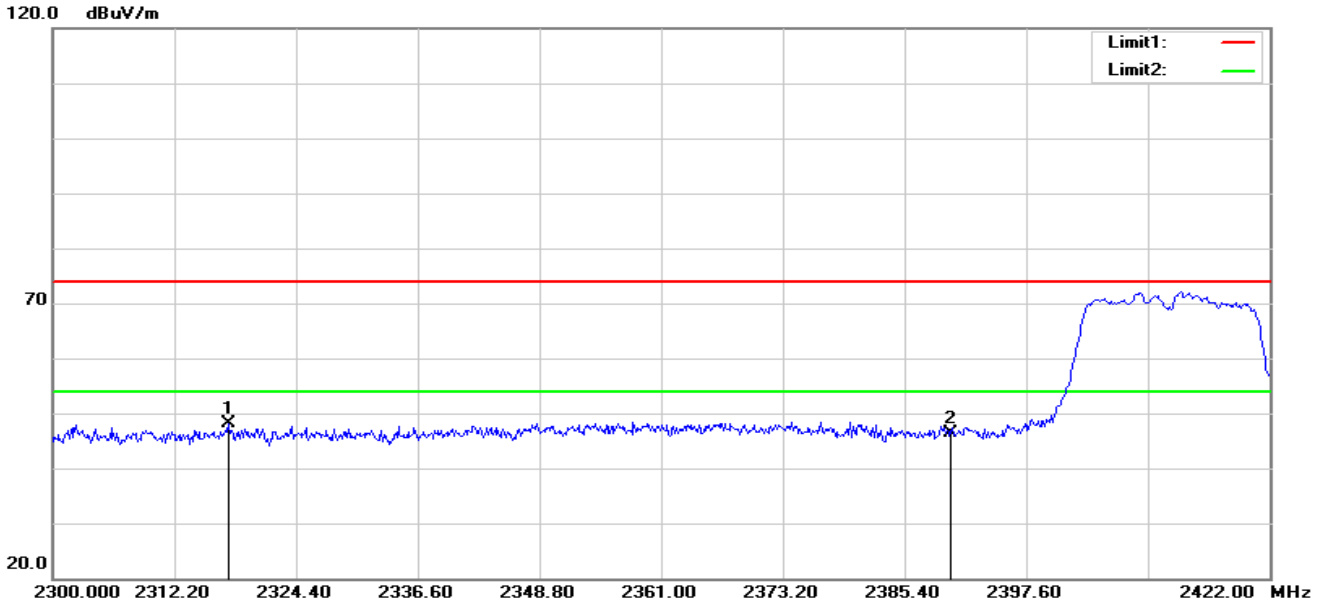
Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	57.07	-10.29	46.78	74.00	-27.22	peak
2	2526.676	58.77	-10.14	48.63	74.00	-25.37	peak

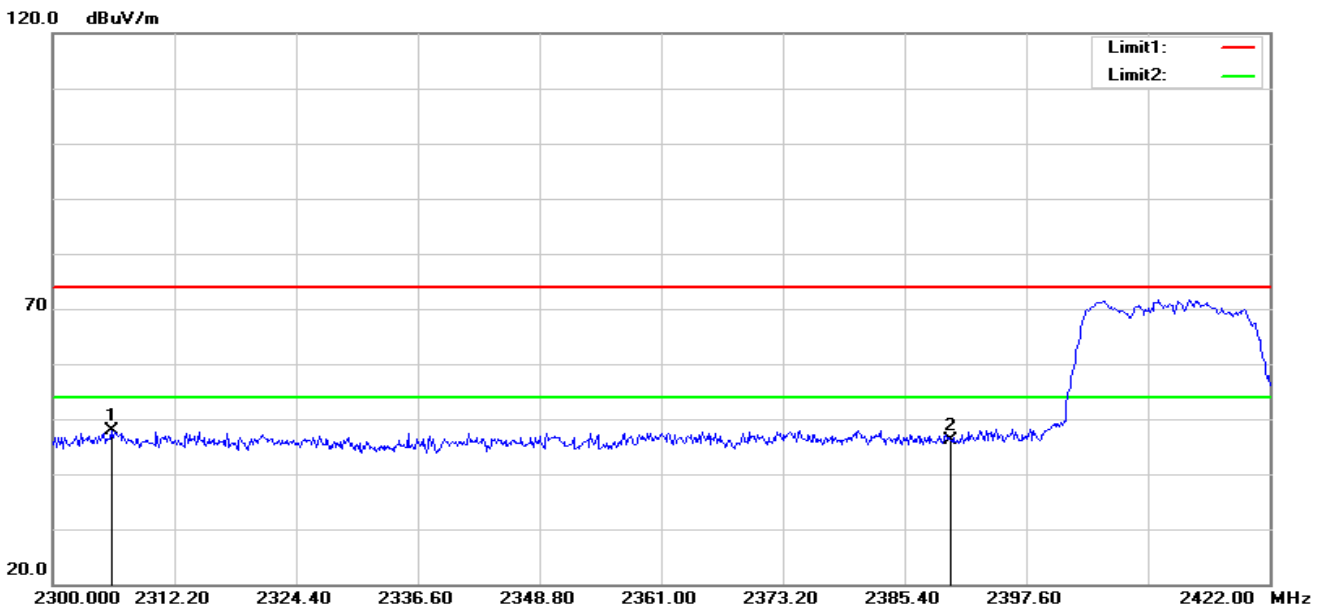
802.11 n(HT20)-Low

Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2317.568	59.39	-11.22	48.17	74.00	-25.83	peak
2	2390.000	57.18	-10.75	46.43	74.00	-27.57	peak

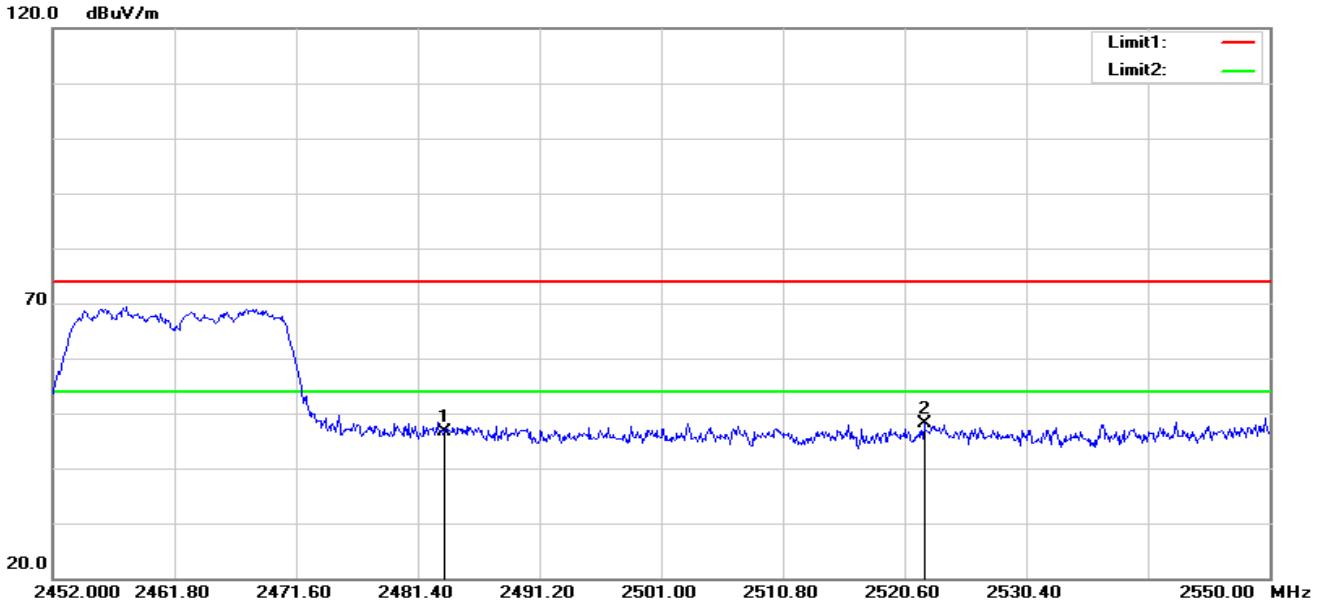
Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2305.856	59.23	-11.30	47.93	74.00	-26.07	peak
2	2390.000	56.95	-10.75	46.20	74.00	-27.80	peak

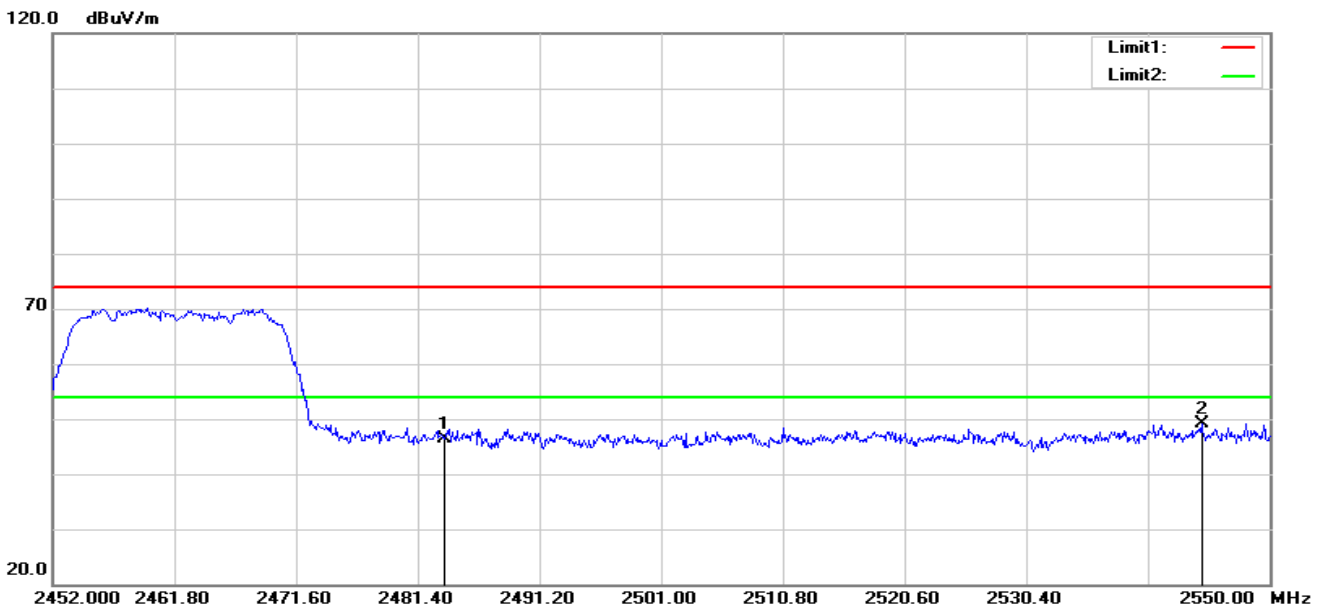
802.11 n(HT20)-High

Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	57.02	-10.29	46.73	74.00	-27.27	peak
2	2522.168	58.20	-10.15	48.05	74.00	-25.95	peak

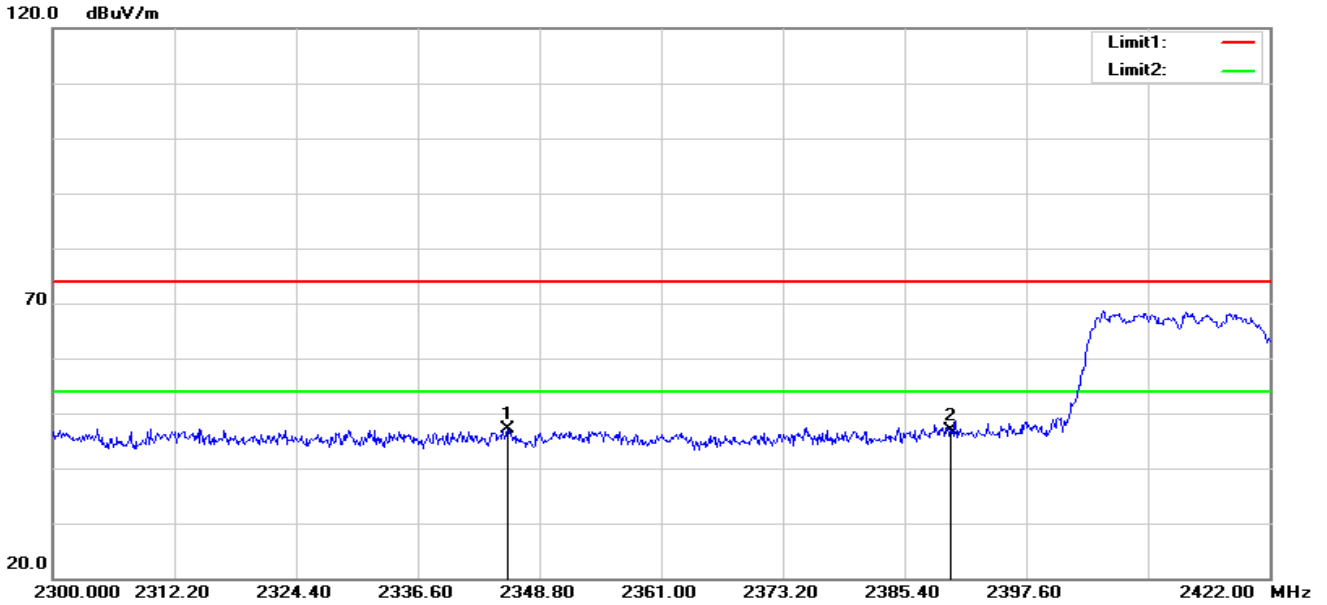
Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	56.78	-10.29	46.49	74.00	-27.51	peak
2	2544.512	59.30	-10.09	49.21	74.00	-24.79	peak

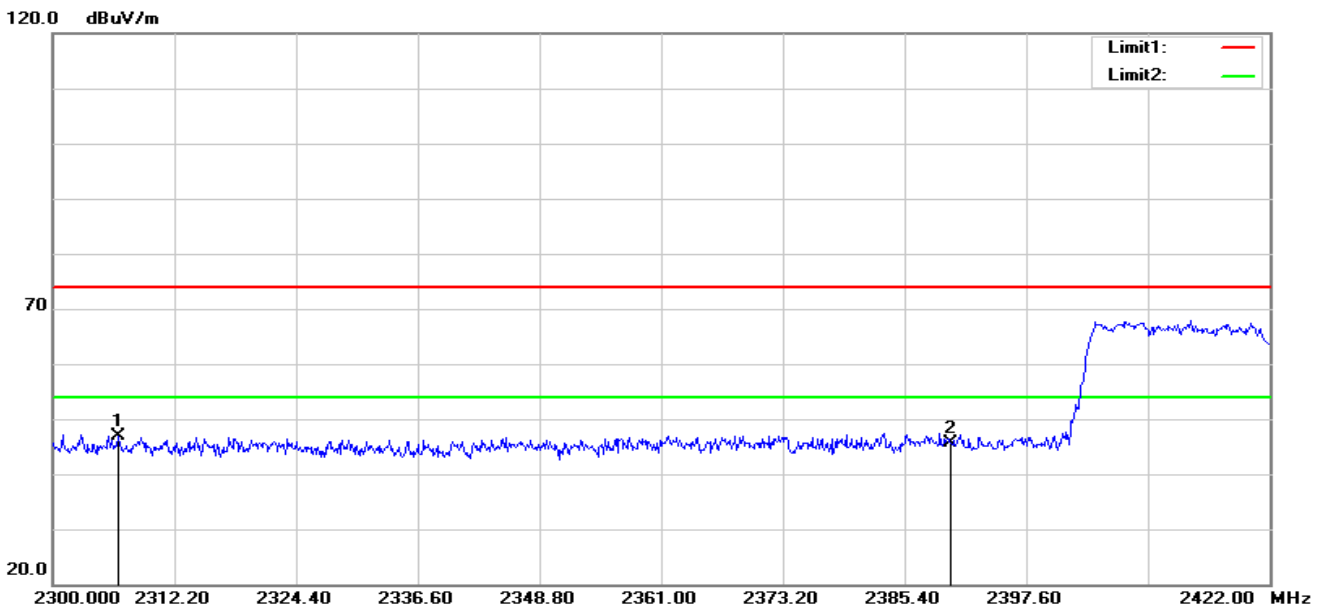
802.11 n(HT40)-Low

Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2345.628	58.07	-11.04	47.03	74.00	-26.97	peak
2	2390.000	57.57	-10.75	46.82	74.00	-27.18	peak

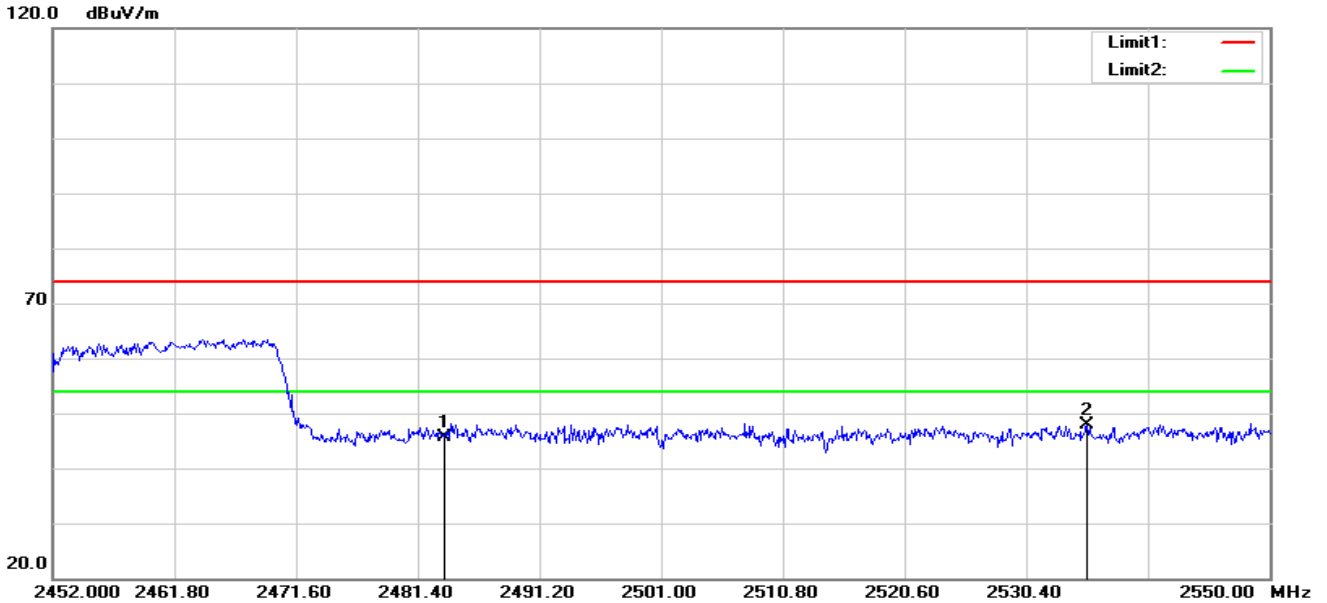
Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2306.588	58.06	-11.30	46.76	74.00	-27.24	peak
2	2390.000	56.30	-10.75	45.55	74.00	-28.45	peak

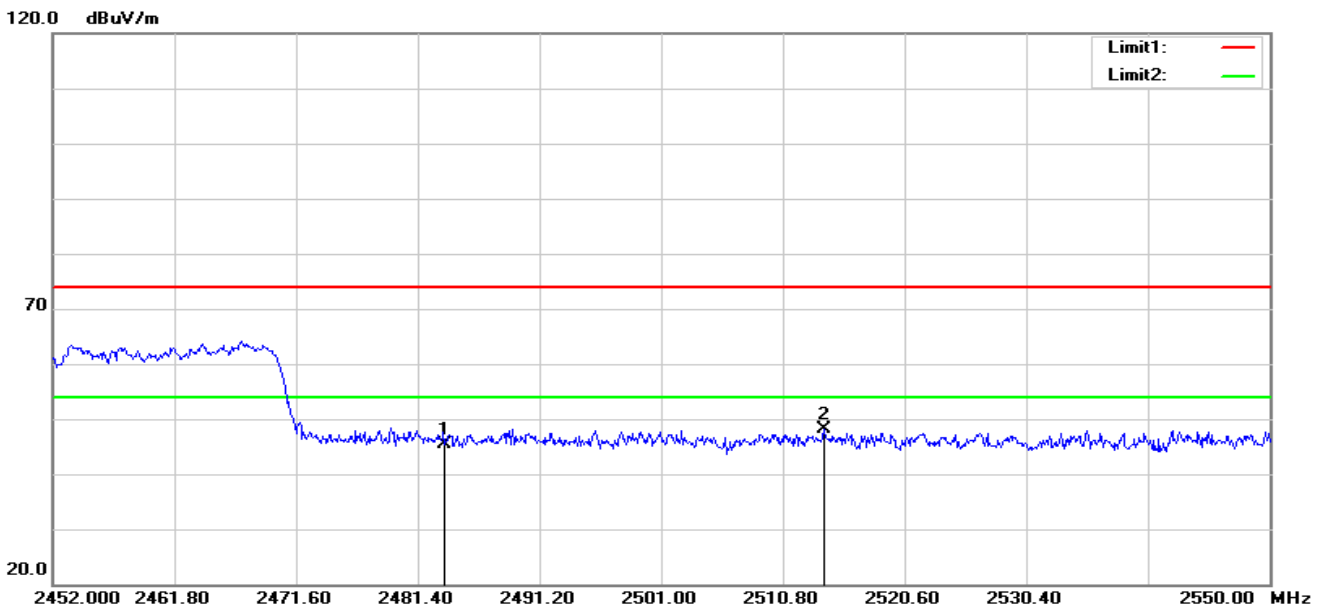
802.11 n(HT40)-High

Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	55.91	-10.29	45.62	74.00	-28.38	peak
2	2535.300	58.05	-10.12	47.93	74.00	-26.07	peak

Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	55.63	-10.29	45.34	74.00	-28.66	peak
2	2514.132	58.22	-10.17	48.05	74.00	-25.95	peak

4 CONDUCTED SPURIOUS & BAND EDGE EMISSION

4.1 LIMIT

According to FCC Part 15.247(d) and RSS-247 Clause 5.5, in any 100kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.

4.2 TEST PROCEDURE

Spectrum Parameter	Setting
Detector	Peak
Start/Stop Frequency	30 MHz to 10th carrier harmonic
RB / VB (emission in restricted band)	100 KHz/300 KHz
Trace-Mode:	Max hold

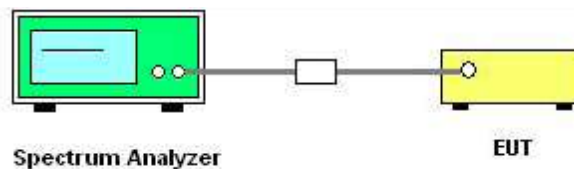
For Band edge

Spectrum Parameter	Setting
Detector	Peak
Start/Stop Frequency	Lower Band Edge: 2300 to 2422 MHz Upper Band Edge: 2452 to 2500 MHz
RB / VB (emission in restricted band)	100 KHz/300 KHz
Trace-Mode:	Max hold

4.3 DEVIATION FROM STANDARD

No deviation.

4.4 TEST SETUP



The EUT which is powered by the Adapter, is coupled to the Spectrum Analyzer; the RF load attached to the EUT antenna terminal is 50 Ohm; the path loss as the factor is calibrated to correct the reading.

Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 100 kHz. In order to make an accurate measurement, set the span greater than RBW.

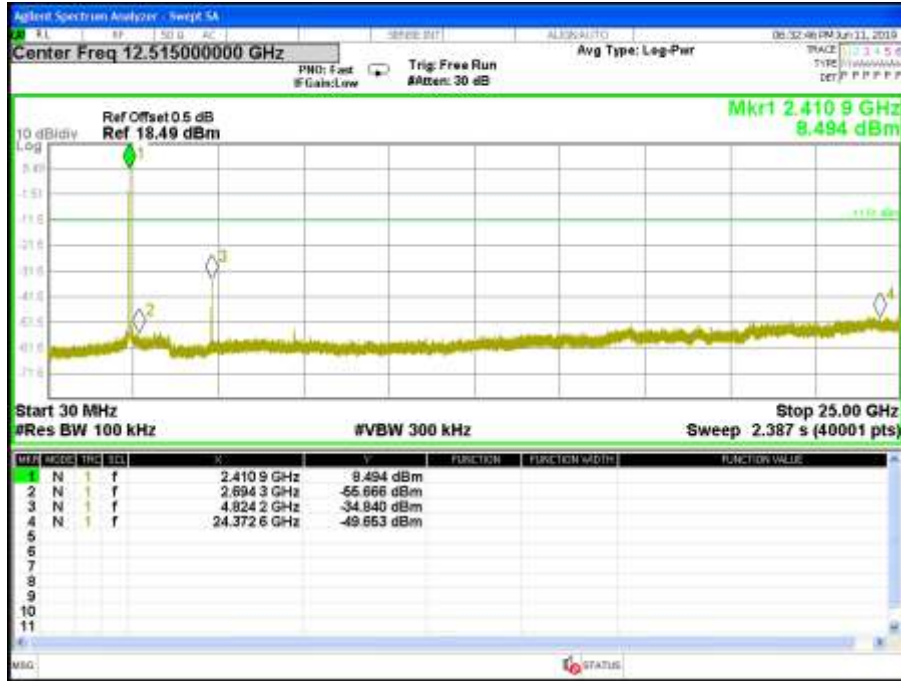
4.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.3 Unless otherwise a special operating condition is specified in the follows during the testing.

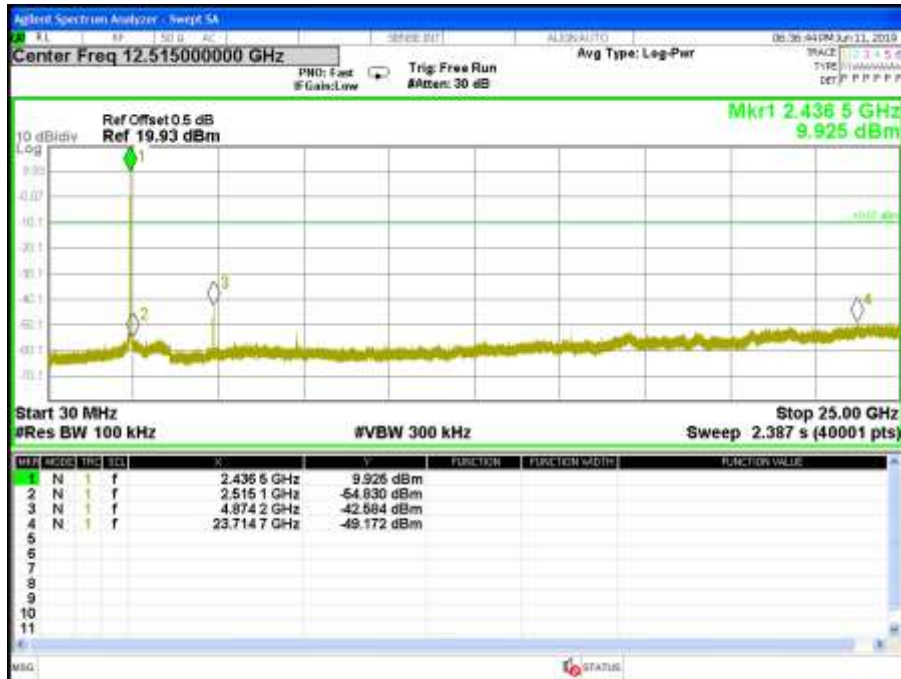
4.6 TEST RESULTS

Temperature :	25°C	Relative Humidity :	60%
Test Voltage :	AC 120V/60Hz	Test Mode :	TX b Mode /CH01, CH06, CH11

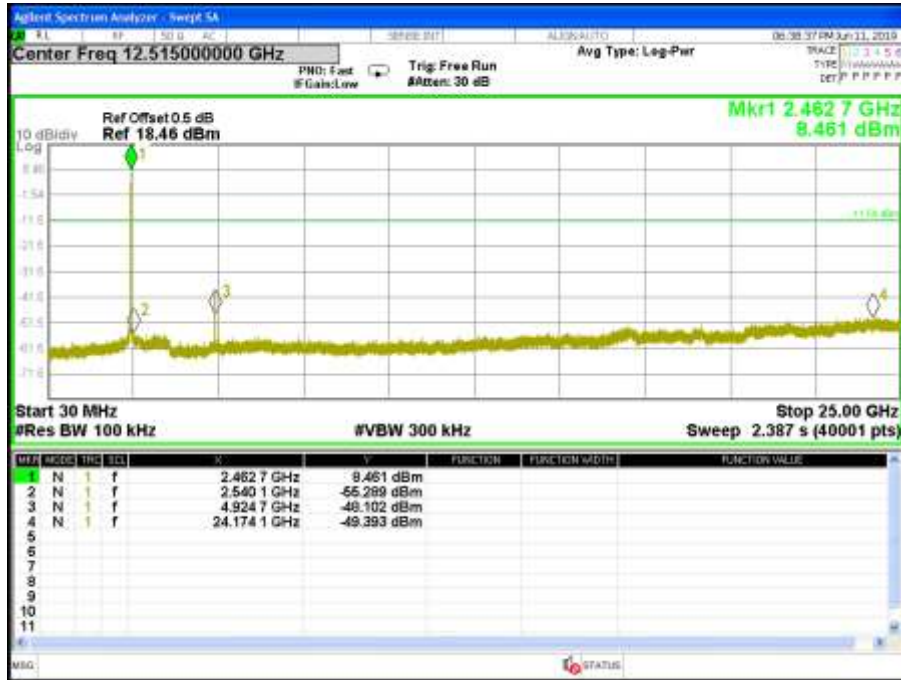
CH 01



CH 06

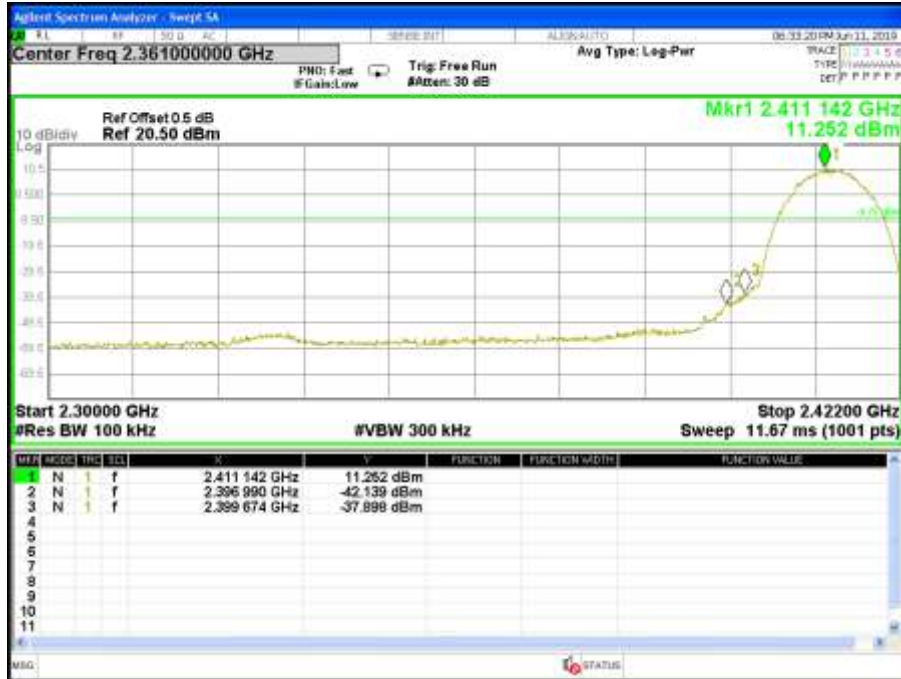


CH 11



Band edge

CH 01

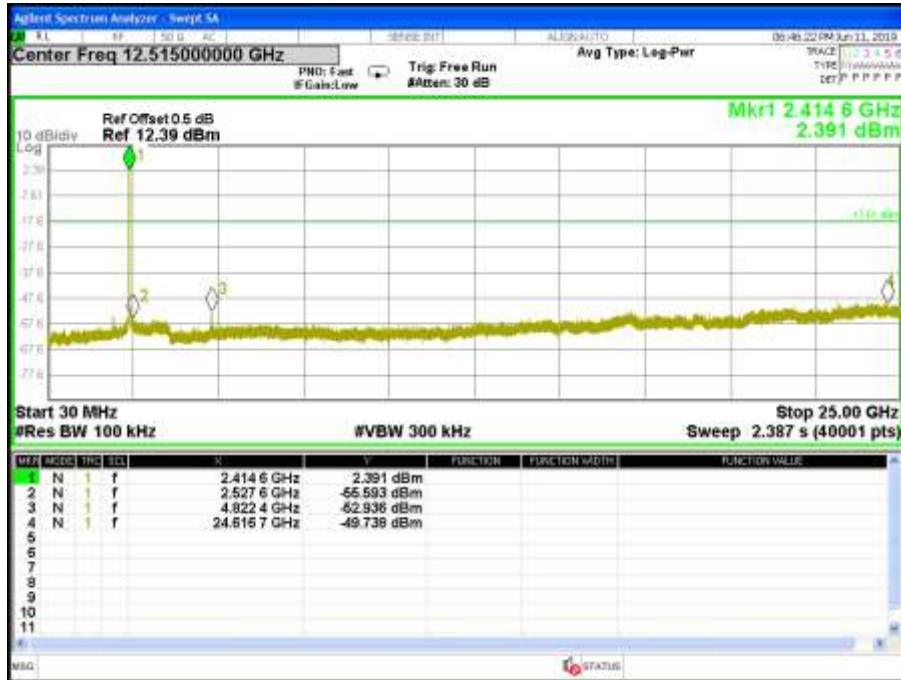


CH 11

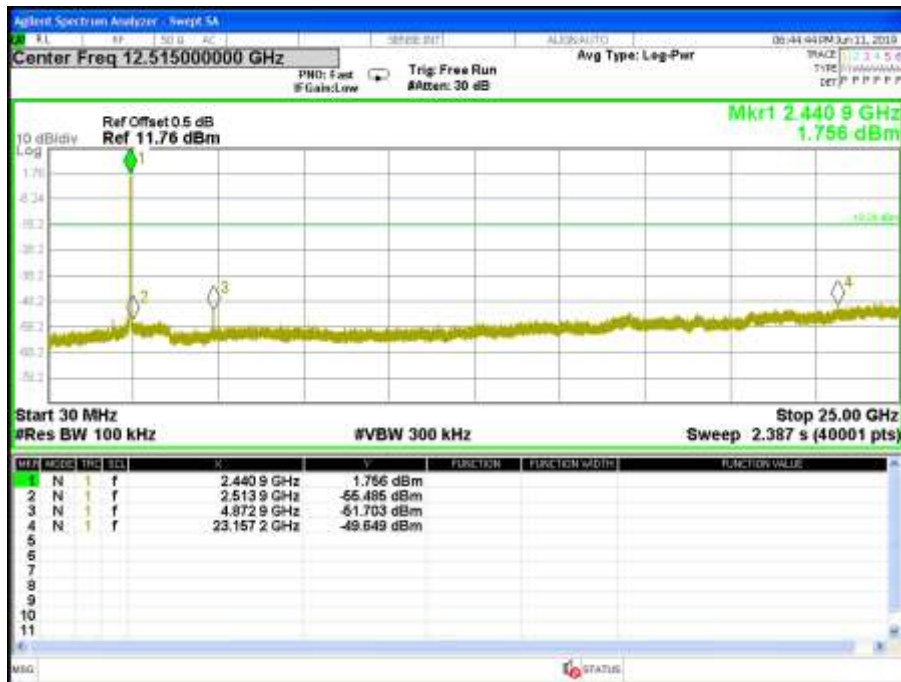


Temperature :	25°C	Relative Humidity :	60%
Test Voltage :	AC 120V/60Hz	Test Mode :	TX g Mode /CH01, CH06, CH11

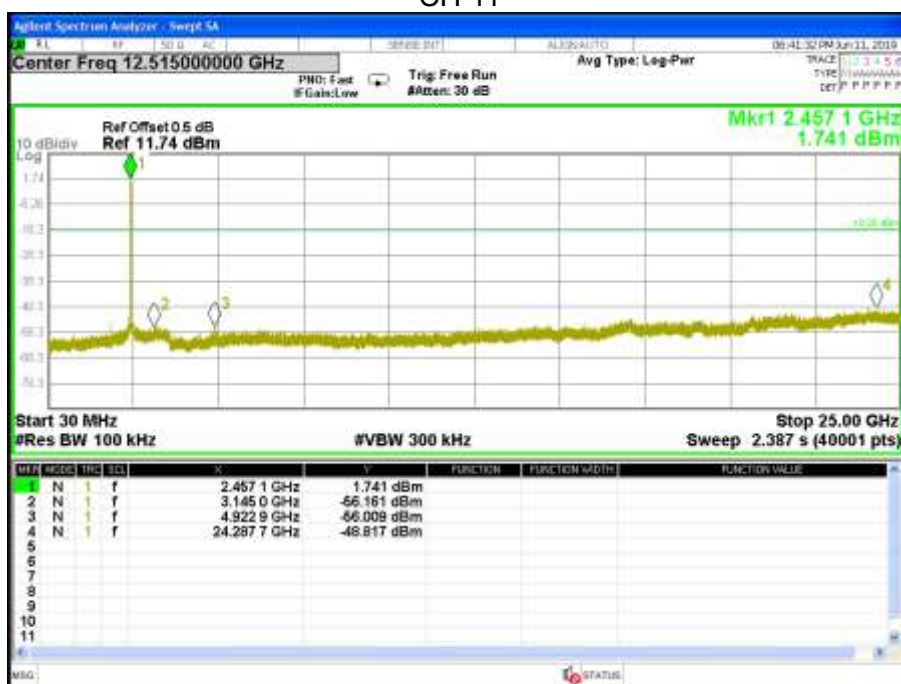
CH 01



CH06

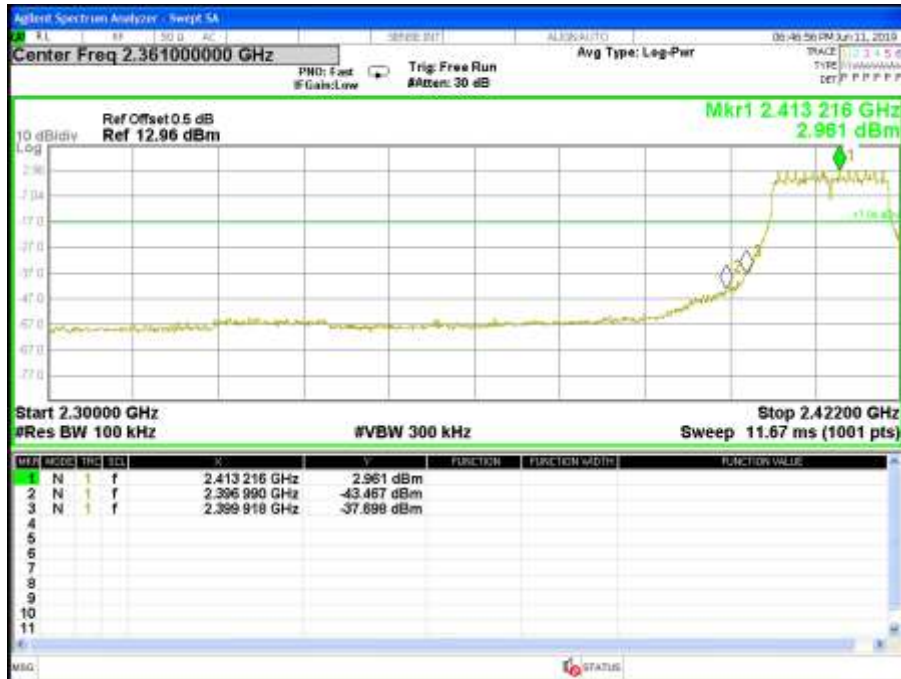


CH 11



Band edge

CH 01

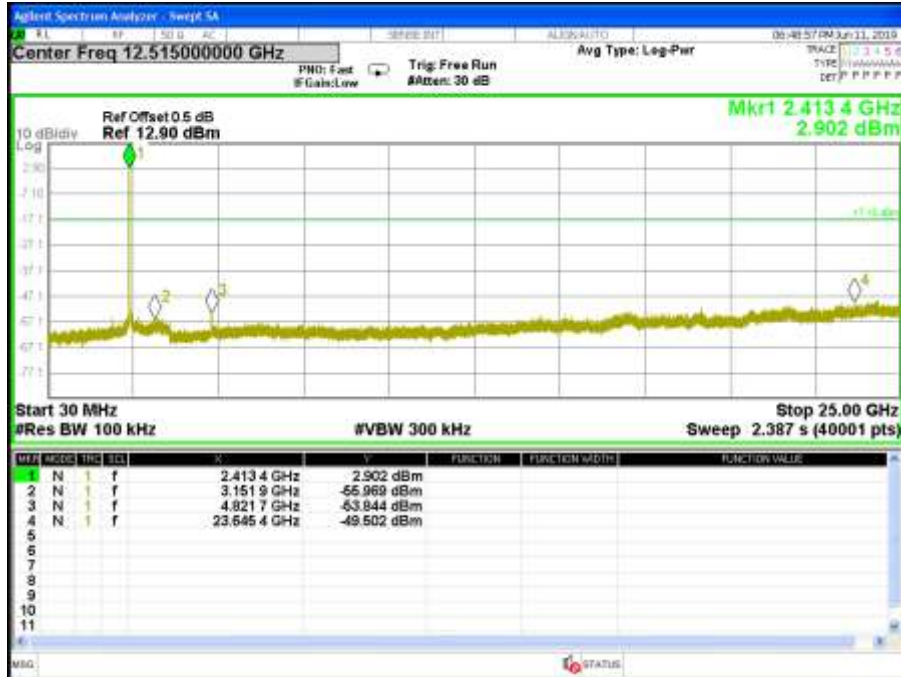


CH11

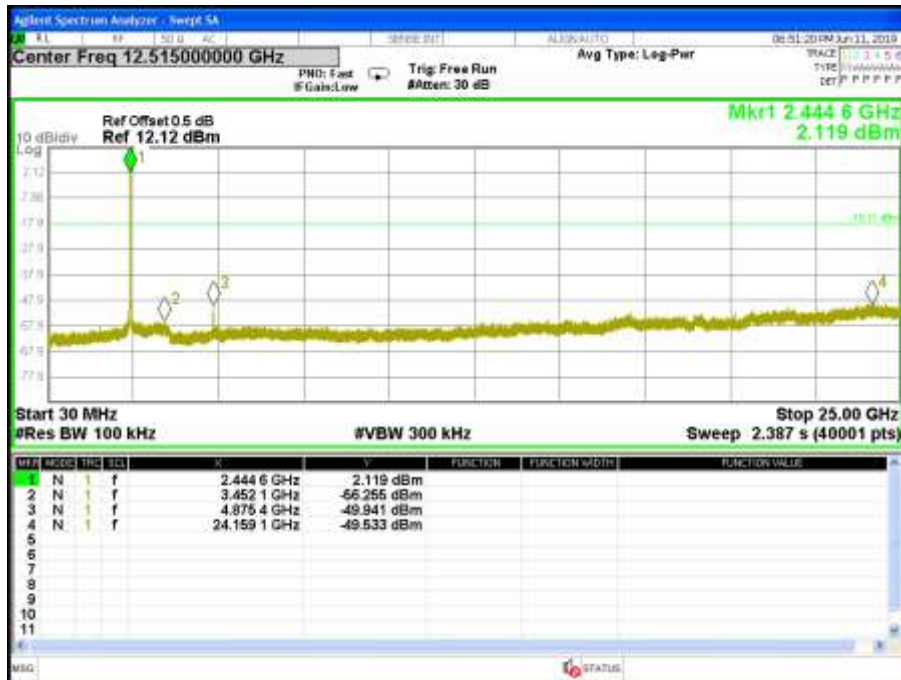


Temperature :	25°C	Relative Humidity :	60%
Test Voltage :	AC 120V/60Hz	Test Mode :	TX n(HT20) Mode /CH01, CH06, CH11

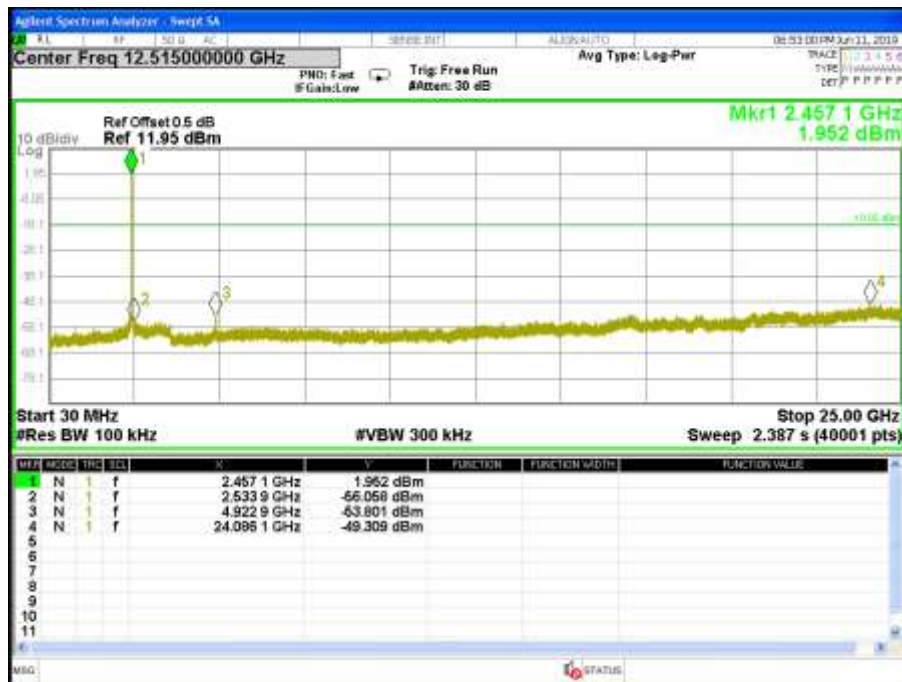
CH 01



CH 06

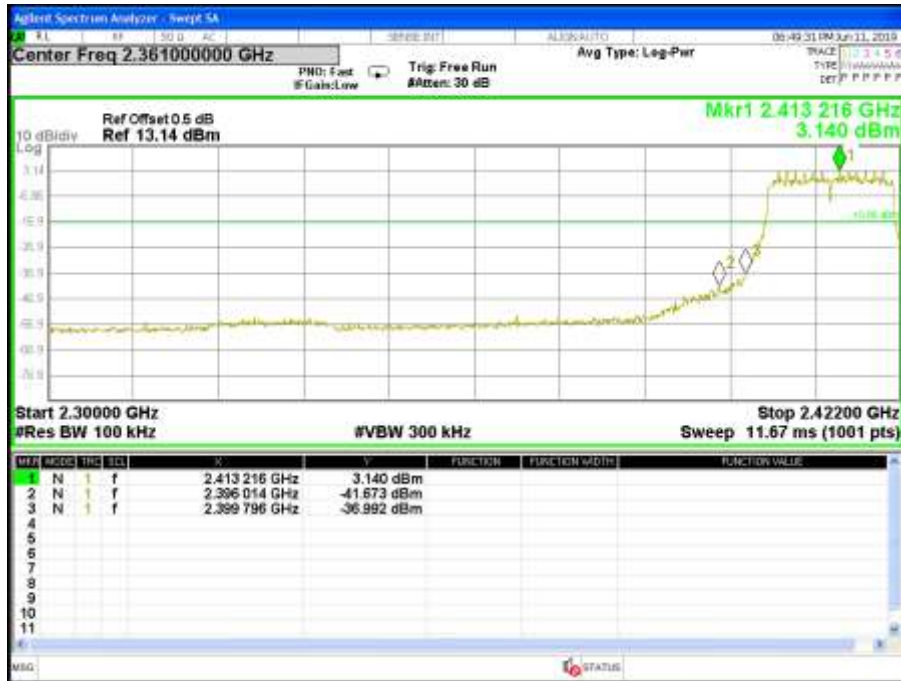


CH 11



Band edge

CH 01

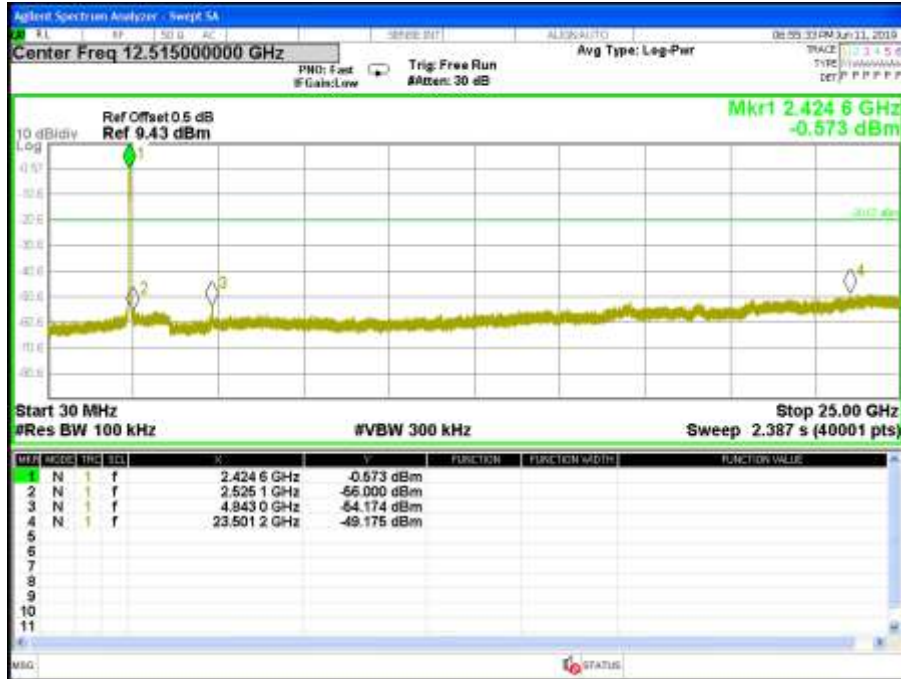


CH 11

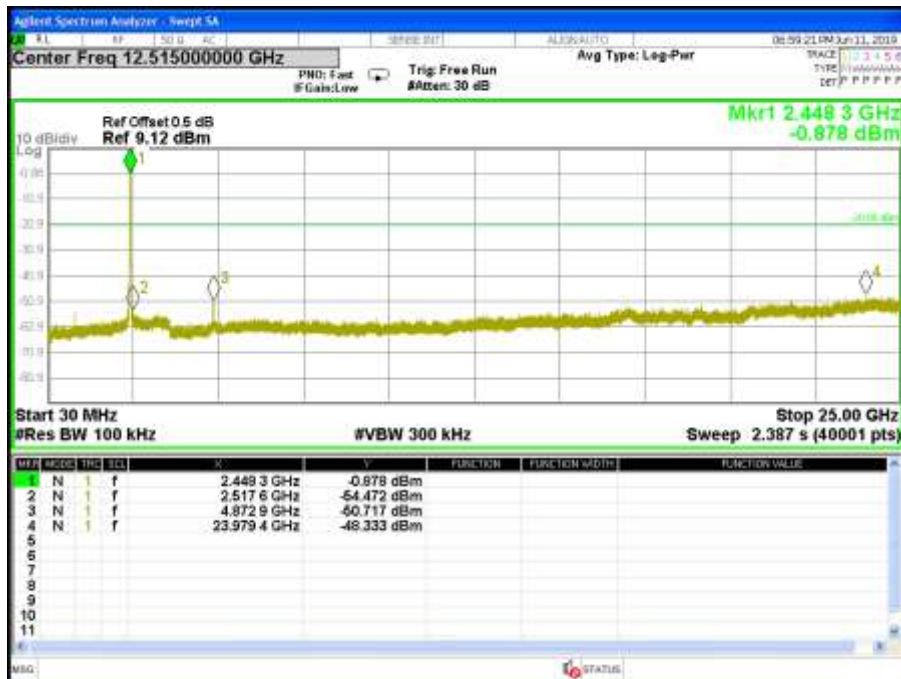


Temperature:	25 °C	Relative Humidity:	60%
Test Voltage:	AC 120V/60Hz	Test Mode:	TX n(HT40) Mode /CH03, CH06, CH09

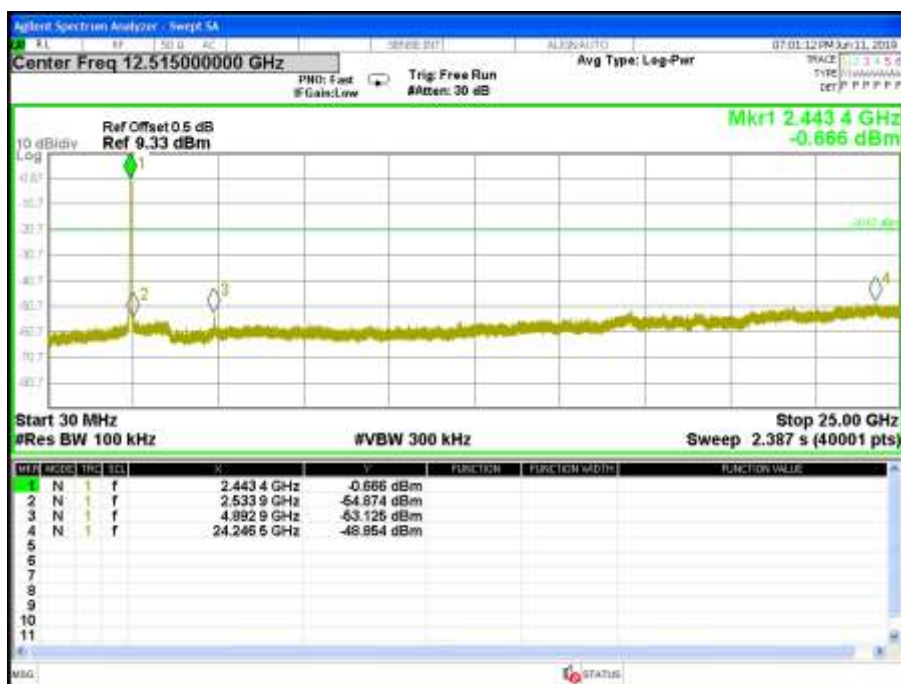
CH 03



CH06



CH09



Band edge

CH03



CH 09



5 POWER SPECTRAL DENSITY TEST

5.1 LIMIT

FCC Part15.247, Subpart C RSS-247 Issue 2				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(e) RSS-247 Clause 5.2(b)	Power Spectral Density	≤8 dBm (RBW ≥3KHz)	2400-2483.5	PASS

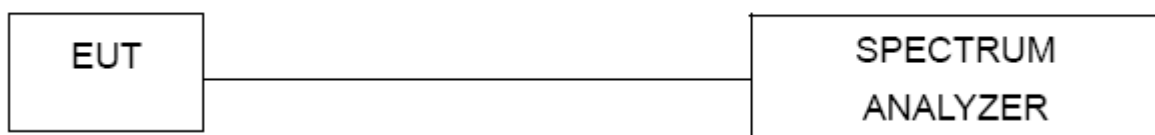
5.2 TEST PROCEDURE

- 1) Set analyzer center frequency to DTS channel center frequency.
- 2) Set the span to 1.5 times the DTS channel bandwidth.
- 3) Set the 100 kHz ≥ RBW ≥3 kHz.
- 4) Set the VBW ≥ 3 x RBW.
- 5) Detector = peak.
- 6) Sweep time = auto couple.
- 7) Trace mode = max hold.
- 8) Allow trace to fully stabilize.
- 9) Use the peak marker function to determine the maximum amplitude level.
- 10) If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

5.3 DEVIATION FROM STANDARD

No deviation.

5.4 TEST SETUP



5.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.3 Unless otherwise a special operating condition is specified in the follows during the testing.

5.6 TEST RESULTS

Temperature:	25°C	Relative Humidity:	60%
Test Voltage:	AC 120V/60Hz	Test Mode:	TX b Mode /CH01, CH06, CH11

Test Mode	Frequency (MHz)	Power Density (dBm/3kHz)	Limit (dBm/3KHz)	Result
b mode (1 Mbps)	2412.00	-5.189	≤ 8.00	PASS
	2437.00	-4.251	≤ 8.00	PASS
	2462.00	-4.423	≤ 8.00	PASS

TX CH01



TX CH06



TX CH11



Temperature:	25°C	Relative Humidity:	60%
Test Voltage:	AC 120V/60Hz	Test Mode:	TX g Mode /CH01, CH06, CH11

Test Mode	Frequency (MHz)	Power Density (dBm/3kHz)	Limit (dBm/3KHz)	Result
g mode (6 Mbps)	2412.00	-12.123	≤ 8.00	PASS
	2437.00	-11.705	≤ 8.00	PASS
	2462.00	-13.182	≤ 8.00	PASS

TX CH01



TX CH06



TX CH11



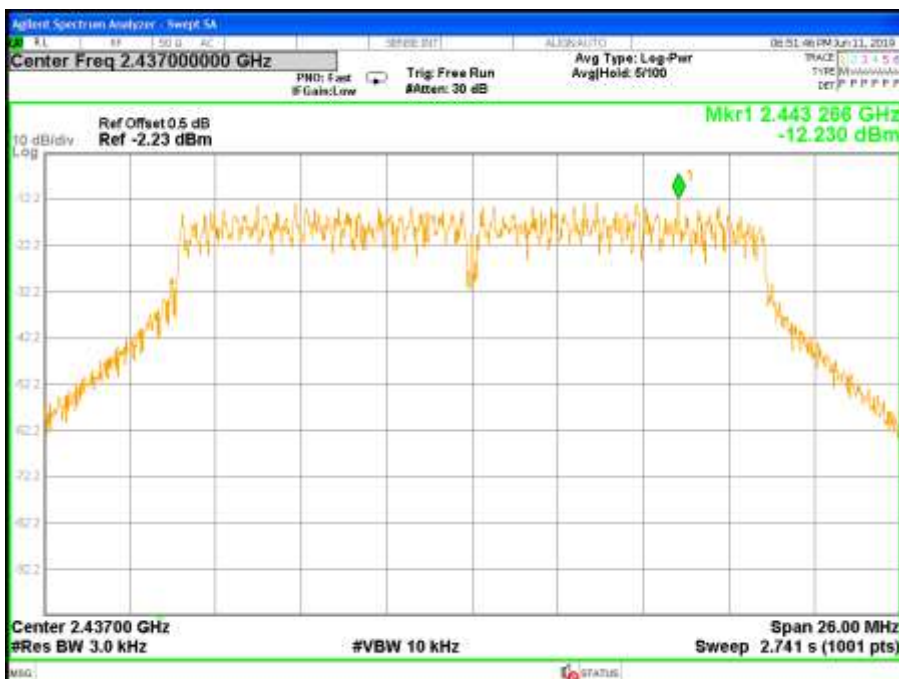
Temperature:	25°C	Relative Humidity:	60%
Test Voltage:	AC 120V/60Hz	Test Mode:	TX n(HT20) Mode /CH01, CH06, CH11

Test Mode	Frequency (MHz)	Power Density (dBm/3kHz)	Limit (dBm/3KHz)	Result
n(HT20) mode (MCS0)	2412.00	-11.818	≤ 8.00	PASS
	2437.00	-12.23	≤ 8.00	PASS
	2462.00	-13.081	≤ 8.00	PASS

TX CH01



TX CH06



TX CH11



Temperature:	25°C	Relative Humidity:	60%
Test Voltage:	AC 120V/60Hz	Test Mode:	TX n(HT40) Mode /CH03, CH06, CH09

Test Mode	Frequency (MHz)	Power Density (dBm/3kHz)	Limit (dBm/3KHz)	Result
n(HT40) mode (MCS0)	2422.00	-16.777	≤ 8.00	PASS
	2437.00	-16.355	≤ 8.00	PASS
	2452.00	-16.846	≤ 8.00	PASS

TX CH03



TX CH06



TX CH09



6 BANDWIDTH TEST

6.1 LIMIT

FCC Part15.247,Subpart C RSS-247 Issue 2 & RSS-Gen Issue 5				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(a)(2) RSS-247 Clause 5.2(a)	6dB Bandwidth	$\geq 500\text{KHz}$	2400-2483.5	PASS
RSS-Gen Clause 6.7	99%Bandwidth	-	2400-2483.5	PASS

6.2 TEST PROCEDURE

The automatic bandwidth measurement capability of an instrument may be employed using the X dB bandwidth mode with X set to 6 dB, if the functionality described above (i.e., RBW = 100 kHz, VBW \geq 3RBW, peak detector with maximum hold) is implemented by the instrumentation function. When using this capability, care shall be taken so that the bandwidth measurement is not influenced by any intermediate power nulls in the fundamental emission that might be ≥ 6 dB.

6.3 DEVIATION FROM STANDARD

No deviation.

6.4 TEST SETUP



6.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.3 Unless otherwise a special operating condition is specified in the follows during the testing.

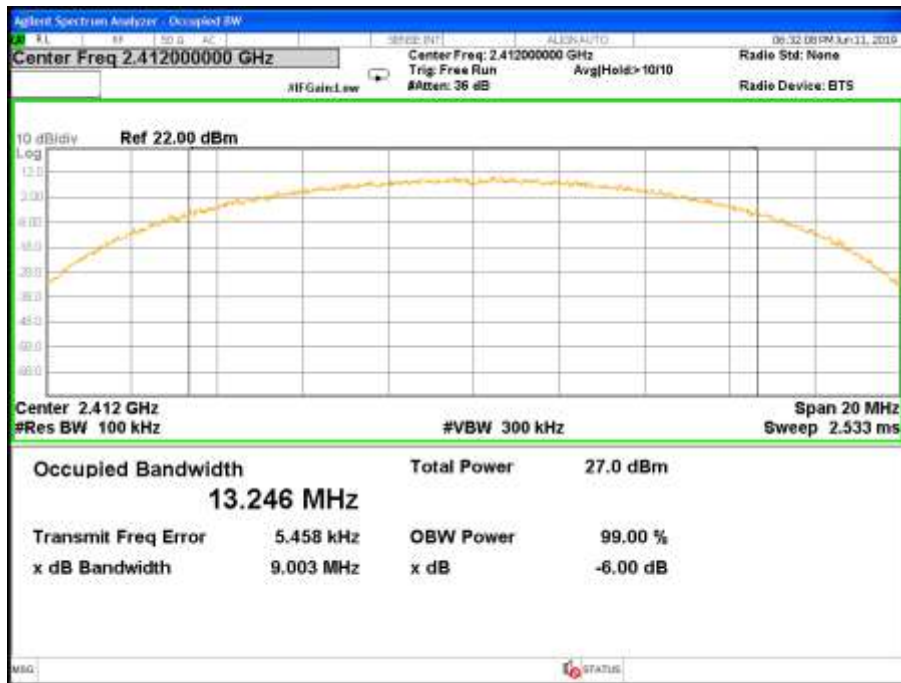
6.6 TEST RESULTS

Temperature:	25°C	Relative Humidity:	60%
Test Voltage:	AC 120V/60Hz	Test Mode:	TX b Mode /CH01, CH06, CH11

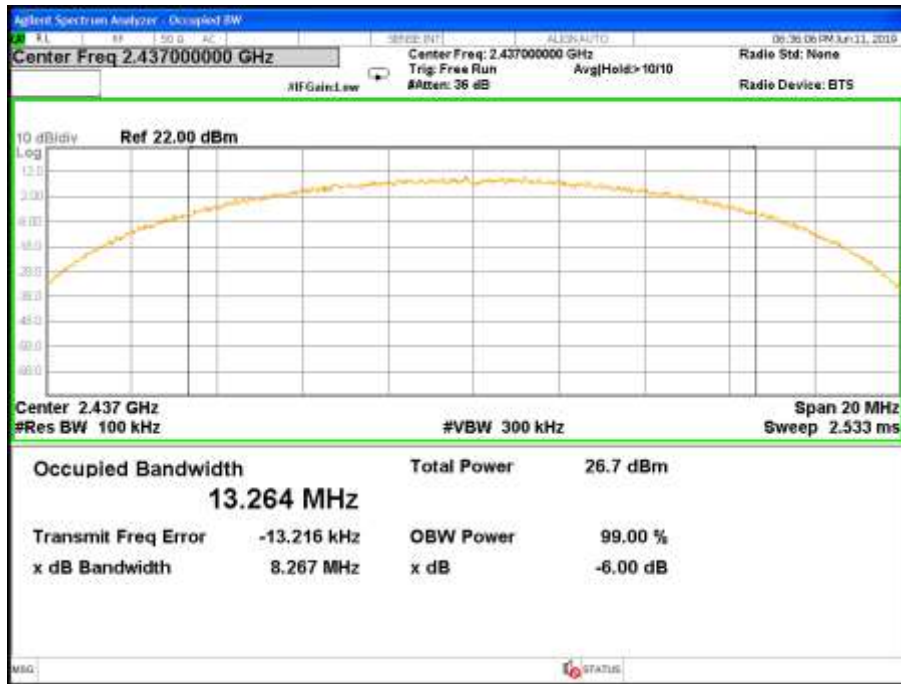
Remark: PEAK DETECTOR IS USED

Test Mode	Frequency (MHz)	6dB Bandwidth (MHz)	99% Bandwidth (MHz)	Limit of 6dB Bandwidth (MHz)	Result
b mode (1 Mbps)	2412.00	9.003	13.264	≥ 0.50	PASS
	2437.00	8.267	13.282	≥ 0.50	PASS
	2462.00	8.571	13.258	≥ 0.50	PASS

6dB Bandwidth TX CH 01



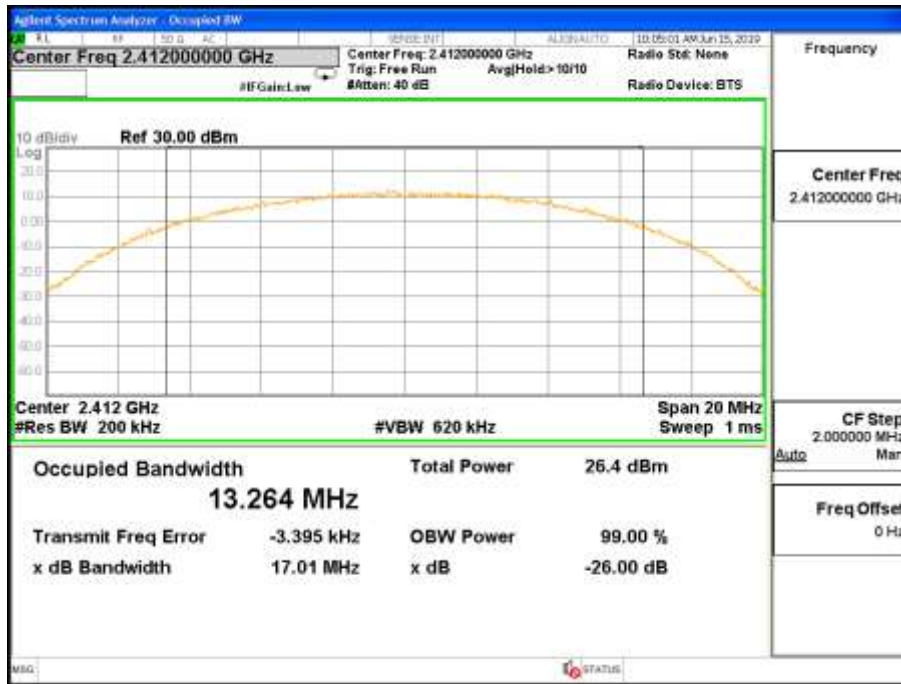
6dB Bandwidth TX CH 06



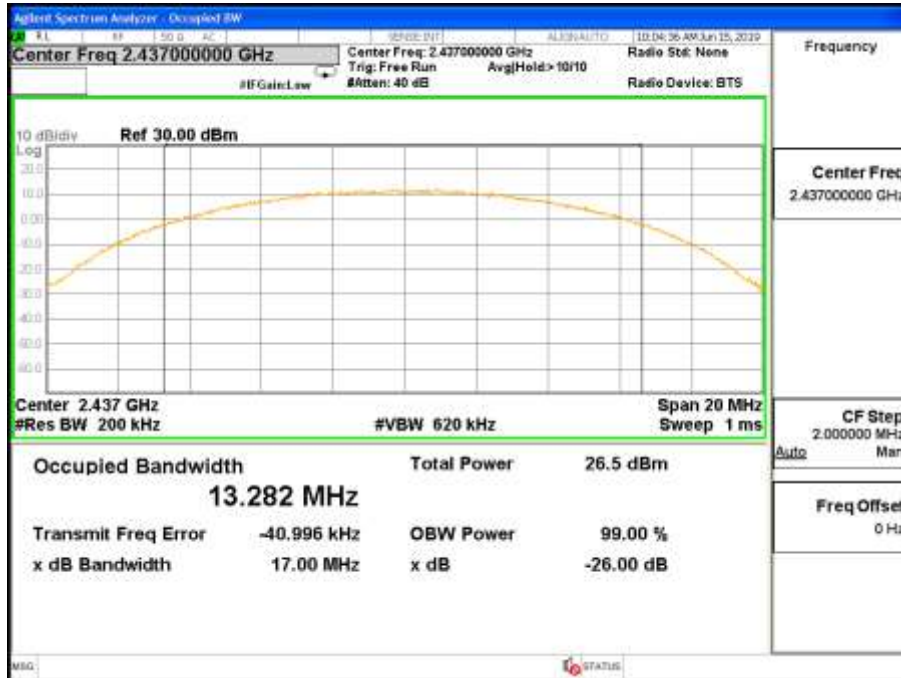
6dB Bandwidth TX CH 11



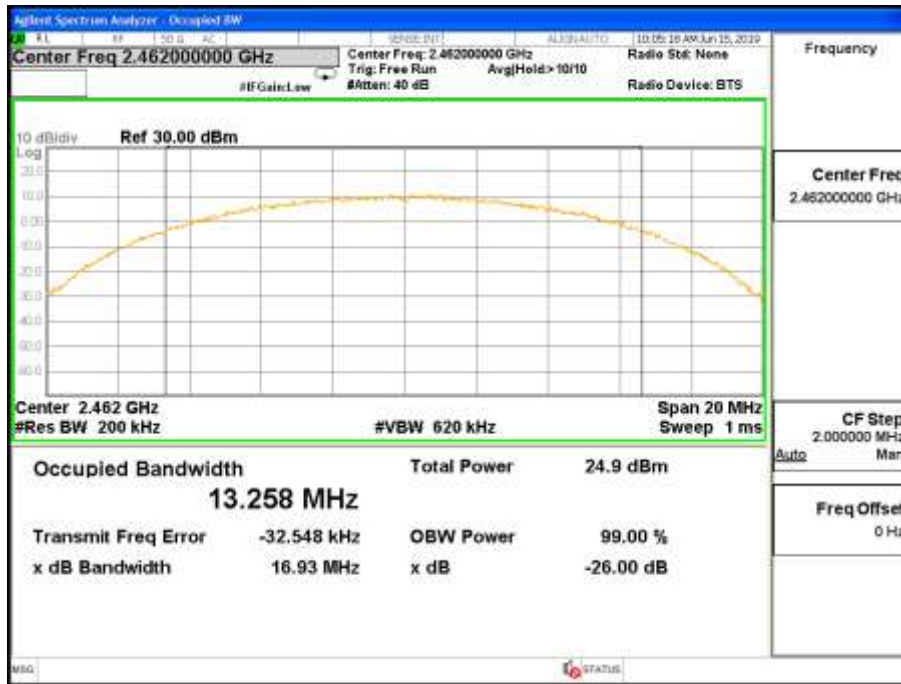
99% Bandwidth TX CH 01



99% Bandwidth TX CH 06



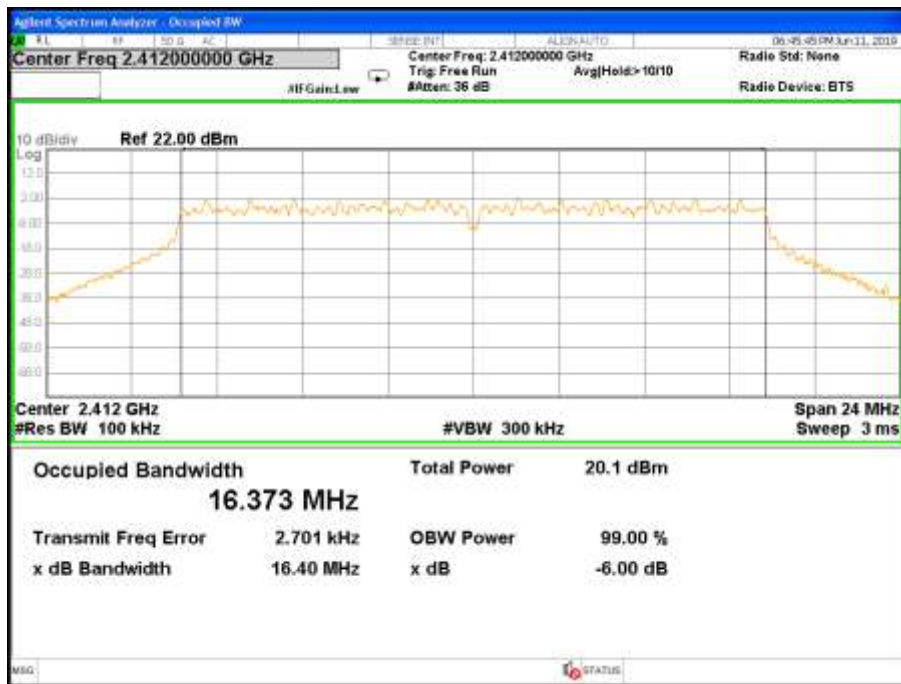
99% Bandwidth TX CH 11



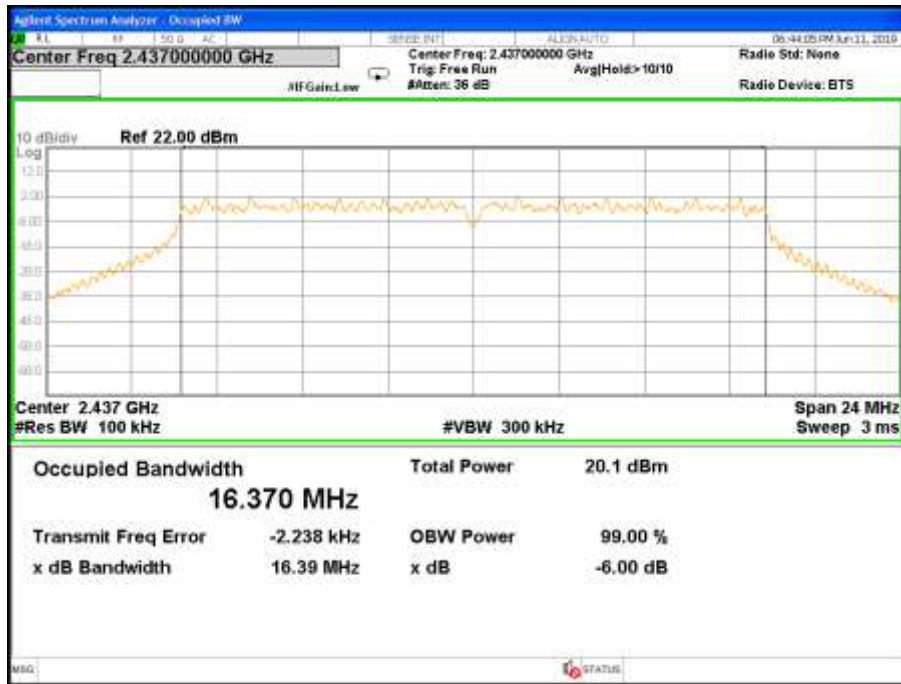
Temperature:	25°C	Relative Humidity:	60%
Test Voltage:	AC 120V/60Hz	Test Mode:	TX g Mode /CH01, CH06, CH11

Test Mode	Frequency (MHz)	6dB Bandwidth (MHz)	99% Bandwidth (MHz)	Limit of 6dB Bandwidth (MHz)	Result
g mode (6 Mbps)	2412.00	16.40	16.465	≥ 0.50	PASS
	2437.00	16.39	16.485	≥ 0.50	PASS
	2462.00	16.45	16.522	≥ 0.50	PASS

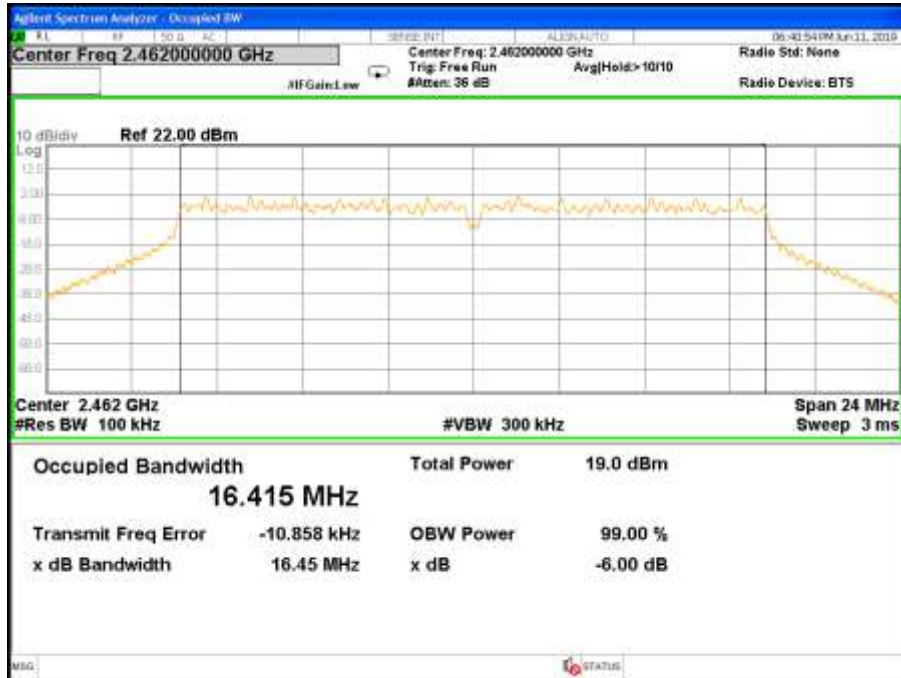
6dB Bandwidth TX CH 01



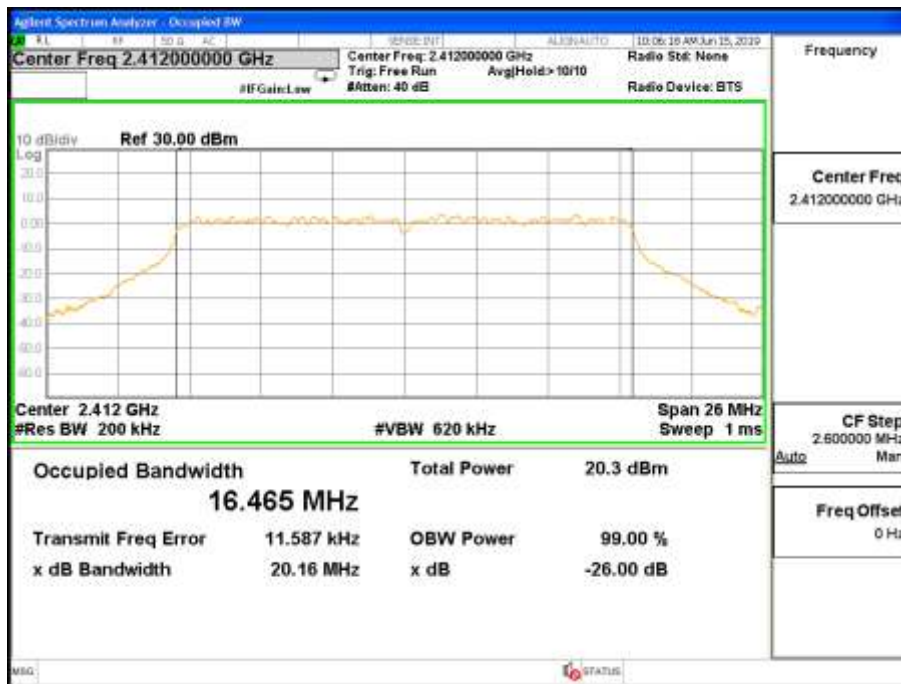
6dB Bandwidth TX CH 06



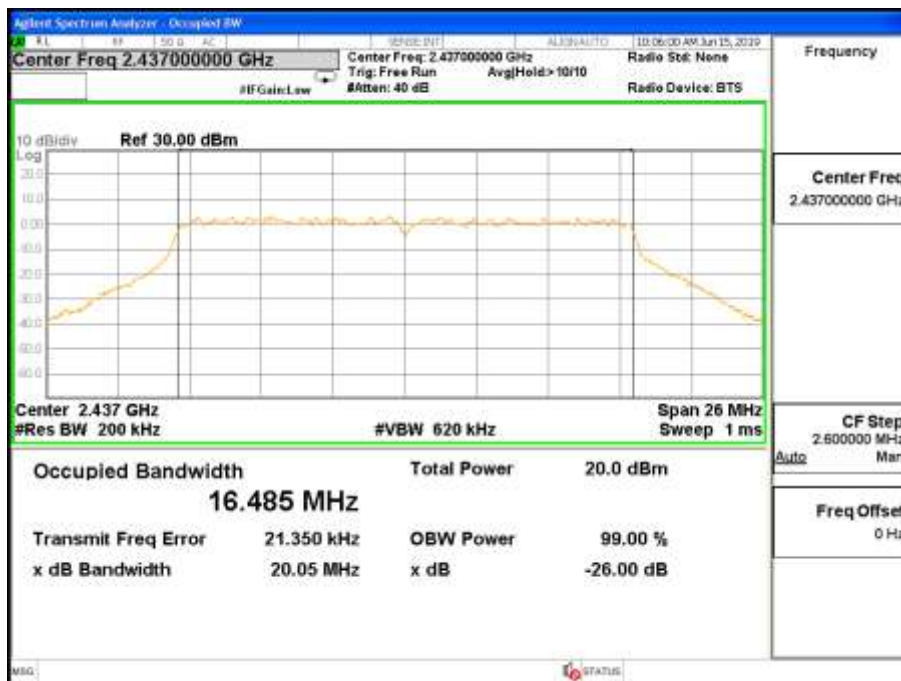
6dB Bandwidth TX CH 11



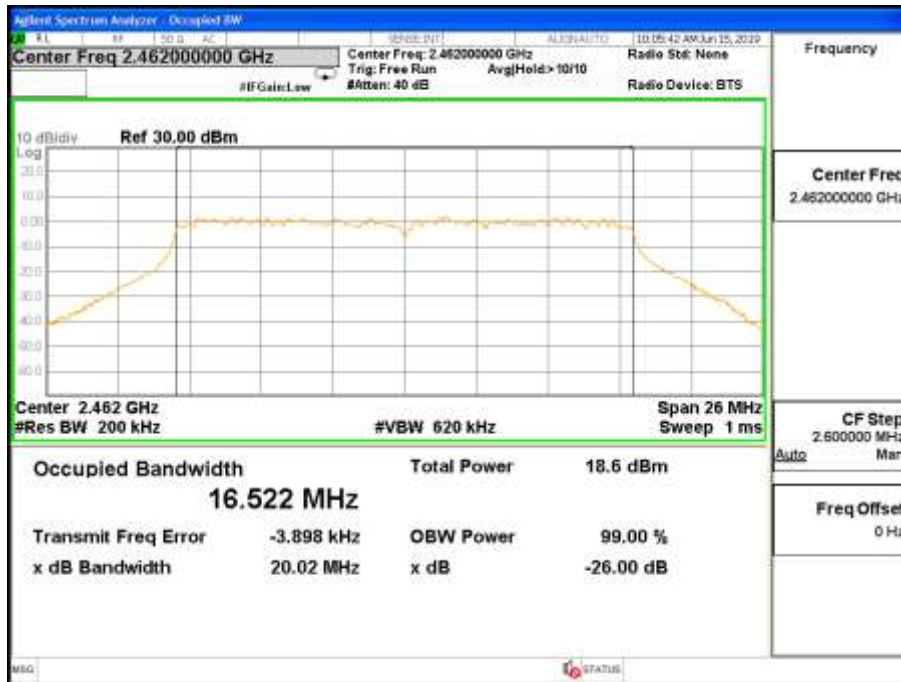
99% Bandwidth TX CH 01



99% Bandwidth TX CH 06



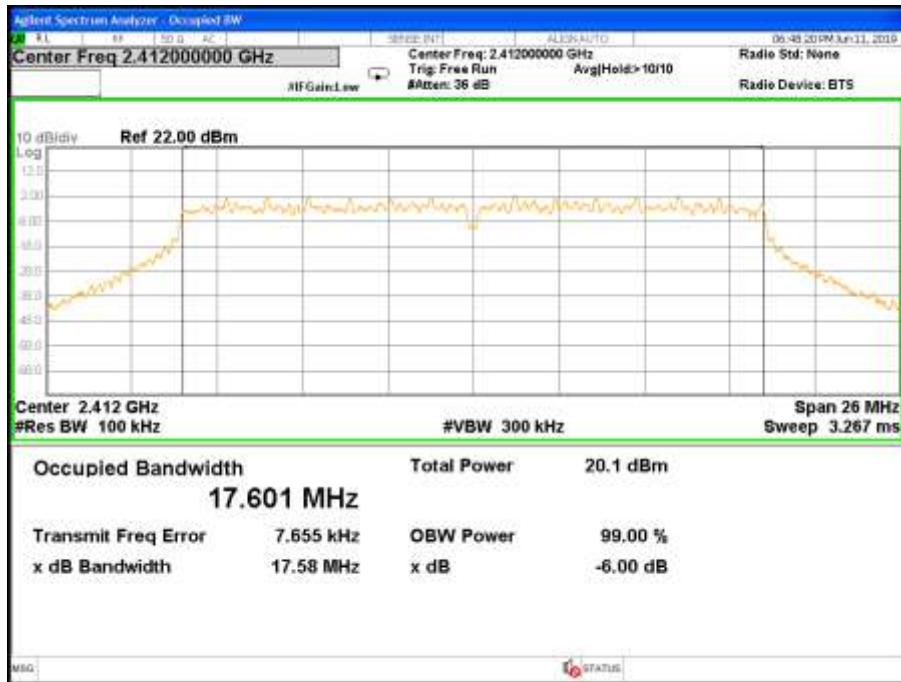
99% Bandwidth TX CH 11



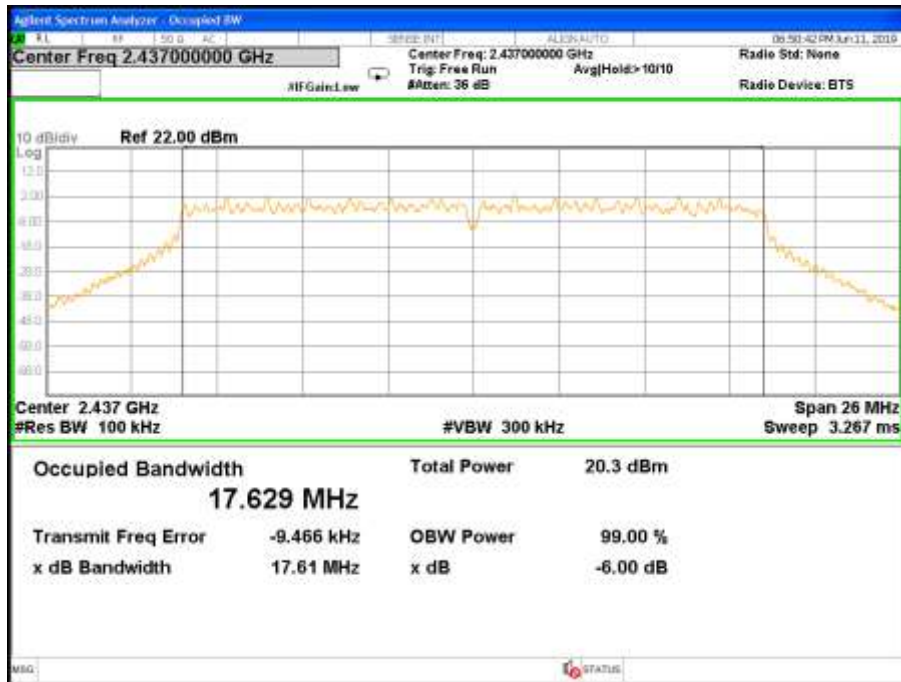
Temperature:	25°C	Relative Humidity:	60%
Test Voltage:	AC 120V/60Hz	Test Mode:	TX n(HT20) Mode /CH01, CH06, CH11

Test Mode	Frequency (MHz)	6dB Bandwidth (MHz)	99% Bandwidth (MHz)	Limit of 6dB Bandwidth (MHz)	Result
n(HT20) mode (MCS0)	2412.00	17.58	17.641	≥ 0.50	PASS
	2437.00	17.61	17.612	≥ 0.50	PASS
	2462.00	17.69	17.687	≥ 0.50	PASS

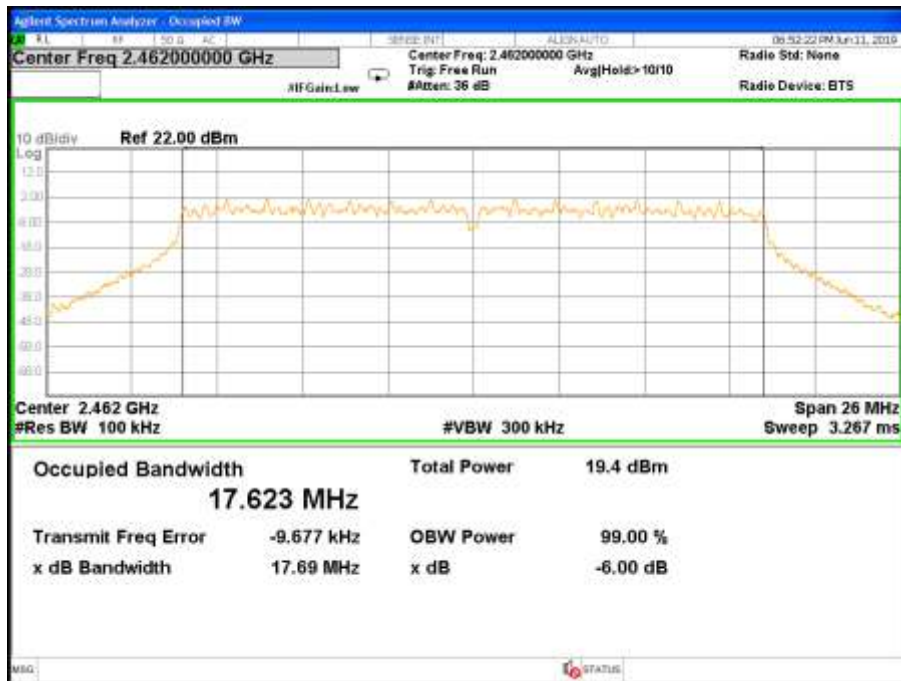
6dB Bandwidth TX CH 01



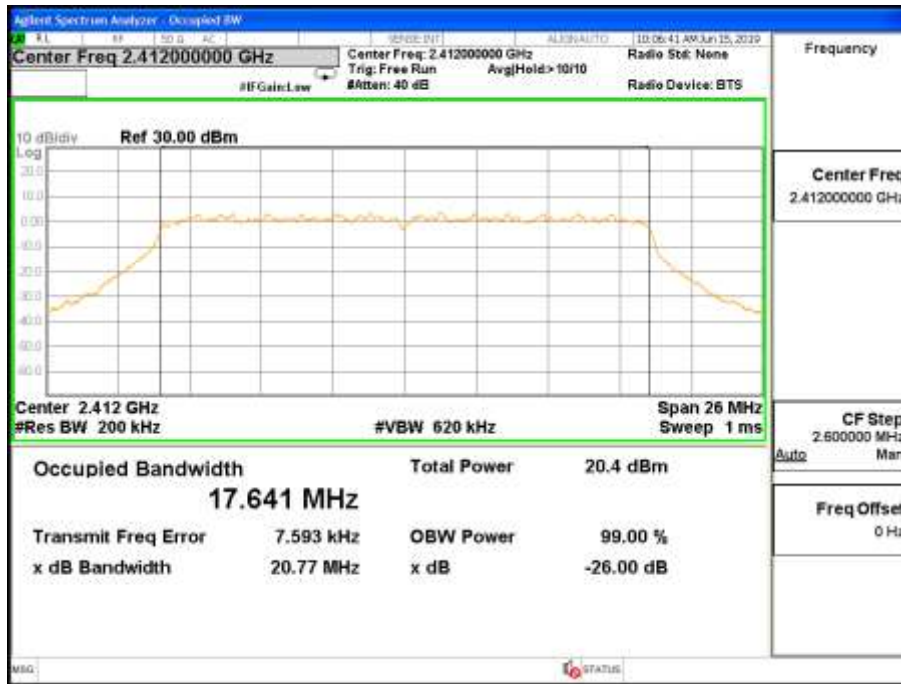
6dB Bandwidth TX CH 06



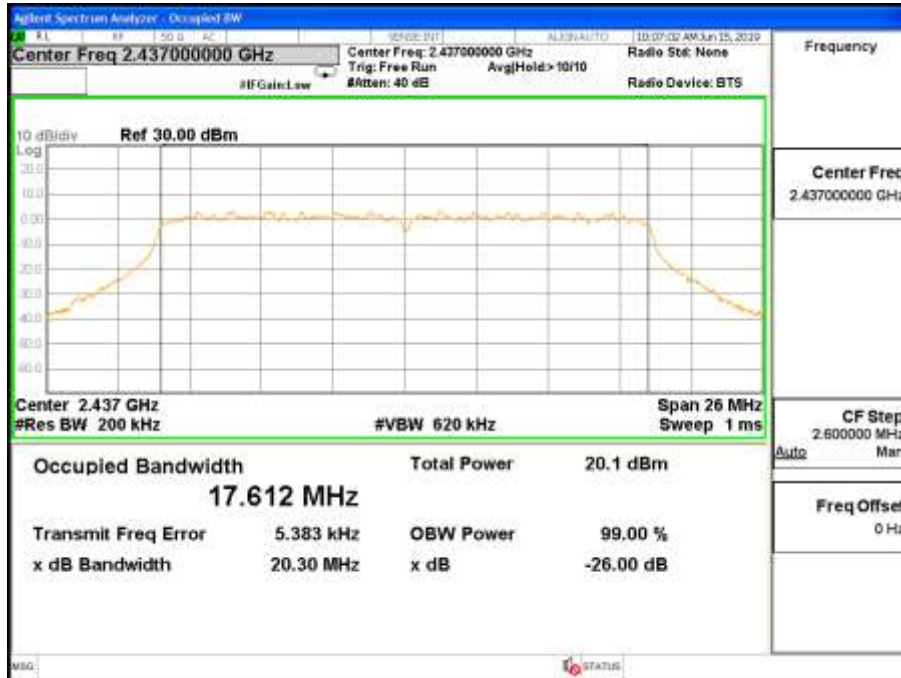
6dB Bandwidth TX CH 11



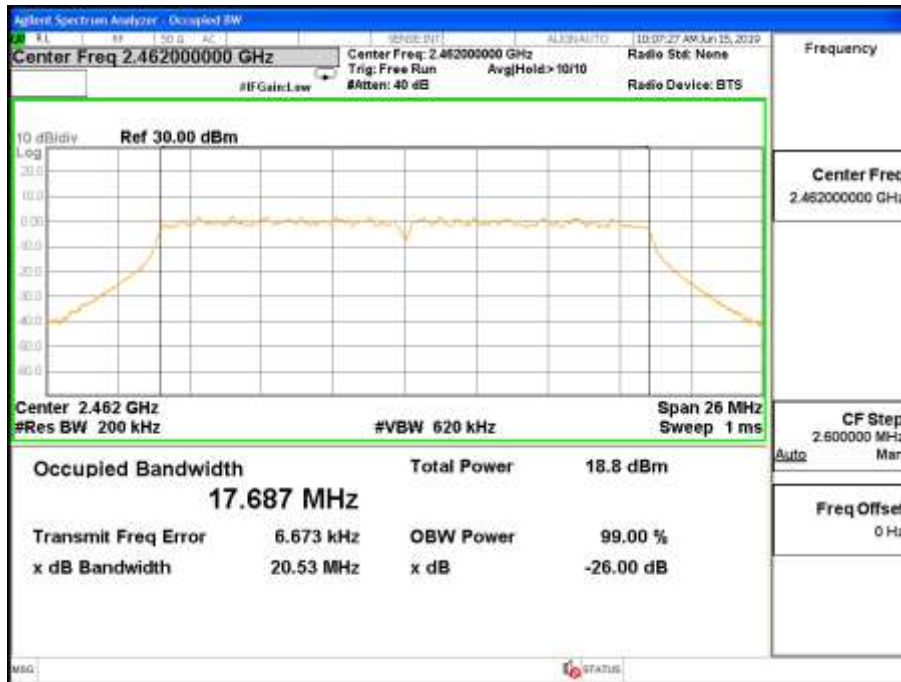
99% Bandwidth TX CH 01



99% Bandwidth TX CH 06



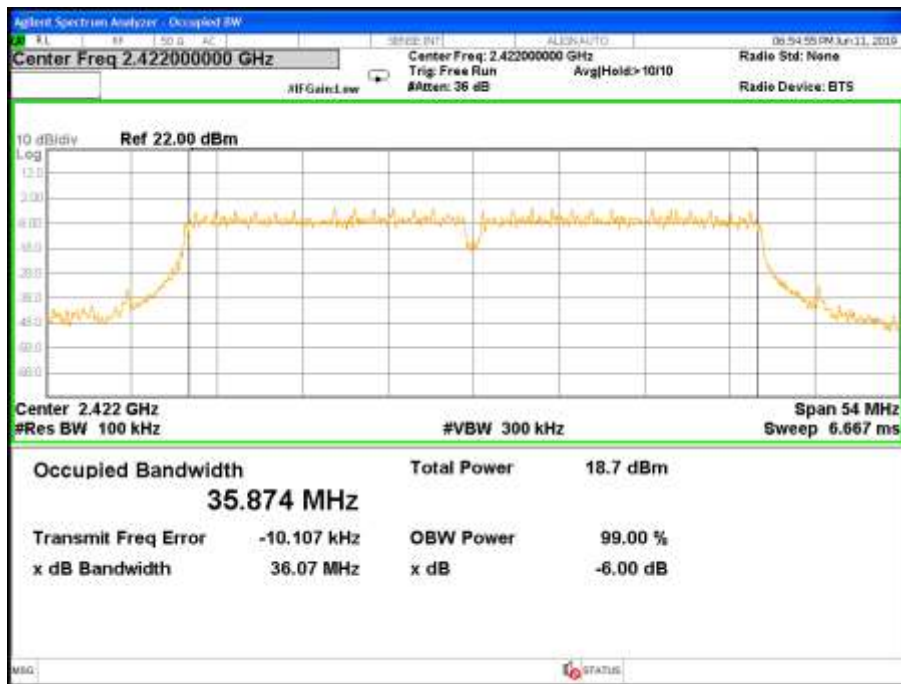
99% Bandwidth TX CH 11



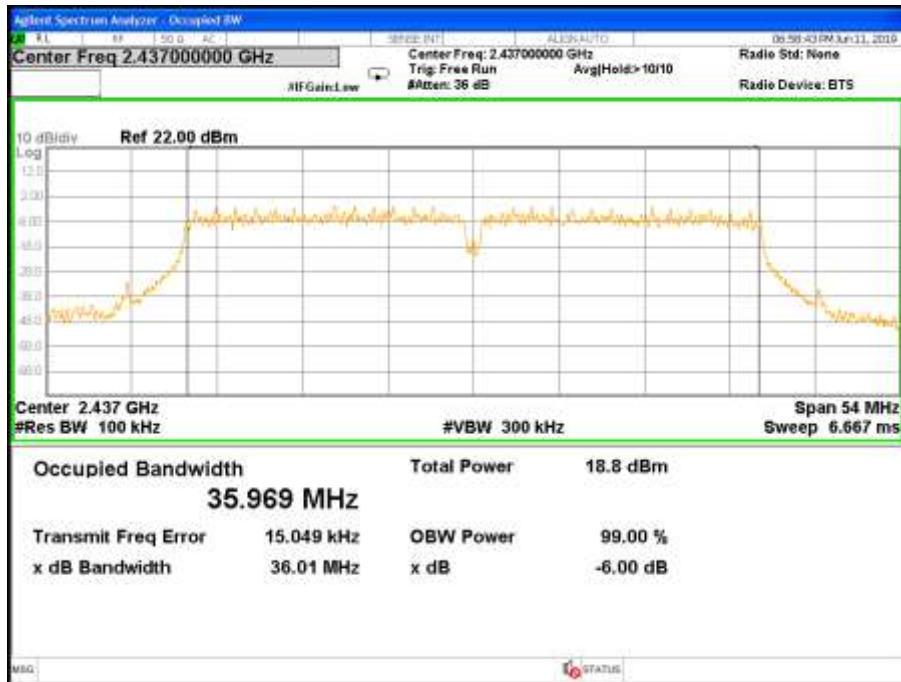
Temperature:	25°C	Relative Humidity:	60%
Test Voltage:	AC 120V/60Hz	Test Mode:	TX n(HT40) Mode /CH03, CH06, CH09

Test Mode	Frequency (MHz)	6dB Bandwidth (MHz)	99% Bandwidth (MHz)	Limit of 6dB Bandwidth (MHz)	Result
n(HT40) mode (MCS0)	2422.00	36.07	35.947	≥ 0.50	PASS
	2437.00	36.01	35.997	≥ 0.50	PASS
	2452.00	35.67	36.028	≥ 0.50	PASS

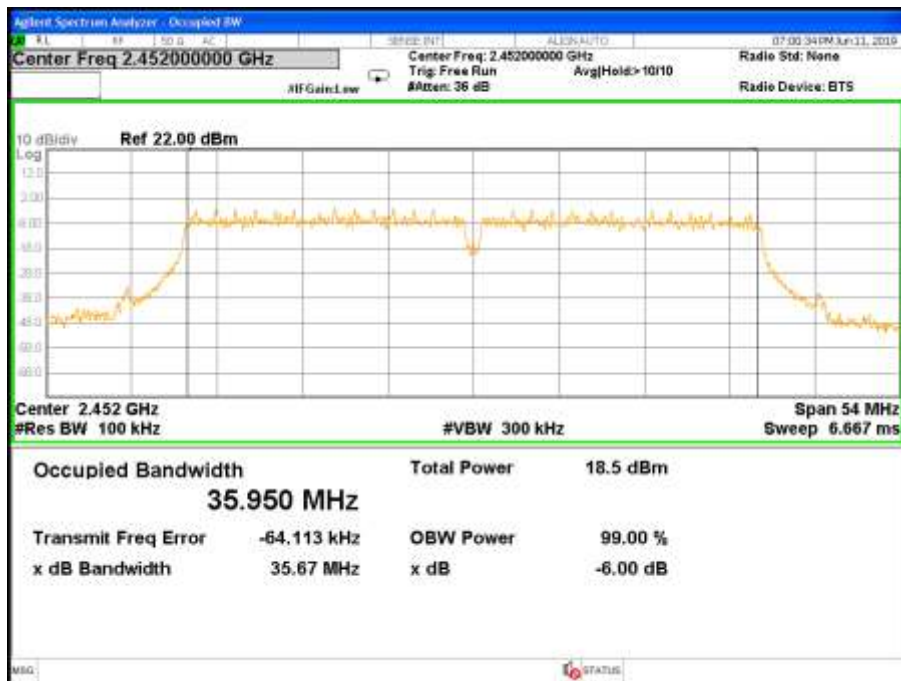
6dB Bandwidth TX CH 03



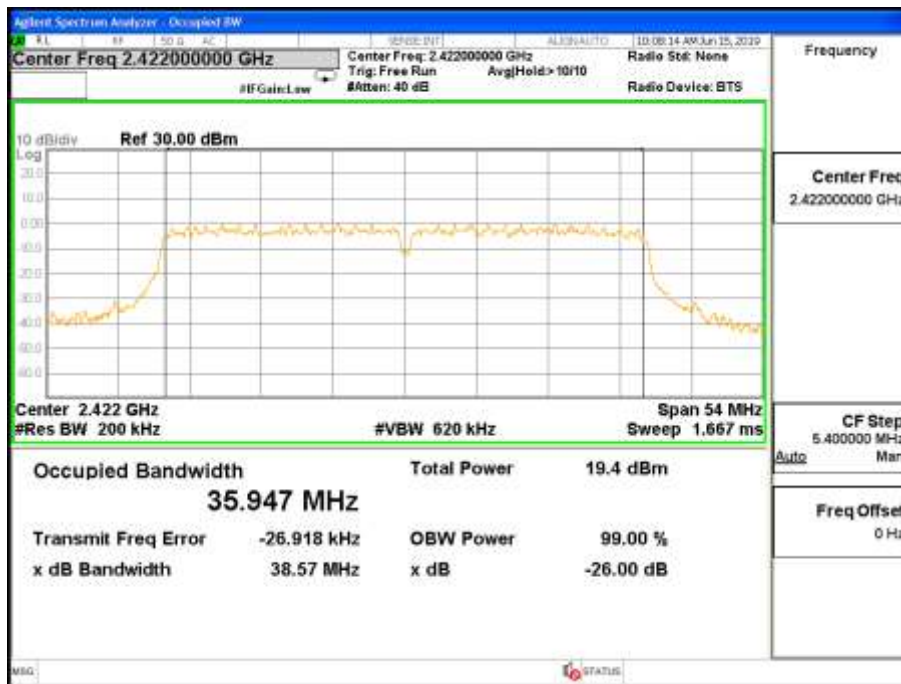
6dB Bandwidth TX CH 06



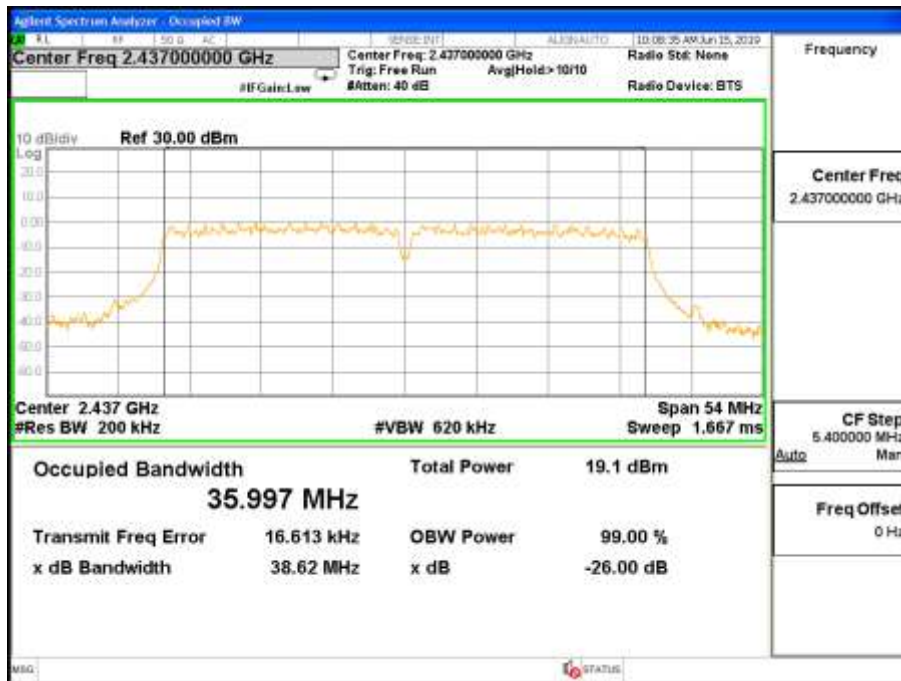
6dB Bandwidth TX CH 09



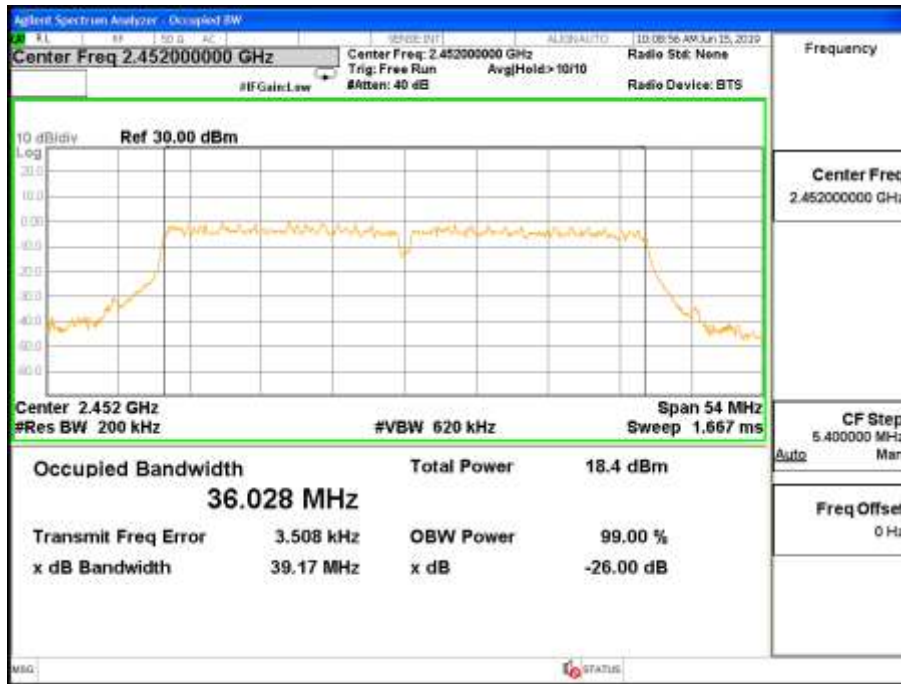
99% Bandwidth TX CH 03



99% Bandwidth TX CH 06



99% Bandwidth TX CH 09



7 PEAK OUTPUT POWER TEST

7.1 LIMIT

FCC Part15.247,Subpart C RSS-247 Issue 2				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(b)(3) RSS-247 Clause 5.4(d)	Output Power	1 watt or 30dBm	2400-2483.5	PASS

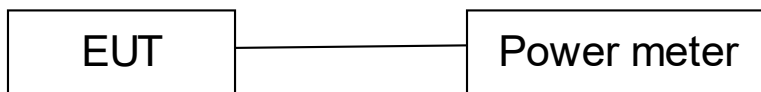
7.2 TEST PROCEDURE

- a. The EUT was directly connected to the Power Meter

7.3 DEVIATION FROM STANDARD

No deviation.

7.4 TEST SETUP



7.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.3 Unless otherwise a special operating condition is specified in the follows during the testing.

7.6 TEST RESULTS

Temperature :	25°C	Relative Humidity :	60%
Test Voltage :	AC 120V/60Hz		

TX 802.11 b mode (1 Mbps)				
Test Channel	Frequency (MHz)	Conducted Output Power		Limit (dBm)
		Peak(dBm)	AVG(dBm)	
CH01	2412.00	21.59	17.76	30.00
CH06	2437.00	20.60	16.65	30.00
CH11	2462.00	19.34	15.21	30.00

TX 802.11 g mode (6 Mbps)				
Test Channel	Frequency (MHz)	Conducted Output Power		Limit (dBm)
		Peak(dBm)	AVG(dBm)	
CH01	2412.00	21.20	12.71	30.00
CH06	2437.00	20.66	11.50	30.00
CH11	2462.00	20.34	11.44	30.00

TX 802.11 n(HT20) mode (MCS0)				
Test Channel	Frequency (MHz)	Conducted Output Power		Limit (dBm)
		Peak(dBm)	AVG(dBm)	
CH01	2412.00	21.03	11.64	30.00
CH06	2437.00	19.88	10.11	30.00
CH11	2462.00	20.76	10.46	30.00

TX 802.11 n(HT40) mode (MCS0)				
Test Channel	Frequency (MHz)	Conducted Output Power		Limit (dBm)
		Peak(dBm)	AVG(dBm)	
CH03	2422.00	18.44	10.43	30.00
CH06	2437.00	18.13	9.86	30.00
CH09	2452.00	17.80	9.22	30.00

Note:

1. The cable loss and antenna gain are taken into account in results.
2. Antenna gain(G): 0 dBi
3. The max. e.i.r.p = conducted power + antenna gain = 21.59 dBm

8 ANTENNA REQUIREMENT**8.1 STANDARD REQUIREMENT**

15.203 and RSS-Gen Issue 5 requirement: For intentional device, according to 15.203 and RSS-Gen Issue 5: an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

8.2 EUT ANTENNA

The EUT antenna is Integral Antenna. It comply with the standard requirement.