



# RADIO TEST REPORT

Report No.: STS1904216W01

Issued for

**Binatone Electronics International Ltd.**

Floor 23A, 9 Des Voeux Road West, Sheung Wan, Hong Kong

<b>Product Name:</b>	Wi-Fi® Home Video Camera
<b>Brand Name:</b>	motorola
<b>Model Name:</b>	FOCUS71
<b>Series Model:</b>	FOCUS71, FOCUS71-2, FOCUS71-3, FOCUS71-4, FOCUS71-W, FOCUS71-W2, FOCUS71-W3, FOCUS71-W4, FOCUSVENUS, FOCUSORB, FOCUSGLOBE
<b>FCC ID:</b>	VLJ-FOCUSVENUS
<b>IC ID:</b>	4522A-FOCUSVENUS
<b>HVIN:</b>	FOCUS71
<b>Test Standard:</b>	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

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### TEST RESULT CERTIFICATION

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

**Product Description**

Product Name ..... : Wi-Fi® Home Video Camera  
Brand Name..... : motorola  
Model Name ..... : FOCUS71  
Series Model..... : FOCUS71, FOCUS71-2, FOCUS71-3, FOCUS71-4, FOCUS71-W, FOCUS71-W2, FOCUS71-W3, FOCUS71-W4, FOCUSVENUS, FOCUSORB, FOCUSGLOBE

**Test 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

Test Procedure..... : ANSI C63.10: 2013, ANSI C63.4: 2014

This device described above has been tested by STS, the test results show that the equipment under test (EUT) is in compliance with the FCC/IC requirements. And it is applicable only to the tested sample identified in the report.

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**Date of Test**.....:

Date (s) of performance of tests.....: 22 Apr. 2019 -12 June 2019

Date of Issue.....: 12 June 2019

Test Result.....: **Pass**

Testing Engineer : *Chris Chen*  
\_\_\_\_\_ ( Chris Chen )

Technical Manager : *Sunday Hu*  
\_\_\_\_\_ ( Sunday Hu )

Authorized Signatory : *Vita Li*  
\_\_\_\_\_ ( Vita Li )





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**Revision History**

Rev.	Issue Date	Report NO.	Effect Page	Contents
00	12 June 2019	STS1904216W01	ALL	Initial Issue





## 1 SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

KDB 558074 D01 15.247 Meas Guidance v05r02

<b>FCC Part 15,Subpart C RSS-247 Issue 2</b>			
<b>StandardSection</b>	<b>Test Item</b>	<b>Judgment</b>	<b>Remark</b>
FCC Part 15.207(a) RSS-Gen Clause 8.8	Conducted Emission	PASS	
FCC Part 15.247(a)(2) RSS-247Clause 5.2(a)	6dB Bandwidth	PASS	
RSS-Gen Clause 6.6	99% Bandwidth	PASS	
FCC Part 15.247(b)(3) RSS-247Clause 5.4(d)	Output Power	PASS	
FCC Part 15.247(d) RSS-247Clause 3.3	Radiated Spurious Emission	PASS	
FCC Part 15.247(d) RSS-247Clause 5.5	Conducted Spurious & Band EdgeEmission	PASS	
FCC Part 15.247(e) RSS-247Clause 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-247Clause 5.5	Band Edge Emission	PASS	
FCC Part 15.247(b)(4) &15.203	Antenna Requirement	PASS	
RSS-Gen Issue 5 April 2018	Frequency Stability	PASS	

<b>FCC Part 15,Subpart B ICES-003 Issue 6</b>			
<b>StandardSection</b>	<b>Test Item</b>	<b>Judgment</b>	<b>Remark</b>
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) 'NA' 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 STS Test Services Co., Ltd.

Add.: 1/F., Building B, Zhuoke Science Park, No.190,Chongqing Road, Fuyong Street, Bao'an District, Shenzhen, Guangdong,China

FCC Registration No.: CN1203

A2LA Certificate No.: 4338.01

IC Registration No.: CN0086

## 1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement  $y \pm U$ , where expanded uncertainty  $U$  is based on a standard uncertainty multiplied by a coverage factor of  $k=2$ , providing a level of confidence of approximately 95 %.

Shenzhen STS Test Services Co., Ltd.:

No.	Item	Uncertainty
1	RF output power, conducted	$\pm 0.71$ dB
2	Unwanted Emissions, conducted	$\pm 0.63$ dB
3	All emissions, radiated 30-200MHz	$\pm 3.43$ dB
4	All emissions, radiated 200MHz-1GHz	$\pm 3.57$ dB
5	All emissions, radiated >1G	$\pm 4.13$ dB
6	Conducted Emission (9KHz-150KHz)	$\pm 3.18$ dB
7	Conducted Emission (150KHz-30MHz)	$\pm 2.70$ dB





## 2 GENERAL INFORMATION

### 2.1 GENERAL DESCRIPTION OF THE EUT

Product Name	Wi-Fi® Home Video Camera	
Trade Name	motorola	
Model Name	FOCUS71	
Series Model	FOCUS71, FOCUS71-2, FOCUS71-3, FOCUS71-4, FOCUS71-W, FOCUS71-W2, FOCUS71-W3, FOCUS71-W4, FOCUSVENUS, FOCUSORB, FOCUSGLOBE	
Model Difference	All models are fully identical except model model.	
Product Description	The EUT is a Wi-Fi® Home Video Camerawhich supports Wi-Fi 802.11 b/g/n wireless technology.	
	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):	2.5dBi
	Duty Cycle:	>98%
Channel List	Please refer to the Note 2.	
Power Rating	AC 120V/60HZ@1000mA via AC/DC adapter POE Interface	
Adapter	Model: HS06-0501000US Input: 100-240V~50/60Hz 0.2A Output: 5V@1A	
Hardware version	N/A	
Software version	N/A	
Radio Hardware version	N/A	
Radio Software version	N/A	
Test Software	N/A	
RF Power Setting TEST Software (power class)	N/A	
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)
<b>01</b>	<b>2412</b>	<b>03</b>	<b>2422</b>
02	2417	04	2427
03	2422	05	2432
04	2427	<b>06</b>	<b>2437</b>
05	2432	07	2442
<b>06</b>	<b>2437</b>	08	2447
07	2442	<b>09</b>	<b>2452</b>
08	2447	/	/
09	2452	/	/
10	2457	/	/
<b>11</b>	<b>2462</b>	/	/

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)
- 4)

4

Ant	Brand	Model Name	Antenna Type	Connector	Gain (dBi)	NOTE
1	motorola	FOCUS71	Integral antenna	N/A	2.5	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.

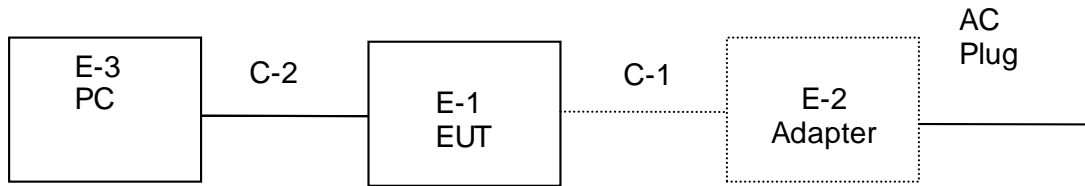
Worst Mode	Description	Data Rate
Mode 1	TX IEEE 802.11b CH1	1 Mbps
Mode 2	TX IEEE 802.11b CH6	1 Mbps
Mode 3	TX IEEE 802.11b CH11	1 Mbps
Mode 4	TX IEEE 802.11g CH1	6 Mbps
Mode 5	TX IEEE 802.11g CH6	6 Mbps
Mode 6	TX IEEE 802.11g CH11	6 Mbps
Mode 7	TX IEEE 802.11n HT20 CH1	MCS 0
Mode 8	TX IEEE 802.11n HT20 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:

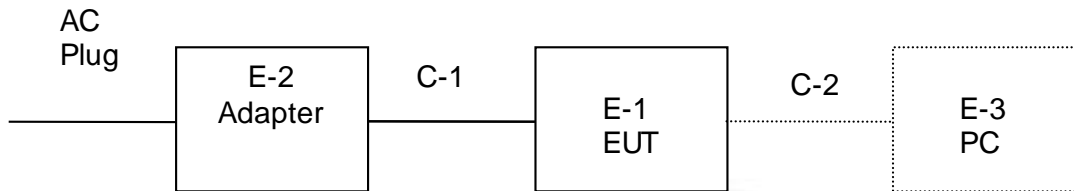
- 1) The measurements are performed at all Bit Rate of Transmitter, the worst data was reported
- 2) We have be tested for all avaiable U.S. voltage and frequencies(For 120V,50/60Hz and 240V, 50/60Hz) for which the device is capable of operation , and the worst case of 120V/60Hz is shown in the report.
- 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.

#### Necessary accessories

Item	Equipment	Mfr/Brand	Model/Type No.	Serial No.	Note
E-2	Adapter	HS	HS06-0501000US	N/A	N/A

#### Support units

Item	Equipment	Mfr/Brand	Model/Type No.	Serial No.	Note
E-3	Personal computer	DELL	VOSTRO.3800	13JES42	N/A
\	Adapter	SZTY	TPA-46050200VU	N/A	N/A
\	Router	ASUS	RT-AC66UB1	N/A	N/A
\	SD card	N/A	N/A	N/A	N/A

#### Cable

Item	Shielded Type	Ferrite Core	Length	Note
C-1	Adapter DC cable	NO	210cm	N/A
C-2	USB Cable	NO	180cm	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 FOR ALL TEST ITEMS**

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last Calibration	Calibrated Until
Test Receiver	R&S	ESCI	101427	2018.10.13	2019.10.12
Signal Analyzer	Agilent	N9020A	MY51110105	2019.03.02	2020.03.01
Active loop Antenna	ZHINAN	ZN30900C	16035	2018.03.11	2021.03.10
Bilog Antenna	TESEQ	CBL6111D	34678	2017.11.02	2020.11.1
Horn Antenna	SCHWARZBECK	BBHA 9120D(1201)	9120D-1343	2018.10.19	2021.10.18
SHF-EHF Horn Antenna (18G-40GHz)	A-INFO	LB-180400-KF	J211020657	2018.03.11	2021.03.10
Pre-Amplifier (0.1M-3GHz)	EM	EM330	060665	2018.10.13	2019.10.12
Pre-Amplifier (1G-18GHz)	SKET	LNPA-01018G-45	SK201808090 1	2018.10.13	2019.10.12
Temperature & Humidity	HH660	Mieo	N/A	2018.10.11	2019.10.10
turn table	EM	SC100_1	60531	N/A	N/A
Antenna mast	EM	SC100	N/A	N/A	N/A
Test SW	FARAD	EZ-EMC(Ver.STSLAB-03A1 RE)			

**Conduction Test Equipment**

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last Calibration	Calibrated Until
Test Receiver	R&S	ESCI	101427	2018.10.13	2019.10.12
LISN	R&S	ENV216	101242	2018.10.11	2019.10.10
LISN	EMCO	3810/2NM	23625	2018.10.11	2019.10.10
Temperature & Humidity	HH660	Mieo	N/A	2018.10.11	2019.10.10
Test SW	FARAD	EZ-EMC(Ver.STSLAB-03A1 CE)			

**RF Connected Test**

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last Calibration	Calibrated Until
USB RF power sensor	DARE	RPR3006W	15I00041SNO03	2018.10.13	2019.10.12
Signal Analyzer	Agilent	N9020A	MY49100060	2018.10.13	2019.10.12
Temperature & Humidity	HH660	Mieo	N/A	2018.10.11	2019.10.10
Test SW	FARAD	LZ-RF /LzRf-3A3			

**Note:**

The temporary antenna connector is soldered on the PCB board in order to perform conducted tests and this temporary antenna connector is listed in the equipment list.



### 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.

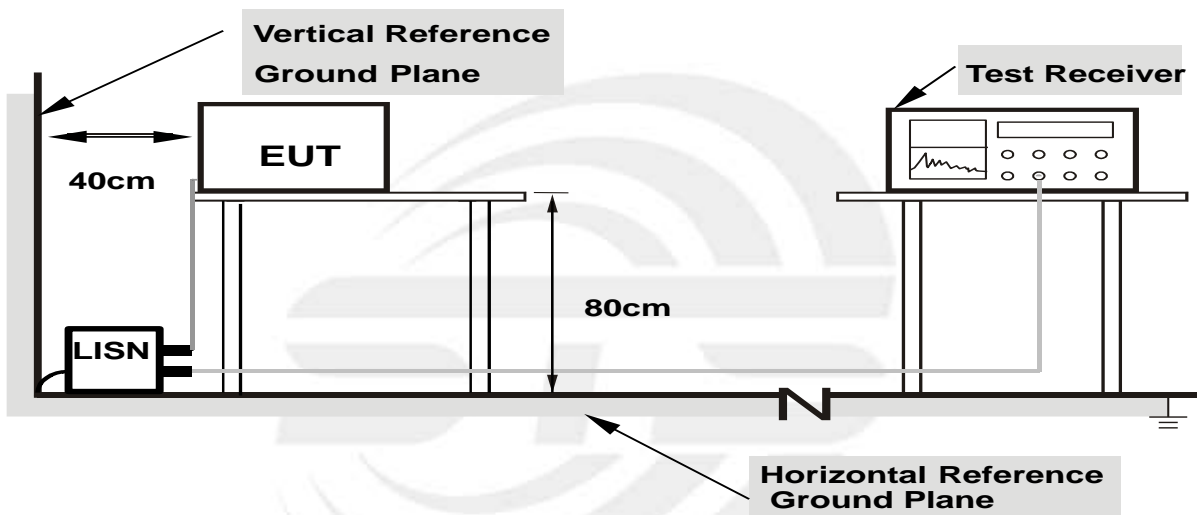
The following table is the setting of the receiver

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.



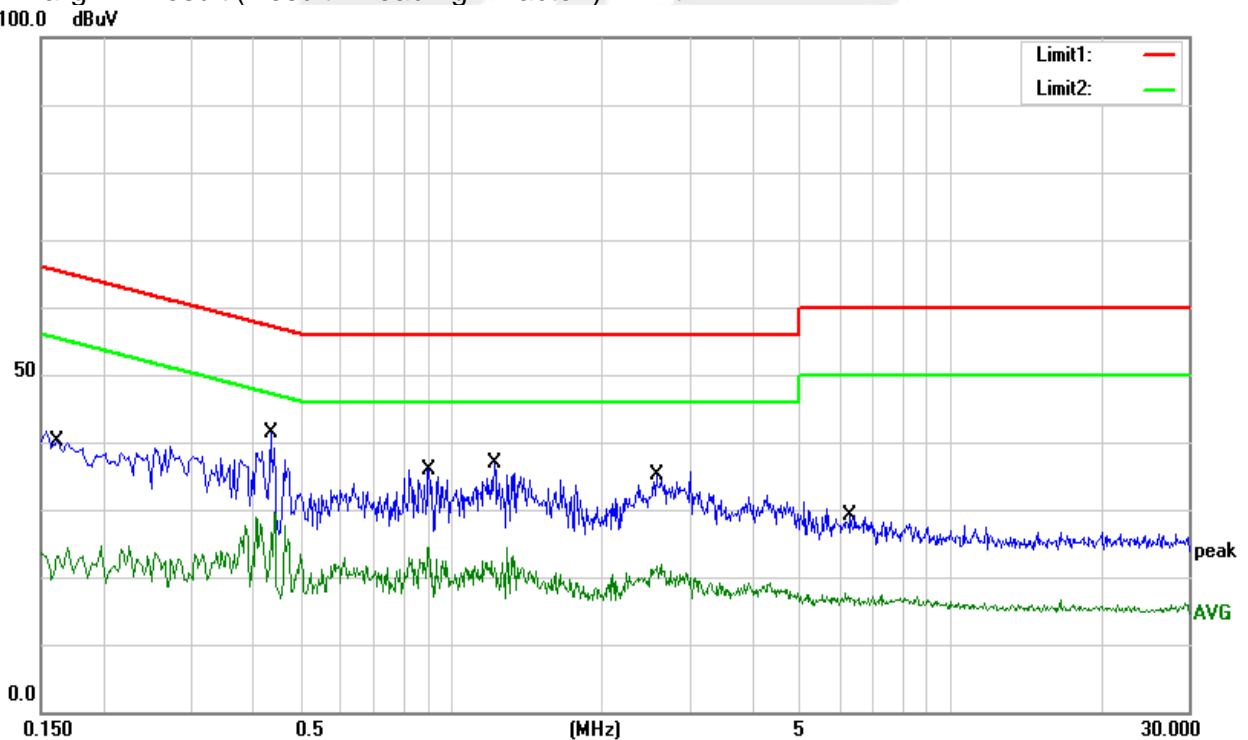
3.1.5 TEST RESULT

Temperature:	25.9°C	Relative Humidity:	65%
Test Voltage:	AC 120V/60Hz	Phase:	L
Test Mode:	Mode 13		

Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
0.1620	19.93	20.22	40.15	65.36	-25.21	QP
0.1620	3.38	20.22	23.60	55.36	-31.76	AVG
0.4340	20.89	20.49	41.38	57.18	-15.80	QP
0.4340	2.28	20.49	22.77	47.18	-24.41	AVG
0.9020	15.75	20.20	35.95	56.00	-20.05	QP
0.9020	2.16	20.20	22.36	46.00	-23.64	AVG
1.2220	16.72	20.16	36.88	56.00	-19.12	QP
1.2220	3.00	20.16	23.16	46.00	-22.84	AVG
2.5700	14.95	20.11	35.06	56.00	-20.94	QP
2.5700	0.61	20.11	20.72	46.00	-25.28	AVG
6.2980	9.12	19.92	29.04	60.00	-30.96	QP
6.2980	-2.91	19.92	17.01	50.00	-32.99	AVG

Remark:

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







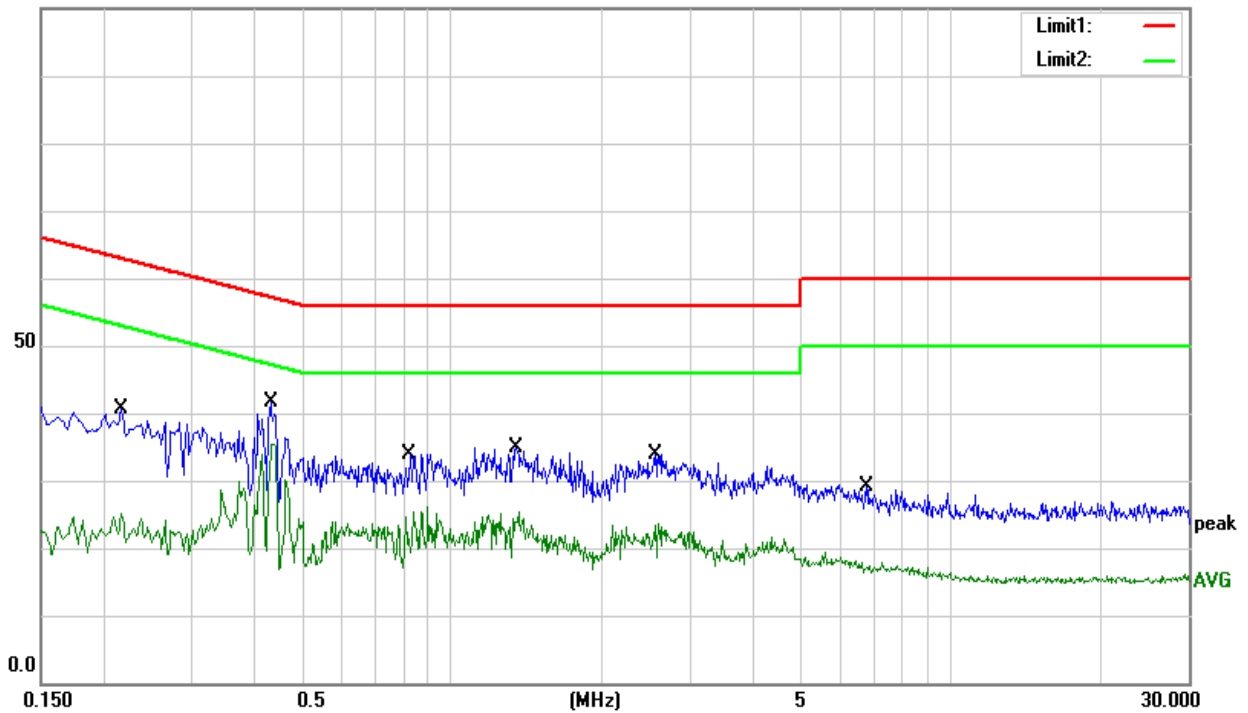
Temperature:	25.9°C	Relative Humidity:	65%
Test Voltage:	AC 120V/60Hz	Phase:	N
Test Mode:	Mode 13		

Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
0.2180	20.24	20.40	40.64	62.89	-22.25	QP
0.2180	2.96	20.40	23.36	52.89	-29.53	AVG
0.4340	21.04	20.49	41.53	57.18	-15.65	QP
0.4340	3.21	20.49	23.70	47.18	-23.48	AVG
0.8300	13.75	20.23	33.98	56.00	-22.02	QP
0.8300	4.61	20.23	24.84	46.00	-21.16	AVG
1.3460	14.81	20.15	34.96	56.00	-21.04	QP
1.3460	0.88	20.15	21.03	46.00	-24.97	AVG
2.5540	13.81	20.11	33.92	56.00	-22.08	QP
2.5540	2.32	20.11	22.43	46.00	-23.57	AVG
6.7820	9.10	19.92	29.02	60.00	-30.98	QP
6.7820	-2.58	19.92	17.34	50.00	-32.66	AVG

Remark:

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

100.0 dBuV





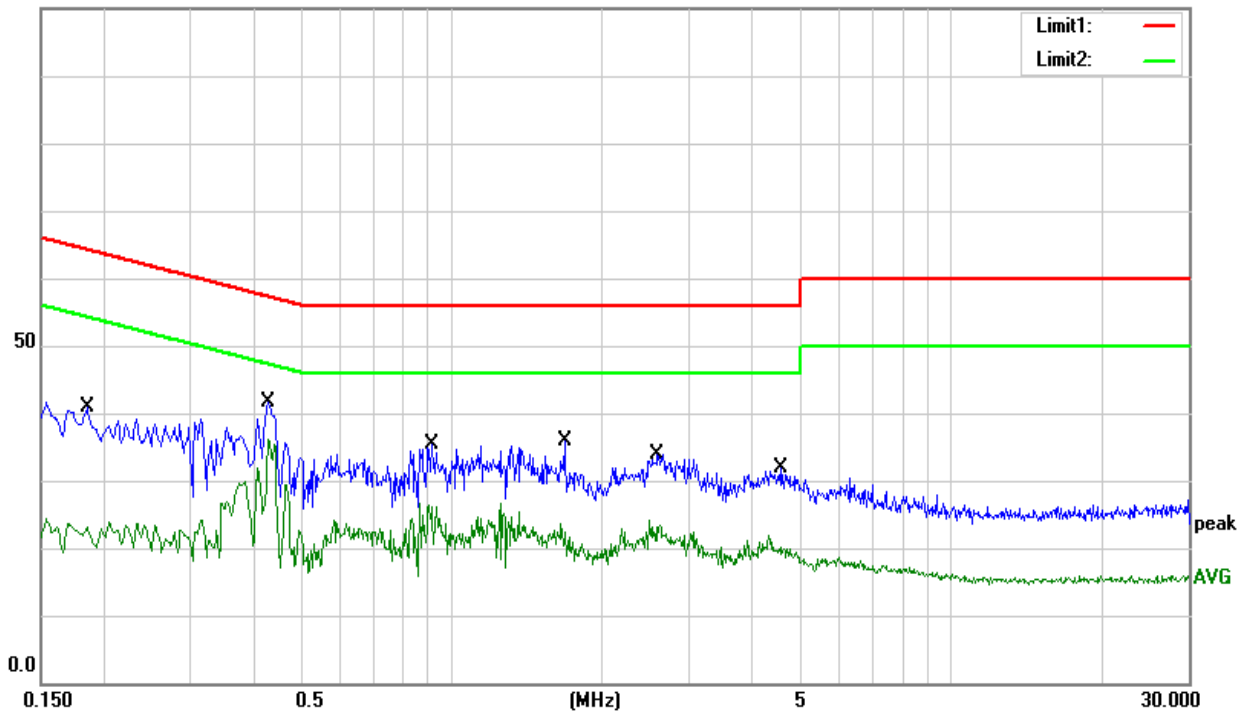
Temperature:	25.9°C	Relative Humidity:	65%
Test Voltage:	AC 120V/60Hz	Phase:	N
Test Mode:	Mode 14 (Part 15B & ICES-003)		

Frequency (MHz)	Reading (dBUV)	Correct Factor(dB)	Result (dBUV)	Limit (dBUV)	Margin (dB)	Remark
0.1860	20.48	20.29	40.77	64.21	-23.44	QP
0.1860	2.43	20.29	22.72	54.21	-31.49	AVG
0.4300	21.22	20.50	41.72	57.25	-15.53	QP
0.4300	3.57	20.50	24.07	47.25	-23.18	AVG
0.9100	15.11	20.19	35.30	56.00	-20.70	QP
0.9100	4.46	20.19	24.65	46.00	-21.35	AVG
1.6820	15.74	20.16	35.90	56.00	-20.10	QP
1.6820	0.54	20.16	20.70	46.00	-25.30	AVG
2.5940	13.66	20.11	33.77	56.00	-22.23	QP
2.5940	0.11	20.11	20.22	46.00	-25.78	AVG
4.5900	11.77	20.03	31.80	56.00	-24.20	QP
4.5900	-1.80	20.03	18.23	46.00	-27.77	AVG

Remark:

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

100.0 dBUV





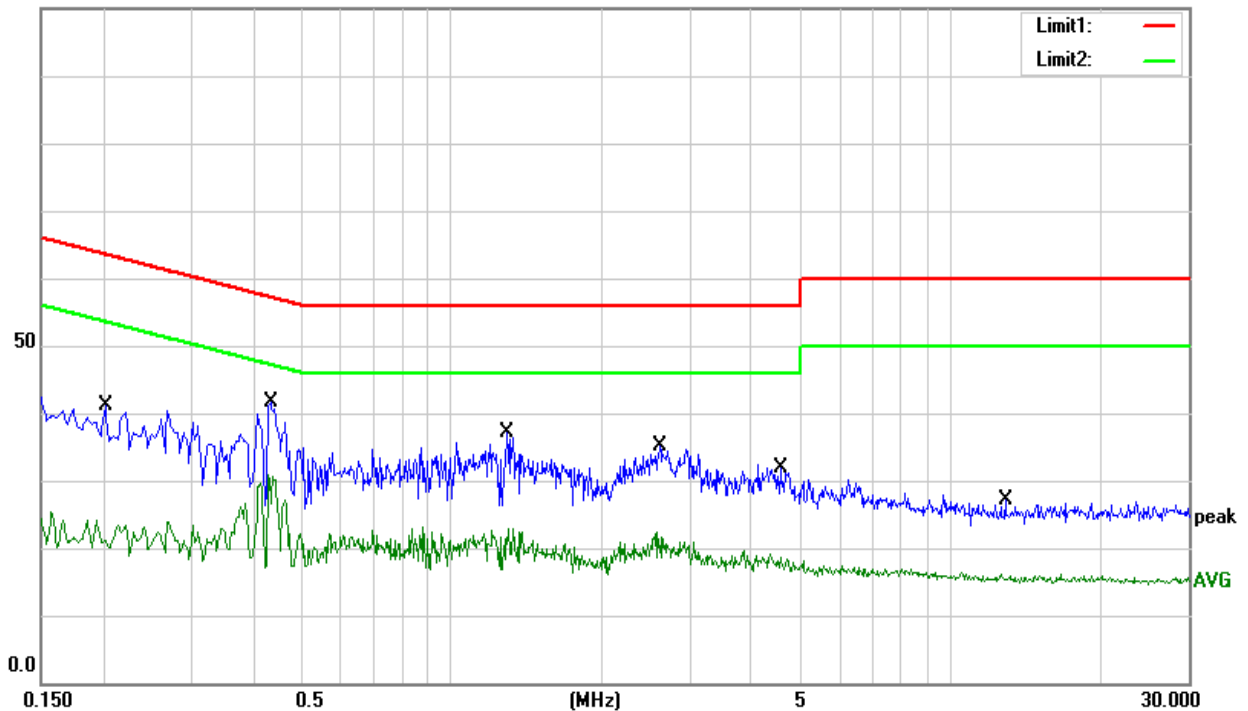
Temperature:	25.9°C	Relative Humidity:	65%
Test Voltage:	AC 120V/60Hz	Phase:	L
Test Mode:	Mode 14 (Part 15B & ICES-003)		

Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
0.2020	20.82	20.34	41.16	63.53	-22.37	QP
0.2020	3.13	20.34	23.47	53.53	-30.06	AVG
0.4340	21.06	20.49	41.55	57.18	-15.63	QP
0.4340	1.54	20.49	22.03	47.18	-25.15	AVG
1.2900	17.04	20.16	37.20	56.00	-18.80	QP
1.2900	-1.30	20.16	18.86	46.00	-27.14	AVG
2.6180	15.00	20.11	35.11	56.00	-20.89	QP
2.6180	-1.35	20.11	18.76	46.00	-27.24	AVG
4.5500	11.73	20.04	31.77	56.00	-24.23	QP
4.5500	-3.02	20.04	17.02	46.00	-28.98	AVG
12.8940	7.41	19.83	27.24	60.00	-32.76	QP
12.8940	-4.01	19.83	15.82	50.00	-34.18	AVG

Remark:

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

100.0 dBuV





### 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).

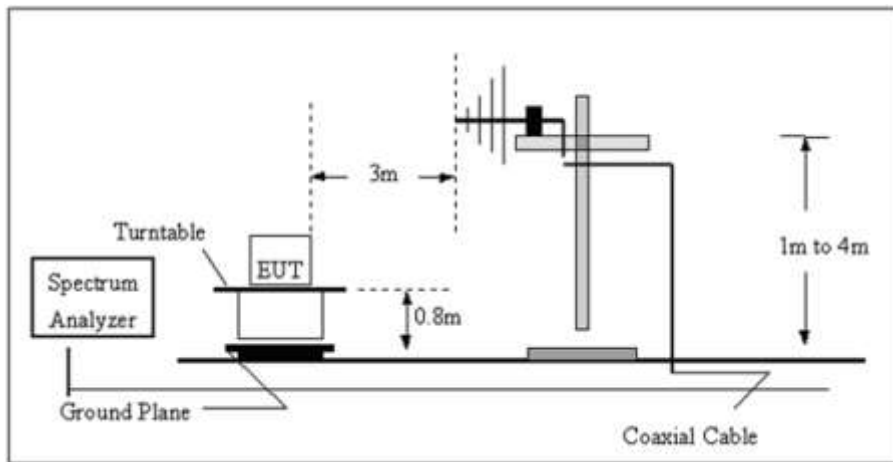
#### 3.2.2 TEST PROCEDURE

- 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.

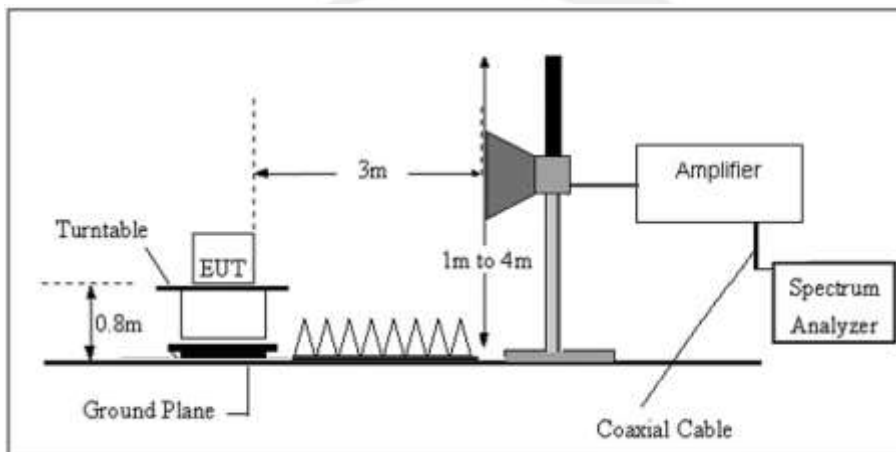
*Note: Both horizontal and vertical antenna polarities were tested and performed pretest to three orthogonal axis. The worst case emissions were reported*

### 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

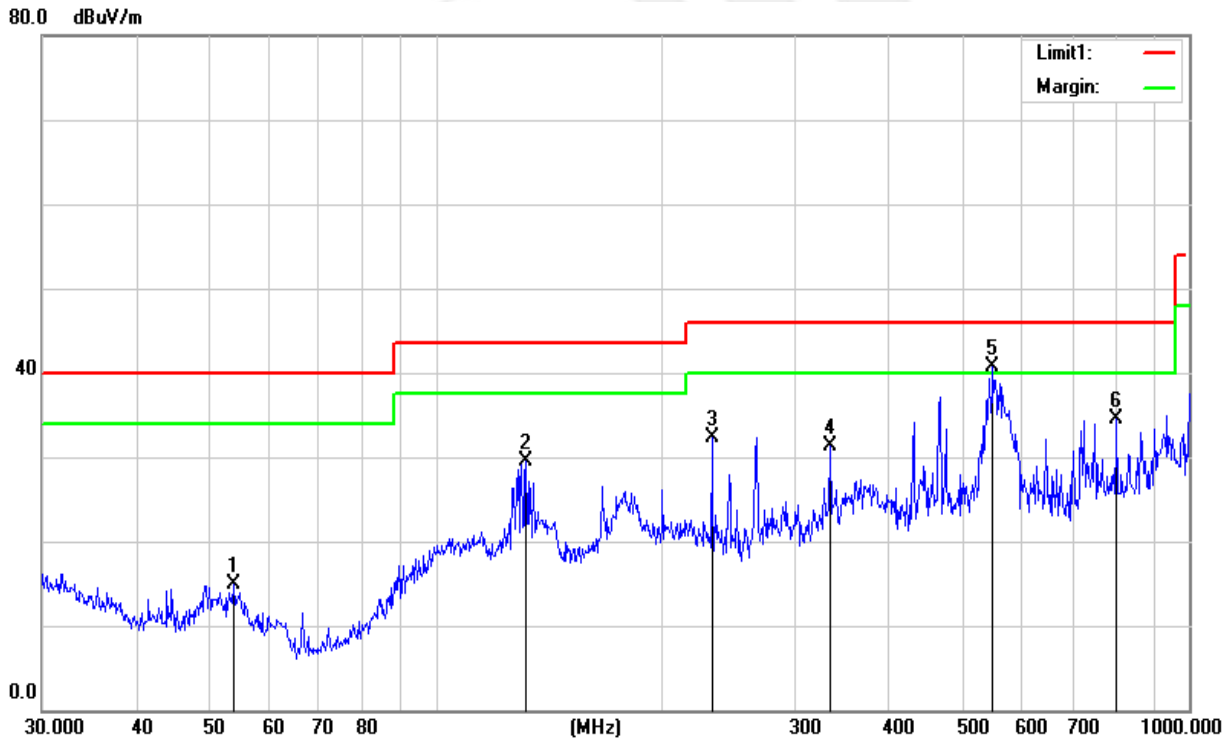
Between 30-1000MHz:

Temperature:	24.6°C	Relative Humidity:	70%
Pressure:	1010hPa	Phase:	Horizontal
Test Voltage:	AC 120V/60Hz	Test Mode:	Mode 14 (Part 15B & ICES-003)

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	53.8817	37.53	-22.59	14.94	40.00	-25.06	QP
2	131.7575	47.00	-17.54	29.46	43.50	-14.04	QP
3	232.5318	50.64	-18.29	32.35	46.00	-13.65	QP
4	333.6865	45.27	-14.06	31.21	46.00	-14.79	QP
5	549.0193	47.60	-6.80	40.80	46.00	-5.20	QP
6	801.7862	37.99	-3.49	34.50	46.00	-11.50	QP

Remark:

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



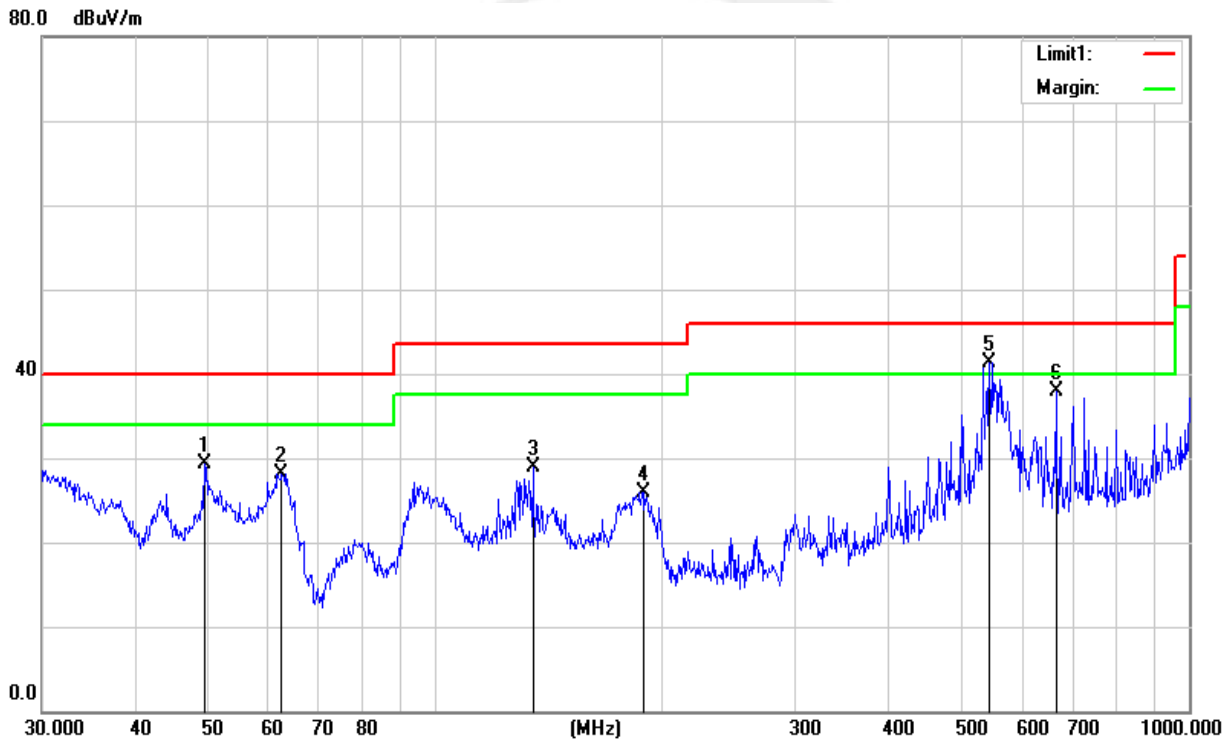


Temperature:	24.6°C	Relative Humidity:	70%
Pressure:	1010hPa	Phase:	Vertical
Test Voltage:	AC 120V/60Hz	Test Mode:	Mode 14 (Part 15B & ICES-003)

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	49.3594	50.48	-21.15	29.33	40.00	-10.67	QP
2	62.4313	52.44	-24.28	28.16	40.00	-11.84	QP
3	134.5592	46.46	-17.54	28.92	43.50	-14.58	QP
4	188.4123	46.13	-20.13	26.00	43.50	-17.50	QP
5	543.2740	48.17	-6.92	41.25	46.00	-4.75	QP
6	665.8034	44.06	-6.11	37.95	46.00	-8.05	QP

**Remark:**

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



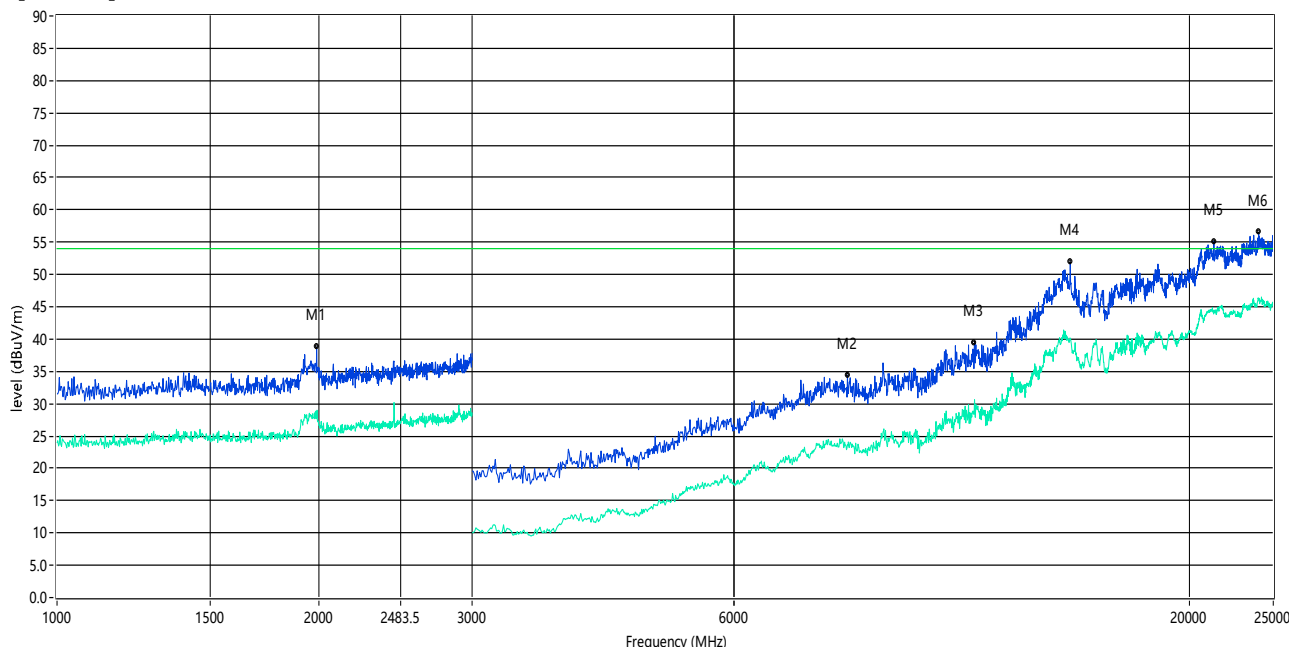




Above 1GHz:

Temperature:	21.7°C	Relative Humidity:	61%
Pressure:	1010hPa	Phase:	Horizontal
Test Voltage:	AC 120V/60Hz	Test Mode:	Mode 14 (Part 15B & ICES-003)

RE\_FCC Test Case\_FCC 15B 1GHz-25GHz

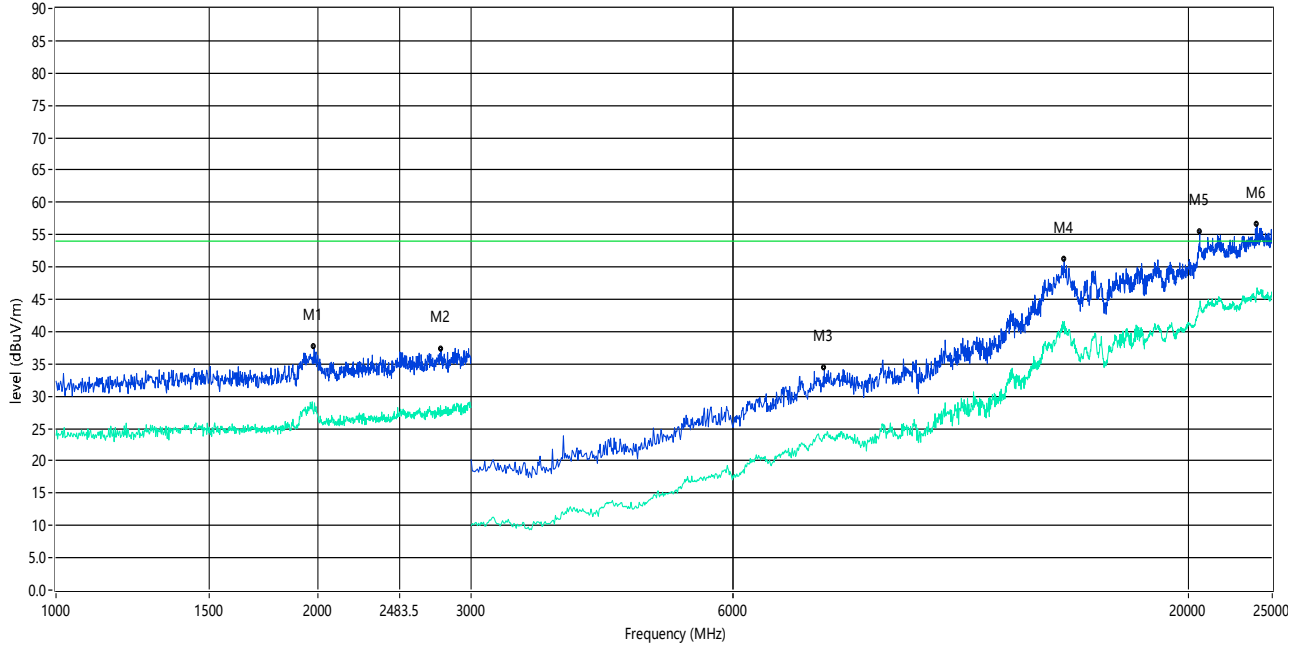


No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	OverLimit (dB)	Detector	ANT	Verdict
1**	1990.000	26.34	-0.41	54.0	-27.66	AV	H	Pass
1	1990.000	39.47	-0.41	74.0	-34.53	Peak	H	Pass
2**	8102.000	24.31	10.08	54.0	-29.69	AV	H	Pass
2	8102.000	35.82	10.08	74.0	-38.18	Peak	H	Pass
3**	11338.000	31.29	16.89	54.0	-22.71	AV	H	Pass
3	11338.000	40.22	16.89	74.0	-33.78	Peak	H	Pass
4**	14610.000	41.05	24.23	54.0	-12.95	AV	H	Pass
4	14610.000	50.45	24.23	74.0	-23.55	Peak	H	Pass
5**	21362.001	43.96	24.04	54.0	-10.04	AV	H	Pass
5	21362.001	54.27	24.04	74.0	-19.73	Peak	H	Pass
6**	24050.001	45.75	23.29	54.0	-8.25	AV	H	Pass
6	24050.001	55.74	23.29	74.0	-18.26	Peak	H	Pass



Temperature:	21.7°C	Relative Humidity:	61%
Pressure:	1010hPa	Phase:	Vertical
Test Voltage:	AC 120V/60Hz	Test Mode:	Mode 14 (Part 15B & ICES-003)

RE\_FCC Test Case\_FCC 15B 1GHz-25GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	OverLimit (dB)	Detector	ANT	Verdict
1**	1981.000	27.54	-0.46	54.0	-26.46	AV	V	Pass
1	1981.000	36.48	-0.46	74.0	-37.52	Peak	V	Pass
2**	2772.000	29.21	0.86	54.0	-24.79	AV	V	Pass
2	2772.000	38.40	0.86	74.0	-35.60	Peak	V	Pass
3**	7638.000	24.29	10.06	54.0	-29.71	AV	V	Pass
3	7638.000	35.44	10.06	74.0	-38.56	Peak	V	Pass
4**	14414.000	40.23	25.52	54.0	-13.77	AV	V	Pass
4	14414.000	51.00	25.52	74.0	-23.00	Peak	V	Pass
5**	20630.001	42.54	23.82	54.0	-11.46	AV	V	Pass
5	20630.001	56.20	23.82	74.0	-17.80	Peak	V	Pass
6**	24002.000	46.17	23.30	54.0	-7.83	AV	V	Pass
6	24002.000	55.83	23.30	74.0	-18.17	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 (micorvolts/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	1000MHz(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

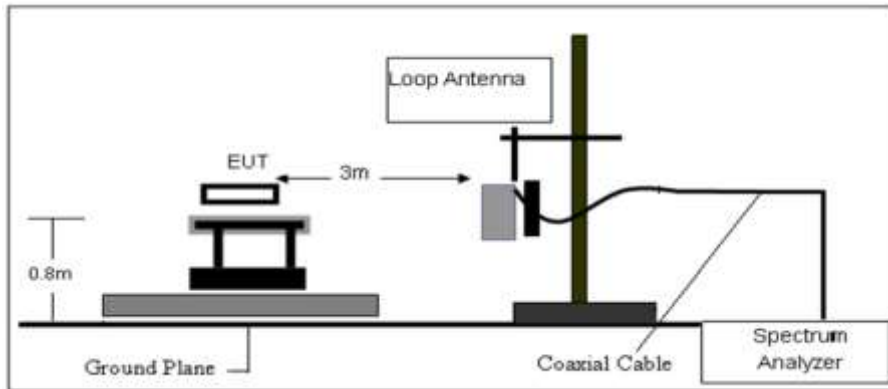
- The measuring distance of at 3 m shall be used for measurements at frequency 0.009MHz up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.
- The EUT was placed on the top of a rotating table 0.8 meters(above 1GHz is 1.5 m) above the ground at a 3 meter anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- 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
- 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.
- 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.
- For the actual test configuration, please refer to the related Item –EUT Test Photos.

Note:

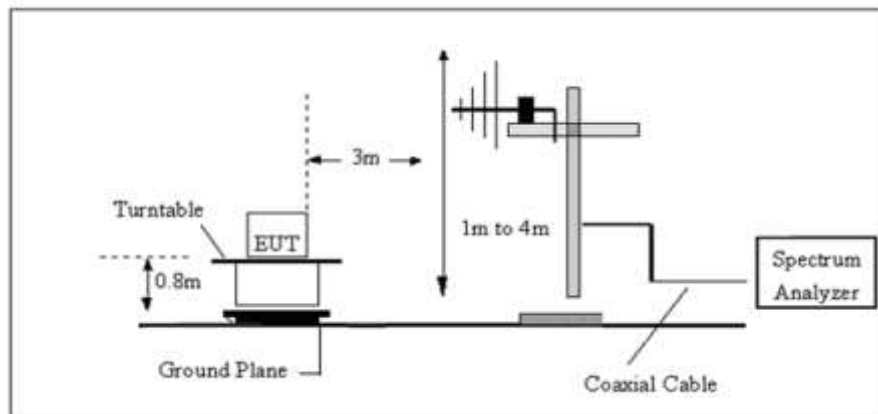
*Both horizontal and vertical antenna polarities were tested and performed test to three orthogonal axis. The worst case emissions were reported*

### 3.3.3 TEST SETUP

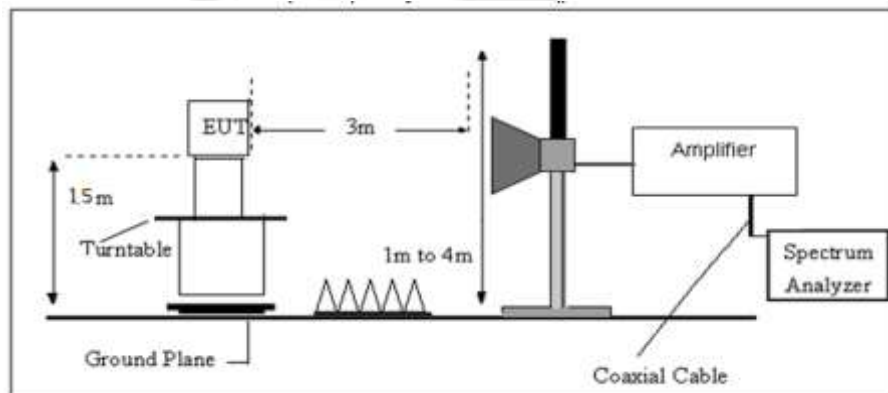
#### a) Radiated Emission Test-Up Frequency Below 30MHz



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

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

3.3.6 TEST RESULT

9KHz-30MHz

Temperature:	24.6°C	Relative Humidity:	70%
Test Voltage:	AC 120V/60Hz	Polarization :	--
Test Mode :	TX Mode		

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

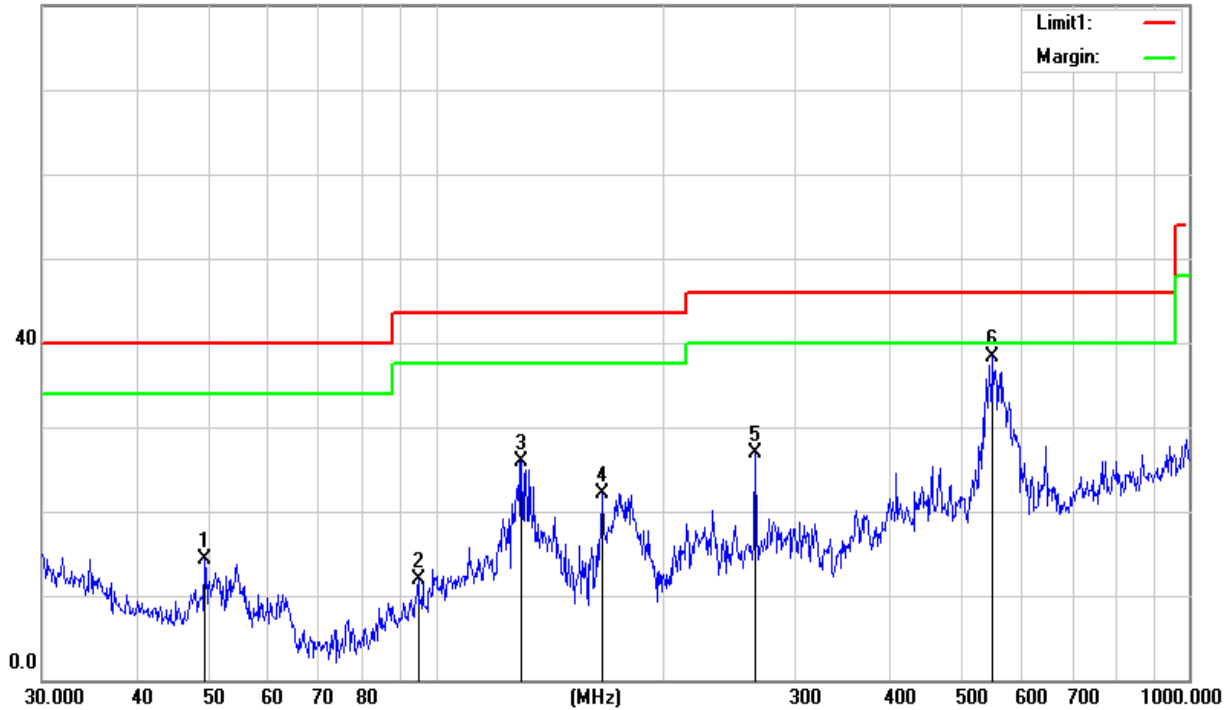
Temperature:	24.6°C	Relative Humidity:	70%
Test Voltage:	AC 120/60Hz	Polarization :	Horizontal
Test Mode :	Mode 1/2/3/4/5/6/7/8/9/10/11/12 (Mode 6 worst mode)		

Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
49.3594	35.48	-21.15	14.33	40.00	-25.67	QP
94.7601	31.60	-19.72	11.88	43.50	-31.62	QP
129.9226	43.52	-17.55	25.97	43.50	-17.53	QP
166.6514	41.21	-19.05	22.16	43.50	-21.34	QP
265.6757	42.19	-15.29	26.90	46.00	-19.10	QP
549.0195	45.08	-6.80	38.28	46.00	-7.72	QP

Remark:

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

80.0 dBuV/m







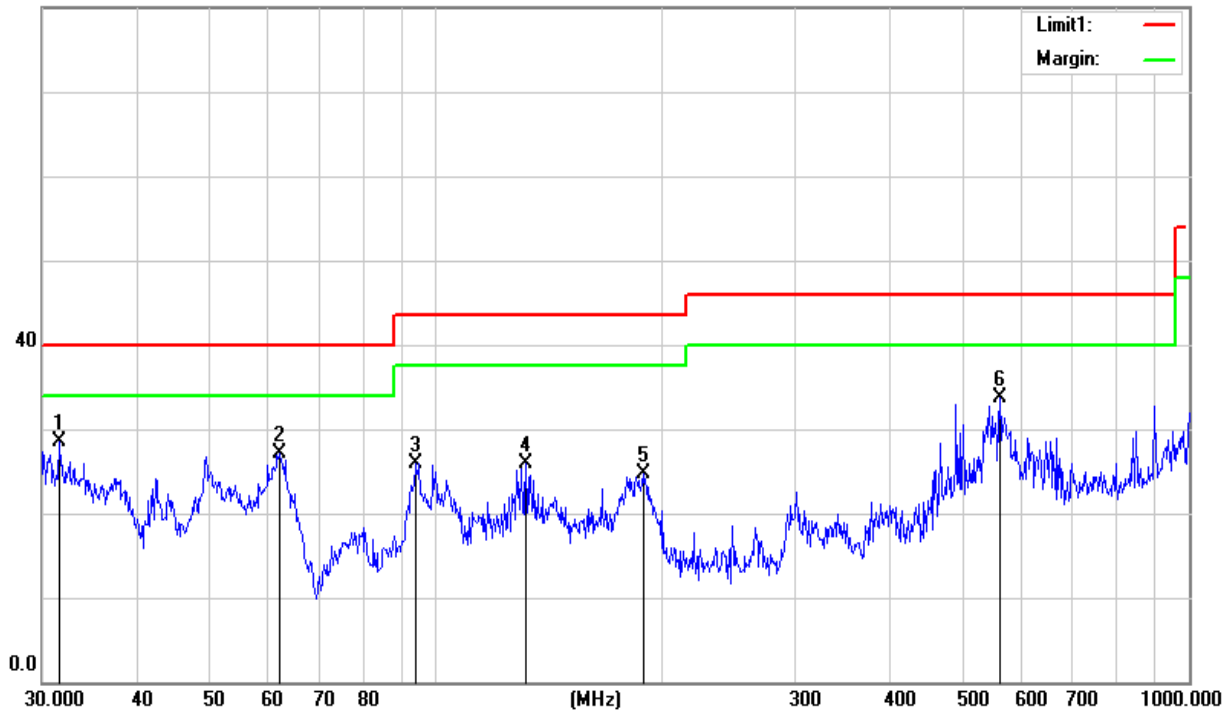
Temperature:	24.6°C	Relative Humidity:	70%
Test Voltage:	AC 120/60Hz	Polarization :	Vertical
Test Mode :	Mode 1/2/3/4/5/6/7/8/9/10/11/12 (Mode 6 worst mode)		

Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
31.6202	40.51	-12.02	28.49	40.00	-11.51	QP
61.9951	51.36	-24.30	27.06	40.00	-12.94	QP
94.0978	45.74	-19.78	25.96	43.50	-17.54	QP
131.7574	43.49	-17.54	25.95	43.50	-17.55	QP
188.4122	44.75	-20.13	24.62	43.50	-18.88	QP
560.6928	40.25	-6.57	33.68	46.00	-12.32	QP

Remark:.

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

80.0 dBuV/m





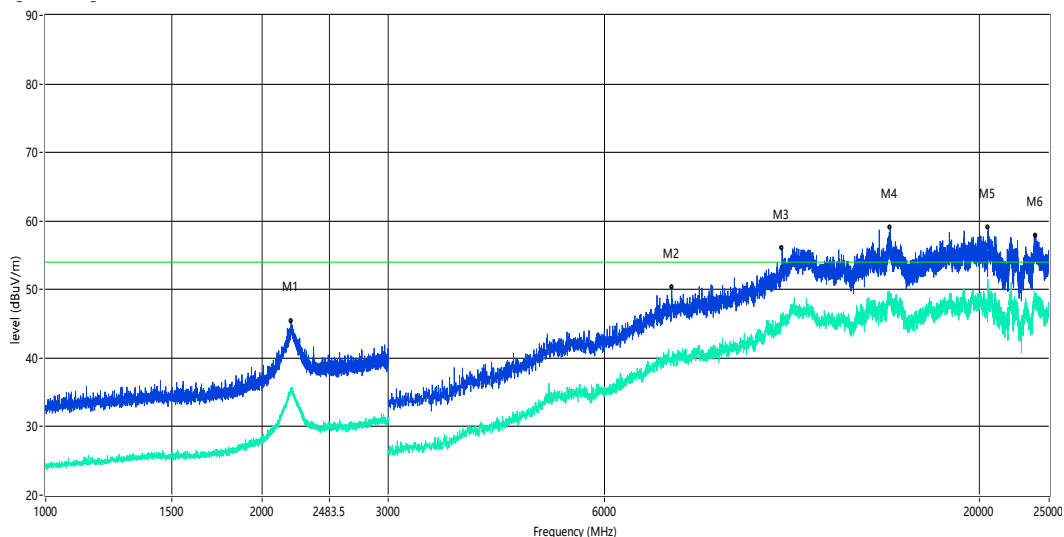
Restricted band and Spurious emission Requirements

(Above 1GHz)

802.11b Low Channel

Temperature:	21.7°C	Relative Humidity:	68%
Pressure:	1010hPa	Phase:	Horizontal

RE\_FCC Test Case\_FCC 15C 1GHz-25GHz

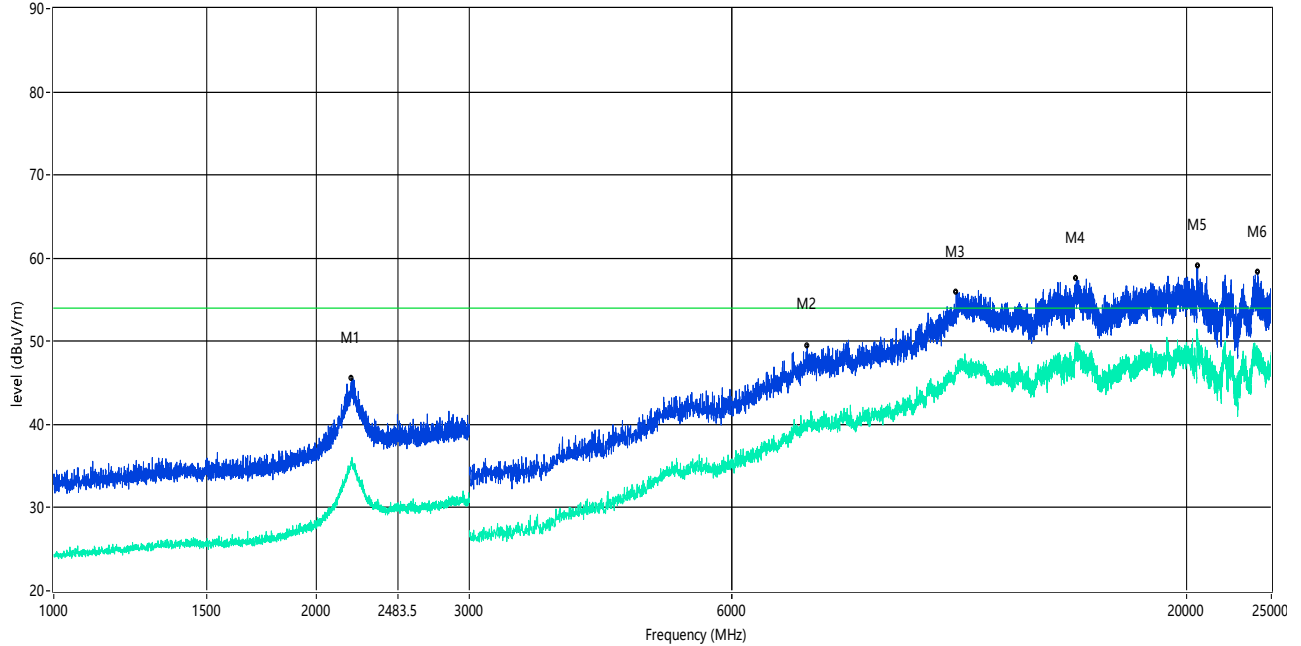


No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	OverLimit (dB)	Detector	ANT	Verdict
1**	2197.000	35.02	-7.37	54.0	-18.98	AV	H	Pass
1	2197.000	45.46	-7.37	74.0	-28.54	Peak	H	Pass
2**	7450.000	39.35	4.47	54.0	-14.65	AV	H	Pass
2	7450.000	50.30	4.47	74.0	-23.70	Peak	H	Pass
3**	10612.500	45.55	8.97	54.0	-8.45	AV	H	Pass
3	10612.500	55.99	8.97	74.0	-18.01	Peak	H	Pass
4**	15013.750	48.35	12.13	54.0	-5.65	AV	H	Pass
4	15013.750	58.98	12.13	74.0	-15.02	Peak	H	Pass
5**	20562.000	49.80	14.12	54.0	-4.20	AV	H	Pass
5	20562.000	58.99	14.12	74.0	-15.01	Peak	H	Pass
6**	23906.251	47.92	15.08	54.0	-6.08	AV	H	Pass
6	23906.251	57.87	15.08	74.0	-16.13	Peak	H	Pass



Temperature:	21.7°C	Relative Humidity:	68%
Pressure:	1010hPa	Phase:	Vertical

RE\_FCC Test Case\_FCC 15C 1GHz-25GHz



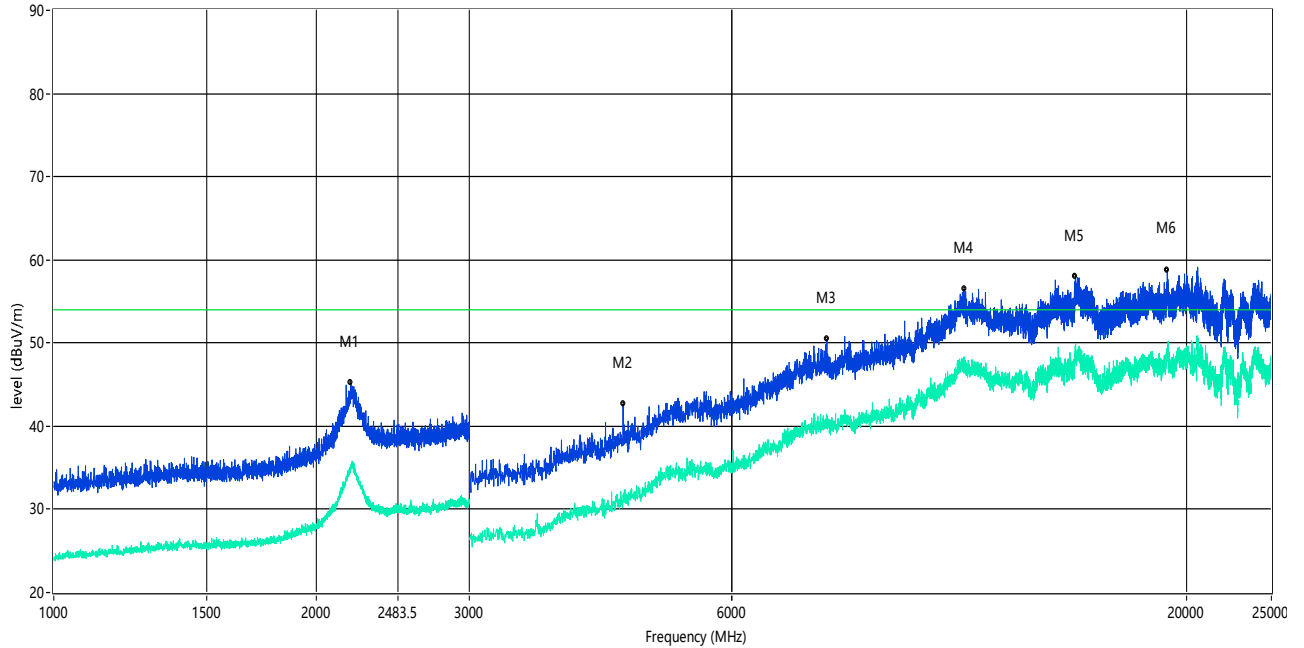
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	OverLimit (dB)	Detector	ANT	Verdict
1**	2199.000	35.21	-7.26	54.0	-18.79	AV	V	Pass
1	2199.000	45.54	-7.26	74.0	-28.46	Peak	V	Pass
2**	7327.500	39.95	4.47	54.0	-14.05	AV	V	Pass
2	7327.500	49.49	4.47	74.0	-24.51	Peak	V	Pass
3**	10867.500	46.47	10.08	54.0	-7.53	AV	V	Pass
3	10867.500	55.89	10.08	74.0	-18.11	Peak	V	Pass
4**	14933.750	48.71	12.53	54.0	-5.29	AV	V	Pass
4	14933.750	57.49	12.53	74.0	-16.51	Peak	V	Pass
5**	20572.500	49.93	14.13	54.0	-4.07	AV	V	Pass
5	20572.500	59.03	14.13	74.0	-14.97	Peak	V	Pass
6**	24114.500	46.79	15.09	54.0	-7.21	AV	V	Pass
6	24114.500	58.23	15.09	74.0	-15.77	Peak	V	Pass



802.11b Middle Channel

Temperature:	21.7°C	Relative Humidity:	68%
Pressure:	1010hPa	Phase:	Horizontal

RE\_FCC Test Case\_FCC 15C 1GHz-25GHz

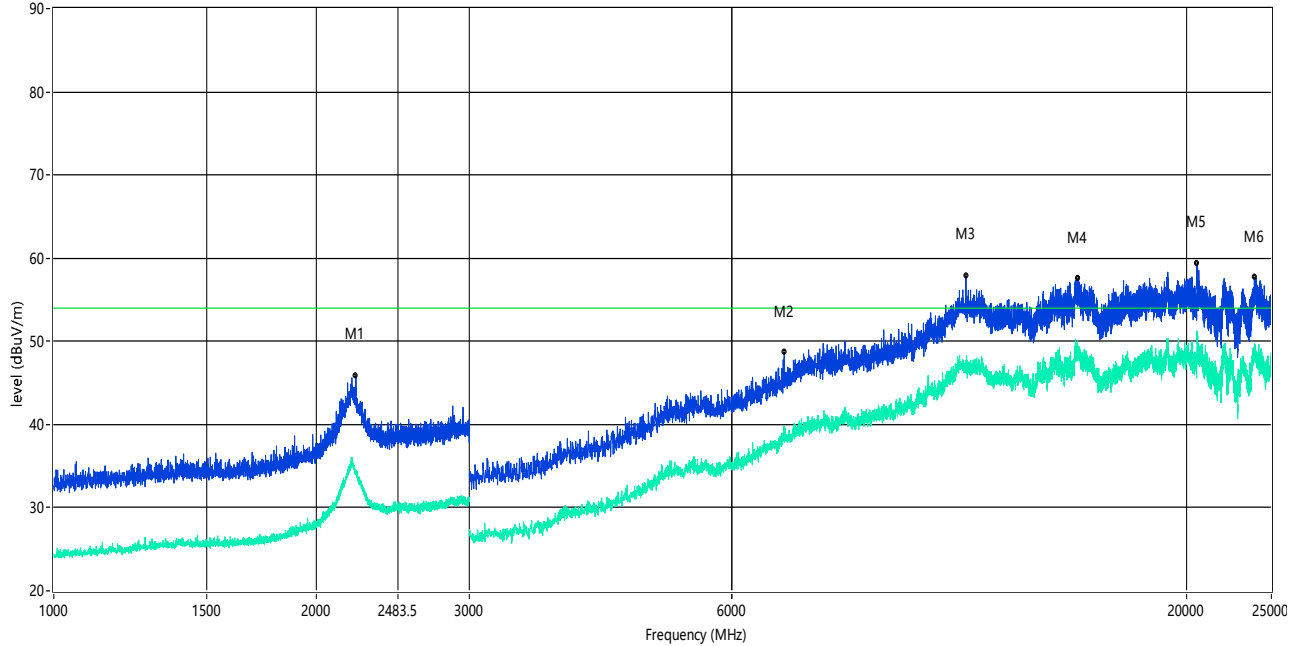


No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	OverLimit (dB)	Detector	ANT	Verdict
1**	2193.500	34.99	-7.55	54.0	-19.01	AV	H	Pass
1	2193.500	45.21	-7.55	74.0	-28.79	Peak	H	Pass
2**	4505.000	31.72	-5.68	54.0	-22.28	AV	H	Pass
2	4505.000	42.62	-5.68	74.0	-31.38	Peak	H	Pass
3**	7720.000	40.83	4.84	54.0	-13.17	AV	H	Pass
3	7720.000	50.44	4.84	74.0	-23.56	Peak	H	Pass
4**	11090.000	46.39	10.58	54.0	-7.61	AV	H	Pass
4	11090.000	56.50	10.58	74.0	-17.50	Peak	H	Pass
5**	14892.500	49.05	12.53	54.0	-4.95	AV	H	Pass
5	14892.500	57.93	12.53	74.0	-16.07	Peak	H	Pass
6**	18988.751	48.59	15.14	54.0	-5.41	AV	H	Pass
6	18988.751	58.79	15.14	74.0	-15.21	Peak	H	Pass



Temperature:	21.7°C	Relative Humidity:	68%
Pressure:	1010hPa	Phase:	Vertical

RE\_FCC Test Case\_FCC 15C 1GHz-25GHz



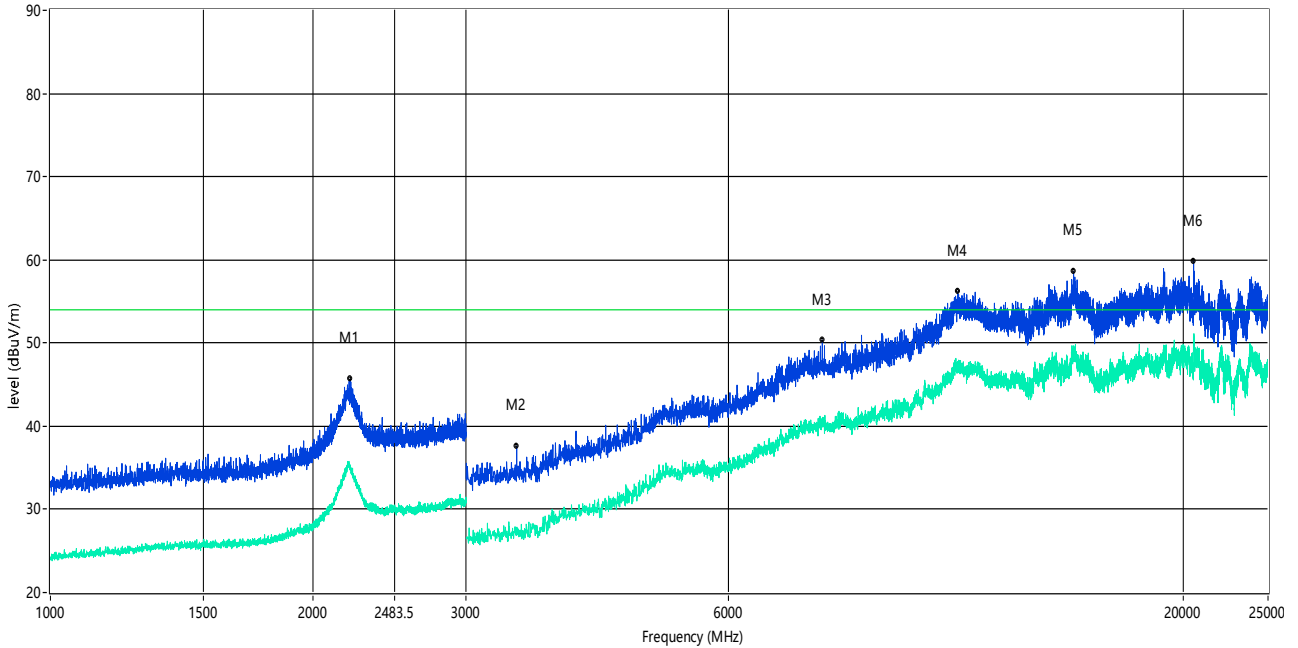
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	OverLimit (dB)	Detector	ANT	Verdict
1**	2222.500	34.23	-8.31	54.0	-19.77	AV	V	Pass
1	2222.500	45.89	-8.31	74.0	-28.11	Peak	V	Pass
2**	6897.500	39.23	3.17	54.0	-14.77	AV	V	Pass
2	6897.500	48.67	3.17	74.0	-25.33	Peak	V	Pass
3**	11150.000	46.84	10.51	54.0	-7.16	AV	V	Pass
3	11150.000	57.89	10.51	74.0	-16.11	Peak	V	Pass
4**	15011.250	48.57	12.17	54.0	-5.43	AV	V	Pass
4	15011.250	57.54	12.17	74.0	-16.46	Peak	V	Pass
5**	20544.500	50.58	14.09	54.0	-3.42	AV	V	Pass
5	20544.500	59.32	14.09	74.0	-14.68	Peak	V	Pass
6**	23901.000	48.40	15.08	54.0	-5.60	AV	V	Pass
6	23901.000	57.72	15.08	74.0	-16.28	Peak	V	Pass



802.11b High Channel

Temperature:	21.7°C	Relative Humidity:	68%
Pressure:	1010hPa	Phase:	Horizontal

RE\_FCC Test Case\_FCC 15C 1GHz-25GHz

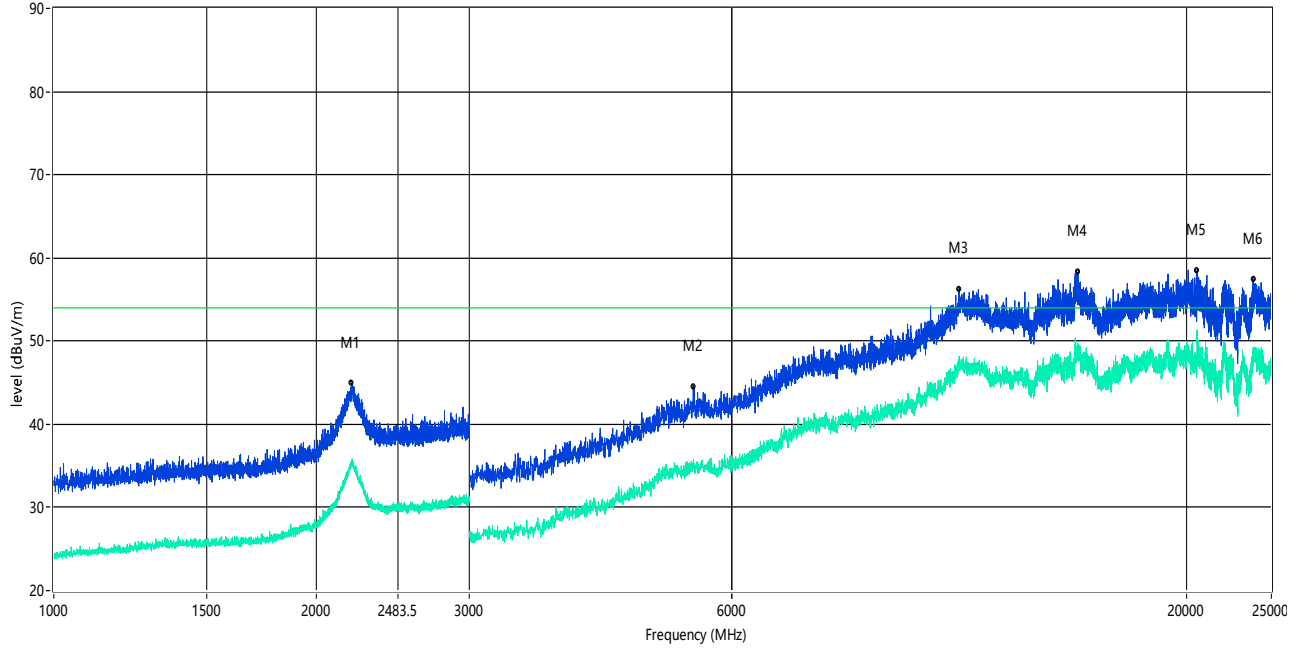


No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	OverLimit (dB)	Detector	ANT	Verdict
1**	2208.000	34.81	-7.60	54.0	-19.19	AV	H	Pass
1	2208.000	45.66	-7.60	74.0	-28.34	Peak	H	Pass
2**	3430.000	26.88	-9.96	54.0	-27.12	AV	H	Pass
2	3430.000	37.61	-9.96	74.0	-36.39	Peak	H	Pass
3**	7695.000	40.67	5.03	54.0	-13.33	AV	H	Pass
3	7695.000	50.36	5.03	74.0	-23.64	Peak	H	Pass
4**	11002.500	46.75	10.96	54.0	-7.25	AV	H	Pass
4	11002.500	56.14	10.96	74.0	-17.86	Peak	H	Pass
5**	14951.250	48.34	12.49	54.0	-5.66	AV	H	Pass
5	14951.250	58.60	12.49	74.0	-15.40	Peak	H	Pass
6**	20535.751	50.74	14.08	54.0	-3.26	AV	H	Pass
6	20535.751	59.81	14.08	74.0	-14.19	Peak	H	Pass



Temperature:	21.7°C	Relative Humidity:	68%
Pressure:	1010hPa	Phase:	Vertical

RE\_FCC Test Case\_FCC 15C 1GHz-25GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	OverLimit (dB)	Detector	ANT	Verdict
1**	2198.500	35.67	-7.29	54.0	-18.33	AV	V	Pass
1	2198.500	44.90	-7.29	74.0	-29.10	Peak	V	Pass
2**	5422.500	35.11	-1.38	54.0	-18.89	AV	V	Pass
2	5422.500	44.51	-1.38	74.0	-29.49	Peak	V	Pass
3**	10952.500	48.20	10.78	54.0	-5.80	AV	V	Pass
3	10952.500	56.27	10.78	74.0	-17.73	Peak	V	Pass
4**	15010.000	48.41	12.19	54.0	-5.59	AV	V	Pass
4	15010.000	58.34	12.19	74.0	-15.66	Peak	V	Pass
5**	20558.500	49.76	14.11	54.0	-4.24	AV	V	Pass
5	20558.500	58.45	14.11	74.0	-15.55	Peak	V	Pass
6**	23832.750	48.54	15.08	54.0	-5.46	AV	V	Pass
6	23832.750	57.34	15.08	74.0	-16.66	Peak	V	Pass

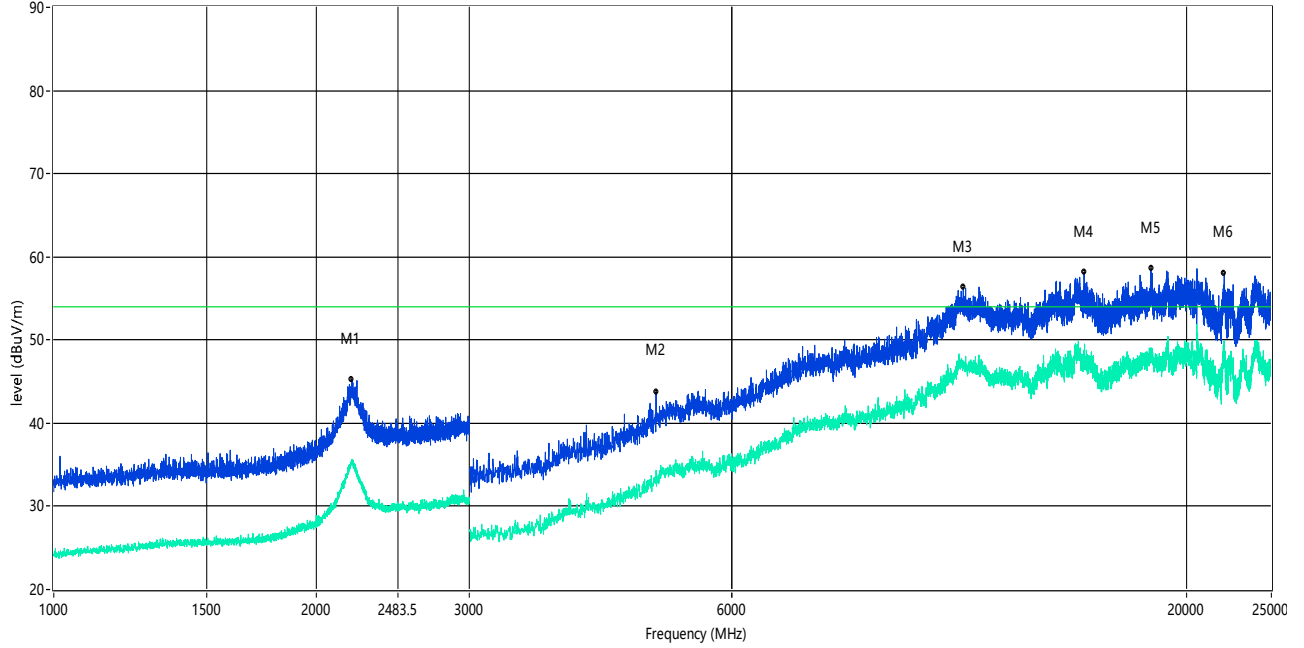




802.11g Low Channel

Temperature:	21.7°C	Relative Humidity:	68%
Pressure:	1010hPa	Phase:	Horizontal

RE\_FCC Test Case\_FCC 15C 1GHz-25GHz

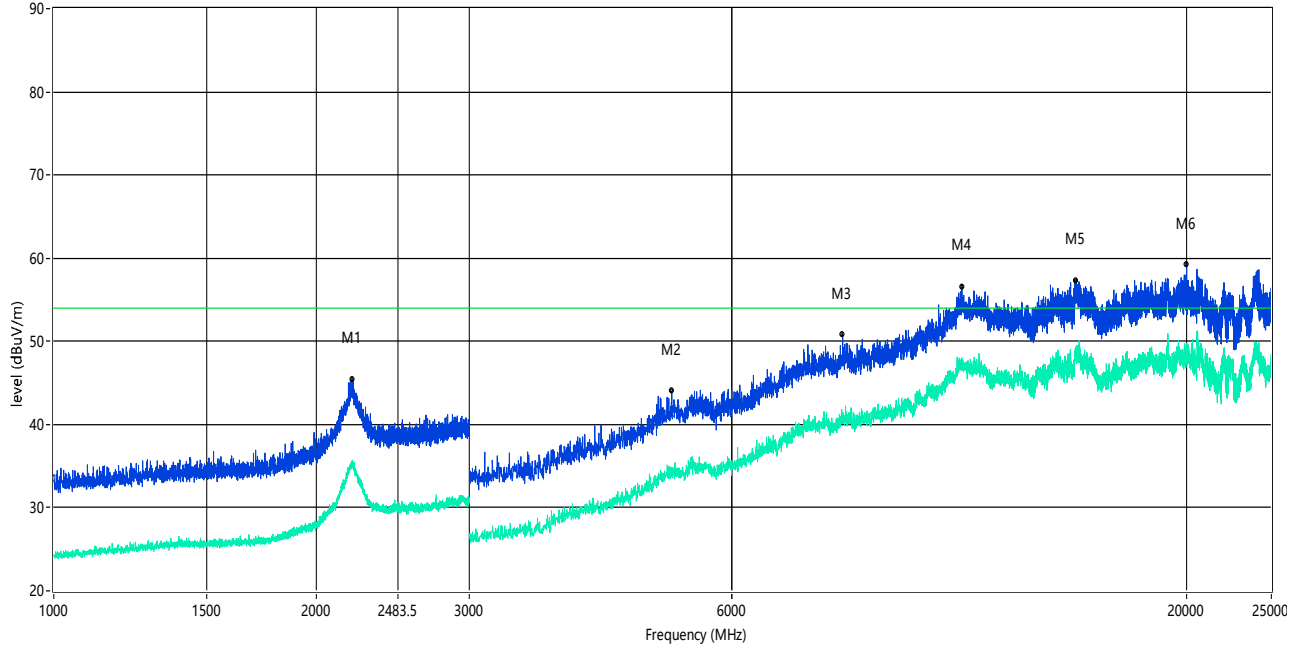


No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	OverLimit (dB)	Detector	ANT	Verdict
1**	2197.500	35.19	-7.34	54.0	-18.81	AV	H	Pass
1	2197.500	45.26	-7.34	74.0	-28.74	Peak	H	Pass
2**	4915.000	34.33	-3.33	54.0	-19.67	AV	H	Pass
2	4915.000	43.79	-3.33	74.0	-30.21	Peak	H	Pass
3**	11070.000	46.96	10.67	54.0	-7.04	AV	H	Pass
3	11070.000	56.29	10.67	74.0	-17.71	Peak	H	Pass
4**	15238.750	47.67	11.40	54.0	-6.33	AV	H	Pass
4	15238.750	58.15	11.40	74.0	-15.85	Peak	H	Pass
5**	18185.501	48.51	12.20	54.0	-5.49	AV	H	Pass
5	18185.501	58.57	12.20	74.0	-15.43	Peak	H	Pass
6**	22068.750	49.22	9.88	54.0	-4.78	AV	H	Pass
6	22068.750	58.05	9.88	74.0	-15.95	Peak	H	Pass



Temperature:	21.7°C	Relative Humidity:	68%
Pressure:	1010hPa	Phase:	Vertical

RE\_FCC Test Case\_FCC 15C 1GHz-25GHz



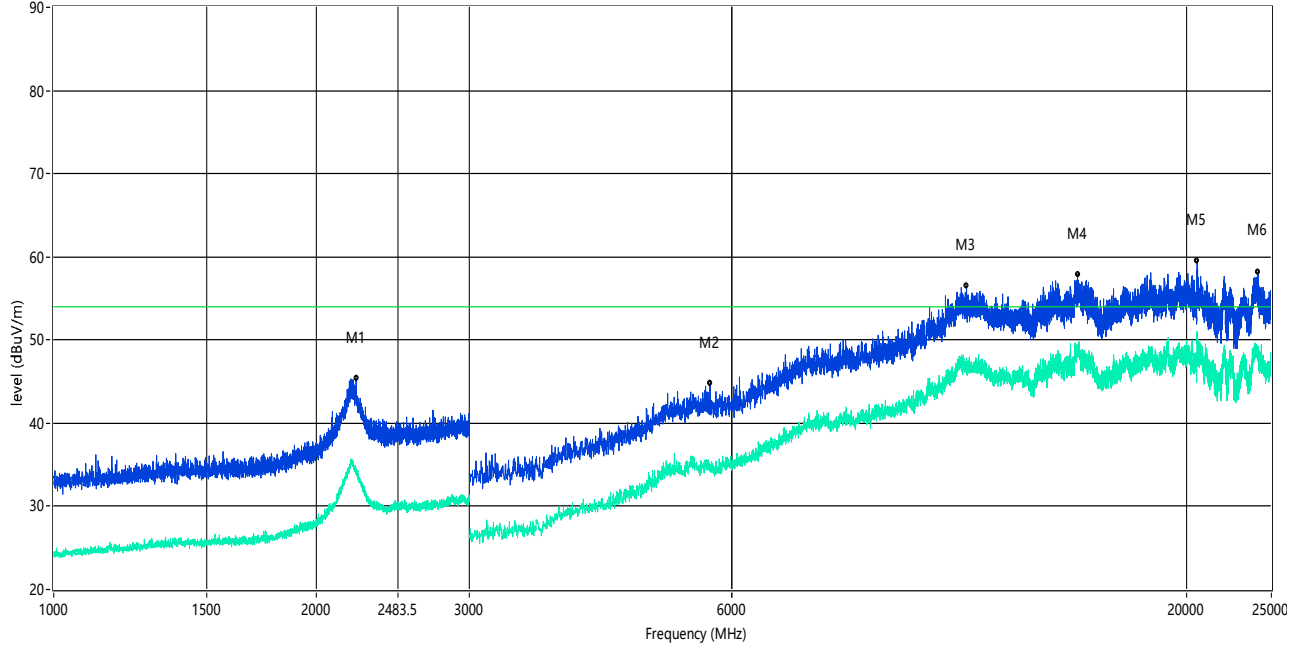
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	OverLimit (dB)	Detector	ANT	Verdict
1**	2200.500	35.26	-7.23	54.0	-18.74	AV	V	Pass
1	2200.500	45.43	-7.23	74.0	-28.57	Peak	V	Pass
2**	5122.500	34.66	-1.84	54.0	-19.34	AV	V	Pass
2	5122.500	44.03	-1.84	74.0	-29.97	Peak	V	Pass
3**	8047.500	40.68	5.16	54.0	-13.32	AV	V	Pass
3	8047.500	50.79	5.16	74.0	-23.21	Peak	V	Pass
4**	11032.500	46.83	10.83	54.0	-7.17	AV	V	Pass
4	11032.500	56.57	10.83	74.0	-17.43	Peak	V	Pass
5**	14906.250	48.82	12.61	54.0	-5.18	AV	V	Pass
5	14906.250	57.31	12.61	74.0	-16.69	Peak	V	Pass
6**	19979.250	48.83	15.36	54.0	-5.17	AV	V	Pass
6	19979.250	59.21	15.36	74.0	-14.79	Peak	V	Pass



802.11g Middle Channel

Temperature:	21.7°C	Relative Humidity:	68%
Pressure:	1010hPa	Phase:	Horizontal

RE\_FCC Test Case\_FCC 15C 1GHz-25GHz

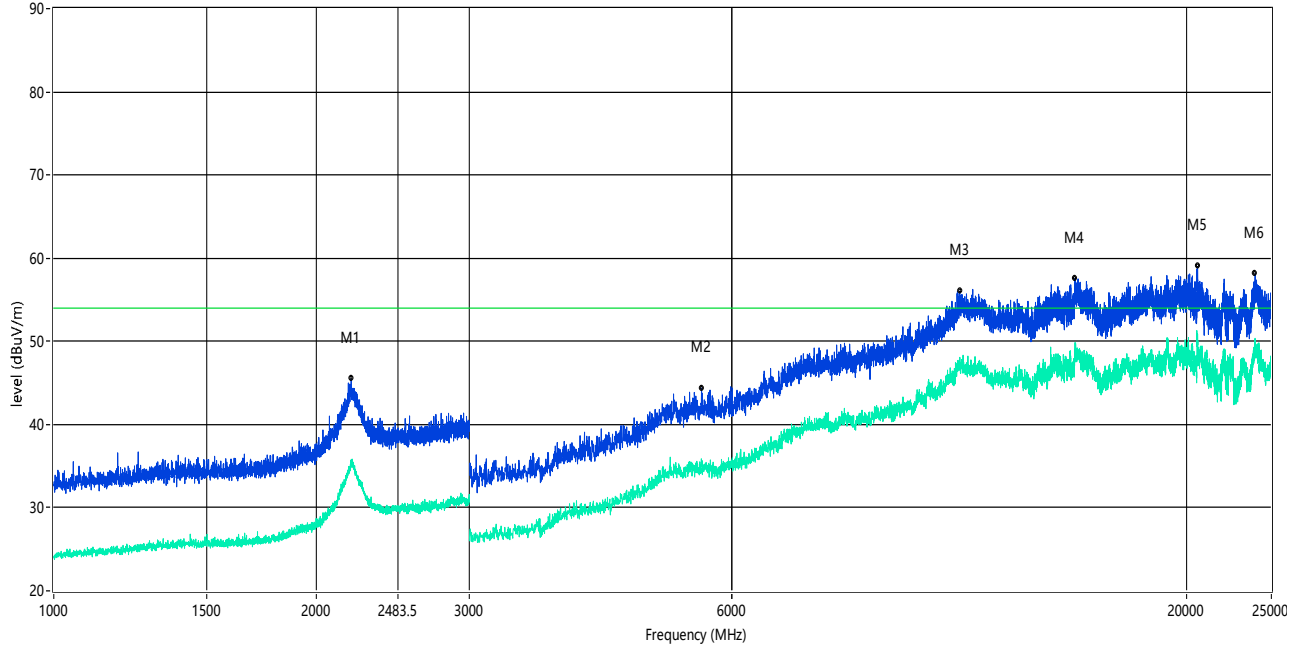


No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	OverLimit (dB)	Detector	ANT	Verdict
1**	2224.000	34.55	-8.38	54.0	-19.45	AV	H	Pass
1	2224.000	45.36	-8.38	74.0	-28.64	Peak	H	Pass
2**	5667.500	34.47	-1.36	54.0	-19.53	AV	H	Pass
2	5667.500	44.76	-1.36	74.0	-29.24	Peak	H	Pass
3**	11167.500	47.02	10.51	54.0	-6.98	AV	H	Pass
3	11167.500	56.49	10.51	74.0	-17.51	Peak	H	Pass
4**	14978.750	48.58	12.41	54.0	-5.42	AV	H	Pass
4	14978.750	57.85	12.41	74.0	-16.15	Peak	H	Pass
5**	20544.500	50.75	14.09	54.0	-3.25	AV	H	Pass
5	20544.500	59.48	14.09	74.0	-14.52	Peak	H	Pass
6**	24144.251	48.55	15.09	54.0	-5.45	AV	H	Pass
6	24144.251	58.22	15.09	74.0	-15.78	Peak	H	Pass



Temperature:	21.7°C	Relative Humidity:	68%
Pressure:	1010hPa	Phase:	Vertical

RE\_FCC Test Case\_FCC 15C 1GHz-25GHz



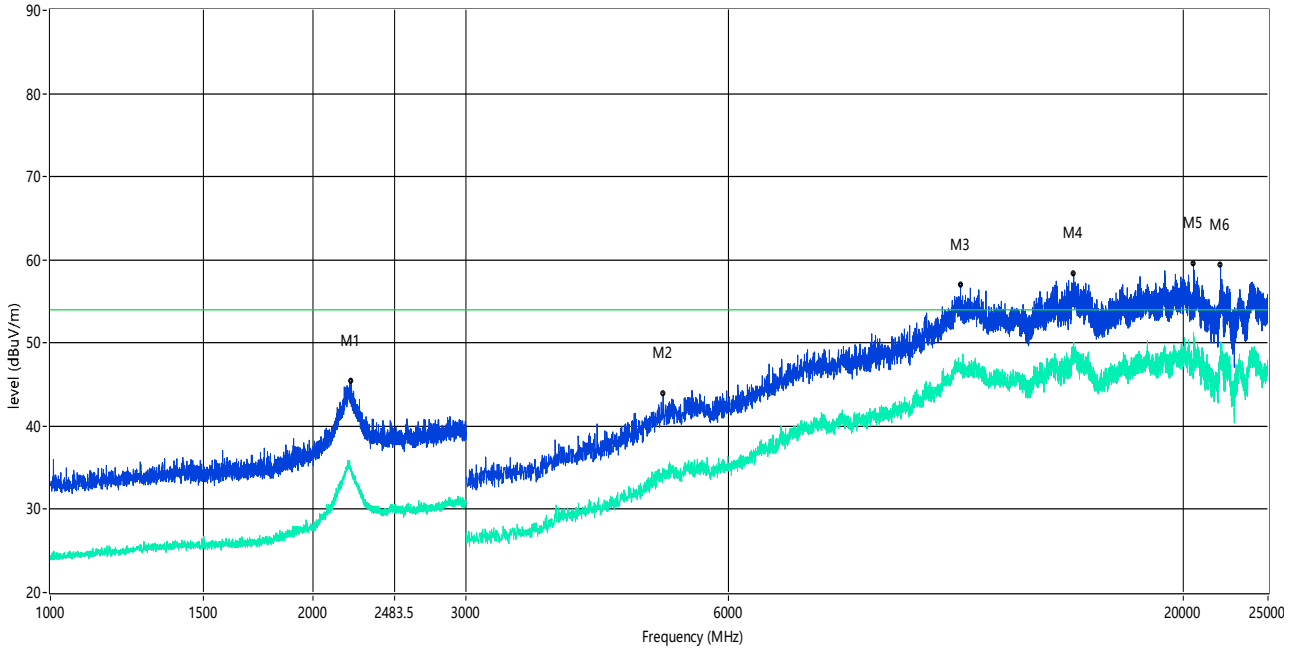
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	OverLimit (dB)	Detector	ANT	Verdict
1**	2195.000	35.10	-7.47	54.0	-18.90	AV	V	Pass
1	2195.000	45.50	-7.47	74.0	-28.50	Peak	V	Pass
2**	5542.500	35.29	-1.37	54.0	-18.71	AV	V	Pass
2	5542.500	44.38	-1.37	74.0	-29.62	Peak	V	Pass
3**	10970.000	47.57	10.85	54.0	-6.43	AV	V	Pass
3	10970.000	56.02	10.85	74.0	-17.98	Peak	V	Pass
4**	14868.750	48.35	12.22	54.0	-5.65	AV	V	Pass
4	14868.750	57.53	12.22	74.0	-16.47	Peak	V	Pass
5**	20565.500	49.69	14.12	54.0	-4.31	AV	V	Pass
5	20565.500	59.01	14.12	74.0	-14.99	Peak	V	Pass
6**	23948.249	48.62	15.08	54.0	-5.38	AV	V	Pass
6	23948.249	58.12	15.08	74.0	-15.88	Peak	V	Pass



802.11g High Channel

Temperature:	21.7°C	Relative Humidity:	68%
Pressure:	1010hPa	Phase:	Horizontal

RE\_FCC Test Case\_FCC 15C 1GHz-25GHz

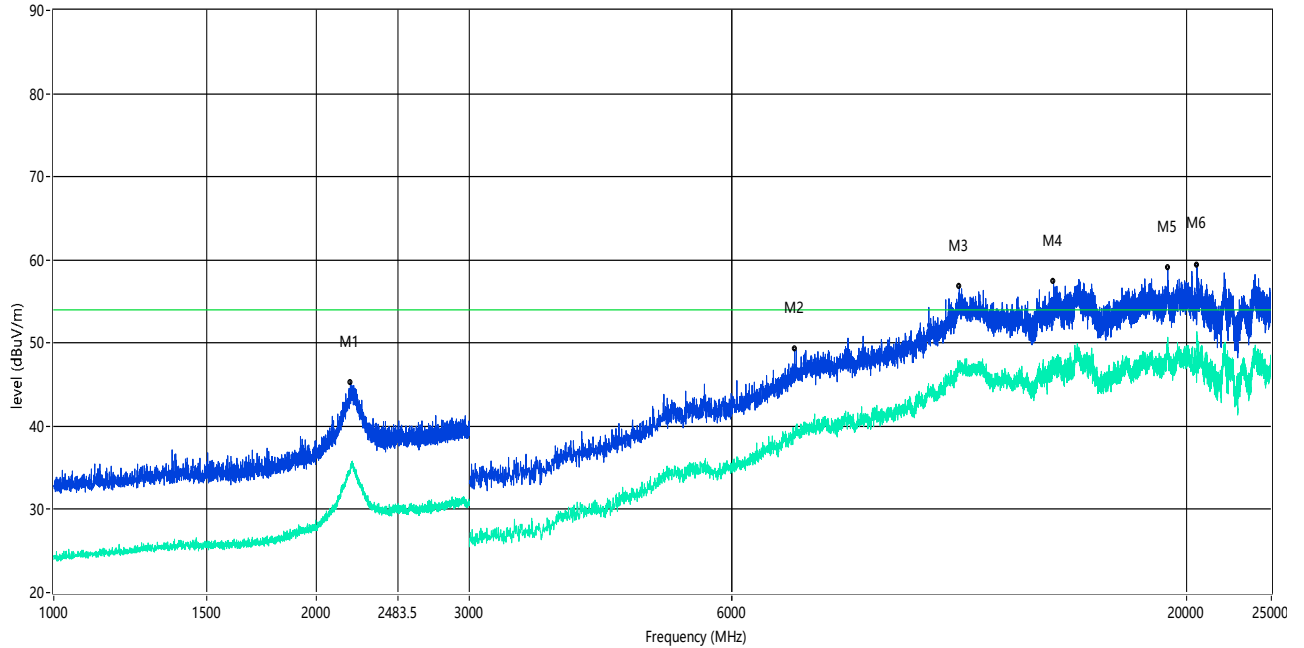


No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	OverLimit (dB)	Detector	ANT	Verdict
1**	2215.000	34.72	-7.94	54.0	-19.28	AV	H	Pass
1	2215.000	45.40	-7.94	74.0	-28.60	Peak	H	Pass
2**	5052.500	34.30	-2.17	54.0	-19.70	AV	H	Pass
2	5052.500	43.81	-2.17	74.0	-30.19	Peak	H	Pass
3**	11090.000	46.89	10.58	54.0	-7.11	AV	H	Pass
3	11090.000	56.98	10.58	74.0	-17.02	Peak	H	Pass
4**	14956.250	49.29	12.47	54.0	-4.71	AV	H	Pass
4	14956.250	58.31	12.47	74.0	-15.69	Peak	H	Pass
5**	20530.500	50.78	14.07	54.0	-3.22	AV	H	Pass
5	20530.500	59.58	14.07	74.0	-14.42	Peak	H	Pass
6**	22051.250	48.64	9.88	54.0	-5.36	AV	H	Pass
6	22051.250	59.39	9.88	74.0	-14.61	Peak	H	Pass



Temperature:	21.7°C	Relative Humidity:	68%
Pressure:	1010hPa	Phase:	Vertical

RE\_FCC Test Case\_FCC 15C 1GHz-25GHz



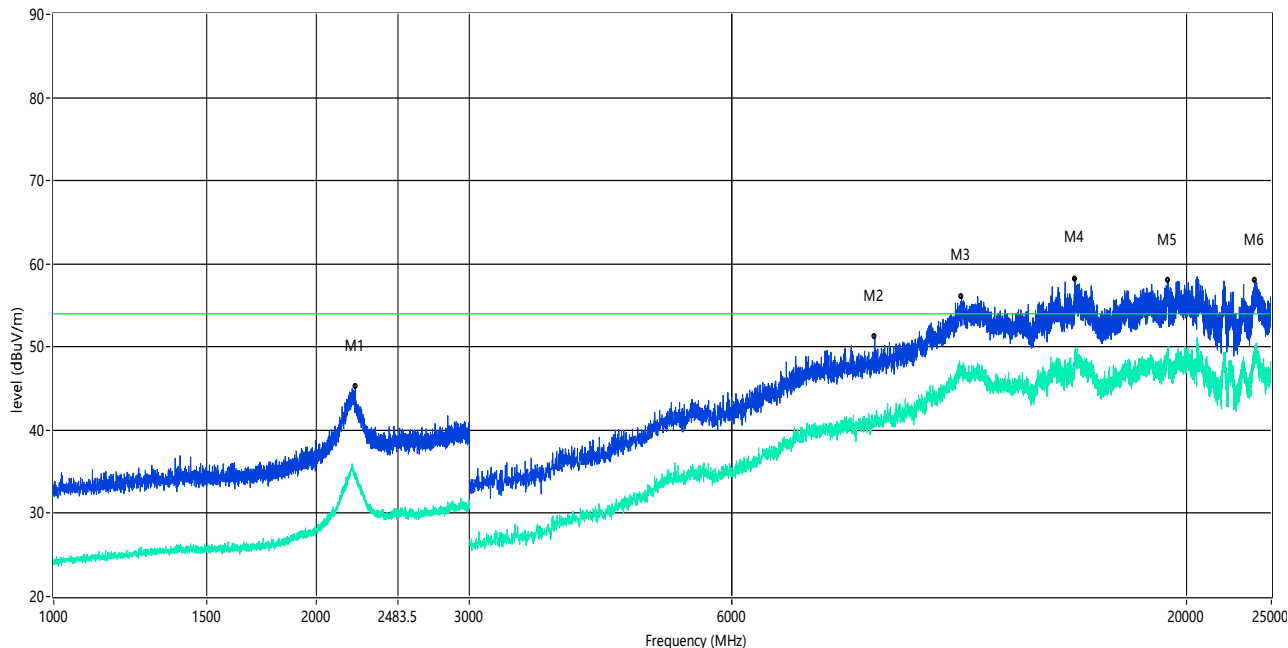
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	OverLimit (dB)	Detector	ANT	Verdict
1**	2192.500	35.48	-7.61	54.0	-18.52	AV	V	Pass
1	2192.500	45.26	-7.61	74.0	-28.74	Peak	V	Pass
2**	7087.500	38.88	3.87	54.0	-15.12	AV	V	Pass
2	7087.500	49.25	3.87	74.0	-24.75	Peak	V	Pass
3**	10957.500	47.71	10.80	54.0	-6.29	AV	V	Pass
3	10957.500	56.79	10.80	74.0	-17.21	Peak	V	Pass
4**	14057.500	47.42	11.30	54.0	-6.58	AV	V	Pass
4	14057.500	57.41	11.30	74.0	-16.59	Peak	V	Pass
5**	19009.749	48.82	15.32	54.0	-5.18	AV	V	Pass
5	19009.749	59.00	15.32	74.0	-15.00	Peak	V	Pass
6**	20530.500	50.74	14.07	54.0	-3.26	AV	V	Pass
6	20530.500	59.39	14.07	74.0	-14.61	Peak	V	Pass



802.11n(HT20) Low Channel

Temperature:	21.7°C	Relative Humidity:	68%
Pressure:	1010hPa	Phase:	Horizontal

RE\_FCC Test Case\_FCC 15C 1GHz-25GHz



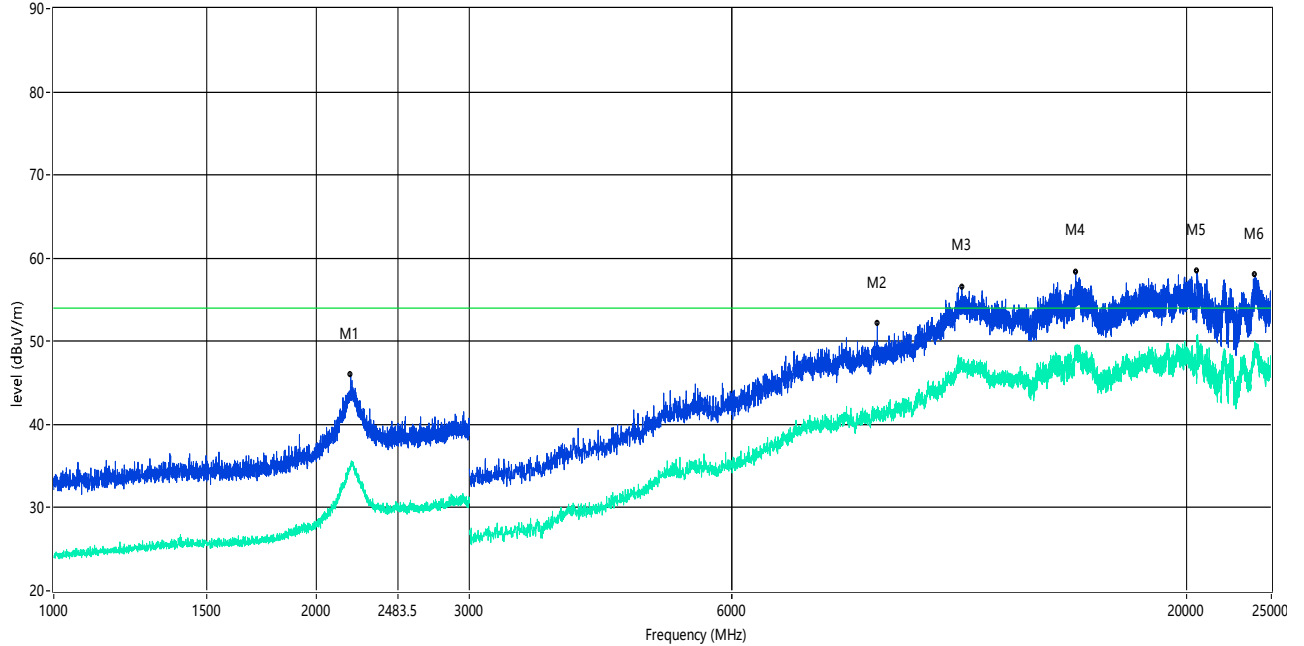
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	OverLimit (dB)	Detector	ANT	Verdict
1**	2219.000	34.77	-8.14	54.0	-19.23	AV	H	Pass
1	2219.000	45.21	-8.14	74.0	-28.79	Peak	H	Pass
2**	8762.500	41.04	5.21	54.0	-12.96	AV	H	Pass
2	8762.500	51.18	5.21	74.0	-22.82	Peak	H	Pass
3**	11022.500	46.99	10.87	54.0	-7.01	AV	H	Pass
3	11022.500	56.09	10.87	74.0	-17.91	Peak	H	Pass
4**	14875.000	48.90	12.30	54.0	-5.10	AV	H	Pass
4	14875.000	58.22	12.30	74.0	-15.78	Peak	H	Pass
5**	19030.749	49.55	15.12	54.0	-4.45	AV	H	Pass
5	19030.749	58.00	15.12	74.0	-16.00	Peak	H	Pass
6**	23916.751	48.64	15.08	54.0	-5.36	AV	H	Pass
6	23916.751	57.96	15.08	74.0	-16.04	Peak	H	Pass





Temperature:	21.7°C	Relative Humidity:	68%
Pressure:	1010hPa	Phase:	Vertical

RE\_FCC Test Case\_FCC 15C 1GHz-25GHz



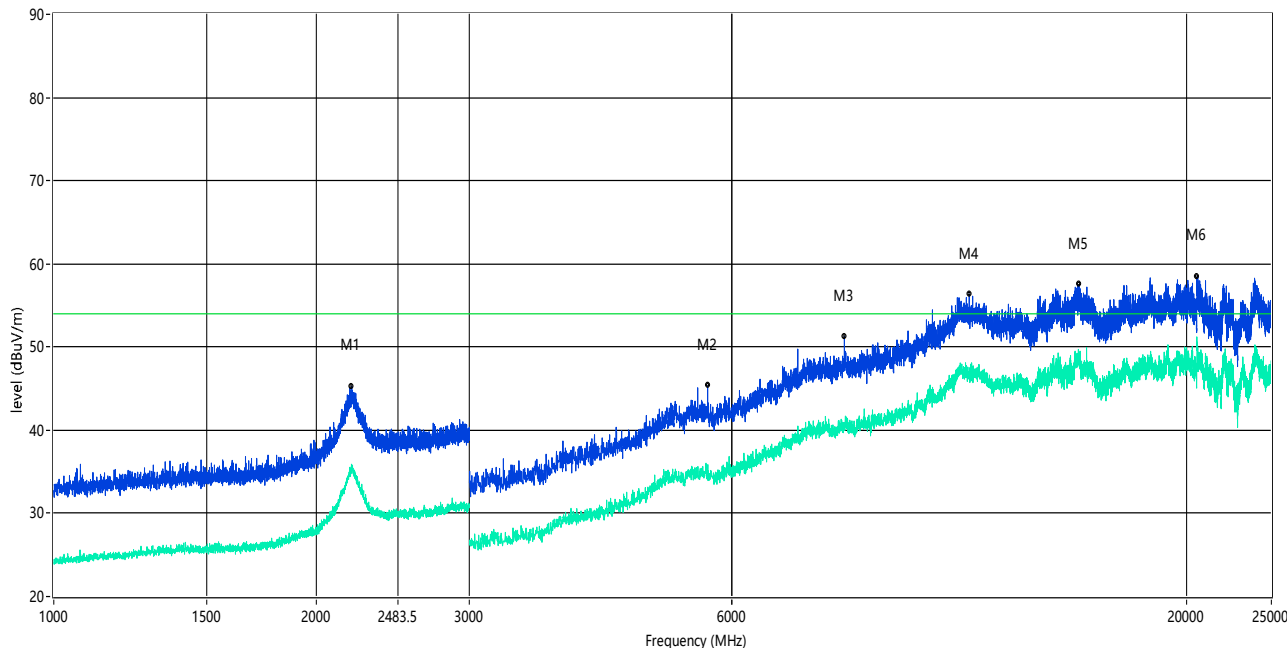
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	OverLimit (dB)	Detector	ANT	Verdict
1**	2192.500	35.25	-7.61	54.0	-18.75	AV	V	Pass
1	2192.500	45.98	-7.61	74.0	-28.02	Peak	V	Pass
2**	8822.500	41.52	5.07	54.0	-12.48	AV	V	Pass
2	8822.500	52.14	5.07	74.0	-21.86	Peak	V	Pass
3**	11030.000	46.78	10.84	54.0	-7.22	AV	V	Pass
3	11030.000	56.55	10.84	74.0	-17.45	Peak	V	Pass
4**	14905.000	48.54	12.62	54.0	-5.46	AV	V	Pass
4	14905.000	58.35	12.62	74.0	-15.65	Peak	V	Pass
5**	20556.751	49.66	14.11	54.0	-4.34	AV	V	Pass
5	20556.751	58.45	14.11	74.0	-15.55	Peak	V	Pass
6**	23951.749	49.00	15.08	54.0	-5.00	AV	V	Pass
6	23951.749	57.97	15.08	74.0	-16.03	Peak	V	Pass



802.11n(HT20) Middle Channel

Temperature:	21.7°C	Relative Humidity:	68%
Pressure:	1010hPa	Phase:	Horizontal

RE\_FCC Test Case\_FCC 15C 1GHz-25GHz

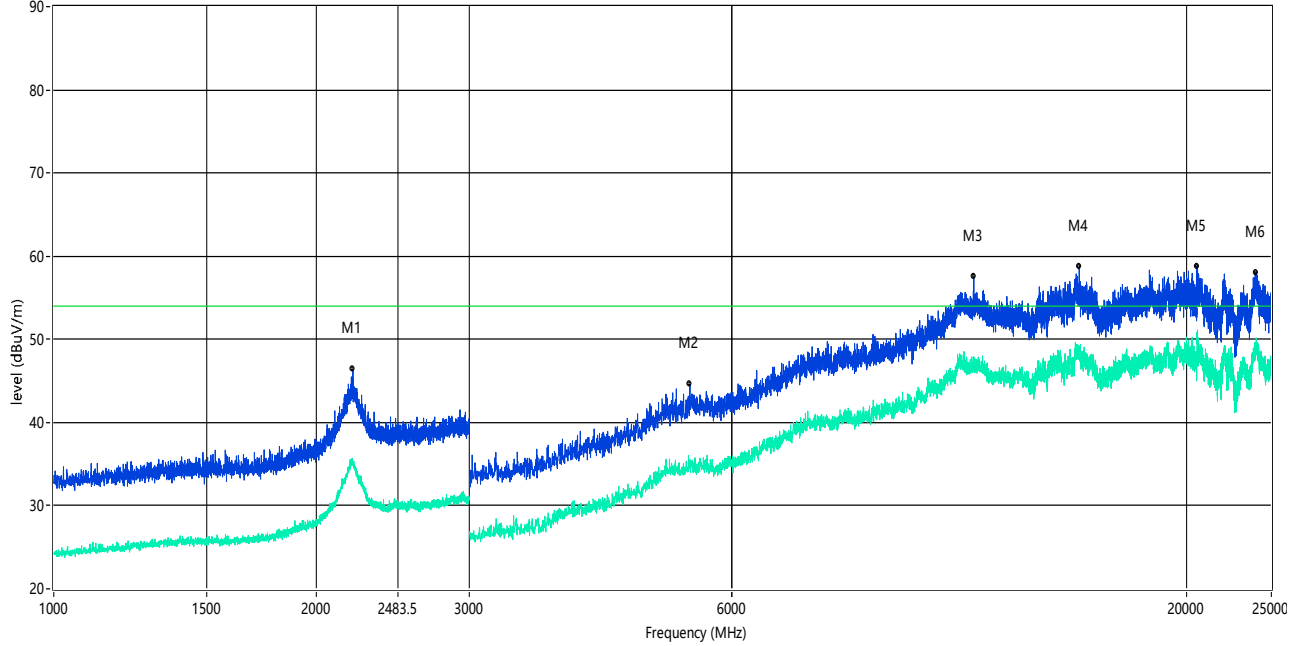


No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	OverLimit (dB)	Detector	ANT	Verdict
1**	2198.500	35.24	-7.29	54.0	-18.76	AV	H	Pass
1	2198.500	45.27	-7.29	74.0	-28.73	Peak	H	Pass
2**	5632.500	34.44	-1.23	54.0	-19.56	AV	H	Pass
2	5632.500	45.32	-1.23	74.0	-28.68	Peak	H	Pass
3**	8085.000	40.75	5.37	54.0	-13.25	AV	H	Pass
3	8085.000	51.27	5.37	74.0	-22.73	Peak	H	Pass
4**	11247.500	46.67	10.38	54.0	-7.33	AV	H	Pass
4	11247.500	56.38	10.38	74.0	-17.62	Peak	H	Pass
5**	15032.500	49.10	11.82	54.0	-4.90	AV	H	Pass
5	15032.500	57.49	11.82	74.0	-16.51	Peak	H	Pass
6**	20553.251	49.90	14.10	54.0	-4.10	AV	H	Pass
6	20553.251	58.50	14.10	74.0	-15.50	Peak	H	Pass



Temperature:	21.7°C	Relative Humidity:	68%
Pressure:	1010hPa	Phase:	Vertical

RE\_FCC Test Case\_FCC 15C 1GHz-25GHz



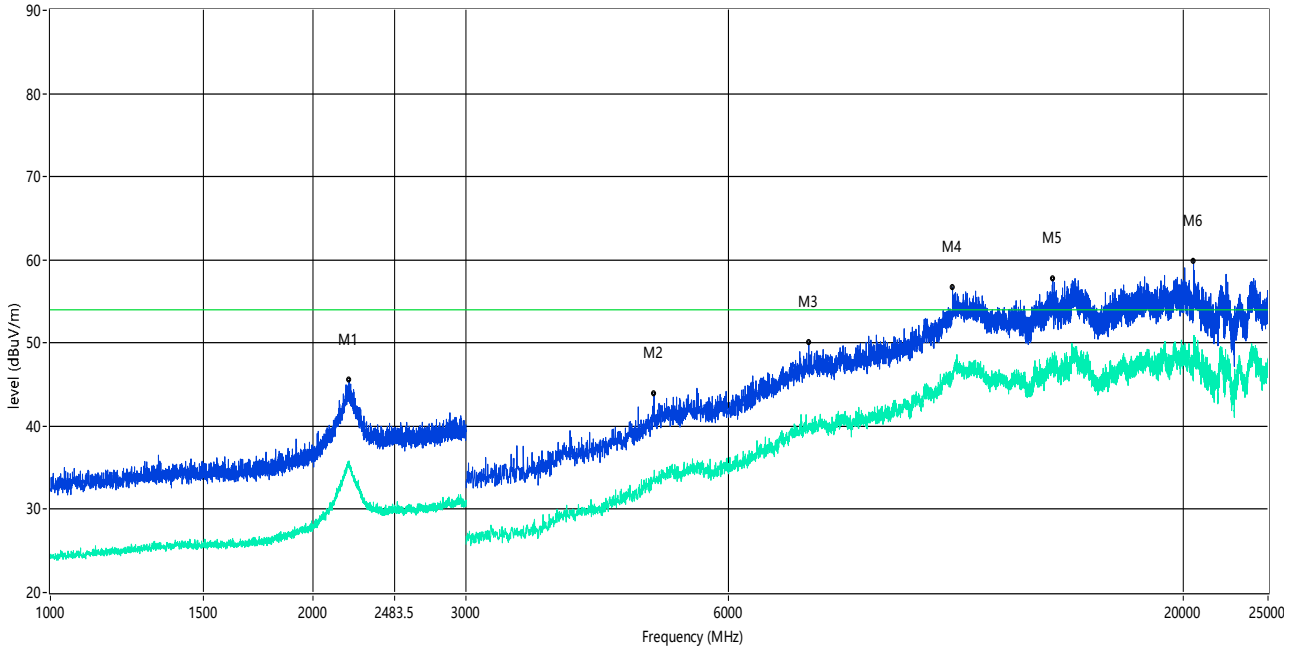
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	OverLimit (dB)	Detector	ANT	Verdict
1**	2205.000	34.85	-7.45	54.0	-19.15	AV	V	Pass
1	2205.000	46.42	-7.45	74.0	-27.58	Peak	V	Pass
2**	5375.000	35.37	-1.53	54.0	-18.63	AV	V	Pass
2	5375.000	44.61	-1.53	74.0	-29.39	Peak	V	Pass
3**	11385.000	46.49	10.78	54.0	-7.51	AV	V	Pass
3	11385.000	57.53	10.78	74.0	-16.47	Peak	V	Pass
4**	15043.750	48.29	11.64	54.0	-5.71	AV	V	Pass
4	15043.750	58.70	11.64	74.0	-15.30	Peak	V	Pass
5**	20530.500	50.36	14.07	54.0	-3.64	AV	V	Pass
5	20530.500	58.81	14.07	74.0	-15.19	Peak	V	Pass
6**	24027.001	49.52	15.09	54.0	-4.48	AV	V	Pass
6	24027.001	57.98	15.09	74.0	-16.02	Peak	V	Pass



802.11n(HT20) High Channel

Temperature:	21.7°C	Relative Humidity:	68%
Pressure:	1010hPa	Phase:	Horizontal

RE\_FCC Test Case\_FCC 15C 1GHz-25GHz

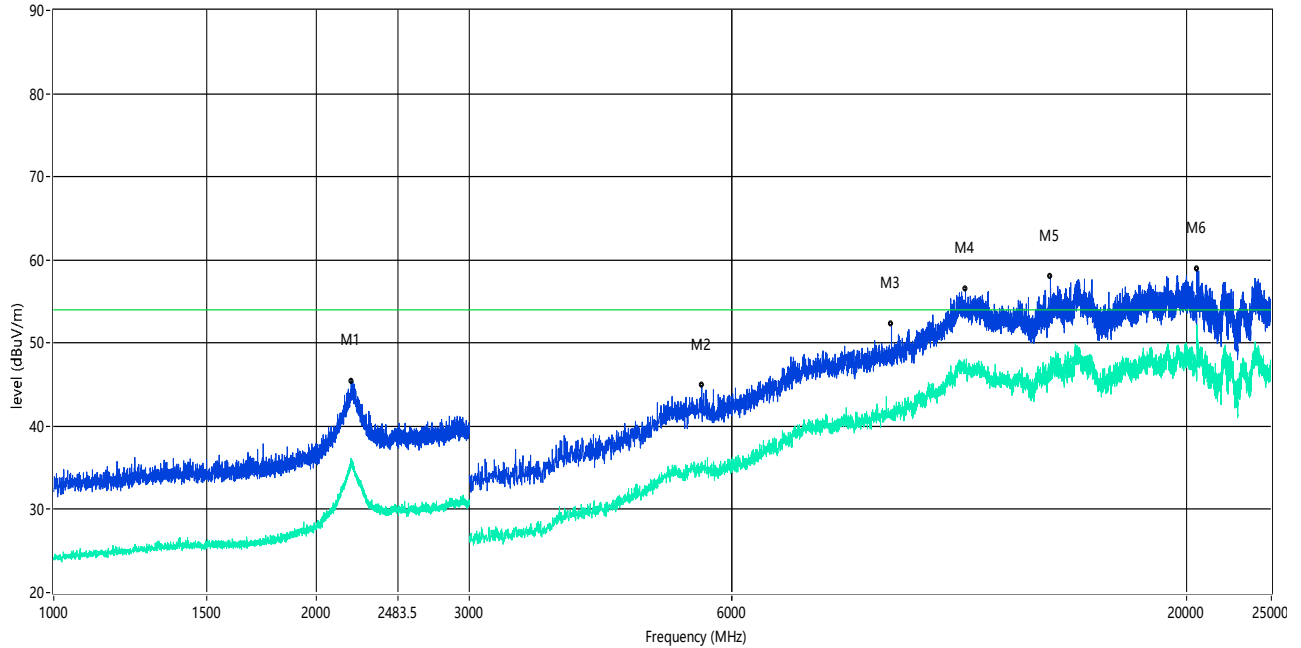


No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	OverLimit (dB)	Detector	ANT	Verdict
1**	2203.000	35.82	-7.36	54.0	-18.18	AV	H	Pass
1	2203.000	45.52	-7.36	74.0	-28.48	Peak	H	Pass
2**	4932.500	33.54	-3.16	54.0	-20.46	AV	H	Pass
2	4932.500	43.88	-3.16	74.0	-30.12	Peak	H	Pass
3**	7425.000	39.54	4.43	54.0	-14.46	AV	H	Pass
3	7425.000	50.02	4.43	74.0	-23.98	Peak	H	Pass
4**	10857.500	45.73	9.93	54.0	-8.27	AV	H	Pass
4	10857.500	56.65	9.93	74.0	-17.35	Peak	H	Pass
5**	14153.750	47.35	11.49	54.0	-6.65	AV	H	Pass
5	14153.750	57.65	11.49	74.0	-16.35	Peak	H	Pass
6**	20534.000	50.64	14.08	54.0	-3.36	AV	H	Pass
6	20534.000	59.77	14.08	74.0	-14.23	Peak	H	Pass



Temperature:	21.7°C	Relative Humidity:	68%
Pressure:	1010hPa	Phase:	Vertical

RE\_FCC Test Case\_FCC 15C 1GHz-25GHz



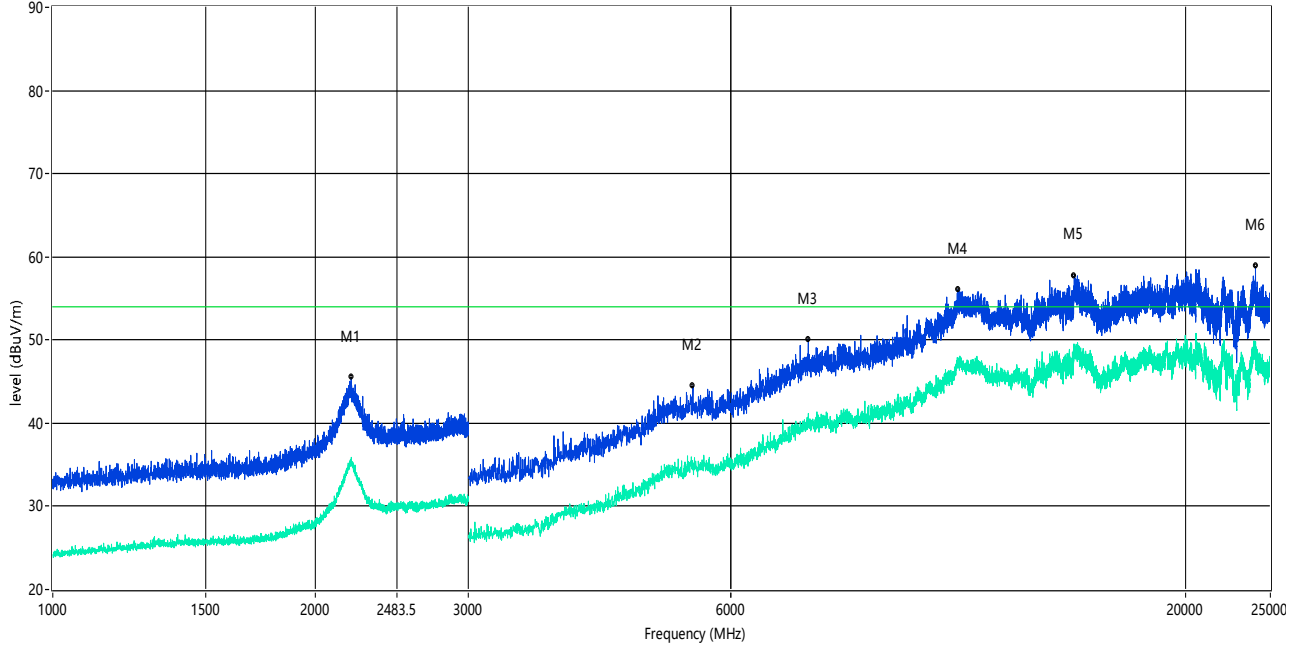
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	OverLimit (dB)	Detector	ANT	Verdict
1**	2195.000	35.21	-7.47	54.0	-18.79	AV	V	Pass
1	2195.000	45.45	-7.47	74.0	-28.55	Peak	V	Pass
2**	5545.000	34.46	-1.36	54.0	-19.54	AV	V	Pass
2	5545.000	44.91	-1.36	74.0	-29.09	Peak	V	Pass
3**	9157.500	41.97	5.20	54.0	-12.03	AV	V	Pass
3	9157.500	52.30	5.20	74.0	-21.70	Peak	V	Pass
4**	11137.500	47.34	10.52	54.0	-6.66	AV	V	Pass
4	11137.500	56.52	10.52	74.0	-17.48	Peak	V	Pass
5**	13942.500	47.68	11.16	54.0	-6.32	AV	V	Pass
5	13942.500	58.02	11.16	74.0	-15.98	Peak	V	Pass
6**	20539.251	49.75	14.09	54.0	-4.25	AV	V	Pass
6	20539.251	58.86	14.09	74.0	-15.14	Peak	V	Pass



802.11n(HT40) Low Channel

Temperature:	21.7°C	Relative Humidity:	68%
Pressure:	1010hPa	Phase:	Horizontal

RE\_FCC Test Case\_FCC 15C 1GHz-25GHz

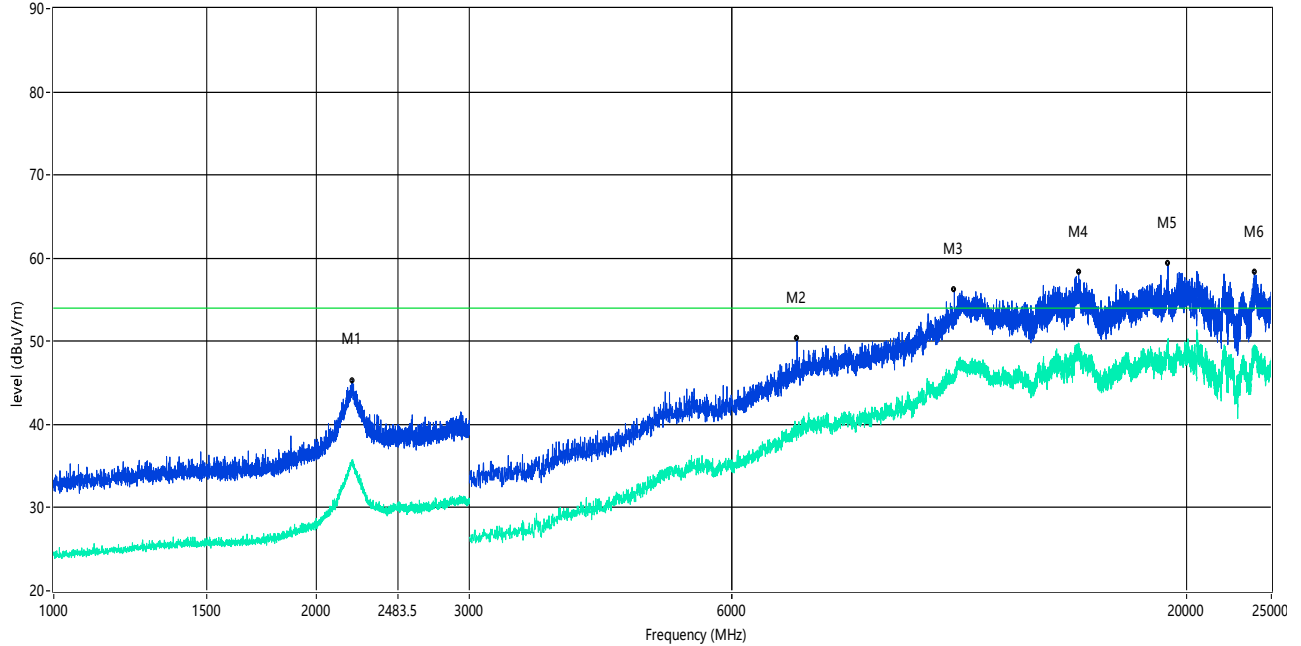


No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	OverLimit (dB)	Detector	ANT	Verdict
1**	2201.000	35.38	-7.26	54.0	-18.62	AV	H	Pass
1	2201.000	45.46	-7.26	74.0	-28.54	Peak	H	Pass
2**	5432.500	35.06	-1.40	54.0	-18.94	AV	H	Pass
2	5432.500	44.48	-1.40	74.0	-29.52	Peak	H	Pass
3**	7370.000	41.17	4.43	54.0	-12.83	AV	H	Pass
3	7370.000	50.06	4.43	74.0	-23.94	Peak	H	Pass
4**	10940.000	47.59	10.72	54.0	-6.41	AV	H	Pass
4	10940.000	56.03	10.72	74.0	-17.97	Peak	H	Pass
5**	14887.500	49.08	12.47	54.0	-4.92	AV	H	Pass
5	14887.500	57.74	12.47	74.0	-16.26	Peak	H	Pass
6**	24037.501	48.36	15.09	54.0	-5.64	AV	H	Pass
6	24037.501	58.84	15.09	74.0	-15.16	Peak	H	Pass



Temperature:	21.7°C	Relative Humidity:	68%
Pressure:	1010hPa	Phase:	Vertical

RE\_FCC Test Case\_FCC 15C 1GHz-25GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	OverLimit (dB)	Detector	ANT	Verdict
1**	2202.500	35.17	-7.33	54.0	-18.83	AV	V	Pass
1	2202.500	45.30	-7.33	74.0	-28.70	Peak	V	Pass
2**	7135.000	38.92	3.88	54.0	-15.08	AV	V	Pass
2	7135.000	50.27	3.88	74.0	-23.73	Peak	V	Pass
3**	10815.000	45.53	9.29	54.0	-8.47	AV	V	Pass
3	10815.000	56.14	9.29	74.0	-17.86	Peak	V	Pass
4**	15021.250	48.31	12.00	54.0	-5.69	AV	V	Pass
4	15021.250	58.27	12.00	74.0	-15.73	Peak	V	Pass
5**	19020.249	49.70	15.22	54.0	-4.30	AV	V	Pass
5	19020.249	59.30	15.22	74.0	-14.70	Peak	V	Pass
6**	23901.000	48.39	15.08	54.0	-5.61	AV	V	Pass
6	23901.000	58.33	15.08	74.0	-15.67	Peak	V	Pass