



# RADIO TEST REPORT

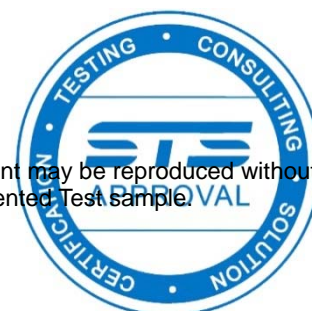
Report No: STS1909134W04

Issued for  
Arrow Electronics, Inc

9201 East Dry Creek road Centennial, CO 80112 United States

<b>Product Name:</b>	iMX8M_HMI_Platform
<b>Brand Name:</b>	Thor96
<b>Model Name:</b>	Thor96
<b>Series Model:</b>	IMX-THOR96
<b>FCC ID:</b>	2AFQA-IMX-THOR96
<b>Test Standard:</b>	FCC Part 15.407

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### TEST RESULT CERTIFICATION

**Applicant's Name**.....: Arrow Electronics, Inc  
 Address .....: 9201 East Dry Creek road Centennial, CO 80112 United States  
**Manufacture's Name**.....: elnfochips – An Arrow company  
 Address .....: 11- A/B, Chandra Colony, Behind Cargo Motors, Off C.G Road, Ellisbridge, Ahmedabad, Gujarat, India. Pin Code: 380006

#### Product Description


Product Name.....: iMX8M\_HMI\_Platform  
 Brand Name .....: Thor96  
 Model Name .....: Thor96  
 Series Model.....: IMX-THOR96


**Test Standards**.....: RSS-247 Issue 2, February 2017  
 Test Procedure .....: FCC Part 15.407

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 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 .....: 04 Sept. 2019 ~ 31 Oct. 2019  
 Date of Issue.....: 31 Oct. 2019  
 Test Result.....: **Pass**

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

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

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





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**Revision History**

Rev.	Issue Date	Report NO.	Effect Page	Contents
00	31 Oct. 2019	STS1909134W04	ALL	Initial Issue





## 1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

§ 15.407, KDB 789033 D02 General U-NII Test Procedures New Rules v02r01

FCC Part 15.407			
FCC standard	Test Item	Judgment	Remark
15.207	AC Conducted Emission	PASS	iMX8M_HMI_Platform contains FCC certified radio modules; hence antenna port measurements of certified modules are excluded. Refer FCC ID: VPYL BEE5HY1MW and FCC ID: QOQMGM111 of the certified radio modules
§ 15.407 (2) (26 dB) / § 15.407 (e) (6 dB) / § 15.407 (a) (99%)	26dB/6dB & 99% Bandwidth	NT	
15.407(a) (1).(2).(3).(4).(5)	Maximum Conducted Output Power	NT	
15.407(b)& 15.209	Radiated Emission And (bandedge Emissions) Measurement	PASS	
15.407(b)7	Conducted Emission And (bandedge Emissions) Measurement	NT	
15.407(a) (1).(2).(3).(4).(5)	Power Spectral Density	NT	
15.205	Restricted Band Edge Emission	PASS	
15.407(c)	Antenna Requirement	NT	
15.203/15.204	Frequency Stability	NT	

### NOTE:

- (1) "N/A" denotes test is not applicable in this Test Report
- (2) "NT" Not tested in this Test Report
- (3) All tests are according to ANSI C63.10-2013



### 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 test Firm Registration Number: 625569

IC test Firm Registration Number: 12108A

A2LA Certificate No.: 4338.01

### 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** %.

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	iMX8M_HMI_Platform	
Trade Name	Thor96	
Model Name	Thor96	
Series Model	IMX-THOR96	
Model Difference	Only different in model name	
Product Description	The EUT is iMX8M_HMI_Platform	
	Operation Frequency:	IEEE 802.11a/ n/ac(HT20) 5.180GHz-5.240GHz IEEE 802.11n/ac(HT40) 5.190GHz-5.230GHz IEEE 802.11ac(HT80) 5.210GHz
		IEEE 802.11a/ n/ac(HT20)5.745GHz-5.825GHz IEEE 802.11a/ n/ac(HT40)5.755GHz-5.795GHz IEEE 802.11ac(HT80) 5.775GHz
	Modulation Type:	802.11a(OFDM): BPSK,QPSK,16-QAM,64-QAM 802.11n(OFDM): BPSK,QPSK,16-QAM,64-QAM 802.11ac(OFDM): BPSK,QPSK,16-QAM,64-QAM,256-QAM
	Antenna Designation:	Please see Note 3.
	Antenna Gain (dBi):	-0.4dBi
	Duty Cycle:	>98%
Channel List	Please refer to the Note 2.	
Adapter	Input: AC100-240V, 1.5A, 50/60Hz Output: DC12V, 4A	
Hardware version number	Version2.0	
Software version number	V2.0	
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. Operation Frequency of channel

5.180GHz-5.240GHz		5.745GHz-5.825GHz	
Channel	Frequency	Channel	Frequency
36	5180	149	5745
38	5190	151	5755
40	5200	153	5765
42	5210	157	5785
44	5220	159	5795
46	5230	161	5805
48	5240	165	5825

3. Note:

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, and the selected channel see below:

Carrier Frequency Channel  
5GHz:

For 802.11a/n/ac (20MHz)

Channel	Freq.(MHz)	Channel	Freq.(MHz)
36	5180	149	5745
40	5200	157	5785
48	5240	165	5825

For 802.11n/ac (40MHz)

Channel	Freq.(MHz)	Channel	Freq.(MHz)
38	5190	151	5755
46	5230	159	5795

For 802.11ac (80MHz)

Channel	Freq.(MHz)	Channel	Freq.(MHz)
42	5210	155	5775

4.

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)	NOTE
1	Thor96	Thor96	PCB Antenna	N/A	-0.4dBi	WLAN Antenna





## 2.2 DESCRIPTION OF THE TEST MODES

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. 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 802.11a HT20 CH36&CH40&CH48	6 Mbps
Mode 2	TX IEEE 802.11a HT20 CH149&CH157&CH165	6 Mbps
Mode 3	TX IEEE 802.11n HT20 CH36&CH40&CH48	MCS 0
Mode 4	TX IEEE 802.11ac HT20 CH36&CH40&CH48	NSS1 MCS0
Mode 5	TX IEEE 802.11n HT20 CH149&CH157&CH165	MCS 0
Mode 6	TX IEEE 802.11ac HT20 CH149&CH157&CH165	NSS1 MCS0
Mode 7	TX IEEE 802.11n HT40 CH38&CH46	MCS 0
Mode 8	TX IEEE 802.11ac HT40 CH38&CH46	NSS1 MCS0
Mode 9	TX IEEE 802.11n HT40 CH151&CH159	MCS 0
Mode 10	TX IEEE 802.11ac HT40 CH151&CH159	NSS1 MCS0
Mode 11	TX IEEE 802.11ac HT80 CH42	NSS1 MCS0
Mode 12	TX IEEE 802.11ac HT80 CH155	NSS1 MCS0

Note:

- (1) The measurements are performed at all Bit Rate of Transmitter, the worst data was reported
- (2) The measurements are performed at all Bit Rate of Transmitter, the worst data was reported
- (3) 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

### AC Conducted Emission

Test Case	
AC Conducted Emission	TX Mode



### 2.3 TEST SOFTWARE AND POWER LEVEL SETTING

The test utility software used during testing was “Minicom”, and the version was “v2.7.1”.

Power Level setting:

Band 1:

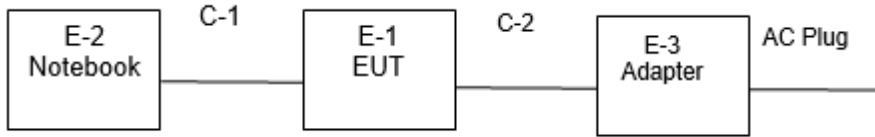
Test mode	Test channel	Power Level(Low data rate)
802.11 a	36	15
	40	15
	48	15
802.11 n(HT20)	36	15
	40	15
	48	15
802.11 n(HT40)	38	14
	46	14
802.11 ac(HT20)	36	12
	40	12
	48	12
802.11 ac(HT40)	38	12
	46	12
802.11 ac(HT80)	42	10

Band 4:

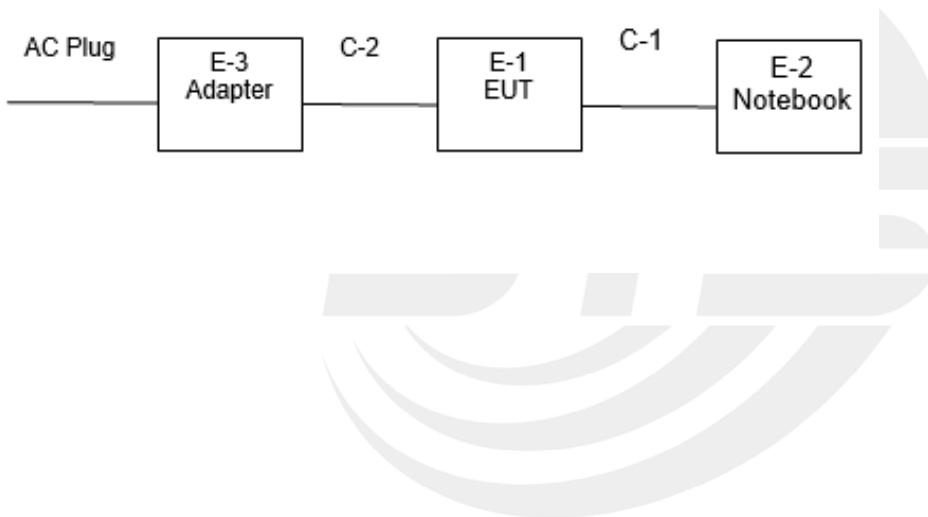
Test mode	Test channel	Power Level
802.11 a	149	12
	157	14
	165	12
802.11 n(HT20)	149	11
	157	14
	165	12
802.11 n(HT40)	151	10
	159	10
802.11 ac(HT20)	149	11
	157	14
	165	11
802.11 ac(HT40)	151	10
	159	10
802.11 ac(HT80)	155	9

## 2.4 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

### Radiated Spurious Emission Test



### Conducted Emission Test





## 2.5 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-3	Adapter	VOTOO (CHINA) CO., LTD	VP-1204000B	N/A	N/A
C-2	DC Cable	N/A	110cm	N/A	N/A

### Support units

Item	Equipment	Mfr/Brand	Model/Type No.	Serial No.	Note
E-2	Notebook	DELL	VOSTRO.3800	N/A	N/A
C-1	UART to USB Cable	N/A	100cm	N/A	N/A
/	Display	Lenovo	ThinkvisionX1	NA	NA
/	Display	Lenovo	ThinkvisionX1	NA	NA
/	HDMI cable	TE Connectivity	1770019-1	NA	Ferrite cores S/N 74271112
/	HDMI cable	TE Connectivity	1770019-1	NA	Ferrite cores S/N 74275815
/	LAN cable	NA	NA	NA	Ferrite core S/N 74275815

### 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”.



2.6 EQUIPMENTS LIST

Radiation Test equipment

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
Test Receiver	R&S	ESCI	101427	2019.07.29	2020.07.28
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	2020.11.01
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-3G Hz)	EM	EM330	060665	2019.10.09	2020.10.08
Pre-Amplifier (1G-18GHz)	SKET	LNPA-01018G-45	SK201808090 1	2019.10.09	2020.10.08
Temperature & Humidity	HH660	Mieo	N/A	2019.10.09	2020.10.08
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	2019.7.29	2020.7.28
LISN	R&S	ENV216	101242	2019.10.9	2020.10.8
LISN	EMCO	3810/2NM	23625	2019.10.9	2020.10.8
Temperature & Humidity	HH660	Mieo	N/A	2019.10.12	2020.10.11
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	2019.10.09	2020.10.08
Signal Analyzer	Agilent	N9020A	MY49100060	2019.10.09	2020.10.08
Temperature & Humidity	HH660	Mieo	N/A	2019.10.12	2020.10.11



### 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 207(a) limit in the table below has to be followed.

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.

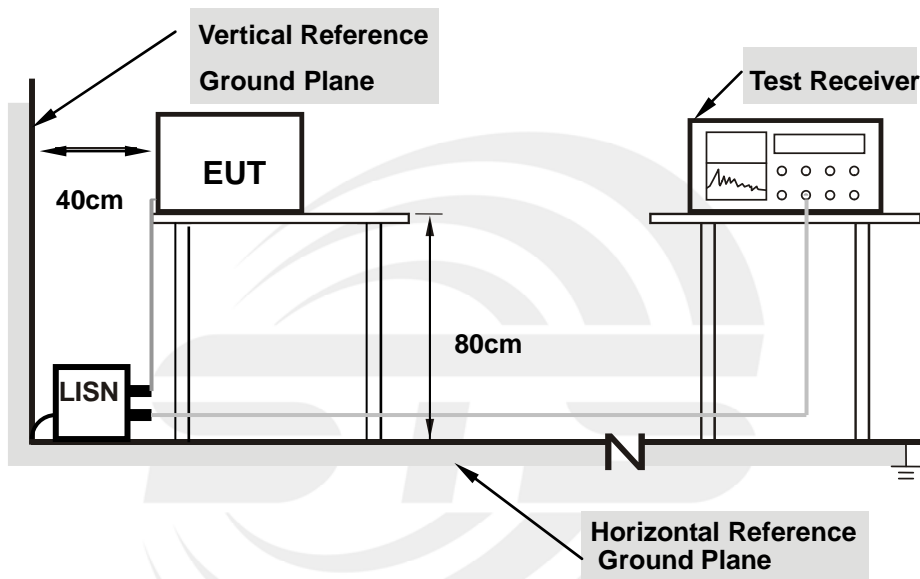
The following table is the setting of the receiver

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

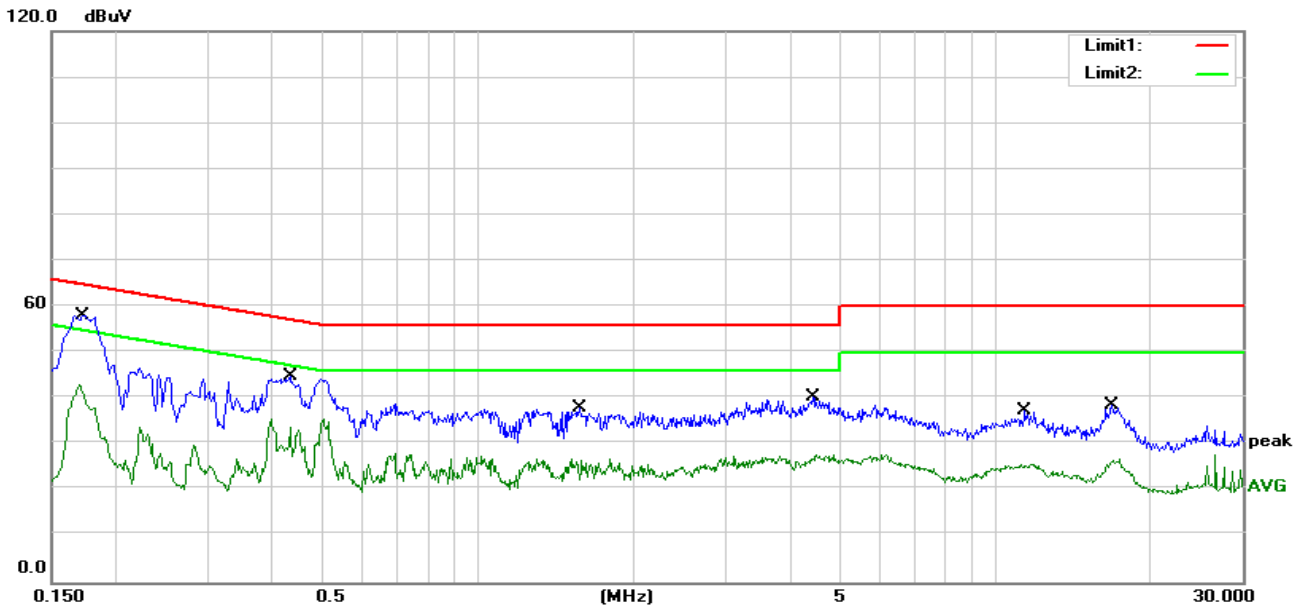
The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.



### 3.1.5 TEST RESULT

Note: In this case, when the product (ZigBee, BT, WLAN) functions are simultaneous transmission, AC conducted emissions are performed in accordance with the requirements of FCC Part 15 C Part 15.207. Only worst case test results are reported.

Temperature:	28 °C	Relative Humidity:	62%
Test Voltage:	AC 120V/60Hz	Phase:	L
Test Mode:	TX Mode(Worst Mode)		



Remark:

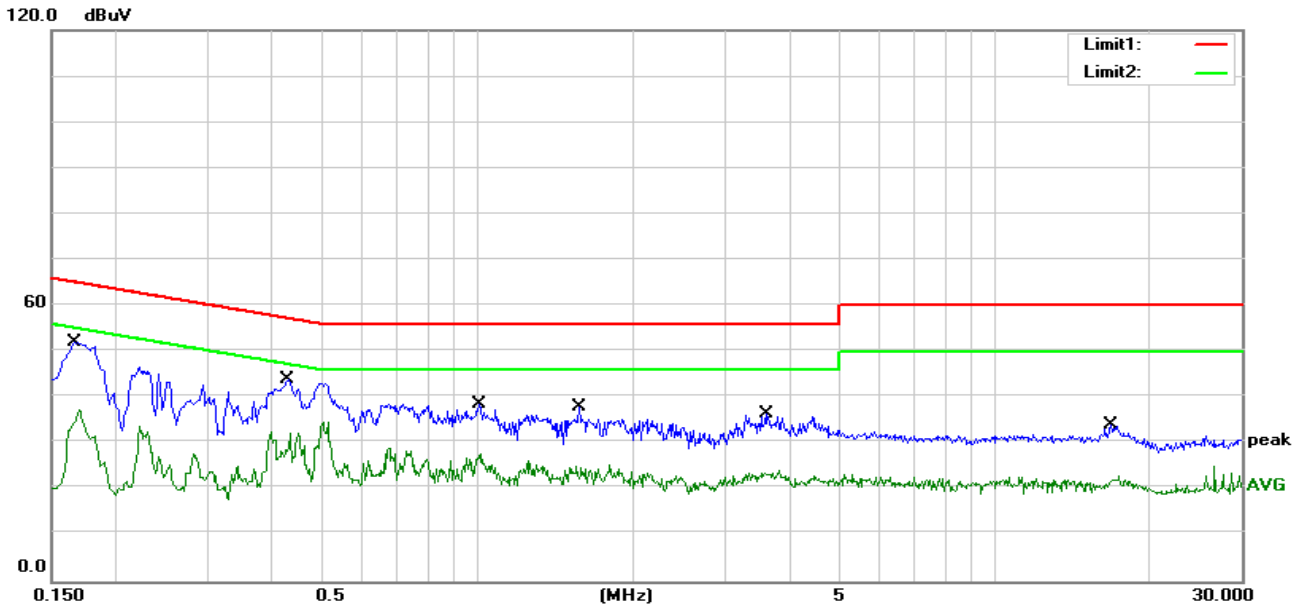
1. All readings are Quasi-Peak and Average values.
2. Margin = Result (Result = Reading + Factor) – Limit

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1720	37.50	20.57	58.07	64.86	-6.79	QP
2	0.1720	22.39	20.57	42.96	54.86	-11.90	AVG
3	0.4340	24.54	20.18	44.72	57.18	-12.46	QP
4	0.4340	15.39	20.18	35.57	47.18	-11.61	AVG
5	1.5740	18.17	19.71	37.88	56.00	-18.12	QP
6	1.5740	7.19	19.71	26.90	46.00	-19.10	AVG
7	4.4540	20.12	20.34	40.46	56.00	-15.54	QP
8	4.4540	7.41	20.34	27.75	46.00	-18.25	AVG
9	11.3780	16.82	20.62	37.44	60.00	-22.56	QP
10	11.3780	5.12	20.62	25.74	50.00	-24.26	AVG
11	16.8340	17.59	20.99	38.58	60.00	-21.42	QP
12	16.8340	4.33	20.99	25.32	50.00	-24.68	AVG





Temperature:	28 °C	Relative Humidity:	62%
Test Voltage:	AC 120V/60Hz	Phase:	N
Test Mode:	TX Mode(Worst Mode)		



Remark:

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

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1660	31.46	20.57	52.03	65.16	-13.13	QP
2	0.1660	16.89	20.57	37.46	55.16	-17.70	AVG
3	0.4304	23.68	20.19	43.87	57.24	-13.37	QP
4	0.4304	14.39	20.19	34.58	47.24	-12.66	AVG
5	1.0100	19.09	19.41	38.50	56.00	-17.50	QP
6	1.0100	8.46	19.41	27.87	46.00	-18.13	AVG
7	1.5740	18.17	19.71	37.88	56.00	-18.12	QP
8	1.5740	5.67	19.71	25.38	46.00	-20.62	AVG
9	3.6140	16.14	20.24	36.38	56.00	-19.62	QP
10	3.6140	3.79	20.24	24.03	46.00	-21.97	AVG
11	16.8340	13.09	20.99	34.08	60.00	-25.92	QP
12	16.8340	1.81	20.99	22.80	50.00	-27.20	AVG



3.2 RADIATED EMISSION MEASUREMENT

3.2.1 Radiated Emission Limits

In case the emission fall within the restricted band specified on 15.407(b)7& 15.205/209(a), then the (a); limit in the table below has to be followed.

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 (Above 1000MHz)

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
Start Frequency	1000 MHz(Peak/AV)
Stop Frequency	10th carrier hamonic(Peak/AV)
RB / VB (emission in restricted band)	1 MHz / 1 MHz, AV=1 MHz /3 MHz

For Band edge

Spectrum Parameter	Setting
Detector	Peak
RB / VB (emission in restricted band)	1 MHz / 1 MHz, AV=1 MHz /3 MHz



Receiver Parameter	Setting
Attenuation	Auto
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

### 3.2.2 TEST PROCEDURE

- The measuring distance of at 3 m shall be used for measurements at frequency 0.009MHz up to 1GHz, and above 1GHz.
- 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:

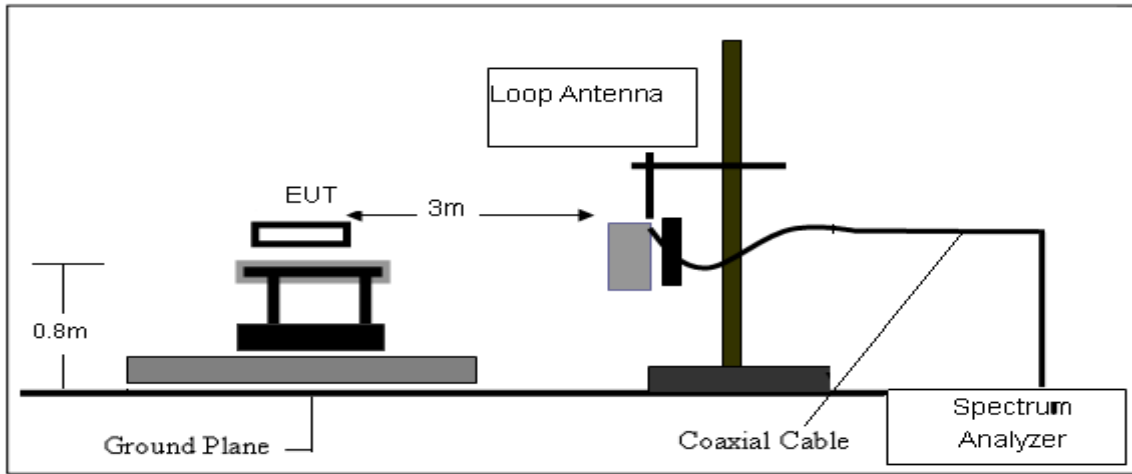
Both horizontal and vertical antenna polarities were tested and performed pretest to three orthogonal axis. The worst case emissions were reported.

### 3.2.3 DEVIATION FROM TEST STANDARD

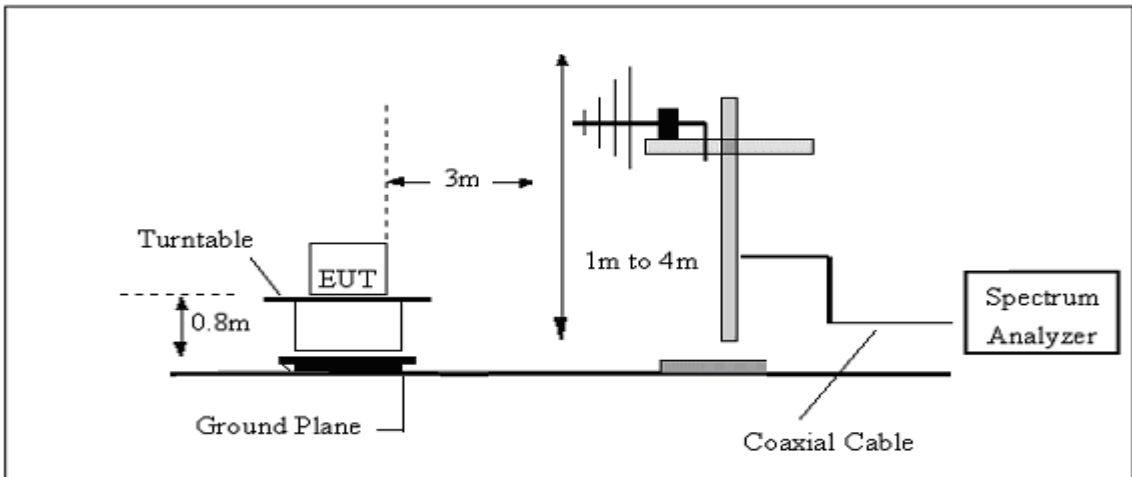
No deviation

### 3.2.4 TEST SETUP

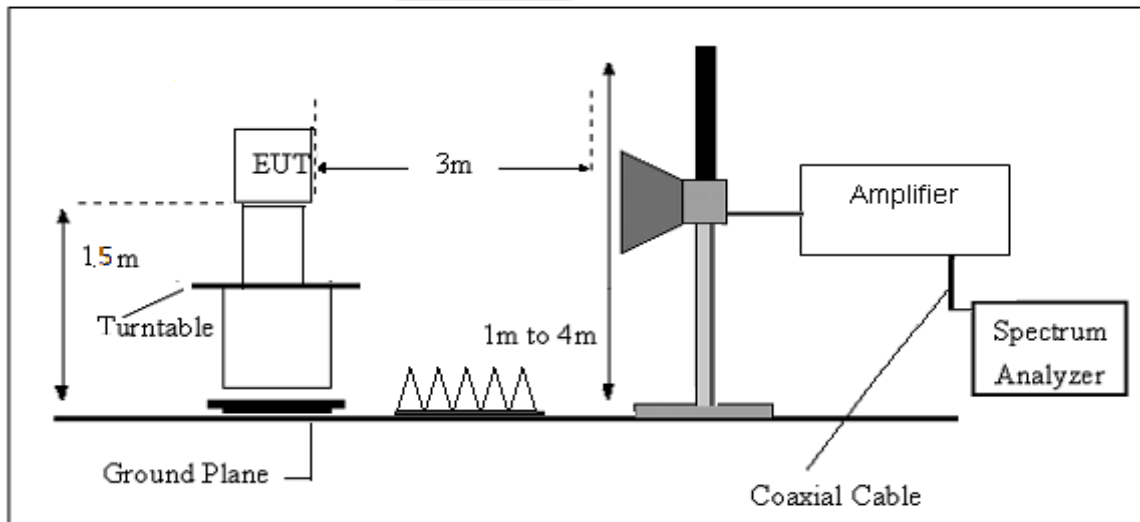
(A) Radiated Emission Test-Up Frequency Below 30MHz



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



(C) Radiated Emission Test-Up Frequency Above 1GHz



### 3.2.5 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.



### 3.2.6 TEST RESULTS

(Between 9KHz – 30 MHz)

Temperature:	25.8 °C	Relative Humidity:	69%
Test Voltage:	AC 120V/60Hz	Polarization:	--
Test Mode:	TX Mode		

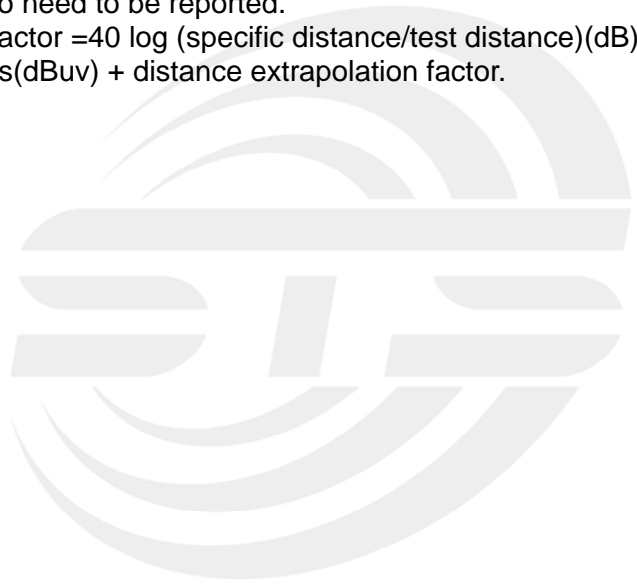
Freq. (MHz)	Reading (dBuV/m)	Limit (dBuV/m)	Margin (dB)	State P/F
--	--	--	--	PASS
--	--	--	--	PASS

**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 =  $40 \log(\text{specific distance}/\text{test distance})$ (dB);

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





(30MHz -1000MHz)

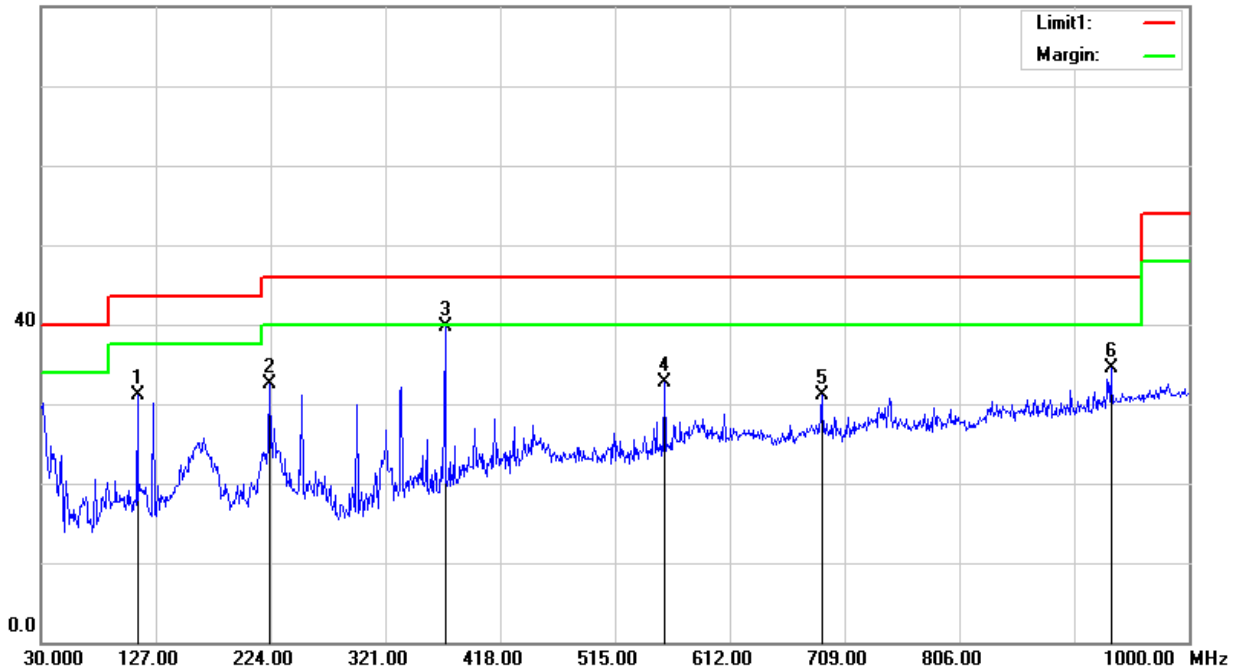
Temperature:	25.8 °C	Relative Humidity:	69%
Test Voltage:	AC 120V/60Hz	Phase:	Horizontal
Test mode:	Mode 1/2/3/4/5/6/7/8/9/10/11/12 (Mode 1 worst mode)		

Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
111.4800	50.07	-18.92	31.15	43.50	-12.35	QP
223.0300	51.90	-19.42	32.48	46.00	-13.52	QP
371.4400	52.14	-12.46	39.68	46.00	-6.32	QP
556.7100	38.22	-5.58	32.64	46.00	-13.36	QP
689.6000	35.35	-4.34	31.01	46.00	-14.99	QP
934.0400	33.57	0.89	34.46	46.00	-11.54	QP

Remark:

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

80.0 dBuV/m





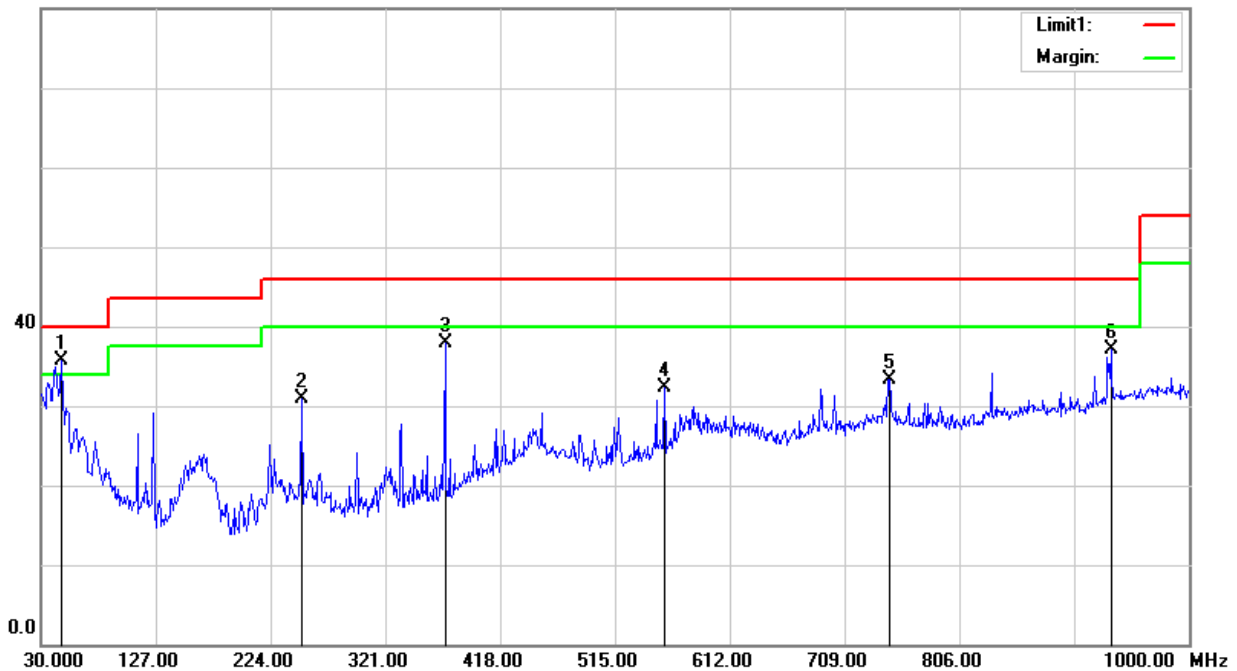
Temperature:	25.8 °C	Relative Humidity:	69%
Test Voltage:	AC 120V/60Hz	Phase:	Vertical
Test mode:	Mode 1/2/3/4/5/6/7/8/9/10/11/12 (Mode 1 worst mode)		

Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
47.4600	57.69	-21.92	35.77	40.00	-4.23	QP
250.1900	46.92	-16.10	30.82	46.00	-15.18	QP
371.4400	50.33	-12.46	37.87	46.00	-8.13	QP
556.7100	37.98	-5.58	32.40	46.00	-13.60	QP
746.8300	35.43	-2.15	33.28	46.00	-12.72	QP
934.0400	36.12	0.89	37.01	46.00	-8.99	QP

Remark:

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

80.0 dBuV/m





(1GHz-25GHz)Restricted band and Spurious emission Requirements

**Band I 5150-5250MHz**

## 802.11 a Low Channel Horizontal

Frequency (MHz)	Peak Reading (dBuV/m)	Average Reading (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	Margin(dB)	ANT
1033.5	44.94	35.89	-1.6	43.34	34.29	74.00	54.00	-10.66	Horizontal
2132.5	43.27	35.65	5.56	48.83	41.21	74.00	54.00	-12.79	Horizontal
3918	55.79	44.23	-8.29	47.50	35.94	74.00	54.00	-18.06	Horizontal
7002.75	52.50	41.67	3.63	56.13	45.30	74.00	54.00	-8.70	Horizontal
11512.75	50.86	40.39	11.34	62.20	51.73	74.00	54.00	-2.27	Horizontal
17903.749	51.38	40.18	12.05	63.43	52.23	74.00	54.00	-1.77	Horizontal

## Vertical

Frequency (MHz)	Peak Reading (dBuV/m)	Average Reading (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	Margin(dB)	ANT
1097	46.21	35.47	-1.26	44.95	34.21	74.00	54.00	-9.05	Vertical
2132.5	47.34	40.40	5.56	52.90	45.96	74.00	54.00	-8.04	Vertical
3432	59.92	49.74	-10	49.92	39.74	74.00	54.00	-14.26	Vertical
7651.75	51.51	40.77	5.33	56.84	46.10	74.00	54.00	-7.90	Vertical
10932.5	51.07	40.47	10.84	61.91	51.31	74.00	54.00	-2.69	Vertical
14969.5	50.14	39.74	12.39	62.53	52.13	74.00	54.00	-1.87	Vertical





## Mid Channel Horizontal

Frequency (MHz)	Peak Reading (dBuV/m)	Average Reading (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	Margin(dB)	ANT
1040	45.98	34.96	-1.61	44.37	33.35	74.00	54.00	-9.63	Horizontal
2132	43.83	37.90	5.53	49.36	43.43	74.00	54.00	-10.57	Horizontal
3910	54.10	44.19	-8.3	45.80	35.89	74.00	54.00	-18.11	Horizontal
8229.25	52.07	40.89	4.9	56.97	45.79	74.00	54.00	-8.21	Horizontal
10951.75	51.72	40.47	10.92	62.64	51.39	74.00	54.00	-2.61	Horizontal
15016.25	50.57	40.04	12.11	62.68	52.15	74.00	54.00	-1.85	Horizontal

## Vertical

Frequency (MHz)	Peak Reading (dBuV/m)	Average Reading (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	Margin(dB)	ANT
1087.5	46.42	34.94	-1.38	45.04	33.56	74.00	54.00	-8.96	Vertical
2132.5	46.33	39.59	5.56	51.89	45.15	74.00	54.00	-8.85	Vertical
3451	59.18	48.27	-10.02	49.16	38.25	74.00	54.00	-15.75	Vertical
7709.5	52.10	40.65	5.51	57.61	46.16	74.00	54.00	-7.84	Vertical
11438.5	50.50	40.22	11.07	61.57	51.29	74.00	54.00	-2.71	Vertical
14991.5	51.14	39.85	12.39	63.53	52.24	74.00	54.00	-1.76	Vertical



## High Channel Horizontal

Frequency (MHz)	Peak Reading (dBuV/m)	Average Reading (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	Margin(dB)	ANT
1018	41.88	33.00	-1.6	40.28	31.40	74.00	54.00	-13.72	Horizontal
2132	44.15	37.71	5.53	49.68	43.24	74.00	54.00	-10.76	Horizontal
3898	54.62	45.56	-8.32	46.30	37.24	74.00	54.00	-16.76	Horizontal
5939	53.42	43.05	-1.77	51.65	41.28	74.00	54.00	-12.72	Horizontal
10921.5	50.74	40.15	10.8	61.54	50.95	74.00	54.00	-3.05	Horizontal
14917.25	50.98	39.37	12.38	63.36	51.75	74.00	54.00	-2.25	Horizontal

## Vertical

Frequency (MHz)	Peak Reading (dBuV/m)	Average Reading (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	Margin(dB)	ANT
1086	46.60	35.90	-1.4	45.20	34.50	74.00	54.00	-8.80	Vertical
2132	47.14	40.84	5.53	52.67	46.37	74.00	54.00	-7.63	Vertical
3421	59.15	50.13	-9.99	49.16	40.14	74.00	54.00	-13.86	Vertical
7654.5	51.00	40.61	5.35	56.35	45.96	74.00	54.00	-8.04	Vertical
11540.25	50.67	40.00	11.31	61.98	51.31	74.00	54.00	-2.69	Vertical
15362.75	51.01	40.00	11.79	62.80	51.79	74.00	54.00	-2.21	Vertical



## 802.11 n20 Low Channel Horizontal

Frequency (MHz)	Peak Reading (dBuV/m)	Average Reading (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	Margin(dB)	ANT
1042	42.85	35.86	-1.6	41.25	34.26	74.00	54.00	-12.75	Horizontal
2132.5	43.68	35.96	5.56	49.24	41.52	74.00	54.00	-12.48	Horizontal
3902	55.39	44.93	-8.31	47.08	36.62	74.00	54.00	-17.38	Horizontal
7060.5	51.89	41.17	4.35	56.24	45.52	74.00	54.00	-8.48	Horizontal
11389	50.50	40.56	10.83	61.33	51.39	74.00	54.00	-2.61	Horizontal
14911.75	50.90	39.85	12.38	63.28	52.23	74.00	54.00	-1.77	Horizontal

## Vertical

Frequency (MHz)	Peak Reading (dBuV/m)	Average Reading (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	Margin(dB)	ANT
1096	46.75	29.52	-1.27	45.48	28.25	74.00	54.00	-8.52	Vertical
2132	46.20	29.37	5.53	51.73	34.90	74.00	54.00	-19.10	Vertical
3757	57.34	47.03	-8.99	48.35	38.04	74.00	54.00	-15.96	Vertical
7693	50.56	40.17	5.59	56.15	45.76	74.00	54.00	-8.24	Vertical
10935.25	50.79	40.30	10.85	61.64	51.15	74.00	54.00	-2.85	Vertical
14994.25	50.28	40.05	12.39	62.67	52.44	74.00	54.00	-1.56	Vertical



## Mid Channel Horizontal

Frequency (MHz)	Peak Reading (dBuV/m)	Average Reading (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	Margin(dB)	ANT
1038.5	45.17	35.43	-1.61	43.56	33.82	74.00	54.00	-10.44	Horizontal
2132	44.05	37.39	5.53	49.58	42.92	74.00	54.00	-11.08	Horizontal
3894	55.71	45.01	-8.33	47.38	36.68	74.00	54.00	-17.32	Horizontal
7673.75	50.97	40.83	5.47	56.44	46.30	74.00	54.00	-7.70	Horizontal
11548.5	50.66	39.71	11.3	61.96	51.01	74.00	54.00	-2.99	Horizontal
14972.25	49.72	40.29	12.39	62.11	52.68	74.00	54.00	-1.32	Horizontal

## Vertical

Frequency (MHz)	Peak Reading (dBuV/m)	Average Reading (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	Margin(dB)	ANT
1094	45.80	36.35	-1.3	44.50	35.05	74.00	54.00	-9.50	Vertical
2132.5	46.31	39.51	5.56	51.87	45.07	74.00	54.00	-8.93	Vertical
3424	58.17	48.20	-10	48.17	38.20	74.00	54.00	-15.80	Vertical
7033	52.46	40.94	4.01	56.47	44.95	74.00	54.00	-9.05	Vertical
11559.5	50.10	39.23	11.29	61.39	50.52	74.00	54.00	-3.48	Vertical
15338	51.17	40.34	11.85	63.02	52.19	74.00	54.00	-1.81	Vertical



## High Channel Horizontal

Frequency (MHz)	Peak Reading (dBuV/m)	Average Reading (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	Margin(dB)	ANT
1047.5	44.25	35.56	-1.57	42.68	33.99	74.00	54.00	-11.32	Horizontal
2132	43.84	37.19	5.53	49.37	42.72	74.00	54.00	-11.28	Horizontal
3912	54.66	43.98	-8.3	46.36	35.68	74.00	54.00	-18.32	Horizontal
7618.75	51.95	40.67	5.13	57.08	45.80	74.00	54.00	-8.20	Horizontal
10899.5	51.11	40.51	10.71	61.82	51.22	74.00	54.00	-2.78	Horizontal
14955.75	50.04	40.03	12.39	62.43	52.42	74.00	54.00	-1.58	Horizontal

## Vertical

Frequency (MHz)	Peak Reading (dBuV/m)	Average Reading (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	Margin(dB)	ANT
1086.5	46.90	35.73	-1.39	45.51	34.34	74.00	54.00	-8.49	Vertical
2132	46.55	41.42	5.53	52.08	46.95	74.00	54.00	-7.05	Vertical
3909	58.86	48.85	-8.3	50.56	40.55	74.00	54.00	-13.45	Vertical
7627	51.74	40.82	5.18	56.92	46.00	74.00	54.00	-8.00	Vertical
11391.75	51.10	40.53	10.84	61.94	51.37	74.00	54.00	-2.63	Vertical
15038.25	51.24	40.02	11.74	62.98	51.76	74.00	54.00	-2.24	Vertical



## 802.11 n40 Low Channel Horizontal

Frequency (MHz)	Peak Reading (dBuV/m)	Average Reading (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	Margin(dB)	ANT
1029.5	42.40	34.16	-1.59	40.81	32.57	74.00	54.00	-13.19	Horizontal
2132	43.56	37.74	5.53	49.09	43.27	74.00	54.00	-10.73	Horizontal
3887	54.00	44.40	-8.35	45.65	36.05	74.00	54.00	-17.95	Horizontal
7019.25	52.19	41.70	3.84	56.03	45.54	74.00	54.00	-8.46	Horizontal
11265.25	50.99	40.47	10.42	61.41	50.89	74.00	54.00	-3.11	Horizontal
14969.5	50.82	39.91	12.39	63.21	52.30	74.00	54.00	-1.70	Horizontal

## Vertical

Frequency (MHz)	Peak Reading (dBuV/m)	Average Reading (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	Margin(dB)	ANT
1097.5	45.59	35.30	-1.26	44.33	34.04	74.00	54.00	-9.67	Vertical
2132	45.81	40.25	5.53	51.34	45.78	74.00	54.00	-8.22	Vertical
3917	57.83	48.11	-8.29	49.54	39.82	74.00	54.00	-14.18	Vertical
7695.75	51.08	40.54	5.6	56.68	46.14	74.00	54.00	-7.86	Vertical
11391.75	51.47	40.57	10.84	62.31	51.41	74.00	54.00	-2.59	Vertical
15357.25	51.33	39.95	11.8	63.13	51.75	74.00	54.00	-2.25	Vertical



## High Channel Horizontal

Frequency (MHz)	Peak Reading (dBuV/m)	Average Reading (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	Margin(dB)	ANT
1053.5	45.27	36.18	-1.54	43.73	34.64	74.00	54.00	-10.27	Horizontal
2132.5	44.30	36.70	5.56	49.86	42.26	74.00	54.00	-11.74	Horizontal
3884	54.70	44.20	-8.36	46.34	35.84	74.00	54.00	-18.16	Horizontal
7684.75	50.72	40.67	5.54	56.26	46.21	74.00	54.00	-7.79	Horizontal
10940.75	50.82	40.82	10.87	61.69	51.69	74.00	54.00	-2.31	Horizontal
15244.5	50.78	40.50	11.61	62.39	52.11	74.00	54.00	-1.89	Horizontal

## Vertical

Frequency (MHz)	Peak Reading (dBuV/m)	Average Reading (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	Margin(dB)	ANT
1091.5	47.12	35.91	-1.33	45.79	34.58	74.00	54.00	-8.21	Vertical
2132	46.05	40.43	5.53	51.58	45.96	74.00	54.00	-8.04	Vertical
3442	58.58	49.25	-10.01	48.57	39.24	74.00	54.00	-14.76	Vertical
7275	51.36	40.15	4.68	56.04	44.83	74.00	54.00	-9.17	Vertical
11504.5	50.47	40.21	11.35	61.82	51.56	74.00	54.00	-2.44	Vertical
17999.999	50.46	39.66	13.09	63.55	52.75	74.00	54.00	-1.25	Vertical



## 802.11 ac20 Low Channel Horizontal

Frequency (MHz)	Peak Reading (dBuV/m)	Average Reading (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	Margin(dB)	ANT
1069	45.14	35.69	-1.49	43.65	34.20	74.00	54.00	-10.35	Horizontal
2132	43.33	37.51	5.53	48.86	43.04	74.00	54.00	-10.96	Horizontal
3903	54.65	44.55	-8.31	46.34	36.24	74.00	54.00	-17.76	Horizontal
7737	52.36	40.84	5.16	57.52	46.00	74.00	54.00	-8.00	Horizontal
10891.25	51.29	40.63	10.61	61.90	51.24	74.00	54.00	-2.76	Horizontal
14881.5	50.73	40.19	12.22	62.95	52.41	74.00	54.00	-1.59	Horizontal

## Vertical

Frequency (MHz)	Peak Reading (dBuV/m)	Average Reading (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	Margin(dB)	ANT
1097	45.94	35.49	-1.26	44.68	34.23	74.00	54.00	-9.32	Vertical
2132	46.81	40.64	5.53	52.34	46.17	74.00	54.00	-7.83	Vertical
3940	57.35	47.87	-8.27	49.08	39.60	74.00	54.00	-14.40	Vertical
8182.5	51.54	40.82	5.11	56.65	45.93	74.00	54.00	-8.07	Vertical
11397.25	51.16	40.47	10.88	62.04	51.35	74.00	54.00	-2.65	Vertical
14999.75	49.89	39.76	12.39	62.28	52.15	74.00	54.00	-1.85	Vertical





## Mid Channel Horizontal

Frequency (MHz)	Peak Reading (dBuV/m)	Average Reading (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	Margin(dB)	ANT
1060	45.16	36.18	-1.51	43.65	34.67	74.00	54.00	-10.35	Horizontal
2132	43.47	36.84	5.53	49.00	42.37	74.00	54.00	-11.63	Horizontal
3908	54.30	44.98	-8.3	46.00	36.68	74.00	54.00	-17.32	Horizontal
7687.5	51.05	40.94	5.55	56.60	46.49	74.00	54.00	-7.51	Horizontal
10872.001	51.63	40.35	10.36	61.99	50.71	74.00	54.00	-3.29	Horizontal
14969.5	50.37	40.47	12.39	62.76	52.86	74.00	54.00	-1.14	Horizontal

## Vertical

Frequency (MHz)	Peak Reading (dBuV/m)	Average Reading (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	Margin(dB)	ANT
1095.5	45.28	35.84	-1.28	44.00	34.56	74.00	54.00	-10.00	Vertical
2132	47.54	40.59	5.53	53.07	46.12	74.00	54.00	-7.88	Vertical
3911	58.30	48.77	-8.3	50.00	40.47	74.00	54.00	-13.53	Vertical
7684.75	51.44	40.42	5.54	56.98	45.96	74.00	54.00	-8.04	Vertical
11028.75	50.50	39.77	10.97	61.47	50.74	74.00	54.00	-3.26	Vertical
14906.25	51.16	40.33	12.38	63.54	52.71	74.00	54.00	-1.29	Vertical



## High Channel Horizontal

Frequency (MHz)	Peak Reading (dBuV/m)	Average Reading (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	Margin(dB)	ANT
1055	45.59	35.78	-1.53	44.06	34.25	74.00	54.00	-9.94	Horizontal
2132.5	43.38	36.05	5.56	48.94	41.61	74.00	54.00	-12.39	Horizontal
3923	54.63	43.80	-8.28	46.35	35.52	74.00	54.00	-18.48	Horizontal
7627	51.22	40.75	5.18	56.40	45.93	74.00	54.00	-8.07	Horizontal
11529.25	50.37	40.04	11.32	61.69	51.36	74.00	54.00	-2.64	Horizontal
14543.25	50.87	39.90	11.73	62.60	51.63	74.00	54.00	-2.37	Horizontal

## Vertical

Frequency (MHz)	Peak Reading (dBuV/m)	Average Reading (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	Margin(dB)	ANT
1109	46.07	35.16	-1.2	44.87	33.96	74.00	54.00	-9.13	Vertical
2132.5	46.44	39.29	5.56	52.00	44.85	74.00	54.00	-9.15	Vertical
3886	57.28	46.68	-8.36	48.92	38.32	74.00	54.00	-15.68	Vertical
7635.25	51.79	40.86	5.23	57.02	46.09	74.00	54.00	-7.91	Vertical
11537.5	50.36	40.01	11.31	61.67	51.32	74.00	54.00	-2.68	Vertical
14975	50.46	39.83	12.39	62.85	52.22	74.00	54.00	-1.78	Vertical



## 802.11 ac40 Low Channel Horizontal

Frequency (MHz)	Peak Reading (dBuV/m)	Average Reading (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	Margin(dB)	ANT
1047.5	43.98	35.64	-1.57	42.41	34.07	74.00	54.00	-11.59	Horizontal
2132.5	43.58	36.22	5.56	49.14	41.78	74.00	54.00	-12.22	Horizontal
3902	55.18	45.79	-8.31	46.87	37.48	74.00	54.00	-16.52	Horizontal
7627	52.23	41.01	5.18	57.41	46.19	74.00	54.00	-7.81	Horizontal
11529.25	50.51	40.02	11.32	61.83	51.34	74.00	54.00	-2.66	Horizontal
14911.75	50.12	40.00	12.38	62.50	52.38	74.00	54.00	-1.62	Horizontal

## Vertical

Frequency (MHz)	Peak Reading (dBuV/m)	Average Reading (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	Margin(dB)	ANT
1078.5	44.84	34.06	-1.47	43.37	32.59	74.00	54.00	-10.63	Vertical
2132.5	46.73	39.53	5.56	52.29	45.09	74.00	54.00	-8.91	Vertical
3436	59.64	50.43	-10.01	49.63	40.42	74.00	54.00	-13.58	Vertical
7649	51.87	41.04	5.31	57.18	46.35	74.00	54.00	-7.65	Vertical
10839	51.55	40.64	9.94	61.49	50.58	74.00	54.00	-3.42	Vertical
14980.5	50.57	40.07	12.39	62.96	52.46	74.00	54.00	-1.54	Vertical



## High Channel Horizontal

Frequency (MHz)	Peak Reading (dBuV/m)	Average Reading (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	Margin(dB)	ANT
1055.5	47.05	36.62	-1.53	45.52	35.09	74.00	54.00	-8.48	Horizontal
2132	45.51	38.95	5.53	51.04	44.48	74.00	54.00	-9.52	Horizontal
3884	54.45	45.19	-8.36	46.09	36.83	74.00	54.00	-17.17	Horizontal
7635.25	50.76	41.21	5.23	55.99	46.44	74.00	54.00	-7.56	Horizontal
11504.5	51.01	40.13	11.35	62.36	51.48	74.00	54.00	-2.52	Horizontal
15005.25	50.88	40.43	12.3	63.18	52.73	74.00	54.00	-1.27	Horizontal

## Vertical

Frequency (MHz)	Peak Reading (dBuV/m)	Average Reading (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	Margin(dB)	ANT
1086	45.19	36.19	-1.4	43.79	34.79	74.00	54.00	-10.21	Vertical
2132.5	45.97	39.00	5.56	51.53	44.56	74.00	54.00	-9.44	Vertical
3921	58.20	48.64	-8.29	49.91	40.35	74.00	54.00	-13.65	Vertical
7544.5	52.10	40.52	4.88	56.98	45.40	74.00	54.00	-8.60	Vertical
11532	50.77	40.00	11.32	62.09	51.32	74.00	54.00	-2.68	Vertical
14895.25	50.17	40.04	12.34	62.51	52.38	74.00	54.00	-1.62	Vertical



## 802.11 ac80 Horizontal

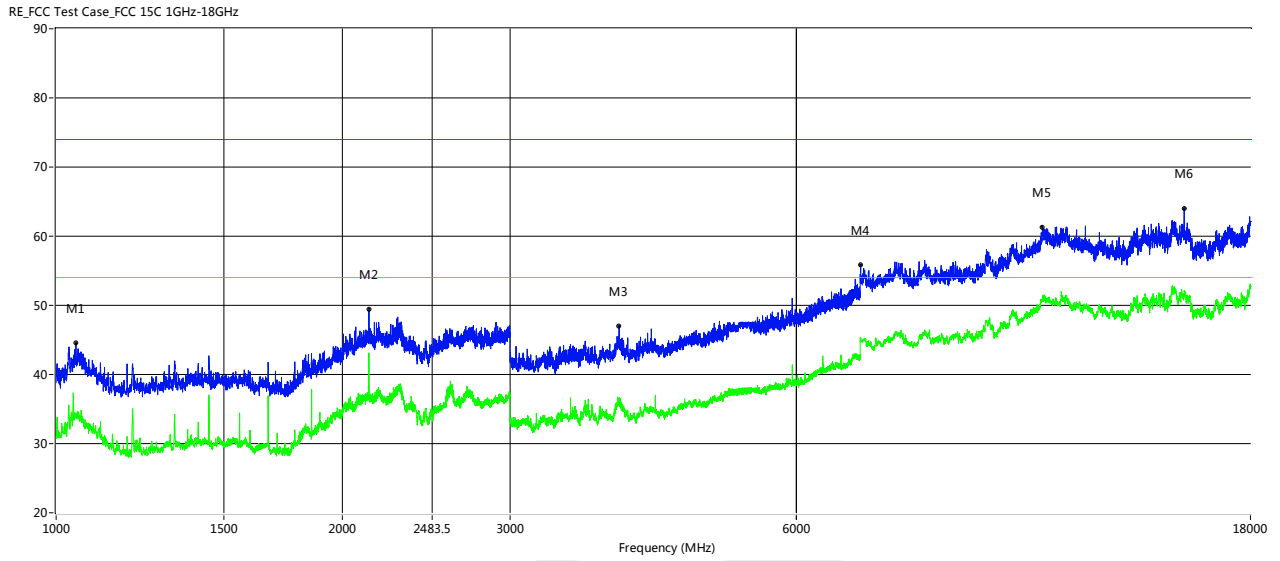
Frequency (MHz)	Peak Reading (dBuV/m)	Average Reading (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	Margin(dB)	ANT
1049.5	46.12	35.97	-1.56	44.56	34.41	74.00	54.00	-9.44	Horizontal
2132.5	43.80	36.90	5.56	49.36	42.46	74.00	54.00	-11.54	Horizontal
3906	55.34	44.31	-8.3	47.04	36.01	74.00	54.00	-17.99	Horizontal
7008.25	52.22	41.61	3.7	55.92	45.31	74.00	54.00	-8.69	Horizontal
10880.25	50.77	40.36	10.47	61.24	50.83	74.00	54.00	-3.17	Horizontal
15332.5	52.17	39.99	11.86	64.03	51.85	74.00	54.00	-2.15	Horizontal

## Vertical

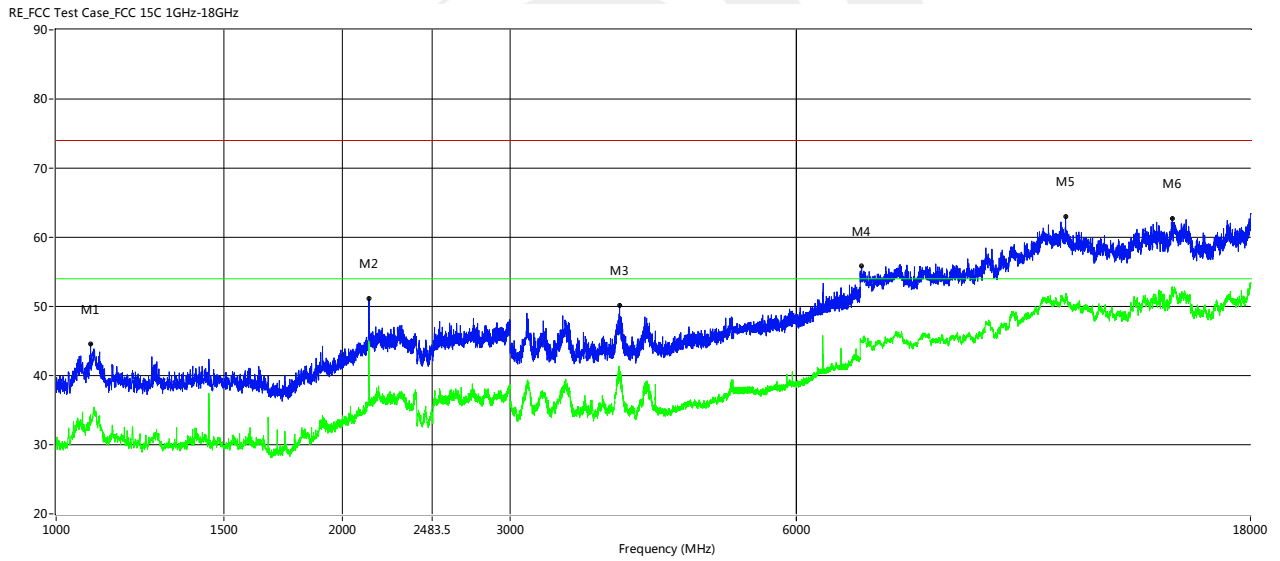
Frequency (MHz)	Peak Reading (dBuV/m)	Average Reading (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	Margin(dB)	ANT
1087	46.00	35.74	-1.38	44.62	34.36	74.00	54.00	-9.38	Vertical
2132.5	45.58	38.55	5.56	51.14	44.11	74.00	54.00	-9.89	Vertical
3911	58.51	48.64	-8.3	50.21	40.34	74.00	54.00	-13.66	Vertical
7024.75	51.88	40.98	3.91	55.79	44.89	74.00	54.00	-9.11	Vertical
11510	51.67	39.56	11.34	63.01	50.90	74.00	54.00	-3.10	Vertical
14900.75	50.35	40.50	12.38	62.73	52.88	74.00	54.00	-1.12	Vertical



### 802.11 ac80(Worst case waveform) Horizontal



### Vertical



Note: All mode have been test, only showing the worst case waveform plot in this report.



## Band IV 5725-5875MHz

802.11 a  
Low Channel  
Horizontal

Frequency (MHz)	Peak Reading (dBuV/m)	Average Reading (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	Margin(dB)	ANT
1061	46.62	37.07	-1.5	45.12	35.57	74.00	54.00	-8.88	Horizontal
2132	43.57	37.60	5.53	49.10	43.13	74.00	54.00	-10.87	Horizontal
3916	55.48	44.83	-8.29	47.19	36.54	74.00	54.00	-17.46	Horizontal
8190.75	51.82	40.94	5.05	56.87	45.99	74.00	54.00	-8.01	Horizontal
10896.75	51.46	40.61	10.68	62.14	51.29	74.00	54.00	-2.71	Horizontal
14878.75	50.47	40.12	12.2	62.67	52.32	74.00	54.00	-1.68	Horizontal

## Vertical

Frequency (MHz)	Peak Reading (dBuV/m)	Average Reading (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	Margin(dB)	ANT
1095.5	46.35	36.55	-1.28	45.07	35.27	74.00	54.00	-8.93	Vertical
2132.5	45.97	38.94	5.56	51.53	44.50	74.00	54.00	-9.50	Vertical
3432	60.10	51.02	-10	50.10	41.02	74.00	54.00	-12.98	Vertical
7654.5	51.35	40.49	5.35	56.70	45.84	74.00	54.00	-8.16	Vertical
10962.75	50.75	40.20	10.96	61.71	51.16	74.00	54.00	-2.84	Vertical
14914.5	50.12	39.78	12.38	62.50	52.16	74.00	54.00	-1.84	Vertical



## Mid Channel Horizontal

Frequency (MHz)	Peak Reading (dBuV/m)	Average Reading (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	Margin(dB)	ANT
1049	45.88	35.53	-1.56	44.32	33.97	74.00	54.00	-9.68	Horizontal
2132	43.66	37.36	5.53	49.19	42.89	74.00	54.00	-11.11	Horizontal
3857	55.22	47.56	-8.46	46.76	39.10	74.00	54.00	-14.90	Horizontal
7085.25	51.32	40.89	4.66	55.98	45.55	74.00	54.00	-8.45	Horizontal
11108.5	51.14	39.81	10.64	61.78	50.45	74.00	54.00	-3.55	Horizontal
13693.5	50.16	38.73	12.14	62.30	50.87	74.00	54.00	-3.13	Horizontal

## Vertical

Frequency (MHz)	Peak Reading (dBuV/m)	Average Reading (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	Margin(dB)	ANT
1092	45.26	35.06	-1.32	43.94	33.74	74.00	54.00	-10.06	Vertical
2132	46.75	40.35	5.53	52.28	45.88	74.00	54.00	-8.12	Vertical
3436	59.58	49.48	-10.01	49.57	39.47	74.00	54.00	-14.53	Vertical
7690.25	50.87	40.55	5.57	56.44	46.12	74.00	54.00	-7.88	Vertical
11389	51.23	40.87	10.83	62.06	51.70	74.00	54.00	-2.30	Vertical
15002.5	50.95	39.99	12.35	63.30	52.34	74.00	54.00	-1.66	Vertical





## High Channel Horizontal

Frequency (MHz)	Peak Reading (dBuV/m)	Average Reading (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	Margin(dB)	ANT
1051.5	47.10	35.73	-1.55	45.55	34.18	74.00	54.00	-8.45	Horizontal
2132	43.59	37.01	5.53	49.12	42.54	74.00	54.00	-11.46	Horizontal
3883	56.12	50.35	-8.37	47.75	41.98	74.00	54.00	-12.02	Horizontal
7654.5	51.16	40.76	5.35	56.51	46.11	74.00	54.00	-7.89	Horizontal
11389	51.33	40.56	10.83	62.16	51.39	74.00	54.00	-2.61	Horizontal
15010.75	50.44	39.90	12.21	62.65	52.11	74.00	54.00	-1.89	Horizontal

## Vertical

Frequency (MHz)	Peak Reading (dBuV/m)	Average Reading (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	Margin(dB)	ANT
1092.5	44.97	35.35	-1.32	43.65	34.03	74.00	54.00	-10.35	Vertical
2132	46.58	40.62	5.53	52.11	46.15	74.00	54.00	-7.85	Vertical
3426	59.49	48.91	-10	49.49	38.91	74.00	54.00	-15.09	Vertical
3909	58.41	48.20	-8.3	50.11	39.90	74.00	54.00	-14.10	Vertical
11452.25	50.68	39.82	11.13	61.81	50.95	74.00	54.00	-3.05	Vertical
14878.75	50.44	39.51	12.2	62.64	51.71	74.00	54.00	-2.29	Vertical



## 802.11 n20 Low Channel Horizontal

Frequency (MHz)	Peak Reading (dBuV/m)	Average Reading (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	Margin(dB)	ANT
1024.5	41.57	33.50	-1.58	39.99	31.92	74.00	54.00	-14.01	Horizontal
2132.5	43.32	35.72	5.56	48.88	41.28	74.00	54.00	-12.72	Horizontal
3898	55.44	45.65	-8.32	47.12	37.33	74.00	54.00	-16.67	Horizontal
7764.5	51.77	40.66	4.8	56.57	45.46	74.00	54.00	-8.54	Horizontal
11386.25	51.16	40.46	10.81	61.97	51.27	74.00	54.00	-2.73	Horizontal
14980.5	51.47	39.77	12.39	63.86	52.16	74.00	54.00	-1.84	Horizontal

## Vertical

Frequency (MHz)	Peak Reading (dBuV/m)	Average Reading (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	Margin(dB)	ANT
1087.5	46.70	35.33	-1.38	45.32	33.95	74.00	54.00	-8.68	Vertical
2132	46.59	40.37	5.53	52.12	45.90	74.00	54.00	-8.10	Vertical
3430	59.03	50.58	-10	49.03	40.58	74.00	54.00	-13.42	Vertical
7096.25	51.10	39.92	4.79	55.89	44.71	74.00	54.00	-9.29	Vertical
10982	50.26	39.41	11.03	61.29	50.44	74.00	54.00	-3.56	Vertical
15013.5	50.28	39.77	12.16	62.44	51.93	74.00	54.00	-2.07	Vertical



## Mid Channel Horizontal

Frequency (MHz)	Peak Reading (dBuV/m)	Average Reading (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	Margin(dB)	ANT
1448	43.08	36.56	0.25	43.33	36.81	74.00	54.00	-10.67	Horizontal
2132.5	43.10	36.42	5.56	48.66	41.98	74.00	54.00	-12.02	Horizontal
3897	55.57	44.82	-8.32	47.25	36.50	74.00	54.00	-17.50	Horizontal
8185.25	51.88	40.91	5.09	56.97	46.00	74.00	54.00	-8.00	Horizontal
10932.5	50.79	40.54	10.84	61.63	51.38	74.00	54.00	-2.62	Horizontal
14898	50.16	40.21	12.36	62.52	52.57	74.00	54.00	-1.43	Horizontal

## Vertical

Frequency (MHz)	Peak Reading (dBuV/m)	Average Reading (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	Margin(dB)	ANT
1086	46.30	35.79	-1.4	44.90	34.39	74.00	54.00	-9.10	Vertical
2132.5	46.03	38.69	5.56	51.59	44.25	74.00	54.00	-9.75	Vertical
3892	57.39	47.66	-8.34	49.05	39.32	74.00	54.00	-14.68	Vertical
7071.5	51.58	40.55	4.49	56.07	45.04	74.00	54.00	-8.96	Vertical
10883	51.24	40.48	10.5	61.74	50.98	74.00	54.00	-3.02	Vertical
14881.5	50.01	39.90	12.22	62.23	52.12	74.00	54.00	-1.88	Vertical



### High Channel Horizontal

Frequency (MHz)	Peak Reading (dBuV/m)	Average Reading (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	Margin(dB)	ANT
1048	45.23	36.24	-1.57	43.66	34.67	74.00	54.00	-10.34	Horizontal
2132.5	43.48	35.73	5.56	49.04	41.29	74.00	54.00	-12.71	Horizontal
3883	56.42	51.12	-8.37	48.05	42.75	74.00	54.00	-11.25	Horizontal
8237.5	51.97	40.56	4.88	56.85	45.44	74.00	54.00	-8.56	Horizontal
11061.75	50.73	39.90	10.82	61.55	50.72	74.00	54.00	-3.28	Horizontal
14950.25	51.35	39.59	12.38	63.73	51.97	74.00	54.00	-2.03	Horizontal

### Vertical

Frequency (MHz)	Peak Reading (dBuV/m)	Average Reading (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	Margin(dB)	ANT
	45.01	35.80	-1.23	43.78	34.57	74.00	54.00	-10.22	Vertical
2132.5	46.05	38.28	5.56	51.61	43.84	74.00	54.00	-10.16	Vertical
3435	59.05	49.19	-10	49.05	39.19	74.00	54.00	-14.81	Vertical
7761.75	52.28	40.48	4.84	57.12	45.32	74.00	54.00	-8.68	Vertical
10877.5	51.01	40.36	10.43	61.44	50.79	74.00	54.00	-3.21	Vertical
15057.5	50.70	39.76	11.42	62.12	51.18	74.00	54.00	-2.82	Vertical



## 802.11 n40 Low Channel Horizontal

Frequency (MHz)	Peak Reading (dBuV/m)	Average Reading (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	Margin(dB)	ANT
1024	41.41	33.69	-1.58	39.83	32.11	74.00	54.00	-14.17	Horizontal
2676	40.33	30.30	6.55	46.88	36.85	74.00	54.00	-17.15	Horizontal
3836	55.79	42.73	-8.53	47.26	34.20	74.00	54.00	-19.80	Horizontal
7220	50.76	39.19	4.2	54.96	43.39	74.00	54.00	-10.61	Horizontal
10960	49.43	39.49	10.95	60.38	50.44	74.00	54.00	-3.56	Horizontal
14878.75	50.11	39.98	12.2	62.31	52.18	74.00	54.00	-1.82	Horizontal

## Vertical

Frequency (MHz)	Peak Reading (dBuV/m)	Average Reading (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	Margin(dB)	ANT
1048.5	41.86	37.14	-1.57	40.29	35.57	74.00	54.00	-13.71	Vertical
2132	41.39	33.80	5.53	46.92	39.33	74.00	54.00	-14.67	Vertical
3421	58.41	49.16	-9.99	48.42	39.17	74.00	54.00	-14.83	Vertical
6400	52.81	41.01	-0.04	52.77	40.97	74.00	54.00	-13.03	Vertical
11669.5	50.66	39.02	10.66	61.32	49.68	74.00	54.00	-4.32	Vertical
14881.5	49.57	39.86	12.22	61.79	52.08	74.00	54.00	-1.92	Vertical



### High Channel Horizontal

Frequency (MHz)	Peak Reading (dBuV/m)	Average Reading (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	Margin(dB)	ANT
1033	44.52	35.31	-1.6	42.92	33.71	74.00	54.00	-11.08	Horizontal
2120.5	41.77	31.45	4.92	46.69	36.37	74.00	54.00	-17.63	Horizontal
3863	56.87	43.38	-8.44	48.43	34.94	74.00	54.00	-19.06	Horizontal
7145.75	49.99	40.21	4.46	54.45	44.67	74.00	54.00	-9.33	Horizontal
10951.75	49.55	39.69	10.92	60.47	50.61	74.00	54.00	-3.39	Horizontal
15021.75	50.29	39.16	12.02	62.31	51.18	74.00	54.00	-2.82	Horizontal

### Vertical

Frequency (MHz)	Peak Reading (dBuV/m)	Average Reading (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	Margin(dB)	ANT
1048	43.58	36.75	-1.57	42.01	35.18	74.00	54.00	-11.99	Vertical
2132.5	42.44	35.83	5.56	48.00	41.39	74.00	54.00	-12.61	Vertical
3407	59.50	48.88	-9.98	49.52	38.90	74.00	54.00	-15.10	Vertical
7071.5	50.23	39.83	4.49	54.72	44.32	74.00	54.00	-9.68	Vertical
10968.25	49.30	39.49	10.98	60.28	50.47	74.00	54.00	-3.53	Vertical
14898	49.79	40.20	12.36	62.15	52.56	74.00	54.00	-1.44	Vertical



## 802.11 ac20 Low Channel Horizontal

Frequency (MHz)	Peak Reading (dBuV/m)	Average Reading (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	Margin(dB)	ANT
1033.5	44.00	35.55	-1.6	42.40	33.95	74.00	54.00	-11.60	Horizontal
2694	41.23	30.59	6.71	47.94	37.30	74.00	54.00	-16.70	Horizontal
3830	55.47	45.17	-8.55	46.92	36.62	74.00	54.00	-17.38	Horizontal
7093.5	49.72	40.12	4.76	54.48	44.88	74.00	54.00	-9.12	Horizontal
10951.75	49.48	39.41	10.92	60.40	50.33	74.00	54.00	-3.67	Horizontal
14900.75	50.30	40.08	12.38	62.68	52.46	74.00	54.00	-1.54	Horizontal

## Vertical

Frequency (MHz)	Peak Reading (dBuV/m)	Average Reading (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	Margin(dB)	ANT
1051	42.80	32.99	-1.55	41.25	31.44	74.00	54.00	-12.75	Vertical
2132.5	41.34	35.61	5.56	46.90	41.17	74.00	54.00	-12.83	Vertical
3422	58.51	48.95	-10	48.51	38.95	74.00	54.00	-15.05	Vertical
3963	56.45	46.40	-8.24	48.21	38.16	74.00	54.00	-15.84	Vertical
11490.75	48.81	38.37	11.31	60.12	49.68	74.00	54.00	-4.32	Vertical
14925.5	49.76	39.28	12.38	62.14	51.66	74.00	54.00	-2.34	Vertical



## Mid Channel Horizontal

Frequency (MHz)	Peak Reading (dBuV/m)	Average Reading (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	Margin(dB)	ANT
1032.5	43.97	36.21	-1.6	42.37	34.61	74.00	54.00	-11.63	Horizontal
1856.5	43.96	36.72	1.42	45.38	38.14	74.00	54.00	-15.86	Horizontal
3857	54.85	47.85	-8.46	46.39	39.39	74.00	54.00	-14.61	Horizontal
7233.75	49.90	39.54	4.32	54.22	43.86	74.00	54.00	-10.14	Horizontal
11012.25	49.33	39.50	11.04	60.37	50.54	74.00	54.00	-3.46	Horizontal
14892.5	50.39	40.13	12.31	62.70	52.44	74.00	54.00	-1.56	Horizontal

## Vertical

Frequency (MHz)	Peak Reading (dBuV/m)	Average Reading (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	Margin(dB)	ANT
1052	42.89	33.22	-1.55	41.34	31.67	74.00	54.00	-12.66	Vertical
2132	42.00	34.27	5.53	47.53	39.80	74.00	54.00	-14.20	Vertical
3411	57.64	48.54	-9.99	47.65	38.55	74.00	54.00	-15.45	Vertical
8116.5	49.77	39.11	5.59	55.36	44.70	74.00	54.00	-9.30	Vertical
10990.25	48.69	39.96	11.06	59.75	51.02	74.00	54.00	-2.98	Vertical
14928.25	49.59	39.45	12.38	61.97	51.83	74.00	54.00	-2.17	Vertical





## High Channel Horizontal

Frequency (MHz)	Peak Reading (dBuV/m)	Average Reading (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	Margin(dB)	ANT
1032	43.80	35.89	-1.6	42.20	34.29	74.00	54.00	-11.80	Horizontal
2133	40.76	32.67	5.59	46.35	38.26	74.00	54.00	-15.74	Horizontal
3884	55.39	50.35	-8.36	47.03	41.99	74.00	54.00	-12.01	Horizontal
5824	102.04	95.12	-2.28	99.76	92.84	74.00	54.00	38.84	Horizontal
12027	51.26	40.07	9.6	60.86	49.67	74.00	54.00	-4.33	Horizontal
14876	49.52	39.90	12.17	61.69	52.07	74.00	54.00	-1.93	Horizontal

## Vertical

Frequency (MHz)	Peak Reading (dBuV/m)	Average Reading (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	Margin(dB)	ANT
1159.5	42.36	32.44	-1.1	41.26	31.34	74.00	54.00	-12.74	Vertical
2432.5	43.15	32.17	5.28	48.43	37.45	74.00	54.00	-16.55	Vertical
3379	57.87	48.52	-10.16	47.71	38.36	74.00	54.00	-15.64	Vertical
8540	49.89	39.54	5.41	55.30	44.95	74.00	54.00	-9.05	Vertical
10960	49.13	39.75	10.95	60.08	50.70	74.00	54.00	-3.30	Vertical
14887	49.51	40.10	12.27	61.78	52.37	74.00	54.00	-1.63	Vertical



## 802.11 ac40 Low Channel Horizontal

Frequency (MHz)	Peak Reading (dBuV/m)	Average Reading (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	Margin(dB)	ANT
1053.5	43.29	33.61	-1.54	41.75	32.07	74.00	54.00	-12.25	Horizontal
2124.5	41.24	31.20	5.14	46.38	36.34	74.00	54.00	-17.66	Horizontal
3836	56.11	42.54	-8.53	47.58	34.01	74.00	54.00	-19.99	Horizontal
8542.75	50.13	40.06	5.4	55.53	45.46	74.00	54.00	-8.54	Horizontal
10965.5	49.00	39.36	10.97	59.97	50.33	74.00	54.00	-3.67	Horizontal
14887	49.46	40.23	12.27	61.73	52.50	74.00	54.00	-1.50	Horizontal

## Vertical

Frequency (MHz)	Peak Reading (dBuV/m)	Average Reading (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	Margin(dB)	ANT
1044	43.19	36.53	-1.59	41.60	34.94	74.00	54.00	-12.40	Vertical
2132	41.59	33.79	5.53	47.12	39.32	74.00	54.00	-14.68	Vertical
3406	58.56	47.96	-9.98	48.58	37.98	74.00	54.00	-16.02	Vertical
5379	60.03	43.16	-3.52	56.51	39.64	74.00	54.00	-14.36	Vertical
10968.25	48.96	39.26	10.98	59.94	50.24	74.00	54.00	-3.76	Vertical
14898	49.25	40.41	12.36	61.61	52.77	74.00	54.00	-1.23	Vertical



## High Channel Horizontal

Frequency (MHz)	Peak Reading (dBuV/m)	Average Reading (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	Margin(dB)	ANT
1032	43.95	36.09	-1.6	42.35	34.49	74.00	54.00	-11.65	Horizontal
2139.5	41.20	30.28	5.93	47.13	36.21	74.00	54.00	-17.79	Horizontal
2702.5	40.71	30.69	6.69	47.40	37.38	74.00	54.00	-16.62	Horizontal
3863	55.51	43.54	-8.44	47.07	35.10	74.00	54.00	-18.90	Horizontal
10990.25	48.92	39.07	11.06	59.98	50.13	74.00	54.00	-3.87	Horizontal
14865	49.69	39.41	12.08	61.77	51.49	74.00	54.00	-2.51	Horizontal

## Vertical

Frequency (MHz)	Peak Reading (dBuV/m)	Average Reading (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	Margin(dB)	ANT
1051.5	42.84	33.90	-1.55	41.29	32.35	74.00	54.00	-12.71	Vertical
2132	41.96	33.56	5.53	47.49	39.09	74.00	54.00	-14.91	Vertical
3438	59.33	48.77	-10.01	49.32	38.76	74.00	54.00	-15.24	Vertical
7517	50.63	39.44	4.82	55.45	44.26	74.00	54.00	-9.74	Vertical
11004	49.29	38.86	11.08	60.37	49.94	74.00	54.00	-4.06	Vertical
14922.75	49.22	39.46	12.38	61.60	51.84	74.00	54.00	-2.16	Vertical



## 802.11 ac80 Horizontal

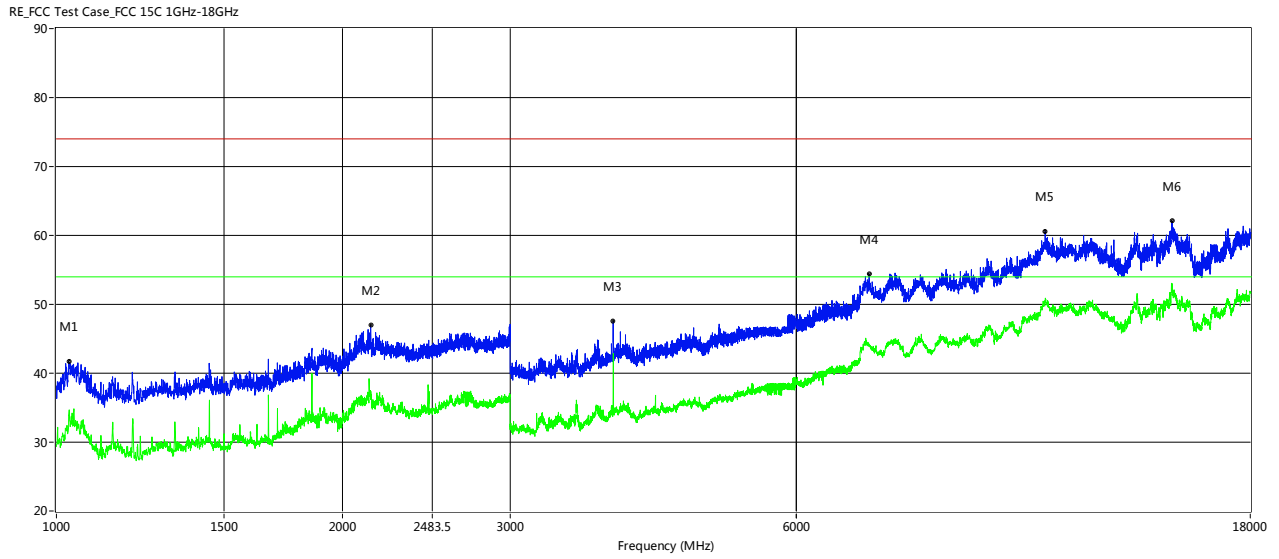
Frequency (MHz)	Peak Reading (dBuV/m)	Average Reading (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	Margin(dB)	ANT
1030.5	43.25	35.52	-1.59	41.66	33.93	74.00	54.00	-12.34	Horizontal
2140.5	41.00	30.33	5.93	46.93	36.26	74.00	54.00	-17.74	Horizontal
3850	55.99	45.97	-8.48	47.51	37.49	74.00	54.00	-16.51	Horizontal
7154	50.02	39.77	4.4	54.42	44.17	74.00	54.00	-9.83	Horizontal
10957.25	49.65	39.54	10.94	60.59	50.48	74.00	54.00	-3.52	Horizontal
14895.25	49.74	40.55	12.34	62.08	52.89	74.00	54.00	-1.11	Horizontal

## Vertical

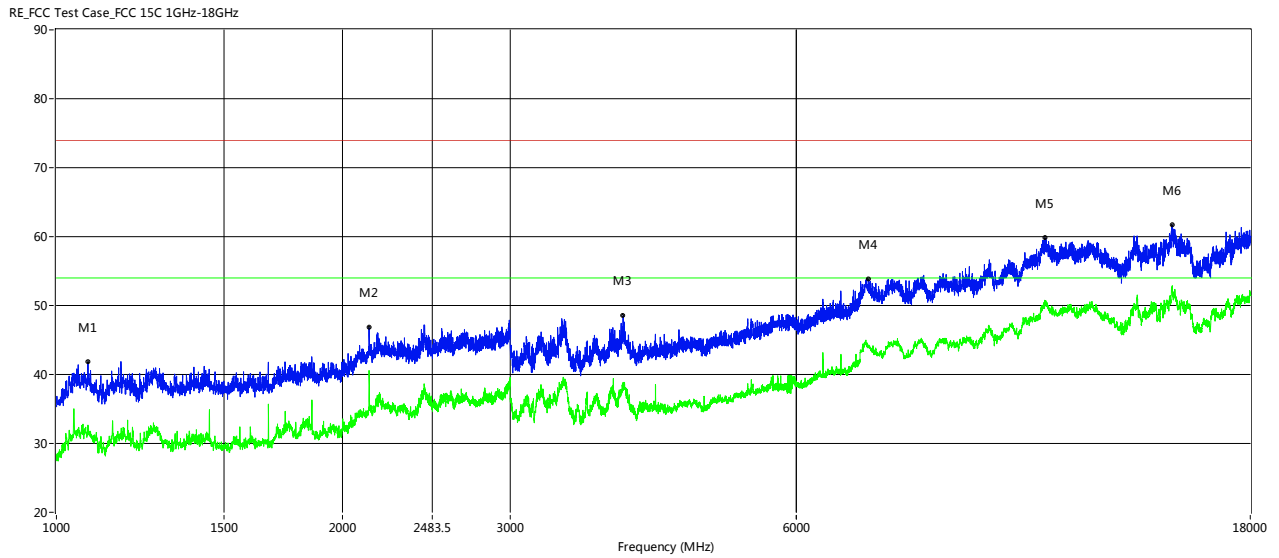
Frequency (MHz)	Peak Reading (dBuV/m)	Average Reading (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	Margin(dB)	ANT
1079.5	43.29	34.13	-1.47	41.82	32.66	74.00	54.00	-12.18	Vertical
2132	41.29	33.68	5.53	46.82	39.21	74.00	54.00	-14.79	Vertical
3944	56.79	45.91	-8.26	48.53	37.65	74.00	54.00	-16.35	Vertical
7140.25	49.34	39.55	4.51	53.85	44.06	74.00	54.00	-9.94	Vertical
10943.5	48.94	39.51	10.89	59.83	50.40	74.00	54.00	-3.60	Vertical
14900.75	49.32	40.35	12.38	61.70	52.73	74.00	54.00	-1.27	Vertical



### 802.11 ac80(Worst case waveform) Horizontal



### Vertical



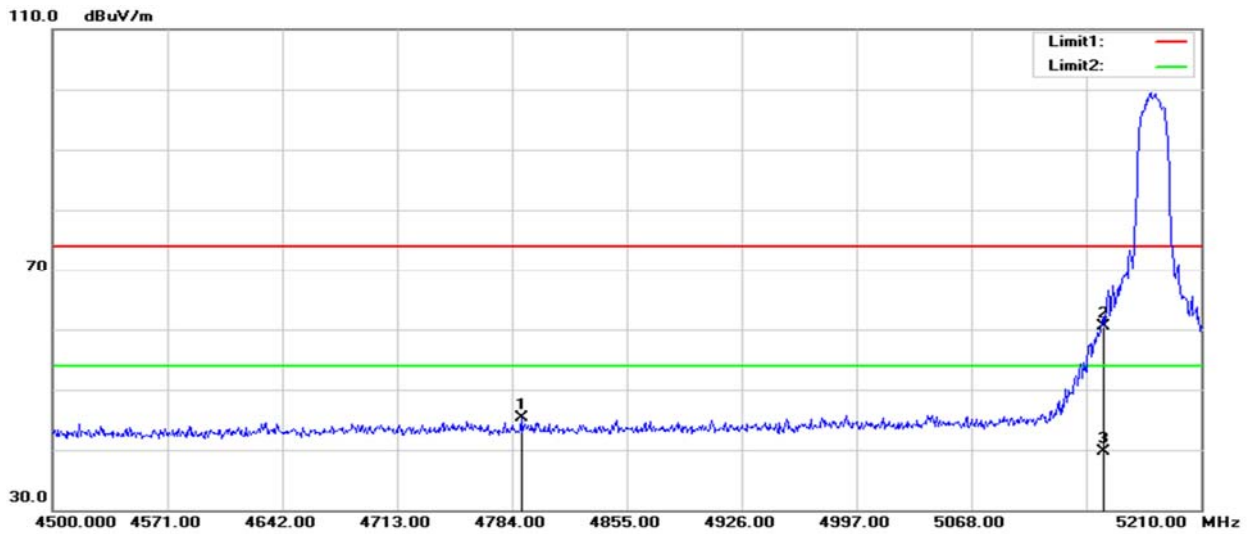
Note: All mode have been test, only showing the worst case waveform plot in this report.



3.6 TEST RESULTS (Restricted Bands Requirements)

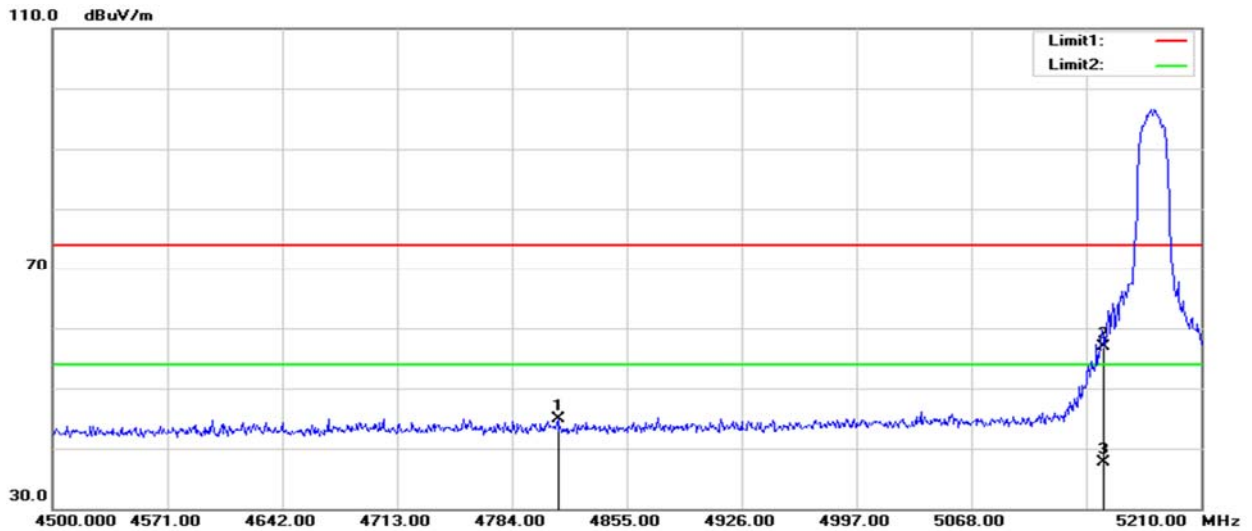
Band I 5150-5250MHz

802.11a-Low  
Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4789.680	52.45	-7.23	45.22	74.00	-28.78	peak
2	5150.000	66.32	-5.73	60.59	74.00	-13.41	peak
3	5150.000	45.45	-5.73	39.72	54.00	-14.28	AVG

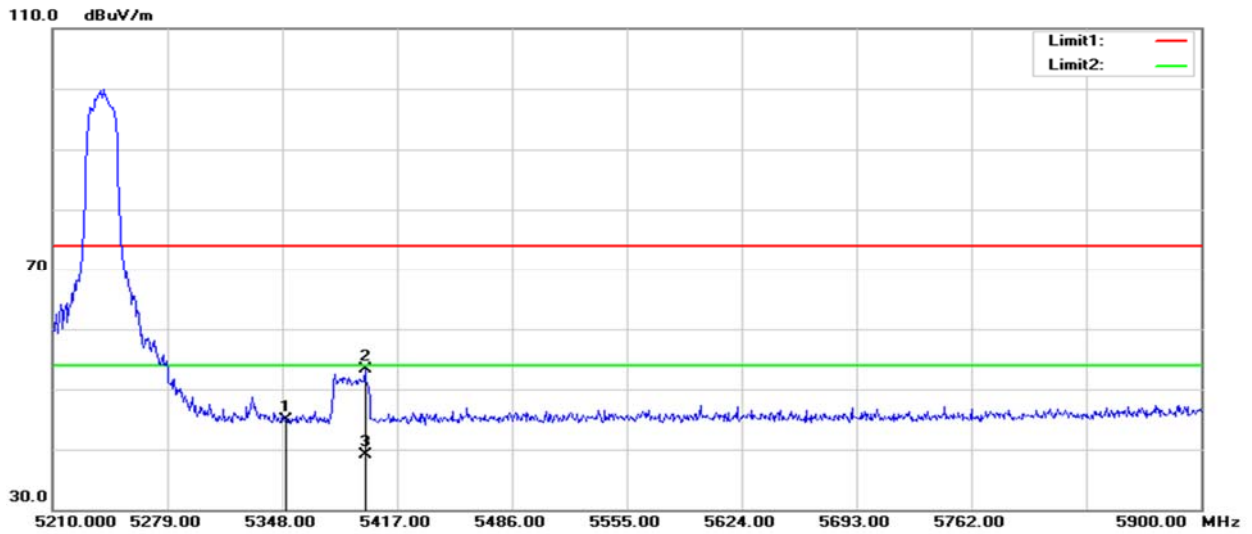
Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4812.400	52.15	-7.18	44.97	74.00	-29.03	peak
2	5150.000	62.72	-5.73	56.99	74.00	-17.01	peak
3	5150.000	43.41	-5.73	37.68	54.00	-16.32	AVG

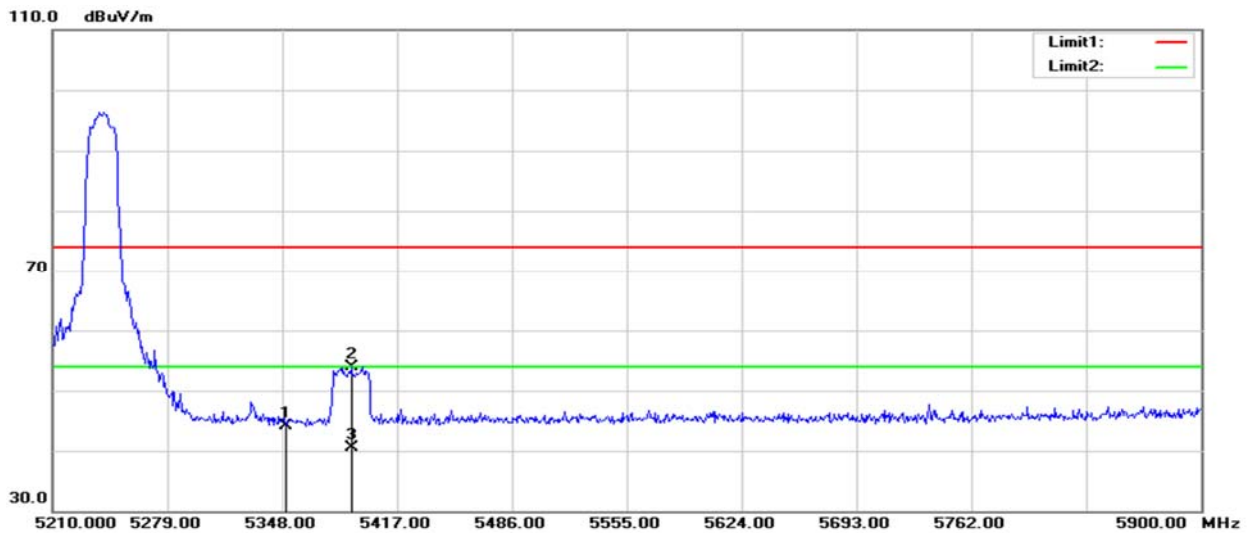


802.11a-High  
Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5350.000	50.08	-5.23	44.85	74.00	-29.15	peak
2	5397.680	58.58	-5.25	53.33	74.00	-20.67	peak
3	5397.680	44.42	-5.25	39.17	54.00	-14.83	AVG

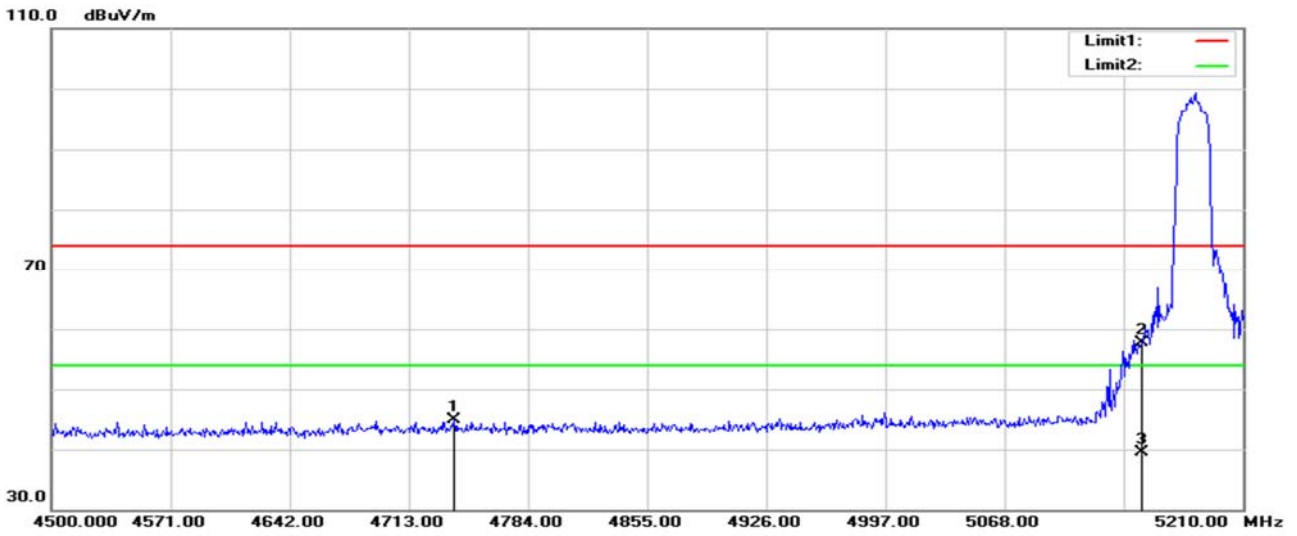
Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5350.000	49.40	-5.23	44.17	74.00	-29.83	peak
2	5389.400	59.09	-5.25	53.84	74.00	-20.16	peak
3	5389.400	45.79	-5.25	40.54	54.00	-13.46	AVG

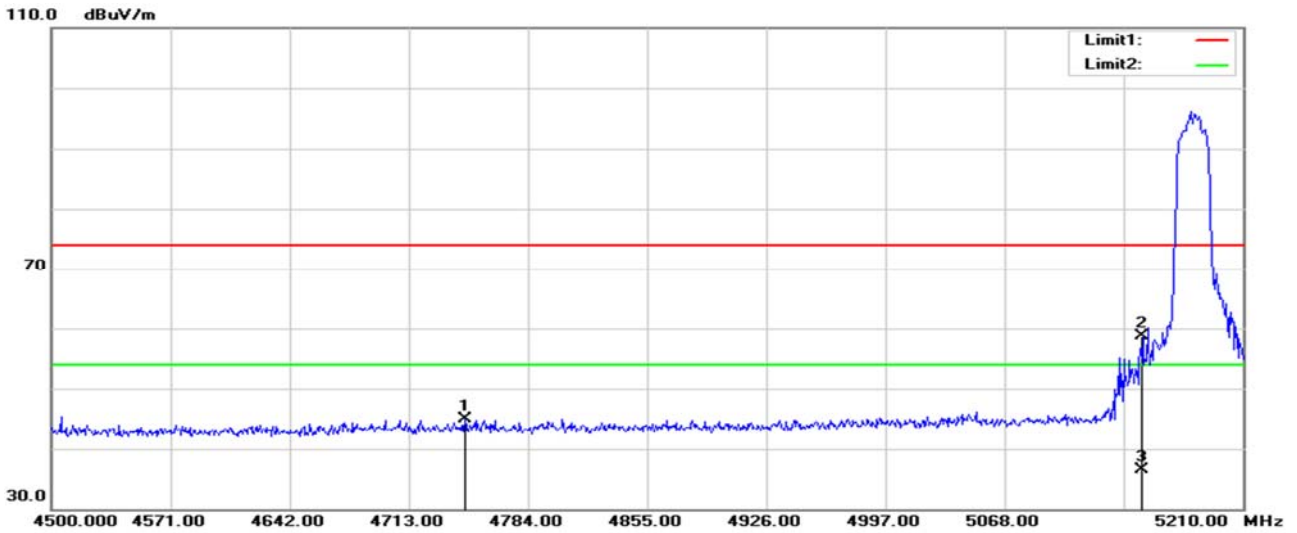


802.11n20-Low  
Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4739.980	52.22	-7.30	44.92	74.00	-29.08	peak
2	5150.000	63.45	-5.73	57.72	74.00	-16.28	peak
3	5150.000	45.28	-5.73	39.55	54.00	-14.45	AVG

Vertical

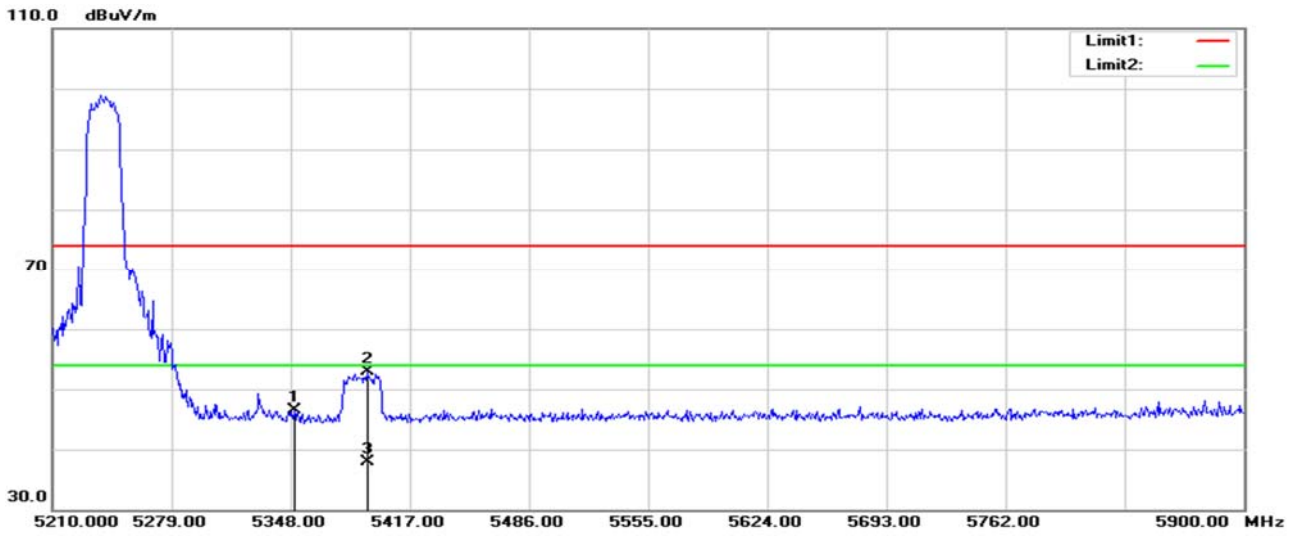


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4746.370	52.26	-7.30	44.96	74.00	-29.04	peak
2	5150.000	64.34	-5.73	58.61	74.00	-15.39	peak
3	5150.000	42.26	-5.73	36.53	54.00	-17.47	AVG



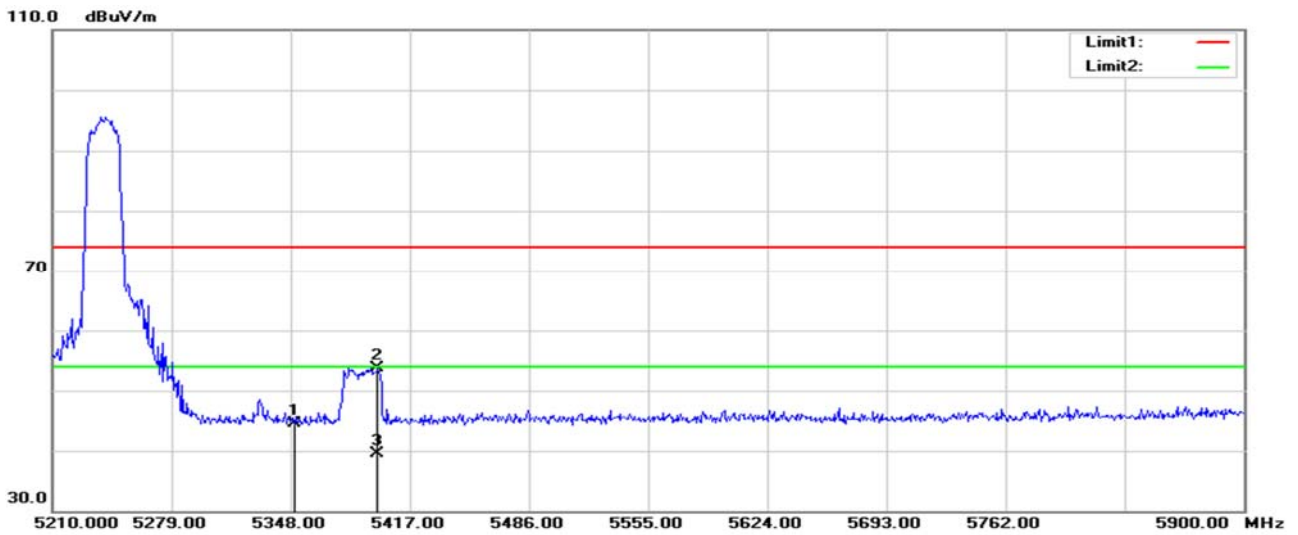


802.11n20-High  
Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5350.000	51.78	-5.23	46.55	74.00	-27.45	peak
2	5392.160	58.20	-5.25	52.95	74.00	-21.05	peak
3	5392.160	43.12	-5.25	37.87	54.00	-16.13	AVG

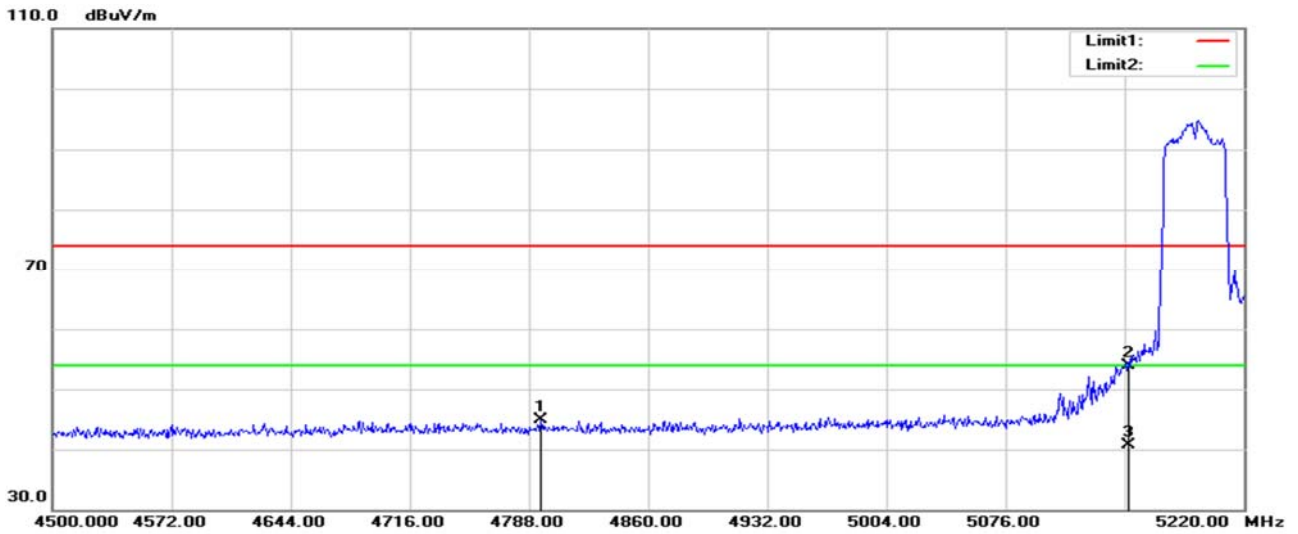
Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5350.000	49.71	-5.23	44.48	74.00	-29.52	peak
2	5398.370	58.88	-5.25	53.63	74.00	-20.37	peak
3	5398.370	44.82	-5.25	39.57	54.00	-14.43	AVG

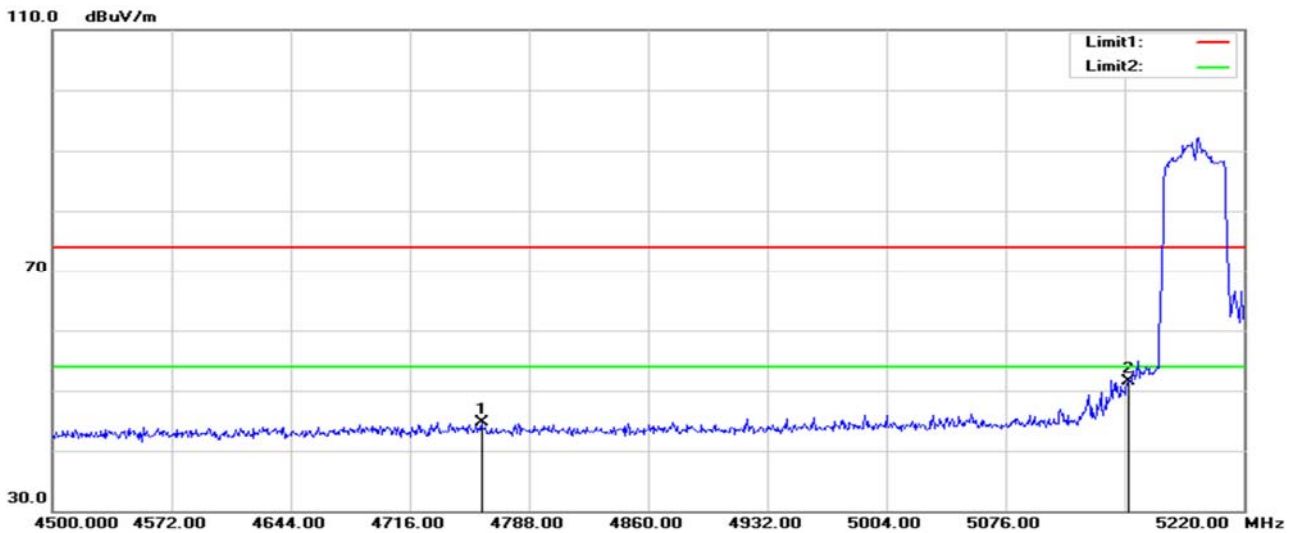


**802.11n40-Low**  
Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4795.200	52.15	-7.23	44.92	74.00	-29.08	peak
2	5150.000	59.68	-5.73	53.95	74.00	-20.05	peak
3	5150.000	46.44	-5.73	40.71	54.00	-13.29	AVG

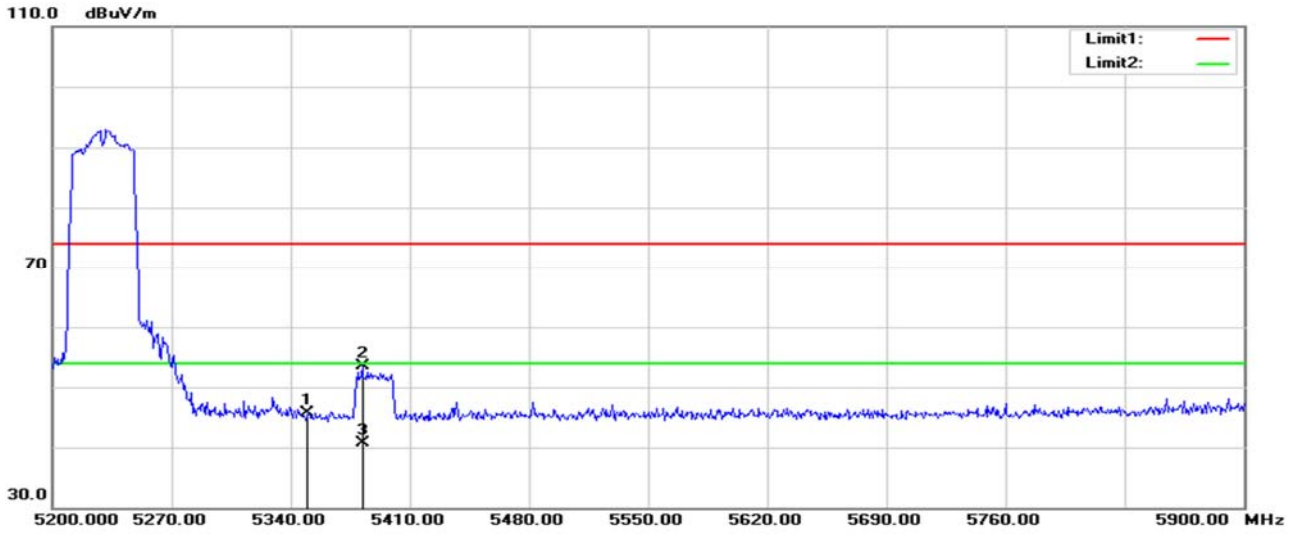
Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4759.200	52.06	-7.28	44.78	74.00	-29.22	peak
2	5150.000	57.20	-5.73	51.47	74.00	-22.53	peak

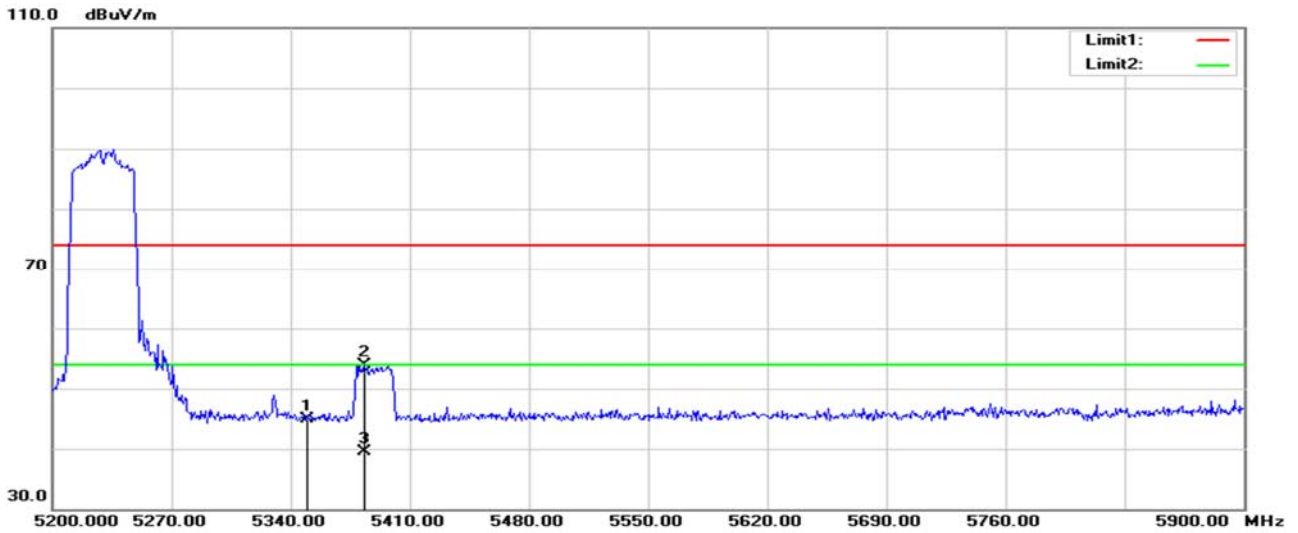


**802.11n40-High**  
Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5350.000	50.90	-5.23	45.67	74.00	-28.33	peak
2	5382.000	58.72	-5.24	53.48	74.00	-20.52	peak
3	5382.000	45.98	-5.24	40.74	54.00	-13.26	AVG

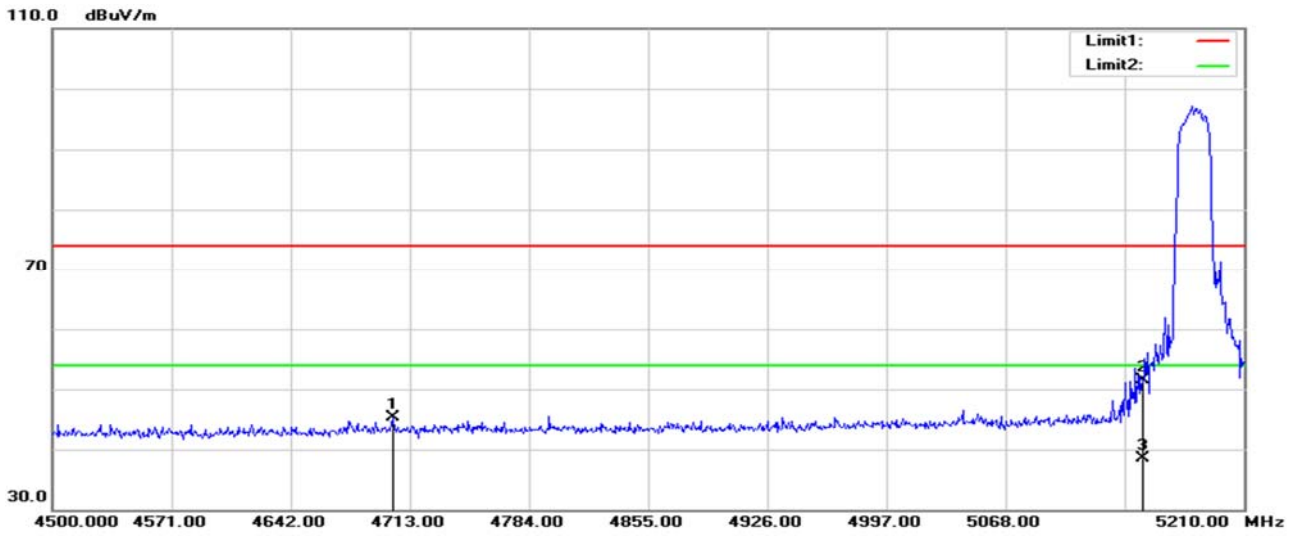
Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5350.000	50.21	-5.23	44.98	74.00	-29.02	peak
2	5383.400	59.17	-5.24	53.93	74.00	-20.07	peak
3	5383.400	44.65	-5.24	39.41	54.00	-14.59	AVG

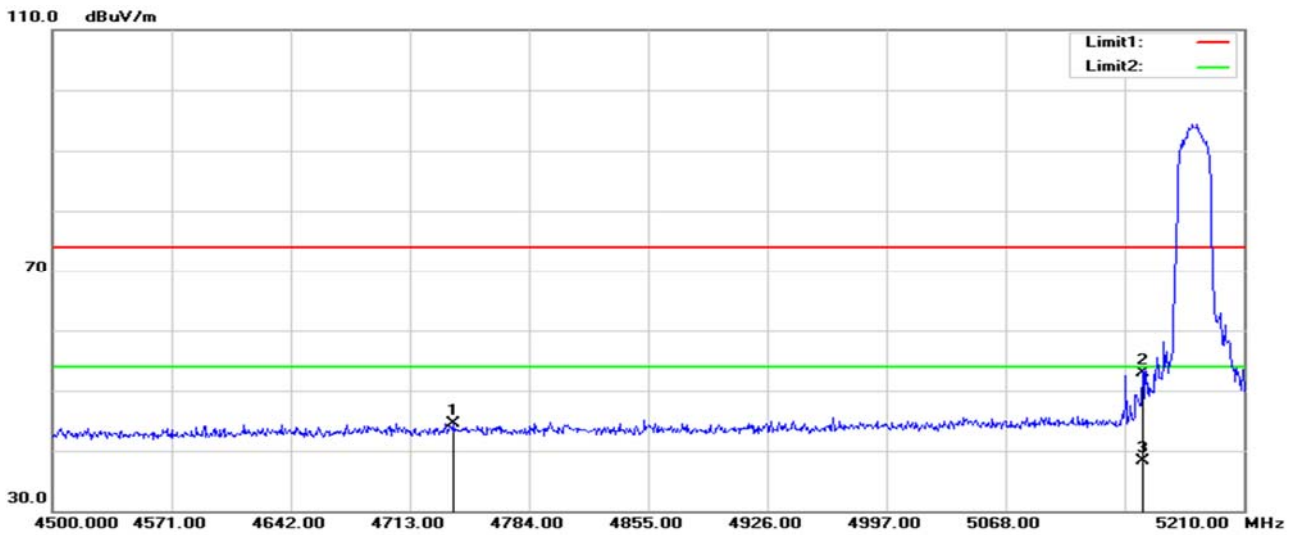


802.11ac20-Low  
Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4703.060	52.62	-7.35	45.27	74.00	-28.73	peak
2	5150.000	57.27	-5.73	51.54	74.00	-22.46	peak
3	5150.000	44.28	-5.73	38.55	54.00	-15.45	AVG

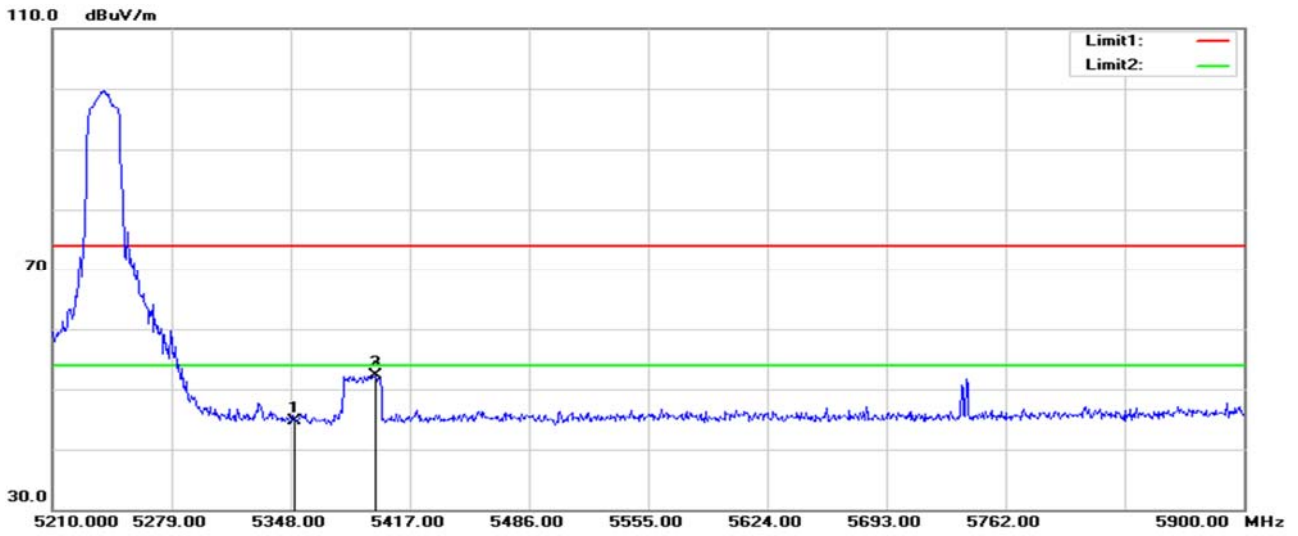
Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4739.270	51.78	-7.30	44.48	74.00	-29.52	peak
2	5150.000	58.58	-5.73	52.85	74.00	-21.15	peak
3	5150.000	44.00	-5.73	38.27	54.00	-15.73	AVG

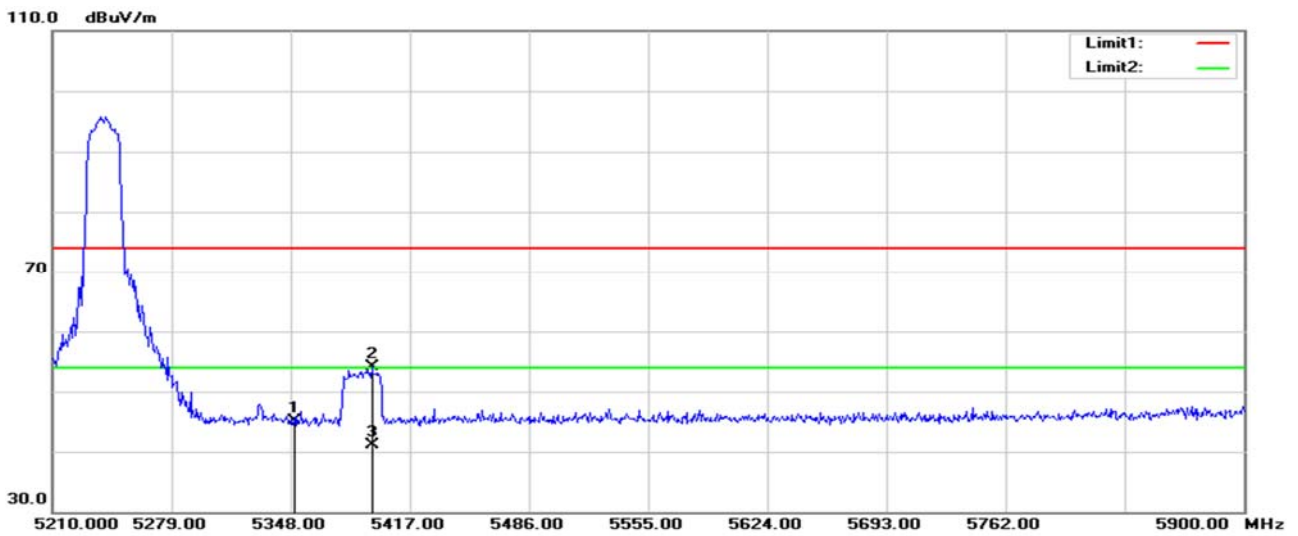


802.11ac20-High  
Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5350.000	49.97	-5.23	44.74	74.00	-29.26	peak
2	5396.990	57.47	-5.25	52.22	74.00	-21.78	peak

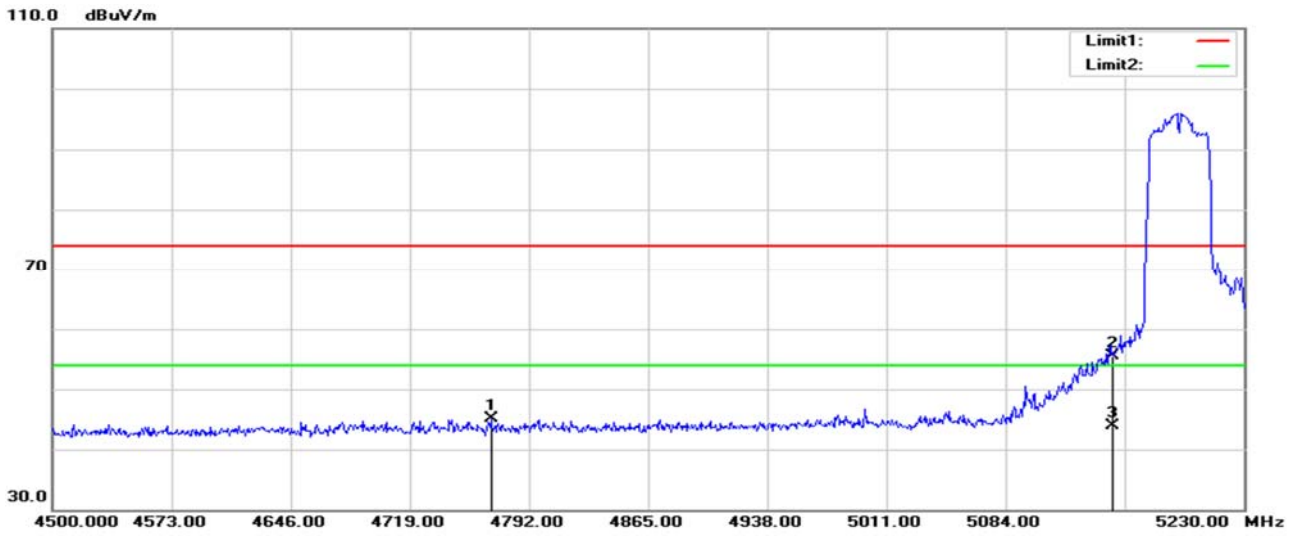
Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5350.000	50.29	-5.23	45.06	74.00	-28.94	peak
2	5394.920	59.32	-5.24	54.08	74.00	-19.92	peak
3	5394.920	46.33	-5.24	41.09	54.00	-12.91	AVG

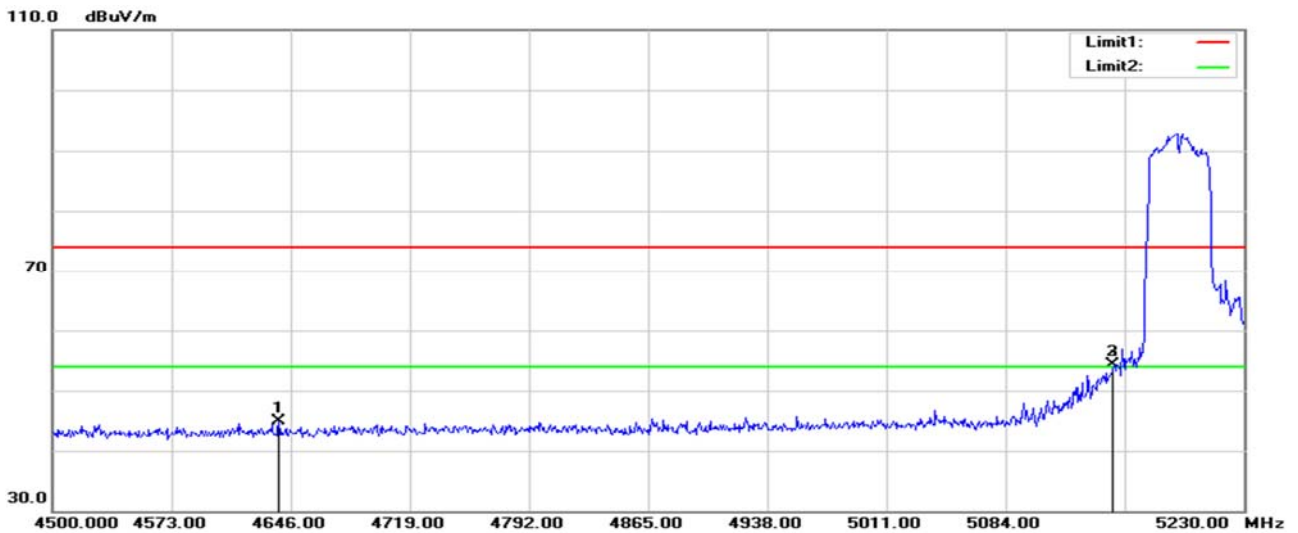


802.11ac40-Low  
Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4768.640	52.35	-7.26	45.09	74.00	-28.91	peak
2	5150.000	61.30	-5.73	55.57	74.00	-18.43	peak
3	5150.000	49.65	-5.73	43.92	54.00	-10.08	AVG

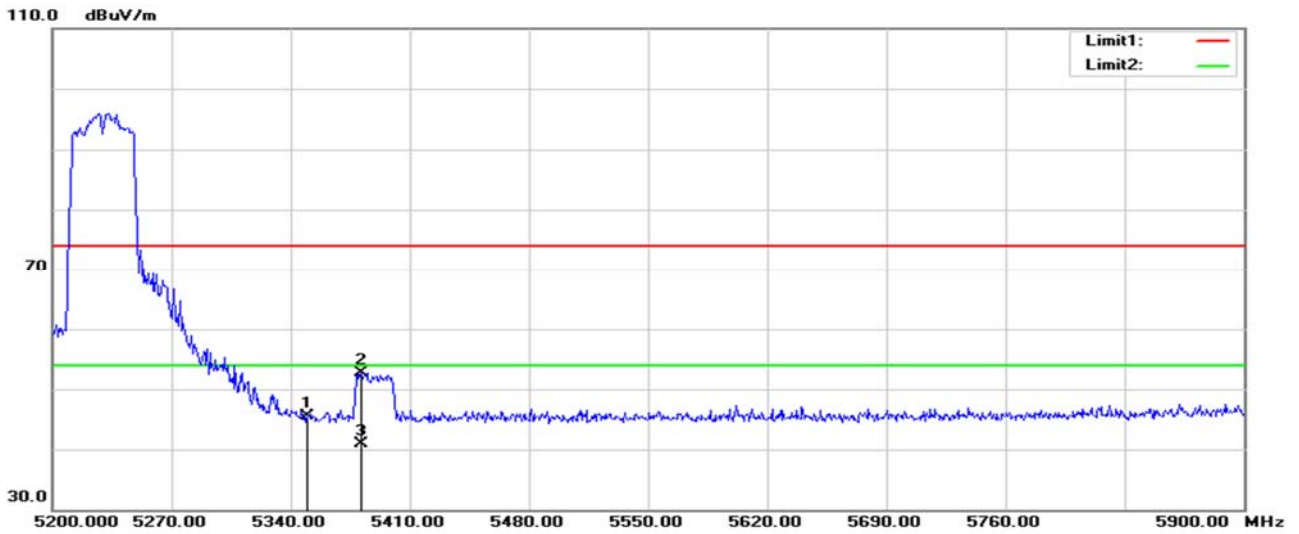
Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4638.700	52.58	-7.67	44.91	74.00	-29.09	peak
2	5150.000	60.09	-5.73	54.36	74.00	-19.64	peak

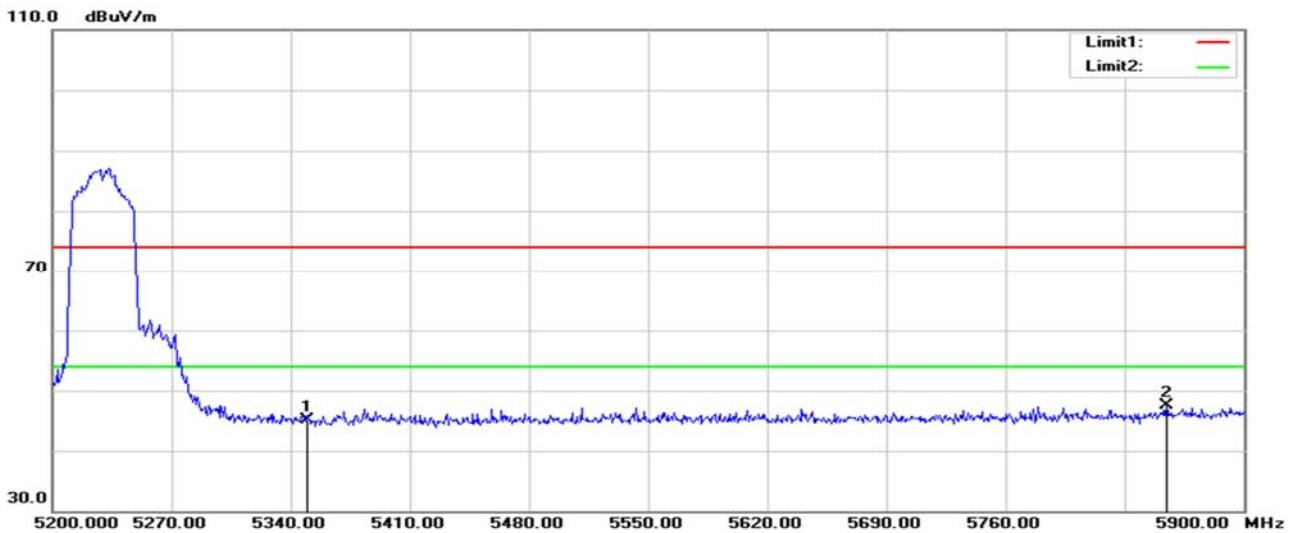


802.11ac40-High  
Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5350.000	50.73	-5.23	45.50	74.00	-28.50	peak
2	5381.300	57.94	-5.24	52.70	74.00	-21.30	peak
3	5381.300	46.21	-5.24	40.97	54.00	-13.03	AVG

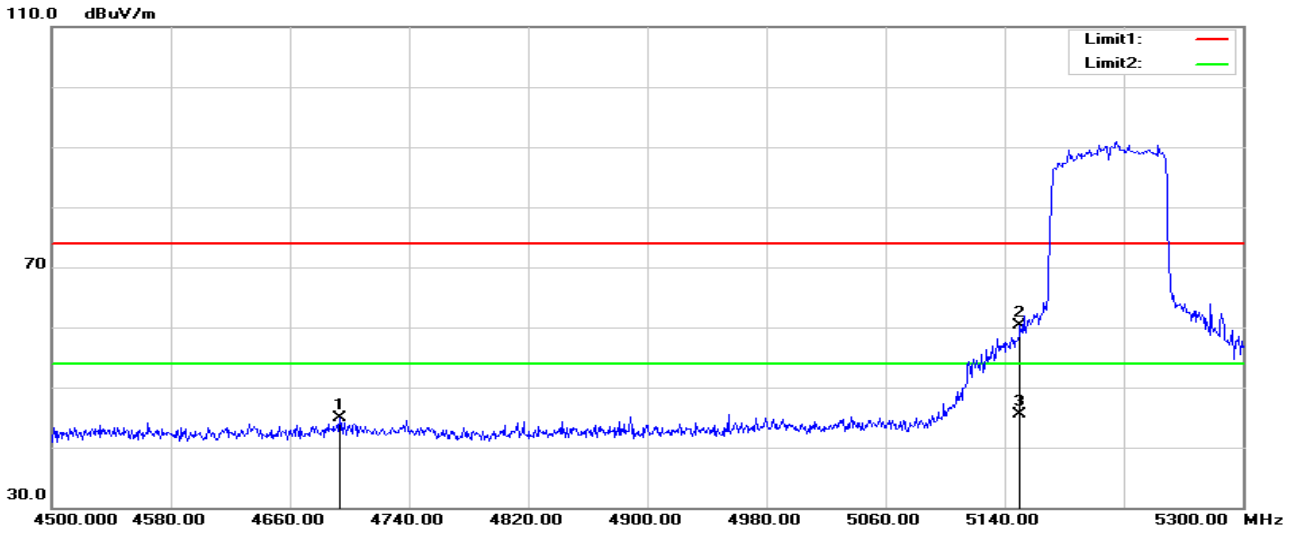
Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5350.000	50.40	-5.23	45.17	74.00	-28.83	peak
2	5854.500	51.64	-4.08	47.56	74.00	-26.44	peak

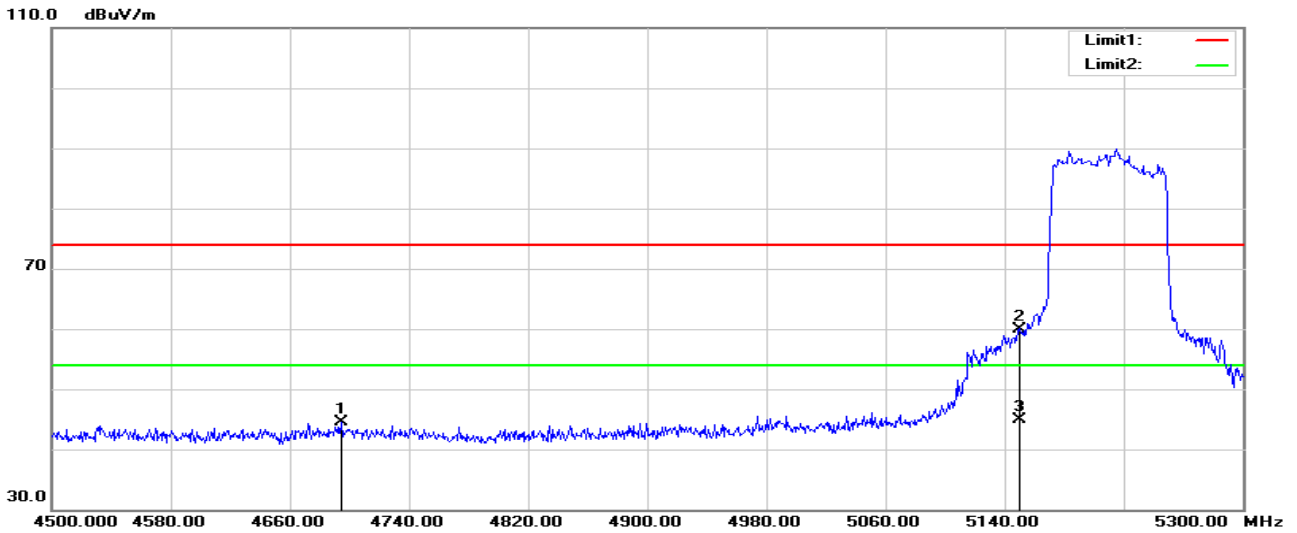


802.11ac80-Low  
Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4693.600	52.37	-7.39	44.98	74.00	-29.02	peak
2	5150.000	66.05	-5.73	60.32	74.00	-13.68	peak
3	5150.000	51.24	-5.73	45.51	54.00	-8.49	AVG

Vertical

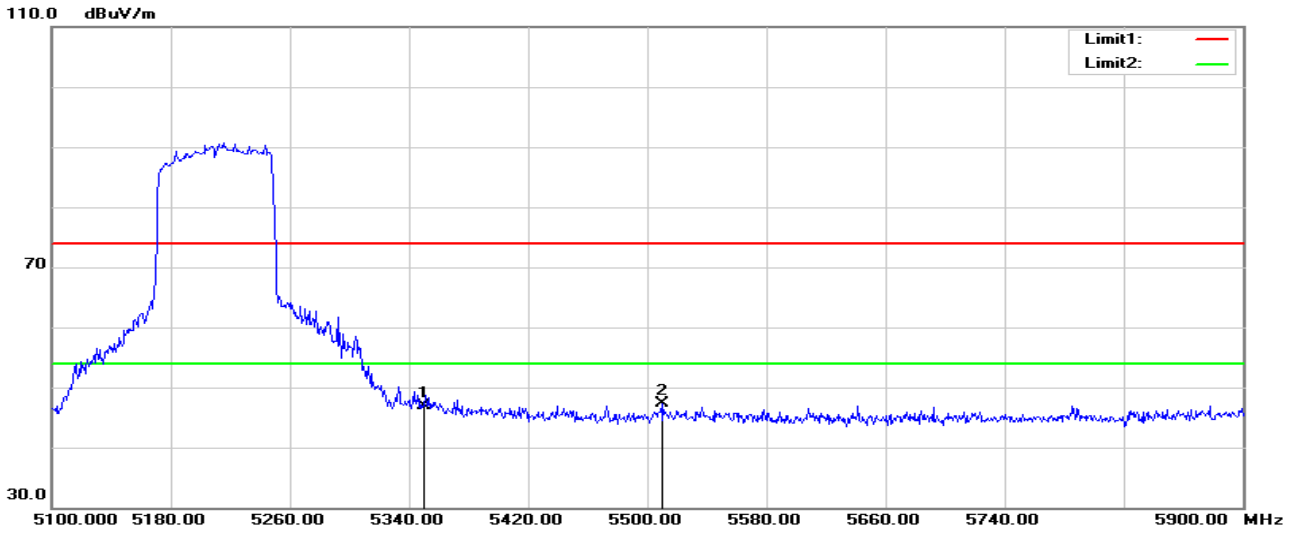


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4694.400	51.86	-7.39	44.47	74.00	-29.53	peak
2	5150.000	65.57	-5.73	59.84	74.00	-14.16	peak
3	5150.000	50.60	-5.73	44.87	54.00	-9.13	AVG



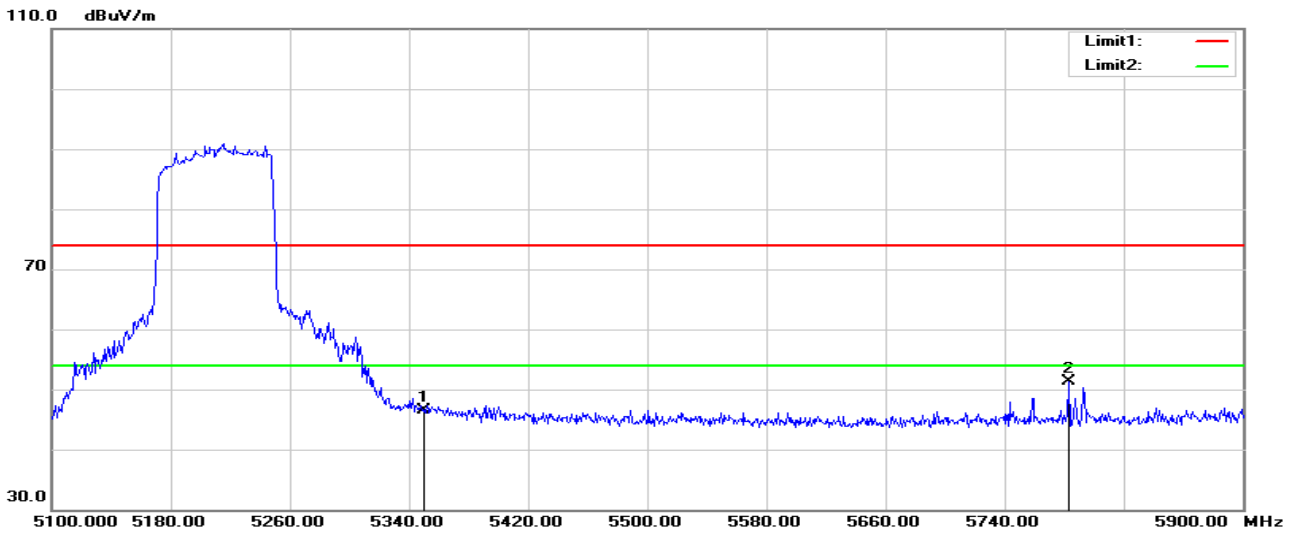


802.11ac80-High  
Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5350.000	52.16	-5.23	46.93	74.00	-27.07	peak
2	5509.600	52.20	-4.98	47.22	74.00	-26.78	peak

Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5350.000	51.75	-5.23	46.52	74.00	-27.48	peak
2	5783.200	55.68	-4.38	51.30	74.00	-22.70	peak

**Band IV 5725-5875MHz**

Note: The main frequency is far away from the Restricted Bands, is no requirement to test.



#### 4. EUT TEST PHOTO

Note: See test photos in setup photo document for the actual connections between Product and support equipment.

\*\*\*\*\*END OF THE REPORT\*\*\*\*\*