



RADIO TEST REPORT

Report No.:STS2103148W06

Issued for

Hot Pepper, Inc.

350 10th Ave. STE 1000, San Diego, CA 92101

Product Name:	Smart Phone
Brand Name:	Hot Pepper
Model Name:	HPP-L55B
Series Model:	N/A
FCC ID:	2APD4-A95J
Test Standard:	FCC Part 15.407

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TEST RESULT CERTIFICATION

Applicant's Name..... : Hot Pepper, Inc.

Address : 350 10th Ave. STE 1000, San Diego, CA 92101

Manufacturer's Name : Hot Pepper, Inc.

Address : 350 10th Ave. STE 1000, San Diego, CA 92101

Product Description

Product Name..... : Smart Phone

Brand Name : Hot Pepper

Model Name : HPP-L55B

Series Model..... : N/A

Test Standards..... : FCC Part15.407

Test Procedure..... ANSI C63.10-2013

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 of receipt of test item : 22 Mar. 2021

Date (s) of performance of tests : 22 Mar. 2021 ~ 07 May 2021

Date of Issue..... : 07 May 2021

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

Testing Engineer :

(Chris Chen)

Technical Manager :

(Sean she)

Authorized Signatory :

(Vita Li)





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**Revision History**

Rev.	Issue Date	Report NO.	Effect Page	Contents
00	07 May 2021	STS2103148W06	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	Results
15.207	AC Conducted Emission	PASS
15.407 (a) /15.407 (e)	26dB/6dB &99% Bandwidth	PASS
15.407(a)	Maximum Conducted Output Power	PASS
15.407(b)/15.205/15.209	Radiated Emission And (bandedge Emissions) Measurement	PASS
15.407(a)	Power Spectral Density	PASS
15.407(c)	Automatically Discontinue Transmission	PASS
15.203	Antenna Requirement	PASS

NOTE:

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



1.1 TEST FACTORY

SHENZHEN STS TEST SERVICES CO., LTD

Add. : A 1/F, Building B, Zhuoke Science Park, No.190 Chongqing Road, HepingShequ, Fuyong Sub-District, Bao'an District, Shenzhen, Guang Dong, 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 expended 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	$\pm 0.68\text{dB}$
2	Unwanted Emissions, conducted	$\pm 2.988\text{dB}$
3	All emissions, radiated 9K-30MHz	$\pm 2.84\text{dB}$
4	All emissions, radiated 30M-1GHz	$\pm 4.39\text{dB}$
5	All emissions, radiated 1G-6GHz	$\pm 5.10\text{dB}$
6	All emissions, radiated >6G	$\pm 5.48\text{dB}$
7	Conducted Emission (9KHz-150KHz)	$\pm 2.79\text{dB}$
8	Conducted Emission (150KHz-30MHz)	$\pm 2.80\text{dB}$



2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF THE EUT

Product Name	Smart Phone	
Trade Name	Hot Pepper	
Model Name	HPP-L55B	
Series Model	N/A	
Model Difference	N/A	
Product Description	The EUT is a Smart Phone	
	Operation Frequency:	IEEE 802.11a/ n(HT20): 5.180GHz-5.240GHz
		IEEE 802.11n(HT40): 5.190GHz-5.230GHz
		IEEE 802.11a/ n(HT20): 5.260GHz-5.320GHz
		IEEE 802.11n(HT40): 5.270GHz-5.310GHz
	Modulation Type:	IEEE 802.11a/ n(HT20): 5.745GHz-5.825GHz
		IEEE 802.11n(HT40): 5.755GHz-5.795GHz
	802.11a(OFDM): BPSK,QPSK,16-QAM,64-QAM	
	802.11n(OFDM): BPSK,QPSK,16-QAM,64-QAM	
	Antenna Designation:	Please refer to the Note 3.
	Max.Output Power(Conducted):	11.54 dBm
More details of EUT technical specification, please refer to the User Manual.		
Test Channel	Please refer to the Note 2.	
Adapter	Input: 100-240V~50/60Hz 0.2A Output: 5V/1000mA	
Battery	Rated Voltage:3.8V Charge Limit Voltage:4.3 Capacity: 2200mAh	
Hardware version number	A95_P0	
Software version number	HPP-L55B-J-3.0.0	
Connecting I/O Port(s)	Please refer to the Note 1.	

Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the User 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
5.260GHz-5.320GHz			
Channel	Frequency		
52	5260		
54	5270		
56	5280		
58	5290		
60	5300		
62	5310		
64	5320		

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(HT20)			
Channel	Freq.(MHz)	Channel	Freq.(MHz)
36	5180	52	5260
40	5200	60	5300
48	5240	64	5320

For 802.11a/n(HT20)			
Channel	Freq.(MHz)	Channel	Freq.(MHz)
149	5745	157	5785
165	5825		

For 802.11n(HT40)			
Channel	Freq.(MHz)	Channel	Freq.(MHz)
38	5190	54	5270
46	5230	62	5310



For 802.11n(HT40)			
Channel	Freq.(MHz)	Channel	Freq.(MHz)
151	5755	159	5795

3.	Ant	Brand	Model Name	Ant Type	Connector	Gain (dBi)	NOTE
	A	Hot Pepper	HPP-L55B	PIFA	N/A	-0.8 dBi	WLAN Ant

Note: The antenna information refer the manufacturer provide report, applicable only to the tested sample identified in the report.





2.2 DESCRIPTION OF TEST MODES

To investigate the maximum EMI emission characteristics generated from EUT, the test system was pre-scanning tested based on the consideration of following EUT operation mode or test configuration mode which possibly 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 CH52&CH60&CH64	6 Mbps
Mode 3	TX IEEE 802.11a HT20 CH149&CH157&CH165	6 Mbps
Mode 4	TX IEEE 802.11n HT20 CH36&CH40&CH48	MCS 0
Mode 5	TX IEEE 802.11n HT20 CH52&CH60&CH64	MCS 0
Mode 6	TX IEEE 802.11n HT20 CH149&CH157&CH165	MCS 0
Mode 7	TX IEEE 802.11n HT40 CH38&CH46	MCS 0
Mode 8	TX IEEE 802.11n HT40 CH54 &CH62	MCS 0
Mode 9	TX IEEE 802.11n HT40 CH151&CH159	MCS 0

Note: (1) The measurements are performed at the highest, middle, lowest available channels.

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

(3) We have been tested for all available U.S. voltage and frequencies (For 120V, 50/60Hz and 240V, 50/60Hz) for which the device is capable of operation.

(4) The battery is fully-charged during the radiated and RF conducted test.

AC Conducted Emission

Test Case	
AC Conducted Emission	Mode 10: Keeping TX

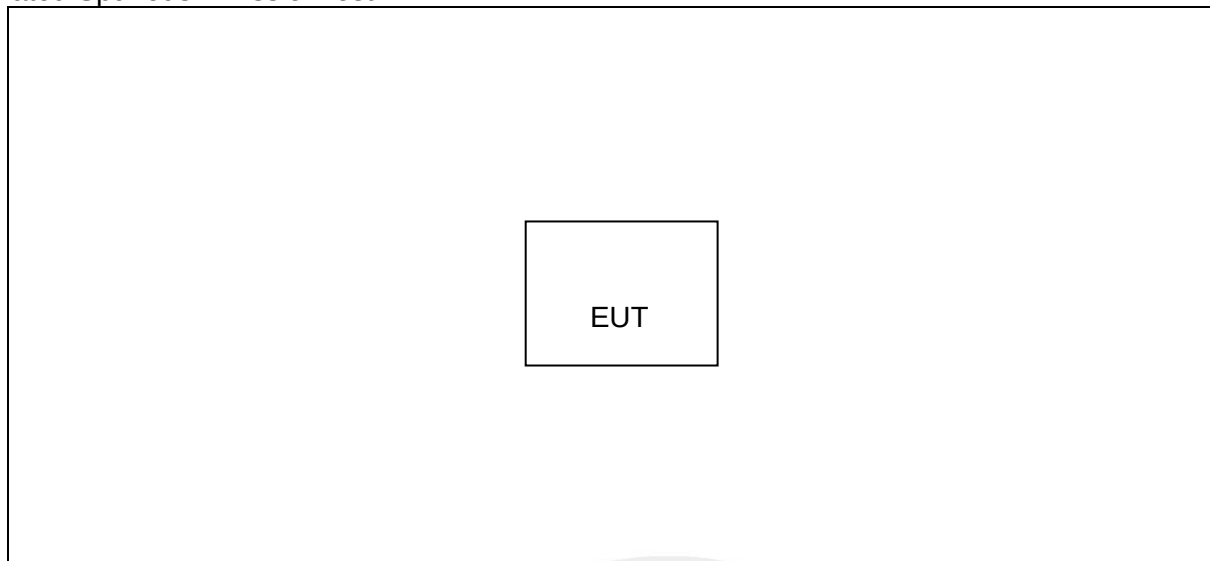
2.3 TEST SOFTWARE AND POWER LEVEL

During testing channel & power controlling software provided by the customer was used to control the operating channel as well as the output power level.

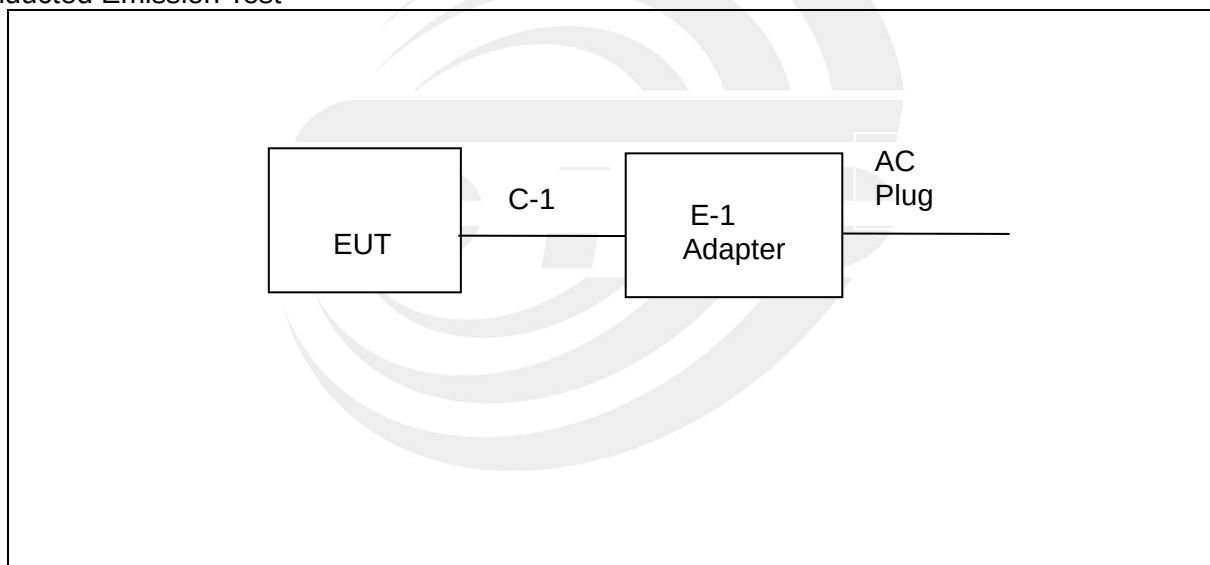
RF Function	Type	Mode Or Modulation type	ANT Gain(dBi)	Power Class	Software For Testing
WIFI(5G)	5G WIFI Band1 (5150MHz-5250MHz)	802.11a	-0.8	15	Engineering mode
		802.11n(HT20)		15	
		802.11n(HT40)		15	
RF Function	Type	Mode Or Modulation type	ANT Gain(dBi)	Power Class	Software For Testing
WIFI(5G)	5G WIFI Band2 (5250MHz-5350MHz)	802.11a	-0.8	15	Engineering mode
		802.11n(HT20)		15	
		802.11n(HT40)		15	
RF Function	Type	Mode Or Modulation type	ANT Gain(dBi)	Power Class	Software For Testing
WIFI(5G)	5G WIFI Band4 (5725MHz-5850MHz)	802.11a	-0.8	15	Engineering mode
		802.11n(HT20)		15	
		802.11n(HT40)		15	

2.4 BLOCK DIAGRAM 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.	Length	Note
E-1	Adapter	N/A	TPA-46B050100UU	N/A	N/A
C-1	USB Cable	N/A	N/A	80cm	N/A

Support units

Item	Equipment	Mfr/Brand	Model/Type No.	Length	Note
N/A	N/A	N/A	N/A	N/A	N/A

Note:

- (1) For detachable type I/O cable should be specified the length in cm in 『Length』 column.
- (2) “YES” is means “with core”; “NO” is means “without core”.



2.6 EQUIPMENTS LIST FOR ALL TEST ITEMS

Radiation Test equipment

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
Test Receiver	R&S	ESCI	101427	2020.10.12	2021.10.11
Signal Analyzer	Agilent	N9020A	MY51110105	2020.10.10	2021.10.09
Active loop Antenna	ZHINAN	ZN30900C	16035	2019.07.11	2021.07.10
Bilog Antenna	TESEQ	CBL6111D	34678	2020.10.12	2022.10.11
Horn Antenna	SCHWARZBECK	BBHA 9120D(1201)	9120D-1343	2019.10.15	2021.10.14
SHF-EHF Horn Antenna (18G-40GHz)	A-INFO	LB-180400-KF	J211020657	2020.10.12	2022.10.11
Pre-Amplifier (0.1M-3GHz)	EM	EM330	060665	2020.10.12	2021.10.11
Pre-Amplifier (1G-18GHz)	SKET	LNPA-01018G-45	SK2018080901	2020.10.12	2021.10.11
Pre-Amplifier (18G-40GHz)	SKET	LNPA-1840-50	SK2018101801	2020.10.10	2021.10.09
Temperature & Humidity	HH660	Mieo	N/A	2020.10.13	2021.10.12
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	2020.10.12	2021.10.11
LISN	R&S	ENV216	101242	2020.10.12	2021.10.11
LISN	EMCO	3810/2NM	23625	2020.10.12	2021.10.11
Temperature & Humidity	HH660	Mieo	N/A	2020.10.12	2021.10.11
Test SW	FARAD	EZ-EMC(Ver.STSLAB-03A1 CE)			

RF Connected Test

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
Power Sensor	Keysight	U2021XA	MY55520005	2020.10.10	2021.10.09
			MY55520006	2020.10.10	2021.10.09
			MY56120038	2020.10.10	2021.10.09
			MY56280002	2020.10.10	2021.10.09
Signal Analyzer	Agilent	N9020A	MY51110105	2021.03.04	2022.03.03
Temperature & Humidity	HH660	Mieo	N/A	2020.10.13	2021.10.12
Test SW	FARAD	EZ-EMC(Ver.STSLAB-03A1 CE)			



3. EMC EMISSION TEST

3.1 CONDUCTED EMISSION MEASUREMENT

3.1.1 POWER LINE CONDUCTED EMISSION LIMITS (Frequency Range 150KHz-30MHz)

FREQUENCY (MHz)	Class B (dBuV)		Standard
	Quasi-peak	Average	
0.15 -0.5	66 - 56 *	56 - 46 *	CISPR
0.50 -5.0	56.00	46.00	CISPR
5.0 -30.0	60.00	50.00	CISPR

0.15 -0.5	66 - 56 *	56 - 46 *	FCC
0.50 -5.0	56.00	46.00	FCC
5.0 -30.0	60.00	50.00	FCC

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

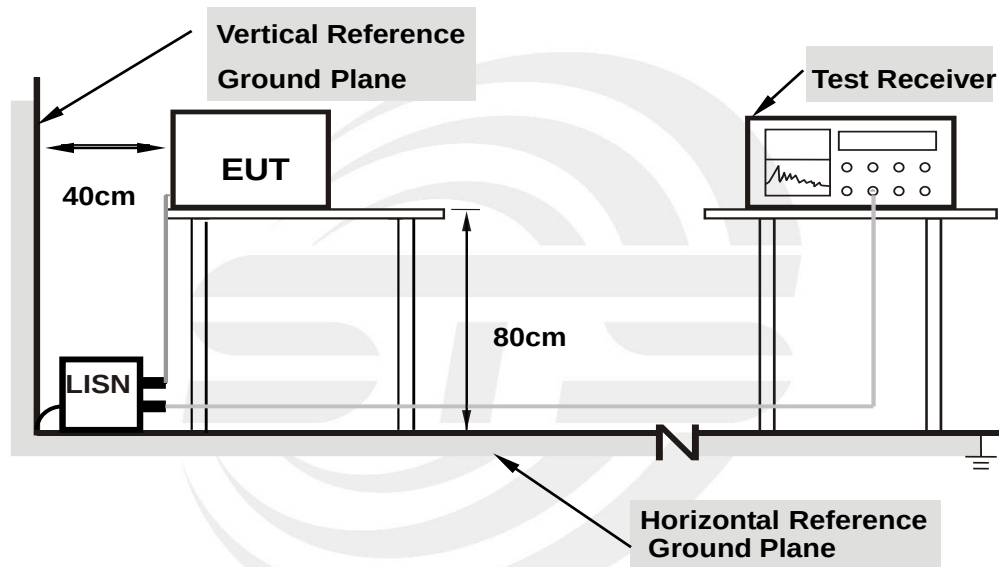
3.1.2 TEST PROCEDURE

- The EUT is 0.8 m from the horizontal ground plane and 0.4 m from the vertical ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments are powered from additional LISN(s). The LISN provides 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- 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.
- 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.
- LISN is at least 80 cm from the nearest part of EUT chassis.
- For the actual test configuration, please refer to the related Item –EUT Test Photos.

3.1.3 DEVIATION FROM TEST STANDARD

No deviation

3.1.4 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 cm from other units and other metal planes support.

3.1.5 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.



3.1.6 TEST RESULTS

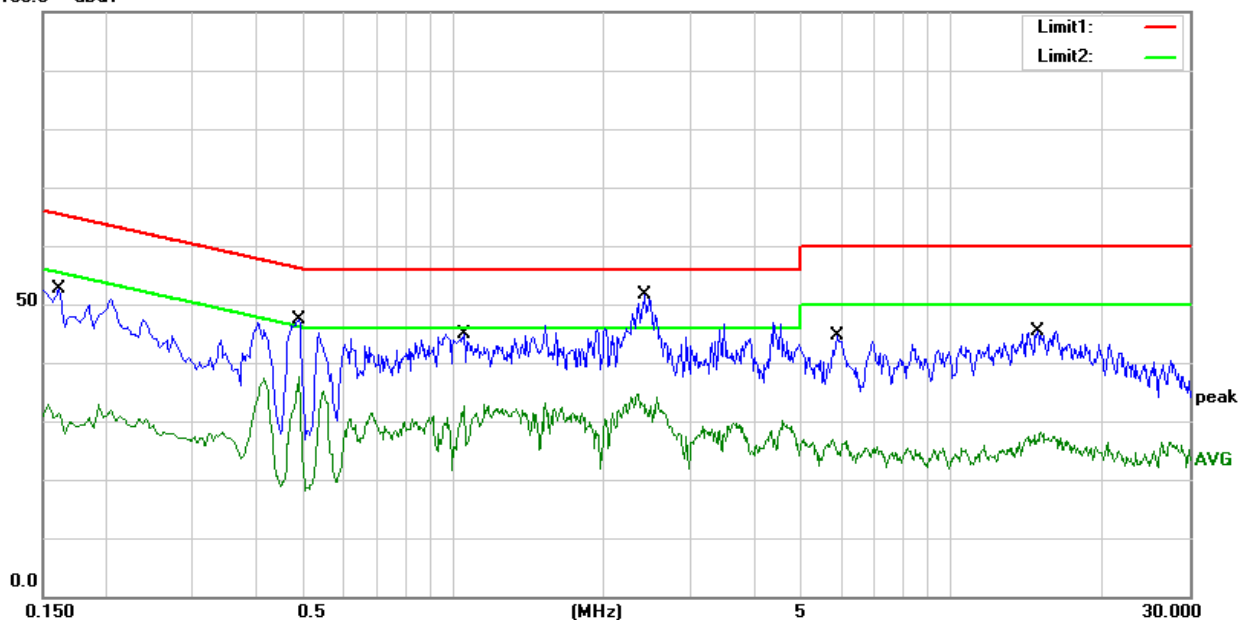
Temperature:	26.8(C)	Relative Humidity:	66%RH
Test Voltage:	AC 120V/60Hz	Phase:	L
Test Mode :	Mode 10		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1620	32.41	20.22	52.63	65.36	-12.73	QP
2	0.1620	11.12	20.22	31.34	55.36	-24.02	AVG
3	0.4900	27.02	20.44	47.46	56.17	-8.71	QP
4	0.4900	17.12	20.44	37.56	46.17	-8.61	AVG
5	1.0500	24.75	20.16	44.91	56.00	-11.09	QP
6	1.0500	12.42	20.16	32.58	46.00	-13.42	AVG
7	2.4220	31.48	20.12	51.60	56.00	-4.40	QP
8	2.4220	12.80	20.12	32.92	46.00	-13.08	AVG
9	5.8900	24.65	19.94	44.59	60.00	-15.41	QP
10	5.8900	6.31	19.94	26.25	50.00	-23.75	AVG
11	14.8980	25.42	20.07	45.49	60.00	-14.51	QP
12	14.8980	8.09	20.07	28.16	50.00	-21.84	AVG

Remark:

1. All readings are Quasi-Peak and Average values
2. Margin = Result (Result = Reading + Factor) - Limit
3. Factor = LISN factor + Cable loss + Limiter (10dB)

100.0 dBuV



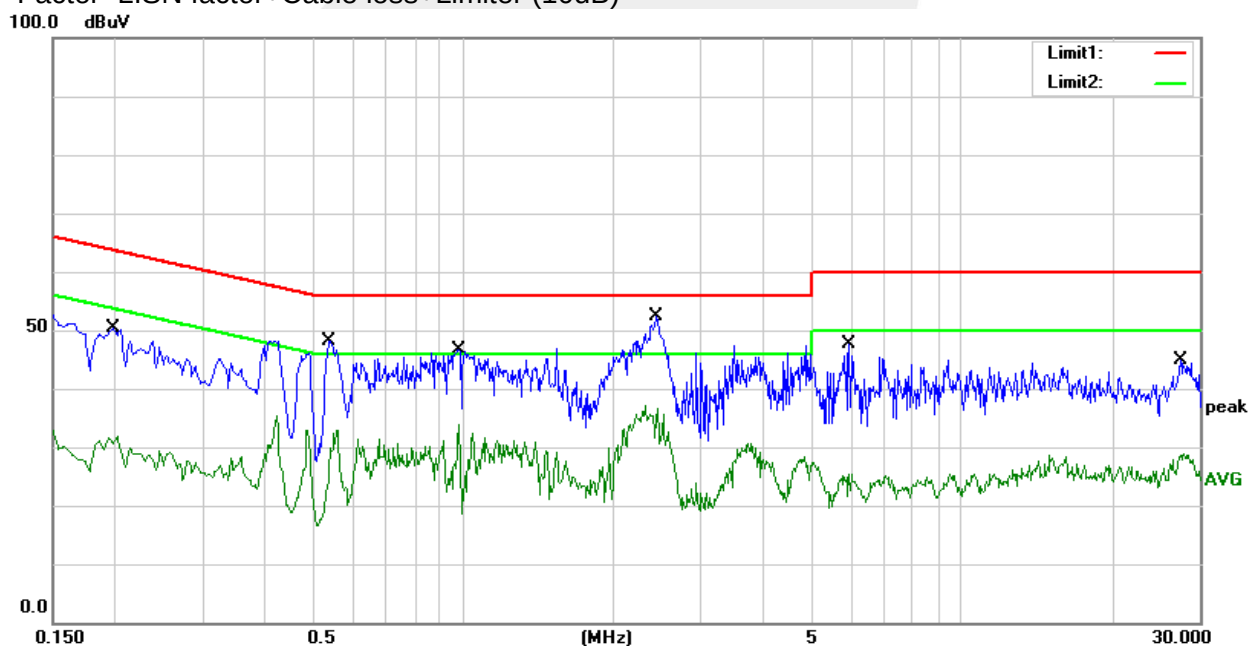


Temperature:	26.8(C)	Relative Humidity:	66%RH
Test Voltage	AC 120V/60Hz	Phase:	N
Test Mode	Mode 10		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1980	30.16	20.32	50.48	63.69	-13.21	QP
2	0.1980	11.46	20.32	31.78	53.69	-21.91	AVG
3	0.5380	27.65	20.40	48.05	56.00	-7.95	QP
4	0.5380	3.09	20.40	23.49	46.00	-22.51	AVG
5	0.9820	26.55	20.16	46.71	56.00	-9.29	QP
6	0.9820	13.75	20.16	33.91	46.00	-12.09	AVG
7	2.4460	32.22	20.12	52.34	56.00	-3.66	QP
8	2.4460	16.50	20.12	36.62	46.00	-9.38	AVG
9	5.9460	27.63	19.93	47.56	60.00	-12.44	QP
10	5.9460	5.36	19.93	25.29	50.00	-24.71	AVG
11	27.4340	23.94	20.82	44.76	60.00	-15.24	QP
12	27.4340	8.07	20.82	28.89	50.00	-21.11	AVG

Remark:

1. All readings are Quasi-Peak and Average values
2. Margin = Result (Result = Reading + Factor) – Limit
3. Factor=LISN factor+Cable loss+Limiter (10dB)





3.2 RADIATED EMISSION AND (BANDEDGE) MEASUREMENT

3.2.1 RADIATED EMISSION LIMITS (Frequency Range 9kHz-1000MHz)

In case the emission fall within the restricted band specified on 15.407(b)7&15.205/209(a), then the 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)	Class B (dBuV/m) (at 3M)	
	PEAK	AVERAGE
Above 1000	68.2	54

Notes:

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

LIMITS OF RESTRICTED FREQUENCY BANDS

FREQUENCY (MHz)	FREQUENCY (MHz)	FREQUENCY (MHz)	FREQUENCY (GHz)
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	Above 38.6
13.36-13.41			

Note: In case the emission radiated emission above 1000MHz fall within the restricted band the restricted frequency bands, the peak limit is 74 dBuV/m.

**LIMITS OF EMISSIONS OUTSIDE OF THE FREQUENCY BANDS**

Undesirable emission limits. Except as shown in paragraph (b)(7) of this section, the maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

- (1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (4) For transmitters operating in the 5.725-5.85 GHz band:
 - (i) All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

Note: dBuV/m(at 3M) = EIRP(dBm) + 95.3.

Peak Limit = -27dBm/MHz + 95.3 = 68.3 dBuV/m.

Spectrum Parameter	Setting
Attenuation	Auto
Detector	Peak
Start Frequency	1000 MHz(Peak/AV)
Stop Frequency	10th carrier harmonic (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

- a. The measuring distance at 3 m shall be used for measurements at frequency 0.009MHz up to 1GHz, and above 1GHz.
- b. The EUT was placed on the top of a rotating table 0.8 m (above 1GHz is 1.5 m) above the ground at a 3 m anechoic chamber test site. The table was rotated 360 degree to determine the position of the highest radiation.
- c. The height of the equipment shall be 0.8 m (above 1GHz is 1.5 m); the height of the test antenna shall vary between 1 m to 4 m. Horizontal and vertical polarization 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 QuasiPeak detector mode will be re-measured.
- e. If the Peak Mode measured value is compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and no additional QP Mode measurement was 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.

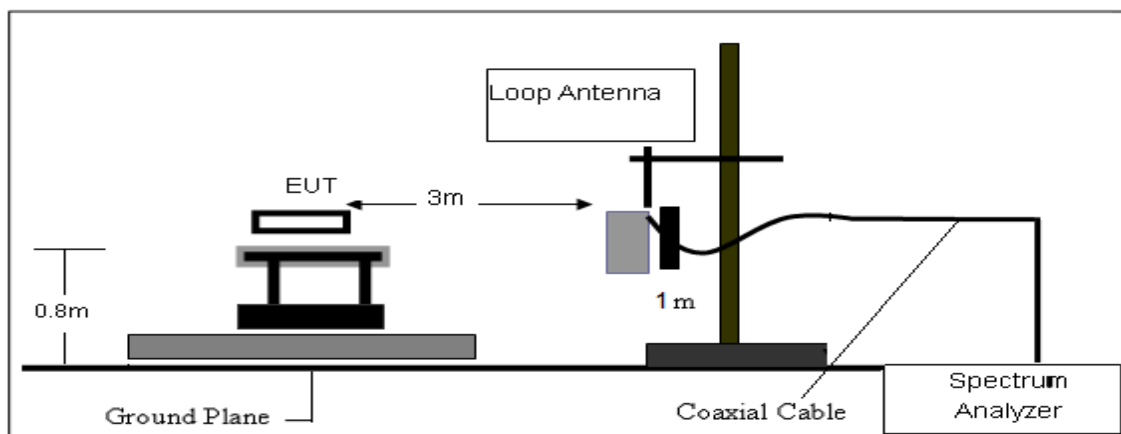
3.2.2 DEVIATION FROM TEST STANDARD

No deviation

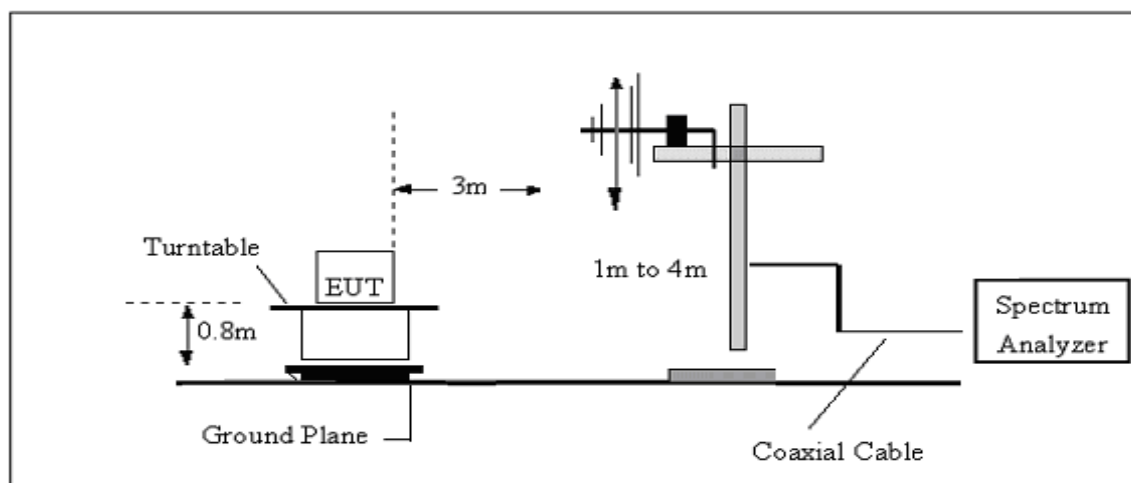


3.2.3 TEST SETUP

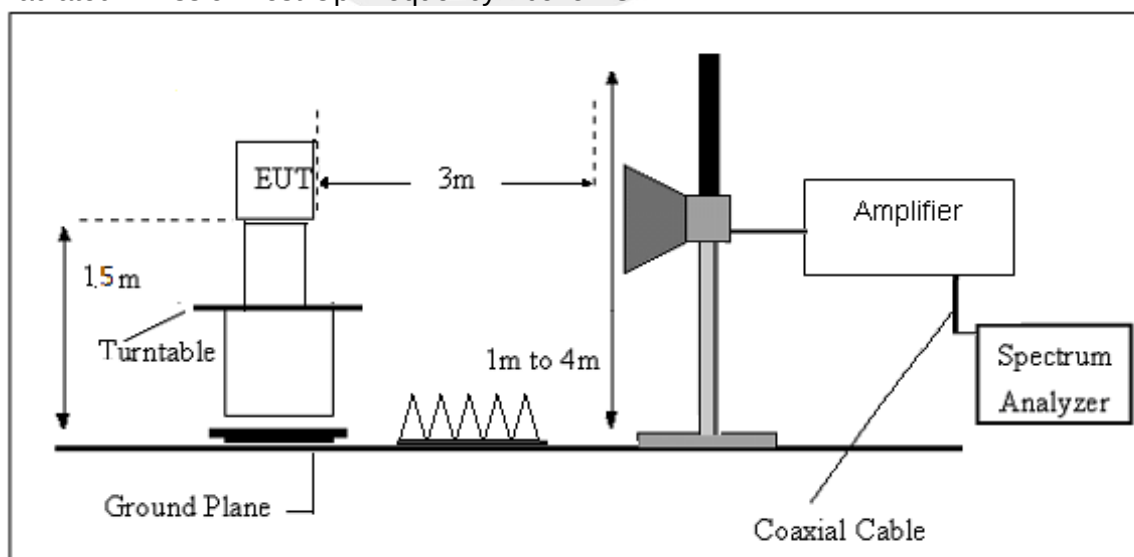
(A) Radiated Emission Test-Up Frequency Below 30MHz



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



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





3.2.4 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 FIELD STRENGTH CALCULATION

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

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

Where

FS = Field Strength

CL = Cable Attenuation Factor (Cable Loss)

RA = Reading Amplitude

AG = Amplifier Gain

AF = Antenna Factor

For example

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

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

**3.2.6 TEST RESULTS (Between 9KHz – 30 MHz)**

Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage :	DC 3.8V	Polarization :	--
Test Mode :	TX Mode		

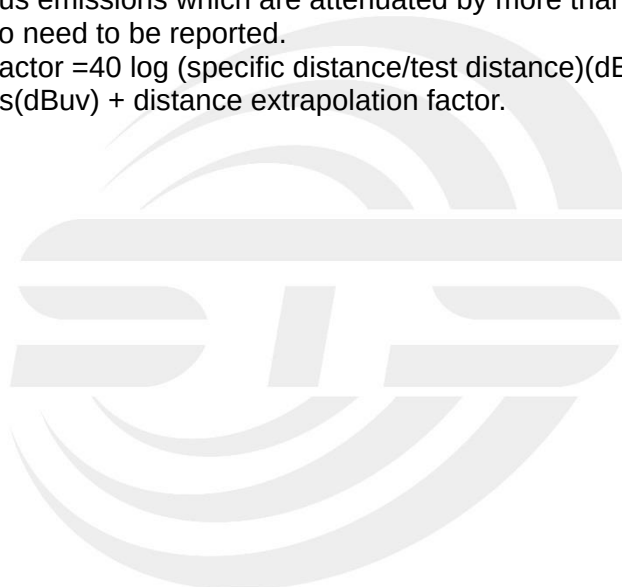
Freq.	Reading	Limit	Margin	State
(MHz)	(dBuV/m)	(dBuV/m)	(dB)	P/F
--	--	--	--	PASS
--	--	--	--	PASS

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

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



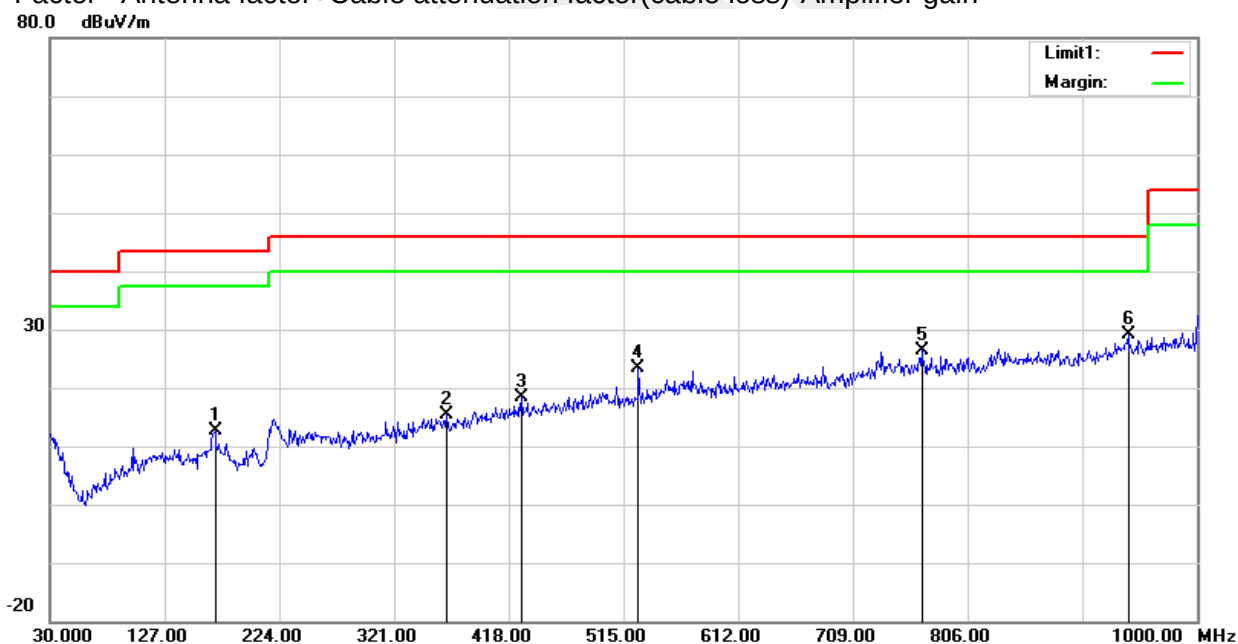
**3.2.7 TEST RESULTS (Between 30MHz – 1GHz)**

Temperature	23.1(C)	Relative Humidity:	60%RH
Test Voltage	DC 3.8V	Polarization:	Horizontal
Test Mode	Mode 1~9(Mode 1 worst mode)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	169.6800	32.30	-19.76	12.54	43.50	-30.96	QP
2	365.6200	28.08	-12.66	15.42	46.00	-30.58	QP
3	428.6700	28.50	-10.14	18.36	46.00	-27.64	QP
4	527.6100	30.81	-7.54	23.27	46.00	-22.73	QP
5	767.2000	28.70	-2.29	26.41	46.00	-19.59	QP
6	941.8000	27.67	1.42	29.09	46.00	-16.91	QP

Remark:

1. Margin = Result (Result = Reading + Factor) – Limit
2. Factor = Antenna factor + Cable attenuation factor (cable loss) – Amplifier gain



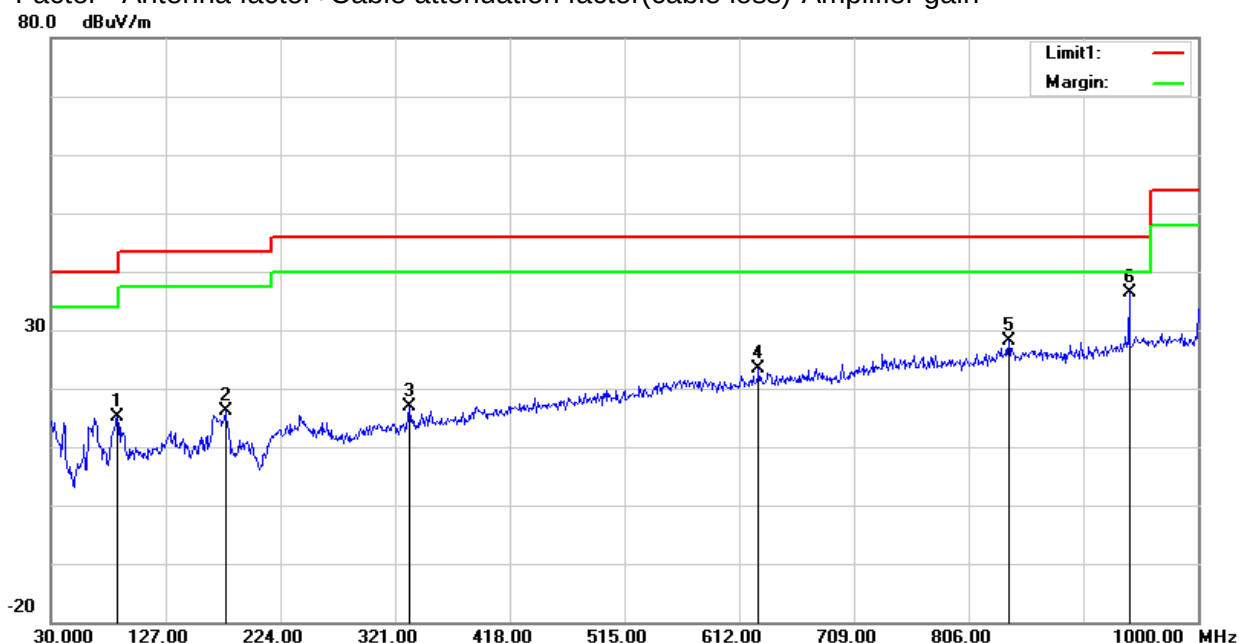


Temperature	23.1(C)	Relative Humidity:	60%RH
Test Voltage	DC 3.8V	Polarization:	Vertical
Test Mode	Mode 1~9(Mode 1 worst mode)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	86.2600	37.16	-21.96	15.20	40.00	-24.80	QP
2	177.4400	36.21	-20.03	16.18	43.50	-27.32	QP
3	332.6400	30.56	-13.62	16.94	46.00	-29.06	QP
4	628.4900	28.46	-5.11	23.35	46.00	-22.65	QP
5	839.9500	28.53	-0.34	28.19	46.00	-17.81	QP
6	941.8000	34.98	1.42	36.40	46.00	-9.60	QP

Remark:

1. Margin = Result (Result = Reading + Factor) – Limit
2. Factor = Antenna factor + Cable attenuation factor (cable loss) – Amplifier gain





3.2.8 TEST RESULTS (Above 1000 MHz)

Band I 5150-5250MHz

Frequency (MHz)	Reading (dBuV)	Amplifier (dB)	Loss (dB)	Antenna Factor (dB/m)	Corrected Factor (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Comment
Low Channel (802.11a20/ 5180 MHz)										
3257.23	44.08	44.70	6.70	28.20	-9.80	34.28	68.20	-33.92	Pk	Vertical
3257.23	41.09	44.70	6.70	28.20	-9.80	31.29	54.00	-22.71	AV	Vertical
3259.43	44.65	44.70	6.70	28.20	-9.80	34.85	68.20	-33.35	Pk	Horizontal
3259.43	42.10	44.70	6.70	28.20	-9.80	32.30	54.00	-21.70	AV	Horizontal
3985.24	39.05	44.20	7.90	29.70	-6.60	32.45	74.00	-41.55	Pk	Vertical
3985.24	36.83	44.20	7.90	29.70	-6.60	30.23	54.00	-23.77	AV	Vertical
3987.90	39.52	44.20	7.90	29.70	-6.60	32.92	74.00	-41.08	Pk	Horizontal
3987.90	36.44	44.20	7.90	29.70	-6.60	29.84	54.00	-24.16	AV	Horizontal
7233.33	36.66	43.50	11.40	35.50	3.40	40.06	68.20	-28.14	Pk	Vertical
7233.33	33.56	43.50	11.40	35.50	3.40	36.96	54.00	-17.04	AV	Vertical
7232.45	36.87	43.50	11.40	35.50	3.40	40.27	68.20	-27.93	Pk	Horizontal
7232.45	34.83	43.50	11.40	35.50	3.40	38.23	54.00	-15.77	AV	Horizontal
10360.07	38.71	44.50	13.80	38.80	8.10	46.81	68.20	-21.39	Pk	Vertical
10360.07	36.39	44.50	13.80	38.80	8.10	44.49	54.00	-9.51	AV	Vertical
10360.24	39.68	44.50	13.80	38.80	8.10	47.78	68.20	-20.42	Pk	Horizontal
10360.24	36.48	44.50	13.80	38.80	8.10	44.58	54.00	-9.42	AV	Horizontal
11017.40	33.39	43.60	14.30	39.50	10.20	43.59	68.20	-24.61	Pk	Vertical
11017.40	29.74	43.60	14.30	39.50	10.20	39.94	54.00	-14.06	AV	Vertical
11034.18	32.92	43.60	14.30	39.50	10.20	43.12	68.20	-25.08	Pk	Horizontal
11034.18	30.51	43.60	14.30	39.50	10.20	40.71	54.00	-13.29	AV	Horizontal
13288.17	32.85	42.60	15.90	38.90	12.20	45.05	68.20	-23.15	Pk	Vertical
13288.17	29.64	42.60	15.90	38.90	12.20	41.84	54.00	-12.16	AV	Vertical
13284.36	31.88	42.60	15.90	38.90	12.20	44.08	68.20	-24.12	Pk	Horizontal
13284.36	29.86	42.60	15.90	38.90	12.20	42.06	54.00	-11.94	AV	Horizontal
Mid Channel (802.11a20/ 5200 MHz)										
3257.49	45.21	44.70	6.70	28.20	-9.80	35.41	68.20	-32.79	Pk	Vertical
3257.49	41.57	44.70	6.70	28.20	-9.80	31.77	54.00	-22.23	AV	Vertical
3251.72	44.70	44.70	6.70	28.20	-9.80	34.90	68.20	-33.30	Pk	Horizontal
3251.72	41.75	44.70	6.70	28.20	-9.80	31.95	54.00	-22.05	AV	Horizontal
3987.76	39.86	44.20	7.90	29.70	-6.60	33.26	74.00	-40.74	Pk	Vertical
3987.76	36.96	44.20	7.90	29.70	-6.60	30.36	54.00	-23.64	AV	Vertical
3985.09	38.65	44.20	7.90	29.70	-6.60	32.05	74.00	-41.95	Pk	Horizontal
3985.09	35.73	44.20	7.90	29.70	-6.60	29.13	54.00	-24.87	AV	Horizontal
7222.35	37.62	43.50	11.40	35.50	3.40	41.02	68.20	-27.18	Pk	Vertical
7222.35	33.60	43.50	11.40	35.50	3.40	37.00	54.00	-17.00	AV	Vertical
7235.22	37.88	43.50	11.40	35.50	3.40	41.28	68.20	-26.92	Pk	Horizontal
7235.22	33.59	43.50	11.40	35.50	3.40	36.99	54.00	-17.01	AV	Horizontal
10400.23	39.54	44.50	13.80	38.80	8.10	47.64	68.20	-20.56	Pk	Vertical
10400.23	37.17	44.50	13.80	38.80	8.10	45.27	54.00	-8.73	AV	Vertical
10400.17	39.45	44.50	13.80	38.80	8.10	47.55	68.20	-20.65	Pk	Horizontal
10400.17	35.91	44.50	13.80	38.80	8.10	44.01	54.00	-9.99	AV	Horizontal
11031.95	33.49	43.60	14.30	39.50	10.20	43.69	68.20	-24.51	Pk	Vertical
11031.95	31.09	43.60	14.30	39.50	10.20	41.29	54.00	-12.71	AV	Vertical
11020.94	33.87	43.60	14.30	39.50	10.20	44.07	68.20	-24.13	Pk	Horizontal
11020.94	29.81	43.60	14.30	39.50	10.20	40.01	54.00	-13.99	AV	Horizontal
13289.06	31.85	42.60	15.90	38.90	12.20	44.05	68.20	-24.15	Pk	Vertical
13289.06	29.38	42.60	15.90	38.90	12.20	41.58	54.00	-12.42	AV	Vertical
13291.40	32.93	42.60	15.90	38.90	12.20	45.13	68.20	-23.07	Pk	Horizontal
13291.40	29.63	42.60	15.90	38.90	12.20	41.83	54.00	-12.17	AV	Horizontal



High Channel (802.11a20/ 5240 MHz)										
3253.04	43.92	44.70	6.70	28.20	-9.80	34.12	68.20	-34.08	Pk	Vertical
3253.04	41.54	44.70	6.70	28.20	-9.80	31.74	54.00	-22.26	AV	Vertical
3245.43	44.45	44.70	6.70	28.20	-9.80	34.65	68.20	-33.55	Pk	Horizontal
3245.43	41.74	44.70	6.70	28.20	-9.80	31.94	54.00	-22.06	AV	Horizontal
3981.23	40.01	44.20	7.90	29.70	-6.60	33.41	74.00	-40.59	Pk	Vertical
3981.23	35.73	44.20	7.90	29.70	-6.60	29.13	54.00	-24.87	AV	Vertical
3986.30	39.95	44.20	7.90	29.70	-6.60	33.35	74.00	-40.65	Pk	Horizontal
3986.30	36.17	44.20	7.90	29.70	-6.60	29.57	54.00	-24.43	AV	Horizontal
7220.65	37.34	43.50	11.40	35.50	3.40	40.74	68.20	-27.46	Pk	Vertical
7220.65	34.40	43.50	11.40	35.50	3.40	37.80	54.00	-16.20	AV	Vertical
7227.47	36.44	43.50	11.40	35.50	3.40	39.84	68.20	-28.36	Pk	Horizontal
7227.47	34.82	43.50	11.40	35.50	3.40	38.22	54.00	-15.78	AV	Horizontal
10480.23	39.86	44.50	13.80	38.80	8.10	47.96	68.20	-20.24	Pk	Vertical
10480.23	36.98	44.50	13.80	38.80	8.10	45.08	54.00	-8.92	AV	Vertical
10480.27	40.12	44.50	13.80	38.80	8.10	48.22	68.20	-19.98	Pk	Horizontal
10480.27	36.70	44.50	13.80	38.80	8.10	44.80	54.00	-9.20	AV	Horizontal
11027.20	33.24	43.60	14.30	39.50	10.20	43.44	68.20	-24.76	Pk	Vertical
11027.20	30.89	43.60	14.30	39.50	10.20	41.09	54.00	-12.91	AV	Vertical
11035.17	32.74	43.60	14.30	39.50	10.20	42.94	68.20	-25.26	Pk	Horizontal
11035.17	30.11	43.60	14.30	39.50	10.20	40.31	54.00	-13.69	AV	Horizontal
13299.21	32.01	42.60	15.90	38.90	12.20	44.21	68.20	-23.99	Pk	Vertical
13299.21	29.54	42.60	15.90	38.90	12.20	41.74	54.00	-12.26	AV	Vertical
13291.84	32.69	42.60	15.90	38.90	12.20	44.89	68.20	-23.31	Pk	Horizontal
13291.84	29.20	42.60	15.90	38.90	12.20	41.40	54.00	-12.60	AV	Horizontal

Remark:

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.
2. Scan with 802.11a,802.11n (HT-20),802.11n (HT-40) the worst case is 802.11a.
3. The frequency emission of peak points that did not show above the forms are at least 20dB below the limit, the frequency emission is mainly from the environment noise.



Band II 5250-5350MHz

Frequency (MHz)	Reading (dBuV)	Amplifier (dB)	Loss (dB)	Antenna Factor (dB/m)	Orrected Factor (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Comment
Low Channel (802.11a20/ 5260 MHz)										
3253.04	43.92	44.70	6.70	28.20	-9.80	34.12	68.20	-34.08	Pk	Vertical
3253.04	41.54	44.70	6.70	28.20	-9.80	31.74	54.00	-22.26	AV	Vertical
3245.43	44.45	44.70	6.70	28.20	-9.80	34.65	68.20	-33.55	Pk	Horizontal
3245.43	41.74	44.70	6.70	28.20	-9.80	31.94	54.00	-22.06	AV	Horizontal
3981.23	40.01	44.20	7.90	29.70	-6.60	33.41	74.00	-40.59	Pk	Vertical
3981.23	35.73	44.20	7.90	29.70	-6.60	29.13	54.00	-24.87	AV	Vertical
3986.30	39.95	44.20	7.90	29.70	-6.60	33.35	74.00	-40.65	Pk	Horizontal
3986.30	36.17	44.20	7.90	29.70	-6.60	29.57	54.00	-24.43	AV	Horizontal
7220.65	37.34	43.50	11.40	35.50	3.40	40.74	68.20	-27.46	Pk	Vertical
7220.65	34.40	43.50	11.40	35.50	3.40	37.80	54.00	-16.20	AV	Vertical
7227.47	36.44	43.50	11.40	35.50	3.40	39.84	68.20	-28.36	Pk	Horizontal
7227.47	34.82	43.50	11.40	35.50	3.40	38.22	54.00	-15.78	AV	Horizontal
10480.23	39.86	44.50	13.90	38.80	8.20	48.06	68.20	-20.14	Pk	Vertical
10480.23	36.98	44.50	13.90	38.80	8.20	45.18	54.00	-8.82	AV	Vertical
10480.27	40.12	44.50	13.90	38.80	8.20	48.32	68.20	-19.88	Pk	Horizontal
10480.27	36.70	44.50	13.90	38.80	8.20	44.90	54.00	-9.10	AV	Horizontal
11027.20	33.24	43.60	14.30	39.50	10.20	43.44	68.20	-24.76	Pk	Vertical
11027.20	30.89	43.60	14.30	39.50	10.20	41.09	54.00	-12.91	AV	Vertical
11035.17	32.74	43.60	14.30	39.50	10.20	42.94	68.20	-25.26	Pk	Horizontal
11035.17	30.11	43.60	14.30	39.50	10.20	40.31	54.00	-13.69	AV	Horizontal
13299.21	32.01	42.60	15.90	38.90	12.20	44.21	68.20	-23.99	Pk	Vertical
13299.21	29.54	42.60	15.90	38.90	12.20	41.74	54.00	-12.26	AV	Vertical
13291.84	32.69	42.60	15.90	38.90	12.20	44.89	68.20	-23.31	Pk	Horizontal
13291.84	29.20	42.60	15.90	38.90	12.20	41.40	54.00	-12.60	AV	Horizontal
Mid Channel (802.11a20/ 5300 MHz)										
3255.25	44.37	44.70	6.70	28.20	-9.80	34.57	68.20	-33.63	Pk	Vertical
3255.25	41.72	44.70	6.70	28.20	-9.80	31.92	54.00	-22.08	AV	Vertical
3252.43	44.71	44.70	6.70	28.20	-9.80	34.91	68.20	-33.29	Pk	Horizontal
3252.43	41.31	44.70	6.70	28.20	-9.80	31.51	54.00	-22.49	AV	Horizontal
3992.84	38.75	44.20	7.90	29.70	-6.60	32.15	74.00	-41.85	Pk	Vertical
3992.84	36.09	44.20	7.90	29.70	-6.60	29.49	54.00	-24.51	AV	Vertical
3981.51	40.07	44.20	7.90	29.70	-6.60	33.47	74.00	-40.53	Pk	Horizontal
3981.51	35.92	44.20	7.90	29.70	-6.60	29.32	54.00	-24.68	AV	Horizontal
7216.91	37.47	43.50	11.40	35.50	3.40	40.87	68.20	-27.33	Pk	Vertical
7216.91	33.50	43.50	11.40	35.50	3.40	36.90	54.00	-17.10	AV	Vertical
7235.13	37.39	43.50	11.40	35.50	3.40	40.79	68.20	-27.41	Pk	Horizontal
7235.13	34.28	43.50	11.40	35.50	3.40	37.68	54.00	-16.32	AV	Horizontal
10600.07	39.30	44.50	13.80	38.80	8.10	47.40	68.20	-20.80	Pk	Vertical
10600.07	36.63	44.50	13.80	38.80	8.10	44.73	54.00	-9.27	AV	Vertical
10600.06	39.13	44.50	13.80	38.80	8.10	47.23	68.20	-20.97	Pk	Horizontal
10600.06	36.02	44.50	13.80	38.80	8.10	44.12	54.00	-9.88	AV	Horizontal
11036.39	33.76	43.60	14.30	39.50	10.20	43.96	68.20	-24.24	Pk	Vertical
11036.39	29.73	43.60	14.30	39.50	10.20	39.93	54.00	-14.07	AV	Vertical
11027.60	33.10	43.60	14.30	39.50	10.20	43.30	68.20	-24.90	Pk	Horizontal
11027.60	29.72	43.60	14.30	39.50	10.20	39.92	54.00	-14.08	AV	Horizontal
13289.51	32.50	42.60	15.90	38.90	12.20	44.70	68.20	-23.50	Pk	Vertical
13289.51	29.65	42.60	15.90	38.90	12.20	41.85	54.00	-12.15	AV	Vertical
13280.92	31.98	42.60	15.90	38.90	12.20	44.18	68.20	-24.02	Pk	Horizontal
13280.92	29.51	42.60	15.90	38.90	12.20	41.71	54.00	-12.29	AV	Horizontal



High Channel (802.11a20/ 5320 MHz)										
3249.92	44.38	44.70	6.70	28.20	-9.80	34.58	68.20	-33.62	Pk	Vertical
3249.92	41.01	44.70	6.70	28.20	-9.80	31.21	54.00	-22.79	AV	Vertical
3259.90	44.27	44.70	6.70	28.20	-9.80	34.47	68.20	-33.73	Pk	Horizontal
3259.90	40.81	44.70	6.70	28.20	-9.80	31.01	54.00	-22.99	AV	Horizontal
3995.66	38.69	44.20	7.90	29.70	-6.60	32.09	74.00	-41.91	Pk	Vertical
3995.66	36.13	44.20	7.90	29.70	-6.60	29.53	54.00	-24.47	AV	Vertical
3999.40	39.21	44.20	7.90	29.70	-6.60	32.61	74.00	-41.39	Pk	Horizontal
3999.40	36.02	44.20	7.90	29.70	-6.60	29.42	54.00	-24.58	AV	Horizontal
7236.09	37.52	43.50	11.40	35.50	3.40	40.92	68.20	-27.28	Pk	Vertical
7236.09	34.51	43.50	11.40	35.50	3.40	37.91	54.00	-16.09	AV	Vertical
7223.24	36.79	43.50	11.40	35.50	3.40	40.19	68.20	-28.01	Pk	Horizontal
7223.24	34.23	43.50	11.40	35.50	3.40	37.63	54.00	-16.37	AV	Horizontal
10640.39	39.29	44.50	13.80	38.80	8.10	47.39	68.20	-20.81	Pk	Vertical
10640.39	37.01	44.50	13.80	38.80	8.10	45.11	54.00	-8.89	AV	Vertical
10640.39	40.17	44.50	13.80	38.80	8.10	48.27	68.20	-19.93	Pk	Horizontal
10640.39	35.85	44.50	13.80	38.80	8.10	43.95	54.00	-10.05	AV	Horizontal
11033.52	33.96	43.60	14.30	39.50	10.20	44.16	68.20	-24.04	Pk	Vertical
11033.52	31.03	43.60	14.30	39.50	10.20	41.23	54.00	-12.77	AV	Vertical
11024.79	34.11	43.60	14.30	39.50	10.20	44.31	68.20	-23.89	Pk	Horizontal
11024.79	30.22	43.60	14.30	39.50	10.20	40.42	54.00	-13.58	AV	Horizontal
13299.43	31.53	42.70	18.00	37.10	12.40	43.93	68.20	-24.27	Pk	Vertical
13299.43	29.34	42.70	18.00	37.10	12.40	41.74	54.00	-12.26	AV	Vertical
13285.14	31.82	42.70	18.00	37.10	12.40	44.22	68.20	-23.98	Pk	Horizontal
13285.14	29.35	42.70	18.00	37.10	12.40	41.75	54.00	-12.25	AV	Horizontal

Remark:

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.
2. Scan with 802.11a,802.11n (HT-20),802.11n (HT-40) the worst case is 802.11a.
3. The frequency emission of peak points that did not show above the forms are at least 20dB below the limit, the frequency emission is mainly from the environment noise.



Band IV(5.725-5.850) GHz

Frequency (MHz)	Reading	Amplifier	Loss	Antenna Factor	Orrected Factor	Emission Level	Limit (dBuV/m)	Margin	Detector	Comment
	(dBuV)	(dB)	(dB)	(dB/m)	(dB)	(dBμV/m)		(dB)		
Low Channel (802.11n20/ 5745 MHz)										
3264.78	44.94	44.70	6.70	28.20	-9.80	35.14	68.20	-33.06	Pk	Vertical
3264.78	41.30	44.70	6.70	28.20	-9.80	31.50	54.00	-22.50	AV	Vertical
3253.23	44.93	44.70	6.70	28.20	-9.80	35.13	68.20	-33.07	Pk	Horizontal
3253.23	40.90	44.70	6.70	28.20	-9.80	31.10	54.00	-22.90	AV	Horizontal
3992.28	39.92	44.20	7.90	29.70	-6.60	33.32	74.00	-40.68	Pk	Vertical
3992.28	36.51	44.20	7.90	29.70	-6.60	29.91	54.00	-24.09	AV	Vertical
3996.11	39.88	44.20	7.90	29.70	-6.60	33.28	74.00	-40.72	Pk	Horizontal
3996.11	36.18	44.20	7.90	29.70	-6.60	29.58	54.00	-24.42	AV	Horizontal
7218.57	37.06	43.50	11.40	35.50	3.40	40.46	68.20	-27.74	Pk	Vertical
7218.57	34.56	43.50	11.40	35.50	3.40	37.96	54.00	-16.04	AV	Vertical
7229.70	37.29	43.50	11.40	35.50	3.40	40.69	68.20	-27.51	Pk	Horizontal
7229.70	34.65	43.50	11.40	35.50	3.40	38.05	54.00	-15.95	AV	Horizontal
10519.28	38.78	44.50	13.90	38.80	8.20	46.98	68.20	-21.22	Pk	Vertical
10519.28	37.06	44.50	13.90	38.80	8.20	45.26	54.00	-8.74	AV	Vertical
10504.69	39.38	44.50	13.90	38.80	8.20	47.58	68.20	-20.62	Pk	Horizontal
10504.69	36.14	44.50	13.90	38.80	8.20	44.34	54.00	-9.66	AV	Horizontal
11490.37	33.59	43.60	14.30	39.50	10.20	43.79	68.20	-24.41	Pk	Vertical
11490.37	30.20	43.60	14.30	39.50	10.20	40.40	54.00	-13.60	AV	Vertical
11490.07	33.29	43.60	14.30	39.50	10.20	43.49	68.20	-24.71	Pk	Horizontal
11490.07	30.87	43.60	14.30	39.50	10.20	41.07	54.00	-12.93	AV	Horizontal
13292.19	31.87	42.60	15.90	38.90	12.20	44.07	68.20	-24.13	Pk	Vertical
13292.19	28.95	42.60	15.90	38.90	12.20	41.15	54.00	-12.85	AV	Vertical
13296.64	32.90	42.60	15.90	38.90	12.20	45.10	68.20	-23.10	Pk	Horizontal
13296.64	29.03	42.60	15.90	38.90	12.20	41.23	54.00	-12.77	AV	Horizontal
Mid Channel (802.11n20/ 5785 MHz)										
3256.71	44.45	44.70	6.70	28.20	-9.80	34.65	68.20	-33.55	Pk	Vertical
3256.71	41.66	44.70	6.70	28.20	-9.80	31.86	54.00	-22.14	AV	Vertical
3258.78	44.96	44.70	6.70	28.20	-9.80	35.16	68.20	-33.04	Pk	Horizontal
3258.78	40.93	44.70	6.70	28.20	-9.80	31.13	54.00	-22.87	AV	Horizontal
3988.54	39.01	44.20	7.90	29.70	-6.60	32.41	74.00	-41.59	Pk	Vertical
3988.54	36.86	44.20	7.90	29.70	-6.60	30.26	54.00	-23.74	AV	Vertical
3983.14	39.84	44.20	7.90	29.70	-6.60	33.24	74.00	-40.76	Pk	Horizontal
3983.14	36.63	44.20	7.90	29.70	-6.60	30.03	54.00	-23.97	AV	Horizontal
7227.44	37.15	43.50	11.40	35.50	3.40	40.55	68.20	-27.65	Pk	Vertical
7227.44	34.78	43.50	11.40	35.50	3.40	38.18	54.00	-15.82	AV	Vertical
7217.89	37.69	43.50	11.40	35.50	3.40	41.09	68.20	-27.11	Pk	Horizontal
7217.89	34.90	43.50	11.40	35.50	3.40	38.30	54.00	-15.70	AV	Horizontal
10584.37	39.76	44.50	13.80	38.80	8.10	47.86	68.20	-20.34	Pk	Vertical
10584.37	36.88	44.50	13.80	38.80	8.10	44.98	54.00	-9.02	AV	Vertical
10586.24	39.30	44.50	13.80	38.80	8.10	47.40	68.20	-20.80	Pk	Horizontal
10586.24	36.71	44.50	13.80	38.80	8.10	44.81	54.00	-9.19	AV	Horizontal
11570.05	33.47	43.60	14.30	39.50	10.20	43.67	68.20	-24.53	Pk	Vertical
11570.05	29.78	43.60	14.30	39.50	10.20	39.98	54.00	-14.02	AV	Vertical
11570.11	33.84	43.60	14.30	39.50	10.20	44.04	68.20	-24.16	Pk	Horizontal
11570.11	30.44	43.60	14.30	39.50	10.20	40.64	54.00	-13.36	AV	Horizontal
13285.63	32.56	42.60	15.90	38.90	12.20	44.76	68.20	-23.44	Pk	Vertical
13285.63	29.14	42.60	15.90	38.90	12.20	41.34	54.00	-12.66	AV	Vertical
13294.59	32.28	42.60	15.90	38.90	12.20	44.48	68.20	-23.72	Pk	Horizontal
13294.59	29.84	42.60	15.90	38.90	12.20	42.04	54.00	-11.96	AV	Horizontal



High Channel (802.11n20/ 5825 MHz)										
3259.53	44.78	44.70	6.70	28.20	-9.80	34.98	68.20	-33.22	Pk	Vertical
3259.53	41.87	44.70	6.70	28.20	-9.80	32.07	54.00	-21.93	AV	Vertical
3255.12	43.87	44.70	6.70	28.20	-9.80	34.07	68.20	-34.13	Pk	Horizontal
3255.12	41.02	44.70	6.70	28.20	-9.80	31.22	54.00	-22.78	AV	Horizontal
3999.46	38.66	44.20	7.90	29.70	-6.60	32.06	74.00	-41.94	Pk	Vertical
3999.46	36.80	44.20	7.90	29.70	-6.60	30.20	54.00	-23.80	AV	Vertical
3992.77	39.91	44.20	7.90	29.70	-6.60	33.31	74.00	-40.69	Pk	Horizontal
3992.77	35.95	44.20	7.90	29.70	-6.60	29.35	54.00	-24.65	AV	Horizontal
7226.28	37.27	43.50	11.40	35.50	3.40	40.67	68.20	-27.53	Pk	Vertical
7226.28	34.09	43.50	11.40	35.50	3.40	37.49	54.00	-16.51	AV	Vertical
7227.55	36.82	43.50	11.40	35.50	3.40	40.22	68.20	-27.98	Pk	Horizontal
7227.55	34.00	43.50	11.40	35.50	3.40	37.40	54.00	-16.60	AV	Horizontal
10638.29	39.57	44.50	13.80	38.80	8.10	47.67	68.20	-20.53	Pk	Vertical
10638.29	35.87	44.50	13.80	38.80	8.10	43.97	54.00	-10.03	AV	Vertical
10640.07	40.14	44.50	13.80	38.80	8.10	48.24	68.20	-19.96	Pk	Horizontal
10640.07	36.27	44.50	13.80	38.80	8.10	44.37	54.00	-9.63	AV	Horizontal
11649.93	33.41	43.60	14.30	39.50	10.20	43.61	68.20	-24.59	Pk	Vertical
11649.93	30.59	43.60	14.30	39.50	10.20	40.79	54.00	-13.21	AV	Vertical
11650.14	33.46	43.60	14.30	39.50	10.20	43.66	68.20	-24.54	Pk	Horizontal
11650.14	29.83	43.60	14.30	39.50	10.20	40.03	54.00	-13.97	AV	Horizontal
13288.70	32.95	42.70	18.00	37.10	12.40	45.35	68.20	-22.85	Pk	Vertical
13288.70	30.01	42.70	18.00	37.10	12.40	42.41	54.00	-11.59	AV	Vertical
13291.75	31.73	42.70	18.00	37.10	12.40	44.13	68.20	-24.07	Pk	Horizontal
13291.75	28.67	42.70	18.00	37.10	12.40	41.07	54.00	-12.93	AV	Horizontal

Remark:

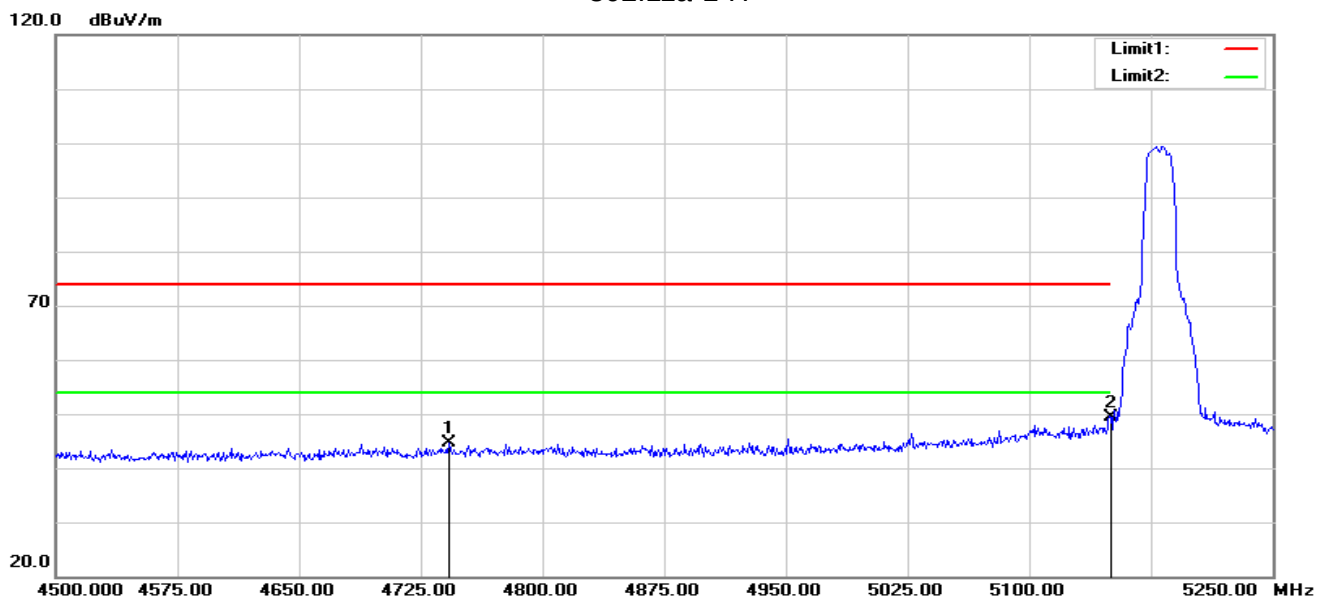
1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.
2. Scan with 802.11a,802.11n (HT-20),802.11n (HT-40) the worst case is 802.11a.
3. The frequency emission of peak points that did not show above the forms are at least 20dB below the limit, the frequency emission is mainly from the environment noise.



3.2.9 RESTRICTED FREQUENCY BANDS AND BAND EDGE

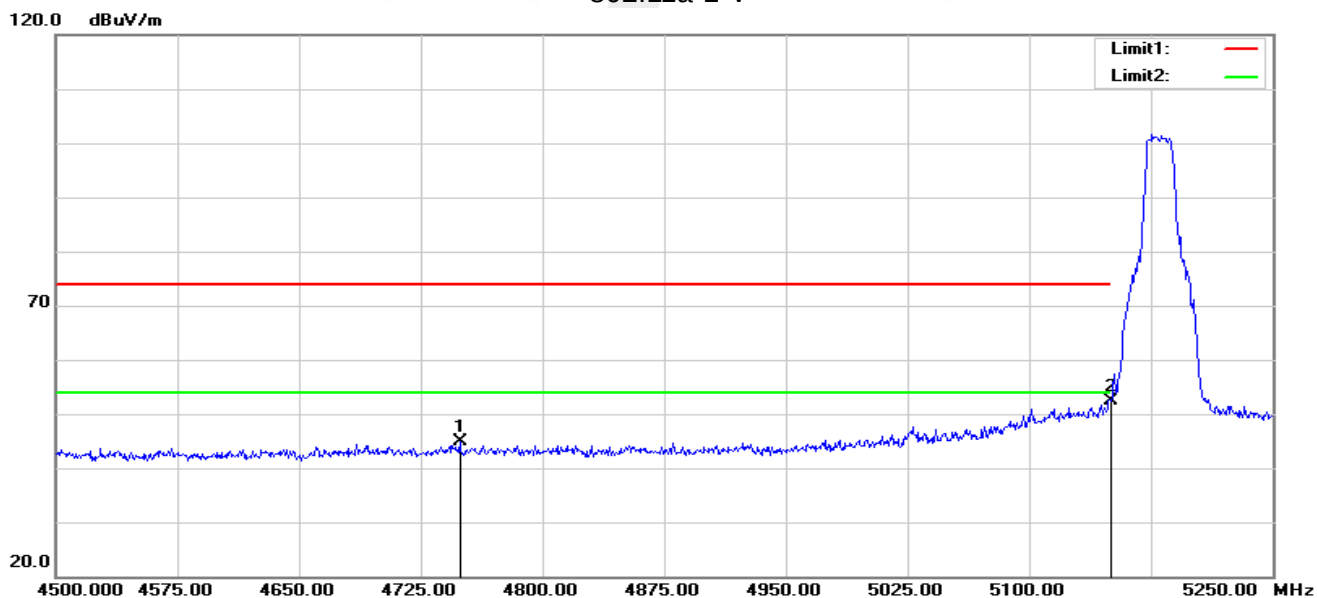
Band I 5150-5250MHz

802.11a-L-H



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4742.250	51.87	-7.31	44.56	74.00	-29.44	peak
2	5150.000	55.05	-5.73	49.32	74.00	-24.68	peak

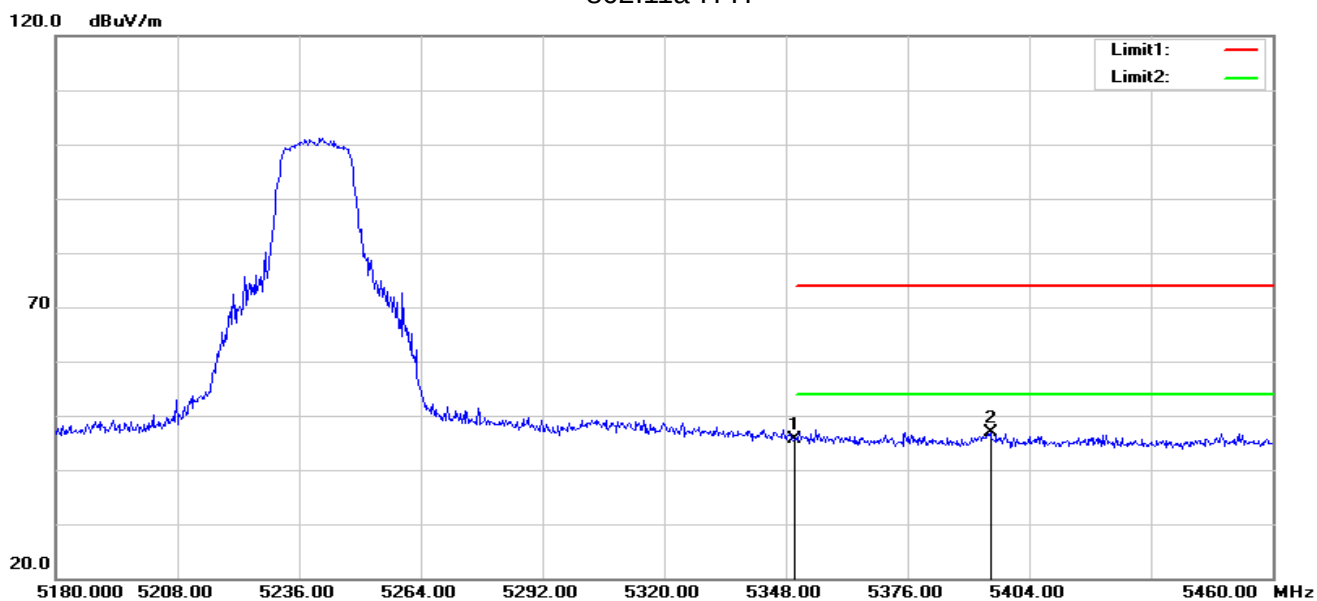
802.11a-L-V



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4749.000	52.14	-7.29	44.85	74.00	-29.15	peak
2	5150.000	58.00	-5.73	52.27	74.00	-21.73	peak

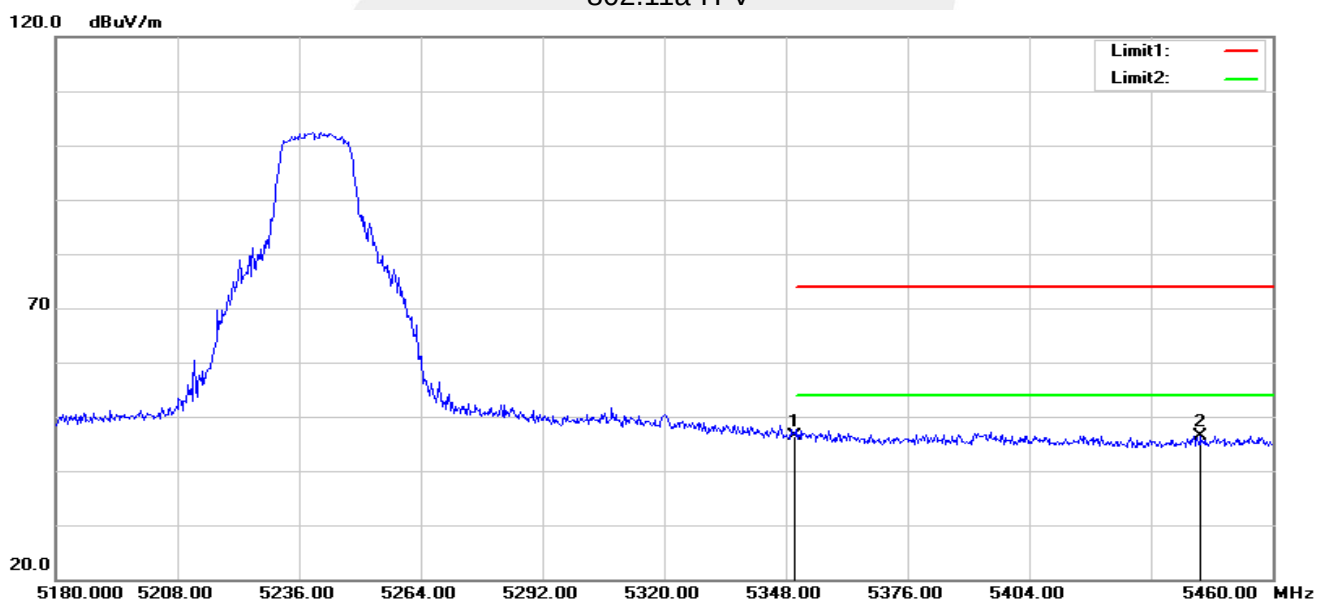


802.11a-H-H



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5350.000	50.93	-5.23	45.70	74.00	-28.30	peak
2	5395.040	52.04	-5.24	46.80	74.00	-27.20	peak

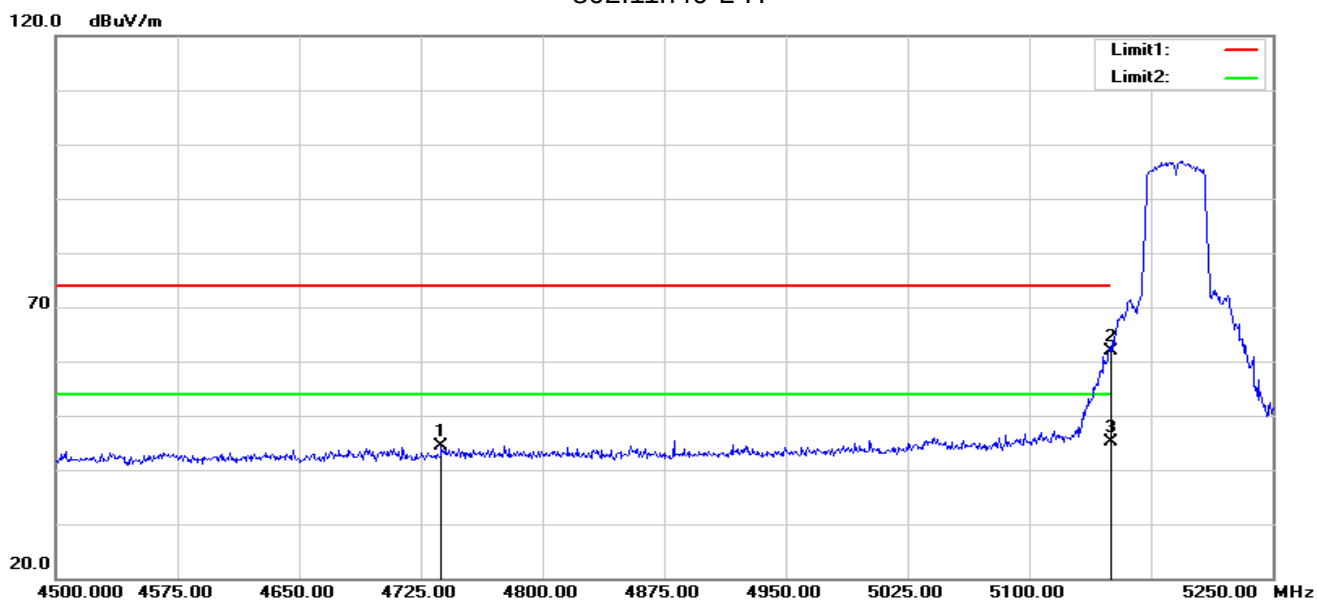
802.11a-H-V



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5350.000	51.58	-5.23	46.35	74.00	-27.65	peak
2	5443.480	51.55	-5.15	46.40	74.00	-27.60	peak

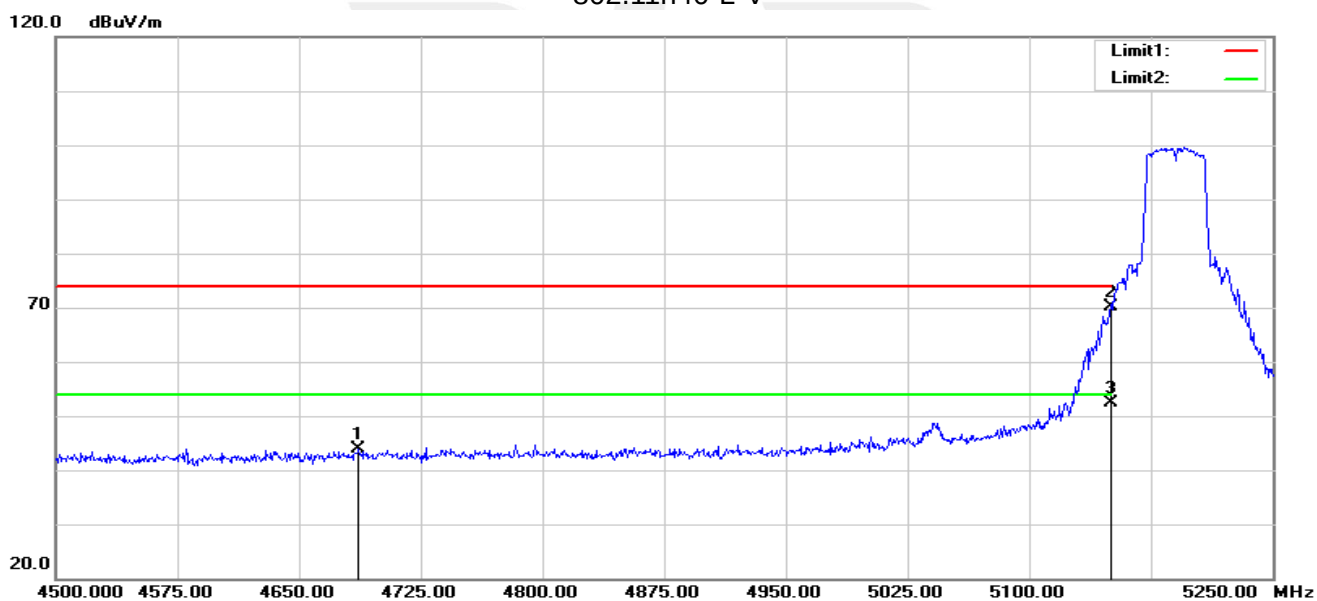


802.11n40-L-H



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4737.750	51.63	-7.30	44.33	74.00	-29.67	peak
2	5150.000	67.72	-5.73	61.99	74.00	-12.01	peak
3	5150.000	50.98	-5.73	45.25	54.00	-8.75	AVG

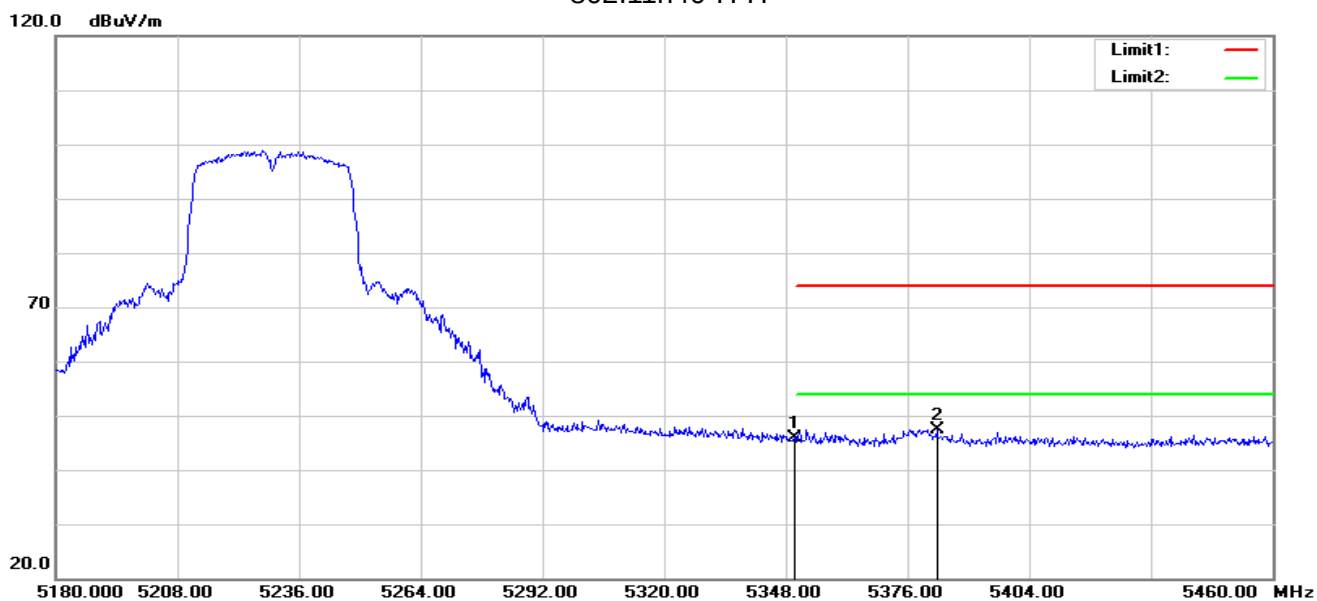
802.11n40-L-V



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4686.750	51.41	-7.43	43.98	74.00	-30.02	peak
2	5150.000	75.97	-5.73	70.24	74.00	-3.76	peak
3	5150.000	58.01	-5.73	52.28	54.00	-1.72	AVG

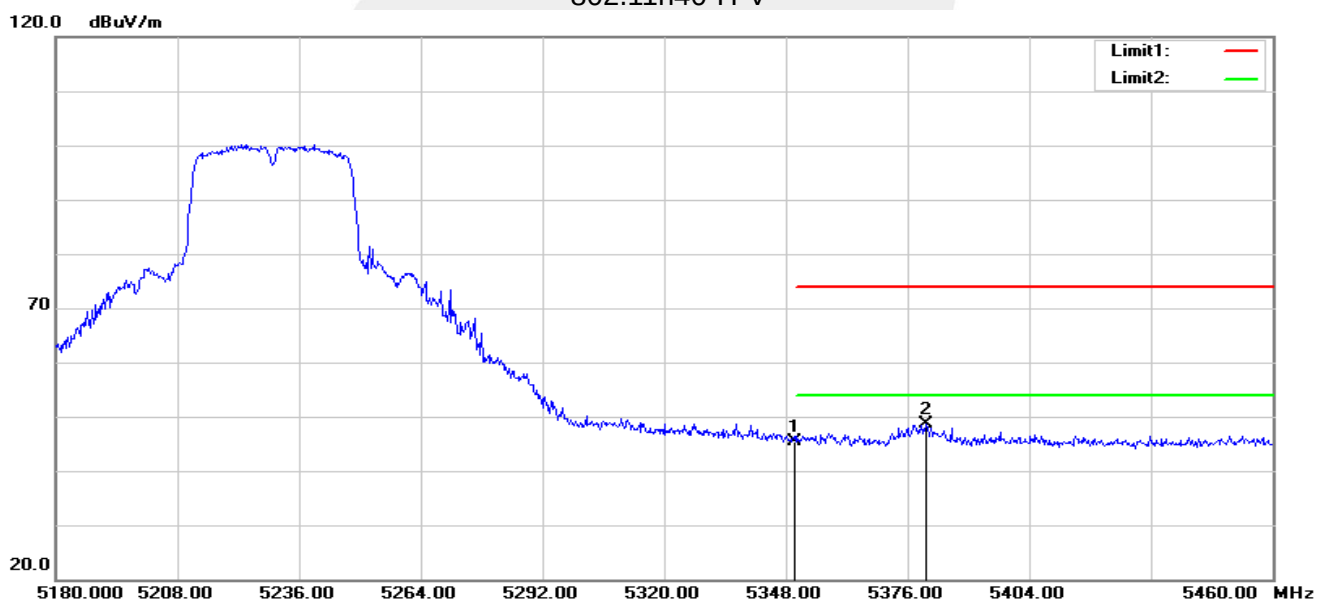


802.11n40-H-H



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5350.000	51.00	-5.23	45.77	74.00	-28.23	peak
2	5382.720	52.72	-5.24	47.48	74.00	-26.52	peak

802.11n40-H-V



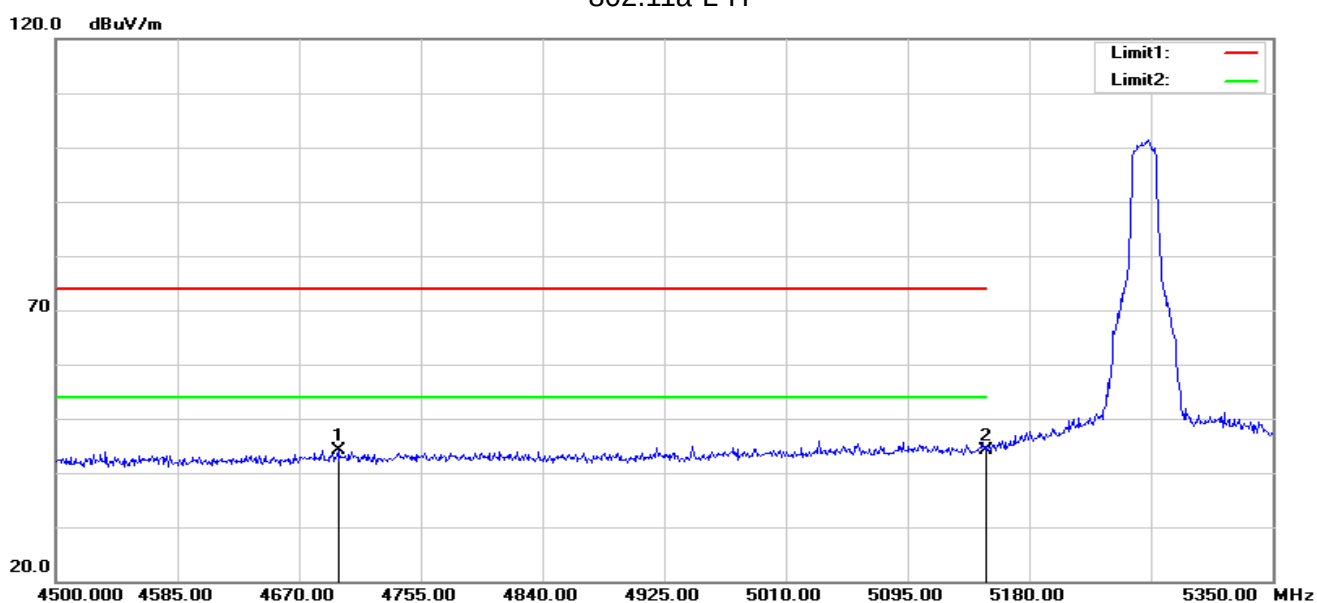
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5350.000	50.52	-5.23	45.29	74.00	-28.71	peak
2	5380.200	53.85	-5.25	48.60	74.00	-25.40	peak

Note: All modes have been tested. Only the worst mode shown in the report.



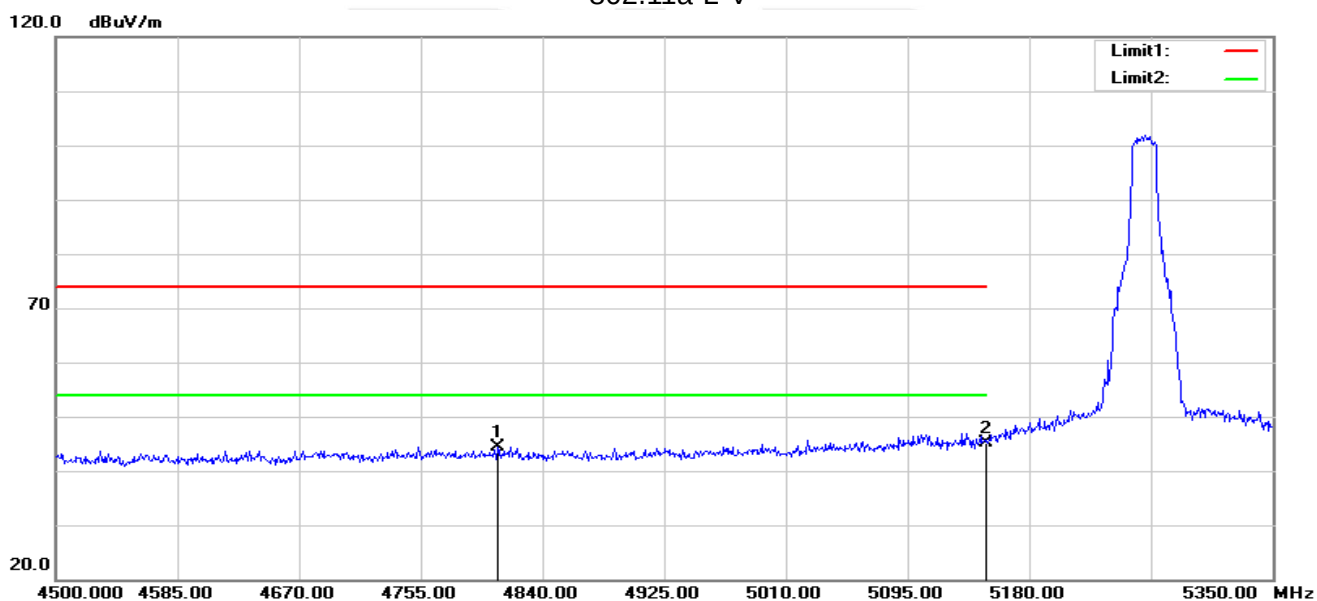
Band II 5250-5350MHz

802.11a-L-H



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4697.200	51.48	-7.38	44.10	74.00	-29.90	peak
2	5150.000	49.88	-5.73	44.15	74.00	-29.85	peak

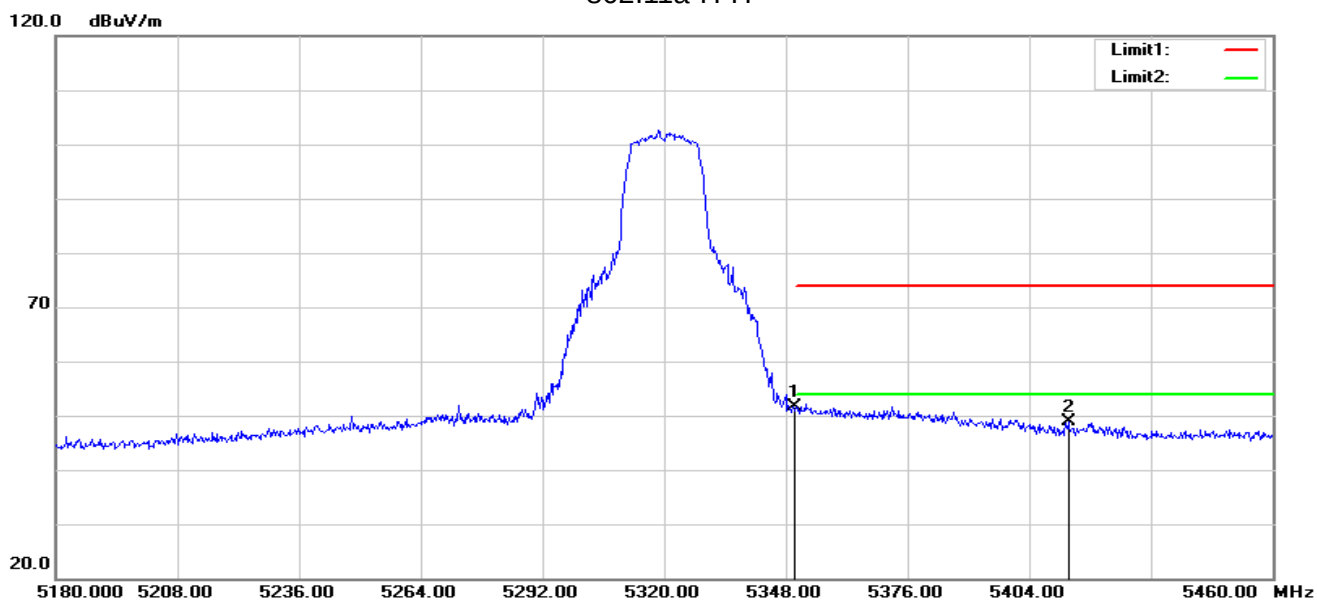
802.11a-L-V



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4808.550	51.65	-7.18	44.47	74.00	-29.53	peak
2	5150.000	50.98	-5.73	45.25	74.00	-28.75	peak

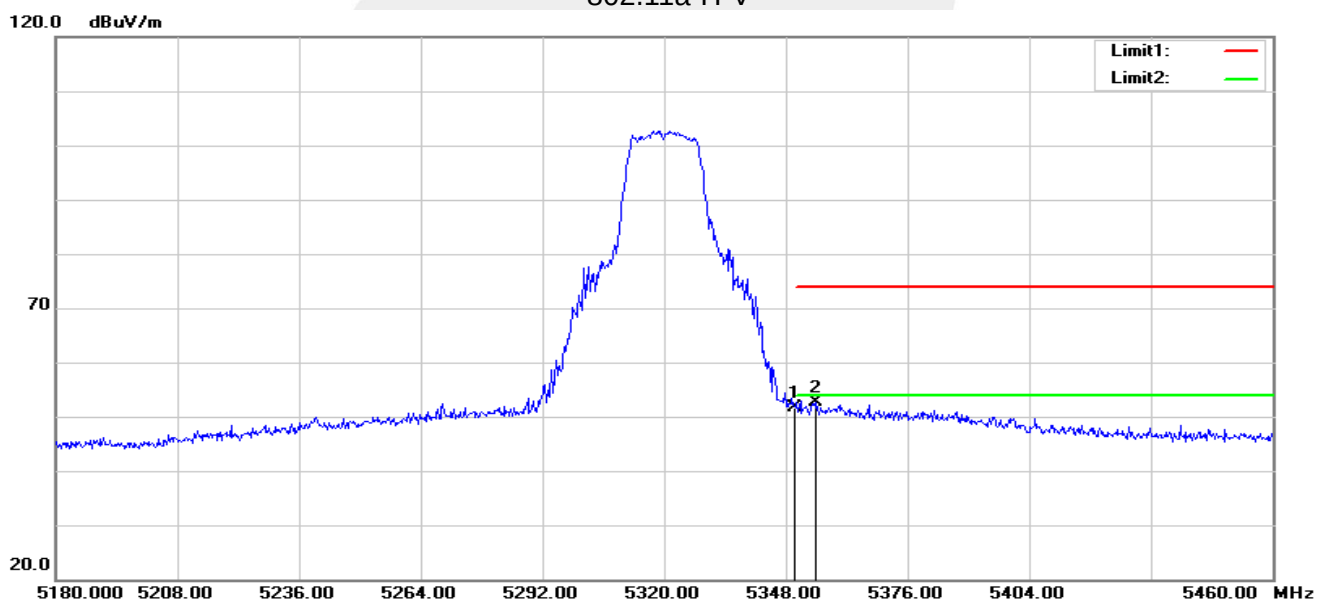


802.11a-H-H



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5350.000	56.89	-5.23	51.66	74.00	-22.34	peak
2	5412.960	54.14	-5.22	48.92	74.00	-25.08	peak

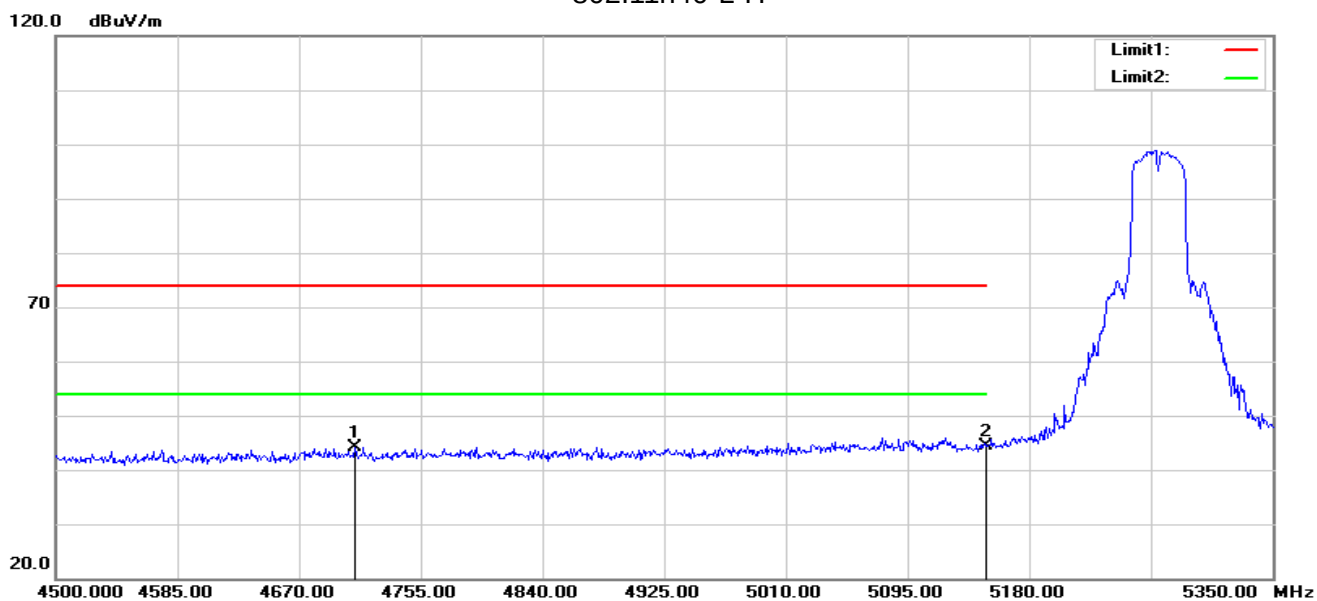
802.11a-H-V



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5350.000	56.83	-5.23	51.60	74.00	-22.40	peak
2	5355.000	57.90	-5.24	52.66	74.00	-21.34	peak

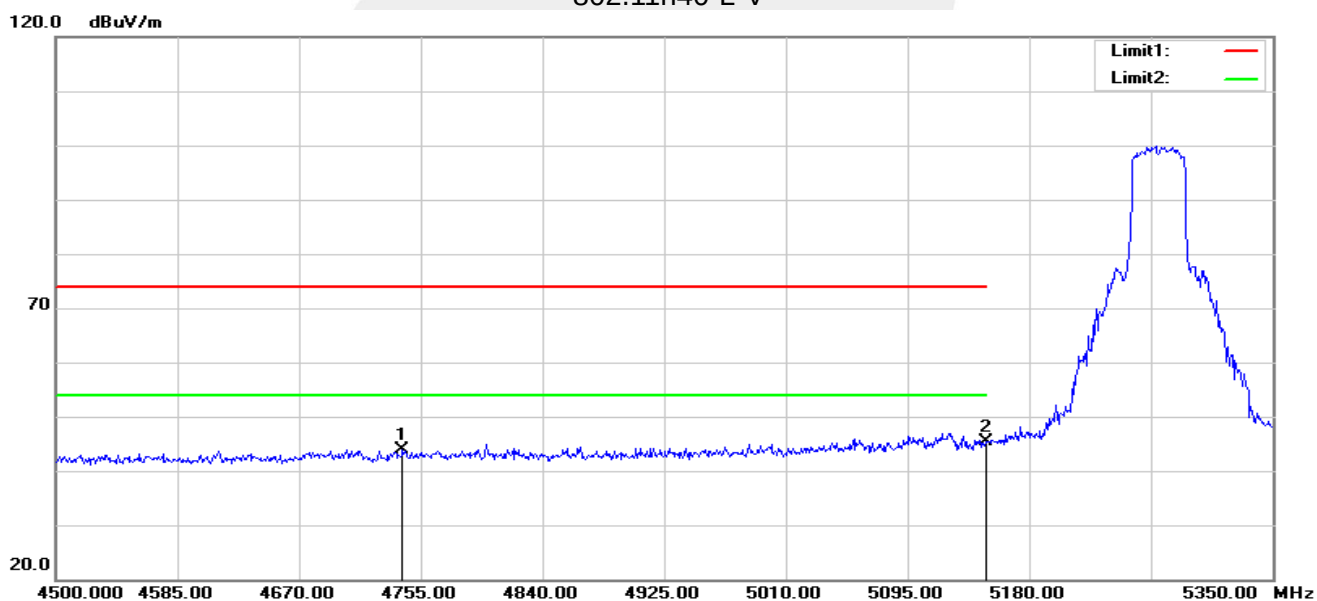


802.11n40-L-H



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4709.100	51.57	-7.35	44.22	74.00	-29.78	peak
2	5150.000	50.19	-5.73	44.46	74.00	-29.54	peak

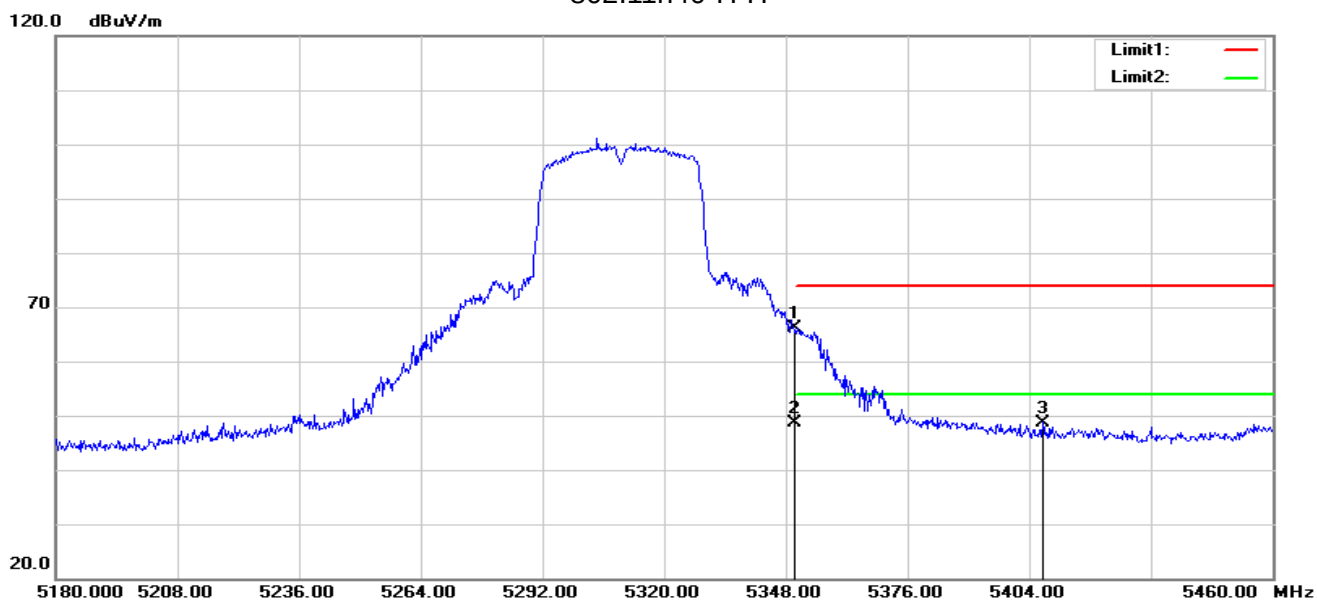
802.11n40-L-V



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4742.250	51.18	-7.31	43.87	74.00	-30.13	peak
2	5150.000	51.12	-5.73	45.39	74.00	-28.61	peak

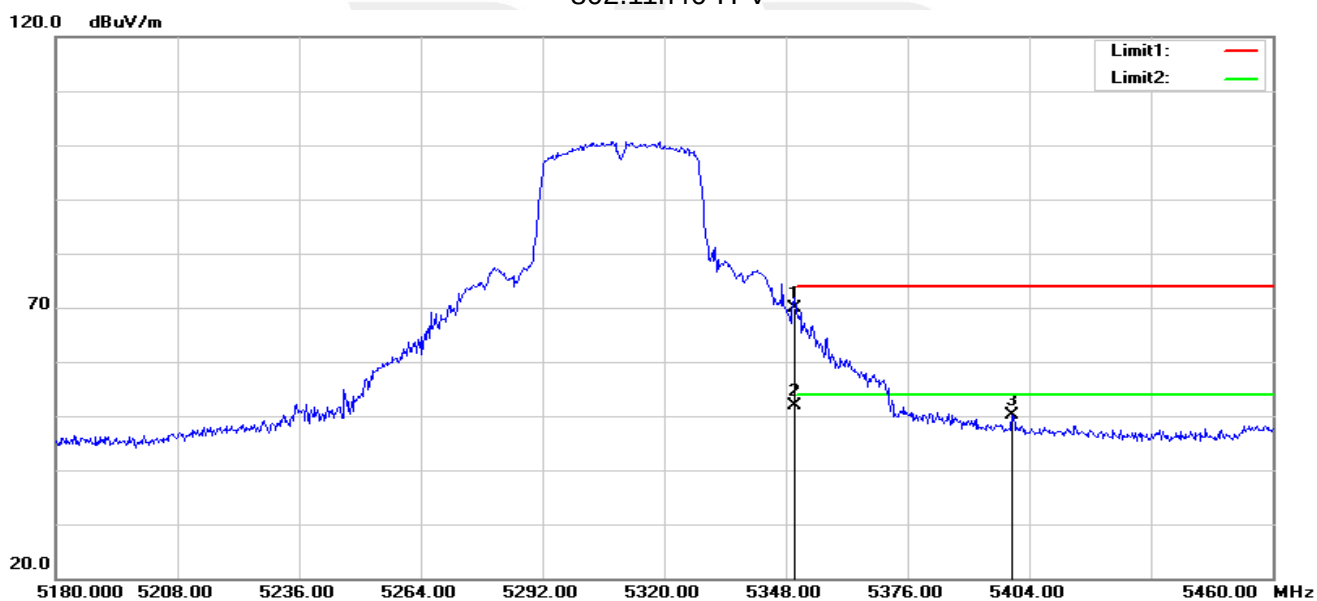


802.11n40-H-H



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5350.000	71.26	-5.23	66.03	74.00	-7.97	peak
2	5350.000	53.74	-5.23	48.51	54.00	-5.49	AVG
3	5407.080	53.98	-5.23	48.75	74.00	-25.25	peak

802.11n40-H-V



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5350.000	75.02	-5.23	69.79	74.00	-4.21	peak
2	5350.000	57.04	-5.23	51.81	54.00	-2.19	AVG
3	5400.080	55.30	-5.25	50.05	74.00	-23.95	peak

Note: All modes have been tested. Only the worst mode shown in the report.