



RADIO TEST REPORT

Report No.:STS2012039W04

Issued for

NEUROMOTION INC.

200 Portland Street 5F, Boston MA 02114

Product Name:	MT004-20
Brand Name:	Mightier
Model Name:	MT004-20
Series Model:	N/A
FCC ID:	2AX89-MT004-20
Test Standard:	FCC Part 15.407

Any reproduction of this document must be done in full. No single part of this document may be reproduced without permission from STS, all test data presented in this report is only applicable to presented test sample.





TEST RESULT CERTIFICATION

Applicant's Name..... : NEUROMOTION INC.

Address : 200 Portland Street 5F, Boston MA 02114

Manufacturer's Name : Shenzhen Pretech Industrial Co., Ltd

Address : 2101A, BAK technology building, Gaoxin Central Avenue 4th,
Nanshan District, Shenzhen 518057, China

Product Description

Product Name..... : MT004-20

Brand Name : Mightier

Model Name : MT004-20

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.

This report shall not be reproduced except in full, without the written approval of STS, this document only be altered or revised by STS, personal only, and shall be noted in the revision of the document.

Date of Test..... :

Date of receipt of test item : 07 Dec. 2020

Date (s) of performance of tests : 07 Dec. 2020 ~ 23 Dec. 2020

Date of Issue..... : 23 Dec. 2020

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

Testing Engineer :

(Chris Chen)

Technical Manager :

(Sean she)

Authorized Signatory :

(Vita Li)





Table of Contents	Page
1 . SUMMARY OF TEST RESULTS	6
1.1 TEST FACTORY	7
1.2 MEASUREMENT UNCERTAINTY	7
2 . GENERAL INFORMATION	8
2.1 GENERAL DESCRIPTION OF THE EUT	8
2.2 DESCRIPTION OF TEST MODES	11
2.3 TEST SOFTWARE AND POWER LEVEL	12
2.4 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED	13
2.5 DESCRIPTION OF NECESSARY ACCESSORIES AND SUPPORT UNITS	14
2.6 EQUIPMENTS LIST FOR ALL TEST ITEMS	15
3 . EMC EMISSION TEST	17
3.1 CONDUCTED EMISSION MEASUREMENT	17
3.2 RADIATED EMISSION AND (BANDEGE) MEASUREMENT	21
4. POWER SPECTRAL DENSITY TEST	60
4.1 LIMIT	60
4.2 TEST PROCEDURE	60
4.3 DEVIATION FROM STANDARD	61
4.4 TEST SETUP	61
4.5 EUT OPERATION CONDITIONS	61
4.6 TEST RESULTS	61
5. BANDWIDTH MEASUREMENT	65
5.1 EMISSION BANDWIDTH (EBW) 26 BANDWID PROCEDURES / LIMIT	65
5.2 OCCUPIED BANDWIDTH (99%) TEST APPLIED PROCEDURES / LIMIT	70
5.3 MINIMUM EMISSION BANDWIDTH(6 DB) PROCEDURES / LIMIT	75
6. MAXIMUM CONDUCTED OUTPUT POWER	77
6.1 LIMIT	77
6.2 TEST PROCEDURE	77
6.3 DEVIATION FROM STANDARD	77
6.4 TEST SETUP	77
6.5 EUT OPERATION CONDITIONS	77
6.6 TEST RESULTS	78
7. AUTOMATICALLY DISCONTINUE TRANSMISSION	88
7.1 LIMIT OF AUTOMATICALLY DISCONTINUE TRANSMISSION	88
7.2 TEST RESULT OF AUTOMATICALLY DISCONTINUE TRANSMISSION	88



Table of Contents	Page
8. ANTENNA REQUIREMENT	89
8.1 STANDARD REQUIREMENT	89
8.2 EUT ANTENNA	89
APPENDIX - PHOTOS OF TEST SETUP	90



**Revision History**

Rev.	Issue Date	Report NO.	Effect Page	Contents
00	23 Dec. 2020	STS2012039W04	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 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	$\pm 0.68\text{dB}$
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	MT004-20								
Trade Name	Mightier								
Model Name	MT004-20								
Series Model	N/A								
Model Difference	N/A								
Product Description	The EUT is a MT004-20 <table><tr><td>Operation Frequency:</td><td>IEEE 802.11a/ n(HT20)/ac(VHT20): 5.180GHz-5.240GHz IEEE 802.11n(HT40)/ac(VHT40): 5.190GHz-5.310GHz IEEE 802.11ac(VHT80): 5.210GHz IEEE 802.11a/ n(HT20)/ac(VHT20): 5.260GHz-5.320GHz IEEE 802.11n(HT40)/ac(VHT40): 5.270GHz-5.310GHz IEEE 802.11ac(VHT80): 5.290GHz IEEE 802.11a/ n(HT20)/ac(VHT20): 5.500GHz-5.700GHz IEEE 802.11n(HT40)/ac(VHT40): 5.510GHz-5.670GHz IEEE 802.11ac(VHT80): 5.530GHz-5.610GHz IEEE 802.11a/ n(HT20)/ac(VHT20): 5.745GHz-5.825GHz IEEE 802.11n(HT40)/ac(VHT40): 5.755GHz-5.795GHz IEEE 802.11ac(VHT80): 5.775GHz</td></tr><tr><td>Modulation Type:</td><td>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</td></tr><tr><td>Antenna Designation:</td><td>Please refer to the Note 3.</td></tr><tr><td>Max.Output Power(Conducted):</td><td>5.26 dBm</td></tr></table> More details of EUT technical specification, please refer to the User Manual.	Operation Frequency:	IEEE 802.11a/ n(HT20)/ac(VHT20): 5.180GHz-5.240GHz IEEE 802.11n(HT40)/ac(VHT40): 5.190GHz-5.310GHz IEEE 802.11ac(VHT80): 5.210GHz IEEE 802.11a/ n(HT20)/ac(VHT20): 5.260GHz-5.320GHz IEEE 802.11n(HT40)/ac(VHT40): 5.270GHz-5.310GHz IEEE 802.11ac(VHT80): 5.290GHz IEEE 802.11a/ n(HT20)/ac(VHT20): 5.500GHz-5.700GHz IEEE 802.11n(HT40)/ac(VHT40): 5.510GHz-5.670GHz IEEE 802.11ac(VHT80): 5.530GHz-5.610GHz IEEE 802.11a/ n(HT20)/ac(VHT20): 5.745GHz-5.825GHz IEEE 802.11n(HT40)/ac(VHT40): 5.755GHz-5.795GHz IEEE 802.11ac(VHT80): 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 refer to the Note 3.	Max.Output Power(Conducted):	5.26 dBm
Operation Frequency:	IEEE 802.11a/ n(HT20)/ac(VHT20): 5.180GHz-5.240GHz IEEE 802.11n(HT40)/ac(VHT40): 5.190GHz-5.310GHz IEEE 802.11ac(VHT80): 5.210GHz IEEE 802.11a/ n(HT20)/ac(VHT20): 5.260GHz-5.320GHz IEEE 802.11n(HT40)/ac(VHT40): 5.270GHz-5.310GHz IEEE 802.11ac(VHT80): 5.290GHz IEEE 802.11a/ n(HT20)/ac(VHT20): 5.500GHz-5.700GHz IEEE 802.11n(HT40)/ac(VHT40): 5.510GHz-5.670GHz IEEE 802.11ac(VHT80): 5.530GHz-5.610GHz IEEE 802.11a/ n(HT20)/ac(VHT20): 5.745GHz-5.825GHz IEEE 802.11n(HT40)/ac(VHT40): 5.755GHz-5.795GHz IEEE 802.11ac(VHT80): 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 refer to the Note 3.								
Max.Output Power(Conducted):	5.26 dBm								
Test Channel	Please refer to the Note 2.								
Adapter	Input: AC100-240V,50/60Hz, 0.45A Output: 5V 2.5A								
Battery	Rated Voltage: 3.7V Charge Limit Voltage: 4.2V Capacity: 2800mAh								
Hardware version number	BND-MT8168-P863-V1.1								
Software version number	sys_mssi_t_32_ago-user.2021011914 release-keys								
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.

Operation Frequency of channel			
5.180GHz-5.240GHz		5.500GHz-5.720GHz	
Channel	Frequency	Channel	Frequency
36	5180	100	5500
38	5190	102	5510
40	5200	104	5520
42	5210	106	5530
44	5220	108	5540
46	5230	110	5550
48	5240	112	5560
		116	5580
		118	5590
5.260GHz-5.320GHz		120	5600
Channel	Frequency	122	5610
52	5260	124	5620
54	5270	126	5630
56	5280	128	5640
58	5290	132	5660
60	5300	134	5670
62	5310	136	5680
64	5320	140	5700
5.745GHz-5.825GHz			
Channel	Frequency		
149	5745		
151	5755		
153	5765		
155	5775		
157	5785		
159	5795		
161	5805		
165	5825		

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) /ac (VHT20)			
Channel	Freq.(MHz)	Channel	Freq.(MHz)
36	5180	52	5260
40	5200	60	5300
48	5240	64	5320



For 802.11a/n(HT20) /ac (VHT20)

Channel	Freq.(MHz)	Channel	Freq.(MHz)
100	5500	149	5745
116	5580	157	5785
140	5700	165	5825

For 802.11n(HT40) /ac (VHT40)

Channel	Freq.(MHz)	Channel	Freq.(MHz)
38	5190	54	5270
46	5230	62	5310

For 802.11n(HT40) /ac (VHT40)

Channel	Freq.(MHz)	Channel	Freq.(MHz)
102	5510	151	5755
110	5550	159	5795
134	5670		

For 802.11ac (VHT80)

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

For 802.11ac (VHT80)

Channel	Freq.(MHz)	Channel	Freq.(MHz)
106	5530	155	5775
122	5610		

3.	Ant	Brand	Model Name	Ant Type	Connector	Gain (dBi)	NOTE
	A	Mightier	MT004-20	PIFA	N/A	0dBi	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 CH100&CH116&CH140	6 Mbps
Mode 4	TX IEEE 802.11a HT20 CH149&CH157&CH165	6 Mbps
Mode 5	TX IEEE 802.11n HT20 CH36&CH40&CH48	MCS 0
Mode 6	TX IEEE 802.11ac HT20 CH36&CH40&CH48	NSS1 MCS0
Mode 7	TX IEEE 802.11n HT20 CH52&CH60&CH64	MCS 0
Mode 8	TX IEEE 802.11ac HT20 CH52&CH60&CH64	NSS1 MCS0
Mode 9	TX IEEE 802.11n HT20 CH100&CH116&CH140	MCS 0
Mode 10	TX IEEE 802.11ac HT20 CH100&CH116&CH140	NSS1 MCS0
Mode 11	TX IEEE 802.11n HT20 CH149&CH157&CH165	MCS 0
Mode 12	TX IEEE 802.11ac HT20 CH149&CH157&CH165	NSS1 MCS0
Mode 13	TX IEEE 802.11n HT40 CH38&CH46	MCS 0
Mode 14	TX IEEE 802.11ac HT40 CH38&CH46	NSS1 MCS0
Mode 15	TX IEEE 802.11n HT40 CH54 &CH62	MCS 0
Mode 16	TX IEEE 802.11ac HT40 CH54 &CH62	NSS1 MCS0
Mode 17	TX IEEE 802.11n HT40 CH102&CH110&CH134	MCS 0
Mode 18	TX IEEE 802.11ac HT40 CH102&CH110&CH134	NSS1 MCS0
Mode 19	TX IEEE 802.11n HT40 CH151&CH159	MCS 0
Mode 20	TX IEEE 802.11ac HT40 CH151&CH159	NSS1 MCS0
Mode 21	TX IEEE 802.11ac HT80 CH42	NSS1 MCS0
Mode 22	TX IEEE 802.11ac HT80 CH58	NSS1 MCS0
Mode 23	TX IEEE 802.11ac HT80 CH106&122	NSS1 MCS0
Mode 24	TX IEEE 802.11ac HT80 CH155	NSS1 MCS0

- 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 25: Keeping TX

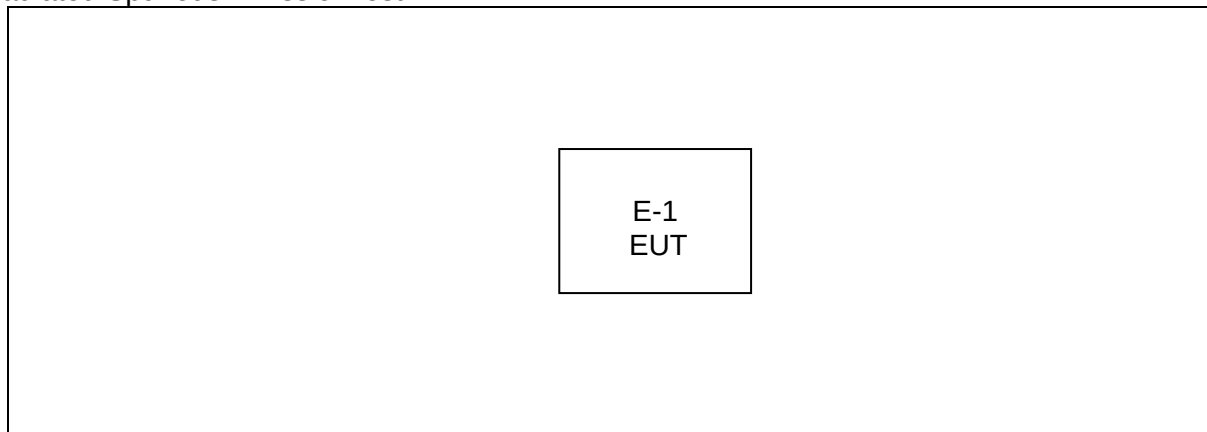
2.3 TEST SOFTWARE AND POWER LEVEL

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

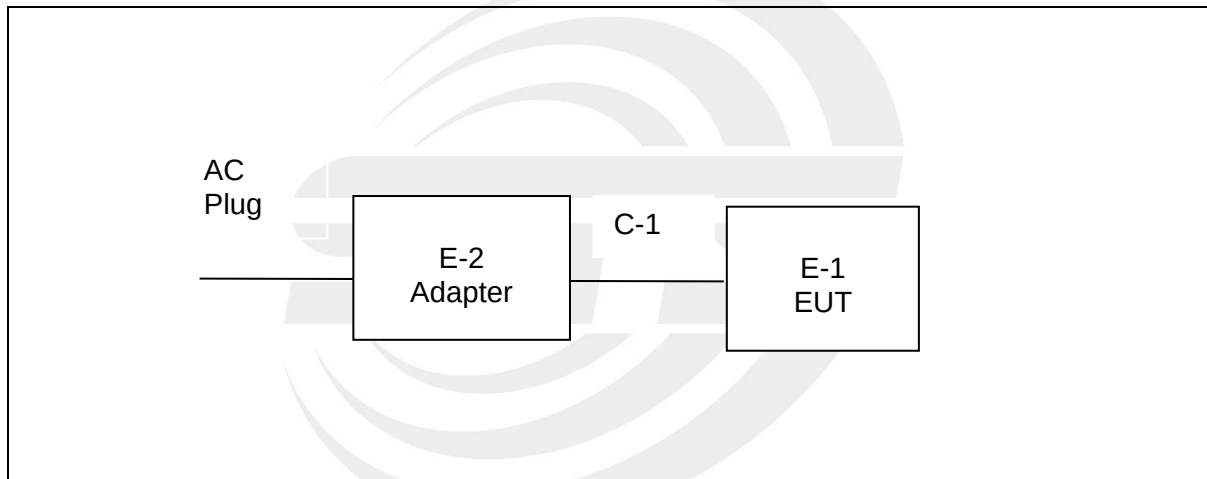
RF Function	Type	Mode Or Modulation type	ANT Gain(dBi)	Power Class	Software For Testing
WIFI(5G)	5G WIFI Band1 (5150MHz-5250MHz)	802.11a	0	15	Engineering Mode
		802.11n(HT20)		15	
		802.11n(HT40)		15	
		802.11ac(VHT20)		15	
		802.11ac(VHT40)		15	
		802.11ac(VHT80)		15	
RF Function	Type	Mode Or Modulation type	ANT Gain(dBi)	Power Class	Software For Testing
WIFI(5G)	5G WIFI Band2 (5250MHz-5350MHz)	802.11a	0	15	Engineering Mode
		802.11n(HT20)		15	
		802.11n(HT40)		15	
		802.11ac(VHT20)		15	
		802.11ac(VHT40)		15	
		802.11ac(VHT80)		15	
RF Function	Type	Mode Or Modulation type	ANT Gain(dBi)	Power Class	Software For Testing
WIFI(5G)	5G WIFI Band3 (5470MHz-5725MHz)	802.11a	0	10	Engineering Mode
		802.11n(HT20)		10	
		802.11n(HT40)		10	
		802.11ac(VHT20)		10	
		802.11ac(VHT40)		10	
		802.11ac(VHT80)		10	
RF Function	Type	Mode Or Modulation type	ANT Gain(dBi)	Power Class	Software For Testing
WIFI(5G)	5G WIFI Band4 (5725MHz-5875MHz)	802.11a	0	15	Engineering Mode
		802.11n(HT20)		15	
		802.11n(HT40)		15	
		802.11ac(VHT20)		15	
		802.11ac(VHT40)		15	
		802.11ac(VHT80)		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
N/A	N/A	N/A	N/A	N/A	N/A

Support units

Item	Equipment	Mfr/Brand	Model/Type No.	Length	Note
E-2	Adapter	N/A	JHD-AP015U-050250BU2-C	N/A	N/A
C-1	USB Cable	N/A	N/A	100cm	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	R&S	FSV 40-N	101823	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	02014	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-3 GHz)	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	2020.10.13	2021.10.12
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	2020.03.05	2021.03.04
Temperature & Humidity	HH660	Mieo	N/A	2020.10.13	2021.10.12
Test SW	FARAD	LZ-RF /LzRf-3A3			





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

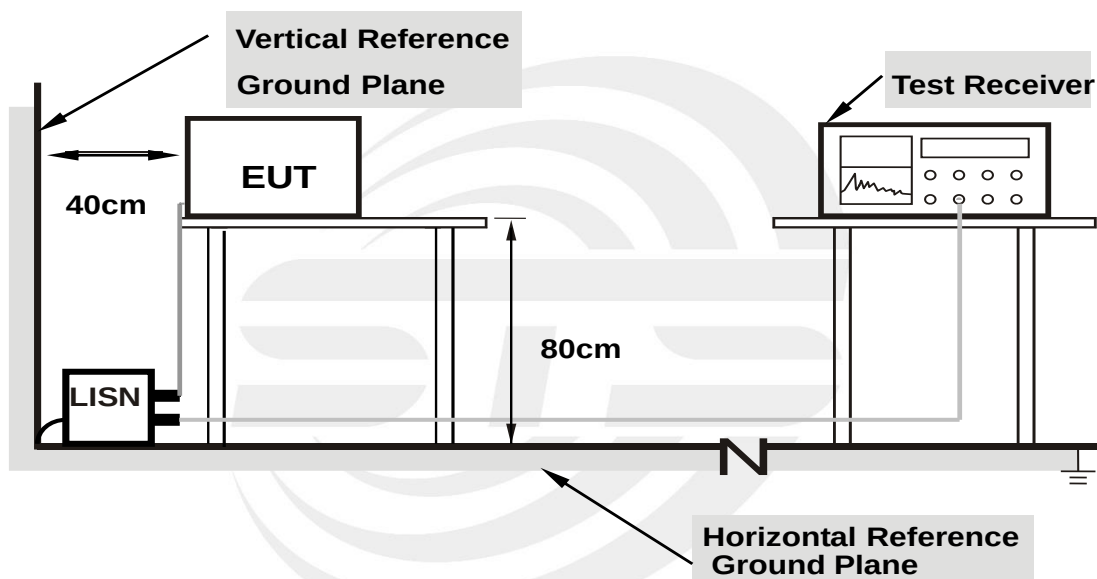
3.1.2 TEST PROCEDURE

- 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 units.

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

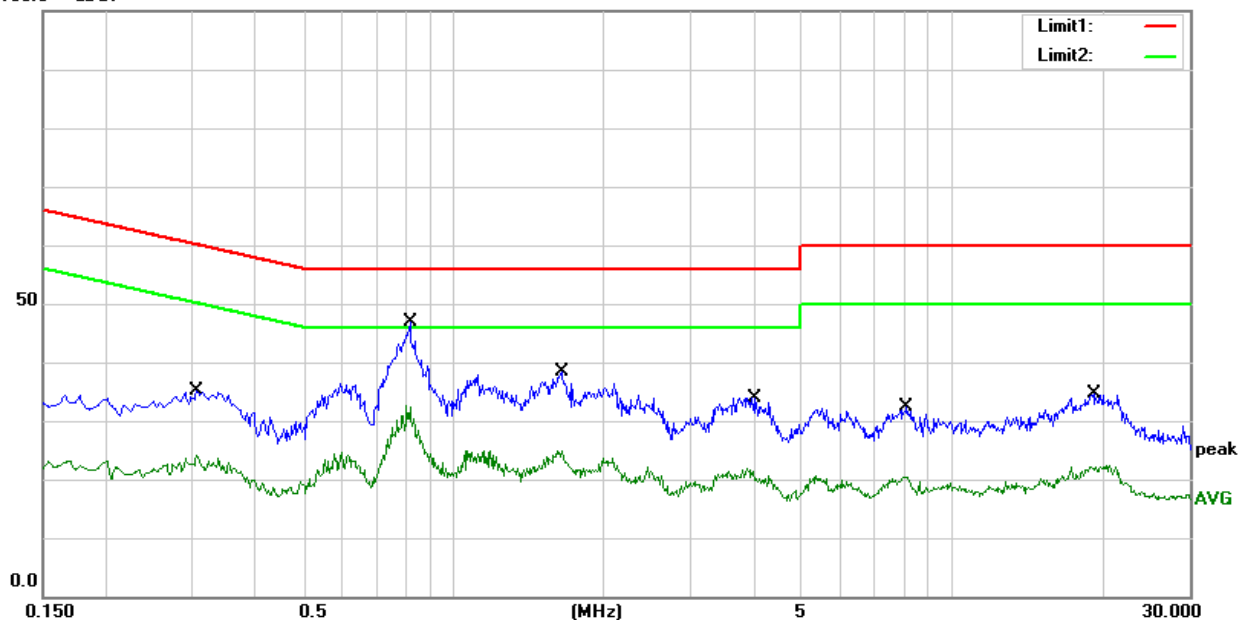
Temperature:	24.5(C)	Relative Humidity:	45%RH
Test Voltage:	AC 120V/60Hz	Phase:	L
Test Mode :	Mode 25		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.3060	14.27	20.75	35.02	60.08	-25.06	QP
2	0.3060	3.37	20.75	24.12	50.08	-25.96	AVG
3	0.8180	26.70	20.23	46.93	56.00	-9.07	QP
4	0.8180	12.17	20.23	32.40	46.00	-13.60	AVG
5	1.6460	18.13	20.16	38.29	56.00	-17.71	QP
6	1.6460	4.70	20.16	24.86	46.00	-21.14	AVG
7	4.0140	13.86	20.06	33.92	56.00	-22.08	QP
8	4.0140	0.15	20.06	20.21	46.00	-25.79	AVG
9	8.1180	12.52	19.88	32.40	60.00	-27.60	QP
10	8.1180	0.52	19.88	20.40	50.00	-29.60	AVG
11	19.2420	13.99	20.57	34.56	60.00	-25.44	QP
12	19.2420	1.68	20.57	22.25	50.00	-27.75	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



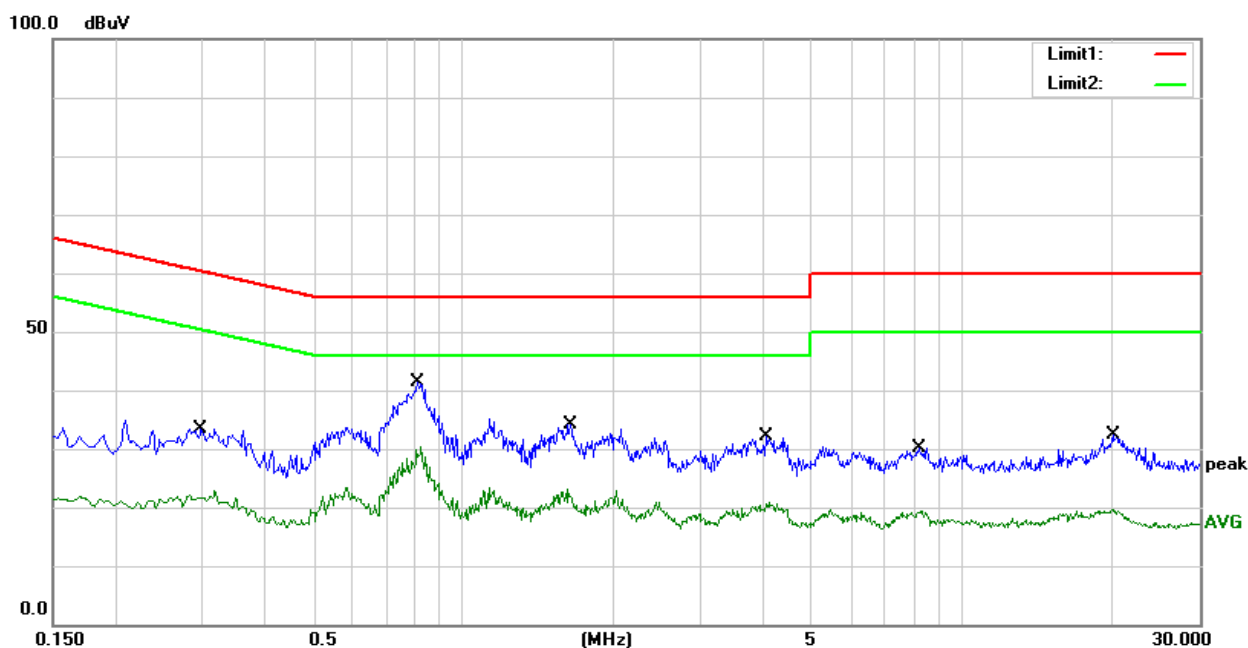


Temperature:	24.5(C)	Relative Humidity:	45%RH
Test Voltage	AC 120V/60Hz	Phase:	N
Test Mode	Mode 25		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.2980	12.73	20.75	33.48	60.30	-26.82	QP
2	0.2980	1.21	20.75	21.96	50.30	-28.34	AVG
3	0.8100	21.14	20.23	41.37	56.00	-14.63	QP
4	0.8100	10.15	20.23	30.38	46.00	-15.62	AVG
5	1.6380	13.94	20.15	34.09	56.00	-21.91	QP
6	1.6380	1.70	20.15	21.85	46.00	-24.15	AVG
7	4.0540	11.95	20.06	32.01	56.00	-23.99	QP
8	4.0540	0.76	20.06	20.82	46.00	-25.18	AVG
9	8.2220	10.32	19.88	30.20	60.00	-29.80	QP
10	8.2220	-0.57	19.88	19.31	50.00	-30.69	AVG
11	20.1540	11.71	20.65	32.36	60.00	-27.64	QP
12	20.1540	-0.92	20.65	19.73	50.00	-30.27	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: $\text{dBuV/m(at 3M)} = \text{EIRP(dBm)} + 95.3$.

Peak Limit = $-27\text{dBm/MHz} + 95.3 = 68.3 \text{ dBuV/m}$.

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.

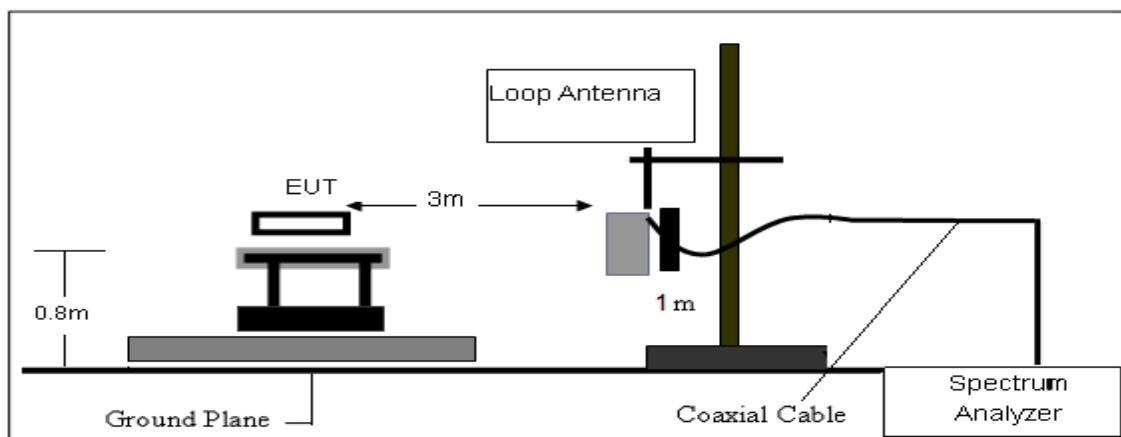
3.2.2 DEVIATION FROM TEST STANDARD

No deviation

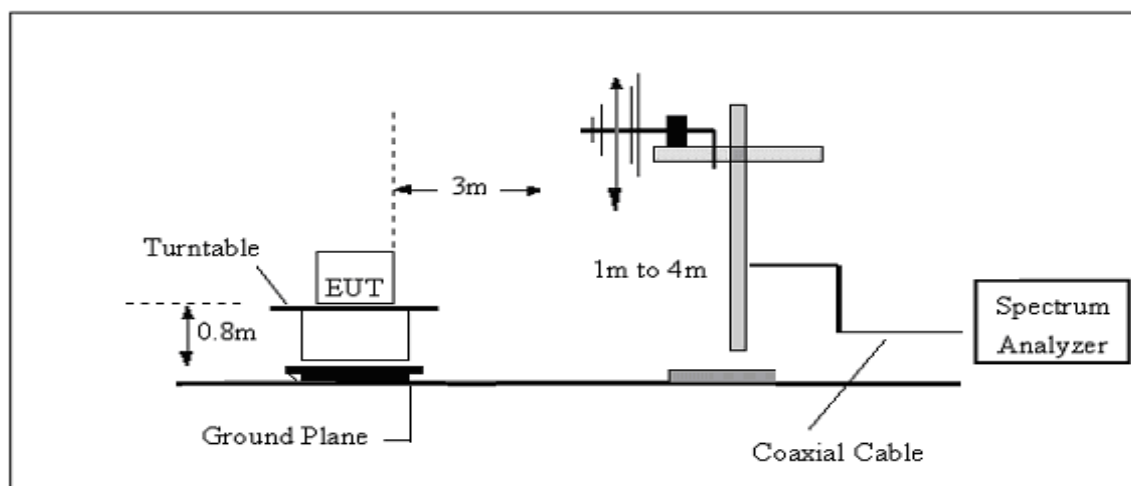


3.2.3 TEST SETUP

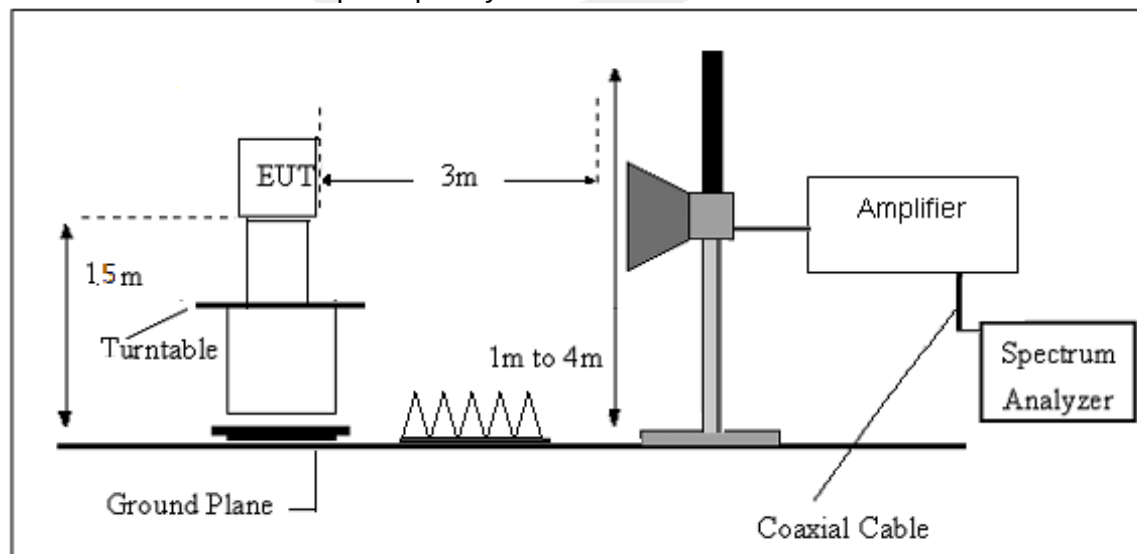
(A) Radiated Emission Test-Up Frequency Below 30MHz



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

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

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

Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage :	DC 3.7V	Polarization :	--
Test Mode :	TX Mode		

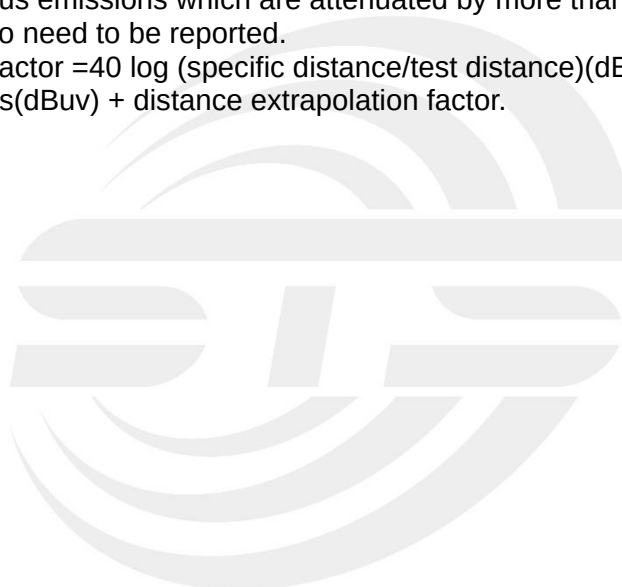
Freq.	Reading	Limit	Margin	State
(MHz)	(dBuV/m)	(dBuV/m)	(dB)	P/F
--	--	--	--	PASS
--	--	--	--	PASS

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 3.7V	Polarization:	Horizontal
Test Mode	Mode 1~24(Mode 2 worst mode)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	33.8800	28.46	-14.80	13.66	40.00	-26.34	QP
2	255.0400	29.47	-15.35	14.12	46.00	-31.88	QP
3	477.1700	32.59	-8.75	23.84	46.00	-22.16	QP
4	733.2500	31.46	-2.35	29.11	46.00	-16.89	QP
5	857.4100	30.09	-0.50	29.59	46.00	-16.41	QP
6	995.1500	29.87	2.04	31.91	54.00	-22.09	QP

Remark:

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



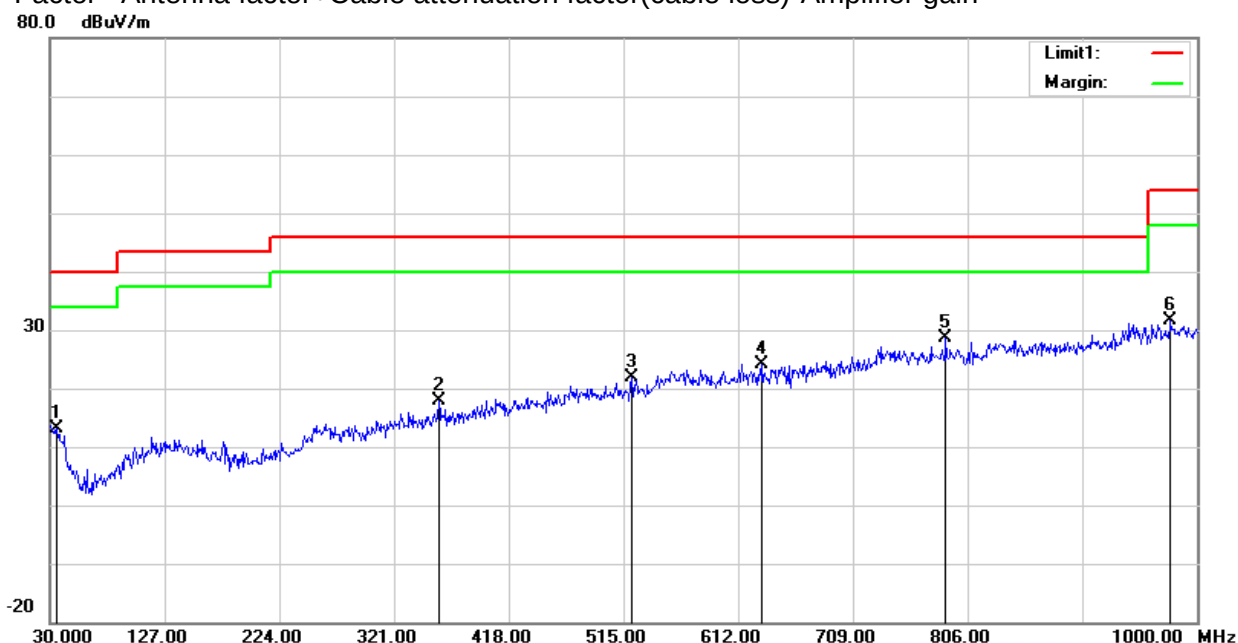


Temperature	23.1(C)	Relative Humidity:	60%RH
Test Voltage	DC 3.7V	Polarization:	Vertical
Test Mode	Mode 1~24(Mode 2 worst mode)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	35.8200	29.07	-15.91	13.16	40.00	-26.84	QP
2	358.8300	30.76	-12.90	17.86	46.00	-28.14	QP
3	521.7900	29.72	-7.75	21.97	46.00	-24.03	QP
4	632.3700	29.25	-5.00	24.25	46.00	-21.75	QP
5	787.5700	30.57	-2.02	28.55	46.00	-17.45	QP
6	977.6900	29.20	2.52	31.72	54.00	-22.28	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 (802.11ac20/ 5180 MHz)										
3254.91	44.88	44.70	6.70	28.20	-9.80	35.08	68.20	-33.12	Pk	Vertical
3254.91	40.76	44.70	6.70	28.20	-9.80	30.96	54.00	-23.04	AV	Vertical
3251.19	44.89	44.70	6.70	28.20	-9.80	35.09	68.20	-33.11	Pk	Horizontal
3251.19	41.56	44.70	6.70	28.20	-9.80	31.76	54.00	-22.24	AV	Horizontal
3980.35	38.78	44.20	7.90	29.70	-6.60	32.18	68.20	-36.02	Pk	Vertical
3980.35	36.63	44.20	7.90	29.70	-6.60	30.03	54.00	-23.97	AV	Vertical
3986.63	39.26	44.20	7.90	29.70	-6.60	32.66	68.20	-35.54	Pk	Horizontal
3986.63	37.04	44.20	7.90	29.70	-6.60	30.44	54.00	-23.56	AV	Horizontal
7231.32	36.52	43.50	11.40	35.50	3.40	39.92	68.20	-28.28	Pk	Vertical
7231.32	34.30	43.50	11.40	35.50	3.40	37.70	54.00	-16.30	AV	Vertical
7225.83	36.65	43.50	11.40	35.50	3.40	40.05	68.20	-28.15	Pk	Horizontal
7225.83	33.87	43.50	11.40	35.50	3.40	37.27	54.00	-16.73	AV	Horizontal
10360.03	39.74	44.50	13.80	38.80	8.10	47.84	68.20	-20.36	Pk	Vertical
10360.03	36.17	44.50	13.80	38.80	8.10	44.27	54.00	-9.73	AV	Vertical
10360.38	39.67	44.50	13.80	38.80	8.10	47.77	68.20	-20.43	Pk	Horizontal
10360.38	36.40	44.50	13.80	38.80	8.10	44.50	54.00	-9.50	AV	Horizontal
11018.80	33.02	43.60	14.30	39.50	10.20	43.22	68.20	-24.98	Pk	Vertical
11018.80	30.50	43.60	14.30	39.50	10.20	40.70	54.00	-13.30	AV	Vertical
11036.38	34.10	43.60	14.30	39.50	10.20	44.30	68.20	-23.90	Pk	Horizontal
11036.38	30.19	43.60	14.30	39.50	10.20	40.39	54.00	-13.61	AV	Horizontal
13281.05	32.93	42.60	15.90	38.90	12.20	45.13	68.20	-23.07	Pk	Vertical
13281.05	29.13	42.60	15.90	38.90	12.20	41.33	54.00	-12.67	AV	Vertical
13293.80	31.81	42.60	15.90	38.90	12.20	44.01	68.20	-24.19	Pk	Horizontal
13293.80	29.11	42.60	15.90	38.90	12.20	41.31	54.00	-12.69	AV	Horizontal
Mid Channel (802.11ac20/ 5200 MHz)										
3255.31	45.21	44.70	6.70	28.20	-9.80	35.41	68.20	-32.79	Pk	Vertical
3255.31	40.83	44.70	6.70	28.20	-9.80	31.03	54.00	-22.97	AV	Vertical
3264.22	44.86	44.70	6.70	28.20	-9.80	35.06	68.20	-33.14	Pk	Horizontal
3264.22	41.21	44.70	6.70	28.20	-9.80	31.41	54.00	-22.59	AV	Horizontal
3993.67	39.84	44.20	7.90	29.70	-6.60	33.24	68.20	-34.96	Pk	Vertical
3993.67	36.81	44.20	7.90	29.70	-6.60	30.21	54.00	-23.79	AV	Vertical
3982.31	39.23	44.20	7.90	29.70	-6.60	32.63	68.20	-35.57	Pk	Horizontal
3982.31	37.09	44.20	7.90	29.70	-6.60	30.49	54.00	-23.51	AV	Horizontal
7234.23	36.73	43.50	11.40	35.50	3.40	40.13	68.20	-28.07	Pk	Vertical
7234.23	33.83	43.50	11.40	35.50	3.40	37.23	54.00	-16.77	AV	Vertical
7222.21	37.49	43.50	11.40	35.50	3.40	40.89	68.20	-27.31	Pk	Horizontal
7222.21	33.64	43.50	11.40	35.50	3.40	37.04	54.00	-16.96	AV	Horizontal
10400.19	39.30	44.50	13.80	38.80	8.10	47.40	68.20	-20.80	Pk	Vertical
10400.19	36.32	44.50	13.80	38.80	8.10	44.42	54.00	-9.58	AV	Vertical
10400.10	39.65	44.50	13.80	38.80	8.10	47.75	68.20	-20.45	Pk	Horizontal
10400.10	36.40	44.50	13.80	38.80	8.10	44.50	54.00	-9.50	AV	Horizontal
11029.54	33.49	43.60	14.30	39.50	10.20	43.69	68.20	-24.51	Pk	Vertical
11029.54	30.43	43.60	14.30	39.50	10.20	40.63	54.00	-13.37	AV	Vertical
11032.94	33.57	43.60	14.30	39.50	10.20	43.77	68.20	-24.43	Pk	Horizontal
11032.94	30.89	43.60	14.30	39.50	10.20	41.09	54.00	-12.91	AV	Horizontal
13280.54	31.97	42.60	15.90	38.90	12.20	44.17	68.20	-24.03	Pk	Vertical
13280.54	28.73	42.60	15.90	38.90	12.20	40.93	54.00	-13.07	AV	Vertical
13288.87	31.65	42.60	15.90	38.90	12.20	43.85	68.20	-24.35	Pk	Horizontal
13288.87	28.66	42.60	15.90	38.90	12.20	40.86	54.00	-13.14	AV	Horizontal



High Channel (802.11ac20/ 5240 MHz)										
3254.55	44.69	44.70	6.70	28.20	-9.80	34.89	68.20	-33.31	Pk	Vertical
3254.55	41.20	44.70	6.70	28.20	-9.80	31.40	54.00	-22.60	AV	Vertical
3261.26	44.84	44.70	6.70	28.20	-9.80	35.04	68.20	-33.16	Pk	Horizontal
3261.26	40.95	44.70	6.70	28.20	-9.80	31.15	54.00	-22.85	AV	Horizontal
3983.54	39.49	44.20	7.90	29.70	-6.60	32.89	68.20	-35.31	Pk	Vertical
3983.54	36.88	44.20	7.90	29.70	-6.60	30.28	54.00	-23.72	AV	Vertical
3983.51	39.62	44.20	7.90	29.70	-6.60	33.02	68.20	-35.18	Pk	Horizontal
3983.51	36.10	44.20	7.90	29.70	-6.60	29.50	54.00	-24.50	AV	Horizontal
7218.04	37.41	43.50	11.40	35.50	3.40	40.81	68.20	-27.39	Pk	Vertical
7218.04	33.84	43.50	11.40	35.50	3.40	37.24	54.00	-16.76	AV	Vertical
7232.87	37.08	43.50	11.40	35.50	3.40	40.48	68.20	-27.72	Pk	Horizontal
7232.87	34.75	43.50	11.40	35.50	3.40	38.15	54.00	-15.85	AV	Horizontal
10480.08	39.47	44.50	13.80	38.80	8.10	47.57	68.20	-20.63	Pk	Vertical
10480.08	35.83	44.50	13.80	38.80	8.10	43.93	54.00	-10.07	AV	Vertical
10480.29	38.71	44.50	13.80	38.80	8.10	46.81	68.20	-21.39	Pk	Horizontal
10480.29	35.83	44.50	13.80	38.80	8.10	43.93	54.00	-10.07	AV	Horizontal
11017.38	33.88	43.60	14.30	39.50	10.20	44.08	68.20	-24.12	Pk	Vertical
11017.38	31.08	43.60	14.30	39.50	10.20	41.28	54.00	-12.72	AV	Vertical
11034.89	32.72	43.60	14.30	39.50	10.20	42.92	68.20	-25.28	Pk	Horizontal
11034.89	30.76	43.60	14.30	39.50	10.20	40.96	54.00	-13.04	AV	Horizontal
13285.45	31.92	42.60	15.90	38.90	12.20	44.12	68.20	-24.08	Pk	Vertical
13285.45	29.05	42.60	15.90	38.90	12.20	41.25	54.00	-12.75	AV	Vertical
13293.96	32.15	42.60	15.90	38.90	12.20	44.35	68.20	-23.85	Pk	Horizontal
13293.96	29.46	42.60	15.90	38.90	12.20	41.66	54.00	-12.34	AV	Horizontal

Remark:

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.
2. Scan with 802.11a,802.11n (HT-20),802.11n (HT-40), 802.11ac (VHT-20),802.11ac (VHT-40), 802.11ac (VHT-80) the worst case is 802.11ac (VHT-20).
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)										
3247.96	44.59	44.70	6.70	28.20	-9.80	34.79	68.20	-33.41	Pk	Vertical
3247.96	41.61	44.70	6.70	28.20	-9.80	31.81	54.00	-22.19	AV	Vertical
3252.25	44.78	44.70	6.70	28.20	-9.80	34.98	68.20	-33.22	Pk	Horizontal
3252.25	42.13	44.70	6.70	28.20	-9.80	32.33	54.00	-21.67	AV	Horizontal
3993.28	39.15	44.20	7.90	29.70	-6.60	32.55	68.20	-35.65	Pk	Vertical
3993.28	36.45	44.20	7.90	29.70	-6.60	29.85	54.00	-24.15	AV	Vertical
3992.50	39.82	44.20	7.90	29.70	-6.60	33.22	68.20	-34.98	Pk	Horizontal
3992.50	35.89	44.20	7.90	29.70	-6.60	29.29	54.00	-24.71	AV	Horizontal
7227.73	37.90	43.50	11.40	35.50	3.40	41.30	68.20	-26.90	Pk	Vertical
7227.73	34.79	43.50	11.40	35.50	3.40	38.19	54.00	-15.81	AV	Vertical
7230.49	37.91	43.50	11.40	35.50	3.40	41.31	68.20	-26.89	Pk	Horizontal
7230.49	34.87	43.50	11.40	35.50	3.40	38.27	54.00	-15.73	AV	Horizontal
10520.21	39.89	44.50	13.90	38.80	8.20	48.09	68.20	-20.11	Pk	Vertical
10520.21	36.58	44.50	13.90	38.80	8.20	44.78	54.00	-9.22	AV	Vertical
10520.31	39.66	44.50	13.90	38.80	8.20	47.86	68.20	-20.34	Pk	Horizontal
10520.31	35.70	44.50	13.90	38.80	8.20	43.90	54.00	-10.10	AV	Horizontal
11033.64	33.46	43.60	14.30	39.50	10.20	43.66	68.20	-24.54	Pk	Vertical
11033.64	29.68	43.60	14.30	39.50	10.20	39.88	54.00	-14.12	AV	Vertical
11018.83	33.82	43.60	14.30	39.50	10.20	44.02	68.20	-24.18	Pk	Horizontal
11018.83	29.88	43.60	14.30	39.50	10.20	40.08	54.00	-13.92	AV	Horizontal
13285.75	32.56	42.60	15.90	38.90	12.20	44.76	68.20	-23.44	Pk	Vertical
13285.75	28.57	42.60	15.90	38.90	12.20	40.77	54.00	-13.23	AV	Vertical
13288.52	32.88	42.60	15.90	38.90	12.20	45.08	68.20	-23.12	Pk	Horizontal
13288.52	29.03	42.60	15.90	38.90	12.20	41.23	54.00	-12.77	AV	Horizontal
Mid Channel (802.11a20/ 5300 MHz)										
3256.15	44.11	44.70	6.70	28.20	-9.80	34.31	68.20	-33.89	Pk	Vertical
3256.15	41.09	44.70	6.70	28.20	-9.80	31.29	54.00	-22.71	AV	Vertical
3260.28	44.26	44.70	6.70	28.20	-9.80	34.46	68.20	-33.74	Pk	Horizontal
3260.28	41.86	44.70	6.70	28.20	-9.80	32.06	54.00	-21.94	AV	Horizontal
3984.50	40.00	44.20	7.90	29.70	-6.60	33.40	68.20	-34.80	Pk	Vertical
3984.50	36.87	44.20	7.90	29.70	-6.60	30.27	54.00	-23.73	AV	Vertical
3994.63	39.73	44.20	7.90	29.70	-6.60	33.13	68.20	-35.07	Pk	Horizontal
3994.63	36.03	44.20	7.90	29.70	-6.60	29.43	54.00	-24.57	AV	Horizontal
7225.25	36.92	43.50	11.40	35.50	3.40	40.32	68.20	-27.88	Pk	Vertical
7225.25	33.47	43.50	11.40	35.50	3.40	36.87	54.00	-17.13	AV	Vertical
7228.99	37.10	43.50	11.40	35.50	3.40	40.50	68.20	-27.70	Pk	Horizontal
7228.99	33.48	43.50	11.40	35.50	3.40	36.88	54.00	-17.12	AV	Horizontal
10600.29	39.42	44.50	13.80	38.80	8.10	47.52	68.20	-20.68	Pk	Vertical
10600.29	36.31	44.50	13.80	38.80	8.10	44.41	54.00	-9.59	AV	Vertical
10600.06	38.89	44.50	13.80	38.80	8.10	46.99	68.20	-21.21	Pk	Horizontal
10600.06	37.01	44.50	13.80	38.80	8.10	45.11	54.00	-8.89	AV	Horizontal
11026.90	33.40	43.60	14.30	39.50	10.20	43.60	68.20	-24.60	Pk	Vertical
11026.90	30.94	43.60	14.30	39.50	10.20	41.14	54.00	-12.86	AV	Vertical
11021.69	33.85	43.60	14.30	39.50	10.20	44.05	68.20	-24.15	Pk	Horizontal
11021.69	30.99	43.60	14.30	39.50	10.20	41.19	54.00	-12.81	AV	Horizontal
13291.18	32.07	42.60	15.90	38.90	12.20	44.27	68.20	-23.93	Pk	Vertical
13291.18	28.84	42.60	15.90	38.90	12.20	41.04	54.00	-12.96	AV	Vertical
13285.56	32.95	42.60	15.90	38.90	12.20	45.15	68.20	-23.05	Pk	Horizontal
13285.56	28.95	42.60	15.90	38.90	12.20	41.15	54.00	-12.85	AV	Horizontal



High Channel (802.11a20/ 5320 MHz)										
3254.86	44.40	44.70	6.70	28.20	-9.80	34.60	68.20	-33.60	Pk	Vertical
3254.86	40.96	44.70	6.70	28.20	-9.80	31.16	54.00	-22.84	AV	Vertical
3252.76	44.85	44.70	6.70	28.20	-9.80	35.05	68.20	-33.15	Pk	Horizontal
3252.76	41.49	44.70	6.70	28.20	-9.80	31.69	54.00	-22.31	AV	Horizontal
3981.75	39.15	44.20	7.90	29.70	-6.60	32.55	68.20	-35.65	Pk	Vertical
3981.75	36.21	44.20	7.90	29.70	-6.60	29.61	54.00	-24.39	AV	Vertical
3983.22	40.05	44.20	7.90	29.70	-6.60	33.45	68.20	-34.75	Pk	Horizontal
3983.22	36.00	44.20	7.90	29.70	-6.60	29.40	54.00	-24.60	AV	Horizontal
7227.73	36.98	43.50	11.40	35.50	3.40	40.38	68.20	-27.82	Pk	Vertical
7227.73	34.29	43.50	11.40	35.50	3.40	37.69	54.00	-16.31	AV	Vertical
7228.33	36.94	43.50	11.40	35.50	3.40	40.34	68.20	-27.86	Pk	Horizontal
7228.33	34.50	43.50	11.40	35.50	3.40	37.90	54.00	-16.10	AV	Horizontal
10640.41	39.40	44.50	13.80	38.80	8.10	47.50	68.20	-20.70	Pk	Vertical
10640.41	37.01	44.50	13.80	38.80	8.10	45.11	54.00	-8.89	AV	Vertical
10640.38	39.60	44.50	13.80	38.80	8.10	47.70	68.20	-20.50	Pk	Horizontal
10640.38	36.84	44.50	13.80	38.80	8.10	44.94	54.00	-9.06	AV	Horizontal
11031.94	33.40	43.60	14.30	39.50	10.20	43.60	68.20	-24.60	Pk	Vertical
11031.94	30.13	43.60	14.30	39.50	10.20	40.33	54.00	-13.67	AV	Vertical
11027.41	33.60	43.60	14.30	39.50	10.20	43.80	68.20	-24.40	Pk	Horizontal
11027.41	30.24	43.60	14.30	39.50	10.20	40.44	54.00	-13.56	AV	Horizontal
13283.92	32.83	42.70	18.00	37.10	12.40	45.23	68.20	-22.97	Pk	Vertical
13283.92	28.94	42.70	18.00	37.10	12.40	41.34	54.00	-12.66	AV	Vertical
13287.40	32.80	42.70	18.00	37.10	12.40	45.20	68.20	-23.00	Pk	Horizontal
13287.40	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), 802.11ac (VHT-20),802.11ac (VHT-40), 802.11ac (VHT-80) 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 III 5470-5725MHz

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/ 5500 MHz)										
3262.68	44.60	44.70	6.70	28.20	-9.80	34.80	68.20	-33.40	Pk	Vertical
3262.68	41.41	44.70	6.70	28.20	-9.80	31.61	54.00	-22.39	AV	Vertical
3262.83	45.15	44.70	6.70	28.20	-9.80	35.35	68.20	-32.85	Pk	Horizontal
3262.83	42.11	44.70	6.70	28.20	-9.80	32.31	54.00	-21.69	AV	Horizontal
3983.34	39.49	44.20	7.90	29.70	-6.60	32.89	68.20	-35.31	Pk	Vertical
3983.34	37.07	44.20	7.90	29.70	-6.60	30.47	54.00	-23.53	AV	Vertical
3998.33	39.66	44.20	7.90	29.70	-6.60	33.06	68.20	-35.14	Pk	Horizontal
3998.33	36.94	44.20	7.90	29.70	-6.60	30.34	54.00	-23.66	AV	Horizontal
7217.88	37.42	43.50	11.40	35.50	3.40	40.82	68.20	-27.38	Pk	Vertical
7217.88	33.66	43.50	11.40	35.50	3.40	37.06	54.00	-16.94	AV	Vertical
7225.20	37.14	43.50	11.40	35.50	3.40	40.54	68.20	-27.66	Pk	Horizontal
7225.20	34.16	43.50	11.40	35.50	3.40	37.56	54.00	-16.44	AV	Horizontal
10358.42	39.49	44.50	13.80	38.80	8.10	47.59	68.20	-20.61	Pk	Vertical
10358.42	36.89	44.50	13.80	38.80	8.10	44.99	54.00	-9.01	AV	Vertical
10353.18	39.71	44.50	13.80	38.80	8.10	47.81	68.20	-20.39	Pk	Horizontal
10353.18	36.73	44.50	13.80	38.80	8.10	44.83	54.00	-9.17	AV	Horizontal
11000.10	33.57	43.60	14.30	39.50	10.20	43.77	68.20	-24.43	Pk	Vertical
11000.10	30.47	43.60	14.30	39.50	10.20	40.67	54.00	-13.33	AV	Vertical
11000.23	33.96	43.60	14.30	39.50	10.20	44.16	68.20	-24.04	Pk	Horizontal
11000.23	30.83	43.60	14.30	39.50	10.20	41.03	54.00	-12.97	AV	Horizontal
13287.26	32.88	42.60	15.90	38.90	12.20	45.08	68.20	-23.12	Pk	Vertical
13287.26	28.67	42.60	15.90	38.90	12.20	40.87	54.00	-13.13	AV	Vertical
13280.84	32.80	42.60	15.90	38.90	12.20	45.00	68.20	-23.20	Pk	Horizontal
13280.84	30.00	42.60	15.90	38.90	12.20	42.20	54.00	-11.80	AV	Horizontal
Mid Channel (802.11a20/ 5580 MHz)										
3258.68	43.89	44.70	6.70	28.20	-9.80	34.09	68.20	-34.11	Pk	Vertical
3258.68	41.57	44.70	6.70	28.20	-9.80	31.77	54.00	-22.23	AV	Vertical
3249.17	44.79	44.70	6.70	28.20	-9.80	34.99	68.20	-33.21	Pk	Horizontal
3249.17	41.67	44.70	6.70	28.20	-9.80	31.87	54.00	-22.13	AV	Horizontal
3999.96	39.01	44.20	7.90	29.70	-6.60	32.41	68.20	-35.79	Pk	Vertical
3999.96	36.08	44.20	7.90	29.70	-6.60	29.48	54.00	-24.52	AV	Vertical
3980.75	39.49	44.20	7.90	29.70	-6.60	32.89	68.20	-35.31	Pk	Horizontal
3980.75	35.78	44.20	7.90	29.70	-6.60	29.18	54.00	-24.82	AV	Horizontal
7231.63	37.08	43.50	11.40	35.50	3.40	40.48	68.20	-27.72	Pk	Vertical
7231.63	34.50	43.50	11.40	35.50	3.40	37.90	54.00	-16.10	AV	Vertical
7223.72	37.71	43.50	11.40	35.50	3.40	41.11	68.20	-27.09	Pk	Horizontal
7223.72	34.64	43.50	11.40	35.50	3.40	38.04	54.00	-15.96	AV	Horizontal
10390.92	39.55	44.50	13.80	38.80	8.10	47.65	68.20	-20.55	Pk	Vertical
10390.92	36.80	44.50	13.80	38.80	8.10	44.90	54.00	-9.10	AV	Vertical
10383.14	39.83	44.50	13.80	38.80	8.10	47.93	68.20	-20.27	Pk	Horizontal
10383.14	36.75	44.50	13.80	38.80	8.10	44.85	54.00	-9.15	AV	Horizontal
11160.06	32.83	43.60	14.30	39.50	10.20	43.03	68.20	-25.17	Pk	Vertical
11160.06	29.82	43.60	14.30	39.50	10.20	40.02	54.00	-13.98	AV	Vertical
11160.27	33.69	43.60	14.30	39.50	10.20	43.89	68.20	-24.31	Pk	Horizontal
11160.27	30.05	43.60	14.30	39.50	10.20	40.25	54.00	-13.75	AV	Horizontal
13287.88	32.71	42.60	15.90	38.90	12.20	44.91	68.20	-23.29	Pk	Vertical
13287.88	29.77	42.60	15.90	38.90	12.20	41.97	54.00	-12.03	AV	Vertical
13289.88	32.38	42.60	15.90	38.90	12.20	44.58	68.20	-23.62	Pk	Horizontal
13289.88	28.63	42.60	15.90	38.90	12.20	40.83	54.00	-13.17	AV	Horizontal



High Channel (802.11a20/ 5700 MHz)										
3260.10	44.26	44.70	6.70	28.20	-9.80	34.46	68.20	-33.74	Pk	Vertical
3260.10	42.11	44.70	6.70	28.20	-9.80	32.31	54.00	-21.69	AV	Vertical
3259.44	45.10	44.70	6.70	28.20	-9.80	35.30	68.20	-32.90	Pk	Horizontal
3259.44	41.76	44.70	6.70	28.20	-9.80	31.96	54.00	-22.04	AV	Horizontal
3999.66	39.97	44.20	7.90	29.70	-6.60	33.37	68.20	-34.83	Pk	Vertical
3999.66	35.80	44.20	7.90	29.70	-6.60	29.20	54.00	-24.80	AV	Vertical
3988.01	39.79	44.20	7.90	29.70	-6.60	33.19	68.20	-35.01	Pk	Horizontal
3988.01	36.20	44.20	7.90	29.70	-6.60	29.60	54.00	-24.40	AV	Horizontal
7231.73	37.90	43.50	11.40	35.50	3.40	41.30	68.20	-26.90	Pk	Vertical
7231.73	33.65	43.50	11.40	35.50	3.40	37.05	54.00	-16.95	AV	Vertical
7233.92	36.60	43.50	11.40	35.50	3.40	40.00	68.20	-28.20	Pk	Horizontal
7233.92	34.03	43.50	11.40	35.50	3.40	37.43	54.00	-16.57	AV	Horizontal
10464.48	38.90	44.50	13.80	38.80	8.10	47.00	68.20	-21.20	Pk	Vertical
10464.48	36.07	44.50	13.80	38.80	8.10	44.17	54.00	-9.83	AV	Vertical
10475.62	39.64	44.50	13.80	38.80	8.10	47.74	68.20	-20.46	Pk	Horizontal
10475.62	36.16	44.50	13.80	38.80	8.10	44.26	54.00	-9.74	AV	Horizontal
11400.09	33.93	43.60	14.30	39.50	10.20	44.13	68.20	-24.07	Pk	Vertical
11400.09	30.74	43.60	14.30	39.50	10.20	40.94	54.00	-13.06	AV	Vertical
11400.07	33.06	43.60	14.30	39.50	10.20	43.26	68.20	-24.94	Pk	Horizontal
11400.07	29.93	43.60	14.30	39.50	10.20	40.13	54.00	-13.87	AV	Horizontal
13280.19	32.85	42.60	15.90	38.90	12.20	45.05	68.20	-23.15	Pk	Vertical
13280.19	28.84	42.60	15.90	38.90	12.20	41.04	54.00	-12.96	AV	Vertical
13299.38	31.94	42.60	15.90	38.90	12.20	44.14	68.20	-24.06	Pk	Horizontal
13299.38	29.02	42.60	15.90	38.90	12.20	41.22	54.00	-12.78	AV	Horizontal

Remark:

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.
2. Scan with 802.11a,802.11n (HT-20),802.11n (HT-40), 802.11ac (VHT-20),802.11ac (VHT-40), 802.11ac (VHT-80) 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 (802.11a20/ 5745 MHz)										
3252.86	43.87	44.70	6.70	28.20	-9.80	34.07	68.20	-34.13	Pk	Vertical
3252.86	42.22	44.70	6.70	28.20	-9.80	32.42	54.00	-21.58	AV	Vertical
3253.92	44.25	44.70	6.70	28.20	-9.80	34.45	68.20	-33.75	Pk	Horizontal
3253.92	40.96	44.70	6.70	28.20	-9.80	31.16	54.00	-22.84	AV	Horizontal
3988.88	39.61	44.20	7.90	29.70	-6.60	33.01	68.20	-35.19	Pk	Vertical
3988.88	36.70	44.20	7.90	29.70	-6.60	30.10	54.00	-23.90	AV	Vertical
3989.97	38.69	44.20	7.90	29.70	-6.60	32.09	68.20	-36.11	Pk	Horizontal
3989.97	36.94	44.20	7.90	29.70	-6.60	30.34	54.00	-23.66	AV	Horizontal
7226.99	37.00	43.50	11.40	35.50	3.40	40.40	68.20	-27.80	Pk	Vertical
7226.99	34.04	43.50	11.40	35.50	3.40	37.44	54.00	-16.56	AV	Vertical
7236.22	37.31	43.50	11.40	35.50	3.40	40.71	68.20	-27.49	Pk	Horizontal
7236.22	33.82	43.50	11.40	35.50	3.40	37.22	54.00	-16.78	AV	Horizontal
10505.30	40.02	44.50	13.90	38.80	8.20	48.22	68.20	-19.98	Pk	Vertical
10505.30	36.00	44.50	13.90	38.80	8.20	44.20	54.00	-9.80	AV	Vertical
10509.51	39.41	44.50	13.90	38.80	8.20	47.61	68.20	-20.59	Pk	Horizontal
10509.51	35.82	44.50	13.90	38.80	8.20	44.02	54.00	-9.98	AV	Horizontal
11490.20	33.83	43.60	14.30	39.50	10.20	44.03	68.20	-24.17	Pk	Vertical
11490.20	29.95	43.60	14.30	39.50	10.20	40.15	54.00	-13.85	AV	Vertical
11490.32	33.32	43.60	14.30	39.50	10.20	43.52	68.20	-24.68	Pk	Horizontal
11490.32	30.16	43.60	14.30	39.50	10.20	40.36	54.00	-13.64	AV	Horizontal
13296.06	32.53	42.60	15.90	38.90	12.20	44.73	68.20	-23.47	Pk	Vertical
13296.06	28.75	42.60	15.90	38.90	12.20	40.95	54.00	-13.05	AV	Vertical
13288.03	31.99	42.60	15.90	38.90	12.20	44.19	68.20	-24.01	Pk	Horizontal
13288.03	29.55	42.60	15.90	38.90	12.20	41.75	54.00	-12.25	AV	Horizontal
Mid Channel (802.11a20/ 5785 MHz)										
3246.22	43.90	44.70	6.70	28.20	-9.80	34.10	68.20	-34.10	Pk	Vertical
3246.22	41.93	44.70	6.70	28.20	-9.80	32.13	54.00	-21.87	AV	Vertical
3252.84	44.58	44.70	6.70	28.20	-9.80	34.78	68.20	-33.42	Pk	Horizontal
3252.84	40.89	44.70	6.70	28.20	-9.80	31.09	54.00	-22.91	AV	Horizontal
3985.53	38.80	44.20	7.90	29.70	-6.60	32.20	68.20	-36.00	Pk	Vertical
3985.53	36.51	44.20	7.90	29.70	-6.60	29.91	54.00	-24.09	AV	Vertical
3997.46	39.15	44.20	7.90	29.70	-6.60	32.55	68.20	-35.65	Pk	Horizontal
3997.46	36.72	44.20	7.90	29.70	-6.60	30.12	54.00	-23.88	AV	Horizontal
7233.94	37.64	43.50	11.40	35.50	3.40	41.04	68.20	-27.16	Pk	Vertical
7233.94	34.75	43.50	11.40	35.50	3.40	38.15	54.00	-15.85	AV	Vertical
7231.13	37.52	43.50	11.40	35.50	3.40	40.92	68.20	-27.28	Pk	Horizontal
7231.13	34.74	43.50	11.40	35.50	3.40	38.14	54.00	-15.86	AV	Horizontal
10598.43	39.47	44.50	13.80	38.80	8.10	47.57	68.20	-20.63	Pk	Vertical
10598.43	36.03	44.50	13.80	38.80	8.10	44.13	54.00	-9.87	AV	Vertical
10591.18	40.08	44.50	13.80	38.80	8.10	48.18	68.20	-20.02	Pk	Horizontal
10591.18	36.40	44.50	13.80	38.80	8.10	44.50	54.00	-9.50	AV	Horizontal
11570.37	33.54	43.60	14.30	39.50	10.20	43.74	68.20	-24.46	Pk	Vertical
11570.37	30.04	43.60	14.30	39.50	10.20	40.24	54.00	-13.76	AV	Vertical
11570.05	33.57	43.60	14.30	39.50	10.20	43.77	68.20	-24.43	Pk	Horizontal
11570.05	30.63	43.60	14.30	39.50	10.20	40.83	54.00	-13.17	AV	Horizontal
13296.97	32.80	42.60	15.90	38.90	12.20	45.00	68.20	-23.20	Pk	Vertical
13296.97	29.39	42.60	15.90	38.90	12.20	41.59	54.00	-12.41	AV	Vertical
13291.54	32.06	42.60	15.90	38.90	12.20	44.26	68.20	-23.94	Pk	Horizontal
13291.54	29.46	42.60	15.90	38.90	12.20	41.66	54.00	-12.34	AV	Horizontal



High Channel (802.11a20/ 5825 MHz)										
3264.42	44.17	44.70	6.70	28.20	-9.80	34.37	68.20	-33.83	Pk	Vertical
3264.42	41.17	44.70	6.70	28.20	-9.80	31.37	54.00	-22.63	AV	Vertical
3249.80	44.93	44.70	6.70	28.20	-9.80	35.13	68.20	-33.07	Pk	Horizontal
3249.80	42.21	44.70	6.70	28.20	-9.80	32.41	54.00	-21.59	AV	Horizontal
3982.13	39.13	44.20	7.90	29.70	-6.60	32.53	68.20	-35.67	Pk	Vertical
3982.13	36.30	44.20	7.90	29.70	-6.60	29.70	54.00	-24.30	AV	Vertical
3981.24	40.08	44.20	7.90	29.70	-6.60	33.48	68.20	-34.72	Pk	Horizontal
3981.24	36.29	44.20	7.90	29.70	-6.60	29.69	54.00	-24.31	AV	Horizontal
7221.34	37.17	43.50	11.40	35.50	3.40	40.57	68.20	-27.63	Pk	Vertical
7221.34	33.54	43.50	11.40	35.50	3.40	36.94	54.00	-17.06	AV	Vertical
7225.18	37.44	43.50	11.40	35.50	3.40	40.84	68.20	-27.36	Pk	Horizontal
7225.18	33.47	43.50	11.40	35.50	3.40	36.87	54.00	-17.13	AV	Horizontal
10622.38	40.13	44.50	13.80	38.80	8.10	48.23	68.20	-19.97	Pk	Vertical
10622.38	36.69	44.50	13.80	38.80	8.10	44.79	54.00	-9.21	AV	Vertical
10640.25	38.97	44.50	13.80	38.80	8.10	47.07	68.20	-21.13	Pk	Horizontal
10640.25	36.34	44.50	13.80	38.80	8.10	44.44	54.00	-9.56	AV	Horizontal
11650.14	34.16	43.60	14.30	39.50	10.20	44.36	68.20	-23.84	Pk	Vertical
11650.14	31.05	43.60	14.30	39.50	10.20	41.25	54.00	-12.75	AV	Vertical
11650.06	33.40	43.60	14.30	39.50	10.20	43.60	68.20	-24.60	Pk	Horizontal
11650.06	31.13	43.60	14.30	39.50	10.20	41.33	54.00	-12.67	AV	Horizontal
13288.79	31.67	42.70	18.00	37.10	12.40	44.07	68.20	-24.13	Pk	Vertical
13288.79	29.33	42.70	18.00	37.10	12.40	41.73	54.00	-12.27	AV	Vertical
13282.02	31.84	42.70	18.00	37.10	12.40	44.24	68.20	-23.96	Pk	Horizontal
13282.02	29.56	42.70	18.00	37.10	12.40	41.96	54.00	-12.04	AV	Horizontal

Remark:

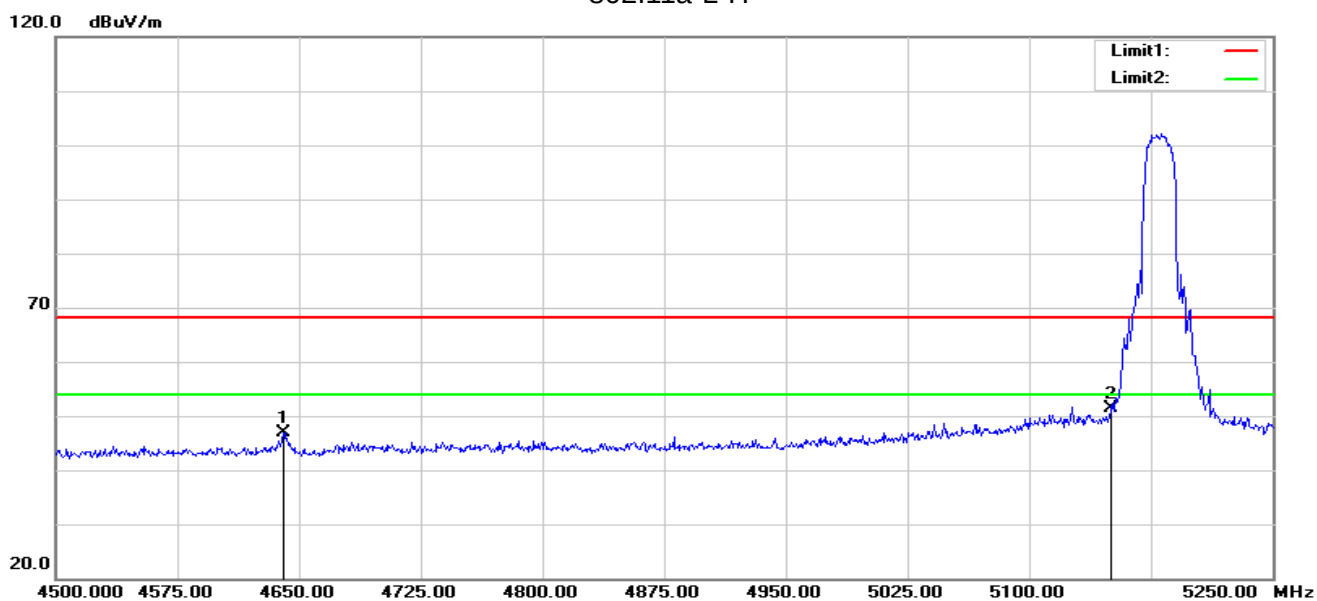
1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.
2. Scan with 802.11a,802.11n (HT-20),802.11n (HT-40), 802.11ac (VHT-20),802.11ac (VHT-40), 802.11ac (VHT-80) the worst case is 802.11a.
3. The frequency emission of peak points that did not show above the forms are at least 20dB below the limit, the frequency emission is mainly from the environment noise.



3.2.9 RESTRICTED FREQUENCY BANDS AND BAND EDGE

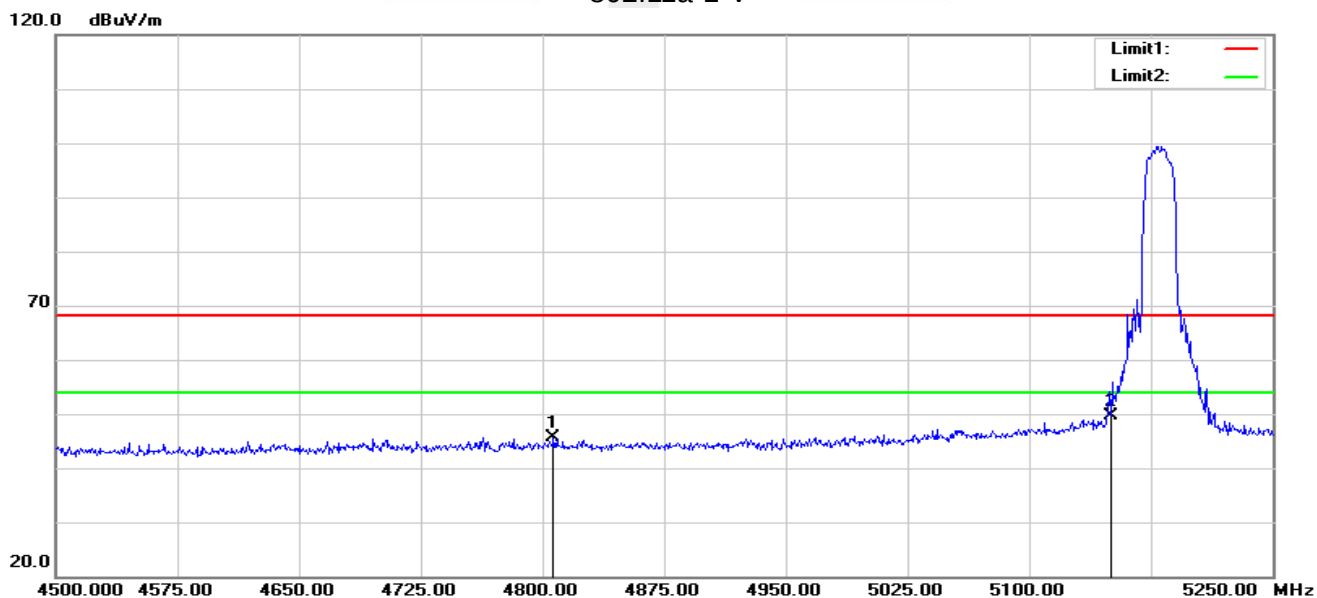
Band I 5150-5250MHz

802.11a-L-H



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4640.250	54.64	-7.67	46.97	68.20	-21.23	peak
2	5150.000	57.22	-5.73	51.49	68.20	-16.71	peak

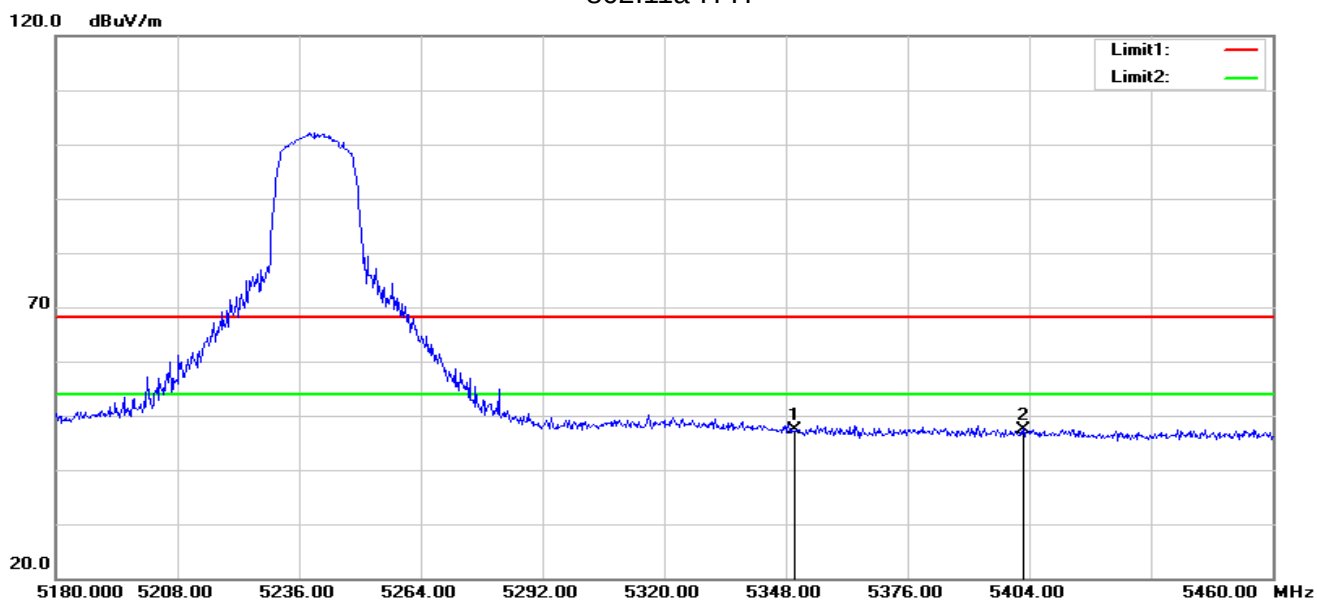
802.11a-L-V



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4806.750	52.93	-7.20	45.73	68.20	-22.47	peak
2	5150.000	55.27	-5.73	49.54	68.20	-18.66	peak

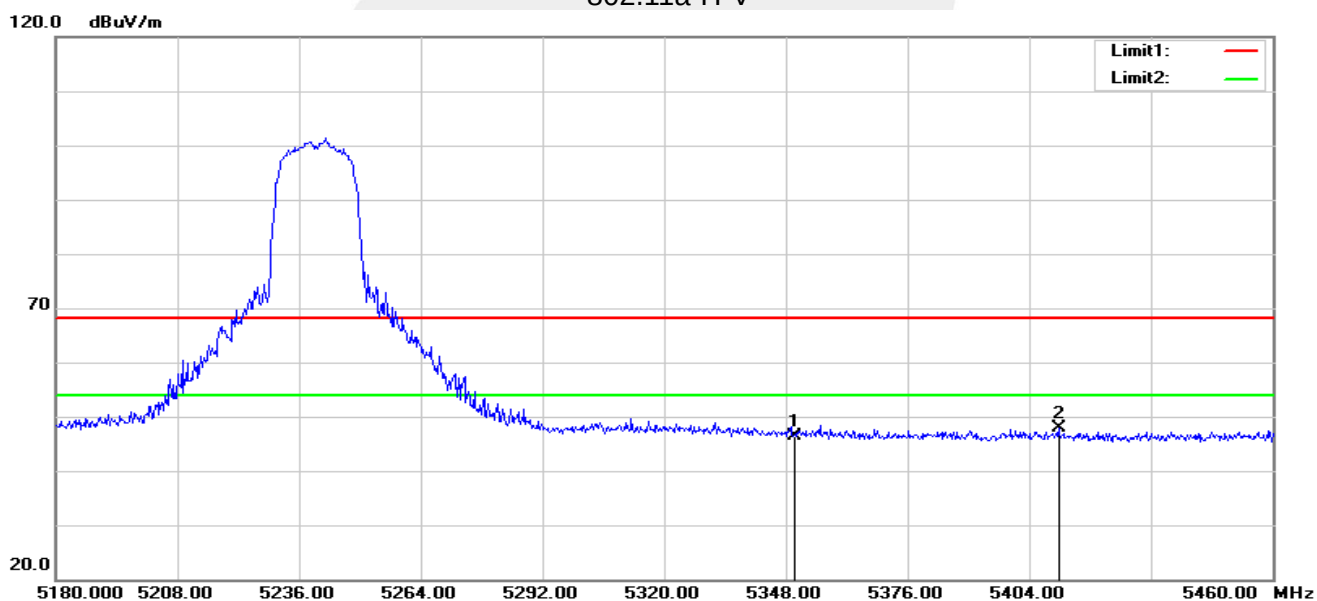


802.11a-H-H



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5350.000	52.54	-5.23	47.31	68.20	-20.89	peak
2	5402.600	52.75	-5.25	47.50	68.20	-20.70	peak

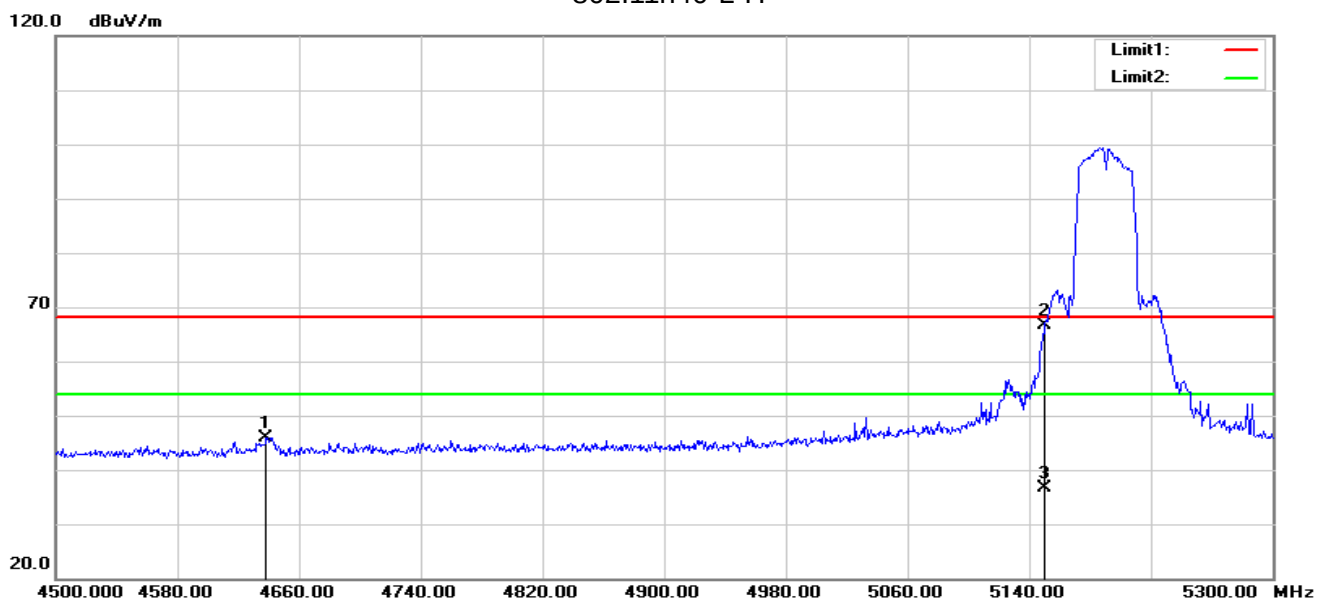
802.11a-H-V



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5350.000	51.66	-5.23	46.43	68.20	-21.77	peak
2	5410.720	53.05	-5.22	47.83	68.20	-20.37	peak

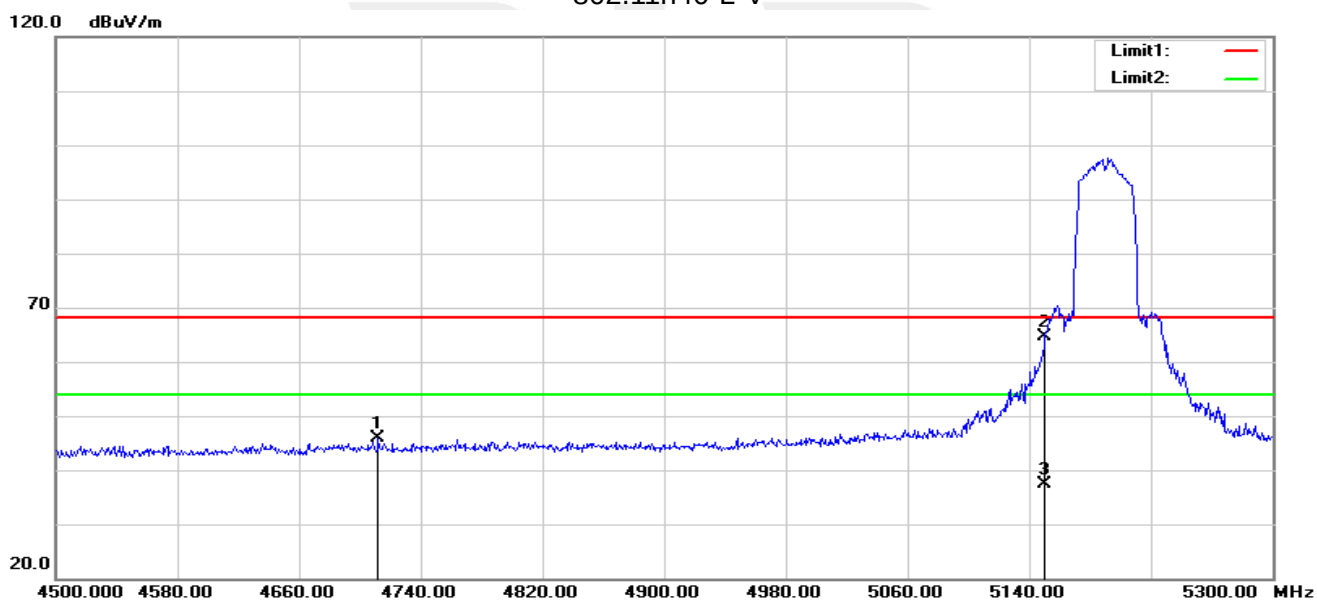


802.11n40-L-H



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4638.400	53.67	-7.67	46.00	68.20	-22.20	peak
2	5150.000	72.41	-5.73	66.68	68.20	-1.52	peak
3	5150.000	42.48	-5.73	36.75	54.00	-17.25	AVG

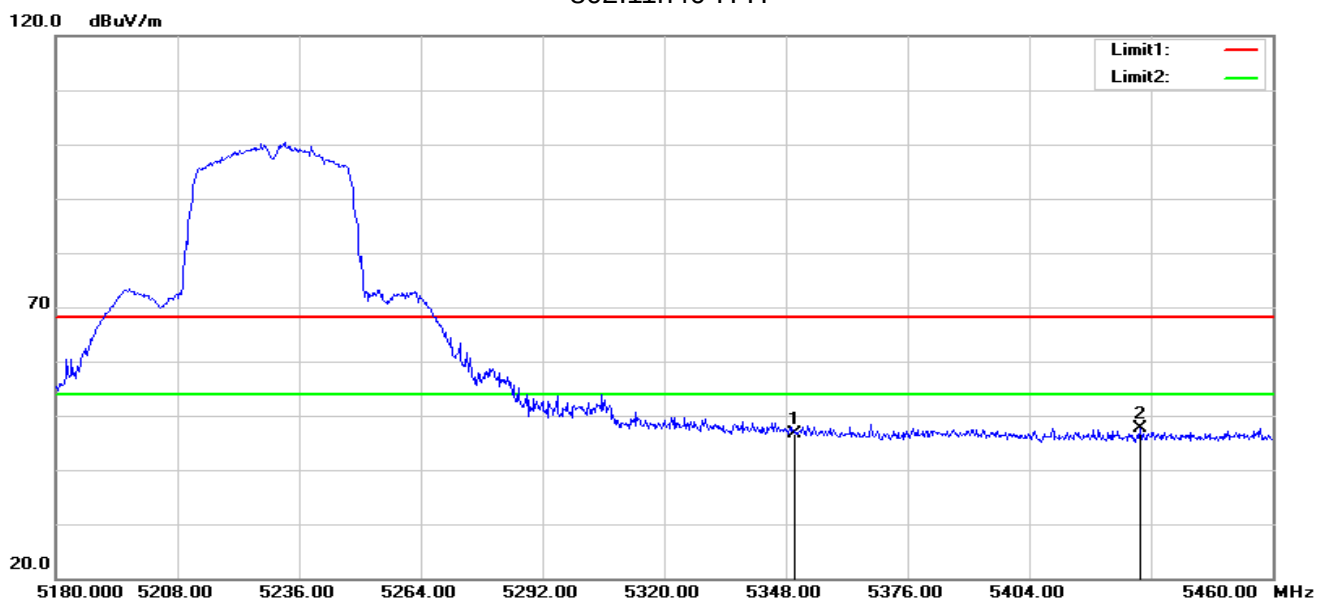
802.11n40-L-V



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4712.000	53.17	-7.35	45.82	68.20	-22.38	peak
2	5150.000	70.29	-5.73	64.56	68.20	-3.64	peak
3	5150.000	43.12	-5.73	37.39	54.00	-16.61	AVG

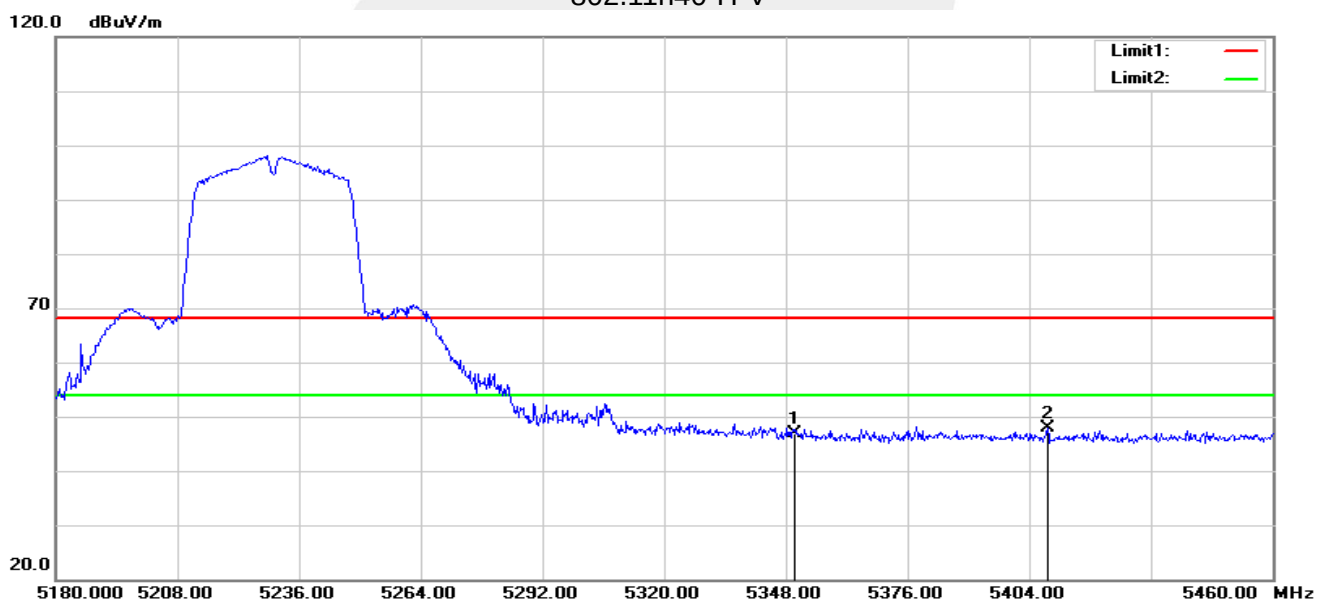


802.11n40-H-H



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5350.000	51.77	-5.23	46.54	68.20	-21.66	peak
2	5429.480	52.89	-5.19	47.70	68.20	-20.50	peak

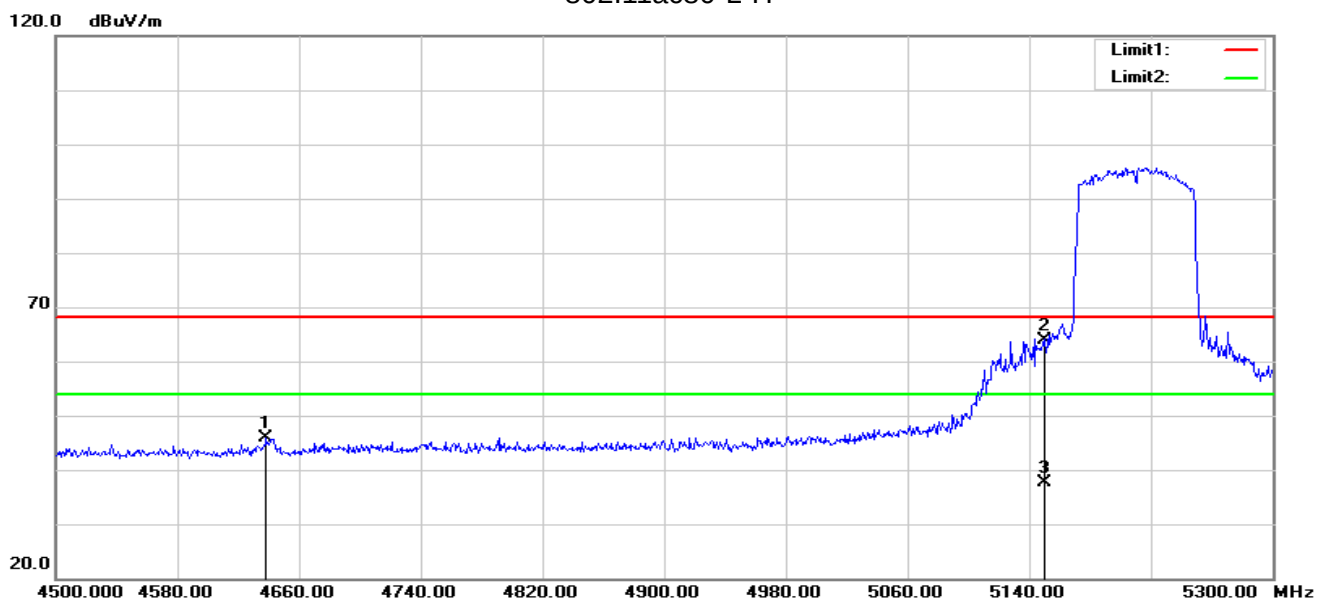
802.11n40-H-V



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5350.000	52.17	-5.23	46.94	68.20	-21.26	peak
2	5408.200	53.11	-5.23	47.88	68.20	-20.32	peak

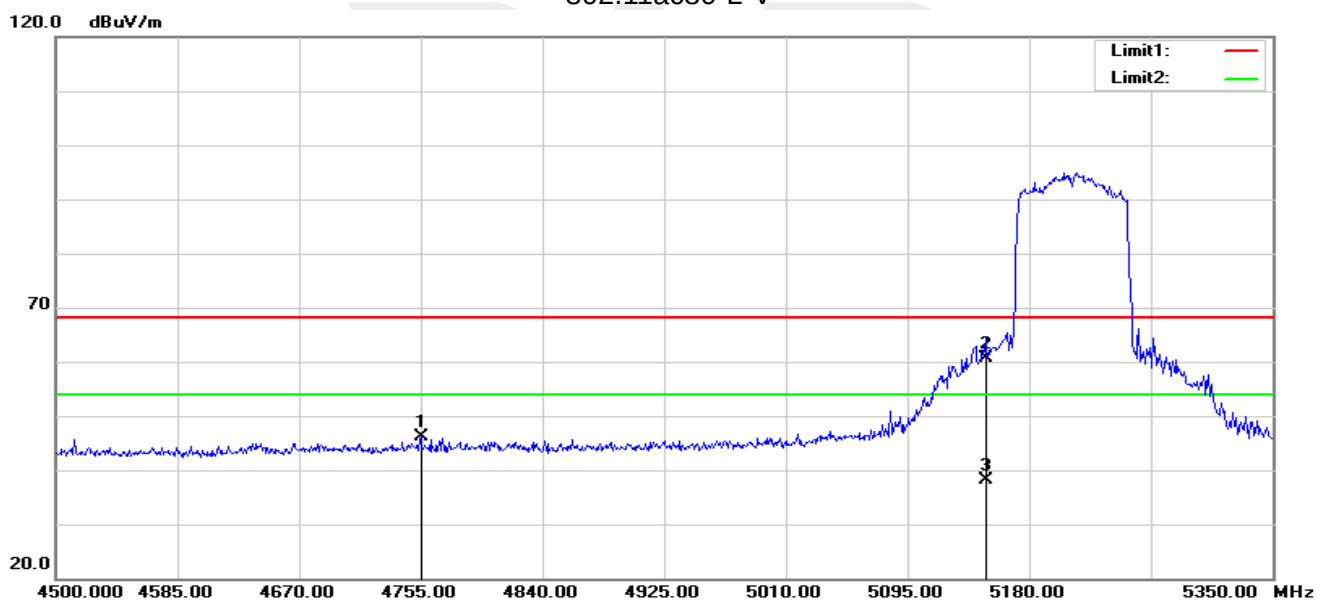


802.11ac80-L-H



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4638.400	53.48	-7.67	45.81	68.20	-22.39	peak
2	5150.000	69.65	-5.73	63.92	68.20	-4.28	peak
3	5150.000	43.41	-5.73	37.68	54.00	-16.32	AVG

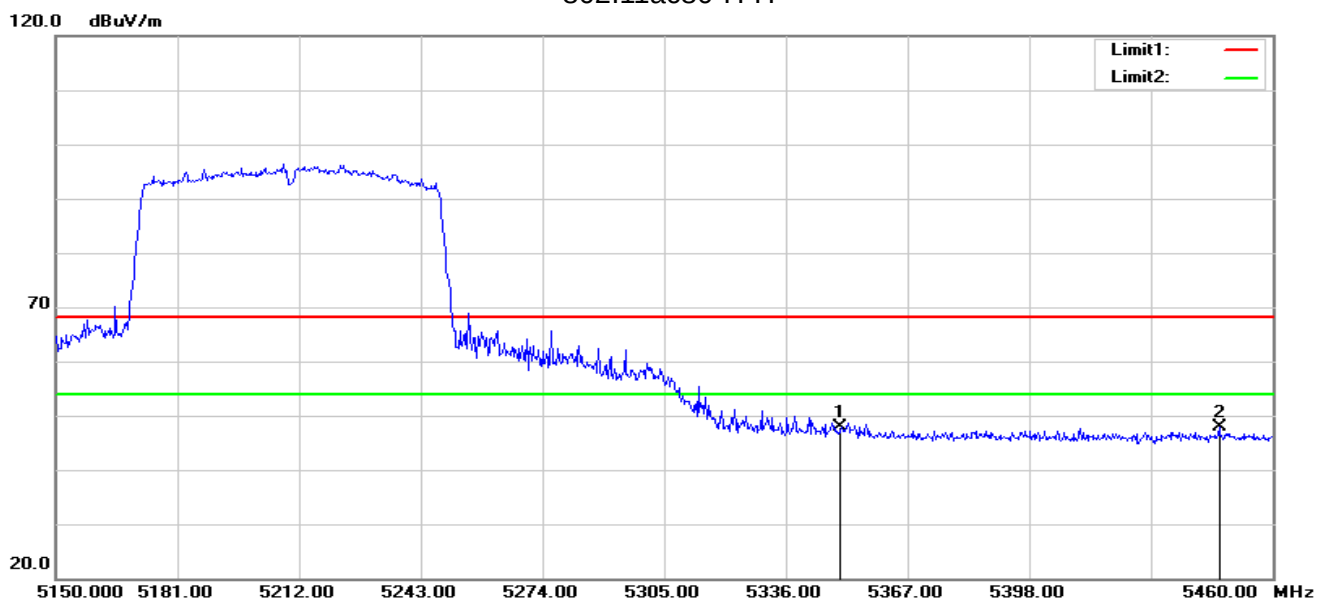
802.11ac80-L-V



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4755.000	53.42	-7.28	46.14	68.20	-22.06	peak
2	5150.000	66.46	-5.73	60.73	68.20	-7.47	peak
3	5150.000	43.89	-5.73	38.16	54.00	-15.84	AVG

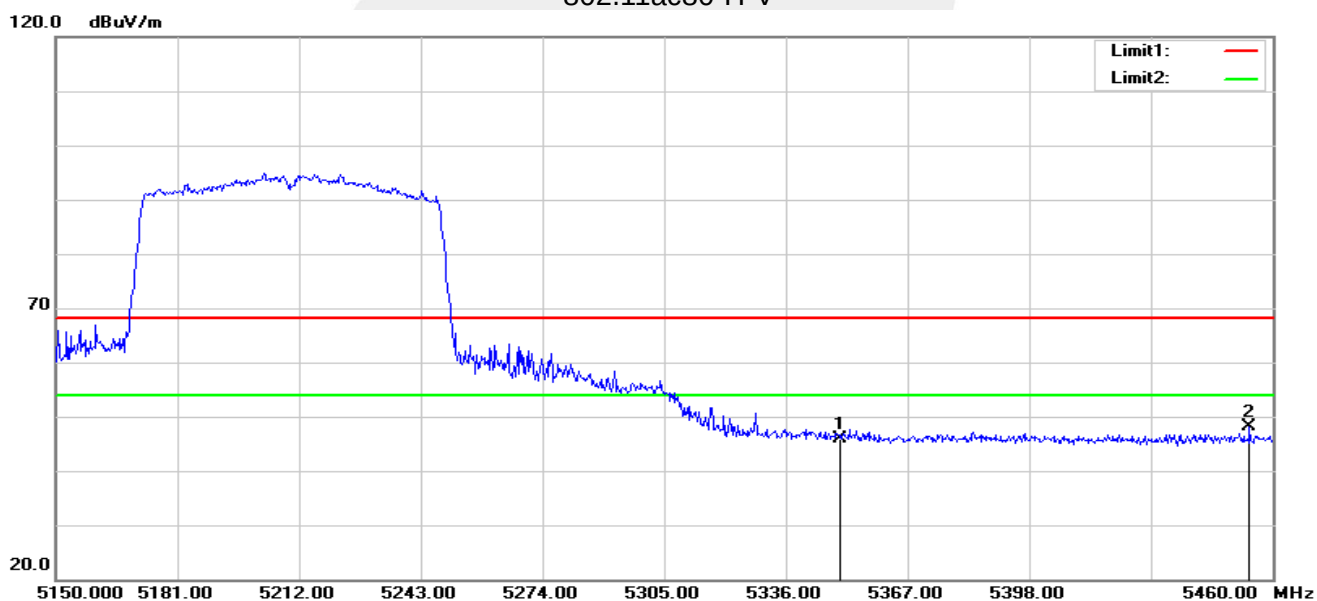


802.11ac80-H-H



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5350.000	53.15	-5.23	47.92	68.20	-20.28	peak
2	5446.360	52.94	-5.14	47.80	68.20	-20.40	peak

802.11ac80-H-V



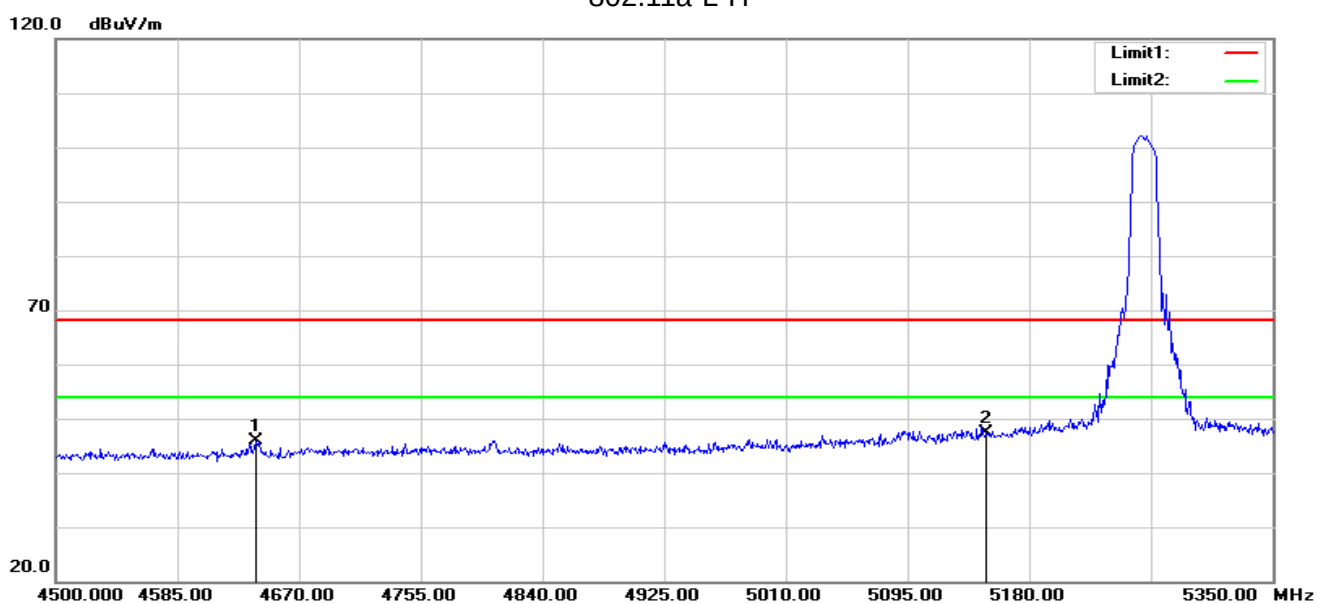
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5350.000	51.16	-5.23	45.93	68.20	-22.27	peak
2	5454.110	53.22	-5.13	48.09	68.20	-20.11	peak

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



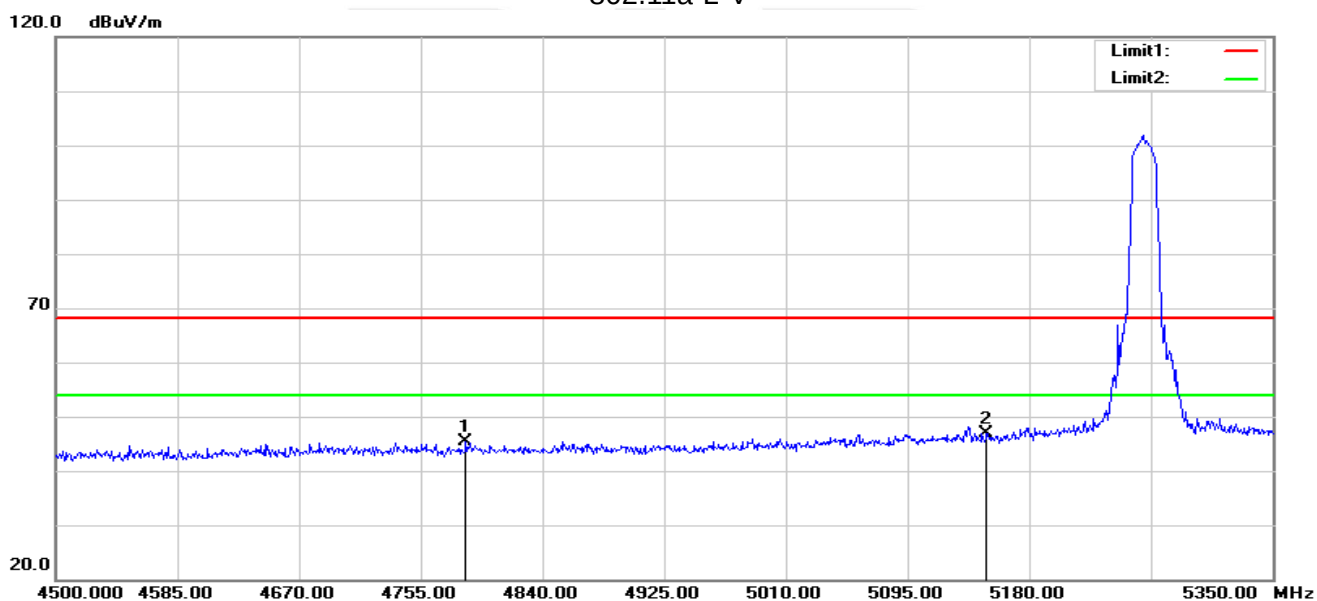
Band II 5250-5350MHz

802.11a-L-H



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4639.400	53.44	-7.67	45.77	68.20	-22.43	peak
2	5150.000	53.14	-5.73	47.41	68.20	-20.79	peak

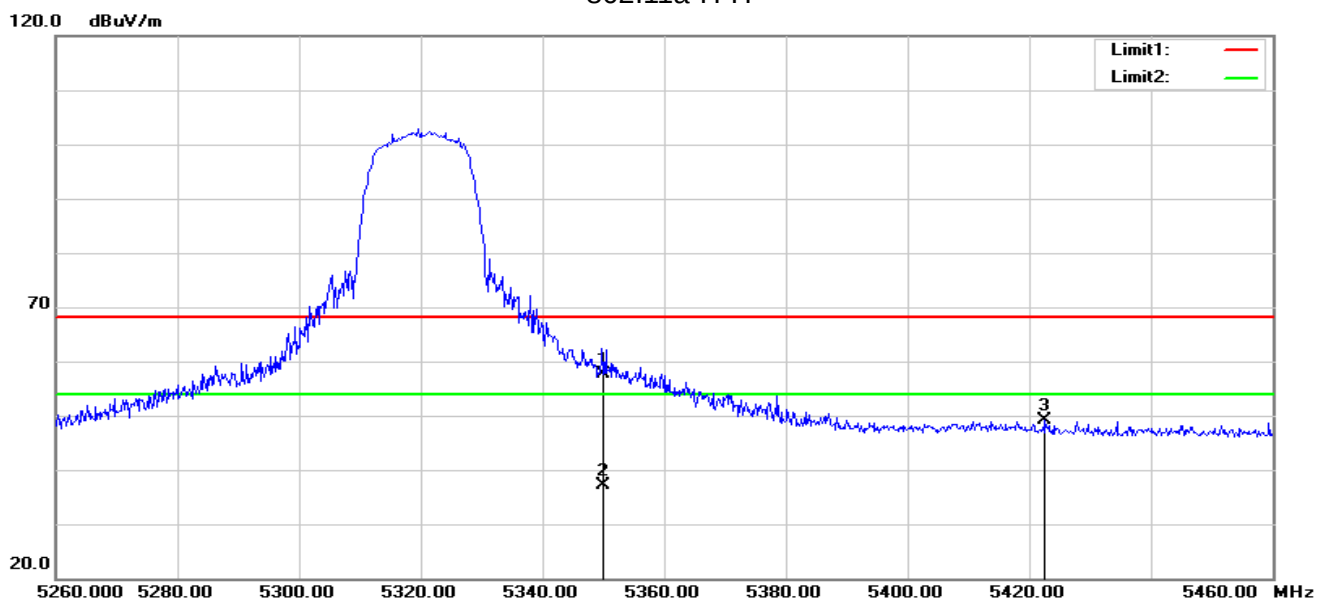
802.11a-L-V



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4786.450	52.70	-7.24	45.46	68.20	-22.74	peak
2	5150.000	52.62	-5.73	46.89	68.20	-21.31	peak

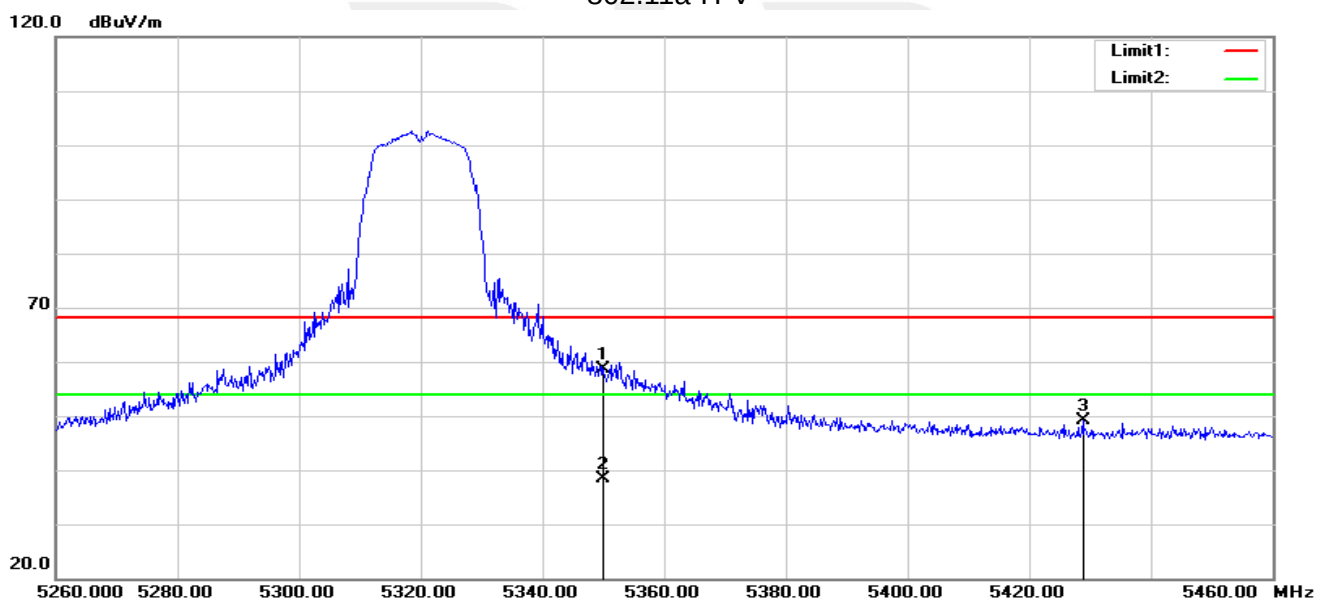


802.11a-H-H



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5350.000	62.86	-5.23	57.63	68.20	-10.57	peak
2	5350.000	42.47	-5.23	37.24	54.00	-16.76	AVG
3	5422.600	54.27	-5.20	49.07	68.20	-19.13	peak

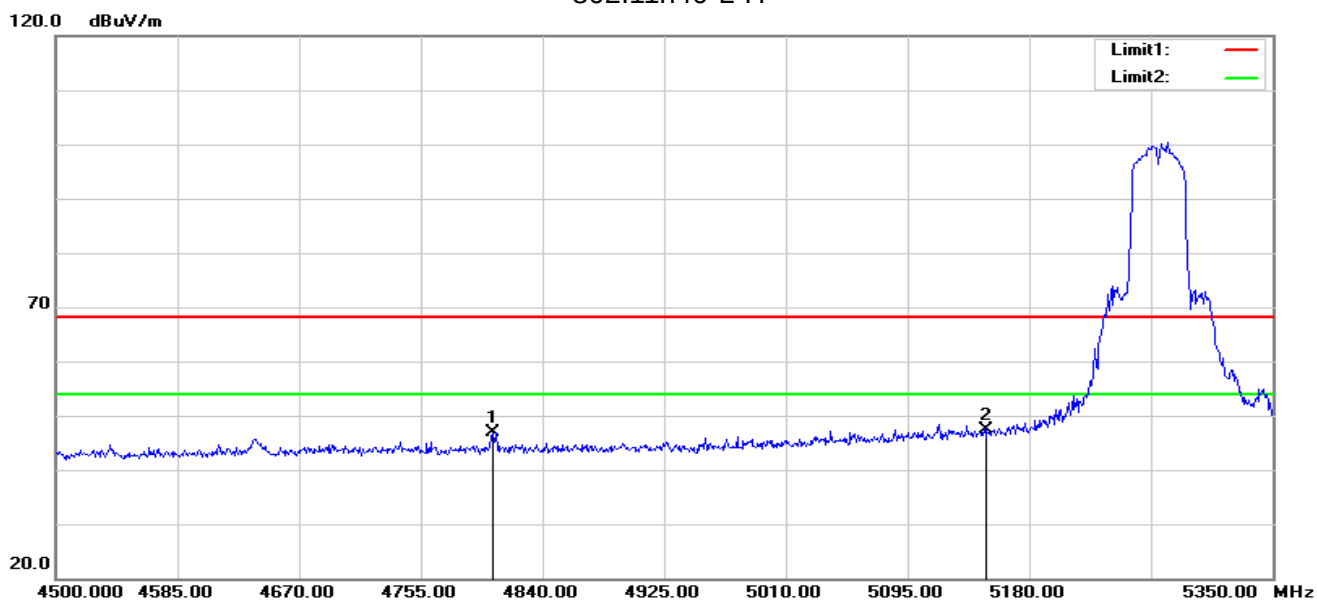
802.11a-H-V



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5350.000	63.78	-5.23	58.55	68.20	-9.65	peak
2	5350.000	43.71	-5.23	38.48	54.00	-15.52	AVG
3	5428.800	54.27	-5.19	49.08	68.20	-19.12	peak

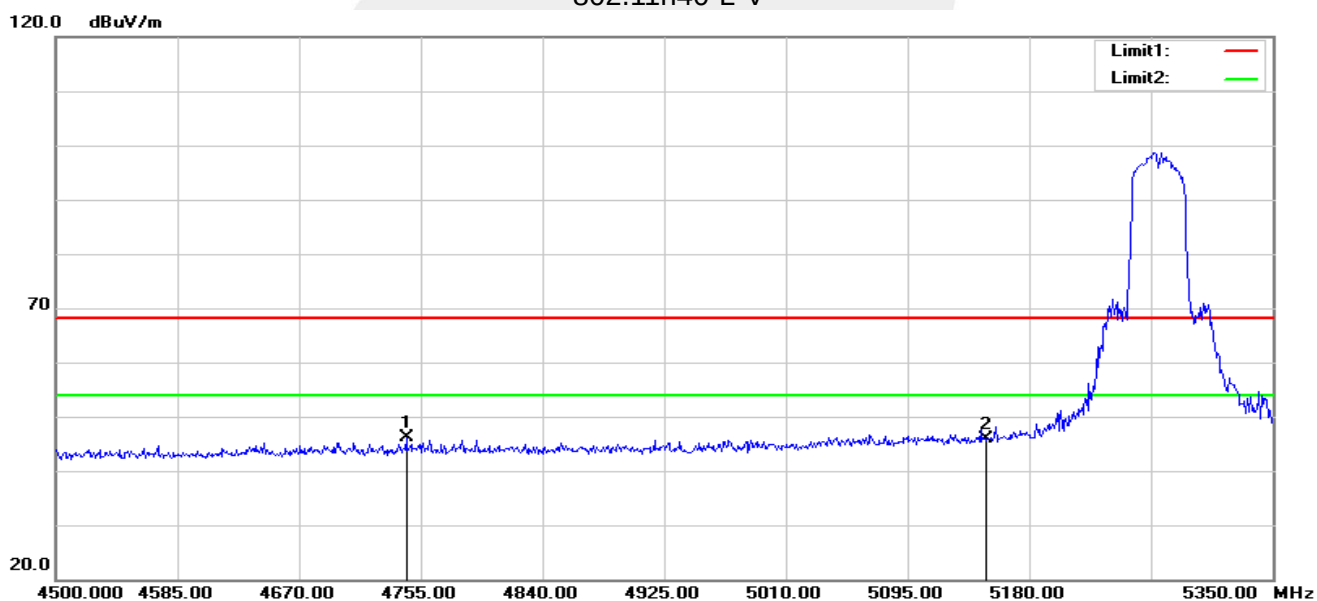


802.11n40-L-H



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4805.150	54.05	-7.20	46.85	68.20	-21.35	peak
2	5150.000	53.17	-5.73	47.44	68.20	-20.76	peak

802.11n40-L-V



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4744.800	53.32	-7.30	46.02	68.20	-22.18	peak
2	5150.000	51.54	-5.73	45.81	68.20	-22.39	peak