CFR 47 FCC PART 15 SUBPART E
ISED RSS-247 Issue 3

TEST REPORT

For

INFINITY GAME TABLE - 32

MODEL NUMBER: IGT-I-23092

REPORT NUMBER: 4791193734.2-1-RF-2

ISSUE DATE: March 9, 2024

FCC ID:2APXHGAMETB
IC:24128-GAMETB

Prepared for

WF Tastemakers Trading Limited
FCC Address: Unit 05 and unit 06, 6th Floor, Greenfield Tower Concordia Plaza, 1 Science Museum Road, TST East, Hong Kong
ISED Address: 347 Fifth Avenue Suite 1402-199, New York NY 10018 United States Of America (Excluding The States Of Alaska)

Prepared by

UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch

Building 10, Innovation Technology Park, No. 1, Li Bin Road, Song Shan Lake Hi-Tech Development Zone Dongguan, 523808, People's Republic of China

Tel: +86 769 22038881
Fax: +86 769 33244054
Website: www.ul.com

Revision History

Rev.	Issue Date	Revisions	Revised By
V0	March 9, 2024	Initial Issue	

Summary of Test Results

Test Item	Clause	Limit/Requirement	Result
ON TIME AND DUTY CYCLE	ANSI C63.10-2013, Clause 12.2	None; for reporting purposes only.	Pass
6dB AND 26dB EMISSION BANDWIDTH AND 99% OCCUPIED BANDWIDTH	KDB 789033 D02 v02r01 Section C.1	FCC Part 15.407 (a)/(e), RSS-247 Issue 2, Clause 6.2.1.2 RSS-Gen Clause 6.7	Pass
CONDUCTED OUTPUT POWER	KDB 789033 D02 v02r01 Section E.3.a (Method PM)	FCC 15.407 (a) RSS-247 Clause 6.2	Pass
POWER SPECTRAL DENSITY	KDB 789033 D02 v02r01 Section F	FCC 15.407 (a) RSS-247 Clause 6.2	Pass
AC Power Line Conducted Emission	ANSI C63.10-2013, Clause 6.2.	FCC 15.207 RSS-GEN Clause 8.8	Pass
Radiated Emissions and Band Edge Measurement	KDB 789033 D02 v02r01 Section G.3, G.4, G.5, and G.6	FCC 15.407 (b) FCC 15.209 FCC 15.205 RSS-247 Clause 6.2 RSS-GEN Clause 8.9	Pass
FREQUENCY STABILITY	ANSI C63.10-2013,Clause 6.8	FCC 15.407 (g)	Pass
Dynamic Frequency Selection (Slave)	KDB 905462 D03 UNII Clients Without Radar Detection New Rules v01r02	FCC Part 15.407 (h), RSS-247 Issue 3 Clause6.3	N/A
Dynamic Frequency Selection (Master)	KDB 905462 D02 UNII DFS Compliance Procedures New Rules v02	FCC Part 15.407 (h), RSS-247 Issue 3 Clause6.3	N/A
Antenna Requirement	N/A	FCC 47 CFR Part 15.203/ 15.407(a)(1) (2), RSS-Gen Issue 5, Clause 6.8	Pass

Note:
1. N/A: In this whole report not applicable.

*This test report is only published to and used by the applicant, and it is not for evidence purpose in China.
*The measurement result for the sample received is <Pass> according to <CFR 47 FCC PART 15 SUBPART E
ISED RSS-247 Issue 3> when <Simple Acceptance> decision rule is applied.

CONTENTS

1. ATTESTATION OF TEST RESULTS

Applicant Information

Company Name:	WF Tastemakers Trading Limited
Address:	FCC Address: Unit 05 and unit 06, 6th Floor, Greenfield Tower Concordia Plaza, 1 Science Museum Road, TST East, Hong Kong ISED Address: 347 Fifth Avenue Suite 1402-199, New York NY 10018 United States Of America (Excluding The States Of Alaska)

Manufacturer Information

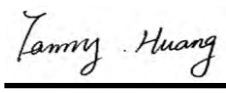
Company Name:	WF Tastemakers Trading Limited
Address:	FCC Address: Unit 05 and unit 06, 6th Floor, Greenfield Tower Concordia Plaza, 1 Science Museum Road, TST East, Hong Kong ISED Address: 347 Fifth Avenue Suite 1402-199, New York NY 10018 United States Of America (Excluding The States Of Alaska)

EUT Information

EUT Name:	INFINITY GAME TABLE - 32
Model:	IGT-I-23092
Brand:	ARCADE1UP
Sample Received Date:	February 02, 2024
Sample Status:	Normal
Sample ID:	6944813
Date of Tested:	February 02, 2024 to March 9, 2024

APPLICABLE STANDARDS	
STANDARD	**TEST RESULTS**
CFR 47 FCC PART 15 SUBPART E **ISED RSS-247 Issue 3**	**Pass**

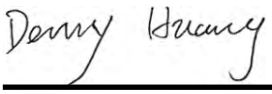
Prepared By:



Fanny Huang

Engineer Project Associate

Checked By:



Denny Huang

Senior Project Engineer

Approved By:

Stephen Guo

Operations Manager

2. TEST METHODOLOGY

All tests were performed in accordance with the standard CFR 47 FCC PART 15 SUBPART E ISED RSS-247 Issue 3, ANSI C63.10-2013, CFR 47 FCC Part 2, KDB 789033 D02 v02r01, RSS-GEN Issue 5, KDB414788 D01 Radiated Test Site v01.

3. FACILITIES AND ACCREDITATION

Accreditation Certificate	**A2LA (Certificate No.: 4102.01)** UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been assessed and proved to be in compliance with A2LA. **FCC (FCC Designation No.: CN1187)** UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. Has been recognized to perform compliance testing on equipment subject to the Commission's Declaration of Conformity (DoC) and Certification rules **ISED (Company No.: 21320)** UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been registered and fully described in a report filed with ISED. The Company Number is 21320 and the test lab Conformity Assessment Body Identifier (CABID) is CN0046. **VCCI (Registration No.: G-20192, C-20153, T-20155 and R-20202)** UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been assessed and proved to be in compliance with VCCI, the Membership No. is 3793. Facility Name: Chamber D, the VCCI registration No. is G-20192 and R-20202 Shielding Room B, the VCCI registration No. is C-20153 and T-20155

Note 1:
All tests measurement facilities use to collect the measurement data are located at Building 10, Innovation Technology Park, No. 1, Li Bin Road, Song Shan Lake Hi-Tech Development Zone Dongguan, 523808, People's Republic of China.

Note 2:
The test anechoic chamber in UL Verification Services (Guangzhou) Co., Ltd.
Song Shan Lake Branch had been calibrated and compared to the open field sites and the test anechoic chamber is shown to be equivalent to or worst case from the open field site.

Note 3:
For below 30 MHz, lab had performed measurements at test anechoic chamber and comparing to measurements obtained on an open field site. And these measurements below 30 MHz had been correlated to measurements performed on an OFS.

4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations and is traceable to recognized national standards.

4.2. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

Test Item	Uncertainty
Conduction emission	3.62 dB
Radiated Emission (Included Fundamental Emission) (9 kHz ~ 30 MHz)	2.2 dB
Radiated Emission (Included Fundamental Emission) (30 MHz ~ 1 GHz)	4.00 dB
Radiated Emission (Included Fundamental Emission) (1 GHz to 40 GHz)	5.78 dB (1 GHz ~ 18 GHz)
	5.23 dB (18 GHz ~ 26 GHz)
	5.37 dB (26 GHz ~ 40 GHz)
Duty Cycle	±0.028%
Emission Bandwidth and 99% Occupied Bandwidth	±0.0196%
Maximum Conducted Output Power	±0.766 dB
Maximum Power Spectral Density Level	±1.22 dB
Frequency Stability	±2.76%
Dynamic Frequency Selection	±1 ms
Conducted Band-edge Compliance	±1.328 dB
Conducted Unwanted Emissions In Non-restricted Frequency Bands	±0.746 dB (9 kHz ~ 1 GHz)
	±1.328dB (1 GHz ~ 26 GHz)
Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.	

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

EUT Name	INFINITY GAME TABLE - 32
Model	IGT-I-23092

Frequency Range:	5180 MHz to 5240 MHz 5 745 MHz to 5 825 MHz
DFS Operational mode:	Slave without radar detection
Type of Modulation:	IEEE 802.11a: OFDM(64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n: OFDM(64QAM, 16QAM, QPSK, BPSK) IEEE 802.11ac: OFDM(256QAM, 64QAM, 16QAM, QPSK, BPSK)
Radio Technology:	IEEE802.11a/n-HT40/ac-VHT40/ac-VHT80
Normal Test Voltage:	AC 120 V, 60 Hz

5.2. CHANNEL LIST

UNII-1 (For Bandwidth=20MHz)		UNII-1 (For Bandwidth=40MHz)		UNII-1 (For Bandwidth=80MHz)	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	38	5190	42	5210
40	5200	46	5230		
44	5220				
48	5240				

UNII-3 (For Bandwidth=20MHz)		UNII-3 (For Bandwidth=40MHz)		UNII-3 (For Bandwidth=80MHz)	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
149	5745	151	5755	155	5775
153	5765	159	5795		
157	5785				
161	5805				
165	5825				

5.3. MAXIMUM POWER

UNII-1 BAND(FCC&ISED)

IEEE Std. 802.11	Frequency (MHz)	Maximum Average Conducted Power (dBm)	Max Average EIRP (dBm)
a	5150 ~ 5250	12.82	16.62
n HT40		12.66	16.46
ac VHT80		12.18	15.98

UNII-3 BAND(FCC&ISED)

IEEE Std. 802.11	Frequency (MHz)	Maximum Average Conducted Power (dBm)
a	5725 ~ 5850	11.70
n HT40		11.77
ac VHT80		11.28

5.4. TEST CHANNEL CONFIGURATION

UNII-1 Test Channel Configuration		
IEEE Std.	Test Channel Number	Frequency
802.11a	CH 36(Low Channel), CH 40(MID Channel), CH 48(High Channel)	5180 MHz, 5200 MHz, 5240 MHz
802.11n HT40	CH 38(Low Channel), CH 46(High Channel)	5190 MHz, 5230 MHz
802.11ac VHT80	CH 42(Low Channel)	5210 MHz

UNII-3 Test Channel Configuration		
IEEE Std.	Test Channel Number	Frequency
802.11a	CH 149(Low Channel), CH 157(MID Channel), CH 165(High Channel)	5745 MHz, 5785 MHz, 5825 MHz
802.11n HT40	CH 151(Low Channel), CH 159(High Channel)	5755MHz, 5795MHz
802.11ac VHT80	CH 155(Low Channel)	5775 MHz

5.5. THE WORSE CASE POWER SETTING PARAMETER

The Worse Case Power Setting Parameter	
Test Software	RF Test Tool

UNII-1

Mode	Rate	Channel	Soft set value
			ANT 1
11a	6M	36	default
		40	default
		48	default
11n HT40	MCS0	38	default
		46	default
11ac VHT40	MCS0	38	Cover by 11n HT40
		46	
11ac VHT80	MCS0	42	default

UNII-3

Mode	Rate	Channel	Soft set value
			ANT1
11a	6M	149	default
		157	default
		165	default
11n HT40	MCS0	151	default
		159	default
11ac VHT40	MCS0	151	Cover by 11n HT40
		159	
11ac VHT80	MCS0	155	default

WORSE CASE CONFIGURATIONS

The EUT was tested in the following configuration(s):

Controlled in test mode using a software application on the EUT supplied by customer. The application was used to enable a continuous transmission and to select the mode, test channels, bandwidth, data rates as required.

Test channels referring to section 5.4.

Maximum power setting referring to section 5.5.

Worst case Data Rates declared by the customer:

802.11a 20 mode: 6 Mbps
802.11n HT40 mode: MCS0
802.11ac VHT40 mode: MCS0
802.11ac VHT80 mode: MCS0

802.11ac VHT40 mode is different from 802.11n HT40 only in control messages, so for these 2 modes, only 802.11n HT40 worst case power modes radiated emission test data are recorded in the report .

The measured additional path loss was included in any path loss calculations for all RF cable used during tested.

5.6. DESCRIPTION OF AVAILABLE ANTENNAS

Antenna No.	Frequency Band	Antenna Type	Max Antenna Gain (dBi)
1	5150-5850	Monopole Antenna	3.80

IEE Std. 802.11	Transmit and Receive Mode	Description
802.11a	☒1TX, 1RX	ANT 1 can be used as transmitting/receiving antenna.
802.11n HT40	☒1TX, 1RX	ANT 1 can be used as transmitting/receiving antenna.
802.11ac VHT40	☒1TX, 1RX	ANT 1 can be used as transmitting/receiving antenna.
802.11ac VHT80	☒1TX, 1RX	ANT 1 can be used as transmitting/receiving antenna.
Note: WLAN 2.4G & WLAN 5G can’t transmit simultaneously (Declared by client)		

5.7. SUPPORT UNITS FOR SYSTEM TEST

SUPPORT EQUIPMENT

Item	Equipment	Brand Name	Model Name	P/N
1	PC	Lenovo	E42-80	/
2	USB flash disk	/	/	/

I/O CABLES

Cable No	Port	Connector Type	Cable Type	Cable Length(m)	Remarks
1	USB	/	/	1.0	/

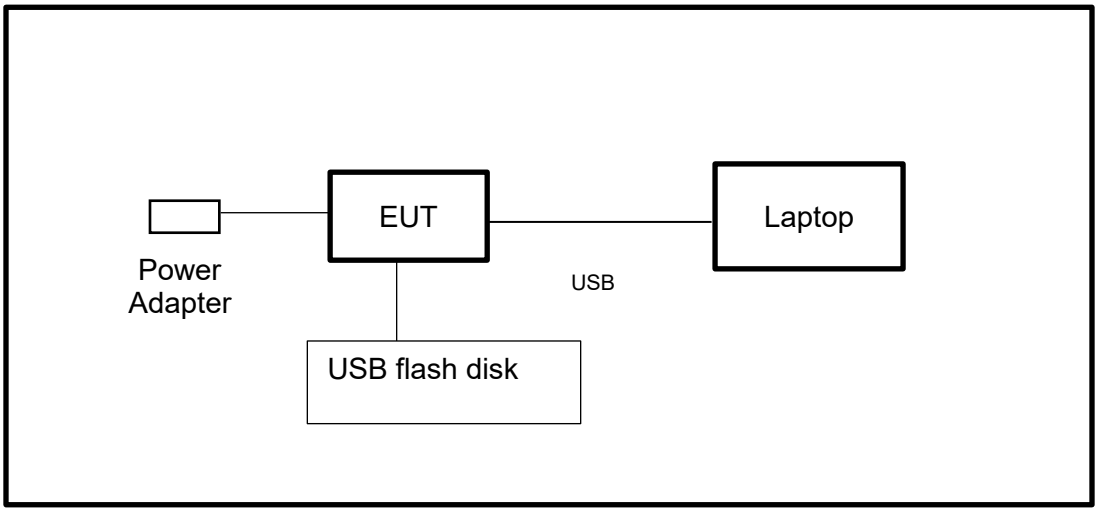
ACCESSORIES

Item	Accessory	Brand Name	Model Name	Description
1	Power Adapter	K.D. Intelligent Power	PDN-60E-120500	Input: 100-240V~ 50/60Hz 1.4A Output: 12.0V ⎓ 5.0A 60.0W

TEST SETUP

The EUT can work in engineering mode with a software through a Laptop.

SETUP DIAGRAM FOR TESTS



6. MEASURING EQUIPMENT AND SOFTWARE USED

R&S TS 8997 Test System					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due. Date
Power sensor, Power Meter	R&S	OSP120	100921	Mar.31,2023	Mar.30,2024
Vector Signal Generator	R&S	SMBV100A	261637	Oct.12, 2023	Oct.11, 2024
Signal Generator	R&S	SMB100A	178553	Oct.12, 2023	Oct.11, 2024
Signal Analyzer	R&S	FSV40	101118	Oct.12, 2023	Oct.11, 2024
Software					
Description	Manufacturer	Name	Version		
For R&S TS 8997 Test System	Rohde & Schwarz	EMC 32	10.60.10		
Tonsend RF Test System					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due. Date
Wideband Radio Communication Tester	R&S	CMW500	155523	Oct.12, 2023	Oct.11, 2024
Wireless Connectivity Tester	R&S	CMW270	1201.0002N75-102	Sep.25, 2023	Sep.24, 2024
PXA Signal Analyzer	Keysight	N9030A	MY55410512	Oct.12, 2023	Oct.11, 2024
MXG Vector Signal Generator	Keysight	N5182B	MY56200284	Oct.12, 2023	Oct.11, 2024
MXG Vector Signal Generator	Keysight	N5172B	MY56200301	Oct.12, 2023	Oct.11, 2024
DC power supply	Keysight	E3642A	MY55159130	Oct.12, 2023	Oct.11, 2024
Temperature & Humidity Chamber	SANMOOD	SG-80-CC-2	2088	Oct.12, 2023	Oct.11, 2024
Attenuator	Aglient	8495B	2814a12853	Oct.12, 2023	Oct.11, 2024
RF Control Unit	Tonscend	JS0806-2	23B80620666	April 18, 2023	April 17, 2024
Software					
Description	Manufacturer	Name	Version		
Tonsend SRD Test System	Tonsend	JS1120-3 RF Test System	V3.2.22		

Conducted Emissions					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due Date
EMI Test Receiver	R&S	ESR3	101961	Oct.13, 2023	Oct.12, 2024
Two-Line V-Network	R&S	ENV216	101983	Oct.13, 2023	Oct.12, 2024
Artificial Mains Networks	Schwarzbeck	NSLK 8126	8126465	Oct.13, 2023	Oct.12, 2024
Software					
Description			Manufacturer	Name	Version
Test Software for Conducted Emissions			Farad	EZ-EMC	Ver. UL-3A1

Radiated Emissions					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due Date
MXE EMI Receiver	KESIGHT	N9038A	MY56400036	Oct.12, 2023	Oct.11, 2024
Hybrid Log Periodic Antenna	TDK	HLP-3003C	130959	Aug.02, 2021	Aug.01, 2024
Preamplifier	HP	8447D	2944A09099	Oct.12, 2023	Oct.11, 2024
EMI Measurement Receiver	R&S	ESR26	101377	Oct.12, 2023	Oct.11, 2024
Horn Antenna	TDK	HRN-0118	130940	July 20, 2021	July 19, 2024
Preamplifier	TDK	PA-02-0118	TRS-305-00067	Oct.12, 2023	Oct.11, 2024
Horn Antenna	Schwarzbeck	BBHA9170	697	July 20, 2021	July 19, 2024
Preamplifier	TDK	PA-02-2	TRS-307-00003	Oct.12, 2023	Oct.11, 2024
Preamplifier	TDK	PA-02-3	TRS-308-00002	Oct.12, 2023	Oct.11, 2024
Loop antenna	Schwarzbeck	1519B	00008	Dec.14, 2021	Dec.13, 2024
Preamplifier	TDK	PA-02-001-3000	TRS-302-00050	Oct.12, 2023	Oct.11, 2024
Highpass Filter	Wainwright	WHKX10-5850-6500-1800-40SS	4	Oct.12, 2023	Oct.11, 2024
Band Reject Filter	Wainwright	WRCJV20-5120-5150-5350-5380-60SS	2	Oct.12, 2023	Oct.11, 2024
Software					
Description			Manufacturer	Name	Version
Test Software for Radiated Emissions			Farad	EZ-EMC	Ver. UL-3A1

Other Instrument					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due Date
Temperature humidity probe	OMEGA	ITHX-SD-5	18470007	Oct.21, 2023	Oct.20, 2024
Barometer	Yiyi	Baro	N/A	Oct.19, 2023	Oct.18, 2024
Attenuator	Agilent	8495B	2814a12853	Oct.12, 2023	Oct.11, 2024

7. ANTENNA PORT TEST RESULTS

7.1. ON TIME AND DUTY CYCLE

LIMITS

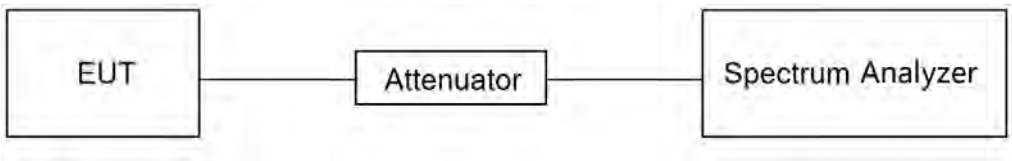
None; for reporting purposes only.

TEST PROCEDURE

Refer to KDB 789033 D02 General U-NII Test Procedures New Rules v02r01 section II.B.

The zero-span mode on a spectrum analyzer or EMI receiver, if the response time and spacing between bins on the sweep are sufficient to permit accurate measurements of the on and off times of the transmitted signal. Set the center frequency of the instrument to the center frequency of the transmission. Set RBW ≥ EBW if possible; otherwise, set RBW to the largest available value. Set VBW ≥ RBW. Set detector = peak or average. The zero-span measurement method shall not be used unless both RBW and VBW are > 50/T, where T is defined in II.B.1.a), and the number of sweep points across duration T exceeds 100. (For example, if VBW and/or RBW are limited to 3 MHz, then the zero-span method of measuring duty cycle shall not be used if T ≤ 16.7 microseconds.)

TEST SETUP



TEST ENVIRONMENT

Temperature	25.6℃	Relative Humidity	50.4%
Atmosphere Pressure	101kPa	Test Voltage	AC 120 V 60 Hz

TEST DATE / ENGINEER

Test Date	February 02, 2024	Test By	Johnson Liu

TEST RESULTS

Please refer to section "Test Data" - Appendix J

7.2. 6DB AND 26DB EMISSION BANDWIDTH AND 99% OCCUPIED BANDWIDTH

LIMITS

CFR 47 FCC Part15, Subpart E ISED RSS-247 ISSUE 3		
Test Item	Limit	Frequency Range (MHz)
26 dB Emission Bandwidth	For reporting purposes only.	5150 ~ 5250
26 dB Emission Bandwidth	For reporting purposes only.	5250 ~ 5350
26 dB Emission Bandwidth	For reporting purposes only.	5470 ~ 5725 (For FCC) 5470 ~ 5600 (For ISED) 5650 ~ 5725 (For ISED)
6 dB Emission Bandwidth	The minimum 6 dB emission bandwidth shall be 500 kHz.	5725 ~ 5850
99 % Occupied Bandwidth	For reporting purposes only.	5150 ~ 5825 (For ISED)

TEST PROCEDURE

Refer to KDB 789033 D02 General U-NII Test Procedures New Rules v02r01 section II.C1. for 26 dB Emission Bandwidth; section II.C2. for 6 dB Emission Bandwidth; section II.D. for 99 % Occupied Bandwidth.
Connect the EUT to the spectrum analyser and use the following settings:

Center Frequency	The center frequency of the channel under test
Detector	Peak
RBW	For 6 dB Emission Bandwidth: RBW=100 kHz For 26 dB Emission bandwidth: approximately 1 % of the EBW. For 99 % Occupied Bandwidth: approximately 1 % ~ 5 % of the OBW.
VBW	For 6 dB Bandwidth: ≥ 3*RBW For 26 dB Bandwidth: >3*RBW For 99 % Bandwidth: >3*RBW
Trace	Max hold
Sweep	Auto couple

a) Use the 99 % power bandwidth function of the instrument, allow the trace to stabilize and report the measured bandwidth.
b) Allow the trace to stabilize and measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6/26 dB relative to the maximum level measured in the fundamental emission.

Calculation for 99 % Bandwidth of UNII-2C and UNII-3 Straddle Channel:

For Example: Fundamental Frequency: 5720 MHz

99 % OBW: 21.00 MHz

Turning Frequency: 5725 MHz

99 % Bandwidth of UNII-2C Band Portion = (5725-(5720-(21.00/2)) = 15.50 MHz

99 % Bandwidth of UNII-3 Band Portion = (5720+(21.00/2)-5725) = 5.50 MHz

Calculation for 26 dB Bandwidth of UNII-2C Straddle Channel:

For Example: Fundamental frequency: 5720 MHz

26 dB BW: 20.00 MHz

FL: 5710.16 MHz

FH: 5730.16 MHz

Turning Frequency: 5725 MHz

26 dB Bandwidth of UNII-2C Band Portion = 5725-5710.16=14.84 MHz

Calculation for 6dB Bandwidth of UNII-3 Straddle Channel:

For Example: Fundamental frequency: 5720 MHz

6 dB BW: 16.44 MHz

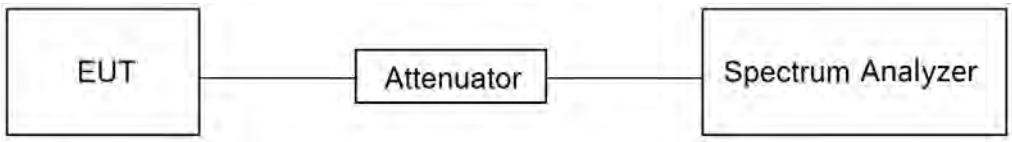
FL: 5711.76 MHz

FH: 5728.2 MHz

Turning Frequency: 5725 MHz

6 dB Bandwidth of UNII-3 band Portion = 5728.2-5725=3.2 MHz

TEST SETUP



TEST ENVIRONMENT

Temperature	25.6℃	Relative Humidity	50.4%
Atmosphere Pressure	101kPa	Test Voltage	AC 120 V 60 Hz

TEST DATE / ENGINEER

Test Date	February 02, 2024	Test By	Johnson Liu

TEST RESULTS

Please refer to section "Test Data" - Appendix A&B&C

7.3. CONDUCTED OUTPUT POWER

LIMITS

CFR 47 FCC Part15, Subpart E		
Test Item	Limit	Frequency Range (MHz)
Conducted Output Power	☐ Outdoor Access Point: 1 W (30 dBm) ☐ Indoor Access Point: 1 W (30 dBm) ☐ Fixed Point-To-Point Access Points: 1 W (30 dBm) ☒ Client Devices: 250 mW (24 dBm)	5150 ~ 5250
	Shall not exceed the lesser of 250 mW (24dBm) or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz.	5250 ~ 5350 5470 ~ 5725
	Shall not exceed 1 Watt (30 dBm).	5725 ~ 5850

ISED RSS-247 ISSUE 3		
Test Item	Limit	Frequency Range (MHz)
Conducted Output Power or e.i.r.p.	The maximum e.i.r.p. shall not exceed 200 mW (23 dBm) or 10 + 10 $\log_{10}$B, dBm, whichever power is less. B is the 99 % emission bandwidth in megahertz.	5150 ~ 5250
	a. The maximum conducted output power shall not exceed 250 mW (24 dBm) or 11 + 10 $\log_{10}$B dBm, whichever is less. b. The maximum e.i.r.p. shall not exceed 1.0 W (30 dBm) or 17 + 10 $\log_{10}$B dBm, whichever is less. B is the 99 % emission bandwidth in megahertz. Note that devices with a maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W.	5250 ~ 5350 5470 ~ 5600 5650 ~ 5725
	Shall not exceed 1 Watt (30 dBm). The e.i.r.p. shall not exceed 4 W	5725 ~ 5850

Note:
The above limits are based upon the maximum antenna gain does not exceed 6 dBi.
If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

TEST PROCEDURE

Refer to KDB 789033 D02 General U-NII Test Procedures New Rules v02r01 section II.E.

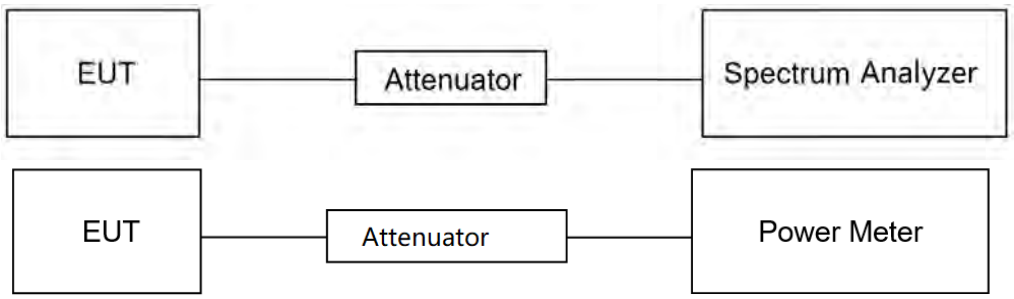
Method SA-2 (trace averaging across ON and OFF times of the EUT transmissions, followed by duty cycle correction.):
(a) Measure the duty cycle D of the transmitter output signal.
(b) Set span to encompass the entire 26 dB EBW or 99% OBW of the signal.
(c) Set RBW = 1 MHz.
(d) Set VBW ⩾ 3 MHz.

(e) Number of points in sweep ≥ [2 × span / RBW]. (This gives bin-to-bin spacing ≤ RBW / 2, so that narrowband signals are not lost between frequency bins.)
(f) Sweep time = auto.
(g) Detector = RMS (i.e., power averaging), if available. Otherwise, use sample detector mode.
(h) Do not use sweep triggering. Allow the sweep to “free run.”
(i) Trace average at least 100 traces in power averaging (rms) mode; however, the number of traces to be averaged shall be increased above 100 as needed such that the average accurately represents the true average over the ON and OFF periods of the transmitter.
j) Compute power by integrating the spectrum across the 26 dB EBW or 99% OBW of the signal using the instrument’s band power measurement function with band limits set equal to the EBW or OBW band edges. If the instrument does not have a band power function, then sum the spectrum levels (in power units) at 1 MHz intervals extending across the 26 dB EBW or 99% OBW of the spectrum.
k) Add [10 log (1 / D)], where D is the duty cycle, to the measured power to compute the average power during the actual transmission times (because the measurement represents an average over both the ON and OFF times of the transmission). For example, add [10 log (1 / 0.25)] = 6 dB if the duty cycle is 25%.

Method PM (Measurement using an RF average power meter):
(i) Measurements may be performed using a wideband RF power meter with a thermocouple detector or equivalent if all of the following conditions are satisfied:
a. The EUT is configured to transmit continuously or to transmit with a constant duty cycle.
b. At all times when the EUT is transmitting, it must be transmitting at its maximum power control level.
c. The integration period of the power meter exceeds the repetition period of the transmitted signal by at least a factor of five.
(ii) If the transmitter does not transmit continuously, measure the duty cycle, x, of the transmitter output signal as described in II.B.
(iii) Measure the average power of the transmitter. This measurement is an average over both the on and off periods of the transmitter.
(iv) Adjust the measurement in dBm by adding 10 log (1/x) where x is the duty cycle (e.g., 10 log (1/0.25) if the duty cycle is 25 %).

Note: Method SA-2 was used for straddle channel output power test, and Method PM was used for testing rest channels

TEST SETUP



TEST ENVIRONMENT

Temperature	25.6℃	Relative Humidity	50.4%
Atmosphere Pressure	101kPa	Test Voltage	AC 120 V 60 Hz

TEST DATE / ENGINEER

Test Date	February 02, 2024	Test By	Johnson Liu

TEST RESULTS

Please refer to section "Test Data" - Appendix D

7.4. POWER SPECTRAL DENSITY

LIMITS

CFR 47 FCC Part15, Subpart E		
Test Item	Limit	Frequency Range (MHz)
Power Spectral Density	☐ Outdoor Access Point: 17 dBm/MHz ☐ Indoor Access Point: 17 dBm/MHz ☐ Fixed Point-To-Point Access Points: 17 dBm/MHz ☒ Client Devices: 11 dBm/MHz	5150 ~ 5250
	11 dBm/MHz	5250 ~ 5350 5470 ~ 5725
	30 dBm/500kHz	5725 ~ 5850

ISED RSS-247 ISSUE 3		
Test Item	Limit	Frequency Range (MHz)
Power Spectral Density	The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.	5150 ~ 5250
	The power spectral density shall not exceed 11 dBm inany 1.0 MHz band.	5250 ~ 5350 5470 ~ 5600 5650 ~ 5725
	30 dBm / 500 kHz	5725 ~ 5850

Note:
The above limits are based upon the maximum antenna gain does not exceed 6 dBi.
If transmitting antennas of directional gain greater than 6 dBi are used, maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

TEST PROCEDURE

Refer to KDB 789033 D02 General U-NII Test Procedures New Rules v02r01 section II.F.

Connect the EUT to the spectrum analyzer and use the following settings:

For U-NII-1, U-NII-2A and U-NII-2C band:

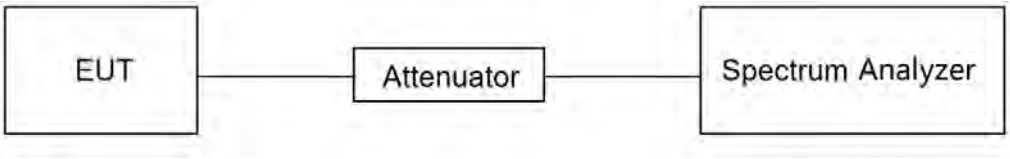
Center Frequency	The center frequency of the channel under test
Detector	RMS
RBW	1 MHz
VBW	≥3 × RBW
Span	Encompass the entire emissions bandwidth (EBW) of the signal
Trace	Average
Sweep time	Auto

For U-NII-3:

Center Frequency	The center frequency of the channel under test
Detector	RMS
RBW	500 kHz
VBW	≥3 × RBW
Span	Encompass the entire emissions bandwidth (EBW) of the signal
Trace	Average
Sweep time	Auto

Allow trace to fully stabilize and use the peak search function on the instrument to find the peak of the spectrum and record its value.
Add 10 log (1/x), where x is the duty cycle, to the peak of the spectrum, the result is the Maximum PSD over 1 MHz / 500 kHz reference bandwidth.

TEST SETUP



TEST ENVIRONMENT

Temperature	25.6℃	Relative Humidity	50.4%
Atmosphere Pressure	101kPa	Test Voltage	AC 120 V 60 Hz

TEST DATE / ENGINEER

Test Date	February 02, 2024	Test By	Johnson Liu

TEST RESULTS

Please refer to section "Test Data" - Appendix E

7.5. FREQUENCY STABILITY

LIMITS

The frequency of the carrier signal shall be maintained within band of operation.

TEST PROCEDURE

1. The EUT was placed inside an environmental chamber as the temperature in the chamber was varied between 0 °C ~ 35 °C (declared by customer).

2. The temperature was incremented by 10 °C intervals and the unit allowed to stabilize at each temperature before each measurement. The center frequency of the transmitting channel was evaluated at each temperature and the frequency deviation from the channel's center frequency was recorded.

3. The primary supply voltage is varied from 85 % to 115 % of the nominal value for non hand-carried battery and AC powered equipment. For hand-carried, battery-powered equipment, primary supply voltage is reduced to the battery operating end point which shall be specified by the manufacturer.

Connect the EUT to the spectrum analyzer and use the following settings:

Center Frequency	The center frequency of the channel under test
Detector	Peak
RBW	10 kHz
VBW	≥3 × RBW
Span	Encompass the entire emissions bandwidth (EBW) of the signal
Trace	Max hold
Sweep time	Auto

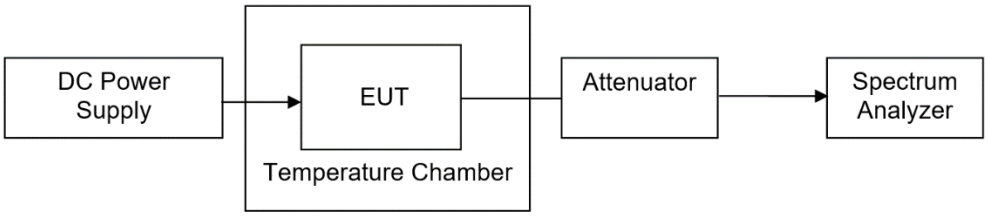
4. While maintaining a constant temperature inside the environmental chamber, turn the EUT on and record the operating frequency at startup, and at 2 minutes, 5minutes, and 10 minutes after the EUT is energized.

5. Allow the trace to stabilize, find the peak value of the power envelope and record the frequency, then calculated the frequency drift.

TEST ENVIRONMENT

	Normal Test Conditions	Extreme Test Conditions
Relative Humidity	20 % ~ 75 %	/
Atmospheric Pressure	100 kPa ~ 102 kPa	/
Temperature	T_N (Normal Temperature): 25.1 °C	T_L (Low Temperature): 0 °C
		T_H (High Temperature): 35 °C
Supply Voltage	V_N (Normal Voltage): AC 120 V, 60 Hz	V_L (Low Voltage): AC 102 V
		V_H (High Voltage): AC 138 V

TEST SETUP



TEST DATE / ENGINEER

Test Date	February 02, 2024	Test By	Johnson Liu

TEST RESULTS

Please refer to section "Test Data" - Appendix I

8. RADIATED TEST RESULTS

LIMITS

Refer to CFR 47 FCC §15.205, §15.209 and §15.407 (b).

Refer to ISED RSS-GEN Clause 8.9, Clause 8.10 and ISED RSS-247 6.2.

Radiation Disturbance Test Limit for FCC (Class B) (9 kHz ~ 1 GHz)

Emissions radiated outside of the specified frequency bands above 30 MHz			
Frequency Range (MHz)	Field Strength Limit (uV/m) at 3 m	Field Strength Limit (dBuV/m) at 3 m	
		Quasi-Peak	
30 - 88	100	40	
88 - 216	150	43.5	
216 - 960	200	46	
Above 960	500	54	
Above 1000	500	Peak	Average
		74	54

FCC Emissions radiated outside of the specified frequency bands below 30 MHz		
Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30

ISED General field strength limits at frequencies below 30 MHz

Table 6 – General field strength limits at frequencies below 30 MHz

Frequency	Magnetic field strength (H-Field) (µA/m)	Measurement distance (m)
9 - 490 kHz[Note 1]	6.37/F (F in kHz)	300
490 - 1705 kHz	63.7/F (F in kHz)	30
1.705 - 30 MHz	0.08	30

Note 1: The emission limits for the ranges 9-90 kHz and 110-490 kHz are based on measurements employing a linear average detector.

ISED Restricted bands refer to ISED RSS-GEN Clause 8.10

Table 7 – Restricted frequency bands[Note 1]		
MHz	MHz	GHz
0.090 - 0.110	149.9 - 150.05	9.0 - 9.2
0.495 - 0.505	156.52475 - 156.52525	9.3 - 9.5
2.1735 - 2.1905	156.7 - 156.9	10.6 - 12.7
3.020 - 3.026	162.0125 - 167.17	13.25 - 13.4
4.125 - 4.128	167.72 - 173.2	14.47 - 14.5
4.17725 - 4.17775	240 – 285	15.35 - 16.2
4.20725 - 4.20775	322 - 335.4	17.7 - 21.4
5.677 - 5.683	399.9 - 410	22.01 - 23.12
6.215 - 6.218	608 - 614	23.6 - 24.0
6.26775 - 6.26825	960 - 1427	31.2 - 31.8
6.31175 - 6.31225	1435 - 1626.5	36.43 - 36.5
8.291 - 8.294	1645.5 - 1646.5	Above 38.6
8.362 - 8.366	1660 - 1710	
8.37625 - 8.38675	1718.8 - 1722.2	
8.41425 - 8.41475	2200 - 2300	
12.29 - 12.293	2310 - 2390	
12.51975 - 12.52025	2483.5 - 2500	
12.57675 - 12.57725	2655 - 2900	
13.36 - 13.41	3260 – 3267	
16.42 - 16.423	3332 - 3339	
16.69475 - 16.69525	3345.8 - 3358	
16.80425 - 16.80475	3500 - 4400	
25.5 - 25.67	4500 - 5150	
37.5 - 38.25	5350 - 5460	
73 - 74.6	7250 - 7750	
74.8 - 75.2	8025 – 8500	
108 – 138		

Note 1: Certain frequency bands listed in table 7 and in bands above 38.6 GHz are designated for licence-exempt applications. These frequency bands and the requirements that apply to related devices are set out in the 200 and 300 series of RSSs.

FCC Restricted bands of operation refer to FCC §15.205 (a):

MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
[1]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	([2])
13.36-13.41			

Note: [1]Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.
[2]Above 38.6c

Limits of unwanted/undesirable emission out of the restricted bands refer to CFR 47 FCC §15.407 (b) and ISED RSS-247 6.2.

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1GHz)

Frequency Range (MHz)	EIRP Limit	Field Strength Limit (dBuV/m) at 3 m
5150~5250 MHz	PK: -27 (dBm/MHz)	PK:68.2(dBμV/m)
5250~5350 MHz		
5470~5725 MHz		
5725~5850 MHz	PK: -27 (dBm/MHz) *1 PK: 10 (dBm/MHz) *2 PK: 15.6 (dBm/MHz) *3 PK: 27 (dBm/MHz) *4	PK: 68.2(dBμV/m) *1 PK: 105.2 (dBμV/m) *2 PK: 110.8(dBμV/m) *3 PK: 122.2 (dBμV/m) *4
Note: *1 beyond 75 MHz or more above of the band edge. *2 below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above. *3 below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above. *4 from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.		

TEST PROCEDURE

Below 30 MHz

The setting of the spectrum analyzer

RBW	200 Hz (From 9 kHz to 0.15 MHz)/ 9 kHz (From 0.15 MHz to 30 MHz)
VBW	200 Hz (From 9 kHz to 0.15 MHz)/ 9 kHz (From 0.15 MHz to 30 MHz)
Sweep	Auto

1. The testing follows the guidelines in ANSI C63.10-2013 clause 6.4.

2. The EUT was arranged to its worst case and then turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both Horizontal, Face-on and Face-off polarizations of the antenna are set to make the measurement.

3. The EUT was placed on a turntable with 80 cm above ground.

4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a 1 m height antenna tower.

5. The radiated emission limits are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz and above 1000 MHz Radiated emission limits in these three bands are based on measurements employing an average detector.

6. For measurement below 1 GHz, the initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak and average detector mode re-measured. If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak and average detector and reported.

7. Although these tests were performed other than open field site, adequate comparison measurements were confirmed against 30m open field site. Therefore sufficient tests were made to demonstrate that the alternative site produces results that correlate with the ones of tests made in an open field site based on KDB 414788.

8. The limits in CFR 47, Part 15, Subpart C, paragraph 15.209 (a), are identical to those in RSS-GEN Section 8.9, Table 6, since the measurements are performed in terms of magnetic field strength and converted to electric field strength levels (as reported in the table) using the free space impedance of 377Ω. For example, the measurement frequency X kHz resulted in a level of Y dBuV/m, which is equivalent to Y-51.5 = Z dBuA/m, which has the same margin, W dB, to the corresponding RSS-GEN Table 6 limit as it has to be 15.209(a) limit.

Below 1 GHz and above 30 MHz

The setting of the spectrum analyzer

RBW	120 kHz
VBW	300 kHz
Sweep	Auto
Detector	Peak/QP
Trace	Max hold

1. The testing follows the guidelines in ANSI C63.10-2013 clause 6.5.

2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

3. The EUT was placed on a turntable with 80 cm above ground.

4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.

5. For measurement below 1 GHz, the initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured. If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.

Above 1 GHz

The setting of the spectrum analyzer

RBW	1 MHz
VBW	PEAK: 3 MHz AVG: see note 6
Sweep	Auto
Detector	Peak
Trace	Max hold

1. The testing follows the guidelines in KDB 789033 D02 General U-NII Test Procedures New Rules v02r01 section II.G.3 ~ II.G.6.

2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

3. The EUT was placed on a turntable with 1.5 m above ground.

4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.

5. For measurement above 1 GHz, the emission measurement will be measured by the peak detector. This peak level, once corrected, must comply with the limit specified in Section 15.209.

6. For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 3 MHz for peak measurements and 1 MHz resolution bandwidth with 1/T video bandwidth with peak detector for average measurements. For the Duty Cycle please refer to clause 7.1. ON TIME AND DUTY CYCLE.

Note 1: The manufacturer has recommended that the EUT only be used in the desktop (horizontal) orientation; therefore, all radiated testing was performed in desktop orientation.

For Restricted Bandedge:
Note:
1. Measurement = Reading Level + Correct Factor.
2. If the peak values are less than the average limit of 54 dBuV/m, the average result is deemed to comply with average limit.
3. PK=Peak: Peak detector.
4. AV=Average: VBW=1/Ton, where: Ton is the transmitting duration.
5. For the transmitting duration, please refer to clause 7.1.
6. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.
7. Both horizontal and vertical have been tested, only the worst data was recorded in the report.
8. All modes have been tested, but only the worst data was recorded in the report.

For Radiate Spurious emission (9 kHz ~ 30 MHz):
Note:
1. Measurement = Reading Level + Correct Factor.
2. If the peak values are less than the QP limit, the QP result is deemed to comply with QP limit.
3. All 3 polarizations (Horizontal, Face-on and Face-off) of the loop antenna had been tested, but only the worst data recorded in the report.
4. All modes have been tested, but only the worst data was recorded in the report.
5. dBuA/m= dBuV/m- 20Log10[120π] = dBuV/m- 51.5

For Radiate Spurious Emission (30 MHz ~ 1 GHz):
Note:
1. Result Level = Read Level + Correct Factor.
2. If the peak values are less than the QP limit, the QP result is deemed to comply with QP limit.
3. All modes have been tested, but only the worst data was recorded in the report.

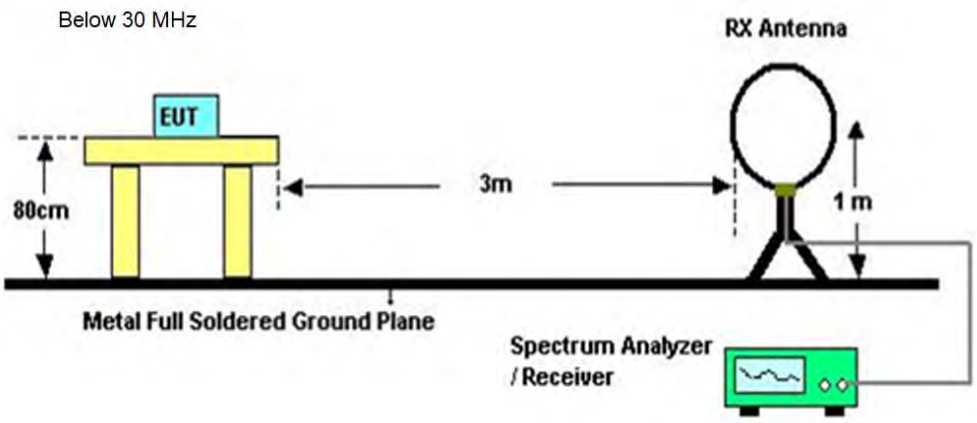
For Radiate Spurious Emission (1 GHz ~ 7 GHz):
1. Measurement = Reading Level + Correct Factor.
2. If the peak values are less than the average limit of 54 dBuV/m, the average result is deemed to comply with average limit.
3. Peak: Peak detector.
4. AVG: VBW=1/Ton, where: Ton is the transmitting duration.
5. For the transmitting duration, please refer to clause 7.1.
6. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
7. Proper operation of the transmitter prior to adding the filter to the measurement chain.
8. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27 dBm/MHz (68.2 dBuV/m) limit.
9. All modes have been tested, but only the worst data was recorded in the report.

For Radiate Spurious Emission (7 GHz ~ 18 GHz):
Note:
1. Peak Result = Reading Level + Correct Factor.
2. If the peak values are less than the average limit of 54 dBuV/m, the average result is deemed to comply with average limit.
3. Peak: Peak detector.
4. AVG: VBW=1/Ton, where: Ton is the transmitting duration.
5. For the transmitting duration, please refer to clause 7.1.
6. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
7. Proper operation of the transmitter prior to adding the filter to the measurement chain.
8. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27 dBm/MHz (68.2 dBuV/m) limit.
9. All modes have been tested, but only the worst data was recorded in the report.

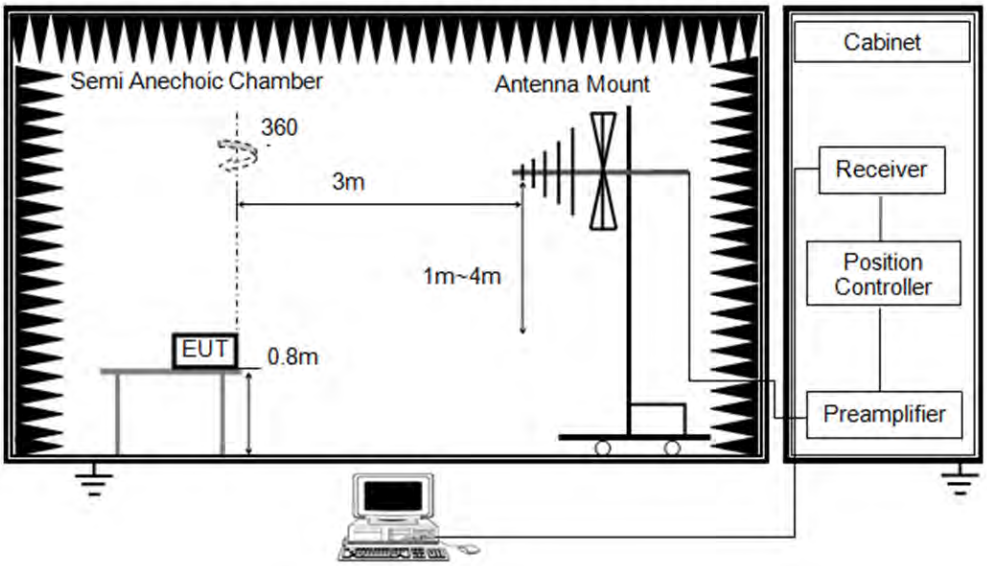
For Radiate Spurious emission (18 GHz ~ 26 GHz):
Note:
1. Measurement = Reading Level + Correct Factor.
2. If the peak values are less than the average limit of 54 dBuV/m, the average result is deemed to comply with average limit.
3. Peak: Peak detector.
4. All modes have been tested, but only the worst data was recorded in the report.

For Radiate Spurious emission (26 GHz ~ 40 GHz):
Note:
1. Measurement = Reading Level + Correct Factor.
2. If the peak values are less than the average limit of 54 dBuV/m, the average result is deemed to comply with average limit.
3. Peak: Peak detector.
4. All modes have been tested, but only the worst data was recorded in the report.

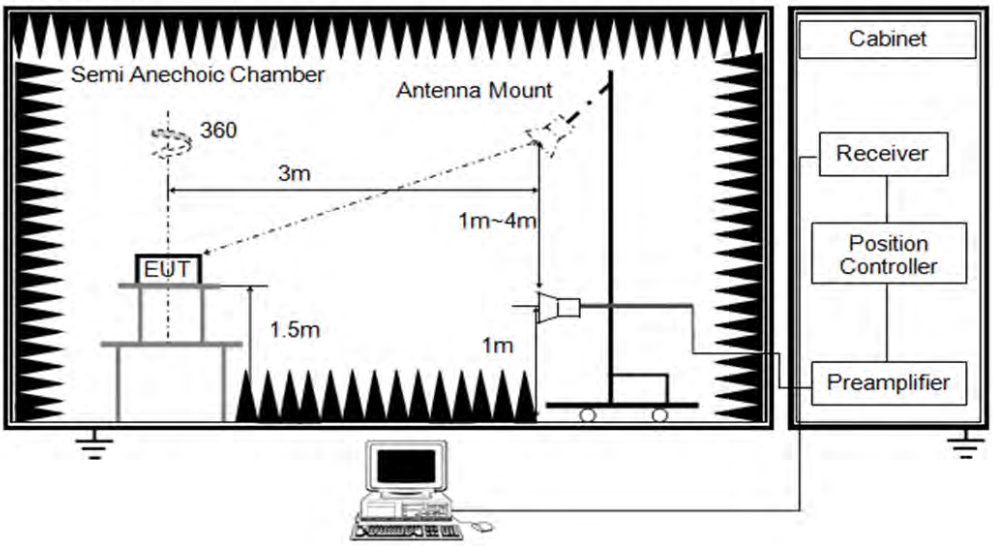
TEST SETUP



Below 1 GHz and above 30 MHz



Above 1 GHz



TEST ENVIRONMENT

Temperature	24.6℃	Relative Humidity	55%
Atmosphere Pressure	101kPa	Test Voltage	

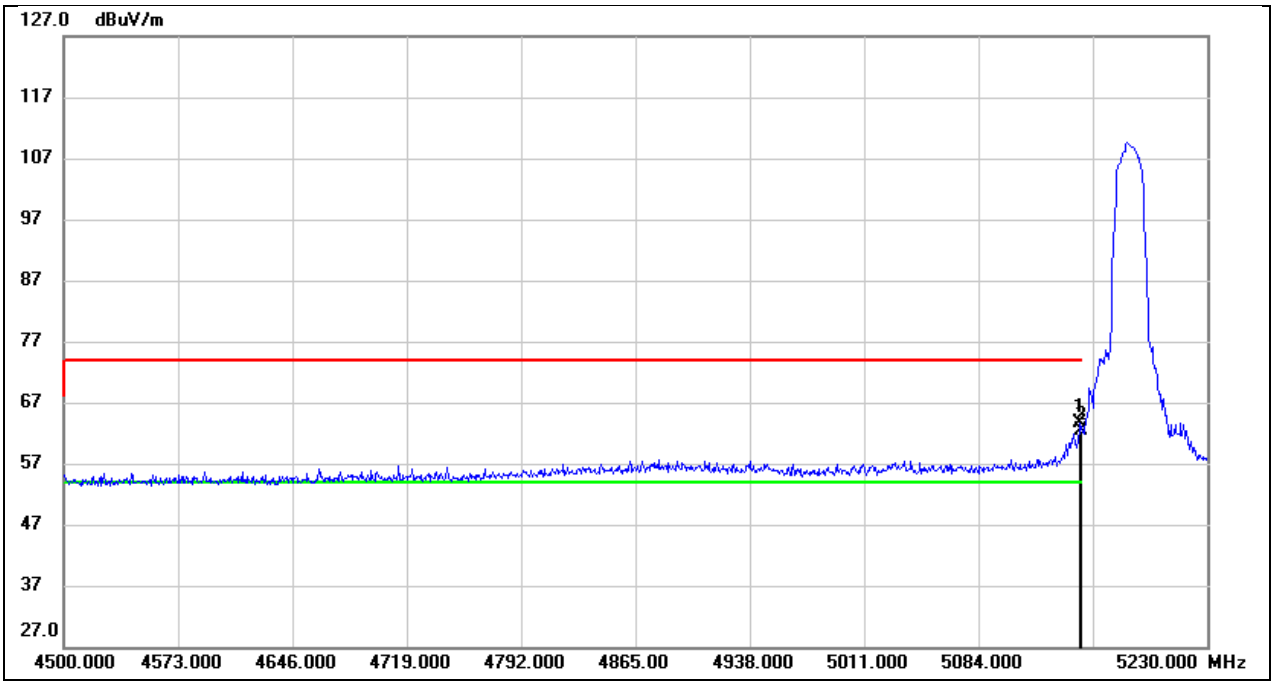
TEST DATE / ENGINEER

Test Date	March 8, 2024	Test By	Rex Huang

TEST RESULTS

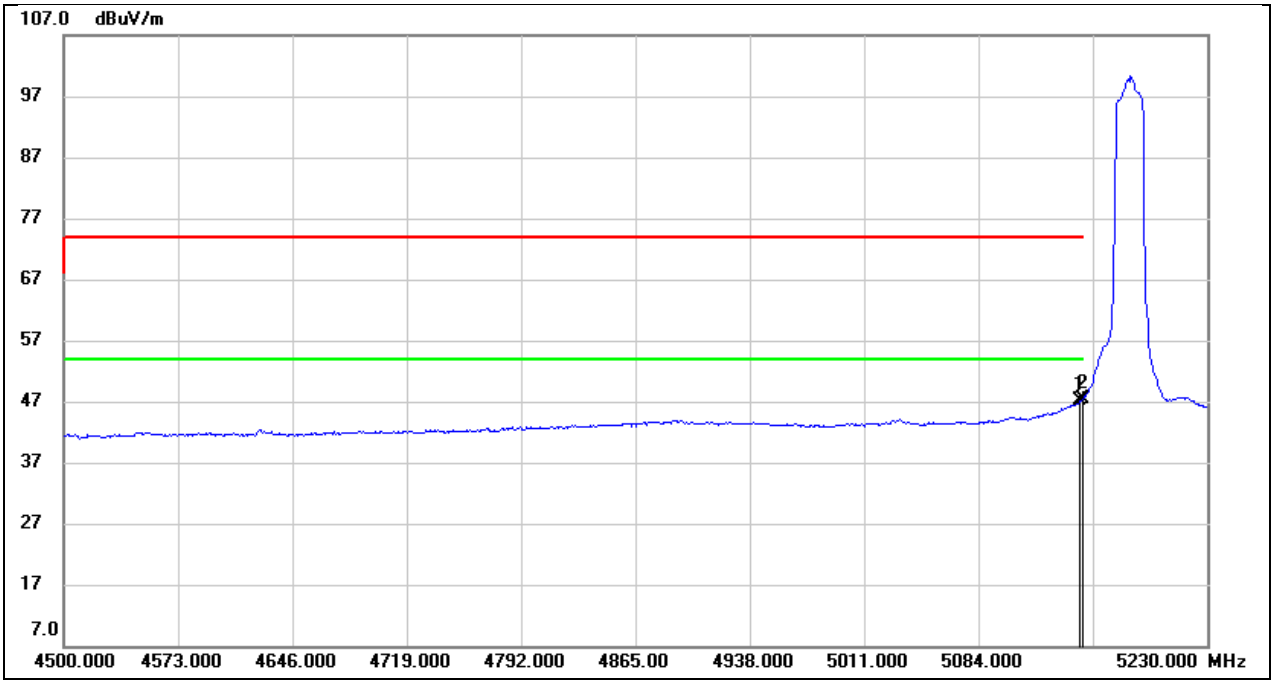
8.1. RESTRICTED BANDEDGE

Test Mode:	802.11a 20 PK	Frequency(MHz):	5180
Polarity:	Horizontal	Test Voltage:	AC 120V_60Hz



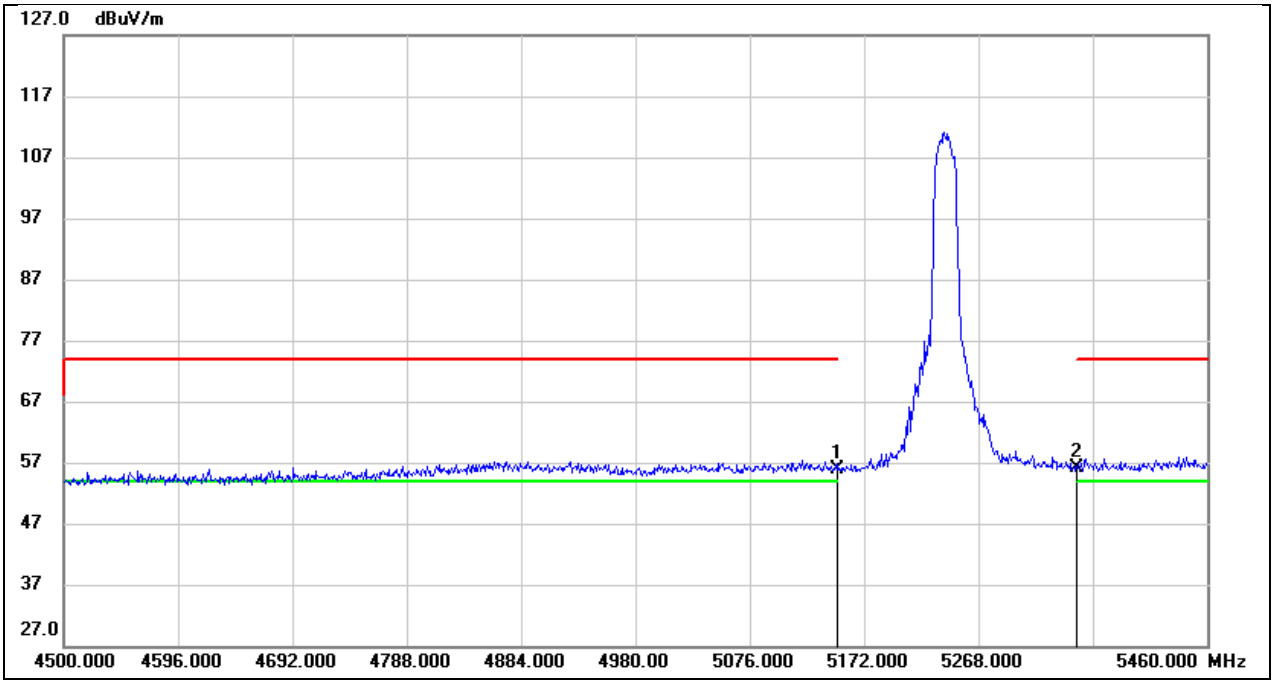
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5148.970	23.25	40.28	63.53	74.00	-10.47	peak
2	5150.000	22.07	40.27	62.34	74.00	-11.66	peak

Test Mode:	802.11a 20 AV	Frequency(MHz):	5180
Polarity:	Horizontal	Test Voltage:	AC 120V_60Hz



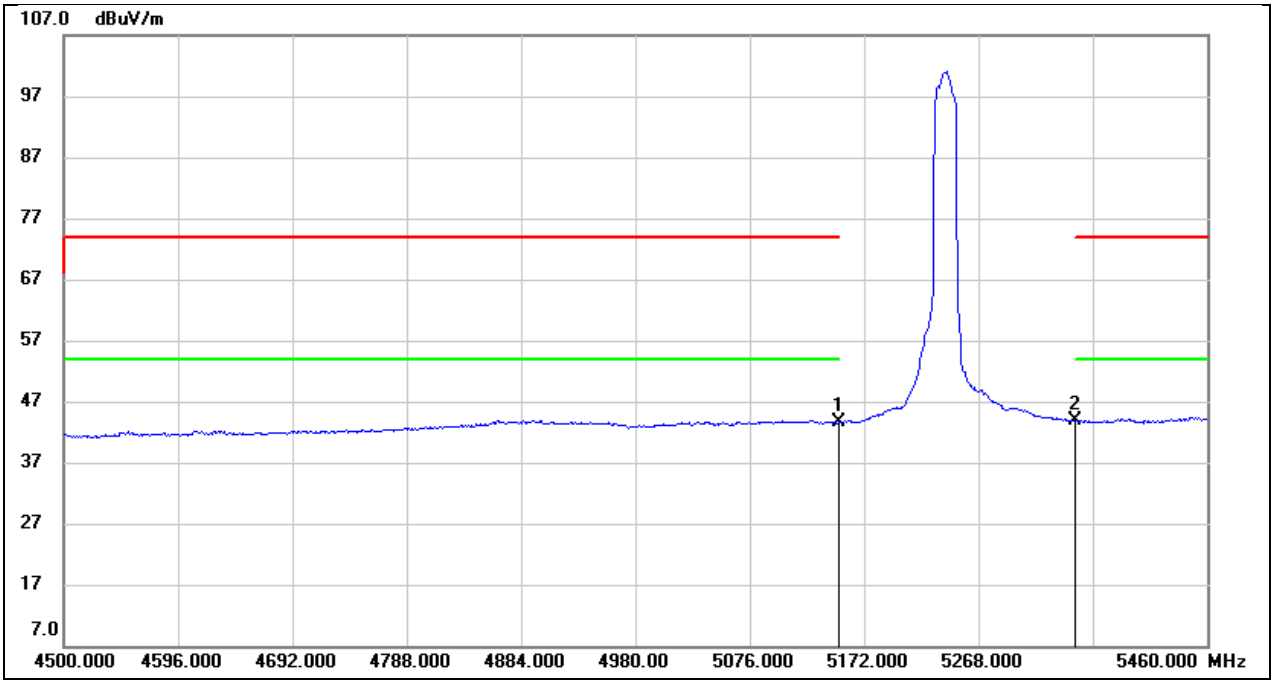
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5148.970	6.74	40.28	47.02	54.00	-6.98	AVG
2	5150.000	7.14	40.27	47.41	54.00	-6.59	AVG

Test Mode:	802.11a 20 PK	Frequency(MHz):	5240
Polarity:	Horizontal	Test Voltage:	AC 120V_60Hz



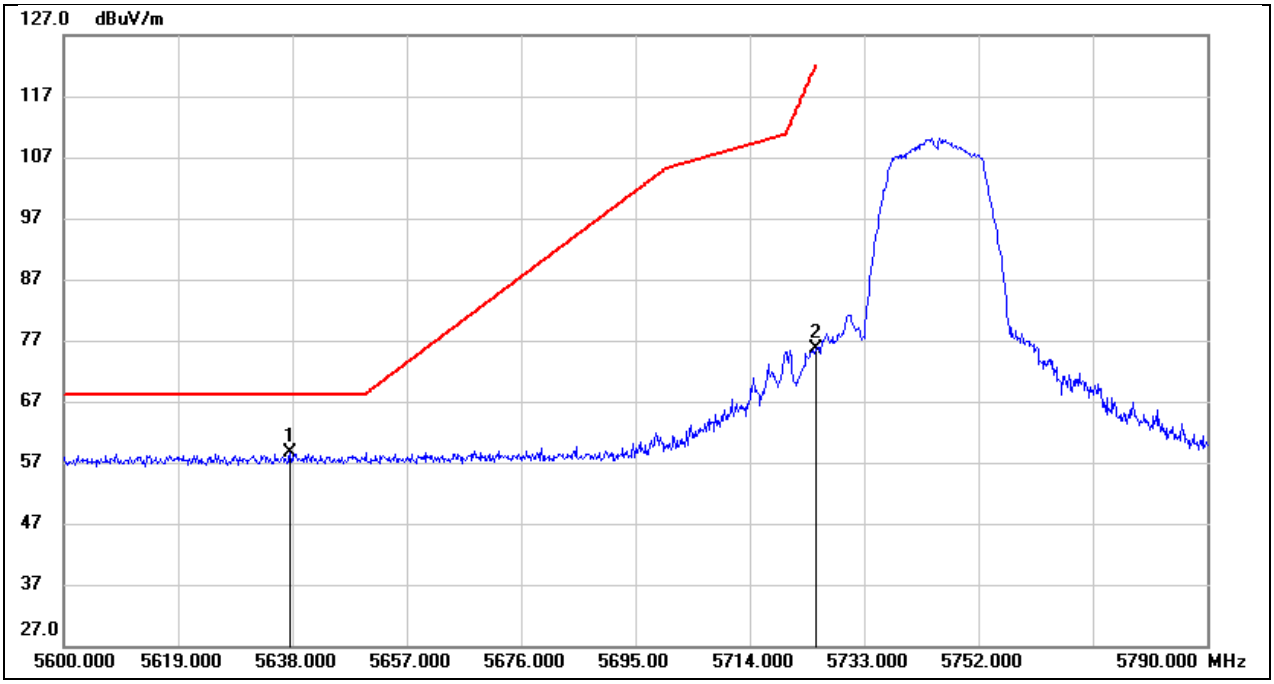
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5150.000	15.64	40.27	55.91	74.00	-18.09	peak
2	5350.000	15.75	40.49	56.24	74.00	-17.76	peak

Test Mode:	802.11a 20 AV	Frequency(MHz):	5240
Polarity:	Horizontal	Test Voltage:	AC 120V_60Hz



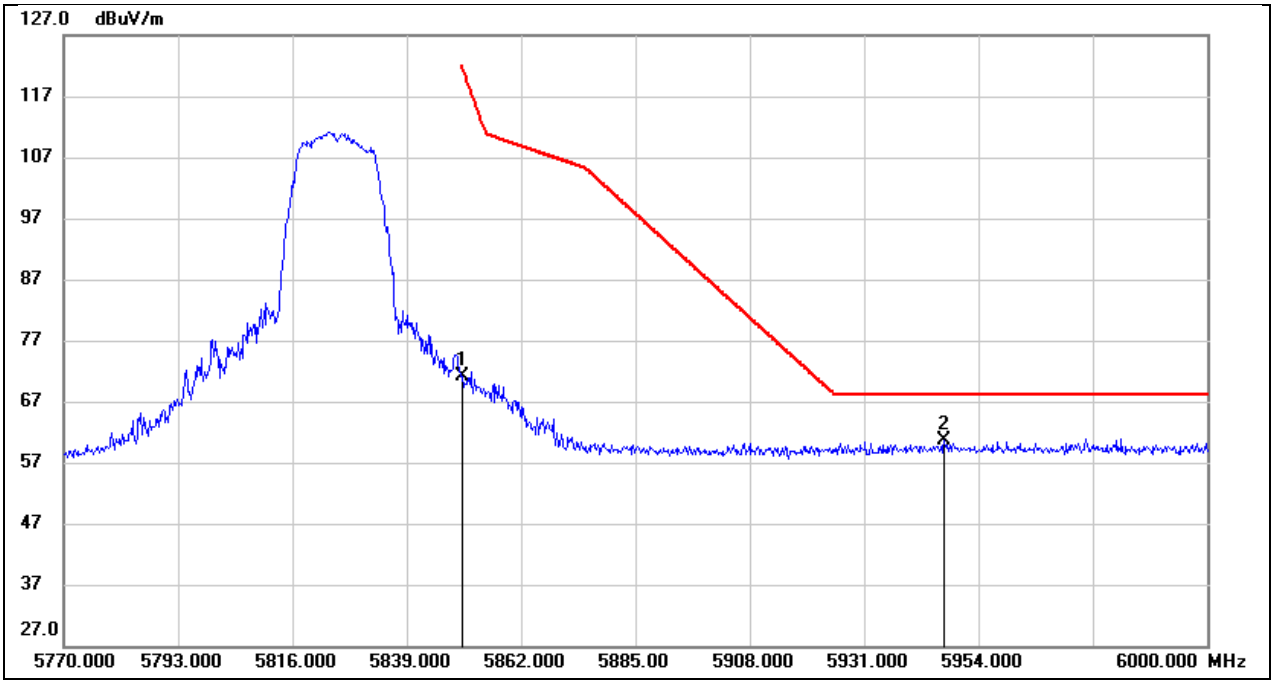
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5150.000	3.32	40.27	43.59	54.00	-10.41	AVG
2	5350.000	3.33	40.49	43.82	54.00	-10.18	AVG

Test Mode:	802.11a 20 PK	Frequency(MHz):	5745
Polarity:	Horizontal	Test Voltage:	AC 120V_60Hz



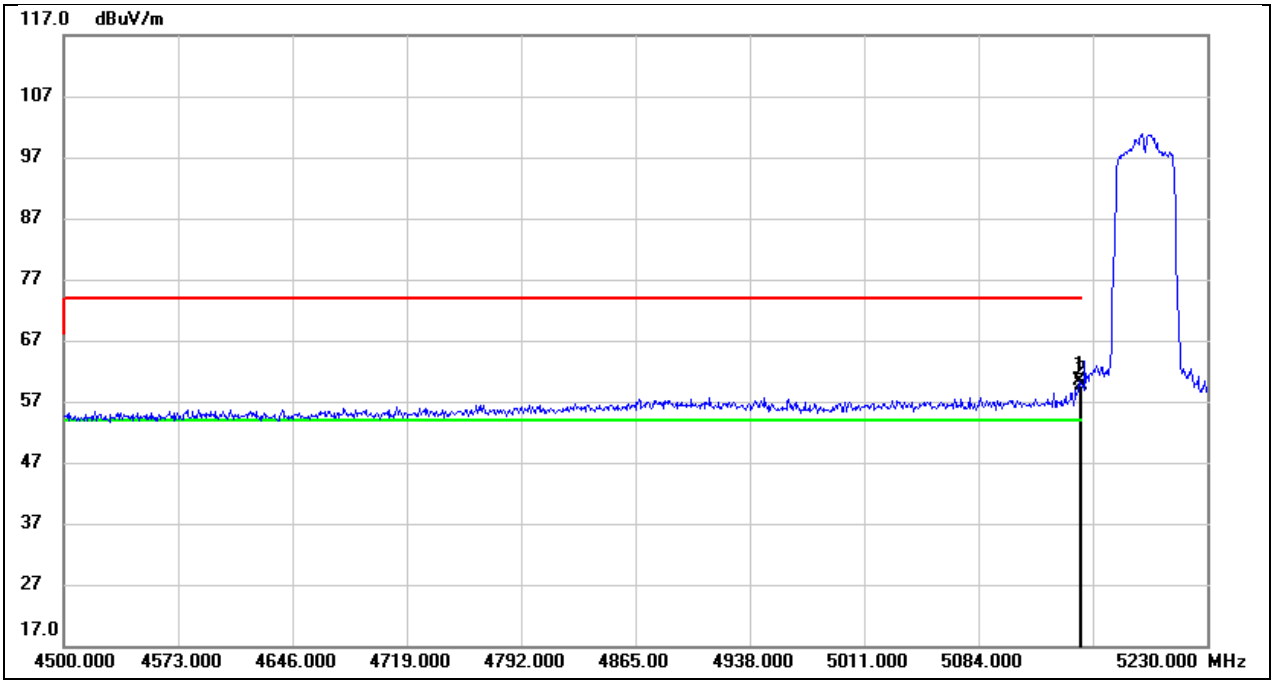
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5637.620	17.51	41.03	58.54	68.20	-9.66	peak
2	5725.000	34.44	41.27	75.71	122.20	-46.49	peak

Test Mode:	802.11a 20 PK	Frequency(MHz):	5825
Polarity:	Horizontal	Test Voltage:	AC 120V_60Hz



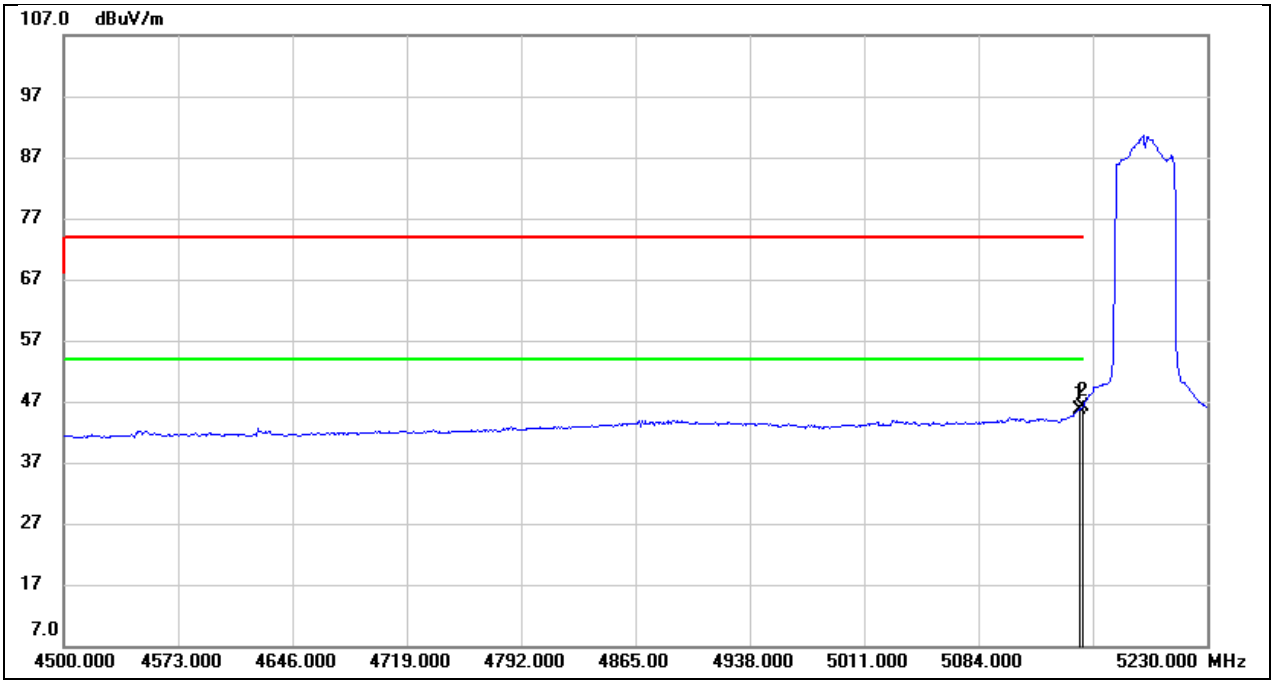
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5850.000	29.60	41.60	71.20	122.20	-51.00	peak
2	5947.100	18.80	41.86	60.66	68.20	-7.54	peak

Test Mode:	802.11n HT40 PK	Frequency(MHz):	5190
Polarity:	Horizontal	Test Voltage:	AC 120V_60Hz



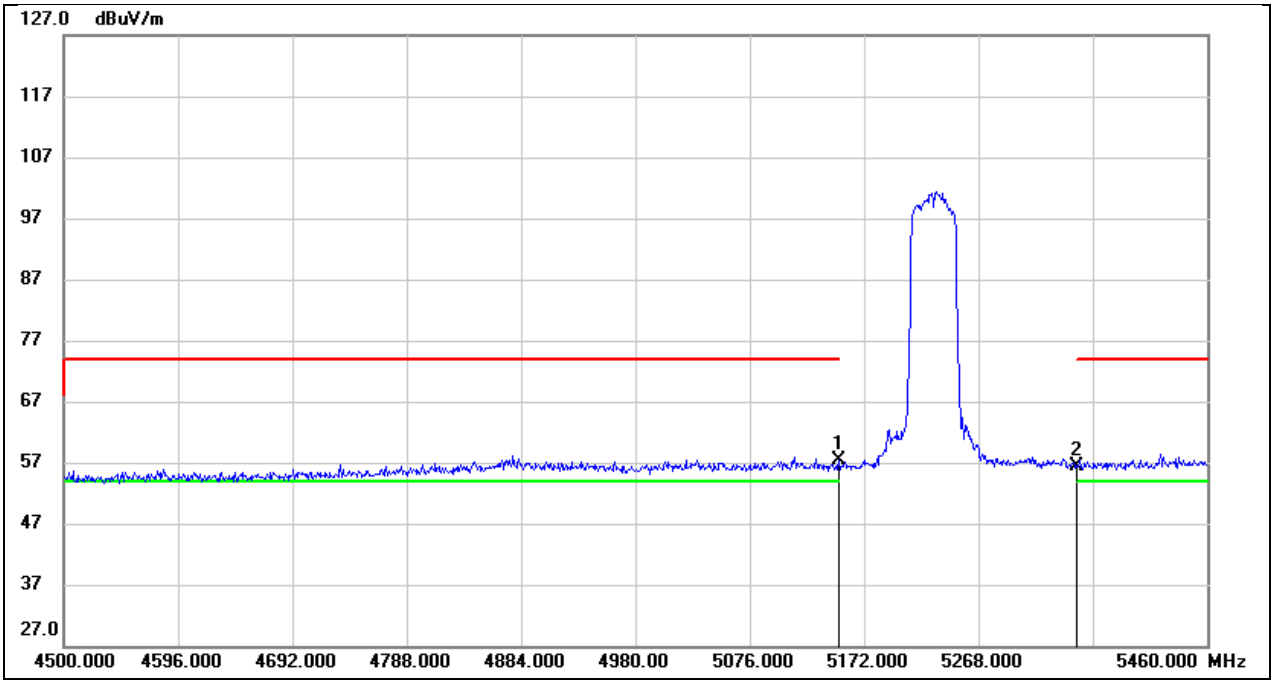
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5148.240	20.05	40.28	60.33	74.00	-13.67	peak
2	5150.000	19.42	40.27	59.69	74.00	-14.31	peak

Test Mode:	802.11n HT40 AV	Frequency(MHz):	5190
Polarity:	Horizontal	Test Voltage:	AC 120V_60Hz



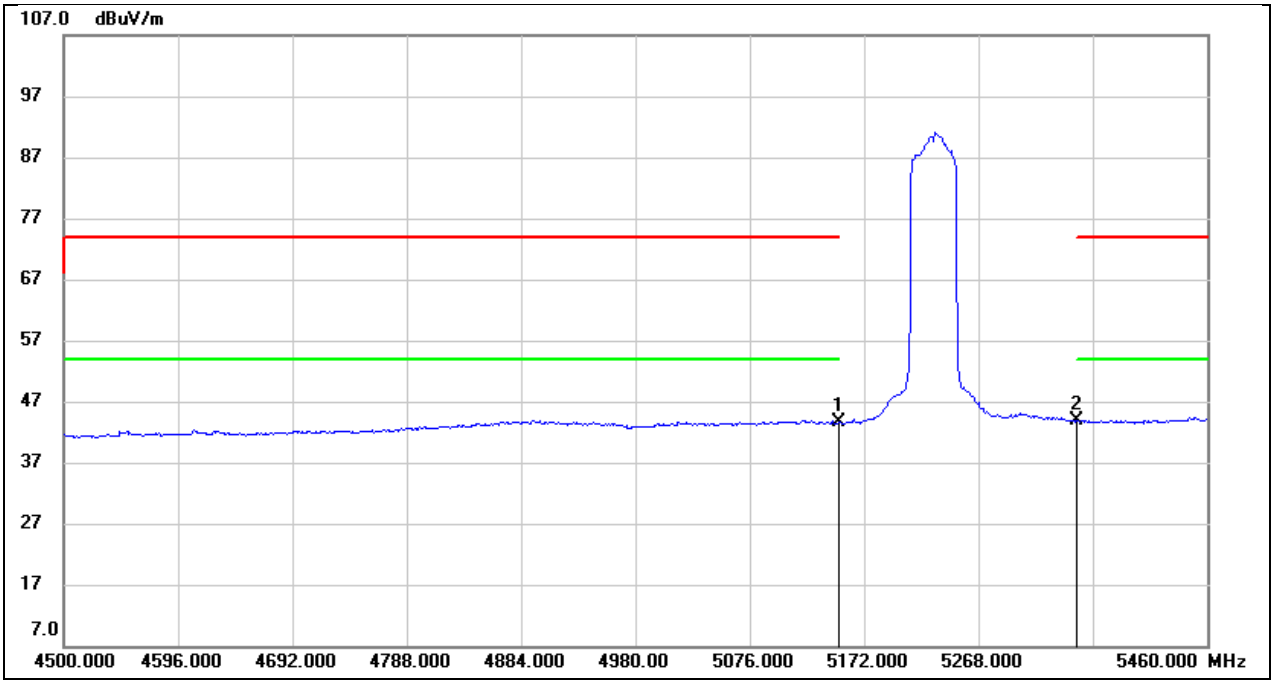
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5148.240	5.41	40.28	45.69	54.00	-8.31	AVG
2	5150.000	5.88	40.27	46.15	54.00	-7.85	AVG

Test Mode:	802.11n HT40 PK	Frequency(MHz):	5230
Polarity:	Horizontal	Test Voltage:	AC 120V_60Hz



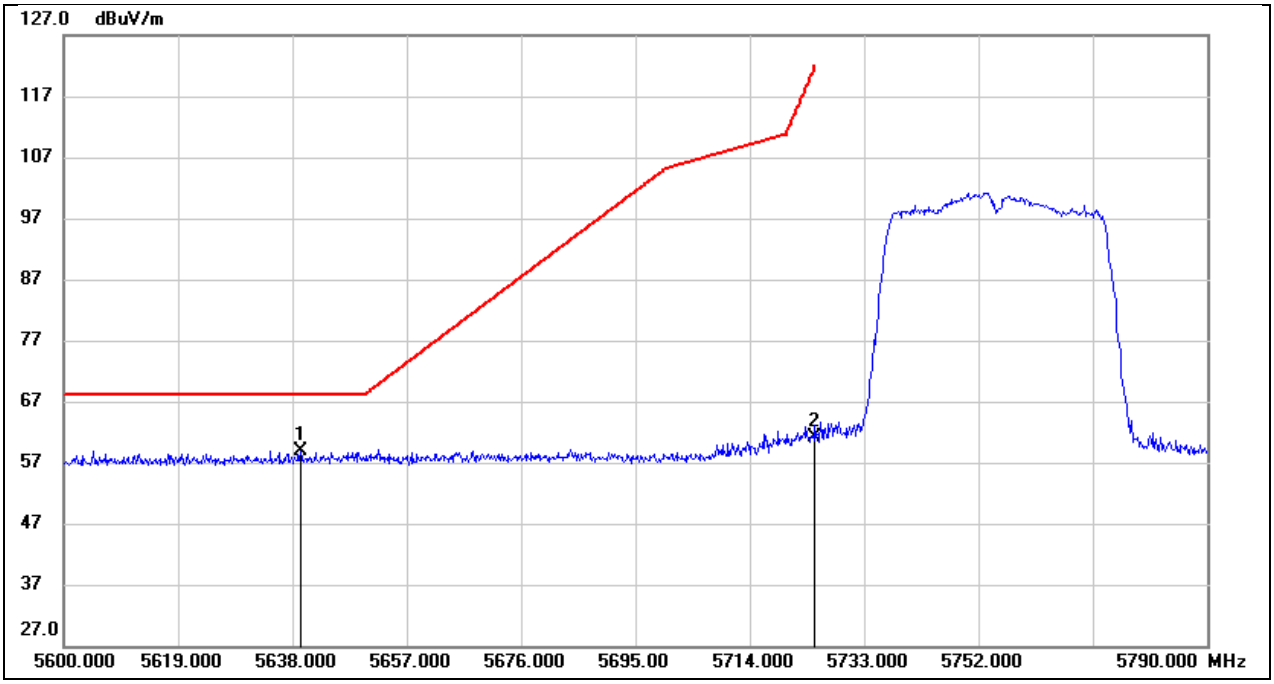
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5150.000	17.15	40.27	57.42	74.00	-16.58	peak
2	5350.000	15.98	40.49	56.47	74.00	-17.53	peak

Test Mode:	802.11n HT40 AV	Frequency(MHz):	5230
Polarity:	Horizontal	Test Voltage:	AC 120V_60Hz



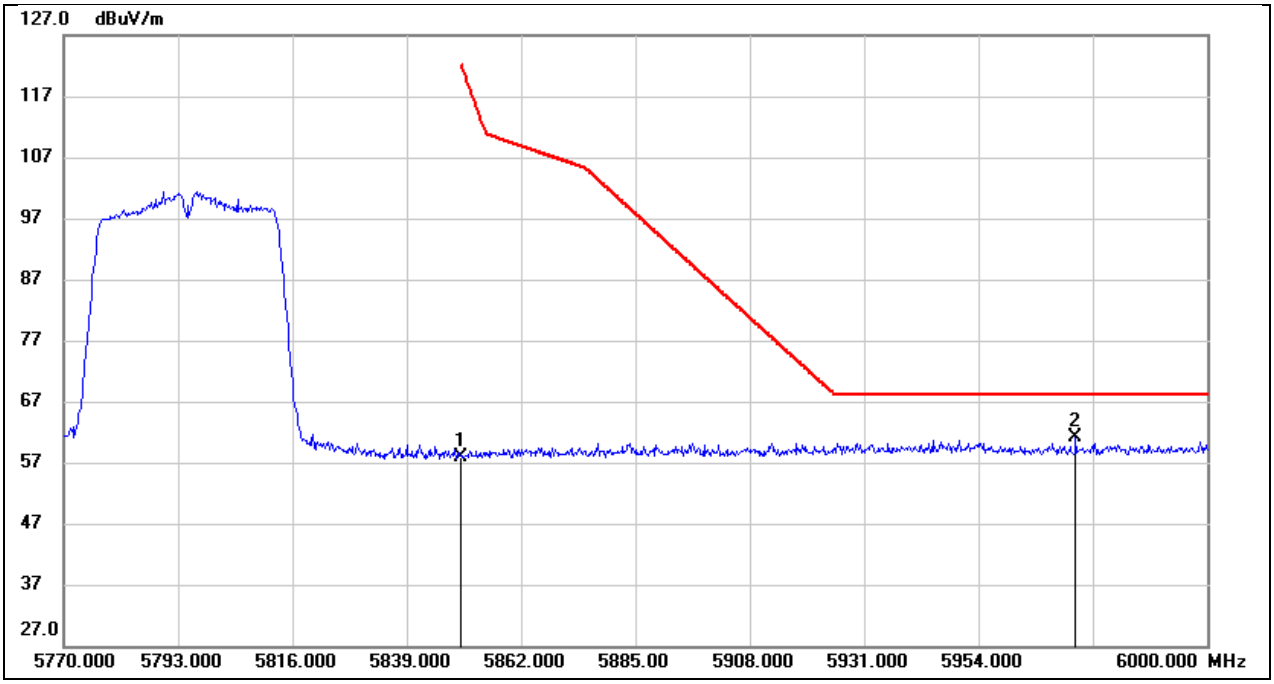
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5150.000	3.24	40.27	43.51	54.00	-10.49	AVG
2	5350.000	3.27	40.49	43.76	54.00	-10.24	AVG

Test Mode:	802.11n HT40 PK	Frequency(MHz):	5755
Polarity:	Horizontal	Test Voltage:	AC 120V_60Hz



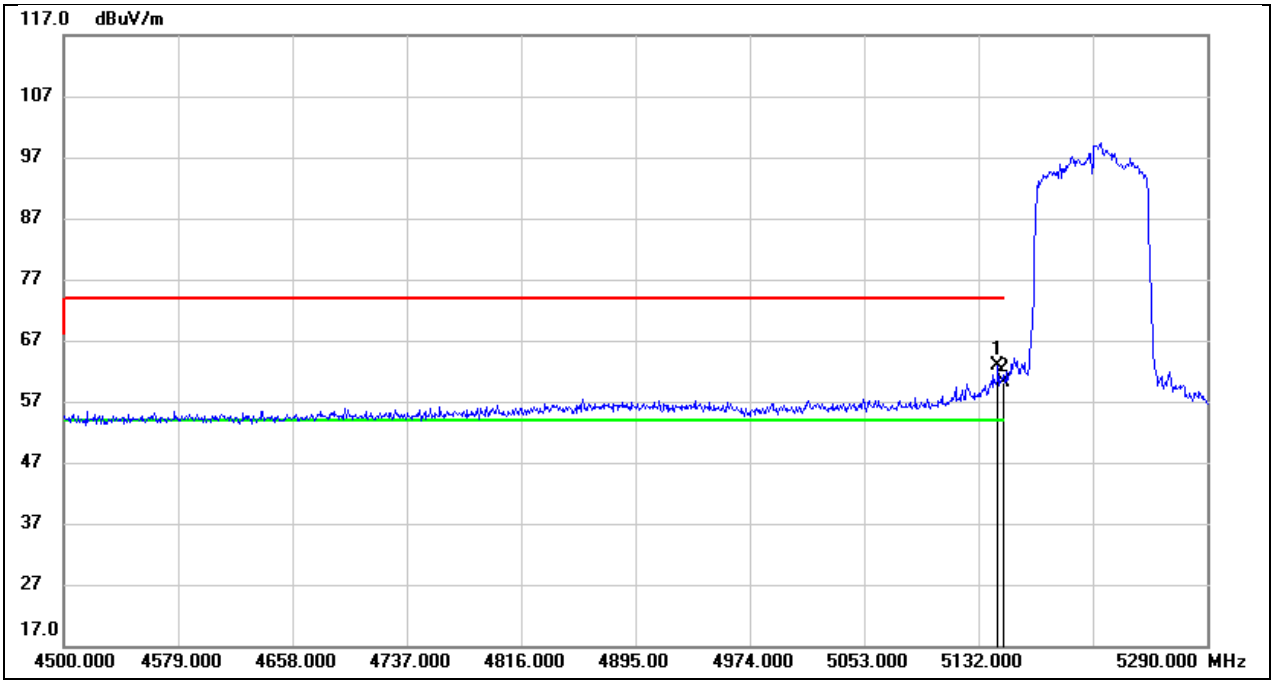
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5639.330	17.88	41.03	58.91	68.20	-9.29	peak
2	5725.000	19.89	41.27	61.16	122.20	-61.04	peak

Test Mode:	802.11n HT40 PK	Frequency(MHz):	5795
Polarity:	Horizontal	Test Voltage:	AC 120V_60Hz



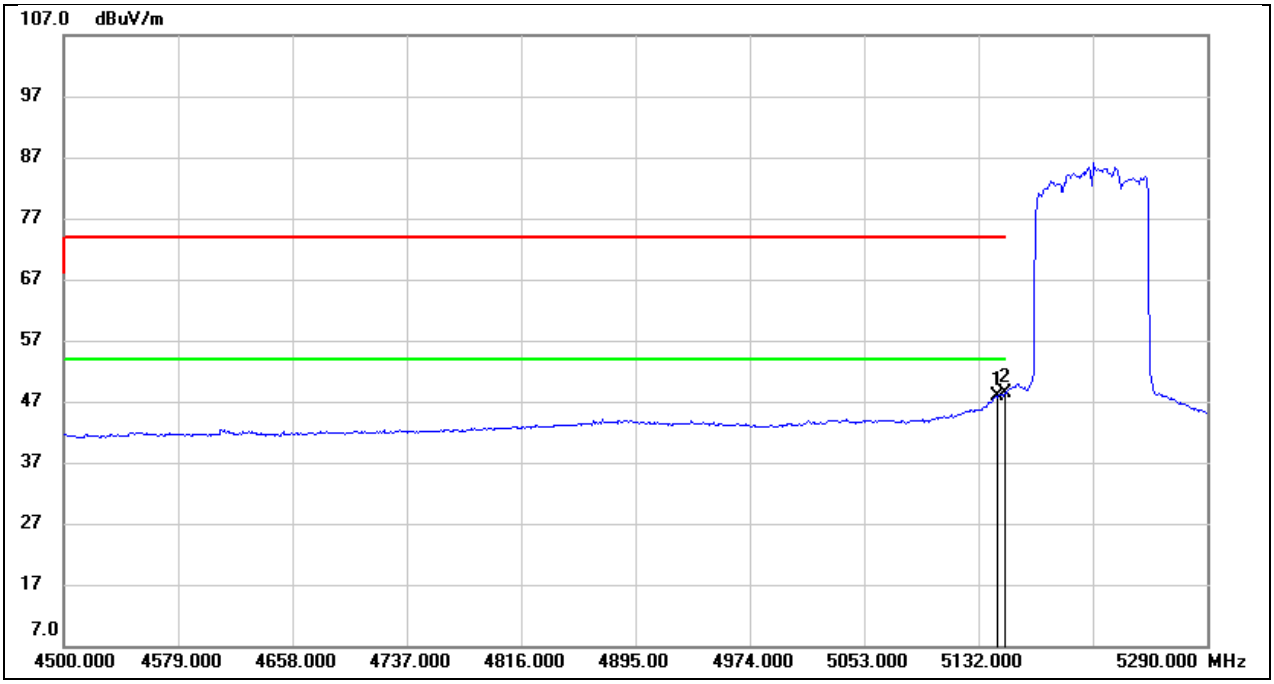
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5850.000	16.27	41.60	57.87	122.20	-64.33	peak
2	5973.550	19.09	41.93	61.02	68.20	-7.18	peak

Test Mode:	802.11ac VHT80 PK	Frequency(MHz):	5210
Polarity:	Horizontal	Test Voltage:	AC 120V_60Hz



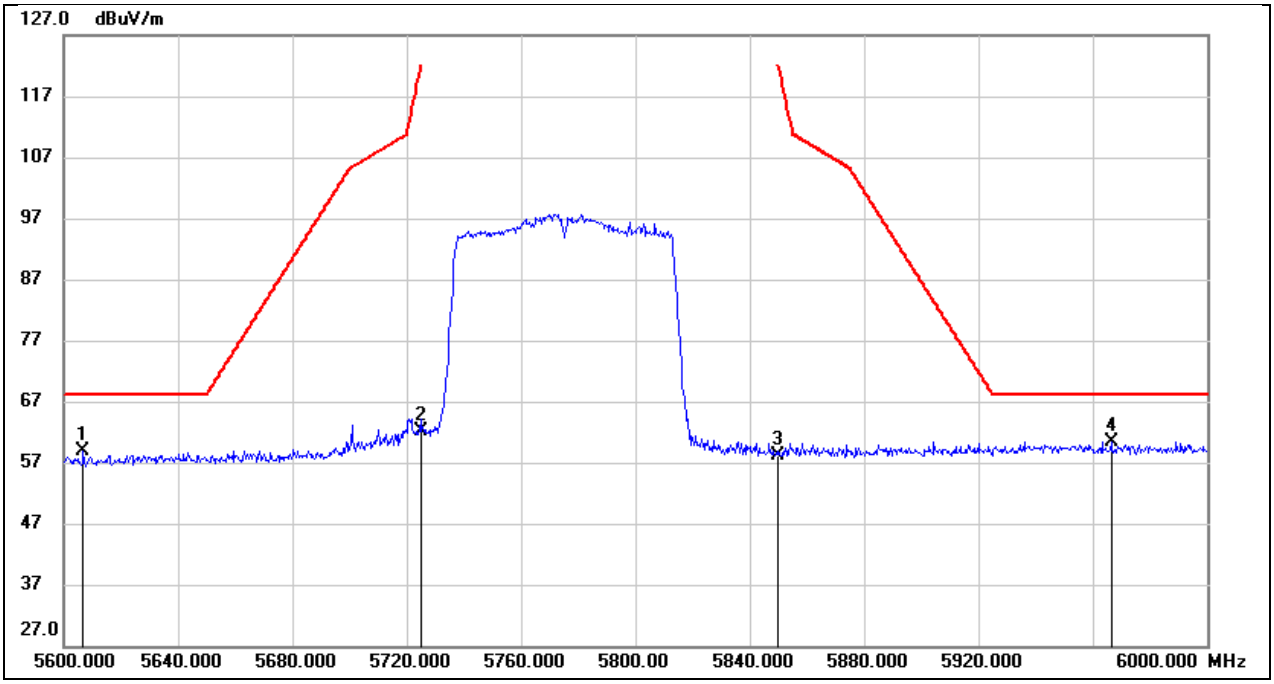
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5145.430	22.62	40.27	62.89	74.00	-11.11	peak
2	5150.000	19.92	40.27	60.19	74.00	-13.81	peak

Test Mode:	802.11ac VHT80 AV	Frequency(MHz):	5210
Polarity:	Horizontal	Test Voltage:	AC 120V_60Hz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5145.430	7.72	40.27	47.99	54.00	-6.01	AVG
2	5150.000	8.11	40.27	48.38	54.00	-5.62	AVG

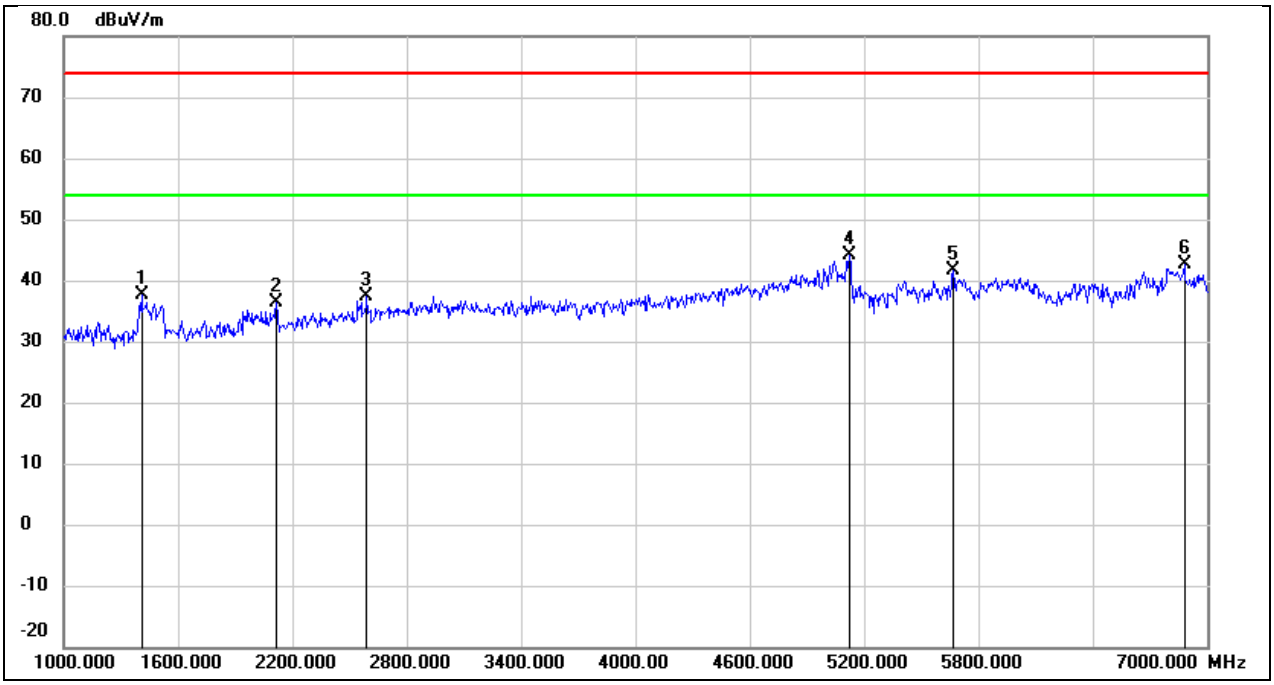
Test Mode:	802.11ac VHT80 PK	Frequency(MHz):	5775
Polarity:	Horizontal	Test Voltage:	AC 120V_60Hz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5606.800	17.84	40.95	58.79	68.20	-9.41	peak
2	5725.000	20.78	41.27	62.05	122.20	-60.15	peak
3	5850.000	16.65	41.60	58.25	122.20	-63.95	peak
4	5966.400	18.38	41.91	60.29	68.20	-7.91	peak

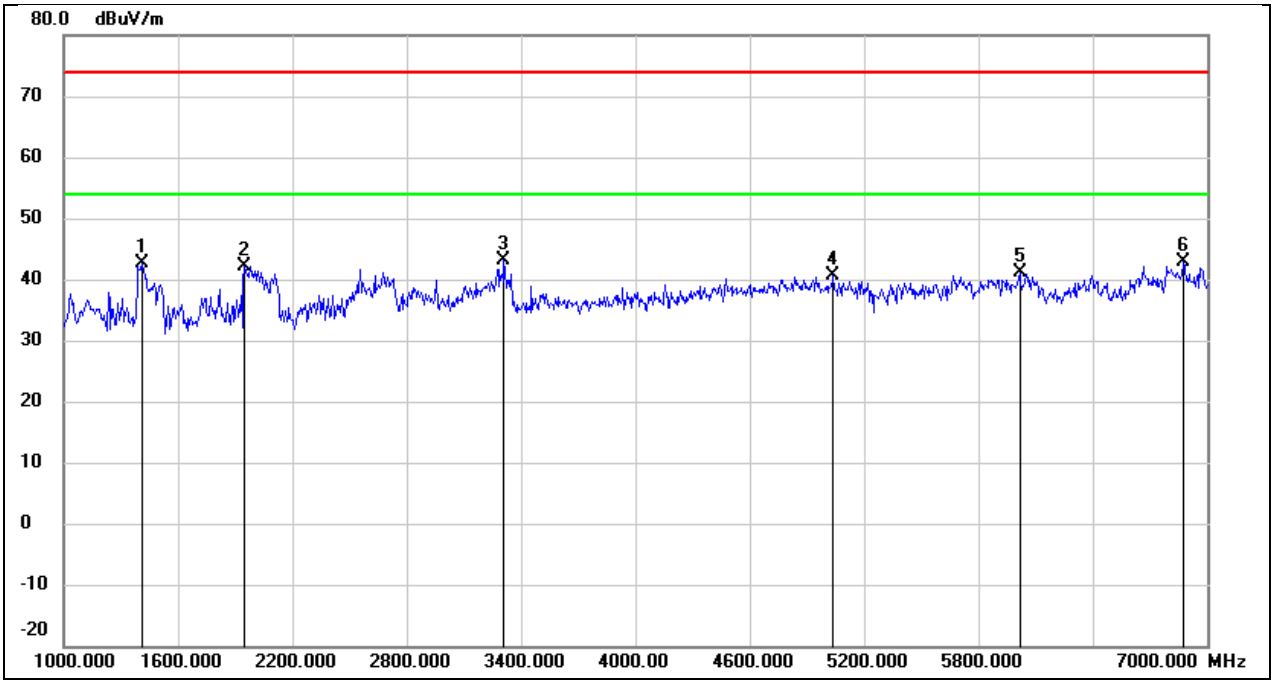
8.2. SPURIOUS EMISSIONS(1 GHZ~7 GHZ)

Test Mode:	802.11a 20	Frequency(MHz):	5180
Polarity:	Horizontal	Test Voltage:	AC 120V_60Hz



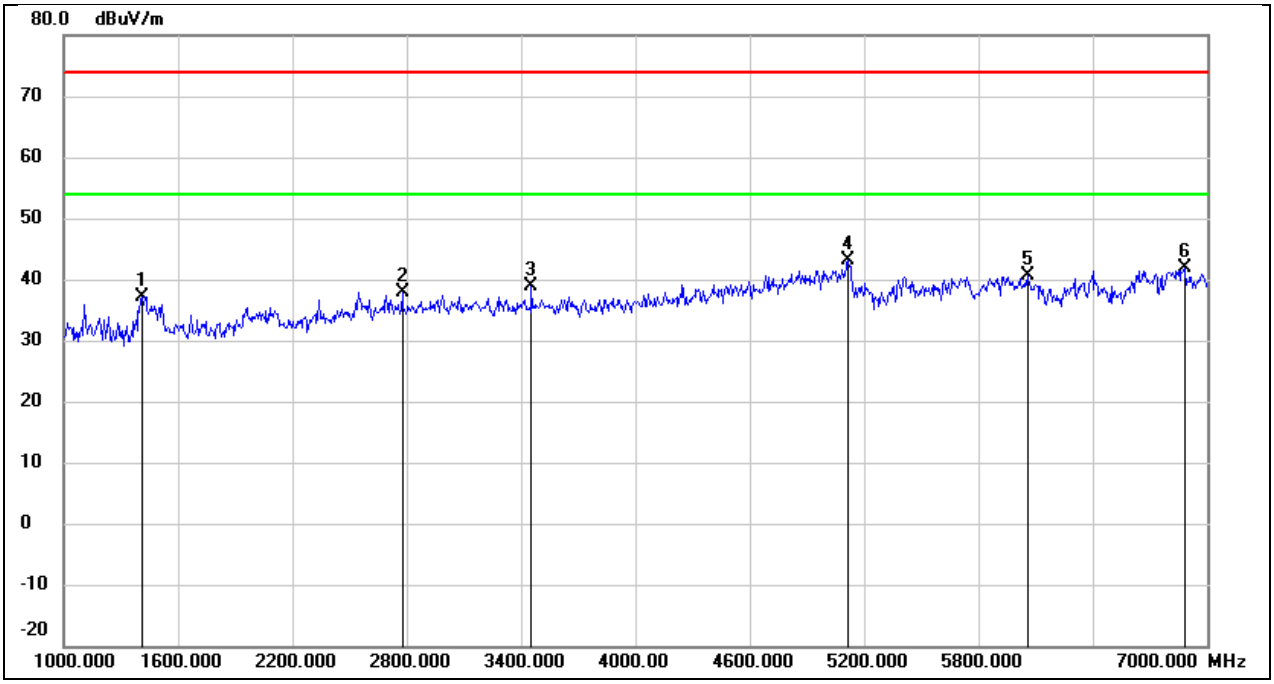
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1408.000	50.68	-13.13	37.55	74.00	-36.45	peak
2	2116.000	46.78	-10.47	36.31	74.00	-37.69	peak
3	2590.000	45.30	-8.04	37.26	74.00	-36.74	peak
4	5122.000	44.14	-0.02	44.12	74.00	-29.88	peak
5	5668.000	40.67	0.91	41.58	74.00	-32.42	peak
6	6880.000	36.99	5.60	42.59	74.00	-31.41	peak

Test Mode:	802.11a 20	Frequency(MHz):	5180
Polarity:	Vertical	Test Voltage:	AC 120V_60Hz



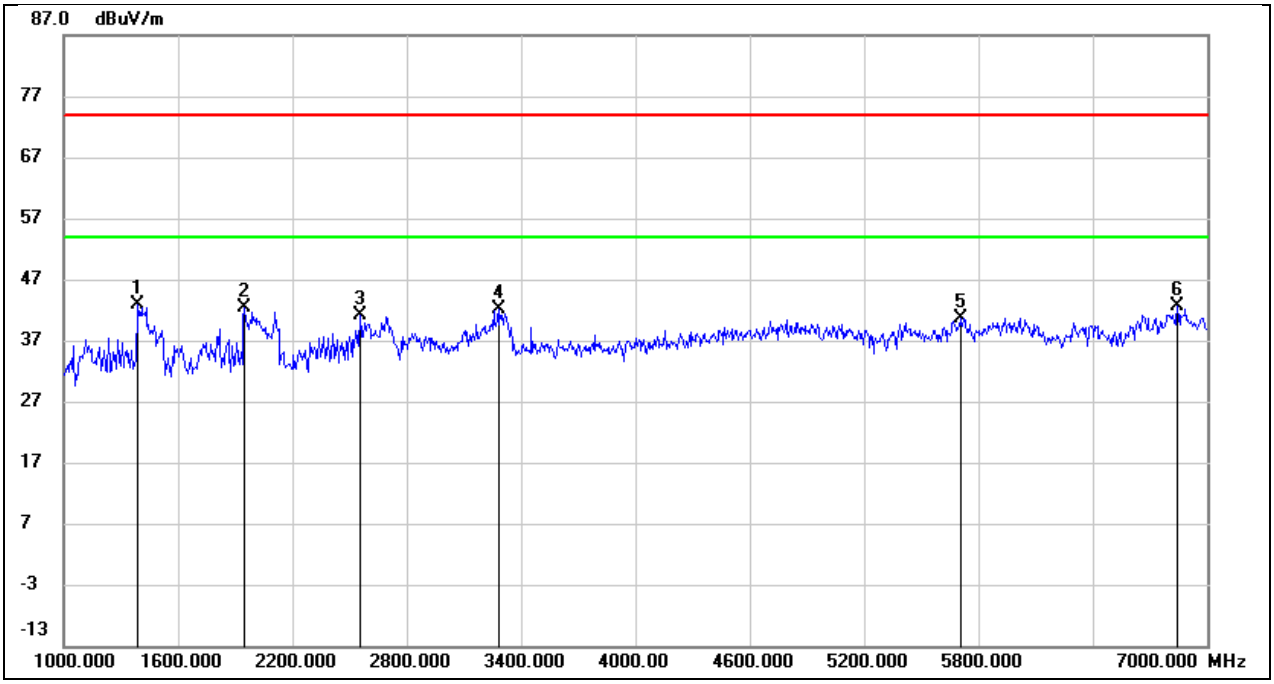
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1408.000	55.76	-13.13	42.63	74.00	-31.37	peak
2	1948.000	53.43	-11.23	42.20	74.00	-31.80	peak
3	3310.000	49.08	-5.90	43.18	74.00	-30.82	peak
4	5038.000	40.71	-0.11	40.60	74.00	-33.40	peak
5	6016.000	39.27	1.91	41.18	74.00	-32.82	peak
6	6874.000	37.29	5.57	42.86	74.00	-31.14	peak

Test Mode:	802.11a 20	Frequency(MHz):	5200
Polarity:	Horizontal	Test Voltage:	AC 120V_60Hz



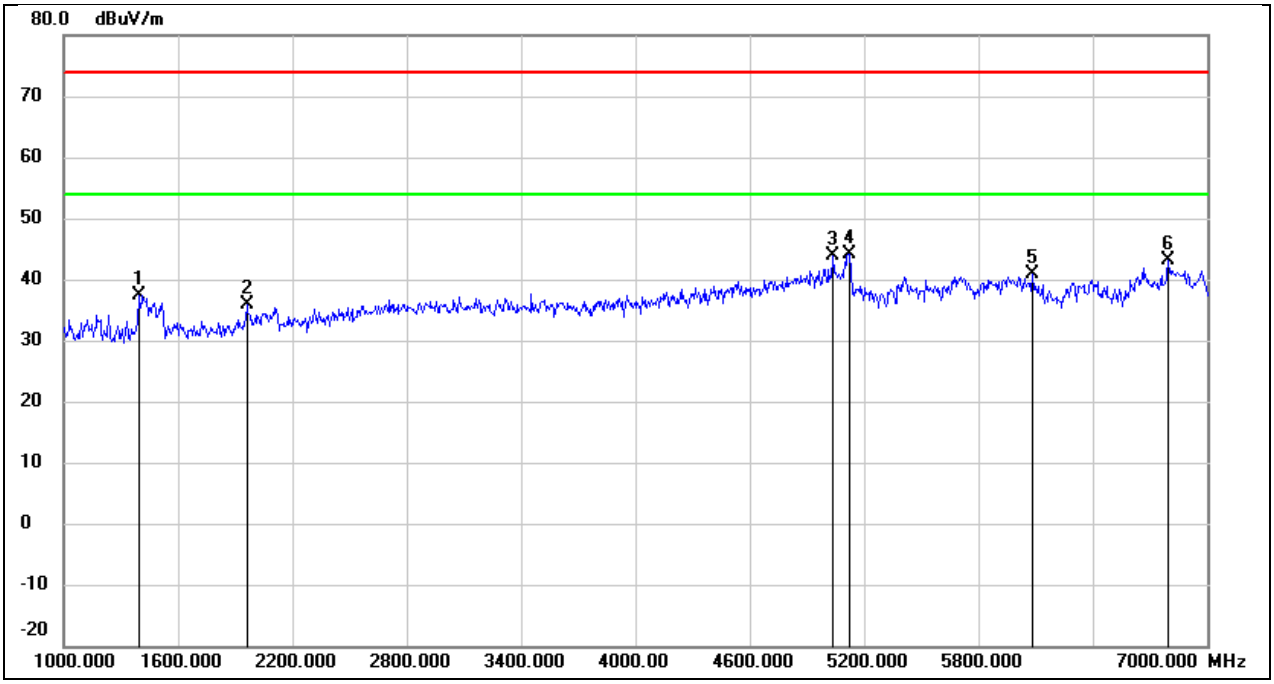
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1414.000	50.26	-13.11	37.15	74.00	-36.85	peak
2	2776.000	44.99	-7.10	37.89	74.00	-36.11	peak
3	3454.000	44.73	-5.86	38.87	74.00	-35.13	peak
4	5116.000	43.10	-0.02	43.08	74.00	-30.92	peak
5	6058.000	38.56	2.06	40.62	74.00	-33.38	peak
6	6880.000	36.21	5.60	41.81	74.00	-32.19	peak

Test Mode:	802.11a 20	Frequency(MHz):	5200
Polarity:	Vertical	Test Voltage:	AC 120V_60Hz



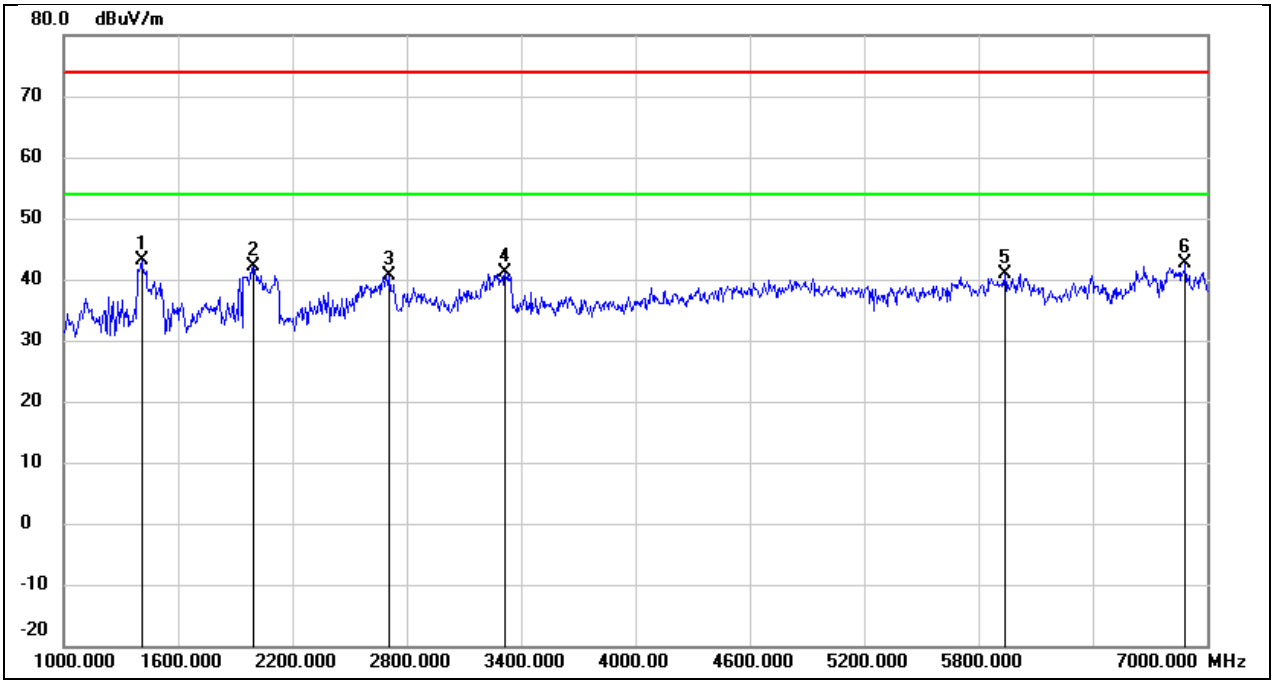
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1390.000	56.22	-13.22	43.00	74.00	-31.00	peak
2	1948.000	53.54	-11.23	42.31	74.00	-31.69	peak
3	2554.000	49.32	-8.21	41.11	74.00	-32.89	peak
4	3280.000	47.94	-5.91	42.03	74.00	-31.97	peak
5	5704.000	39.71	1.00	40.71	74.00	-33.29	peak
6	6844.000	37.22	5.43	42.65	74.00	-31.35	peak

Test Mode:	802.11a 20	Frequency(MHz):	5240
Polarity:	Horizontal	Test Voltage:	AC 120V_60Hz



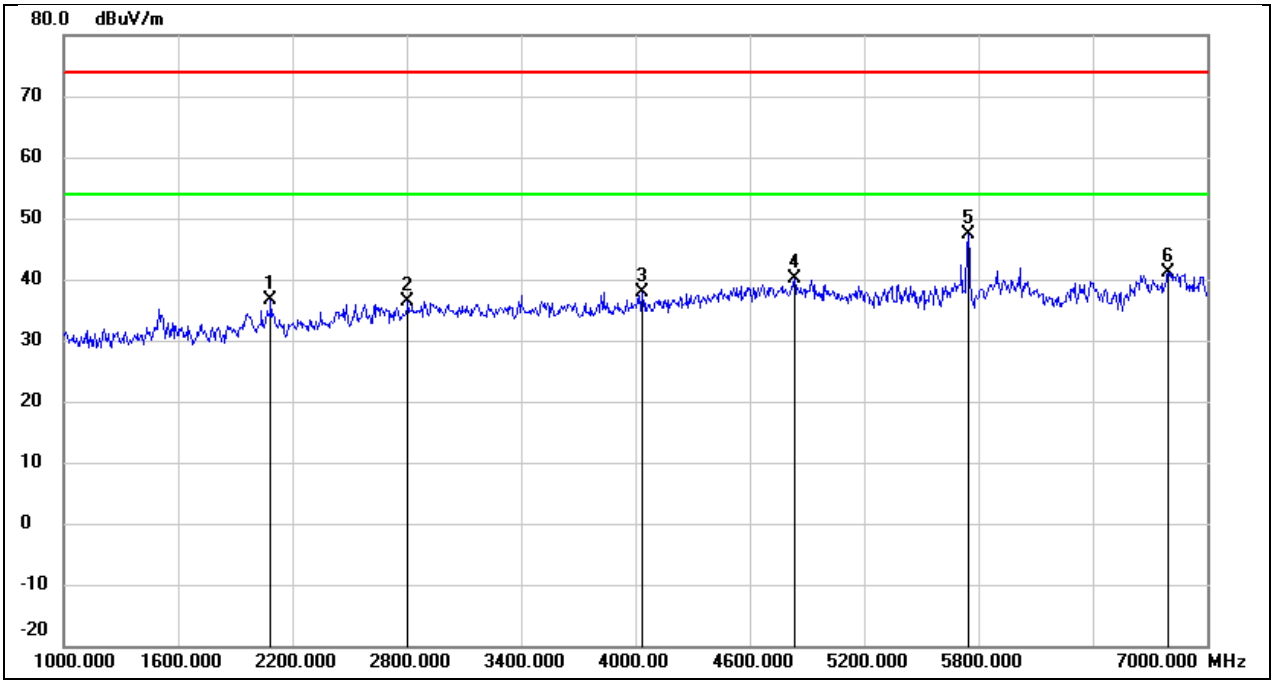
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1396.000	50.66	-13.19	37.47	74.00	-36.53	peak
2	1960.000	47.03	-11.20	35.83	74.00	-38.17	peak
3	5038.000	44.11	-0.11	44.00	74.00	-30.00	peak
4	5122.000	44.10	-0.02	44.08	74.00	-29.92	peak
5	6082.000	38.60	2.16	40.76	74.00	-33.24	peak
6	6796.000	38.01	5.19	43.20	74.00	-30.80	peak

Test Mode:	802.11a 20	Frequency(MHz):	5240
Polarity:	Vertical	Test Voltage:	AC 120V_60Hz



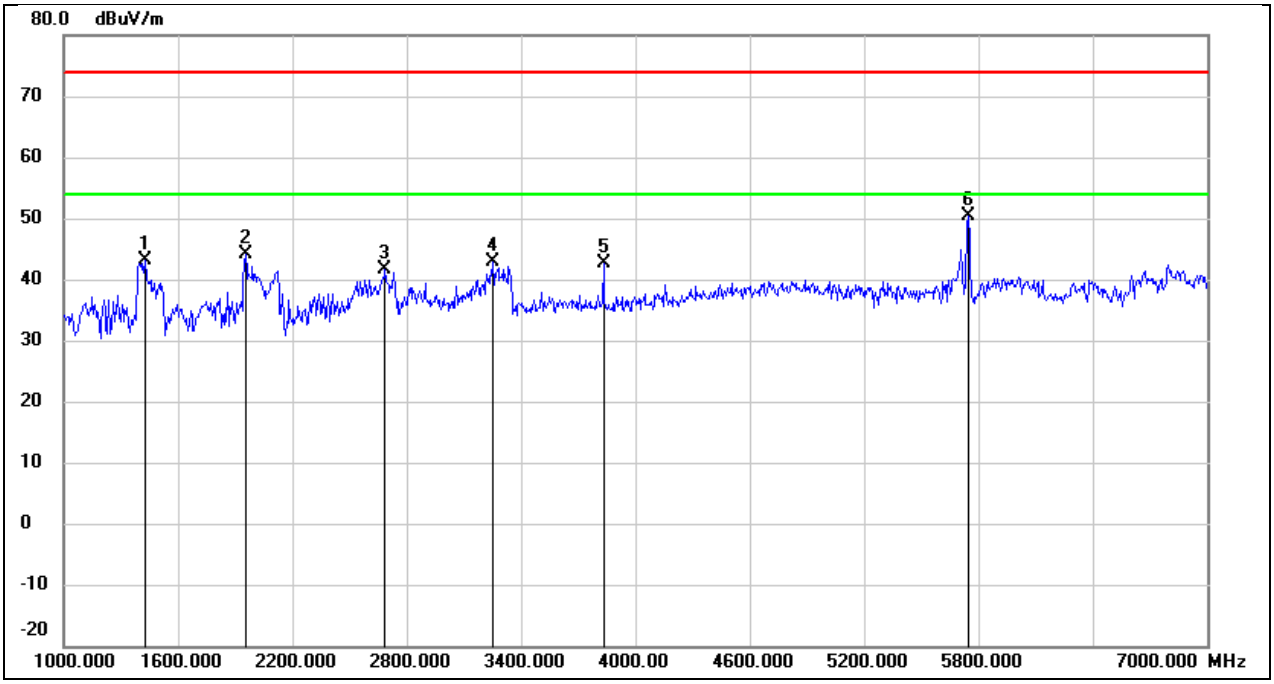
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1408.000	56.30	-13.13	43.17	74.00	-30.83	peak
2	1996.000	53.16	-11.07	42.09	74.00	-31.91	peak
3	2710.000	48.13	-7.43	40.70	74.00	-33.30	peak
4	3316.000	47.07	-5.89	41.18	74.00	-32.82	peak
5	5938.000	39.21	1.67	40.88	74.00	-33.12	peak
6	6886.000	36.88	5.63	42.51	74.00	-31.49	peak

Test Mode:	802.11a 20	Frequency(MHz):	5745
Polarity:	Horizontal	Test Voltage:	AC 120V_60Hz



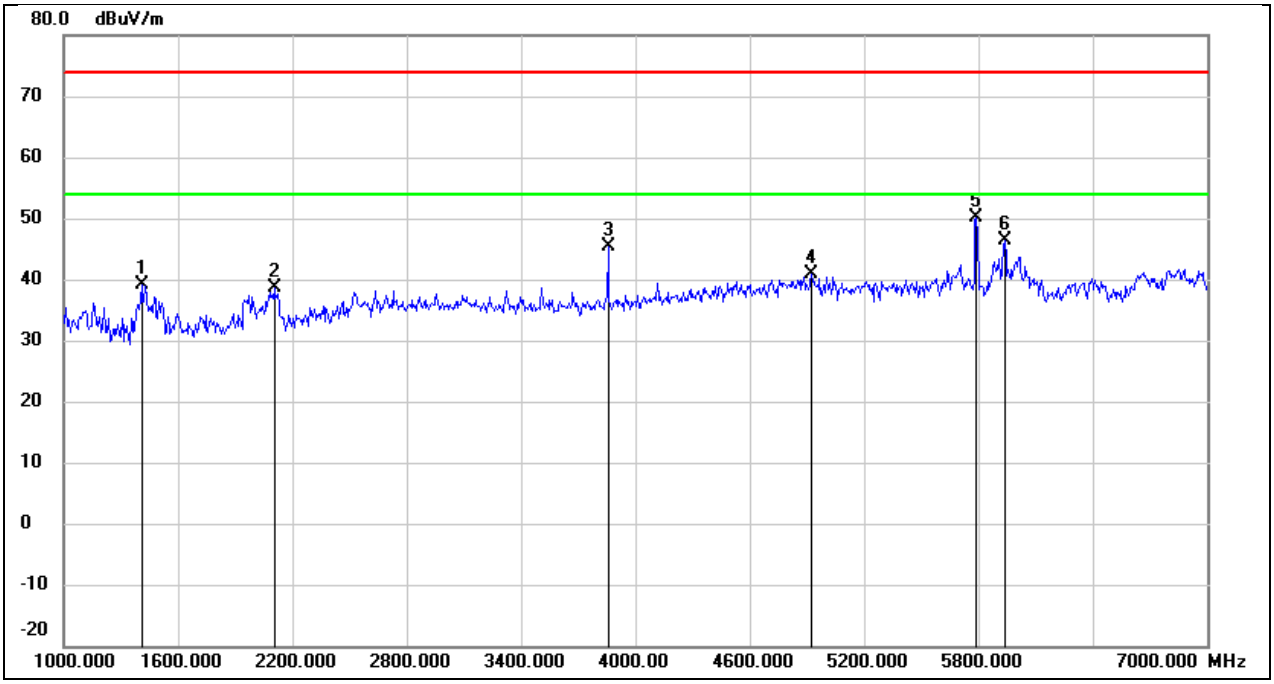
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2086.000	47.34	-10.62	36.72	74.00	-37.28	peak
2	2806.000	43.40	-6.96	36.44	74.00	-37.56	peak
3	4036.000	42.14	-4.31	37.83	74.00	-36.17	peak
4	4834.000	41.05	-0.81	40.24	74.00	-33.76	peak
5	5745.000	46.23	1.12	47.35	/	/	fundamental
6	6796.000	36.03	5.19	41.22	74.00	-32.78	peak

Test Mode:	802.11a 20	Frequency(MHz):	5745
Polarity:	Vertical	Test Voltage:	AC 120V_60Hz



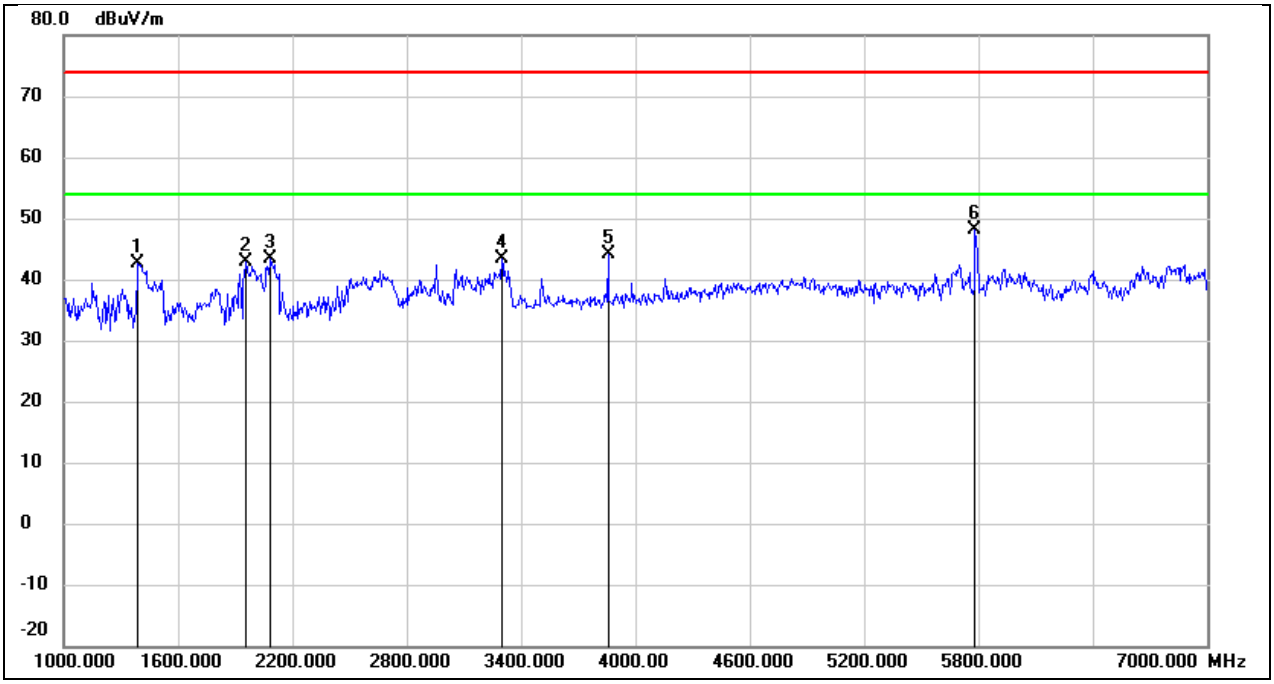
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1426.000	56.16	-13.05	43.11	74.00	-30.89	peak
2	1954.000	55.26	-11.21	44.05	74.00	-29.95	peak
3	2686.000	49.25	-7.56	41.69	74.00	-32.31	peak
4	3250.000	48.88	-5.91	42.97	74.00	-31.03	peak
5	3832.000	47.58	-4.94	42.64	74.00	-31.36	peak
6	5745.000	49.38	1.12	50.50	/	/	fundamental

Test Mode:	802.11a 20	Frequency(MHz):	5785
Polarity:	Horizontal	Test Voltage:	AC 120V_60Hz



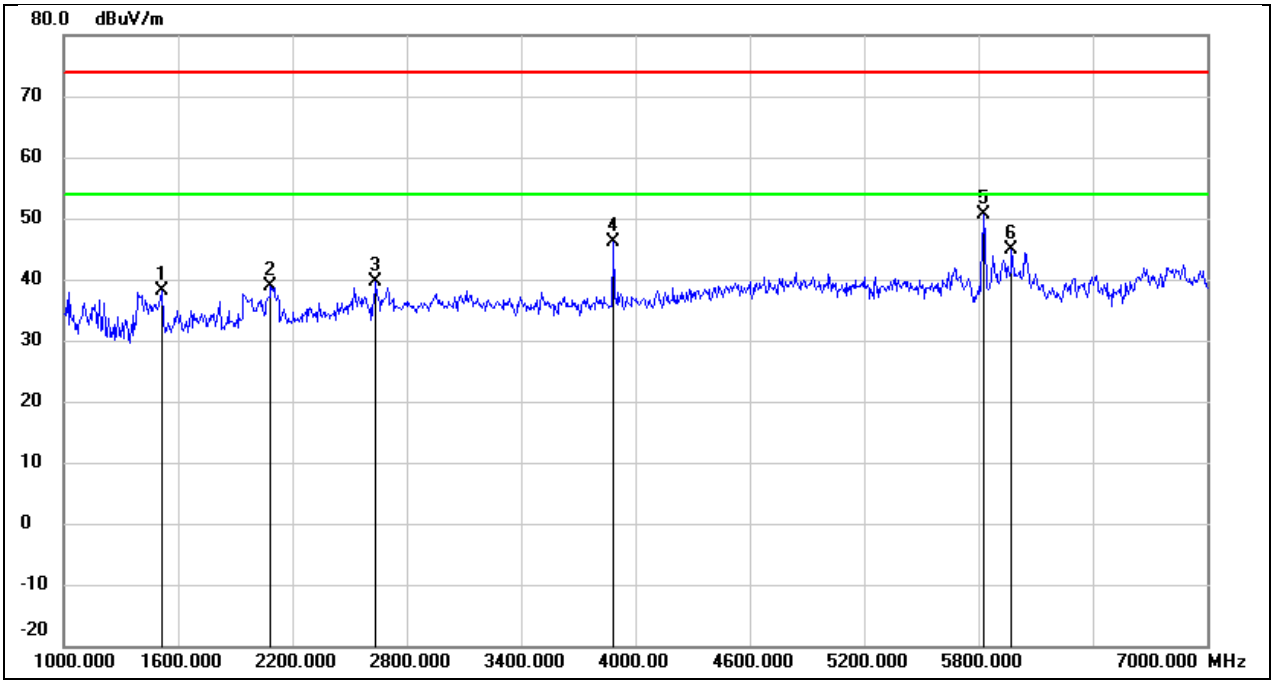
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1408.000	52.30	-13.13	39.17	74.00	-34.83	peak
2	2104.000	49.18	-10.53	38.65	74.00	-35.35	peak
3	3856.000	50.21	-4.88	45.33	74.00	-28.67	peak
4	4924.000	41.24	-0.45	40.79	74.00	-33.21	peak
5	5785.000	48.79	1.25	50.04	/	/	fundamental
6	5938.000	44.67	1.67	46.34	74.00	-27.66	peak

Test Mode:	802.11a 20	Frequency(MHz):	5785
Polarity:	Vertical	Test Voltage:	AC 120V_60Hz



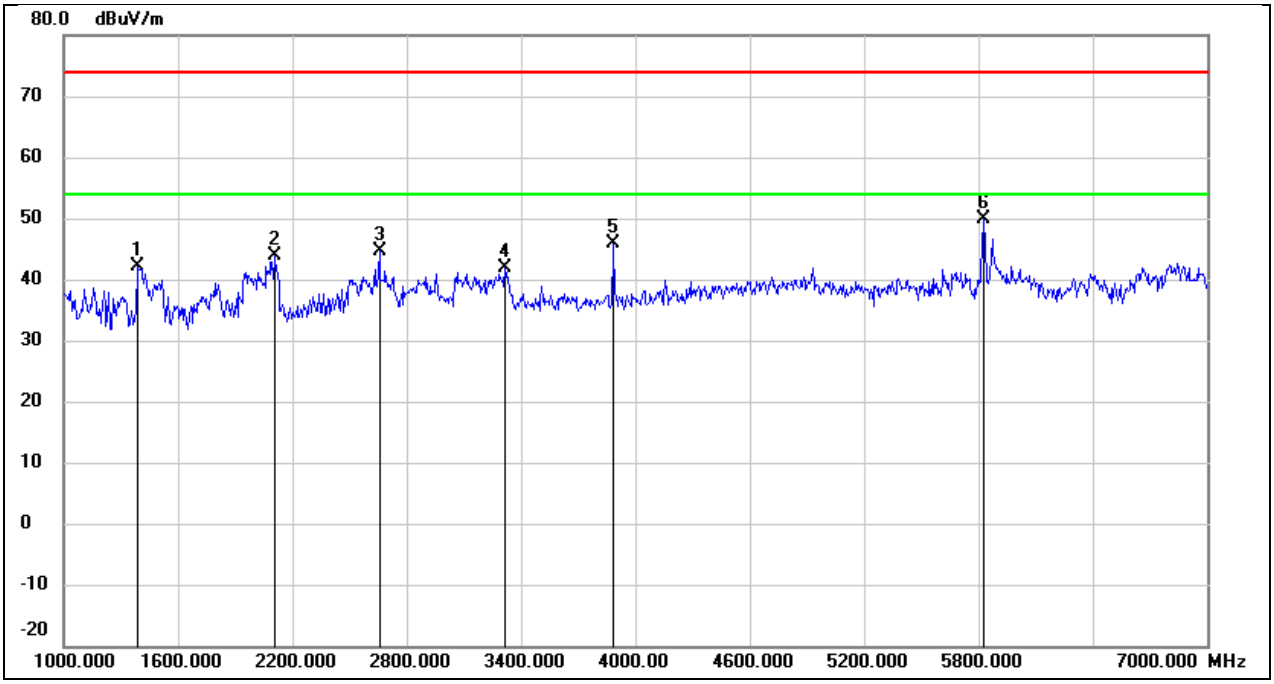
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1390.000	55.81	-13.22	42.59	74.00	-31.41	peak
2	1954.000	54.15	-11.21	42.94	74.00	-31.06	peak
3	2086.000	54.05	-10.62	43.43	74.00	-30.57	peak
4	3298.000	49.37	-5.90	43.47	74.00	-30.53	peak
5	3856.000	48.89	-4.88	44.01	74.00	-29.99	peak
6	5785.000	46.99	1.23	48.22	/	/	fundamental

Test Mode:	802.11a 20	Frequency(MHz):	5825
Polarity:	Horizontal	Test Voltage:	AC 120V_60Hz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1516.000	50.86	-12.66	38.20	74.00	-35.80	peak
2	2086.000	49.50	-10.62	38.88	74.00	-35.12	peak
3	2638.000	47.47	-7.79	39.68	74.00	-34.32	peak
4	3886.000	50.91	-4.79	46.12	74.00	-27.88	peak
5	5825.000	49.25	1.36	50.61	/	/	fundamental
6	5974.000	43.13	1.77	44.90	74.00	-29.10	peak

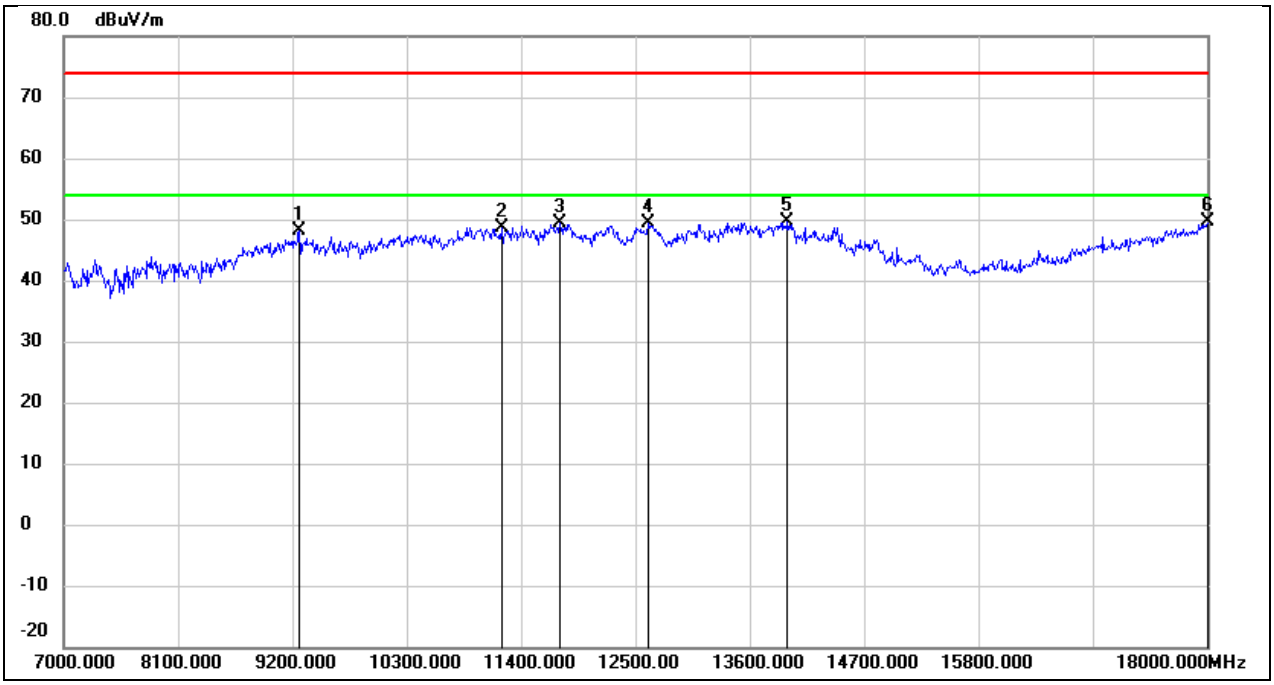
Test Mode:	802.11a 20	Frequency(MHz):	5825
Polarity:	Vertical	Test Voltage:	AC 120V_60Hz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1390.000	55.36	-13.22	42.14	74.00	-31.86	peak
2	2104.000	54.50	-10.53	43.97	74.00	-30.03	peak
3	2656.000	52.26	-7.71	44.55	74.00	-29.45	peak
4	3316.000	47.72	-5.89	41.83	74.00	-32.17	peak
5	3886.000	50.57	-4.79	45.78	74.00	-28.22	peak
6	5825.000	48.42	1.36	49.78	/	/	fundamental

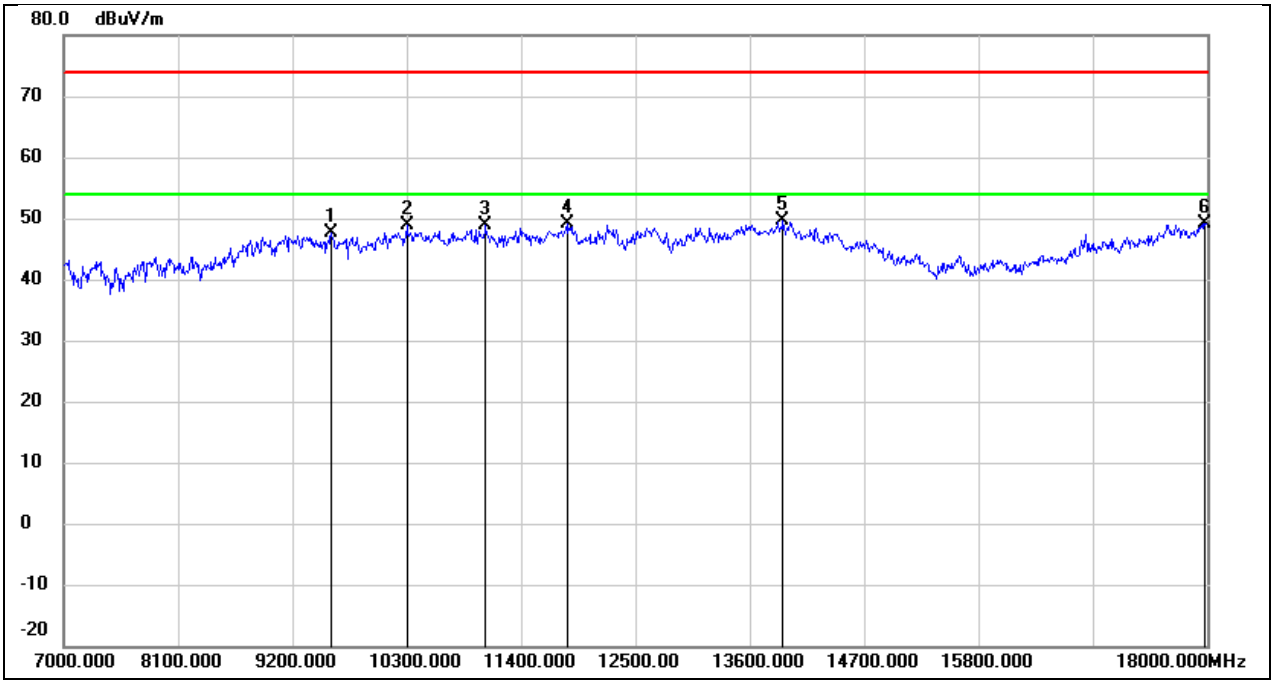
8.3. SPURIOUS EMISSIONS(7 GHZ~18 GHZ)

Test Mode:	802.11a 20	Frequency(MHz):	5180
Polarity:	Horizontal	Test Voltage:	AC 120V_60Hz



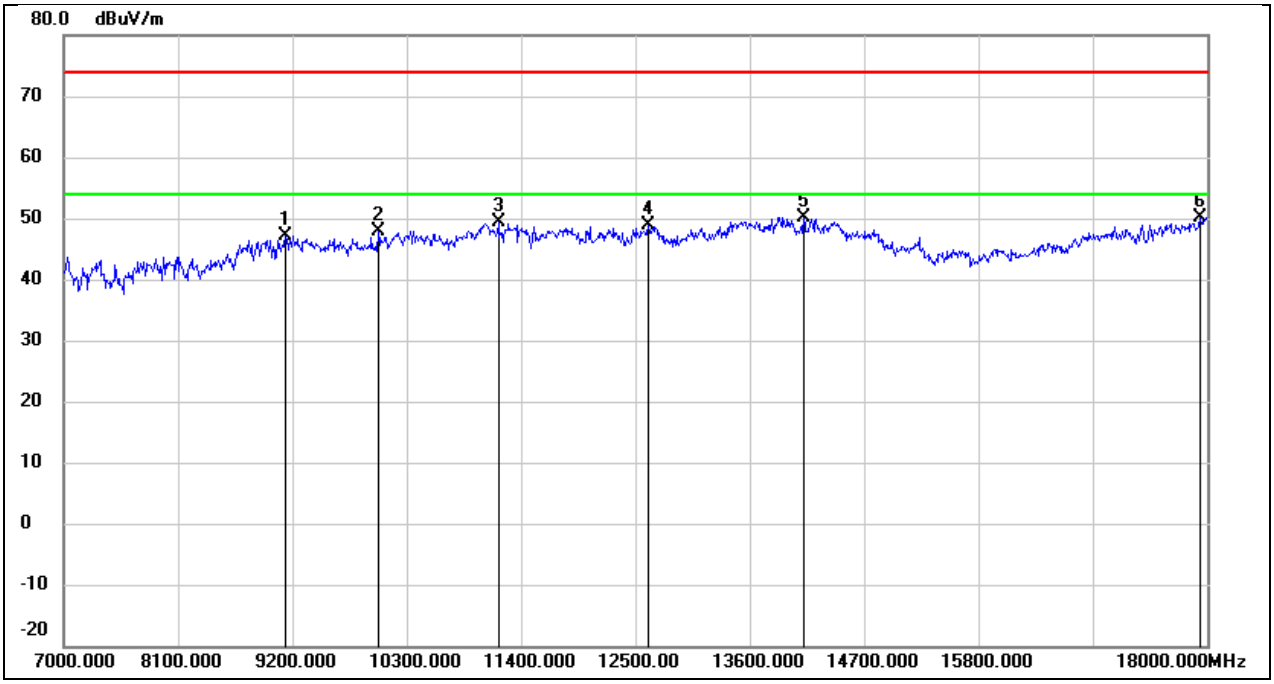
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	9266.000	37.52	10.51	48.03	74.00	-25.97	peak
2	11213.000	33.02	15.59	48.61	74.00	-25.39	peak
3	11774.000	32.07	17.28	49.35	74.00	-24.65	peak
4	12621.000	31.38	17.98	49.36	74.00	-24.64	peak
5	13963.000	27.92	21.78	49.70	74.00	-24.30	peak
6	18000.000	23.47	26.12	49.59	74.00	-24.41	peak

Test Mode:	802.11a 20	Frequency(MHz):	5180
Polarity:	Vertical	Test Voltage:	AC 120V_60Hz



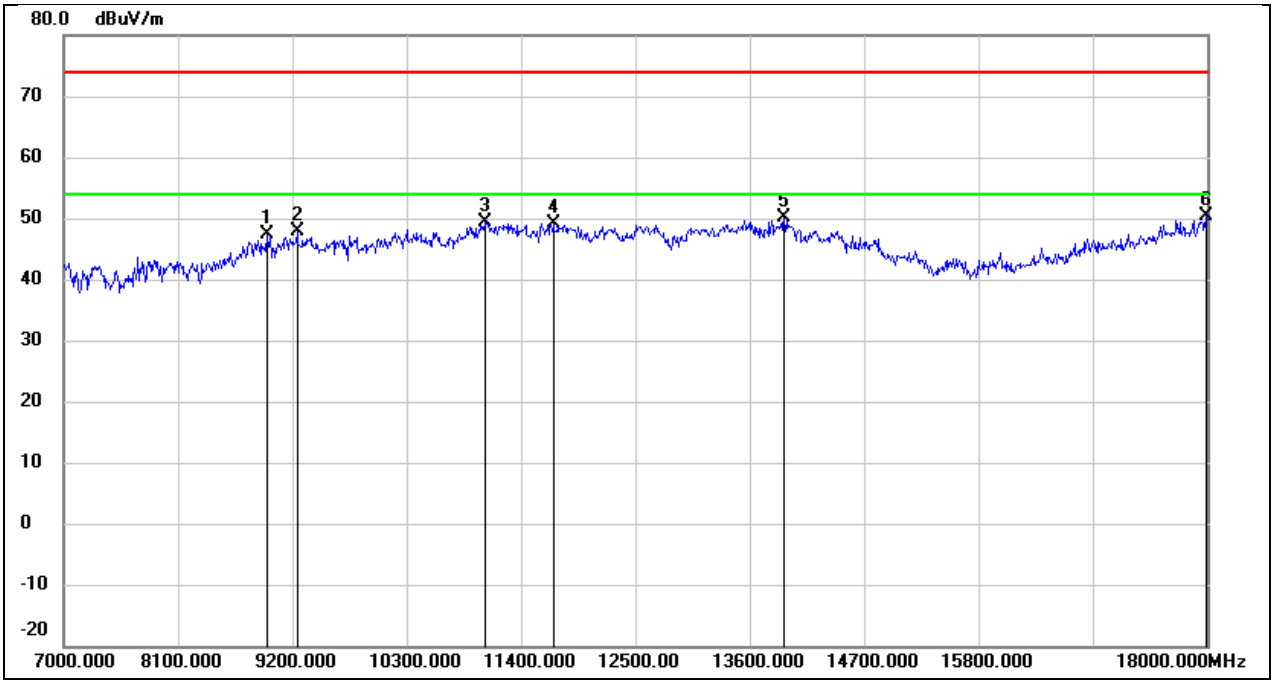
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	9574.000	36.77	10.81	47.58	74.00	-26.42	peak
2	10300.000	36.40	12.40	48.80	74.00	-25.20	peak
3	11059.000	33.91	14.96	48.87	74.00	-25.13	peak
4	11840.000	31.62	17.40	49.02	74.00	-24.98	peak
5	13919.000	28.05	21.68	49.73	74.00	-24.27	peak
6	17978.000	23.22	25.97	49.19	74.00	-24.81	peak

Test Mode:	802.11a 20	Frequency(MHz):	5200
Polarity:	Horizontal	Test Voltage:	AC 120V_60Hz



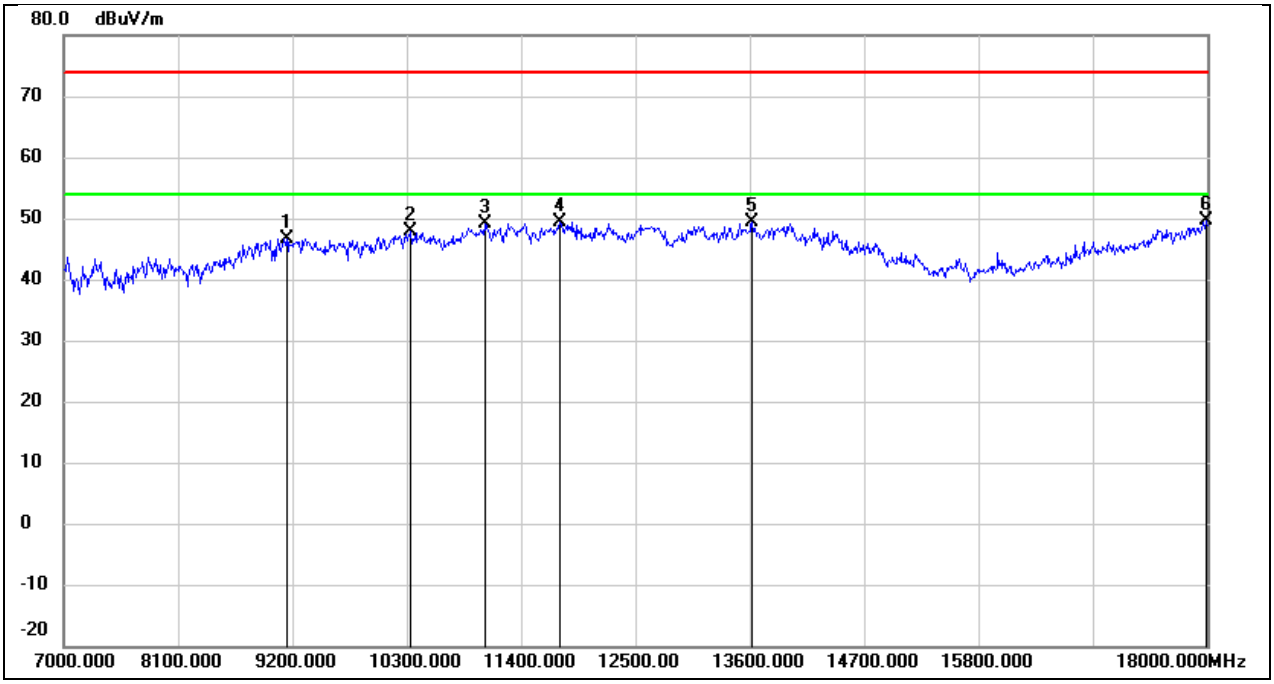
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	9134.000	36.83	10.41	47.24	74.00	-26.76	peak
2	10025.000	35.95	11.82	47.77	74.00	-26.23	peak
3	11180.000	33.85	15.46	49.31	74.00	-24.69	peak
4	12621.000	31.00	17.98	48.98	74.00	-25.02	peak
5	14117.000	28.78	21.39	50.17	74.00	-23.83	peak
6	17934.000	24.51	25.67	50.18	74.00	-23.82	peak

Test Mode:	802.11a 20	Frequency(MHz):	5200
Polarity:	Vertical	Test Voltage:	AC 120V_60Hz



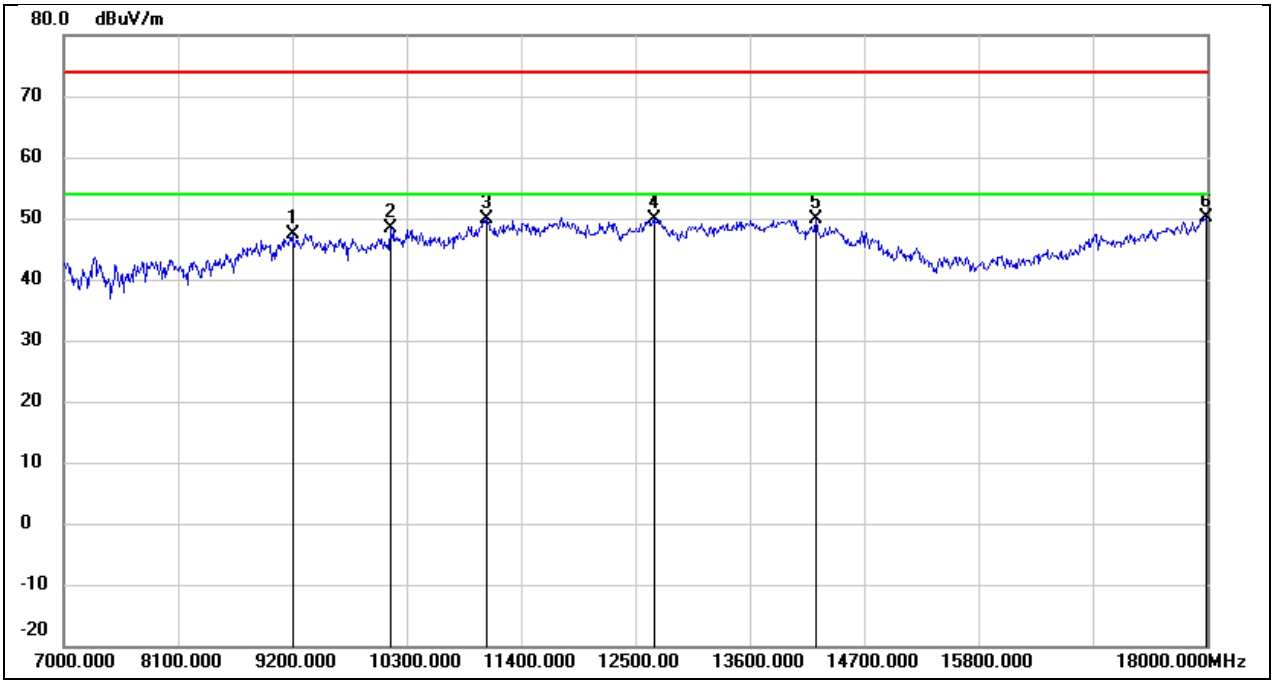
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	8958.000	37.39	10.05	47.44	74.00	-26.56	peak
2	9244.000	37.50	10.49	47.99	74.00	-26.01	peak
3	11059.000	34.42	14.96	49.38	74.00	-24.62	peak
4	11708.000	32.08	17.16	49.24	74.00	-24.76	peak
5	13930.000	28.51	21.71	50.22	74.00	-23.78	peak
6	17989.000	24.25	26.04	50.29	74.00	-23.71	peak

Test Mode:	802.11a 20	Frequency(MHz):	5240
Polarity:	Horizontal	Test Voltage:	AC 120V_60Hz



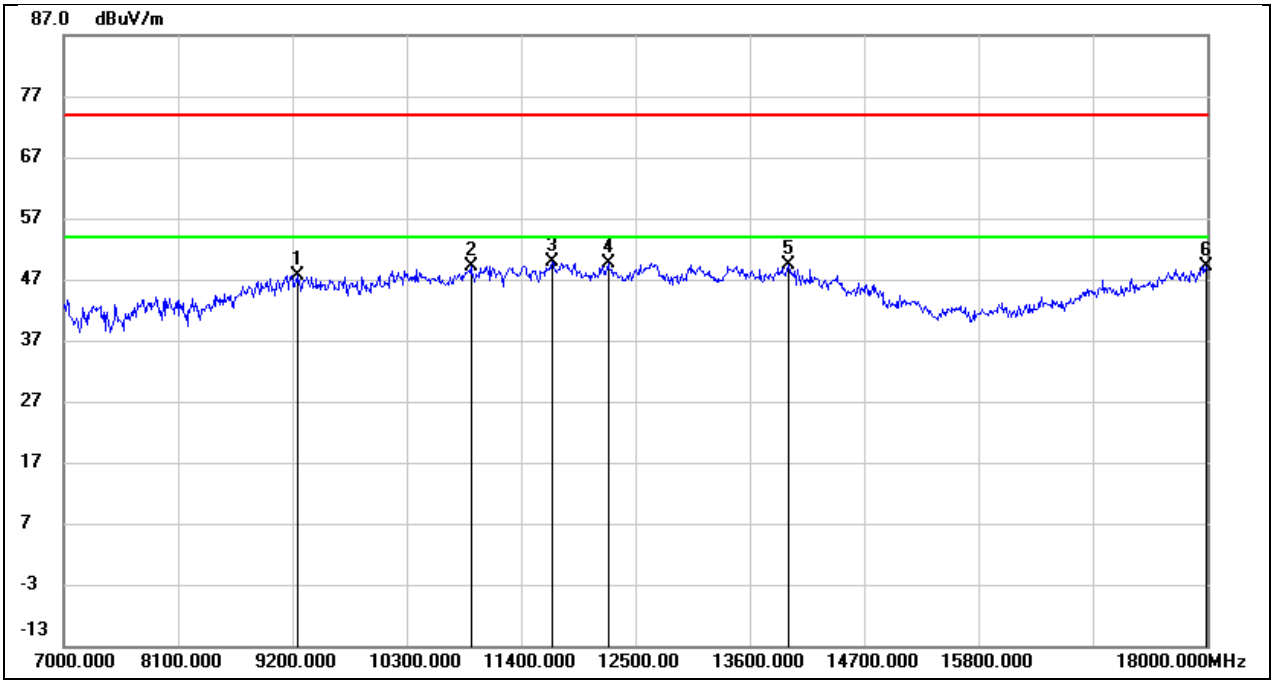
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	9145.000	36.24	10.43	46.67	74.00	-27.33	peak
2	10333.000	35.43	12.47	47.90	74.00	-26.10	peak
3	11048.000	34.20	14.91	49.11	74.00	-24.89	peak
4	11774.000	32.12	17.28	49.40	74.00	-24.60	peak
5	13622.000	28.33	20.95	49.28	74.00	-24.72	peak
6	17989.000	23.58	26.04	49.62	74.00	-24.38	peak

Test Mode:	802.11a 20	Frequency(MHz):	5240
Polarity:	Vertical	Test Voltage:	AC 120V_60Hz



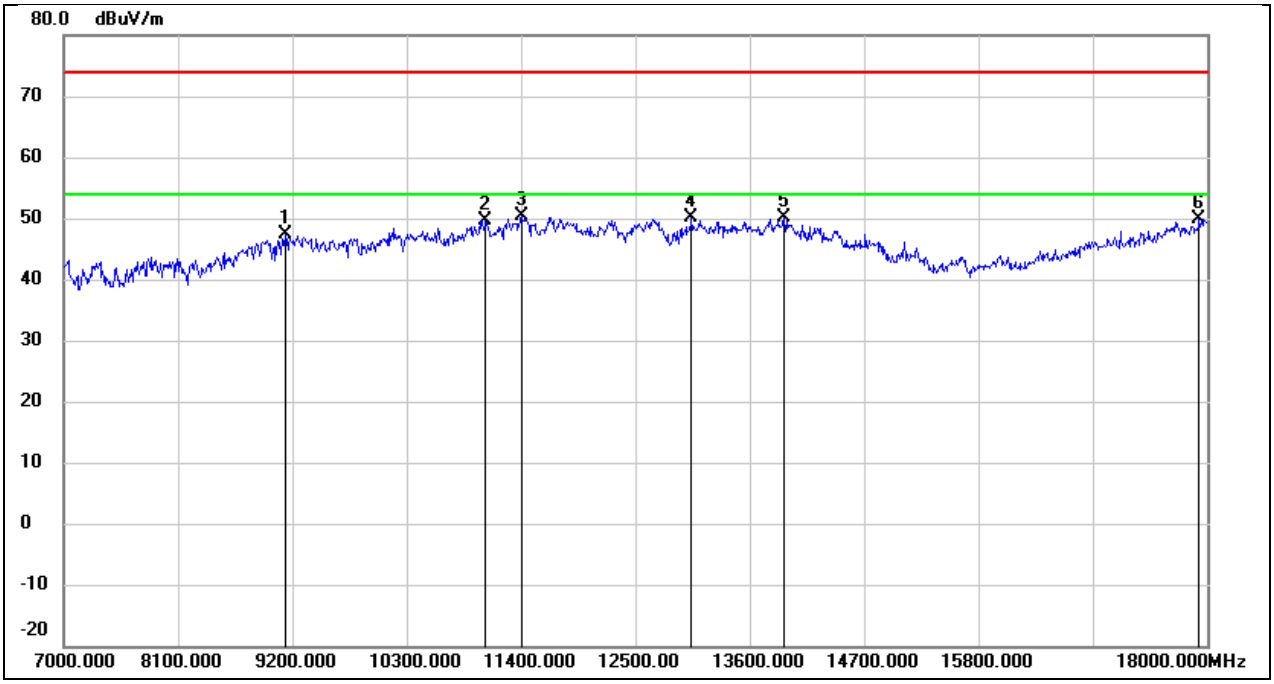
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	9200.000	36.93	10.46	47.39	74.00	-26.61	peak
2	10146.000	36.41	12.07	48.48	74.00	-25.52	peak
3	11070.000	34.90	15.01	49.91	74.00	-24.09	peak
4	12687.000	31.83	18.05	49.88	74.00	-24.12	peak
5	14238.000	28.99	20.88	49.87	74.00	-24.13	peak
6	17989.000	24.20	26.04	50.24	74.00	-23.76	peak

Test Mode:	802.11a 20	Frequency(MHz):	5745
Polarity:	Horizontal	Test Voltage:	AC 120V_60Hz



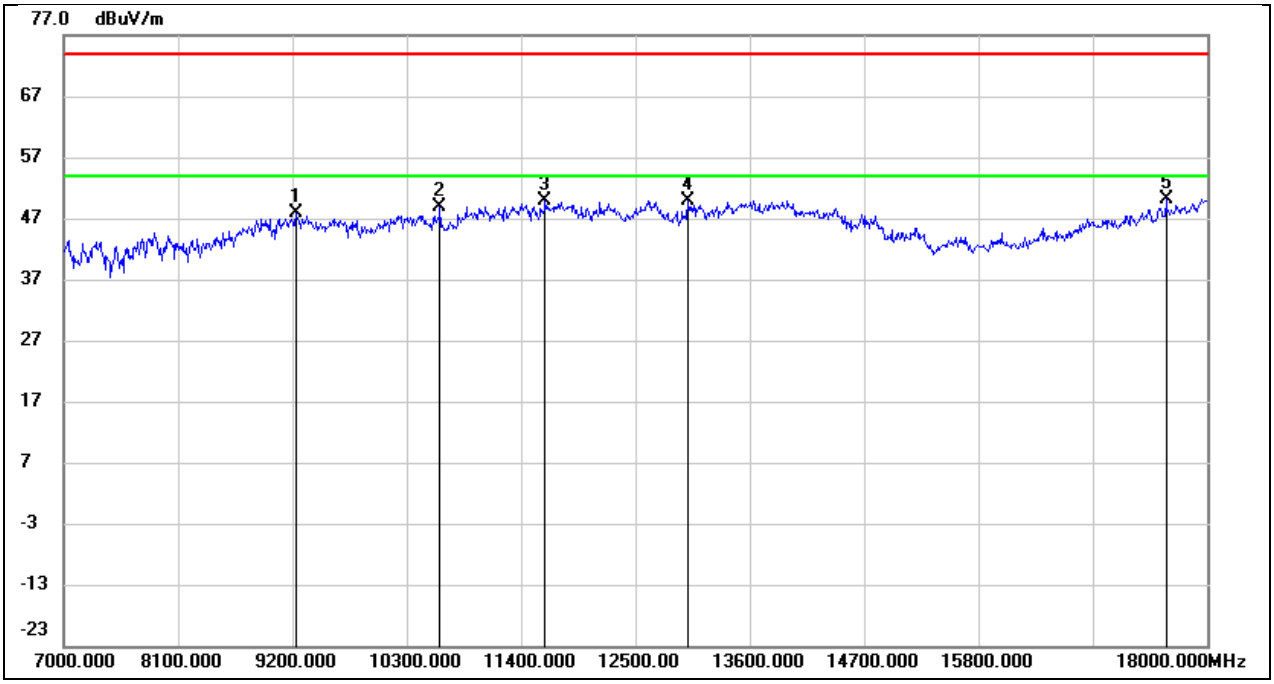
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	9244.000	37.19	10.49	47.68	74.00	-26.32	peak
2	10916.000	34.79	14.39	49.18	74.00	-24.82	peak
3	11697.000	32.85	17.13	49.98	74.00	-24.02	peak
4	12236.000	31.85	17.76	49.61	74.00	-24.39	peak
5	13974.000	27.60	21.82	49.42	74.00	-24.58	peak
6	17989.000	23.11	26.04	49.15	74.00	-24.85	peak

Test Mode:	802.11a 20	Frequency(MHz):	5745
Polarity:	Vertical	Test Voltage:	AC 120V_60Hz



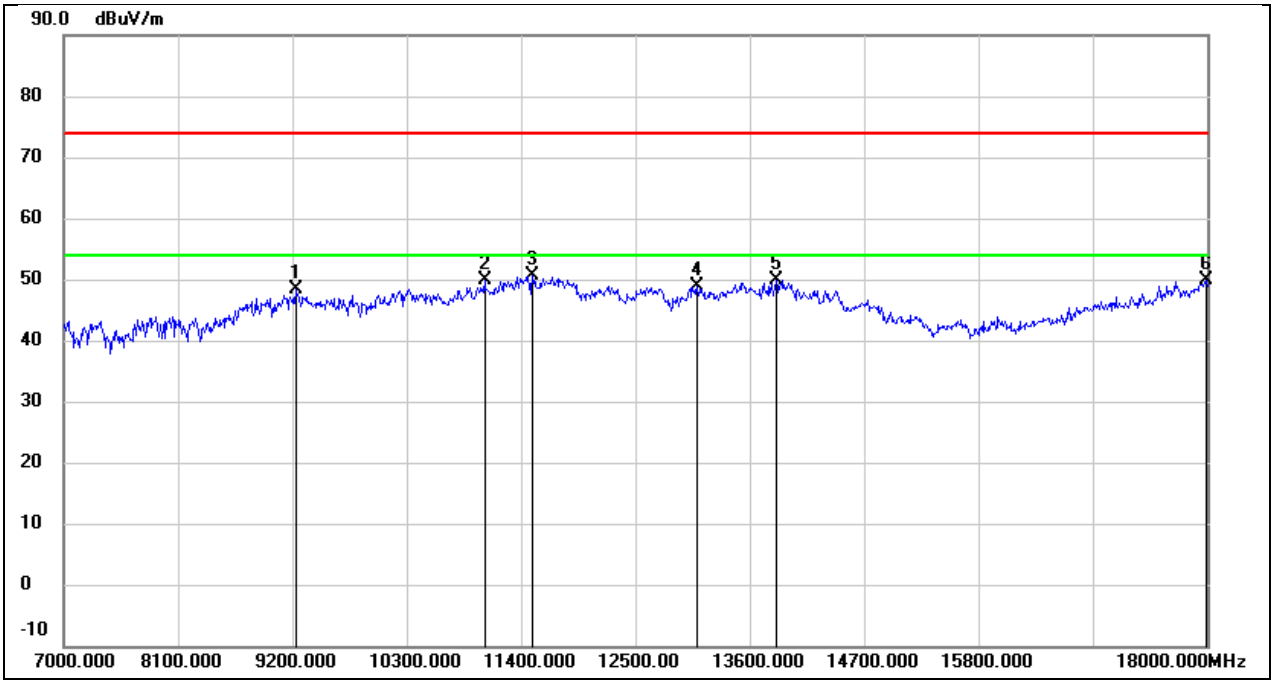
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	9134.000	36.94	10.41	47.35	74.00	-26.65	peak
2	11059.000	34.75	14.96	49.71	74.00	-24.29	peak
3	11400.000	34.12	16.36	50.48	74.00	-23.52	peak
4	13039.000	31.53	18.62	50.15	74.00	-23.85	peak
5	13930.000	28.48	21.71	50.19	74.00	-23.81	peak
6	17923.000	24.32	25.60	49.92	74.00	-24.08	peak

Test Mode:	802.11a 20	Frequency(MHz):	5785
Polarity:	Horizontal	Test Voltage:	AC 120V_60Hz



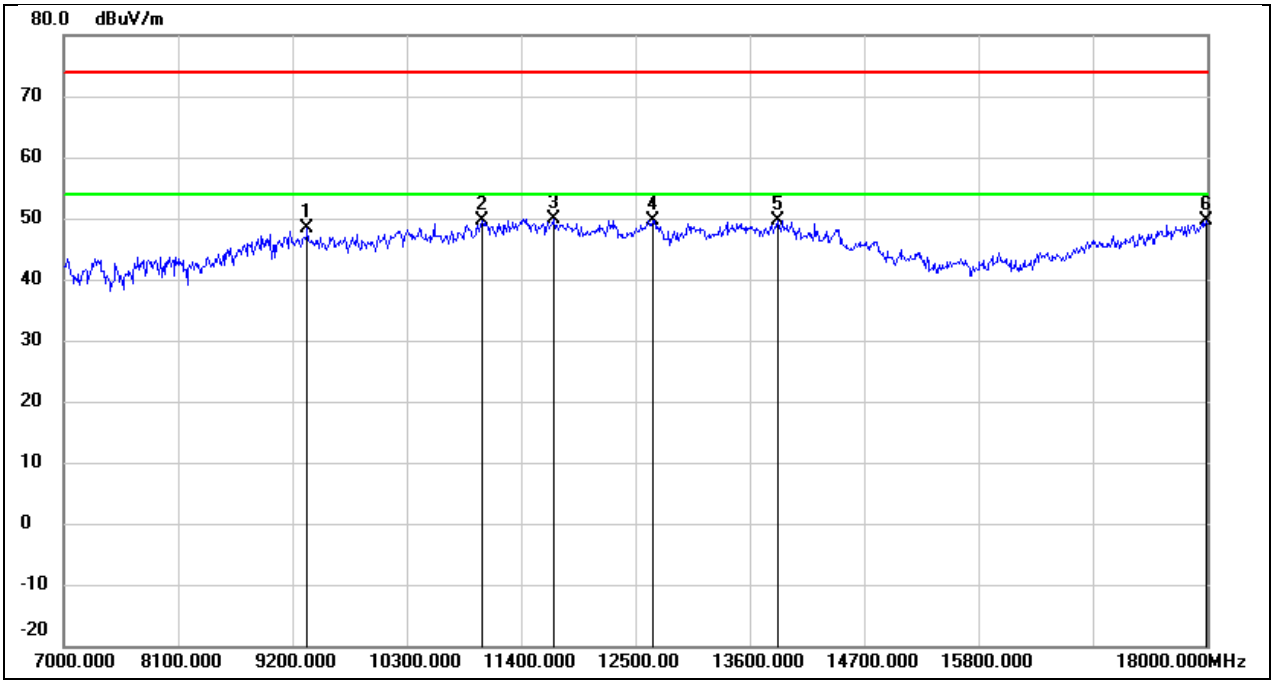
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	9233.000	37.45	10.48	47.93	74.00	-26.07	peak
2	10619.000	35.58	13.28	48.86	74.00	-25.14	peak
3	11631.000	32.96	17.01	49.97	74.00	-24.03	peak
4	13006.000	31.41	18.47	49.88	74.00	-24.12	peak
5	17604.000	26.82	23.41	50.23	74.00	-23.77	peak

Test Mode:	802.11a 20	Frequency(MHz):	5785
Polarity:	Vertical	Test Voltage:	AC 120V_60Hz



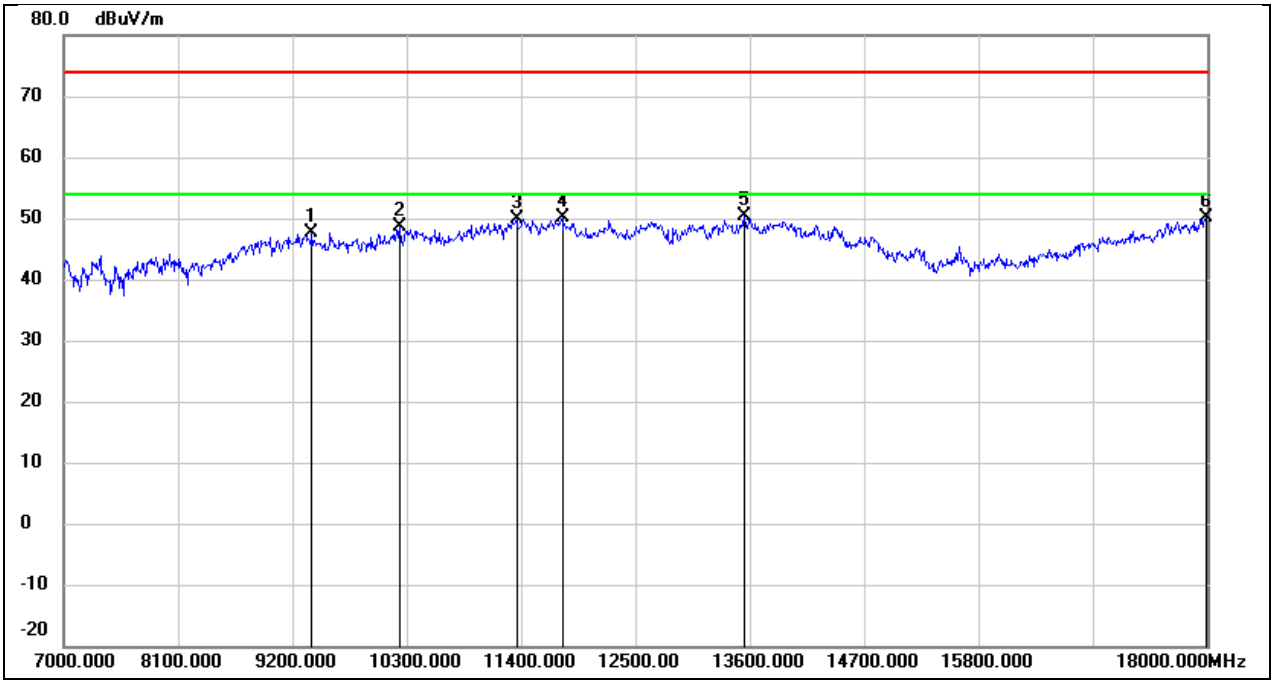
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	9233.000	37.79	10.48	48.27	74.00	-25.73	peak
2	11048.000	35.05	14.91	49.96	74.00	-24.04	peak
3	11510.000	33.79	16.79	50.58	74.00	-23.42	peak
4	13094.000	30.00	18.87	48.87	74.00	-25.13	peak
5	13853.000	28.33	21.52	49.85	74.00	-24.15	peak
6	17989.000	23.95	26.04	49.99	74.00	-24.01	peak

Test Mode:	802.11a 20	Frequency(MHz):	5825
Polarity:	Horizontal	Test Voltage:	AC 120V_60Hz



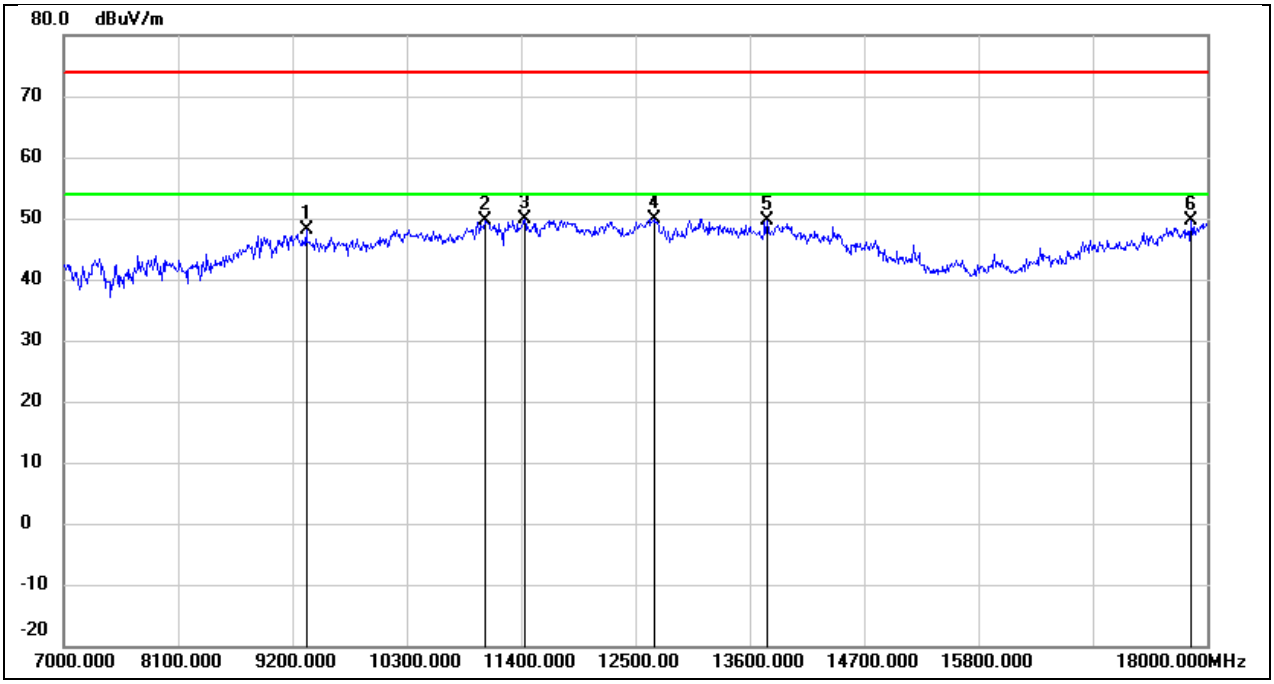
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	9343.000	37.79	10.55	48.34	74.00	-25.66	peak
2	11026.000	34.73	14.82	49.55	74.00	-24.45	peak
3	11719.000	32.67	17.18	49.85	74.00	-24.15	peak
4	12665.000	31.63	18.04	49.67	74.00	-24.33	peak
5	13864.000	28.12	21.53	49.65	74.00	-24.35	peak
6	17989.000	23.71	26.04	49.75	74.00	-24.25	peak

Test Mode:	802.11a 20	Frequency(MHz):	5825
Polarity:	Vertical	Test Voltage:	AC 120V_60Hz



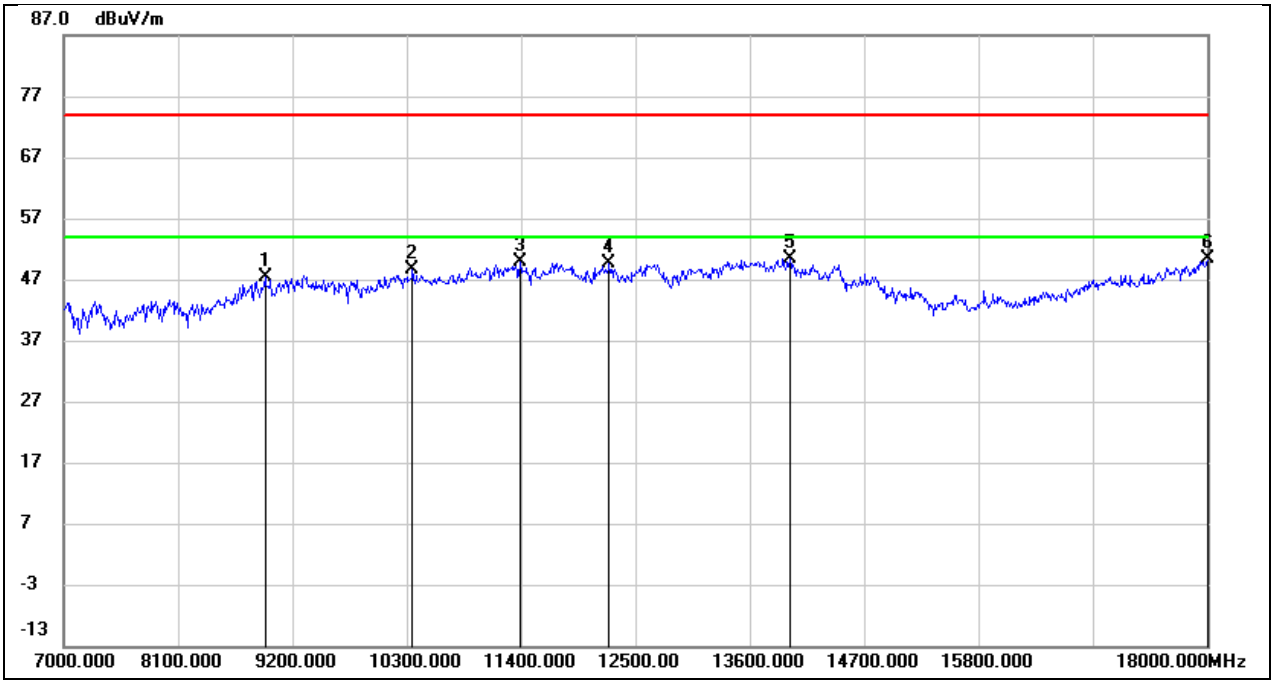
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	9387.000	37.16	10.58	47.74	74.00	-26.26	peak
2	10234.000	36.29	12.26	48.55	74.00	-25.45	peak
3	11356.000	33.62	16.19	49.81	74.00	-24.19	peak
4	11796.000	32.75	17.32	50.07	74.00	-23.93	peak
5	13545.000	29.56	20.75	50.31	74.00	-23.69	peak
6	17989.000	23.99	26.04	50.03	74.00	-23.97	peak

Test Mode:	802.11n HT40	Frequency(MHz):	5190
Polarity:	Horizontal	Test Voltage:	AC 120V_60Hz



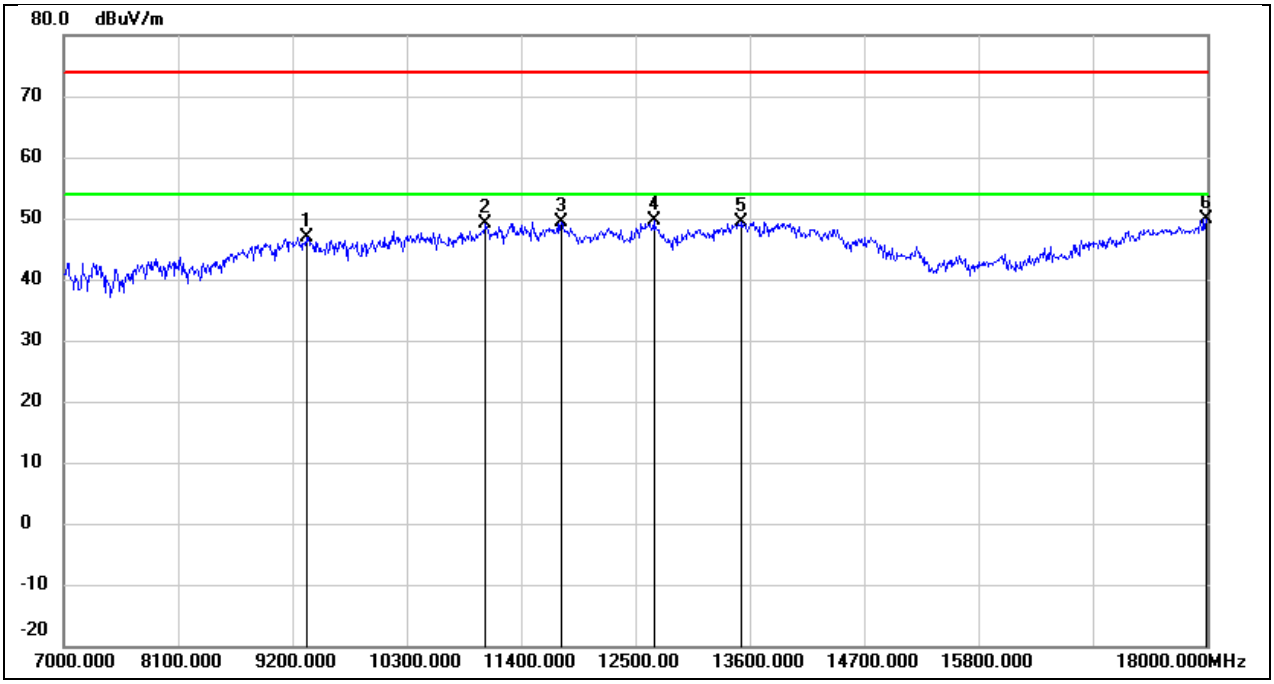
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	9332.000	37.47	10.54	48.01	74.00	-25.99	peak
2	11048.000	34.68	14.91	49.59	74.00	-24.41	peak
3	11433.000	33.38	16.50	49.88	74.00	-24.12	peak
4	12687.000	31.85	18.05	49.90	74.00	-24.10	peak
5	13765.000	28.35	21.30	49.65	74.00	-24.35	peak
6	17846.000	24.44	25.08	49.52	74.00	-24.48	peak

Test Mode:	802.11n HT40	Frequency(MHz):	5190
Polarity:	Vertical	Test Voltage:	AC 120V_60Hz



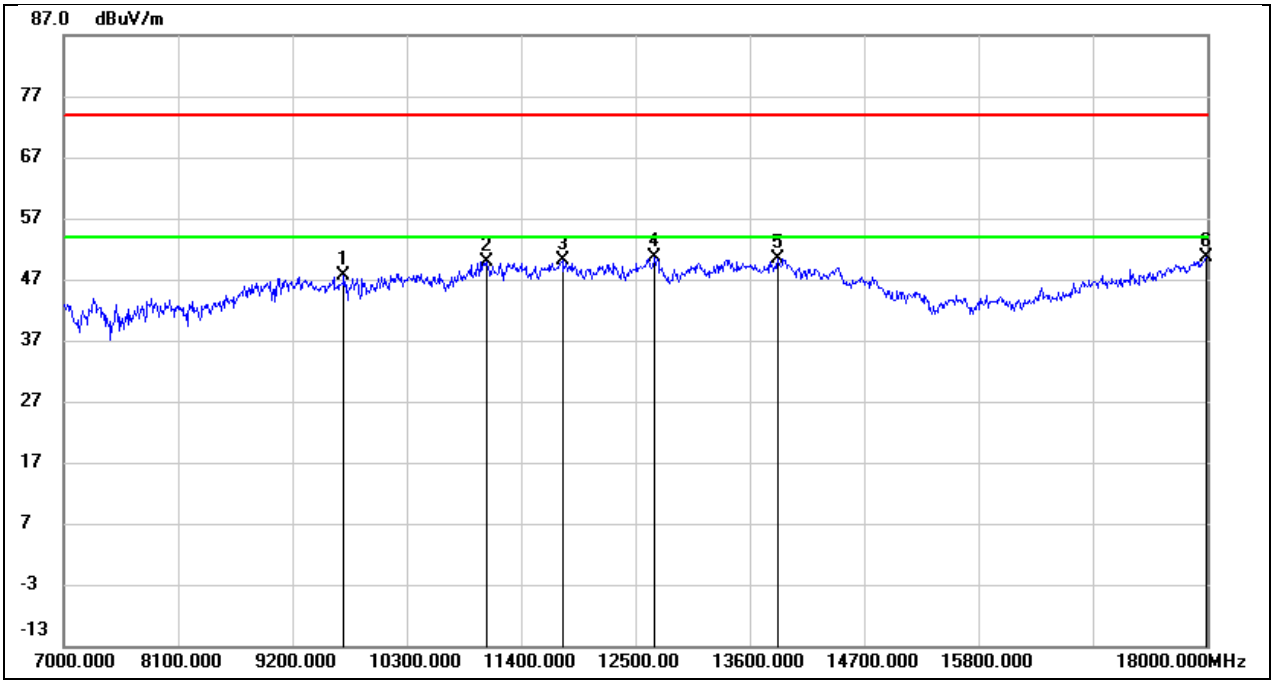
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	8936.000	37.60	9.90	47.50	74.00	-26.50	peak
2	10355.000	36.10	12.52	48.62	74.00	-25.38	peak
3	11389.000	33.45	16.31	49.76	74.00	-24.24	peak
4	12247.000	31.85	17.77	49.62	74.00	-24.38	peak
5	13985.000	28.47	21.85	50.32	74.00	-23.68	peak
6	18000.000	24.35	26.12	50.47	74.00	-23.53	peak

Test Mode:	802.11n HT40	Frequency(MHz):	5230
Polarity:	Horizontal	Test Voltage:	AC 120V_60Hz



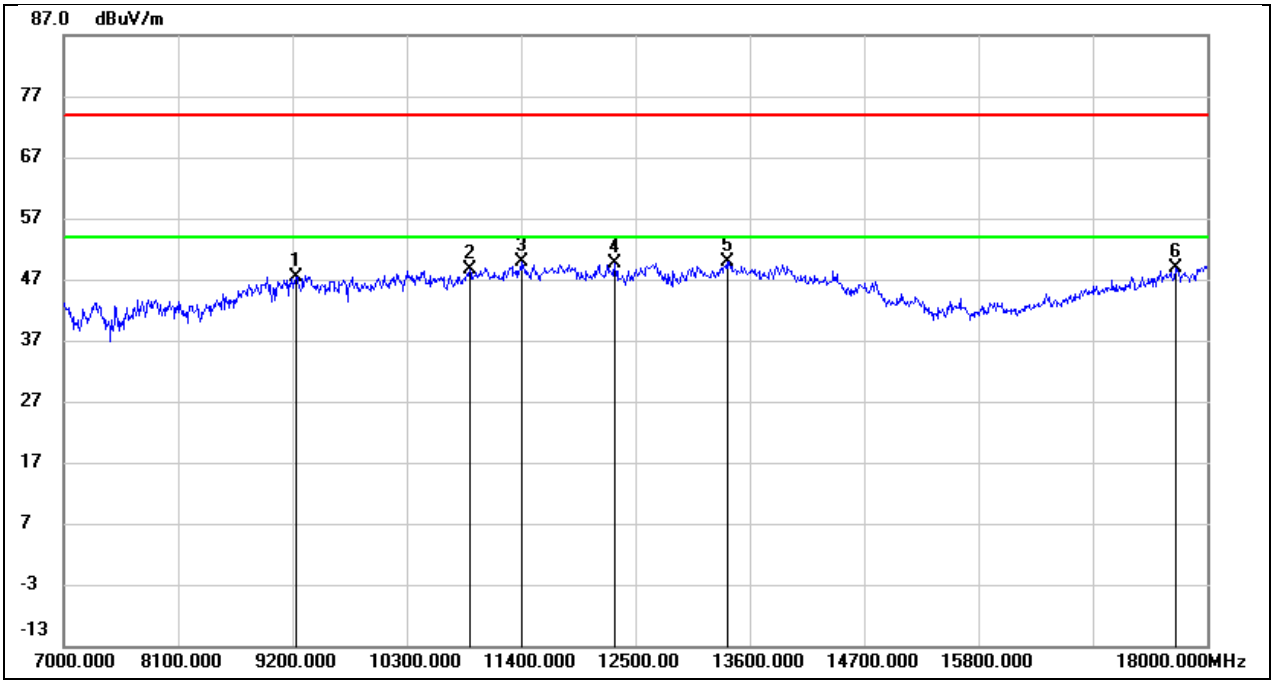
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	9332.000	36.30	10.54	46.84	74.00	-27.16	peak
2	11059.000	34.07	14.96	49.03	74.00	-24.97	peak
3	11785.000	32.06	17.30	49.36	74.00	-24.64	peak
4	12676.000	31.57	18.05	49.62	74.00	-24.38	peak
5	13523.000	28.78	20.70	49.48	74.00	-24.52	peak
6	17989.000	23.92	26.04	49.96	74.00	-24.04	peak

Test Mode:	802.11n HT40	Frequency(MHz):	5230
Polarity:	Vertical	Test Voltage:	AC 120V_60Hz



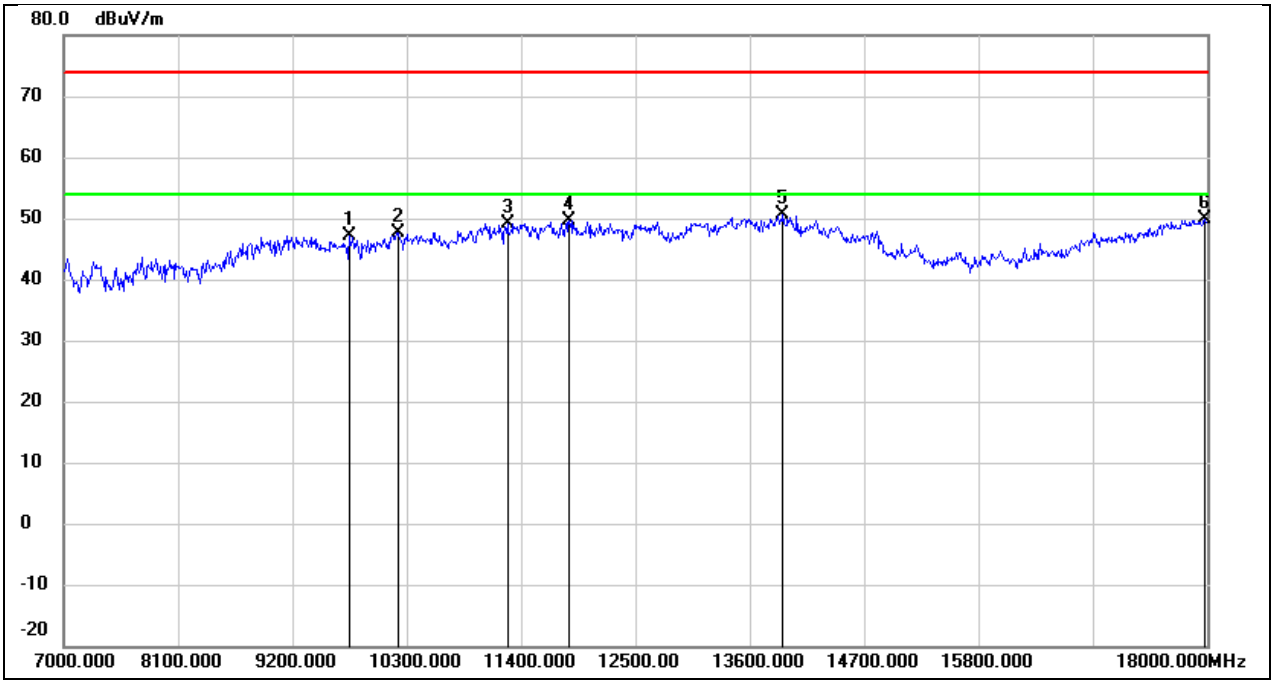
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	9695.000	36.48	11.10	47.58	74.00	-26.42	peak
2	11070.000	34.82	15.01	49.83	74.00	-24.17	peak
3	11796.000	32.69	17.32	50.01	74.00	-23.99	peak
4	12687.000	32.60	18.05	50.65	74.00	-23.35	peak
5	13875.000	28.85	21.57	50.42	74.00	-23.58	peak
6	17989.000	24.70	26.04	50.74	74.00	-23.26	peak

Test Mode:	802.11n HT40	Frequency(MHz):	5755
Polarity:	Horizontal	Test Voltage:	AC 120V_60Hz



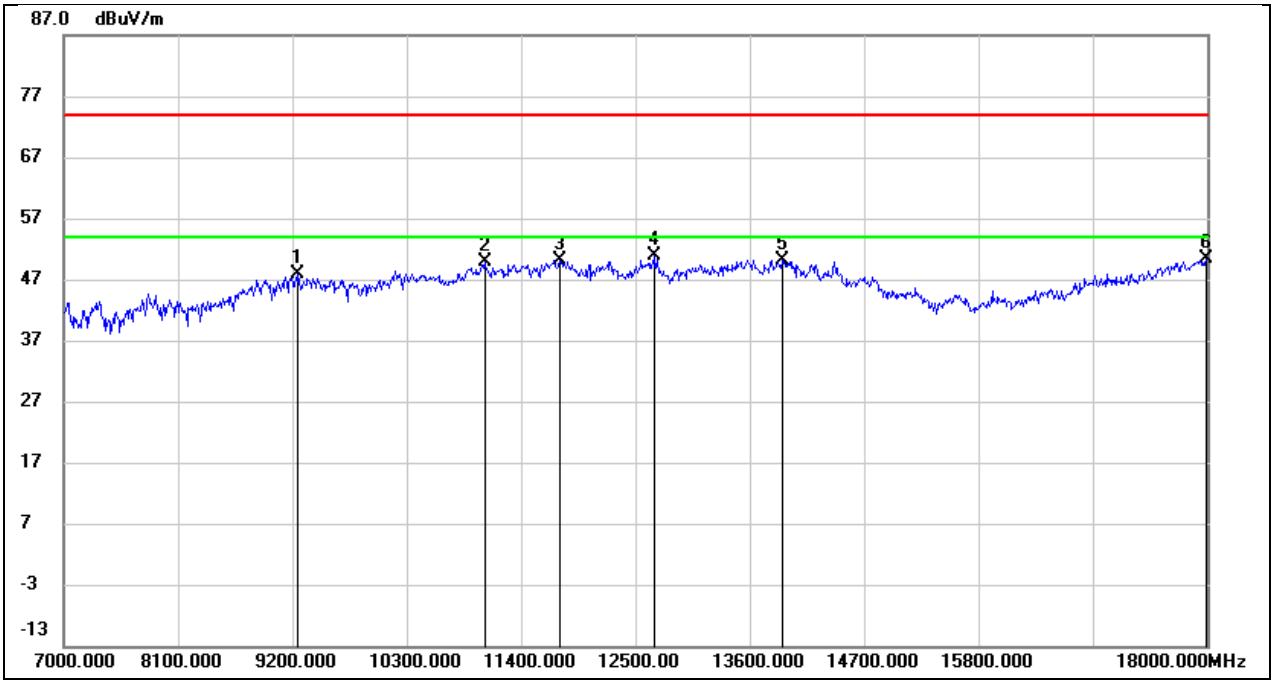
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	9233.000	37.02	10.48	47.50	74.00	-26.50	peak
2	10905.000	34.15	14.36	48.51	74.00	-25.49	peak
3	11411.000	33.37	16.41	49.78	74.00	-24.22	peak
4	12302.000	31.88	17.78	49.66	74.00	-24.34	peak
5	13380.000	29.80	20.12	49.92	74.00	-24.08	peak
6	17692.000	24.94	24.01	48.95	74.00	-25.05	peak

Test Mode:	802.11n HT40	Frequency(MHz):	5755
Polarity:	Vertical	Test Voltage:	AC 120V_60Hz



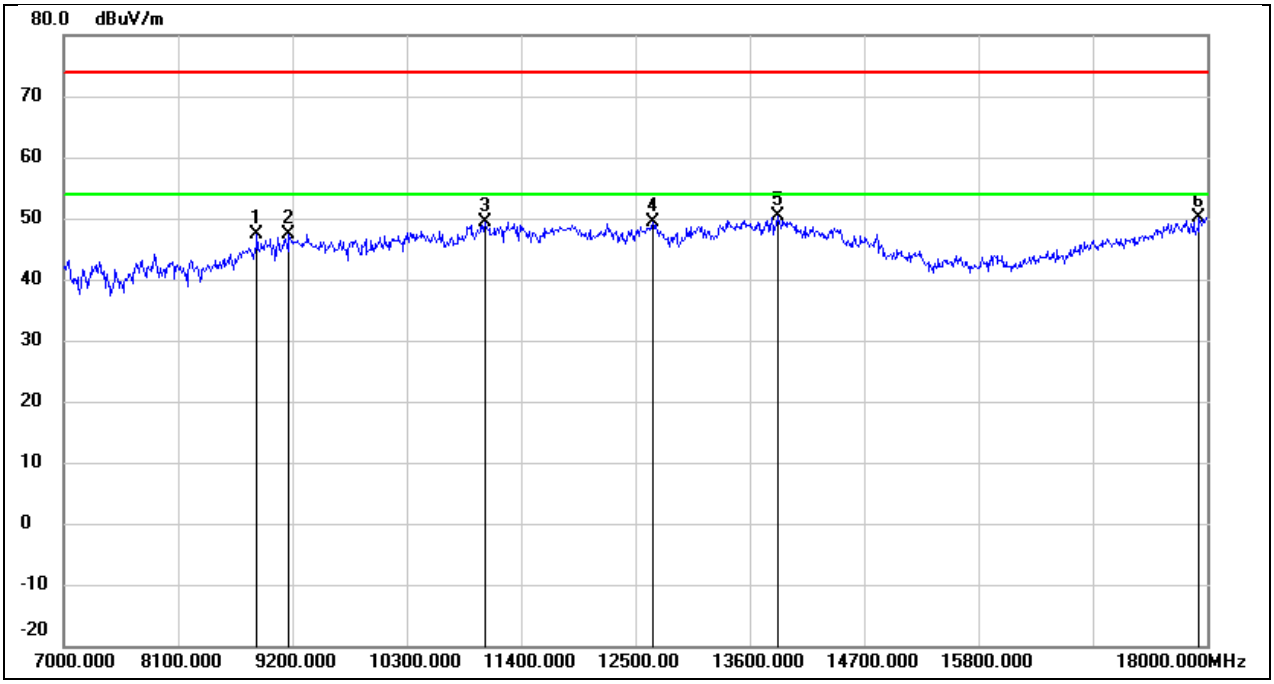
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	9750.000	35.89	11.21	47.10	74.00	-26.90	peak
2	10223.000	35.49	12.24	47.73	74.00	-26.27	peak
3	11268.000	33.41	15.83	49.24	74.00	-24.76	peak
4	11862.000	32.26	17.45	49.71	74.00	-24.29	peak
5	13919.000	28.94	21.68	50.62	74.00	-23.38	peak
6	17978.000	23.86	25.97	49.83	74.00	-24.17	peak

Test Mode:	802.11n HT40	Frequency(MHz):	5795
Polarity:	Horizontal	Test Voltage:	AC 120V_60Hz



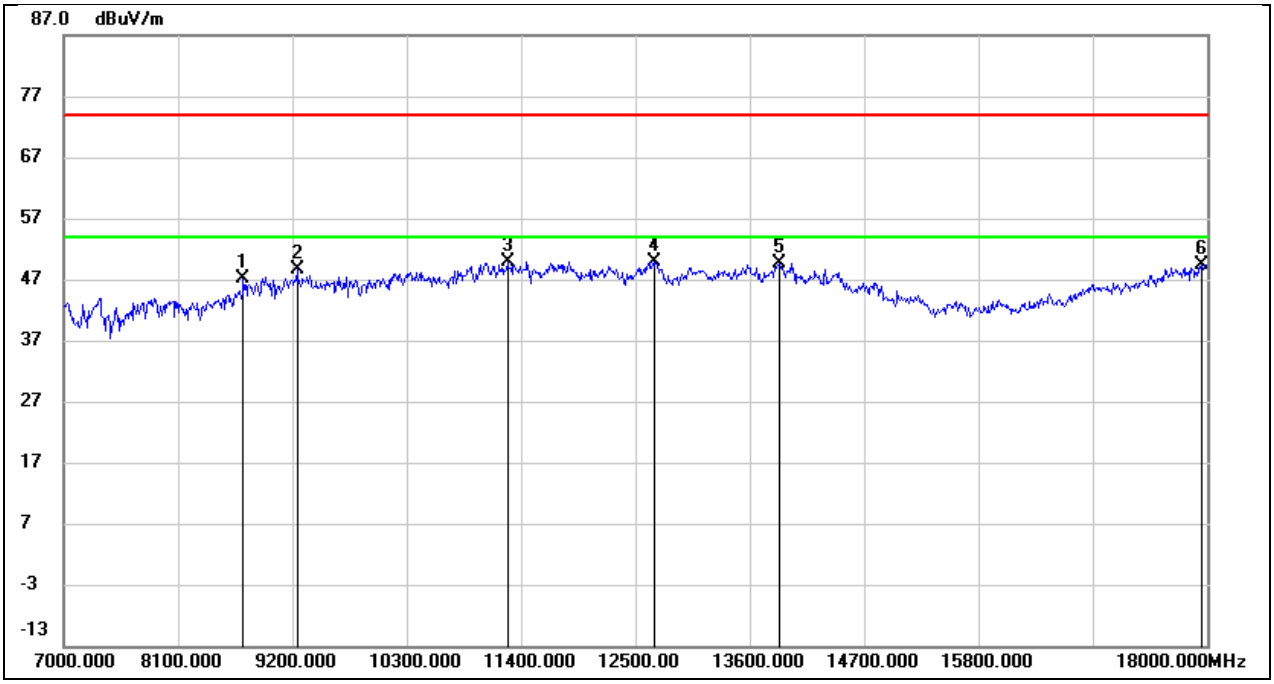
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	9255.000	37.28	10.51	47.79	74.00	-26.21	peak
2	11048.000	34.99	14.91	49.90	74.00	-24.10	peak
3	11774.000	32.89	17.28	50.17	74.00	-23.83	peak
4	12687.000	32.87	18.05	50.92	74.00	-23.08	peak
5	13908.000	28.50	21.66	50.16	74.00	-23.84	peak
6	17989.000	24.33	26.04	50.37	74.00	-23.63	peak

Test Mode:	802.11n HT40	Frequency(MHz):	5795
Polarity:	Vertical	Test Voltage:	AC 120V_60Hz



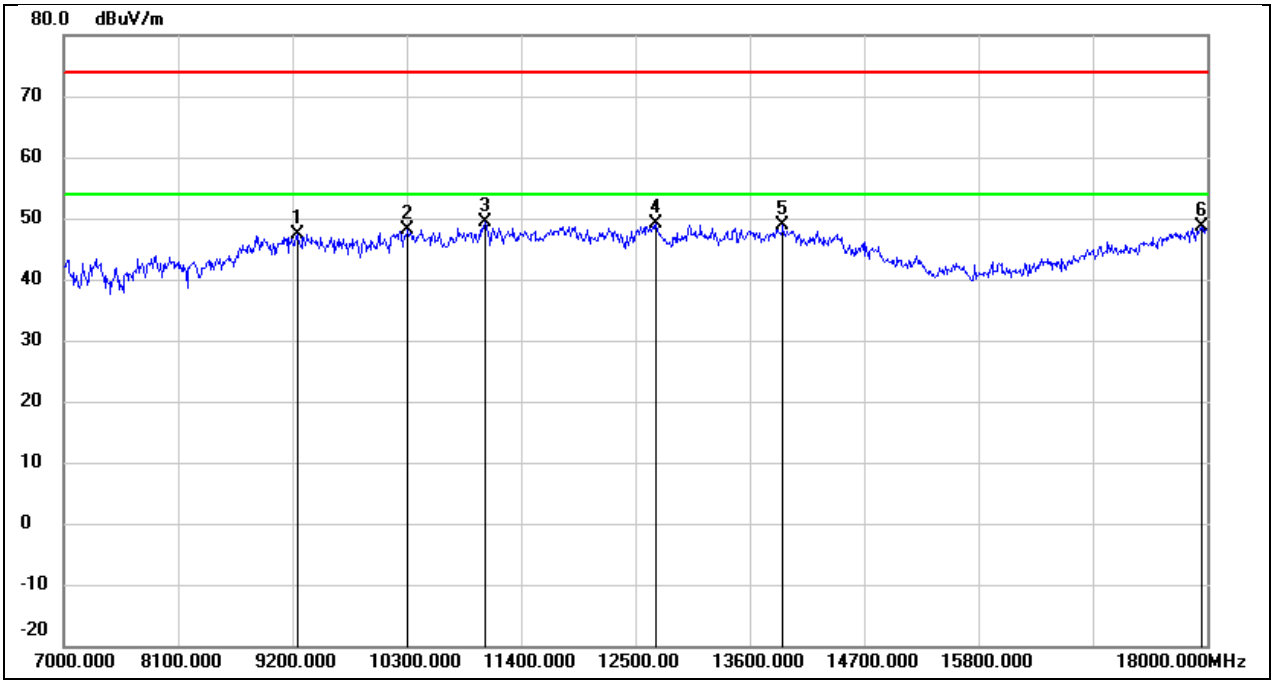
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	8859.000	37.93	9.36	47.29	74.00	-26.71	peak
2	9167.000	36.88	10.45	47.33	74.00	-26.67	peak
3	11048.000	34.37	14.91	49.28	74.00	-24.72	peak
4	12665.000	31.30	18.04	49.34	74.00	-24.66	peak
5	13864.000	28.89	21.53	50.42	74.00	-23.58	peak
6	17923.000	24.62	25.60	50.22	74.00	-23.78	peak

Test Mode:	802.11ac VHT80	Frequency(MHz):	5210
Polarity:	Horizontal	Test Voltage:	AC 120V_60Hz



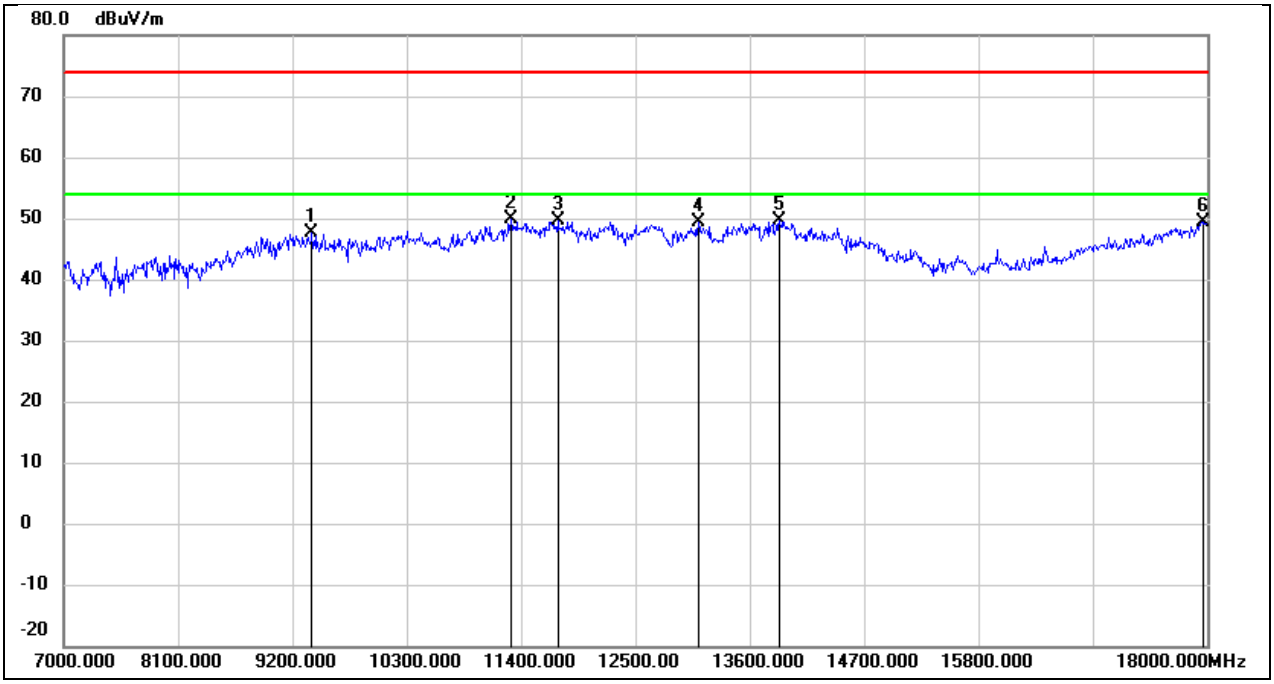
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	8727.000	38.72	8.45	47.17	74.00	-26.83	peak
2	9244.000	38.06	10.49	48.55	74.00	-25.45	peak
3	11268.000	34.04	15.83	49.87	74.00	-24.13	peak
4	12687.000	31.86	18.05	49.91	74.00	-24.09	peak
5	13886.000	28.01	21.60	49.61	74.00	-24.39	peak
6	17945.000	23.69	25.75	49.44	74.00	-24.56	peak

Test Mode:	802.11ac VHT80	Frequency(MHz):	5210
Polarity:	Vertical	Test Voltage:	AC 120V_60Hz



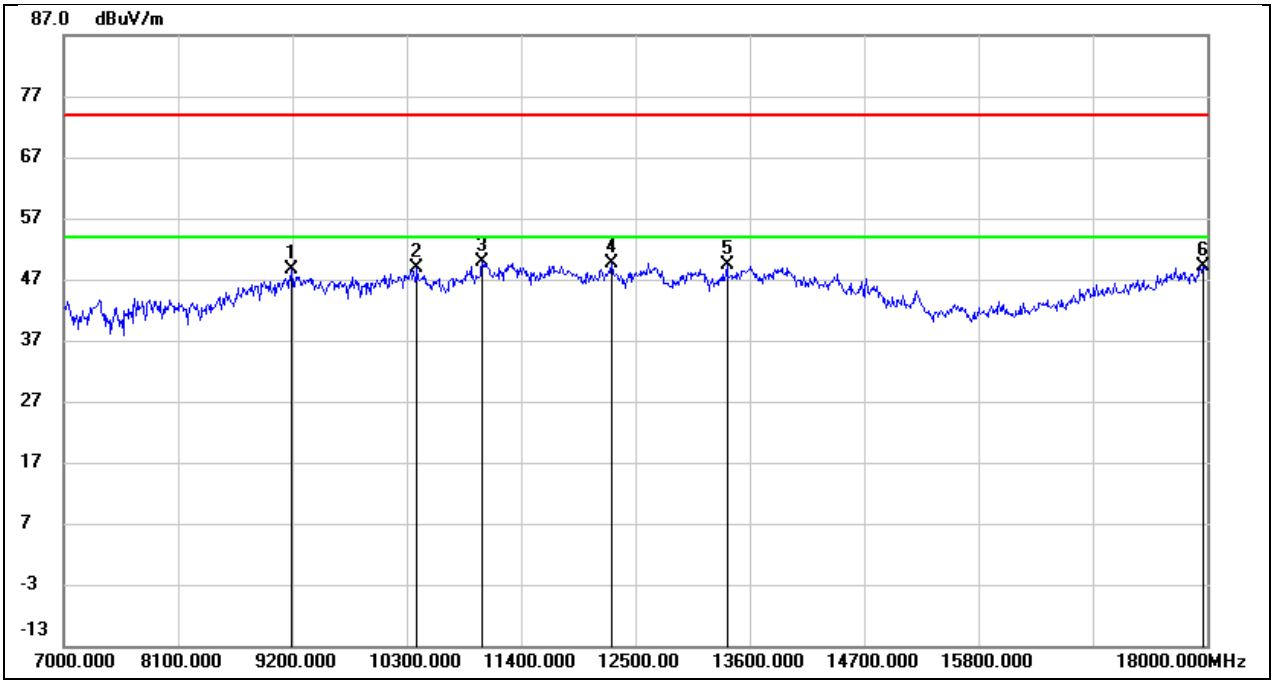
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	9244.000	36.85	10.49	47.34	74.00	-26.66	peak
2	10311.000	35.62	12.42	48.04	74.00	-25.96	peak
3	11048.000	34.53	14.91	49.44	74.00	-24.56	peak
4	12698.000	31.01	18.08	49.09	74.00	-24.91	peak
5	13919.000	27.26	21.68	48.94	74.00	-25.06	peak
6	17945.000	23.00	25.75	48.75	74.00	-25.25	peak

Test Mode:	802.11ac VHT80	Frequency(MHz):	5775
Polarity:	Horizontal	Test Voltage:	AC 120V_60Hz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	9387.000	36.97	10.58	47.55	74.00	-26.45	peak
2	11301.000	33.90	15.95	49.85	74.00	-24.15	peak
3	11752.000	32.39	17.24	49.63	74.00	-24.37	peak
4	13105.000	30.54	18.91	49.45	74.00	-24.55	peak
5	13886.000	27.99	21.60	49.59	74.00	-24.41	peak
6	17956.000	23.65	25.82	49.47	74.00	-24.53	peak

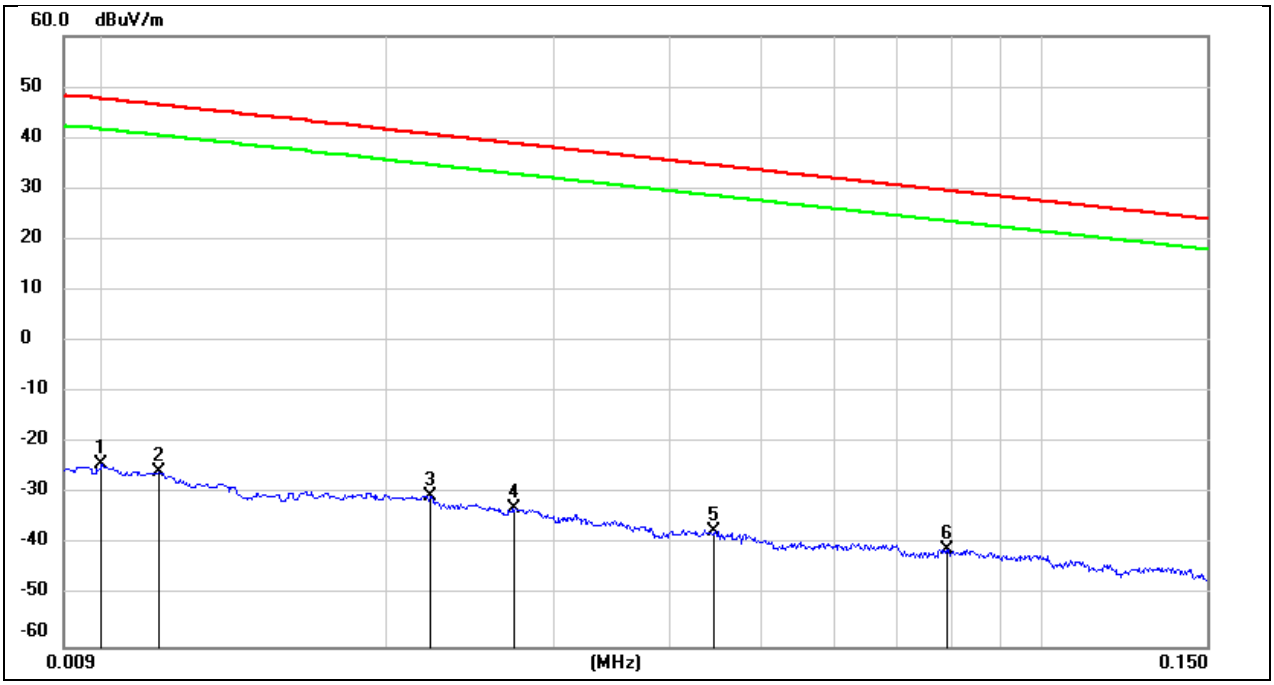
Test Mode:	802.11ac VHT80	Frequency(MHz):	5775
Polarity:	Vertical	Test Voltage:	AC 120V_60Hz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	9189.000	38.14	10.46	48.60	74.00	-25.40	peak
2	10399.000	36.31	12.61	48.92	74.00	-25.08	peak
3	11026.000	34.95	14.82	49.77	74.00	-24.23	peak
4	12269.000	31.80	17.77	49.57	74.00	-24.43	peak
5	13380.000	29.16	20.12	49.28	74.00	-24.72	peak
6	17956.000	23.34	25.82	49.16	74.00	-24.84	peak

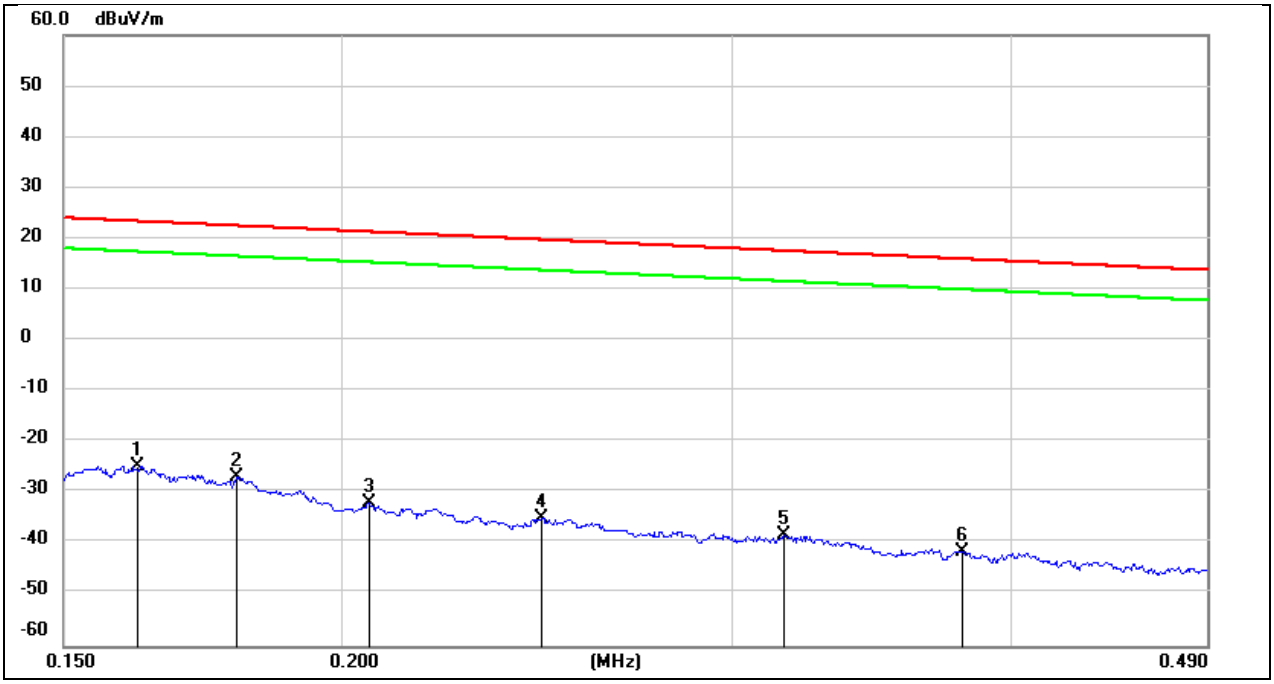
8.4. SPURIOUS EMISSIONS(9 KHZ~30 MHZ)

Test Mode:	802.11a20	Frequency(MHz):	5180
Polarity:	Horizontal	Test Voltage:	AC 120V_60HZ



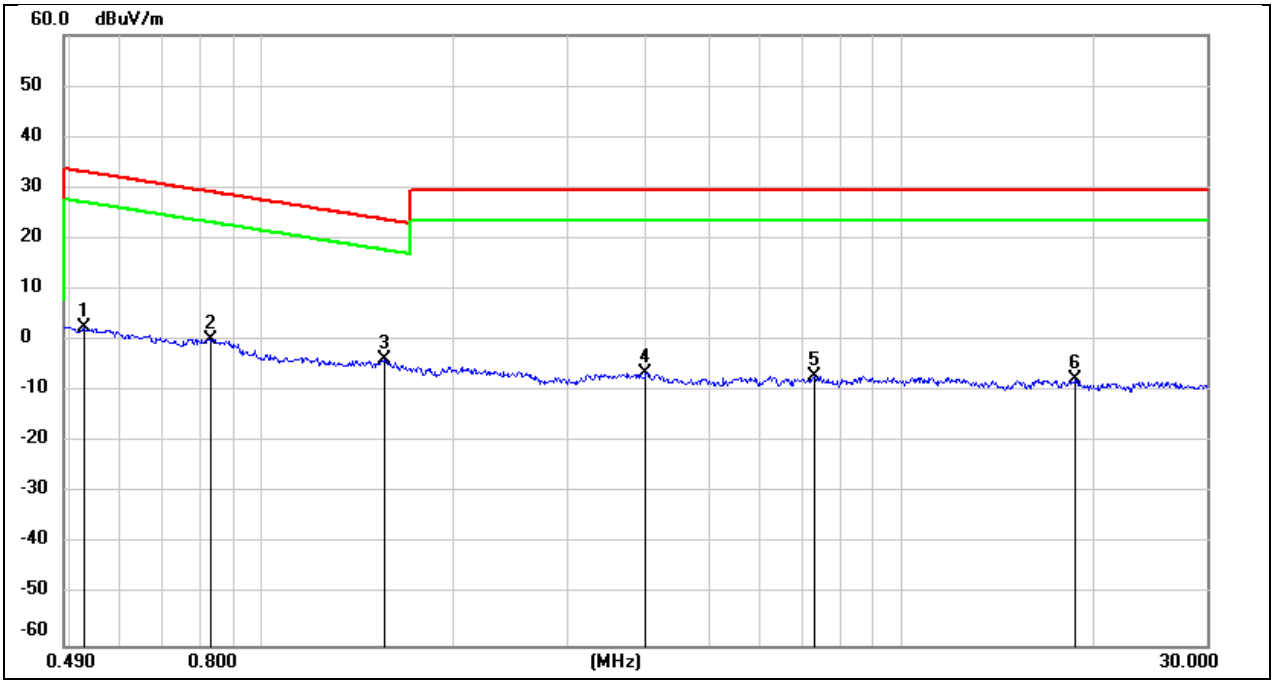
No.	Frequency	Reading	Correct	FCC Result	FCC Limit	ISED Result	ISED Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dBuA/m)	(dBuA/m)	(dB)	
1	0.0100	77.22	-101.40	-24.18	47.60	-75.68	-3.90	-71.78	peak
2	0.0114	75.88	-101.40	-25.52	46.46	-77.02	-5.04	-71.98	peak
3	0.0222	70.86	-101.35	-30.49	40.67	-81.99	-10.83	-71.16	peak
4	0.0273	68.49	-101.38	-32.89	38.88	-84.39	-12.62	-71.77	peak
5	0.0446	64.16	-101.45	-37.29	34.61	-88.79	-16.89	-71.90	peak
6	0.0791	60.71	-101.63	-40.92	29.64	-92.42	-21.86	-70.56	peak

Test Mode:	802.11a20	Frequency(MHz):	5180
Polarity:	Horizontal	Test Voltage:	AC 120V_60HZ



No.	Frequency	Reading	Correct	FCC Result	FCC Limit	ISED Result	ISED Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dBuA/m)	(dBuA/m)	(dB)	
1	0.1621	76.92	-101.65	-24.73	23.41	-76.23	-28.09	-48.14	peak
2	0.1794	74.77	-101.68	-26.91	22.53	-78.41	-28.97	-49.44	peak
3	0.2058	69.76	-101.73	-31.97	21.33	-83.47	-30.17	-53.30	peak
4	0.2462	66.86	-101.80	-34.94	19.78	-86.44	-31.72	-54.72	peak
5	0.3163	63.70	-101.87	-38.17	17.60	-89.67	-33.90	-55.77	peak
6	0.3805	60.49	-101.94	-41.45	15.99	-92.95	-35.51	-57.44	peak

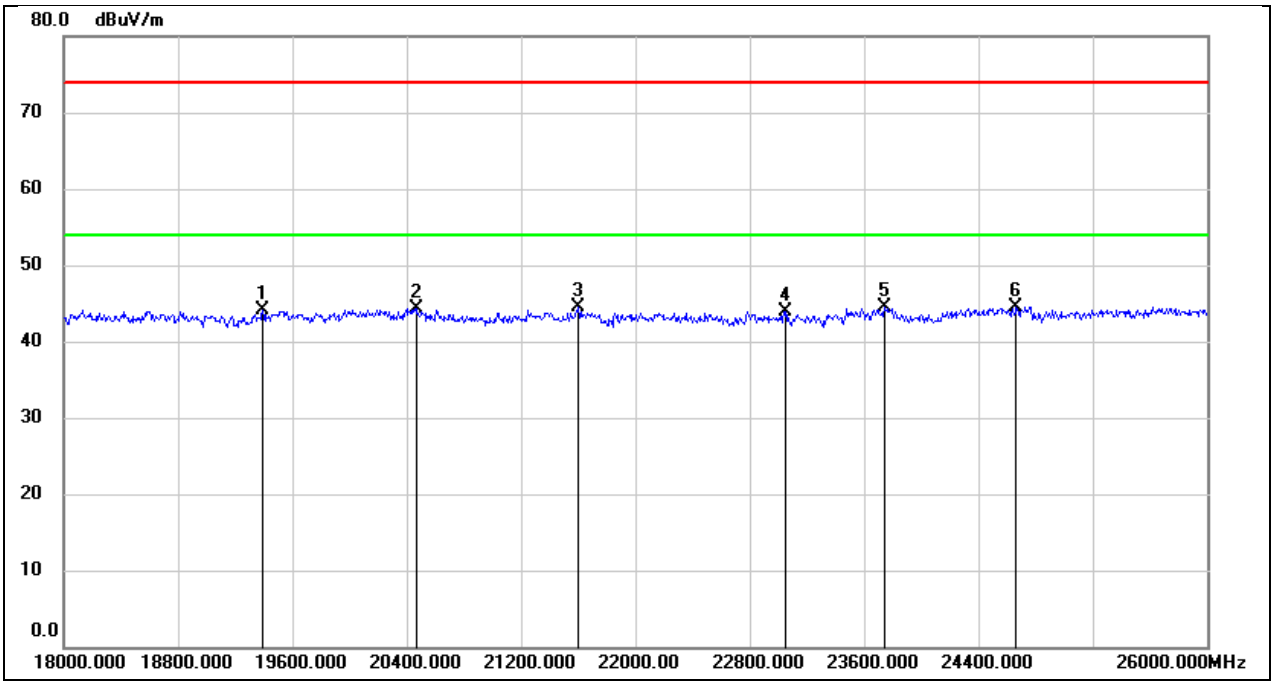
Test Mode:	802.11a20	Frequency(MHz):	5180
Polarity:	Horizontal	Test Voltage:	AC 120V_60HZ



No.	Frequency	Reading	Correct	FCC Result	FCC Limit	ISED Result	ISED Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dBuA/m)	(dBuA/m)	(dB)	
1	0.5272	64.54	-62.07	2.47	33.16	-49.03	-18.34	-30.69	peak
2	0.8296	62.44	-62.17	0.27	29.23	-51.23	-22.27	-28.96	peak
3	1.5564	58.18	-62.02	-3.84	23.76	-55.34	-27.74	-27.60	peak
4	3.9786	54.94	-61.34	-6.40	29.54	-57.90	-21.96	-35.94	peak
5	7.3361	54.08	-61.17	-7.09	29.54	-58.59	-21.96	-36.63	peak
6	18.7271	53.29	-60.88	-7.59	29.54	-59.09	-21.96	-37.13	peak

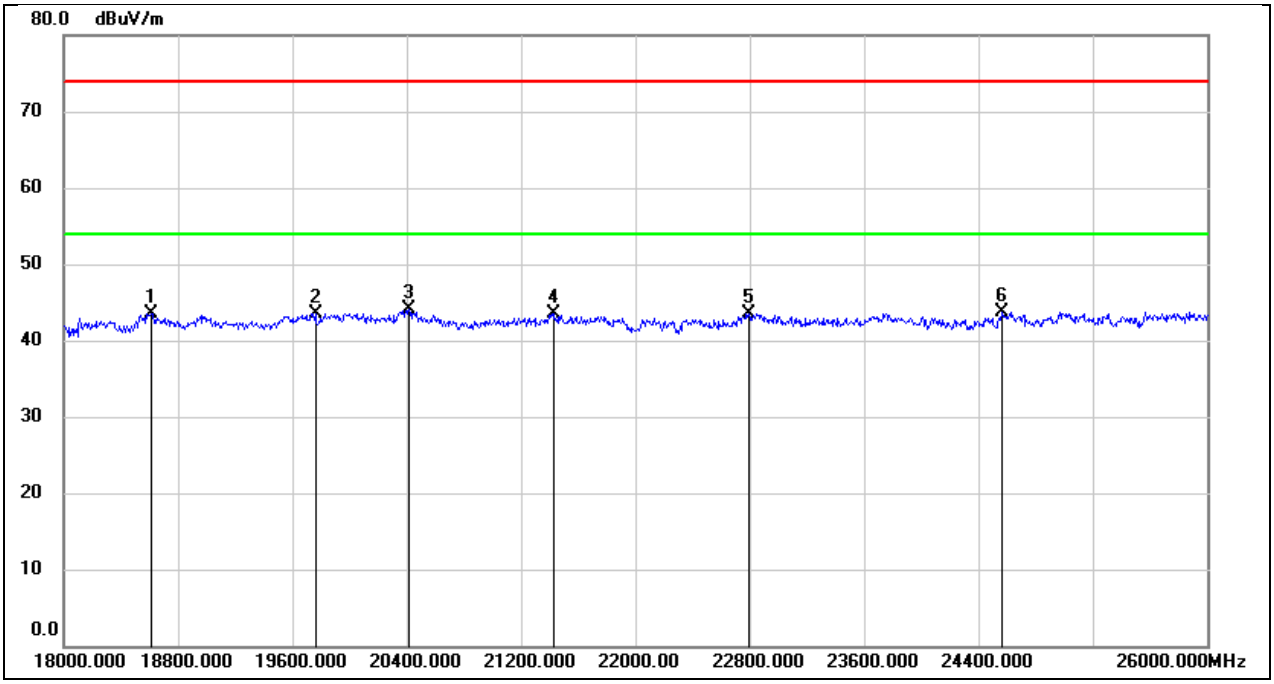
8.5. SPURIOUS EMISSIONS(18 GHZ~26 GHZ)

Test Mode:	802.11a 20	Frequency(MHz):	5180
Polarity:	Horizontal	Test Voltage:	AC 120V_60HZ



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	19392.000	49.62	-5.57	44.05	74.00	-29.95	peak
2	20472.000	49.69	-5.39	44.30	74.00	-29.70	peak
3	21600.000	49.02	-4.54	44.48	74.00	-29.52	peak
4	23048.000	47.43	-3.43	44.00	74.00	-30.00	peak
5	23744.000	47.65	-3.20	44.45	74.00	-29.55	peak
6	24664.000	46.90	-2.33	44.57	74.00	-29.43	peak

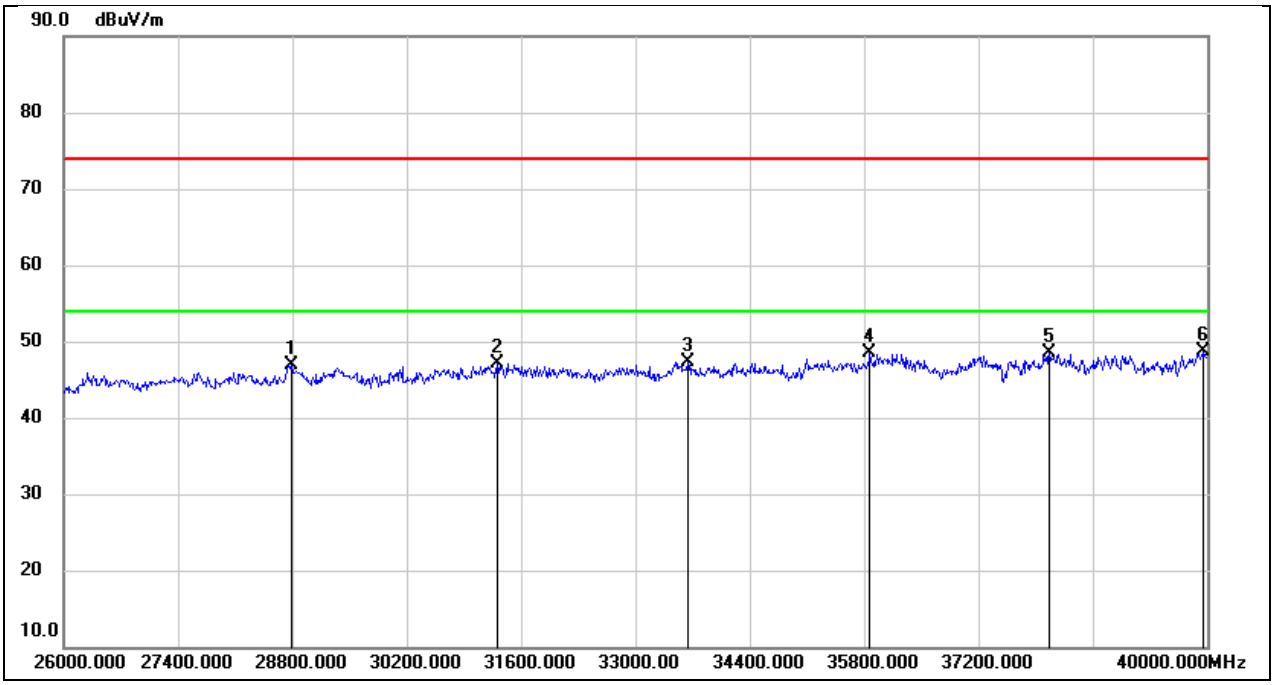
Test Mode:	802.11a 20	Frequency(MHz):	5180
Polarity:	Vertical	Test Voltage:	AC 120V_60HZ



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	18616.000	48.89	-5.34	43.55	74.00	-30.45	peak
2	19760.000	48.85	-5.26	43.59	74.00	-30.41	peak
3	20416.000	49.63	-5.45	44.18	74.00	-29.82	peak
4	21432.000	48.24	-4.71	43.53	74.00	-30.47	peak
5	22792.000	47.11	-3.65	43.46	74.00	-30.54	peak
6	24568.000	46.10	-2.33	43.77	74.00	-30.23	peak

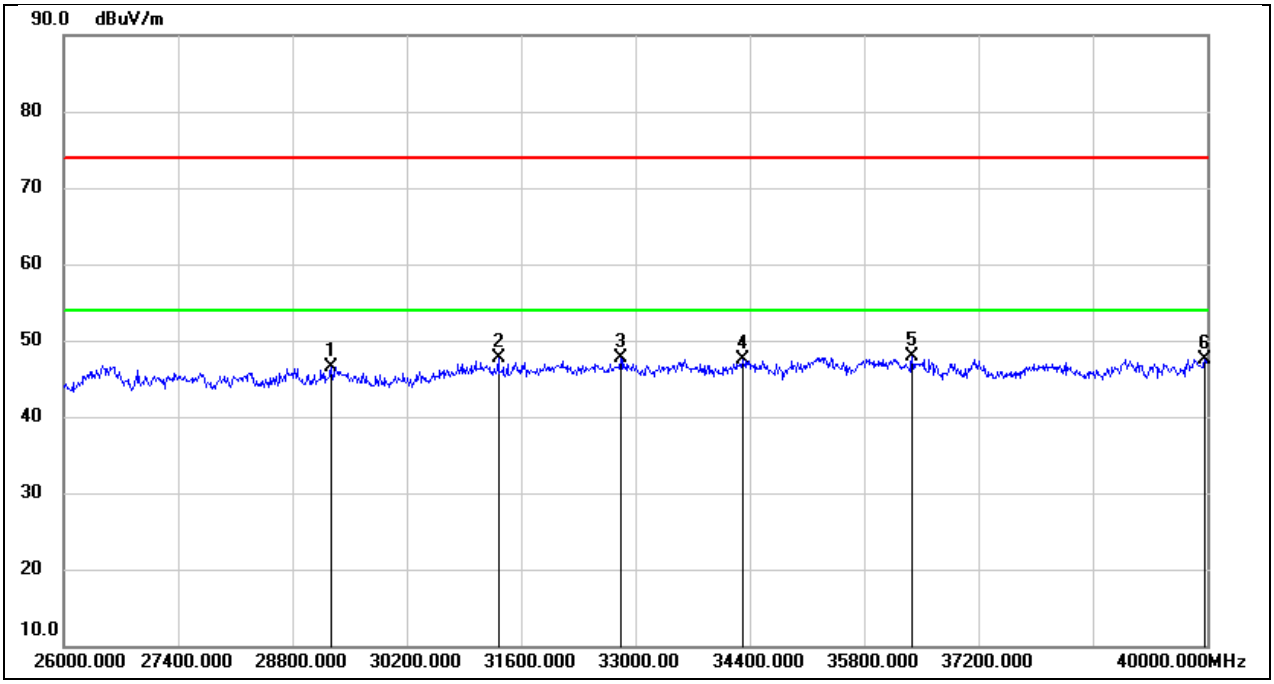
8.6. SPURIOUS EMISSIONS(26 GHZ~40 GHZ)

Test Mode:	802.11a 20	Frequency(MHz):	5180
Polarity:	Horizontal	Test Voltage:	AC 120V_60HZ



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	28786.000	47.49	-0.64	46.85	74.00	-27.15	peak
2	31306.000	48.09	-0.90	47.19	74.00	-26.81	peak
3	33644.000	46.81	0.42	47.23	74.00	-26.77	peak
4	35870.000	44.83	3.75	48.58	74.00	-25.42	peak
5	38068.000	45.06	3.42	48.48	74.00	-25.52	peak
6	39958.000	43.58	5.12	48.70	74.00	-25.30	peak

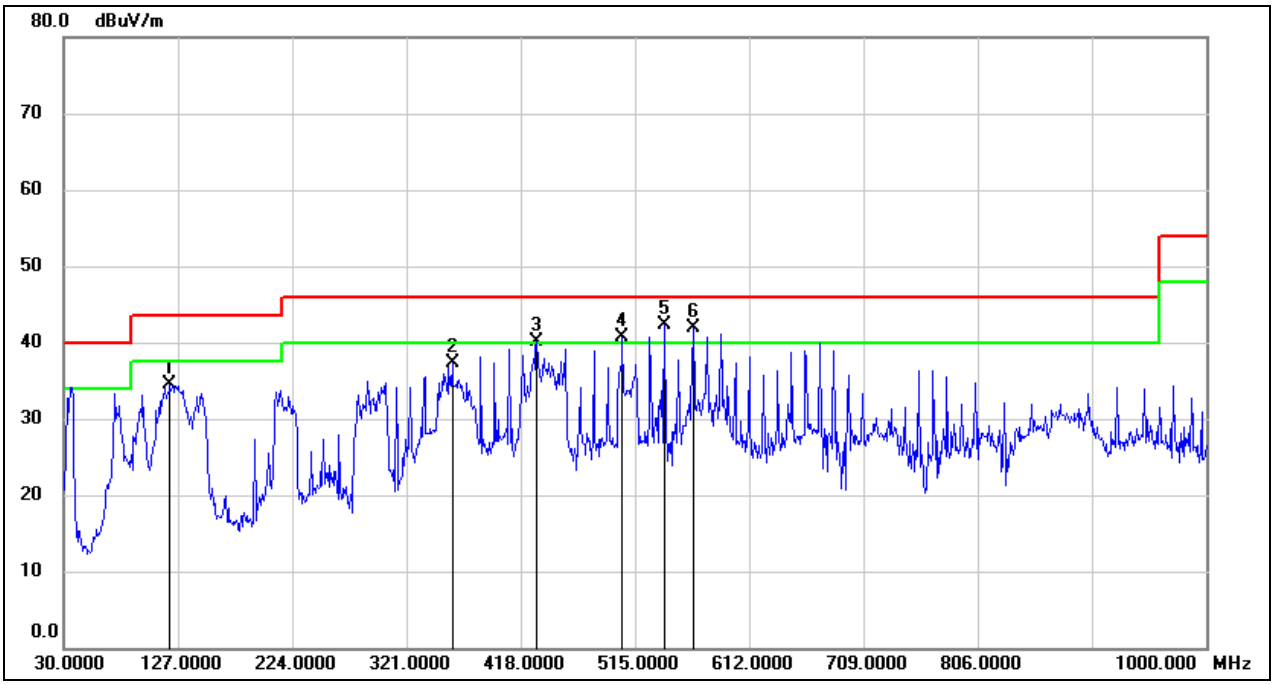
Test Mode:	802.11a 20	Frequency(MHz):	5180
Polarity:	Vertical	Test Voltage:	AC 120V_60HZ



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	29276.000	47.51	-1.01	46.50	74.00	-27.50	peak
2	31320.000	48.61	-0.93	47.68	74.00	-26.32	peak
3	32818.000	48.81	-1.08	47.73	74.00	-26.27	peak
4	34316.000	46.36	1.09	47.45	74.00	-26.55	peak
5	36388.000	44.32	3.52	47.84	74.00	-26.16	peak
6	39972.000	42.45	5.13	47.58	74.00	-26.42	peak

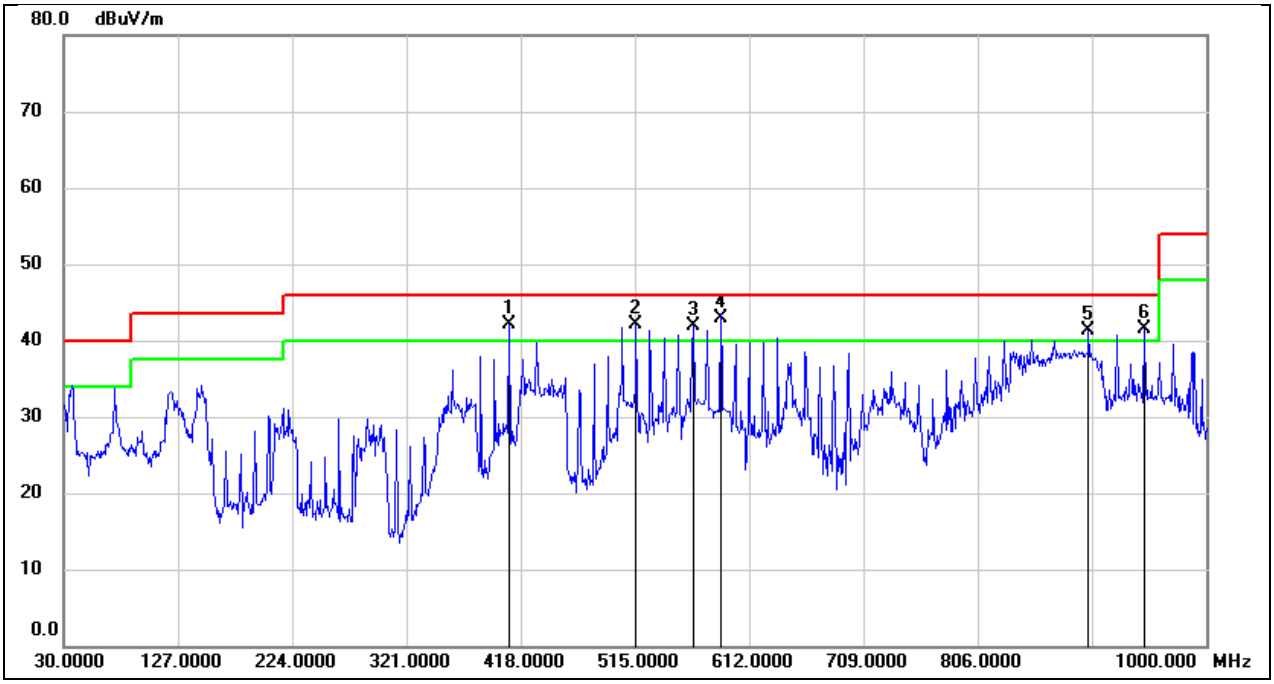
8.7. SPURIOUS EMISSIONS(30 MHZ~1 GHZ)

Test Mode:	802.11a	Frequency(MHz):	5180
Polarity:	Horizontal	Test Voltage:	AC120V_60Hz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	120.2100	53.83	-19.36	34.47	43.50	-9.03	QP
2	359.8000	49.64	-12.43	37.21	46.00	-8.79	QP
3	431.5800	51.98	-11.82	40.16	46.00	-5.84	QP
4	504.3300	50.94	-10.32	40.62	46.00	-5.38	QP
5	540.2199	52.54	-10.33	42.21	46.00	-3.79	QP
6	564.4699	51.80	-9.89	41.91	46.00	-4.09	QP

Test Mode:	802.11a	Frequency(MHz):	5180
Polarity:	Vertical	Test Voltage:	AC120V_60Hz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	408.3000	54.41	-12.26	42.15	46.00	-3.85	QP
2	515.9699	52.44	-10.33	42.11	46.00	-3.89	QP
3	564.4699	51.77	-9.89	41.88	46.00	-4.12	QP
4	587.7500	52.21	-9.26	42.95	46.00	-3.05	QP
5	900.0900	45.85	-4.47	41.38	46.00	-4.62	QP
6	947.6200	46.13	-4.60	41.53	46.00	-4.47	QP

9. AC POWER LINE CONDUCTED EMISSION

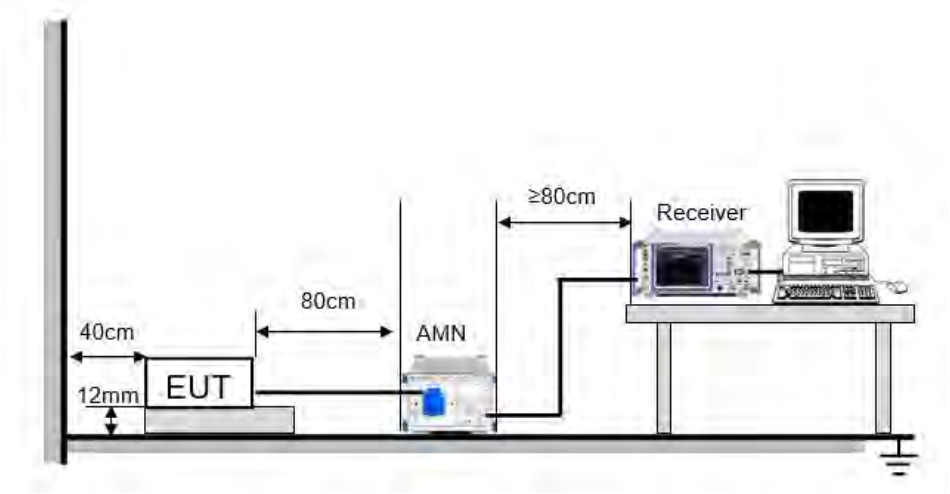
LIMITS

Please refer to CFR 47 FCC §15.207 (a) and ISED RSS-Gen Clause 8.8

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

TEST SETUP AND PROCEDURE

Refer to ANSI C63.10-2013 clause 6.2.



The EUT is put on a table of non-conducting material that is 12 mm high. The vertical conducting wall of shielding is located 40 cm to the rear of the EUT. The power line of the EUT is connected to the AC mains through a Artificial Mains Network (A.M.N.). A EMI Measurement Receiver (R&S Test Receiver ESR3) is used to test the emissions from both sides of AC line. According to the requirements in Section 6.2 of ANSI C63.10-2013.Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30 MHz using CISPR Quasi-Peak and average detector mode. The bandwidth of EMI test receiver is set at 9 kHz.

The arrangement of the equipment is installed to meet the standards and operating in a manner, which tends to maximize its emission characteristics in a normal application.

TEST ENVIRONMENT

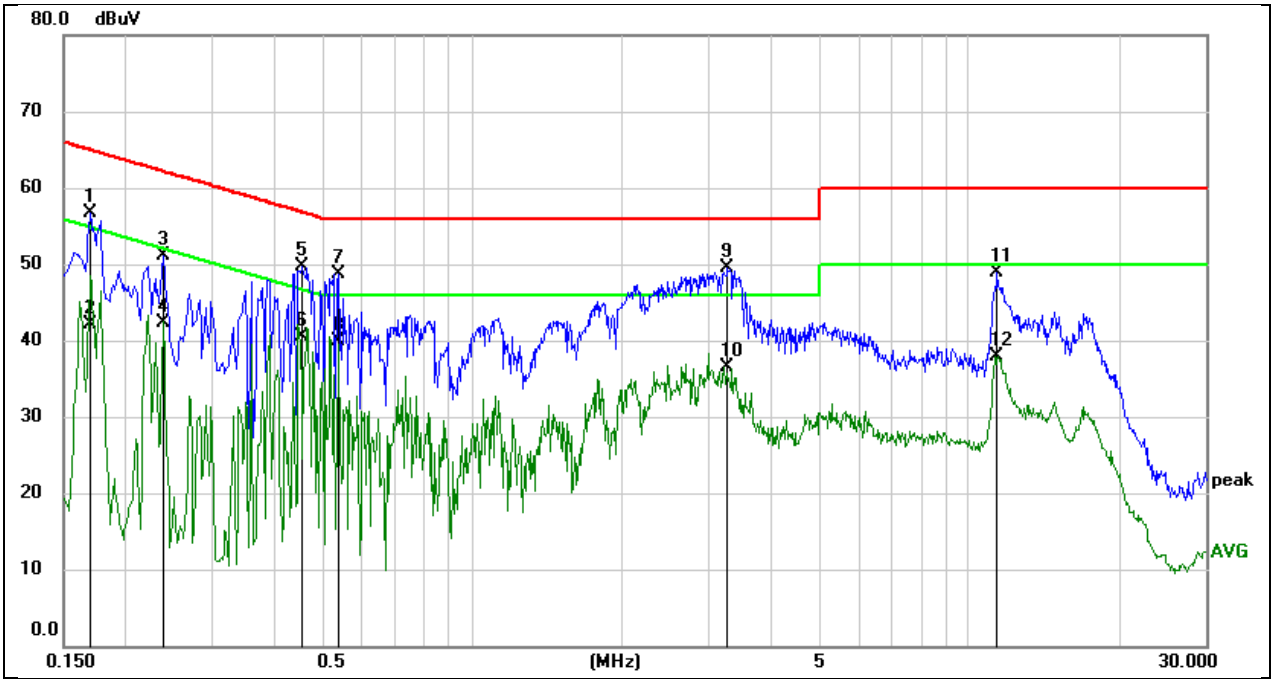
Temperature	23.3℃	Relative Humidity	55%
Atmosphere Pressure	101kPa	Test Voltage	AC 120 V, 60 Hz

TEST DATE / ENGINEER

Test Date	March 9, 2024	Test By	Fanny Huang

TEST RESULTS

Test Mode:	802.11a	Frequency(MHz):	5180
Line:	Line		

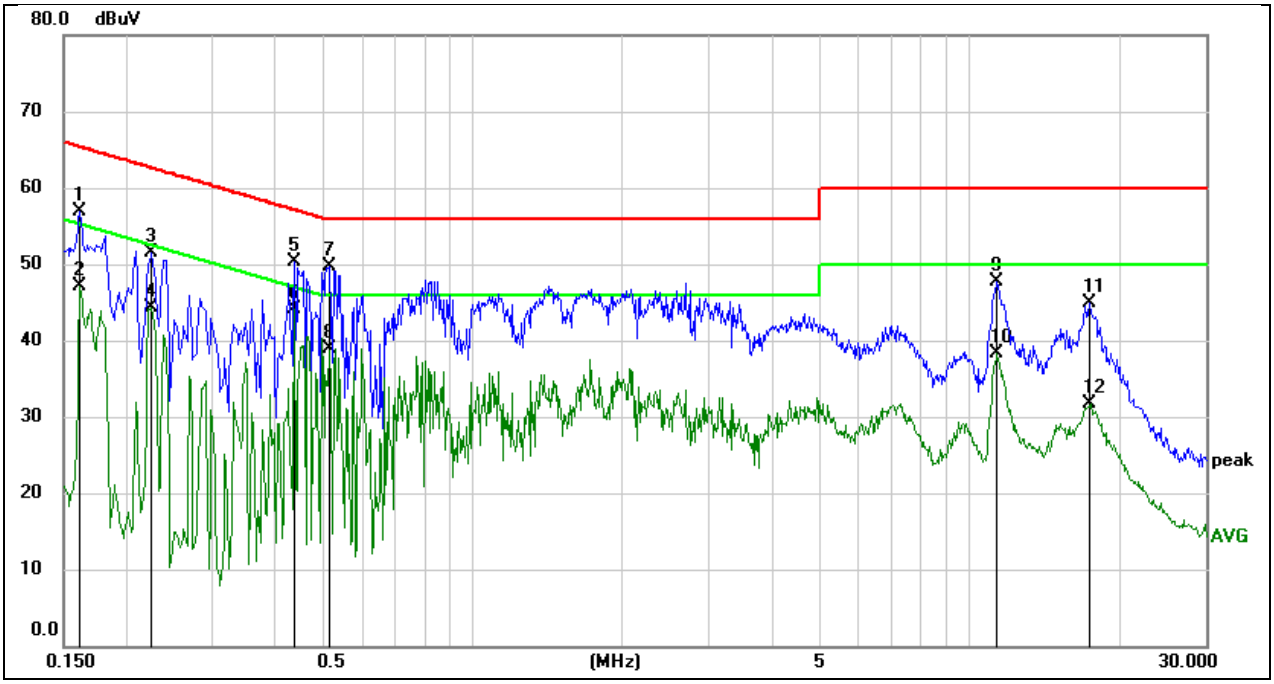


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1700	47.07	9.59	56.66	64.96	-8.30	QP
2	0.1700	32.54	9.59	42.13	54.96	-12.83	AVG
3	0.2379	41.53	9.59	51.12	62.17	-11.05	QP
4	0.2379	32.81	9.59	42.40	52.17	-9.77	AVG
5	0.4540	40.08	9.60	49.68	56.80	-7.12	QP
6	0.4540	30.99	9.60	40.59	46.80	-6.21	AVG
7	0.5380	39.07	9.60	48.67	56.00	-7.33	QP
8	0.5380	30.22	9.60	39.82	46.00	-6.18	AVG
9	3.2740	39.79	9.67	49.46	56.00	-6.54	QP
10	3.2740	26.81	9.67	36.48	46.00	-9.52	AVG
11	11.3858	39.07	9.74	48.81	60.00	-11.19	QP
12	11.3858	28.18	9.74	37.92	50.00	-12.08	AVG

Note:
1. Result = Reading + Correct Factor.
2. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 200 Hz (9 kHz ~ 150 kHz), 9 kHz (150 kHz ~ 30 MHz).
4. Step size: 80 Hz (0.009 MHz ~ 0.15 MHz), 4 kHz (0.15 MHz ~ 30 MHz), Scan time: auto.

Note: All the modes have been tested, only the worst data was recorded in the report.

Test Mode:	802.11a	Frequency(MHz):	5180
Line:	Neutral		



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1620	47.42	9.51	56.93	65.36	-8.43	QP
2	0.1620	37.51	9.51	47.02	55.36	-8.34	AVG
3	0.2260	41.94	9.58	51.52	62.60	-11.08	QP
4	0.2260	34.72	9.58	44.30	52.60	-8.30	AVG
5	0.4380	40.76	9.52	50.28	57.10	-6.82	QP
6	0.4380	34.60	9.52	44.12	47.10	-2.98	AVG
7	0.5180	40.23	9.50	49.73	56.00	-6.27	QP
8	0.5180	29.40	9.50	38.90	46.00	-7.10	AVG
9	11.3939	38.06	9.64	47.70	60.00	-12.30	QP
10	11.3939	28.59	9.64	38.23	50.00	-11.77	AVG
11	17.4900	35.20	9.69	44.89	60.00	-15.11	QP
12	17.4900	22.01	9.69	31.70	50.00	-18.30	AVG

Note:
1. Result = Reading + Correct Factor.
2. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 200 Hz (9 kHz ~ 150 kHz), 9 kHz (150 kHz ~ 30 MHz).
4. Step size: 80 Hz (0.009 MHz ~ 0.15 MHz), 4 kHz (0.15 MHz ~ 30 MHz), Scan time: auto.

Note: All the modes have been tested, only the worst data was recorded in the report.

10. ANTENNA REQUIREMENT

REQUIREMENT

Please refer to FCC part 15.203
An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

Please refer to FCC part 15.407(a)
For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

DESCRIPTION

Pass

11. TEST DATA

11.1. APPENDIX A: EMISSION BANDWIDTH

11.1.1. Test Result

Test Mode	Antenna	Frequency[MHz]	26db EBW [MHz]	FL[MHz]	FH[MHz]	Verdict
11A	Ant1	5180	21.160	5169.240	5190.400	PASS
		5200	21.000	5189.600	5210.600	PASS
		5240	21.040	5229.440	5250.480	PASS
		5745	21.000	5734.680	5755.680	PASS
		5785	20.600	5774.760	5795.360	PASS
		5825	20.960	5814.360	5835.320	PASS
11N40SISO	Ant1	5190	39.360	5170.480	5209.840	PASS
		5230	39.280	5210.400	5249.680	PASS
		5755	39.440	5735.480	5774.920	PASS
		5795	39.680	5775.240	5814.920	PASS
11AC80SISO	Ant1	5210	80.480	5170.000	5250.480	PASS
		5775	80.320	5735.160	5815.480	PASS

11.1.2. Test Graphs

11A_Ant1_5180

11A_Ant1_5200

11A_Ant1_5240

11A_Ant1_5745

11A_Ant1_5785

11A_Ant1_5825

11N40SISO_Ant1_5190

11N40SISO_Ant1_5230

11N40SISO_Ant1_5755

11N40SISO_Ant1_5795

11AC80SISO_Ant1_5210

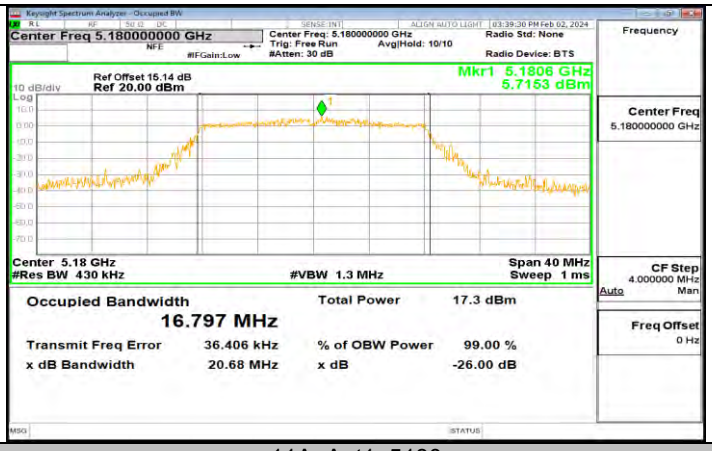
11AC80SISO_Ant1_5775

11.2. APPENDIX B: OCCUPIED CHANNEL BANDWIDTH

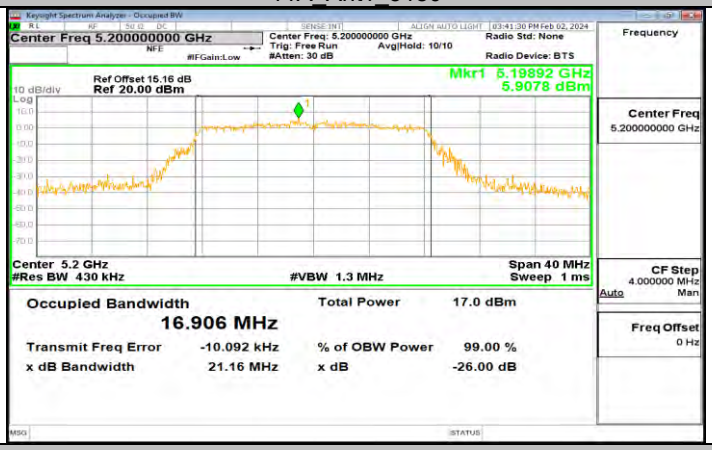
11.2.1. Test Result

Test Mode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Verdict
11A	Ant1	5180	16.797	5171.6379	5188.4349	PASS
		5200	16.906	5191.5369	5208.4429	PASS
		5240	16.999	5231.4800	5248.4790	PASS
		5745	16.895	5736.4822	5753.3772	PASS
		5785	16.814	5776.6541	5793.4681	PASS
		5825	16.879	5816.5185	5833.3975	PASS
11N40SISO	Ant1	5190	36.254	5171.9622	5208.2162	PASS
		5230	36.233	5212.0065	5248.2395	PASS
		5755	36.309	5736.9133	5773.2223	PASS
		5795	36.248	5776.9957	5813.2437	PASS
11AC80SISO	Ant1	5210	75.466	5172.4298	5247.8958	PASS
		5775	75.705	5737.4060	5813.1110	PASS

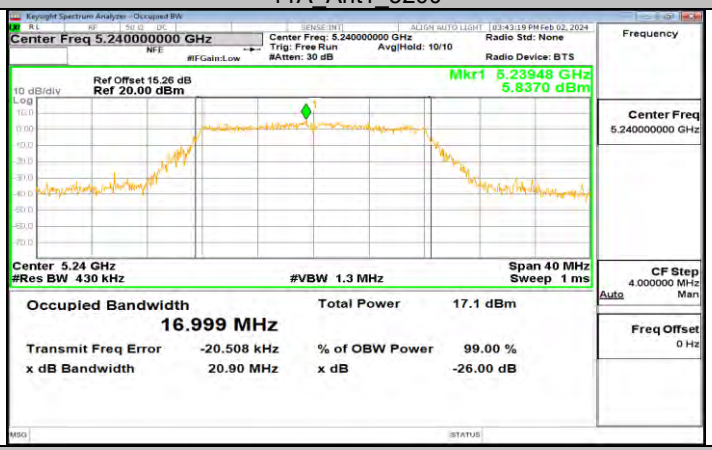
11.2.2. Test Graphs



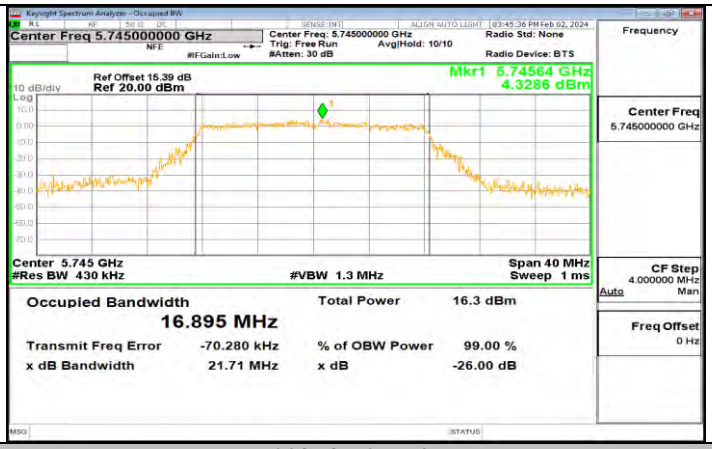
11A_Ant1_5180



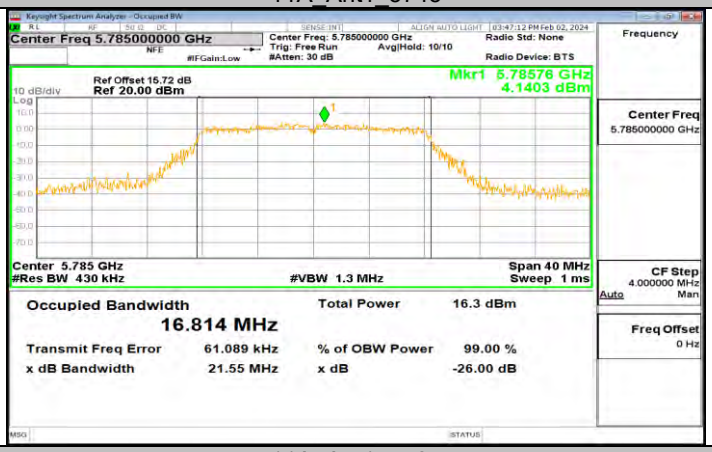
11A_Ant1_5200



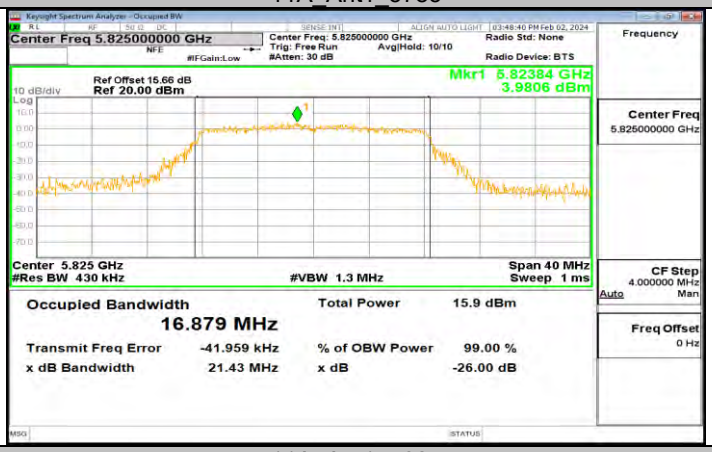
11A_Ant1_5240



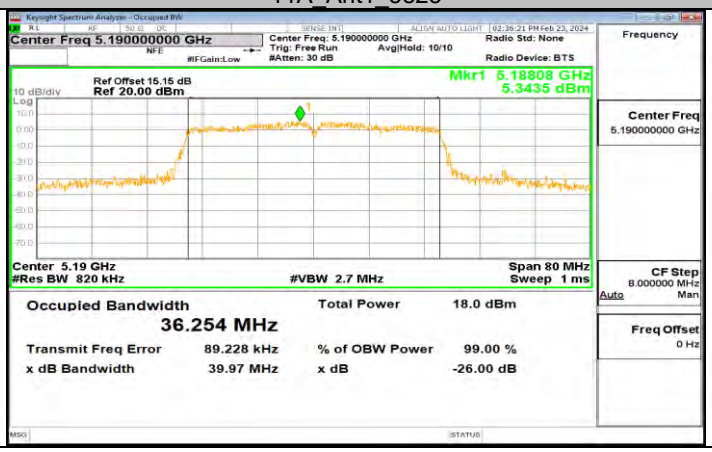
11A_Ant1_5745

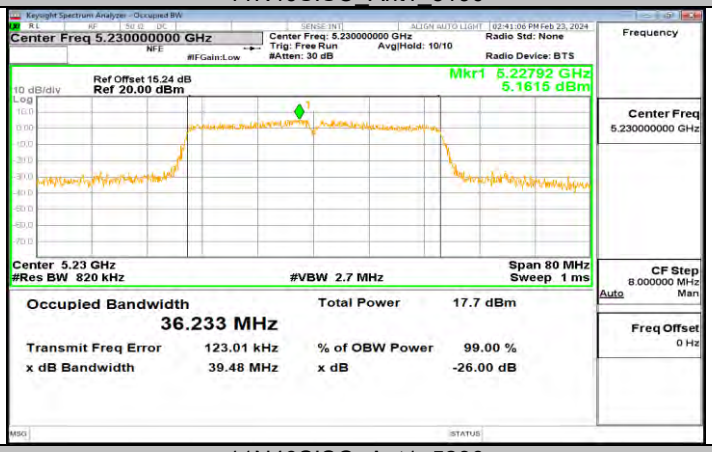
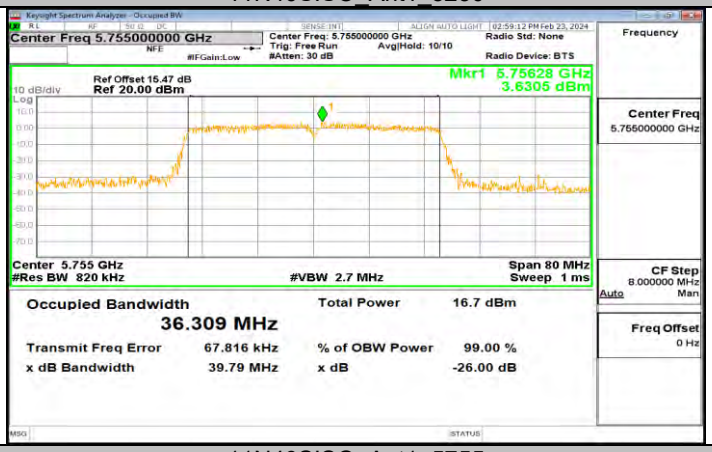
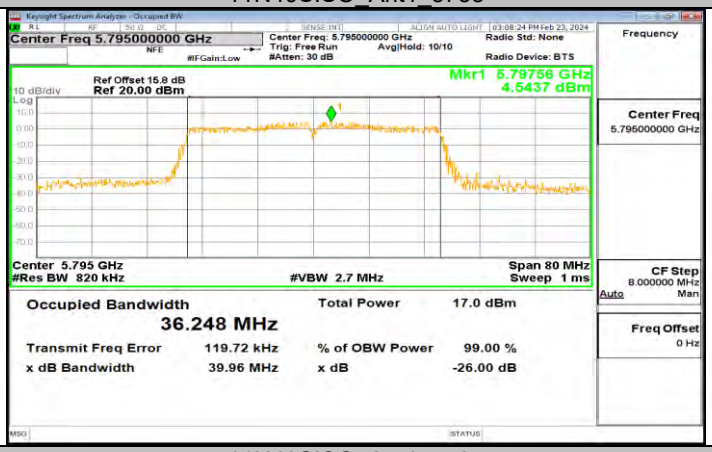


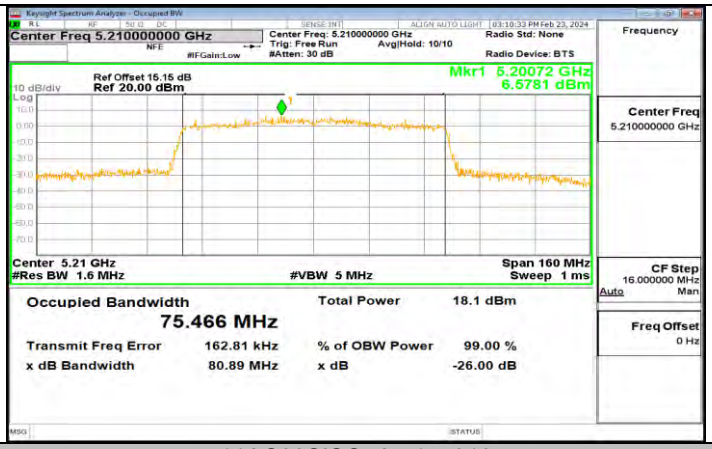
11A_Ant1_5785



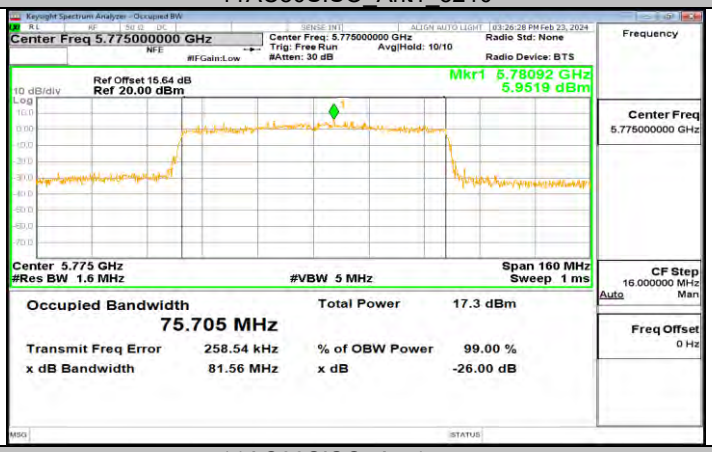
11A_Ant1_5825



11N40SISO_Ant1_5190

11N40SISO_Ant1_5230

11N40SISO_Ant1_5755

11N40SISO_Ant1_5795



11AC80SISO_Ant1_5210



11AC80SISO_Ant1_5775

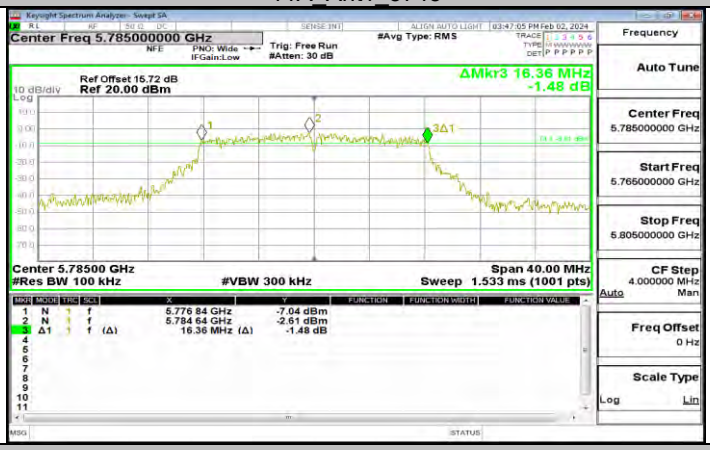
11.3. APPENDIX C: MIN EMISSION BANDWIDTH

11.3.1. Test Result

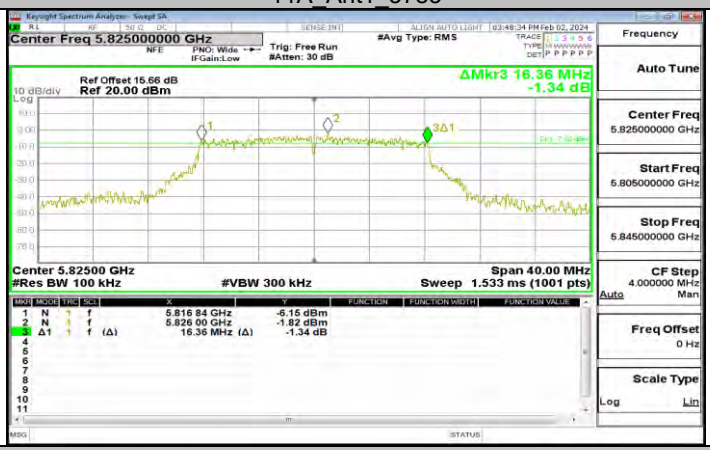
Test Mode	Antenna	Frequency[MHz]	6db EBW [MHz]	FL[MHz]	FH[MHz]	Limit [MHz]	Verdict
11A	Ant1	5745	16.280	5736.880	5753.160	≥0.5	PASS
		5785	16.360	5776.840	5793.200	≥0.5	PASS
		5825	16.360	5816.840	5833.200	≥0.5	PASS
11N40SISO	Ant1	5755	36.240	5736.920	5773.160	≥0.5	PASS
		5795	31.440	5779.960	5811.400	≥0.5	PASS
11AC80SISO	Ant1	5775	75.360	5737.400	5812.760	≥0.5	PASS

11.3.2. Test Graphs

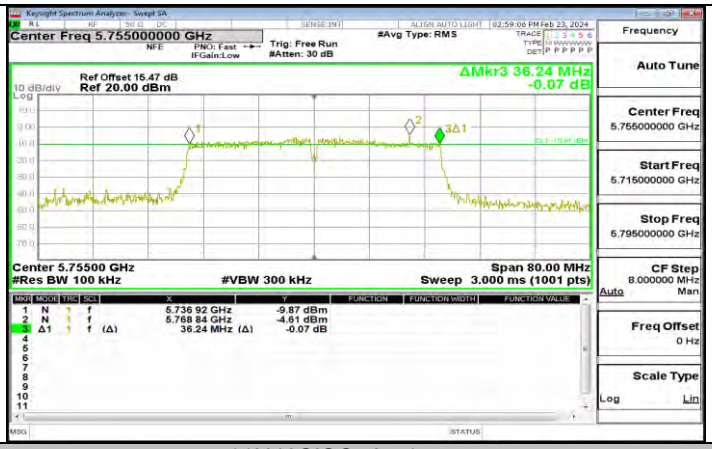
11A_Ant1_5745



11A_Ant1_5785

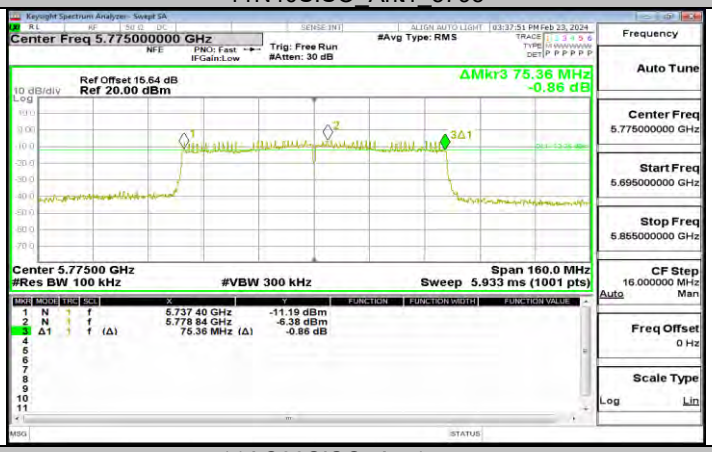


11A_Ant1_5825



11N40SISO_Ant1_5755

11N40SISO_Ant1_5795



11AC80SISO_Ant1_5775

11.4. APPENDIX D: MAXIMUM CONDUCTED OUTPUT POWER

11.4.1. Test Result

Test Mode	Antenna	Frequency[MHz]	Power [dBm]	FCC Limit [dBm]	ISED Limit [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
11A	Ant1	5180	12.82	≤23.98	---	16.62	≤22.25	PASS
		5200	12.60	≤23.98	---	16.40	≤22.28	PASS
		5240	12.36	≤23.98	---	16.16	≤22.30	PASS
		5745	11.68	≤30.00	≤30.00	15.48	---	PASS
		5785	11.70	≤30.00	≤30.00	15.50	---	PASS
		5825	11.46	≤30.00	≤30.00	15.26	---	PASS
11N40SISO	Ant1	5190	12.66	≤23.98	---	16.46	≤23.00	PASS
		5230	12.40	≤23.98	---	16.20	≤23.00	PASS
		5755	11.46	≤30.00	≤30.00	15.26	---	PASS
		5795	11.77	≤30.00	≤30.00	15.57	---	PASS
11AC80SISO	Ant1	5210	12.18	≤23.98	---	15.98	≤23.00	PASS
		5775	11.28	≤30.00	≤30.00	15.08	---	PASS

Note：The Duty Cycle Factor is compensated in the test result.

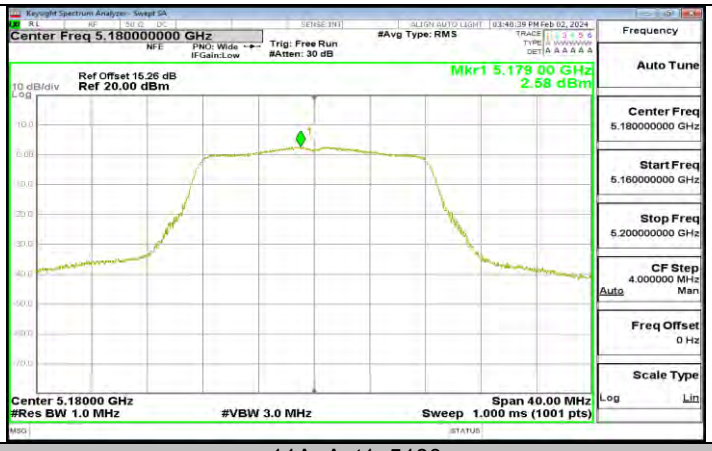
11.5. APPENDIX E: MAXIMUM POWER SPECTRAL DENSITY

11.5.1. Test Result

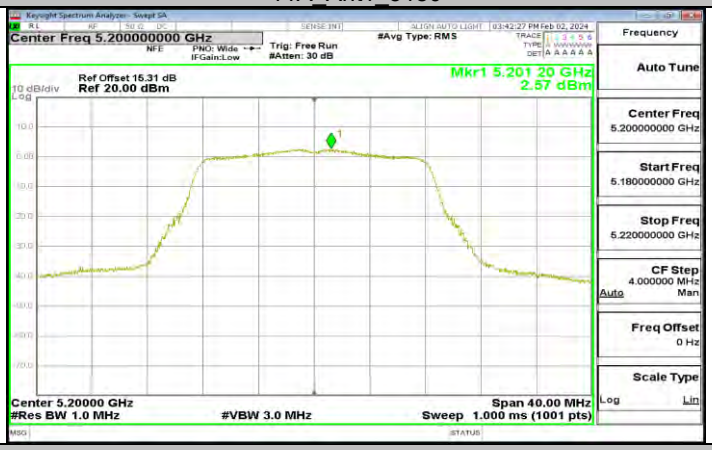
Test Mode	Antenna	Frequency[MHz]	Power [dBm/MHz]	Limit [dBm/MHz]	EIRP [dBm/MHz]	Limit [dBm/MHz]	Verdict
11A	Ant1	5180	2.58	≤11.00	6.38	≤10.00	PASS
		5200	2.57	≤11.00	6.37	≤10.00	PASS
		5240	2.38	≤11.00	6.18	≤10.00	PASS
		5745	-1.10	≤30.00	2.70	---	PASS
		5785	-1.12	≤30.00	2.68	---	PASS
		5825	-1.28	≤30.00	2.52	---	PASS
11N40SISO	Ant1	5190	-0.54	≤11.00	3.26	≤10.00	PASS
		5230	-0.45	≤11.00	3.35	≤10.00	PASS
		5755	-4.84	≤30.00	-1.04	---	PASS
		5795	-4.06	≤30.00	-0.26	---	PASS
11AC80SISO	Ant1	5210	-3.69	≤11.00	0.11	≤10.00	PASS
		5775	-7.49	≤30.00	-3.69	---	PASS

Note：1.The Result and Limit Unit is dBm/500 kHz in the band 5.725–5.85 GHz.
2.The Duty Cycle Factor and RBW Factor is compensated in the graph.

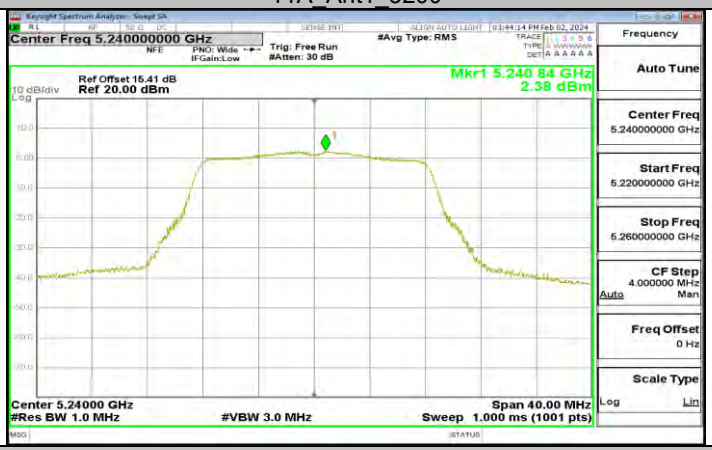
11.5.2. Test Graphs



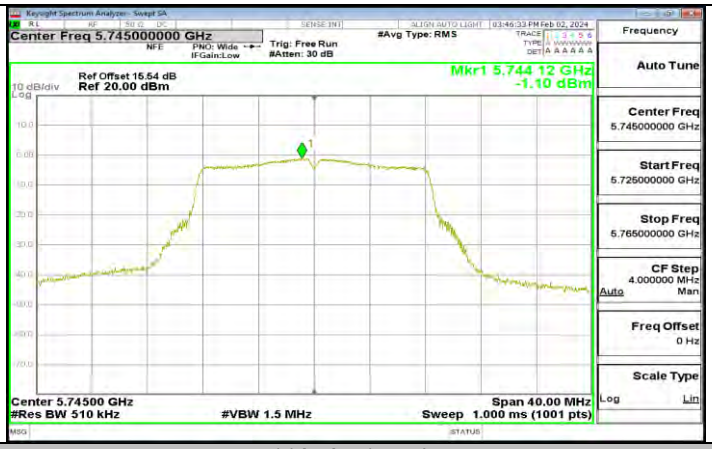
11A_Ant1_5180



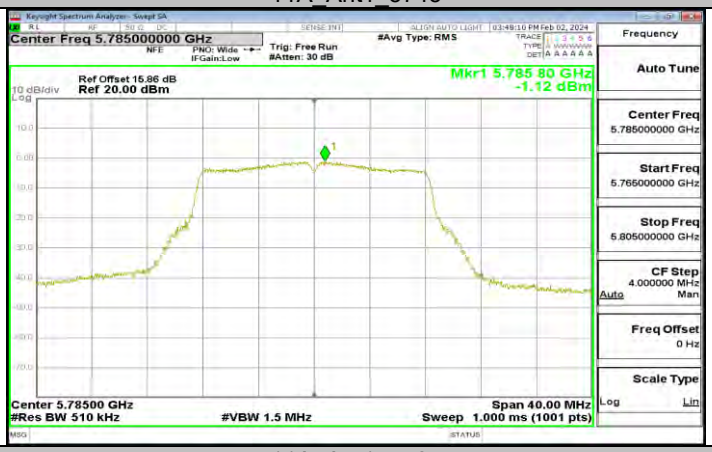
11A_Ant1_5200



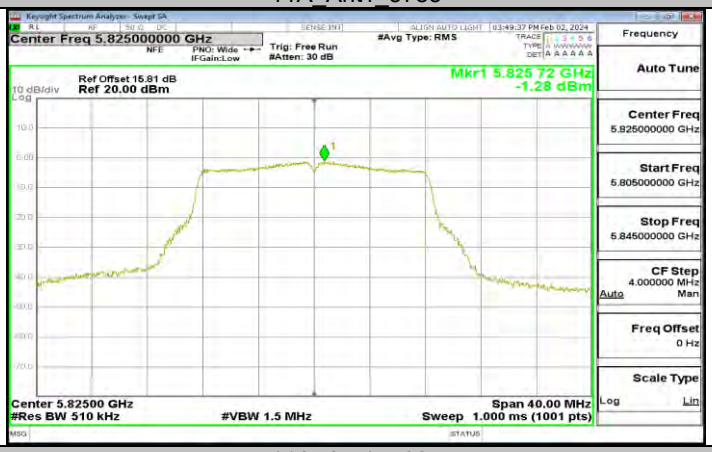
11A_Ant1_5240



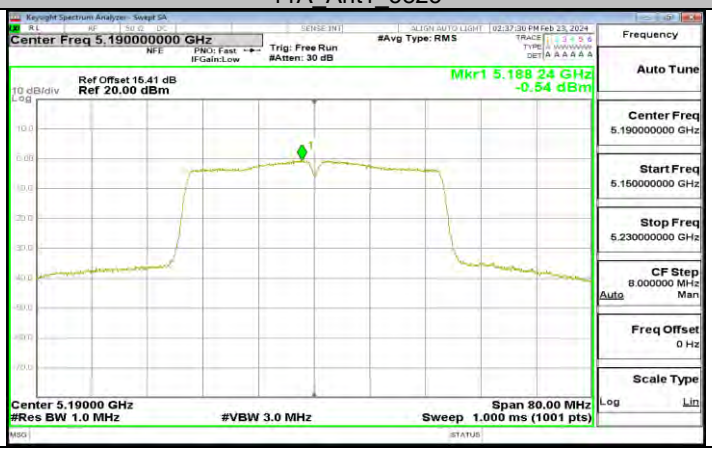
11A_Ant1_5745

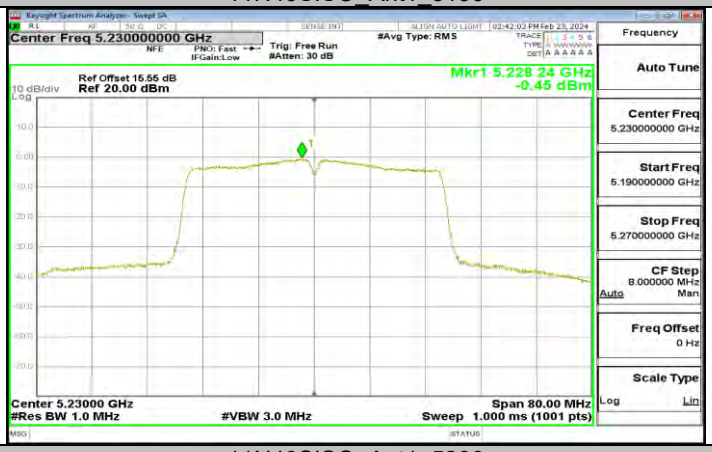
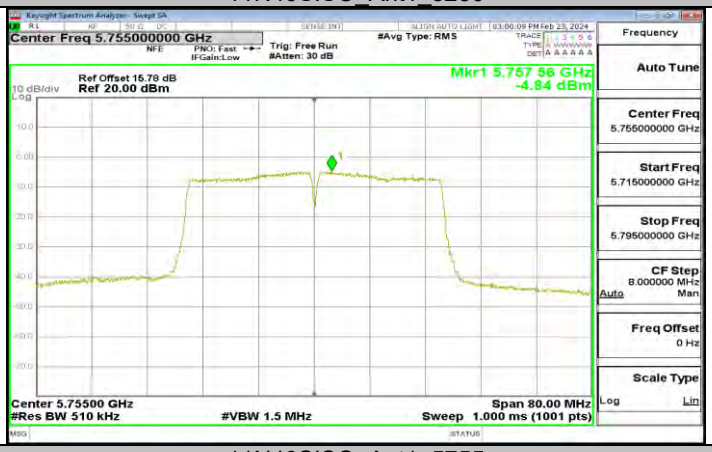
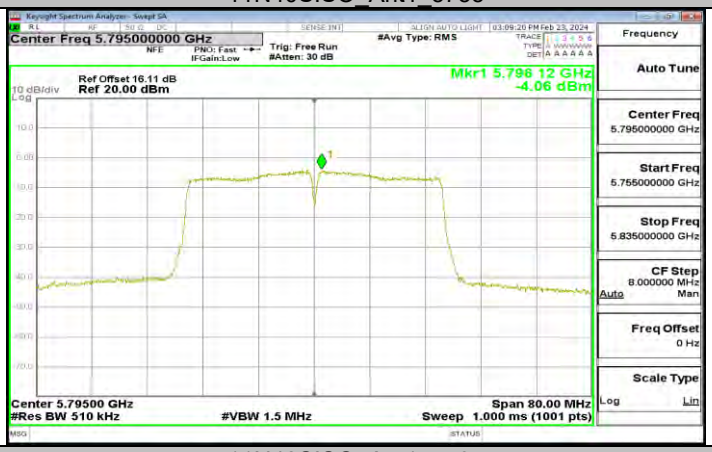


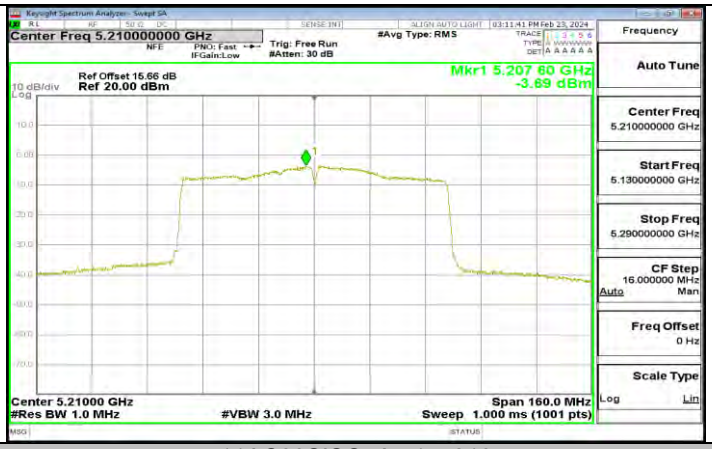
11A_Ant1_5785



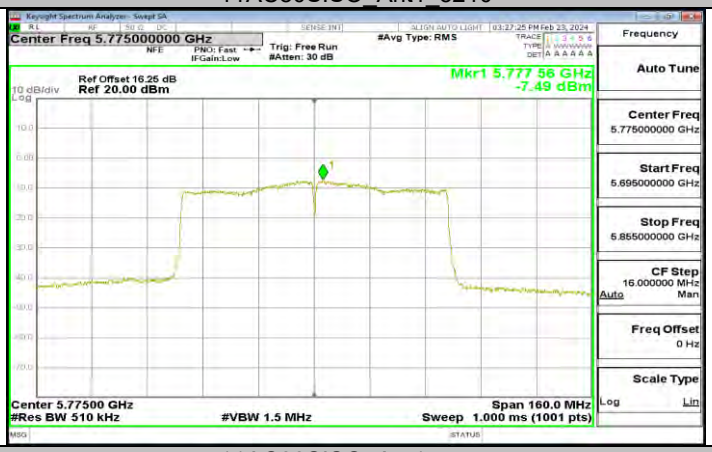
11A_Ant1_5825



11N40SISO_Ant1_5190

11N40SISO_Ant1_5230

11N40SISO_Ant1_5755

11N40SISO_Ant1_5795



11AC80SISO_Ant1_5210



11AC80SISO_Ant1_5775

11.6. APPENDIX I: FREQUENCY STABILITY

11.6.1. Test Result

Frequency Error vs. Voltage									
802.11a:5200MHz									
Temp.	Volt.	0 Minute		2 Minute		5 Minute		10 Minute	
		Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)
TN	VL	5200.0142	2.74	5200.0160	3.09	5199.9827	-3.32	5200.0242	4.66
TN	VN	5200.0023	0.44	5199.9894	-2.05	5199.9978	-0.42	5200.0121	2.34
TN	VH	5199.9778	-4.26	5200.0141	2.71	5199.9757	-4.68	5199.9832	-3.23
Frequency Error vs. Temperature									
802.11a:5200MHz									
Temp.	Volt.	0 Minute		2 Minute		5 Minute		10 Minute	
		Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)
35	VN	5199.9778	-4.26	5199.9776	-4.31	5199.9779	-4.26	5199.9955	-0.86
30	VN	5199.9943	-1.10	5199.9782	-4.20	5200.0096	1.85	5200.0227	4.37
20	VN	5200.0023	0.44	5199.9994	-0.12	5199.9951	-0.94	5199.9776	-4.31
10	VN	5199.9954	-0.88	5199.9892	-2.07	5199.9774	-4.34	5199.9922	-1.50
0	VN	5199.9899	-1.94	5199.9812	-3.61	5199.9860	-2.69	5199.9809	-3.67

Note:
1. All antennas, test modes and test channels have been tested, only the worst data record in the report.
2. For the detail Test Conditions, please refer to section 7.5 TEST ENVIRONMENT.

11.7. APPENDIX J: DUTY CYCLE

11.7.1. Test Result

Test Mode	On Time (msec)	Period (msec)	Duty Cycle x (Linear)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	1/T Minimum VBW (kHz)	Final setting For VBW (kHz)
11A	1.40	1.44	0.9722	97.22	0.12	0.71	1
11N40SISO	0.65	0.69	0.9420	94.20	0.26	1.54	2
11AC80SISO	0.32	0.36	0.8889	88.89	0.51	3.13	4

Note:
Duty Cycle Correction Factor=10log (1/x).
Where: x is Duty Cycle (Linear)
Where: T is On Time
If that calculated VBW is not available on the analyzer then the next higher value should be used.

11.7.2. Test Graphs

11A_Ant1_5180

11N40SISO_Ant1_5190

11AC80SISO_Ant1_5210

END OF REPORT