

CFR 47 FCC PART 15 SUBPART E

TEST REPORT

For

VA-2900 HD Video Drone

MODEL NUMBER: SC-6635

REPORT NUMBER: 4791774465-1-RF-1

ISSUE DATE: May 26, 2025

FCC ID: 2ASK3SC-6635R

Prepared for

**AMAX INDUSTRIAL GROUP CHINA CO.,LTD
OFFICE NO.3 10/F WITTY COMMERCIAL BUILDING 1A-1L TUNG CHOI STREET
MONGKOK KOWLOON HONG KONG**

Prepared by

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The results reported herein have been performed in accordance with the laboratory's terms of accreditation. This report shall not be reproduced except in full without the written approval of the Laboratory. The results in this report apply to the test sample(s) mentioned above at the time of the testing period only and are not to be used to indicate applicability to other similar products.

Revision History

Rev.	Issue Date	Revisions	Revised By
V0	May 26, 2025	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)	Pass
CONDUCTED OUTPUT POWER	KDB 789033 D02 v02r01 Section E.3.a (Method PM)/KDB 789033 D02 v02r01 Section E.3.a (Method PM) Section E.2.d (Method SA-2)	FCC 15.407 (a)	Pass
POWER SPECTRAL DENSITY	KDB 789033 D02 v02r01 Section F	FCC 15.407 (a)	Pass
AC Power Line Conducted Emission	ANSI C63.10-2013, Clause 6.2.	FCC 15.207	N/A
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	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),	N/A
Dynamic Frequency Selection (Master)	KDB 905462 D02 UNII DFS Compliance Procedures New Rules v02	FCC Part 15.407 (h),	N/A
Antenna Requirement	N/A	FCC 47 CFR Part 15.203/ 15.407(a)(1) (2)	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> when <Simple Acceptance> decision rule is applied.

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1. ATTESTATION OF TEST RESULTS

Applicant Information

Company Name: AMAX INDUSTRIAL GROUP CHINA CO.,LTD
Address: OFFICE NO.3 10/F WITTY COMMERCIAL BUILDING 1A-1L
TUNG CHOI STREET MONGKOK KOWLOON HONG KONG

Manufacturer Information

Company Name: AMAX INDUSTRIAL GROUP CHINA CO.,LTD
Address: OFFICE NO.3 10/F WITTY COMMERCIAL BUILDING 1A-1L
TUNG CHOI STREET MONGKOK KOWLOON HONG KONG

EUT Information

EUT Name: VA-2900 HD Video Drone
Model: SC-6635
Sample Received Date: April 23, 2025
Sample Status: Normal
Sample ID: 8512218
Date of Tested: April 24, 2025 to May 26, 2025

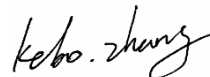
APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
CFR 47 FCC PART 15 SUBPART E	Pass

Prepared By:



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Project Engineer

Checked By:



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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, ANSI C63.10-2013, CFR 47 FCC Part 2, KDB 789033 D02 v02r01, KDB 414788 D01 Radiated Test Site v01r01, KDB 662911 D01 Multiple Transmitter Output v02r01, KDB 905462 D02 UNII DFS Compliance Procedures New Rules v02, KDB 905462 D03 UNII clients without radar detection New Rules v01r02, KDB 905462 D04 Operational Modes for DFS Testing New Rules v01 and KDB 905462 D06 802 11 Channel Plans New Rules v02.

3. FACILITIES AND ACCREDITATION

Accreditation Certificate	<p>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.</p> <p>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.</p> <p>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.</p>
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Note 1:

All tests measurement facilities use to collect the measurement data are located at Room 101, Building 2, No.4, Information Road, Songshan Lake, Dongguan, Guangdong, 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	±1.01 dB
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	VA-2900 HD Video Drone
Model	SC-6635
Frequency Range:	5805 MHz
Type of Modulation:	IEEE 802.11a: OFDM(64QAM, 16QAM, QPSK, BPSK)
Data rate:	BPSK: code rate 1/2 is 6Mbps, code rate 3/4 is 9Mbps QPSK: code rate 1/2 is 12Mbps, code rate 3/4 is 18Mbps 16QAM: code rate 1/2 is 24Mbps, code rate 3/4 is 36Mbps 64QAM: code rate 1/2 is 48Mbps, code rate 3/4 is 54Mbps
Radio Technology:	IEEE802.11a
Normal Test Voltage:	DC 7.6 V

5.2. CHANNEL LIST

UNII-3 (For Bandwidth=20MHz)	
Channel	Frequency (MHz)
161	5805

5.3. MAXIMUM POWER

UNII-3 BAND(FCC)

IEEE Std. 802.11	Frequency (MHz)	Maximum Average Conducted Power (dBm)
a	5805	20.25

5.4. TEST CHANNEL CONFIGURATION

UNII-3 Test Channel Configuration		
IEEE Std.	Test Channel Number	Frequency
802.11a	CH 161	5805 MHz

5.5. THE WORSE CASE POWER SETTING PARAMETER

The Worse Case Power Setting Parameter			
Test Software	RTL8821CU		
UNII-3			
Mode	Rate	Channel	Soft set value
			ANT1
11a	6M	161	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

802.11a only support SISO mode.

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	5805	Wire antenna	1.35

IEE Std. 802.11	Transmit and Receive Mode	Description
802.11a	<input checked="" type="checkbox"/> 1TX, 1RX	ANT 1 can be used as transmitting/receiving antenna.
Note: 1. SRD 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	Remark
1	PC	Lenovo	E14	/

I/O CABLES

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

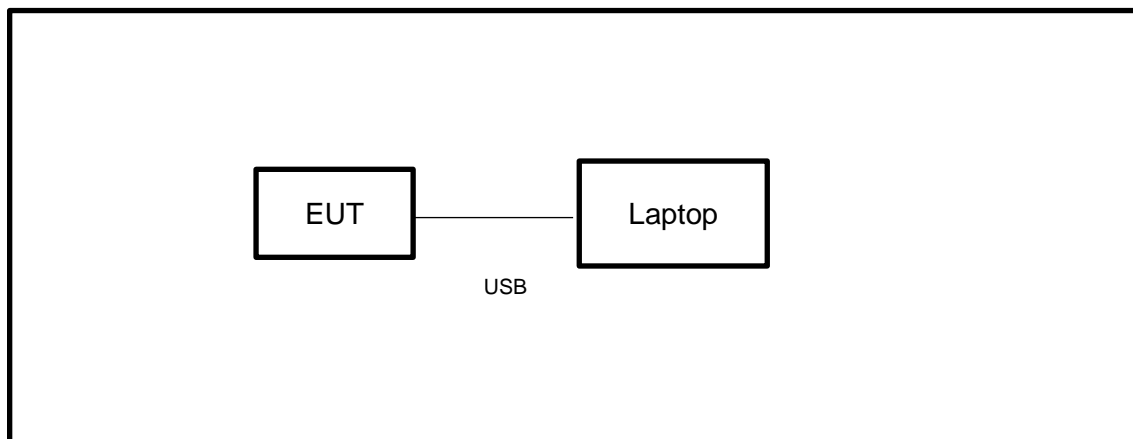
ACCESSORIES

Item	Accessory	Brand Name	Model Name	Description
/	/	/	/	/

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	Dec.27,2024	Dec.26,2025
Vector Signal Generator	R&S	SMBV100A	261637	Sep.28, 2024	Sep.27, 2025
Signal Generator	R&S	SMB100A	178553	Sep.28, 2024	Sep.27, 2025
Signal Analyzer	R&S	FSV40	101118	Sep.28, 2024	Sep.27, 2025
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
Wireless Connectivity Tester	R&S	CMW270	1201.0002N75-102	Sep.13, 2024	Sep.12, 2025
PXA Signal Analyzer	Keysight	N9030A	MY55410512	Sep.28, 2024	Sep.27, 2025
MXG Vector Signal Generator	Keysight	N5182B	MY56200284	Sep.28, 2024	Sep.27, 2025
MXG Vector Signal Generator	Keysight	N5172B	MY56200301	Sep.28, 2024	Sep.27, 2025
DC power supply	Keysight	E3642A	MY55159130	Sep.28, 2024	Sep.27, 2025
Temperature & Humidity Chamber	SANMOOD	SG-80-CC-2	2088	Sep.28, 2024	Sep.27, 2025
Attenuator	Aglient	8495B	2814a12853	Sep.28, 2024	Sep.27, 2025
RF Control Unit	Tonscend	JS0806-2	23B80620666	Dec.27,2024	Dec.26,2025
Software					
Description	Manufacturer	Name		Version	
Tonsend SRD Test System	Tonsend	JS1120-3 RF Test System		V3.2.22	

Radiated Emissions					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due Date
MXE EMI Receiver	KESIGHT	N9038A	MY56400036	Sep.28, 2024	Sep.27, 2025
Hybrid Log Periodic Antenna	TDK	HLP-3003C	130960	June 28, 2024	June.27 2027
Preamplifier	HP	8447D	2944A09099	Sep.28, 2024	Sep.27, 2025
EMI Measurement Receiver	R&S	ESR26	101377	Sep.28, 2024	Sep.27, 2025
Horn Antenna	TDK	HRN-0118	130940	Dec.10, 2024	Dec.11, 2027
Preamplifier	TDK	PA-02-0118	TRS-305-00067	Sep.28, 2024	Sep.27, 2025
Horn Antenna	Schwarzbeck	BBHA9170	697	Jun 30, 2024	Jun 29, 2027
Preamplifier	TDK	PA-02-2	TRS-307-00003	Sep.28, 2024	Sep.27, 2025
Preamplifier	TDK	PA-02-3	TRS-308-00002	Sep.28, 2024	Sep.27, 2025
Loop antenna	Schwarzbeck	1519B	00008	Dec.09, 2024	Dec.08, 2027
Highpass Filter	Wainwright	WHKX10-5850-6500-1800-40SS	4	Sep.28, 2024	Sep.27, 2025
Band Reject Filter	Wainwright	WRCJV12-5695-5725-5850-5880-40SS	4	Sep.28, 2024	Sep.27, 2025
Band Reject Filter	Wainwright	WRCJV20-5120-5150-5350-5380-60SS	2	Sep.28, 2024	Sep.27, 2025
Band Reject Filter	Wainwright	WRCJV20-5440-5470-5725-5755-60SS	1	Sep.28, 2024	Sep.27, 2025
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.8, 2024	Oct.7, 2025
Barometer	Yiyi	Baro	N/A	Oct.10, 2024	Oct.9, 2025
Attenuator	Agilent	8495B	2814a12853	Sep.28, 2024	Sep.27, 2025

7. ANTENNA PORT TEST RESULTS

7.1. ON TIME AND DUTY CYCLE

LIMITS

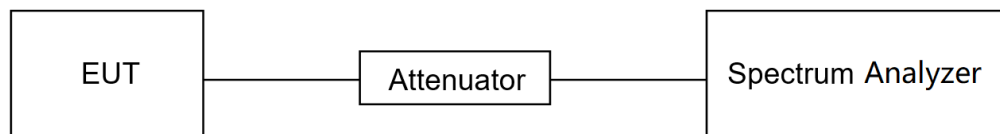
None; for reporting purposes only.

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 \geq EBW if possible; otherwise, set RBW to the largest available value. Set VBW \geq 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 $T \leq 16.7$ microseconds.)

TEST SETUP



TEST ENVIRONMENT

Temperature	22.4°C	Relative Humidity	53.6%
Atmosphere Pressure	101kPa	Test Voltage	DC 7.6 V

TEST DATE / ENGINEER

Test Date	May 07, 2025	Test By	Bairong Liu
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TEST RESULTS

Please refer to section "Test Data" - Appendix G

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

LIMITS

CFR 47 FCC Part15, Subpart E		
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
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

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.

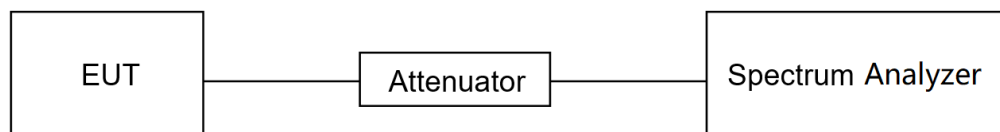
Connect the EUT to the spectrum analyser and use the following settings:

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: $\geq 3 \times \text{RBW}$ For 26 dB Bandwidth: $> 3 \times \text{RBW}$ For 99 % Bandwidth: $> 3 \times \text{RBW}$
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.

TEST SETUP



TEST ENVIRONMENT

Temperature	22.4℃	Relative Humidity	53.6%
Atmosphere Pressure	101kPa	Test Voltage	DC 7.6V

TEST DATE / ENGINEER

Test Date	May 07, 2025	Test By	Bairong Liu
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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	<input type="checkbox"/> Outdoor Access Point: 1 W (30 dBm) <input type="checkbox"/> Indoor Access Point: 1 W (30 dBm) <input type="checkbox"/> Fixed Point-To-Point Access Points: 1 W (30 dBm) <input checked="" type="checkbox"/> 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

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 PM (Measurement using an RF average power meter):

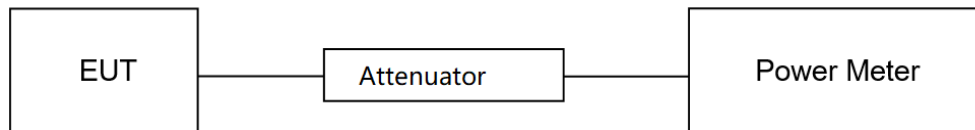
(i) Measurements may be performed using a wideband RF power meter with a thermocouple detector or equivalent if all of the following conditions are satisfied:

- The EUT is configured to transmit continuously or to transmit with a constant duty cycle.
- At all times when the EUT is transmitting, it must be transmitting at its maximum power control level.
- 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 %).

TEST SETUP**TEST ENVIRONMENT**

Temperature	22.4℃	Relative Humidity	53.6%
Atmosphere Pressure	101kPa	Test Voltage	DC 7.6V

TEST DATE / ENGINEER

Test Date	May 07, 2025	Test By	Bairong Liu
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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	<input type="checkbox"/> Outdoor Access Point: 17 dBm/MHz <input type="checkbox"/> Indoor Access Point: 17 dBm/MHz <input type="checkbox"/> Fixed Point-To-Point Access Points: 17 dBm/MHz <input checked="" type="checkbox"/> Client Devices: 11 dBm/MHz	5150 ~ 5250
	11 dBm/MHz	5250 ~ 5350 5470 ~ 5725
	30 dBm/500kHz	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:

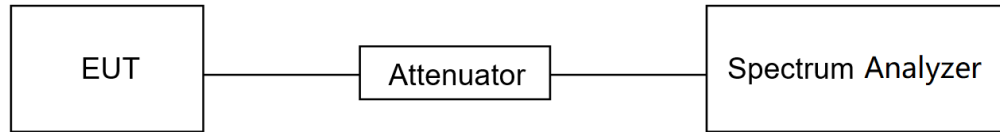
For U-NII-1, U-NII-2A and U-NII-2C band:

Center Frequency	The center frequency of the channel under test
Detector	RMS
RBW	1 MHz
VBW	$\geq 3 \times \text{RBW}$
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	$\geq 3 \times \text{RBW}$
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	22.4℃	Relative Humidity	53.6%
Atmosphere Pressure	101kPa	Test Voltage	DC 7.6V

TEST DATE / ENGINEER

Test Date	May 07, 2025	Test By	Bairong Liu
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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 -10 °C ~ 70 °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:

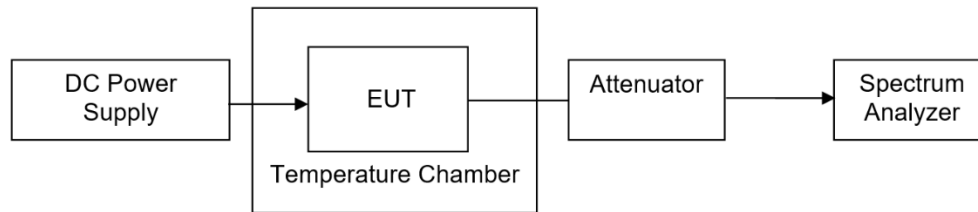
Center Frequency	The center frequency of the channel under test
Detector	Peak
RBW	10 kHz
VBW	$\geq 3 \times \text{RBW}$
Span	Encompass the entire emissions bandwidth (EBW) of the signal
Trace	Max hold
Sweep time	Auto

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, 5 minutes, 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): -10 °C
		T _H (High Temperature): 70 °C
Supply Voltage	V _N (Normal Voltage): DC 7.6 V	V _L (Low Voltage): DC 6.46 V
		V _H (High Voltage): DC 8.74 V

TEST SETUP



TEST ENVIRONMENT

Temperature	22.4°C	Relative Humidity	53.6%
Atmosphere Pressure	101kPa	Test Voltage	DC 7.6V

TEST DATE / ENGINEER

Test Date	May 07, 2025	Test By	Bairong Liu
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TEST RESULTS

Please refer to section "Test Data" - Appendix F

8. RADIATED TEST RESULTS

LIMITS

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

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

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: ¹Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.

²Above 38.6c

Limits of unwanted/undesirable emission out of the restricted bands refer to CFR 47 FCC §15.407 (b).

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.

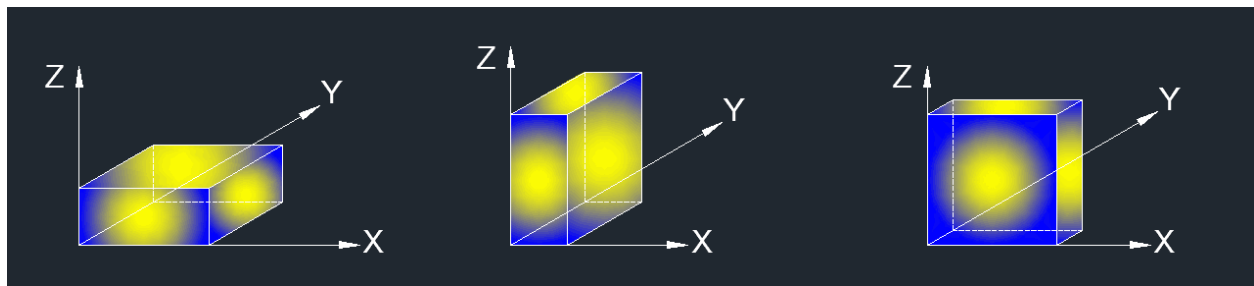
Above 1 GHz

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.

X axis, Y axis, Z axis positions:



Note 1: For all radiated test, EUT in each of three orthogonal axis emissions had been tested, but only the worst case (X axis) data recorded in the report.

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. $\text{dBuA/m} = \text{dBuV/m} - 20\log_{10}[120\pi] = \text{dBuV/m} - 51.5$

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 ~ 8 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 (8 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:

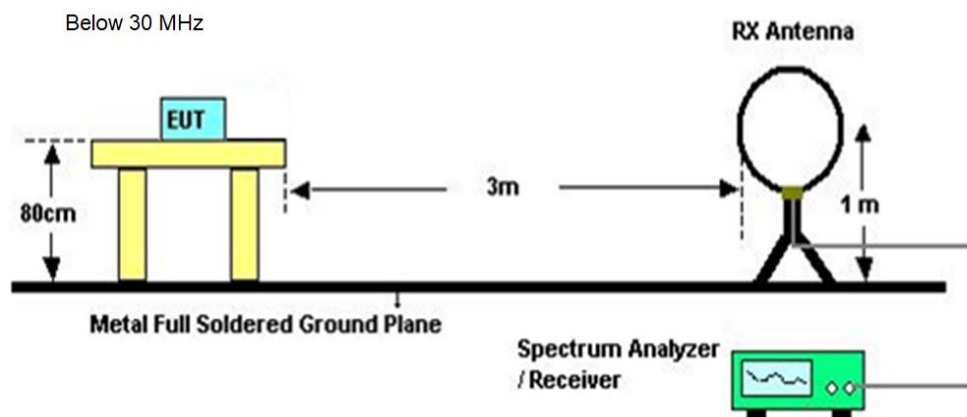
1. Measurement = Reading Level + Correct Factor.
2. If the peak values are less than the average limit of 54 dBuV/m, the average result is deemed to comply with average limit.
3. Peak: Peak detector.
4. All modes have been tested, but only the worst data was recorded in the report.

For Radiate Spurious emission (26 GHz ~ 40 GHz):

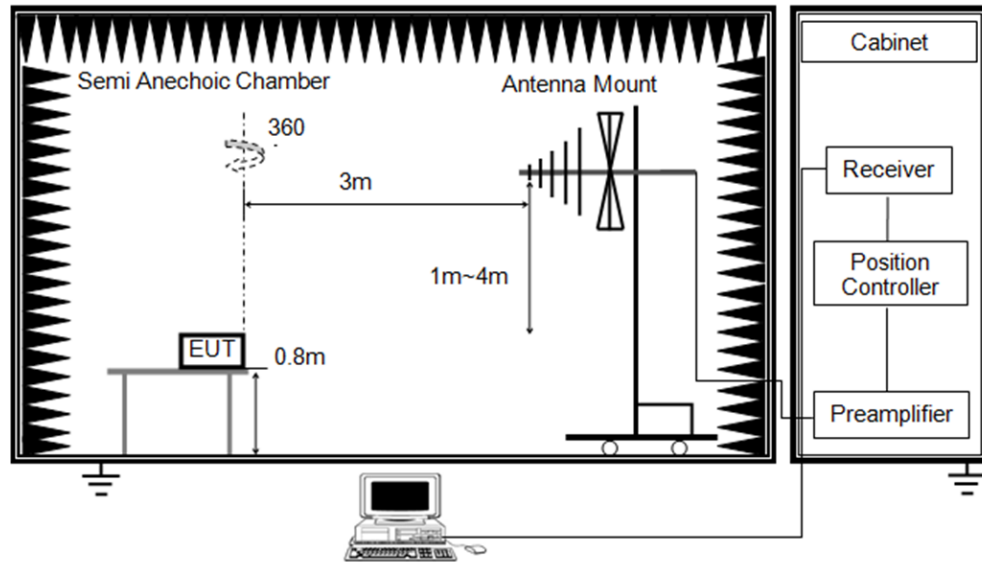
Note:

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.

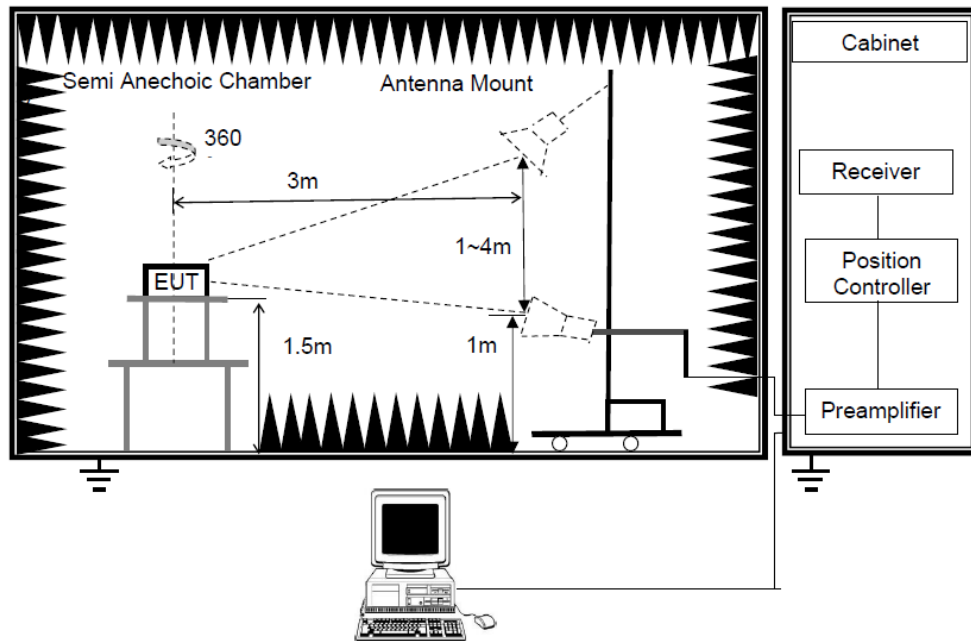
TEST SETUP



Below 1 GHz and above 30 MHz



Above 1GHz



TEST ENVIRONMENT

Temperature	24.2°C	Relative Humidity	55%
Atmosphere Pressure	101kPa	Test Voltage	

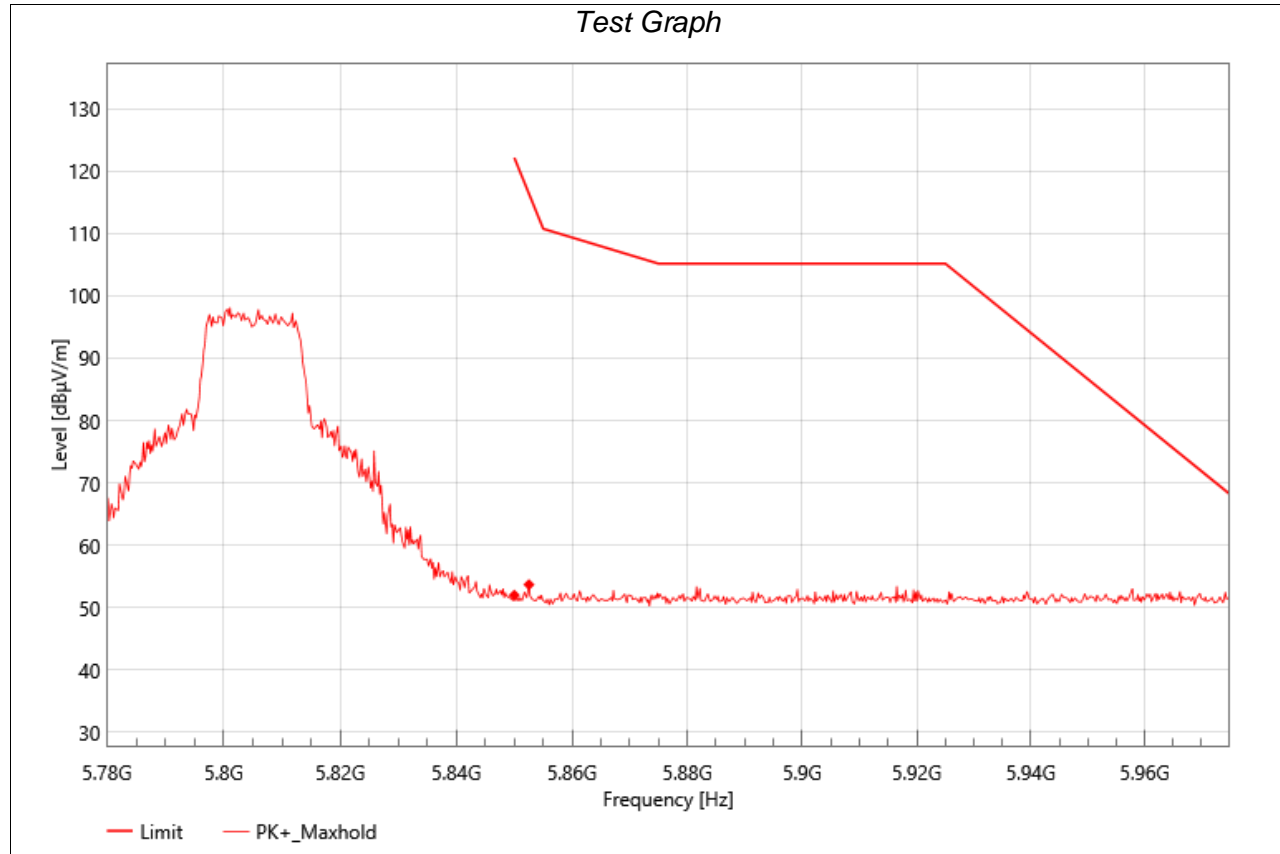
TEST DATE / ENGINEER

Test Date	May 19, 2025	Test By	Mason Wang
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TEST RESULTS

8.1. RESTRICTED BANDEDGE

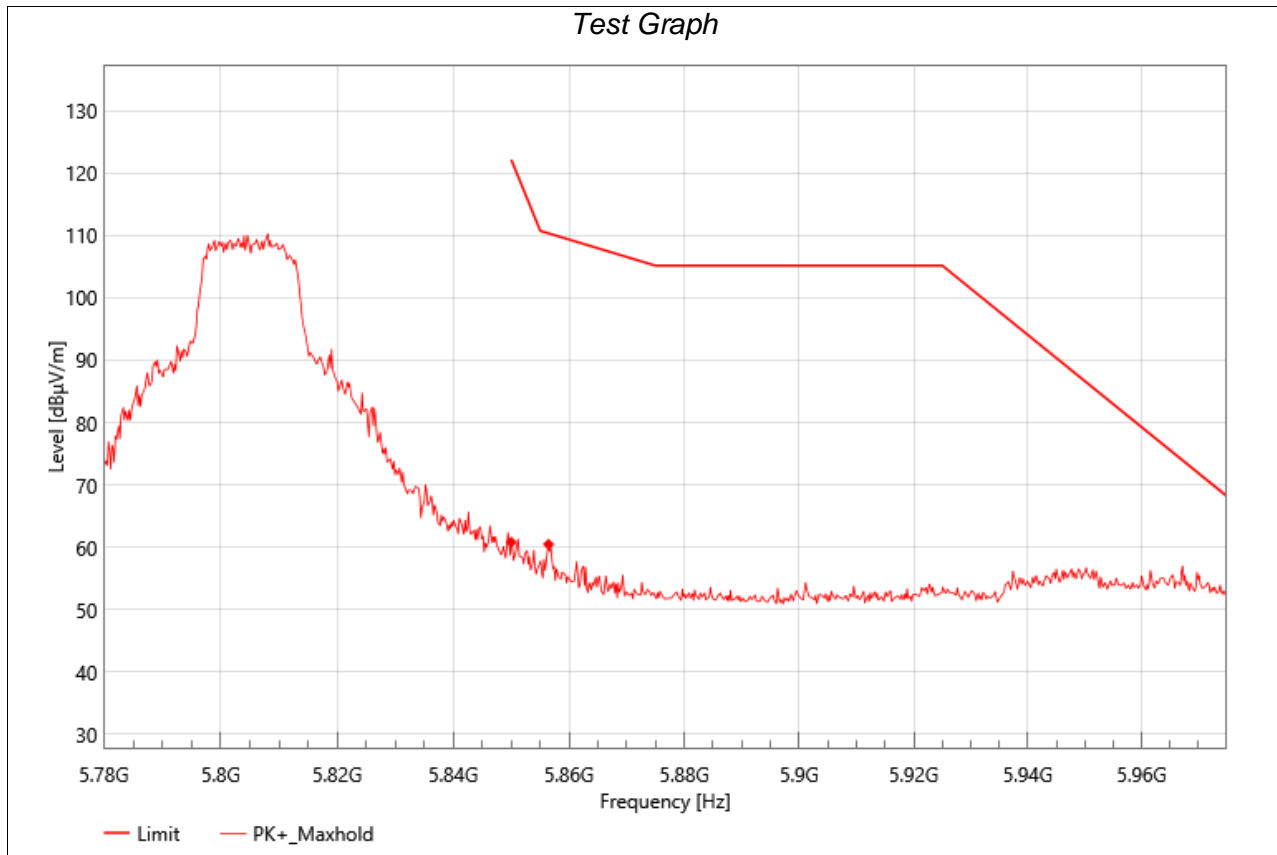
Test Mode:	802.11a20	Frequency(MHz):	5805
Polarity:	Horizontal	Test Voltage:	DC 7.6V



Suspected Data List									
NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Polarity	Detector	Verdict
1	5850.00	22.67	51.99	29.32	122.20	70.21	Horizontal	PK	PASS
2	5852.54	24.34	53.68	29.34	116.41	62.73	Horizontal	PK	PASS

Note:(1)Level=Reading+Factor
(2)Margin=Limit-Level]

Test Mode:	802.11a20	Frequency(MHz):	5805
Polarity:	Vertical	Test Voltage:	DC 7.6V

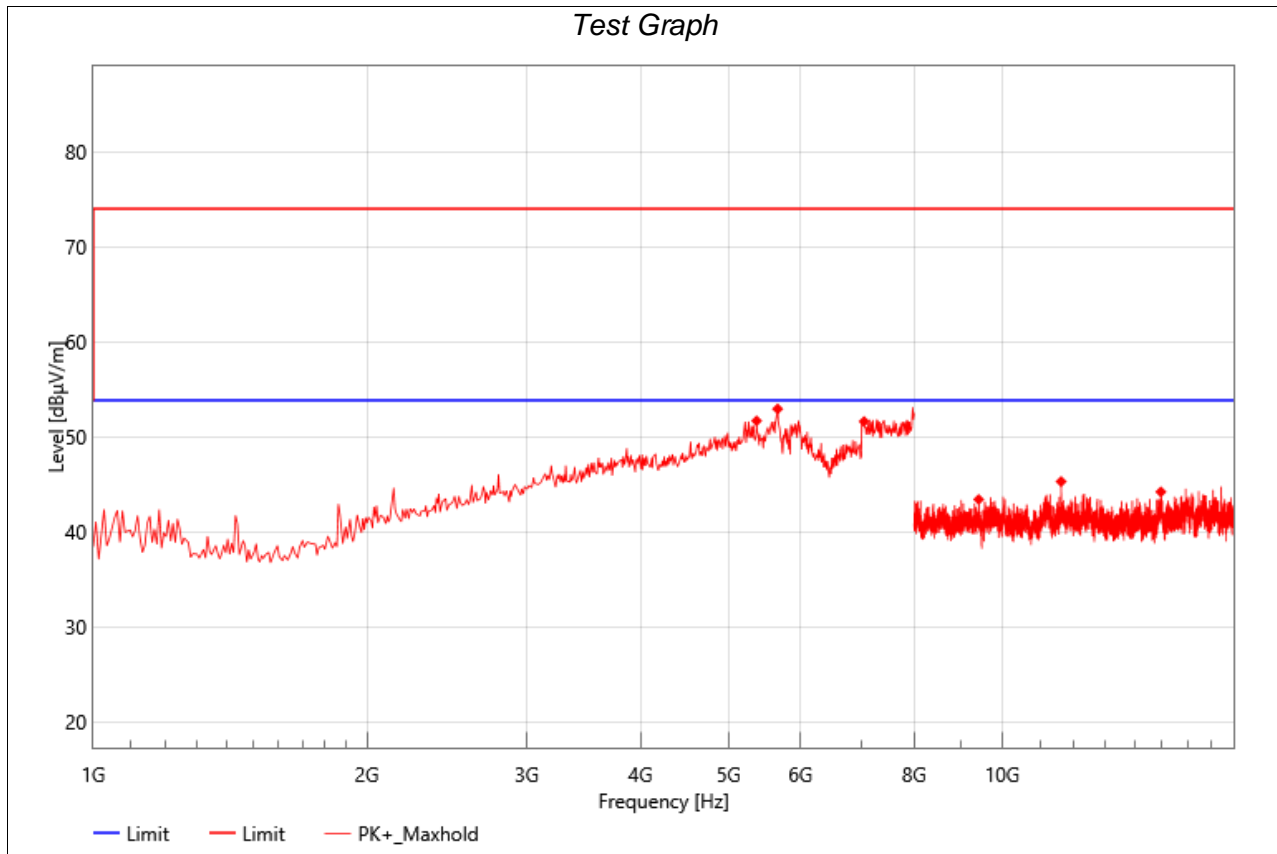


Suspected Data List									
NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Polarity	Detector	Verdict
1	5850.00	31.49	60.81	29.32	122.20	61.39	Vertical	PK	PASS
2	5856.44	31.09	60.47	29.38	110.40	49.93	Vertical	PK	PASS

Note:(1)Level=Reading+Factor
(2)Margin=Limit-Level]

8.2. SPURIOUS EMISSIONS(1 GHZ~18 GHZ)

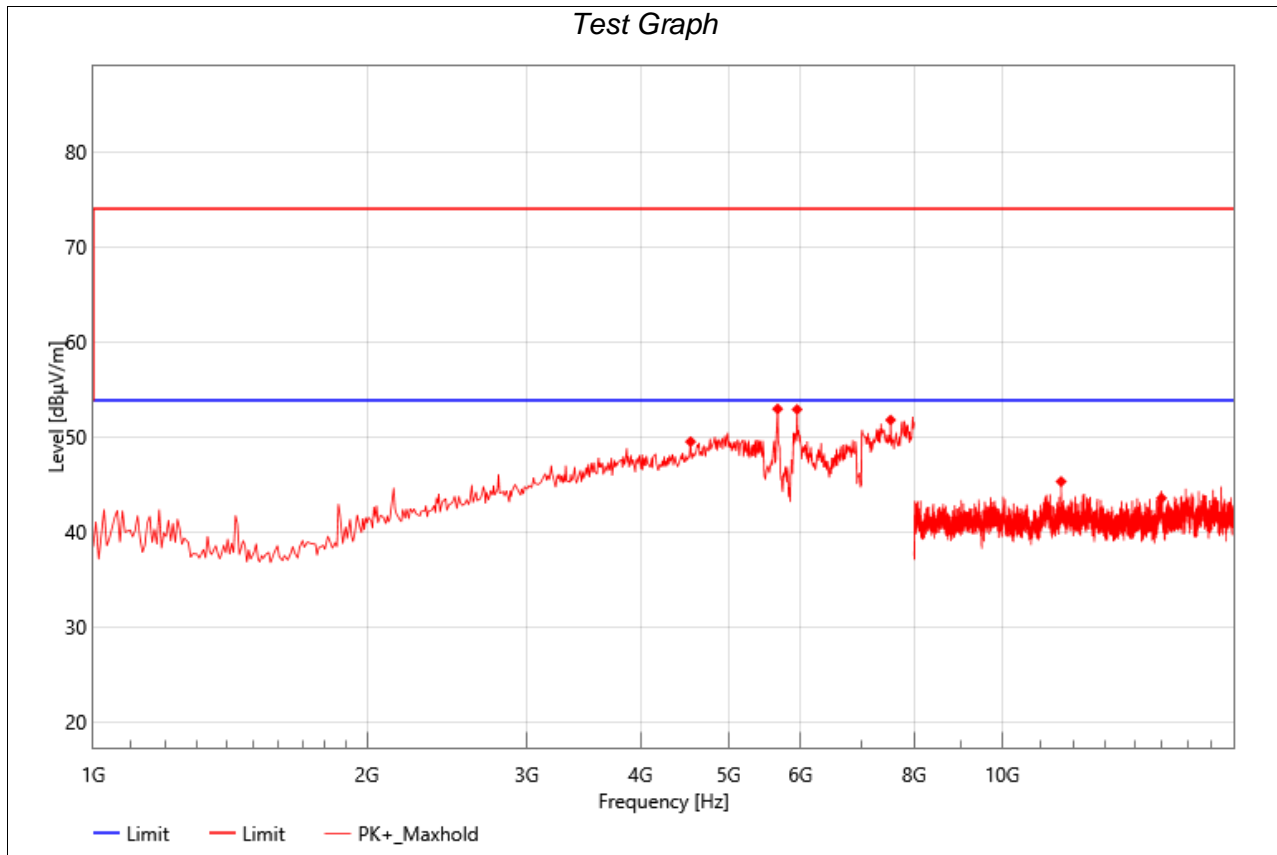
Test Mode:	802.11a20	Frequency(MHz):	5805
Polarity:	Horizontal	Test Voltage:	DC 7.6V



Suspected Data List									
NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Polarity	Detector	Verdict
1	5368.00	52.74	51.70	-1.04	74.00	22.30	Horizontal	PK	PASS
2	5662.00	54.10	52.95	-1.15	68.20	15.25	Horizontal	PK	PASS
3	7048.00	50.85	51.64	0.79	68.20	16.56	Horizontal	PK	PASS
4	9422.00	50.28	43.43	-6.85	74.00	30.57	Horizontal	PK	PASS
5	11610.00	50.22	45.32	-4.9	74.00	28.68	Horizontal	PK	PASS
6	14948.00	46.65	44.23	-2.42	68.20	23.97	Horizontal	PK	PASS

Note:(1)Level=Reading+Factor
(2)Margin=Limit-Level]

Test Mode:	802.11a20	Frequency(MHz):	5805
Polarity:	Vertical	Test Voltage:	DC 7.6V

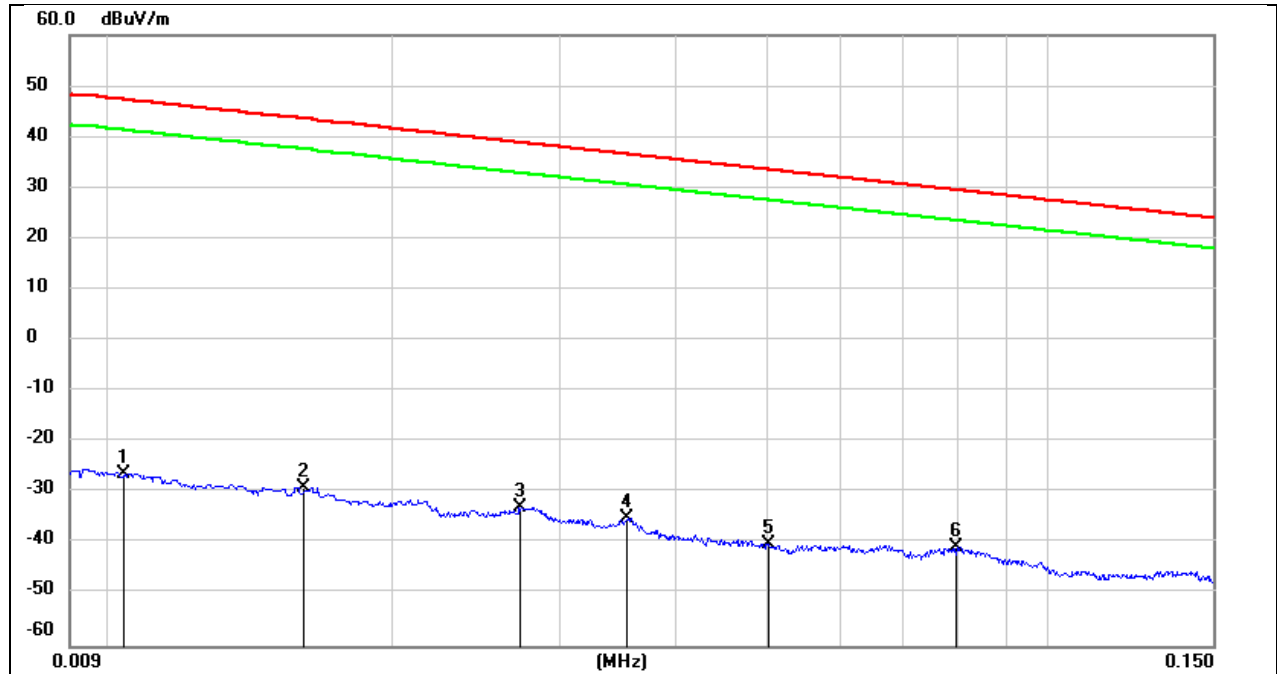


Suspected Data List									
NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Polarity	Detector	Verdict
1	4542.00	53.18	49.51	-3.67	74.00	24.49	Vertical	PK	PASS
2	5662.00	54.10	52.95	-1.15	68.20	15.25	Vertical	PK	PASS
3	5949.00	54.67	52.90	-1.77	68.20	15.3	Vertical	PK	PASS
4	7538.00	50.10	51.79	1.69	74.00	22.21	Vertical	PK	PASS
5	11610.00	50.22	45.32	-4.9	74.00	28.68	Vertical	PK	PASS
6	14972.00	45.91	43.57	-2.34	68.20	24.63	Vertical	PK	PASS

Note:(1)Level=Reading+Factor
(2)Margin=Limit-Level]

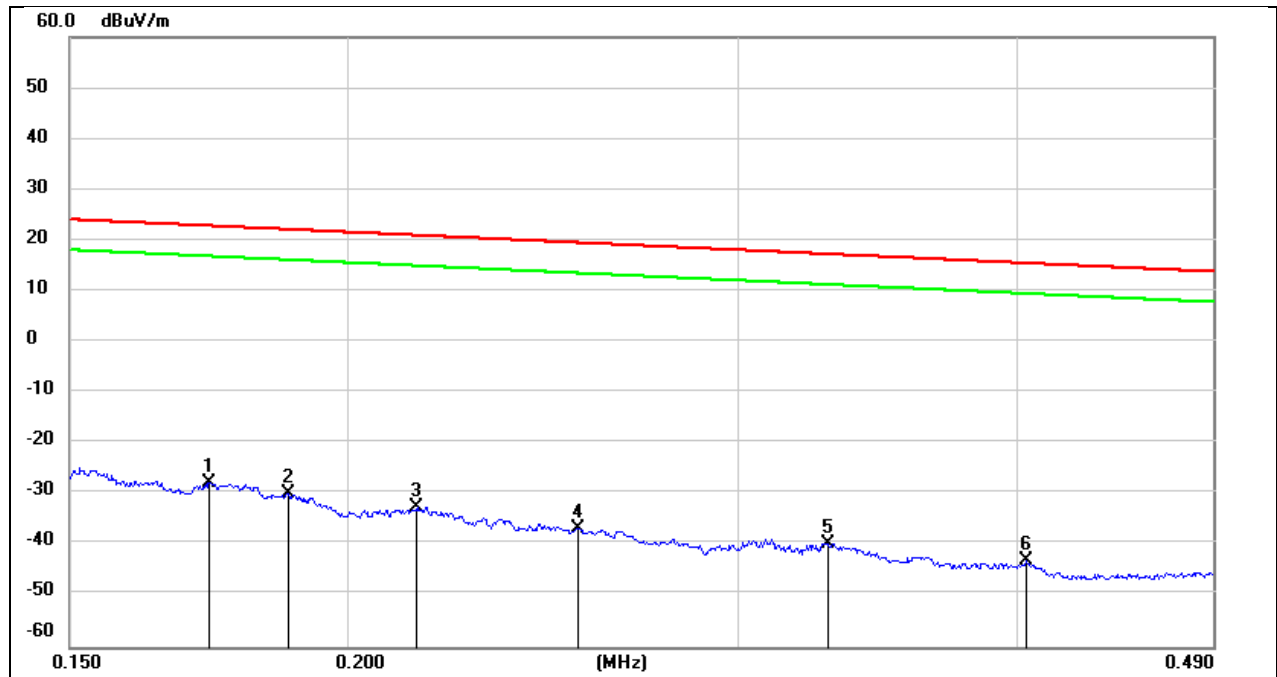
8.3. SPURIOUS EMISSIONS(9 KHZ~30 MHZ)

Test Mode:	802.11a20	Frequency(MHz):	5805
Polarity:	Horizontal	Test Voltage:	DC 7.6V



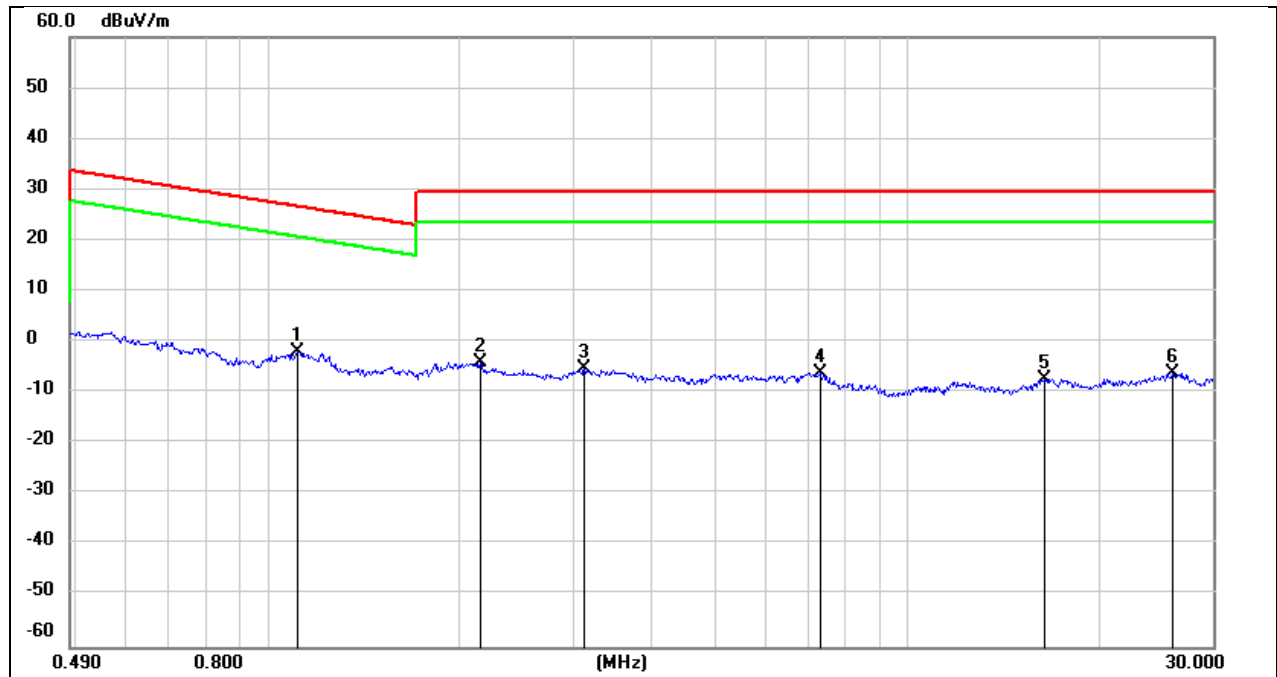
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	0.0103	75.14	-101.40	-26.26	47.34	-73.60	peak
2	0.0160	72.47	-101.37	-28.90	43.52	-72.42	peak
3	0.0273	68.49	-101.38	-32.89	38.88	-71.77	peak
4	0.0354	66.47	-101.41	-34.94	36.62	-71.56	peak
5	0.0502	61.46	-101.48	-40.02	33.59	-73.61	peak
6	0.0796	61.03	-101.63	-40.60	29.58	-70.18	peak

Test Mode:	802.11a20	Frequency(MHz):	5805
Polarity:	Horizontal	Test Voltage:	DC 7.6V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	0.1733	73.92	-101.67	-27.75	22.83	-50.58	peak
2	0.1880	71.75	-101.70	-29.95	22.12	-52.07	peak
3	0.2149	69.19	-101.75	-32.56	20.96	-53.52	peak
4	0.2535	65.14	-101.80	-36.66	19.52	-56.18	peak
5	0.3286	62.21	-101.88	-39.67	17.27	-56.94	peak
6	0.4042	58.92	-101.96	-43.04	15.47	-58.51	peak

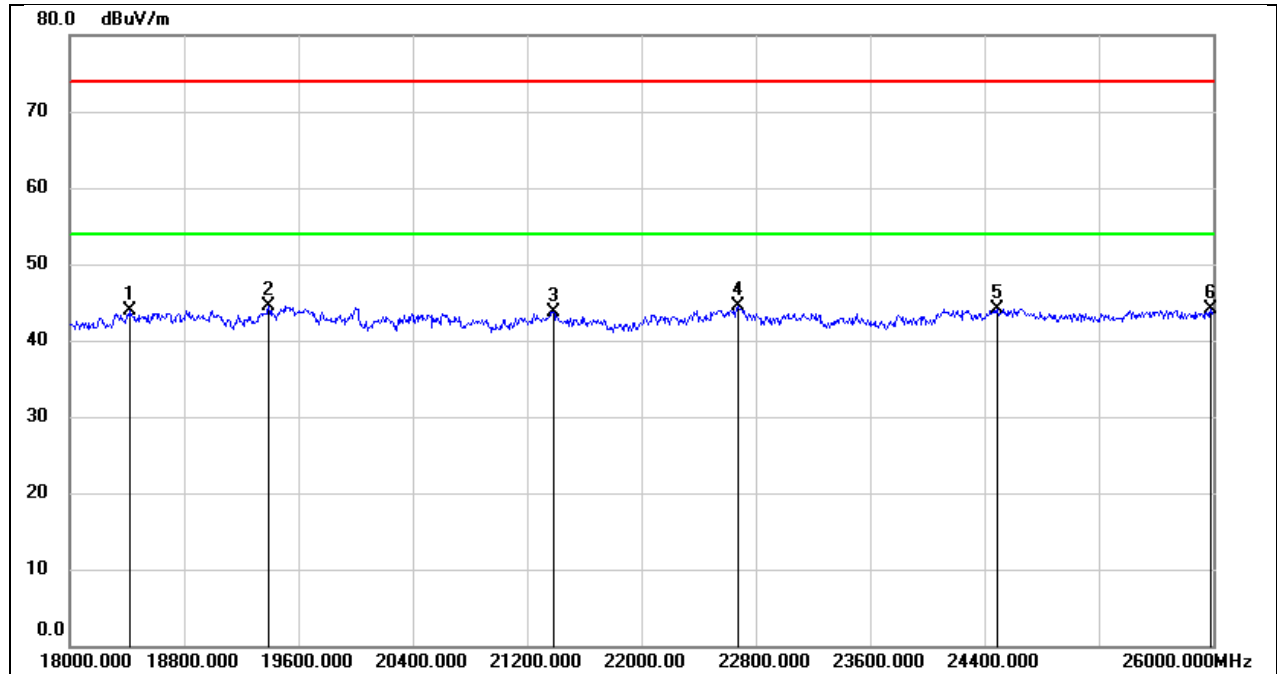
Test Mode:	802.11a20	Frequency(MHz):	5805
Polarity:	Horizontal	Test Voltage:	DC 7.6V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1.1108	60.29	-62.22	-1.93	26.69	-28.62	peak
2	2.1463	57.77	-61.79	-4.02	29.54	-33.56	peak
3	3.1211	56.38	-61.55	-5.17	29.54	-34.71	peak
4	7.3361	55.08	-61.17	-6.09	29.54	-35.63	peak
5	16.3959	53.67	-60.96	-7.29	29.54	-36.83	peak
6	25.8978	54.26	-60.36	-6.10	29.54	-35.64	peak

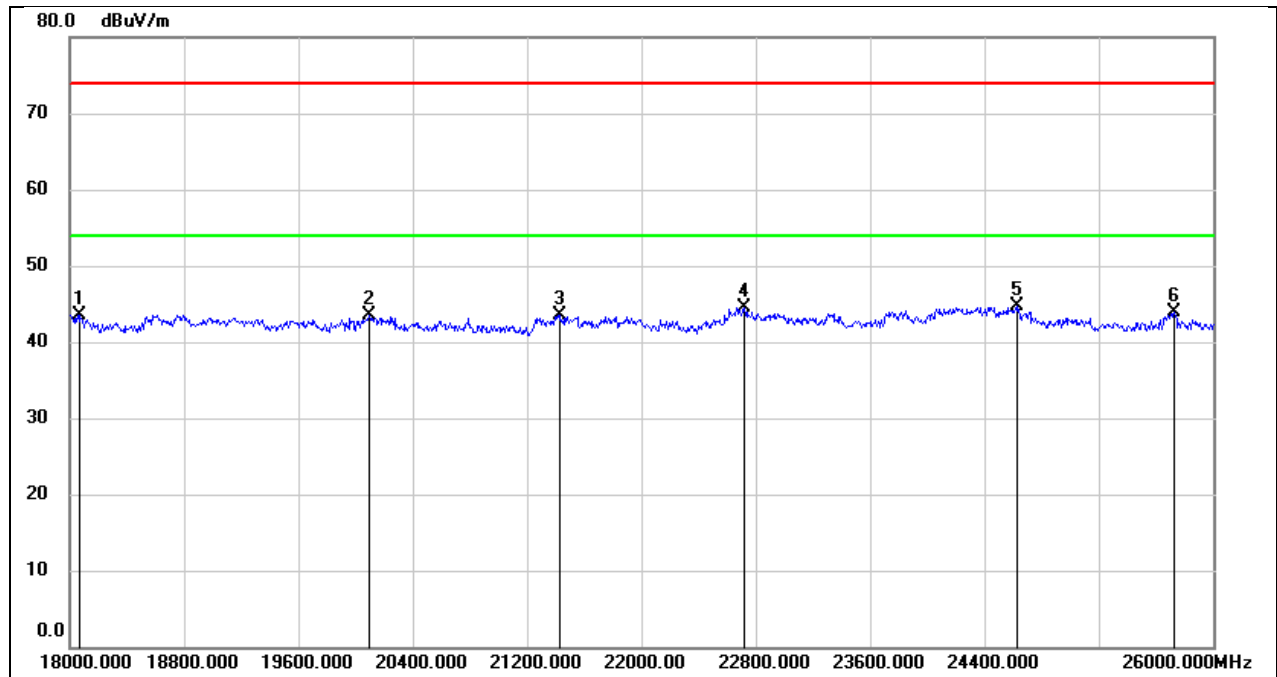
8.4. SPURIOUS EMISSIONS(18 GHZ~26 GHZ)

Test Mode:	802.11a20	Frequency(MHz):	5805
Polarity:	Horizontal	Test Voltage:	DC 7.6V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	18416.000	49.23	-5.35	43.88	74.00	-30.12	peak
2	19392.000	50.12	-5.57	44.55	74.00	-29.45	peak
3	21384.000	48.49	-4.72	43.77	74.00	-30.23	peak
4	22680.000	48.34	-3.74	44.60	74.00	-29.40	peak
5	24488.000	46.49	-2.34	44.15	68.20	-24.05	peak
6	25984.000	45.15	-1.03	44.12	68.20	-24.08	peak

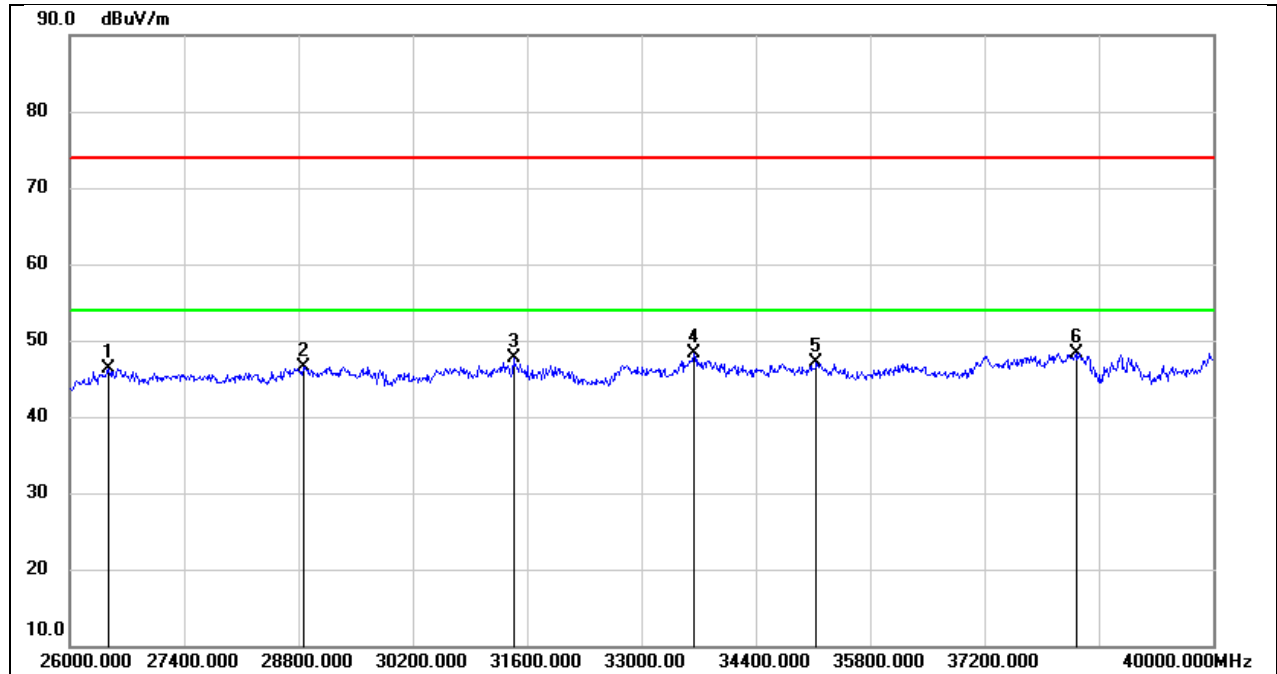
Test Mode:	802.11a20	Frequency(MHz):	5805
Polarity:	Vertical	Test Voltage:	DC 7.6V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	18072.000	49.03	-5.43	43.60	74.00	-30.40	peak
2	20096.000	49.10	-5.51	43.59	74.00	-30.41	peak
3	21432.000	48.24	-4.71	43.53	68.20	-24.67	peak
4	22720.000	48.23	-3.71	44.52	74.00	-29.48	peak
5	24624.000	46.99	-2.33	44.66	68.20	-23.54	peak
6	25728.000	44.61	-0.72	43.89	68.20	-24.31	peak

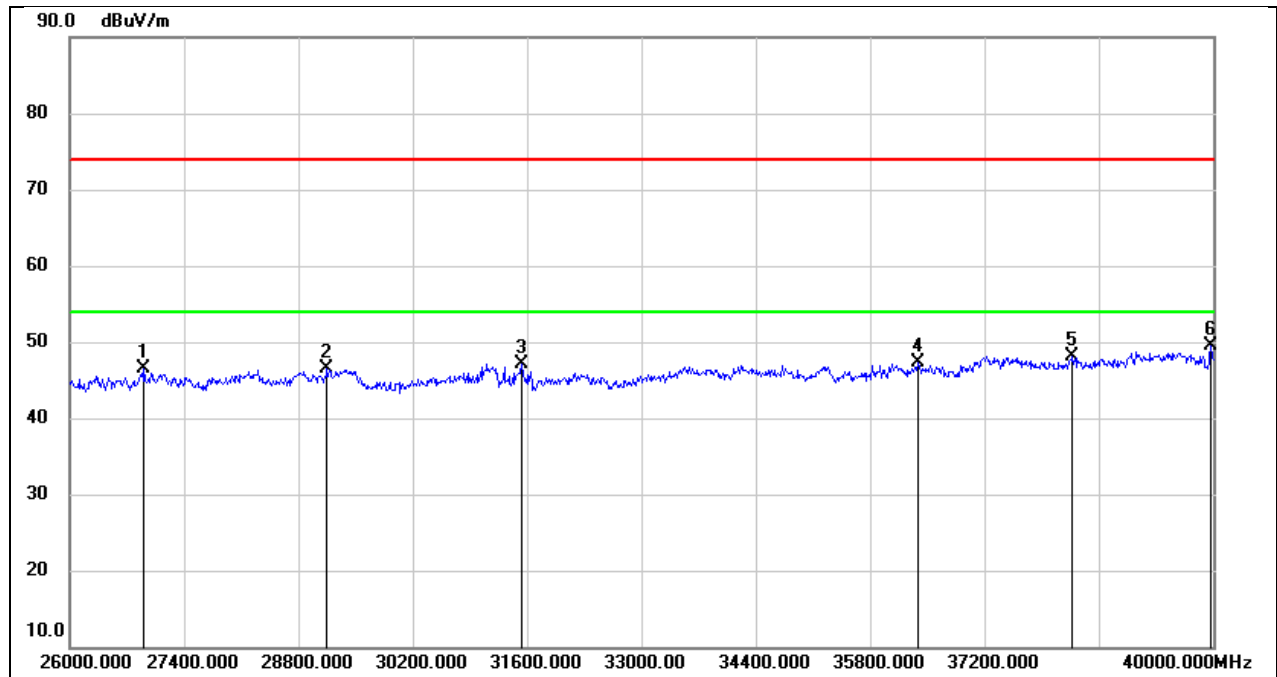
8.5. SPURIOUS EMISSIONS(26 GHZ~40 GHZ)

Test Mode:	802.11a20	Frequency(MHz):	5805
Polarity:	Horizontal	Test Voltage:	DC 7.6V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	26476.000	51.17	-4.78	46.39	68.20	-21.81	peak
2	28856.000	47.37	-0.90	46.47	68.20	-21.73	peak
3	31432.000	48.75	-1.10	47.65	74.00	-26.35	peak
4	33644.000	47.81	0.42	48.23	68.20	-19.97	peak
5	35142.000	45.09	2.07	47.16	68.20	-21.04	peak
6	38320.000	44.56	3.77	48.33	68.20	-19.87	peak

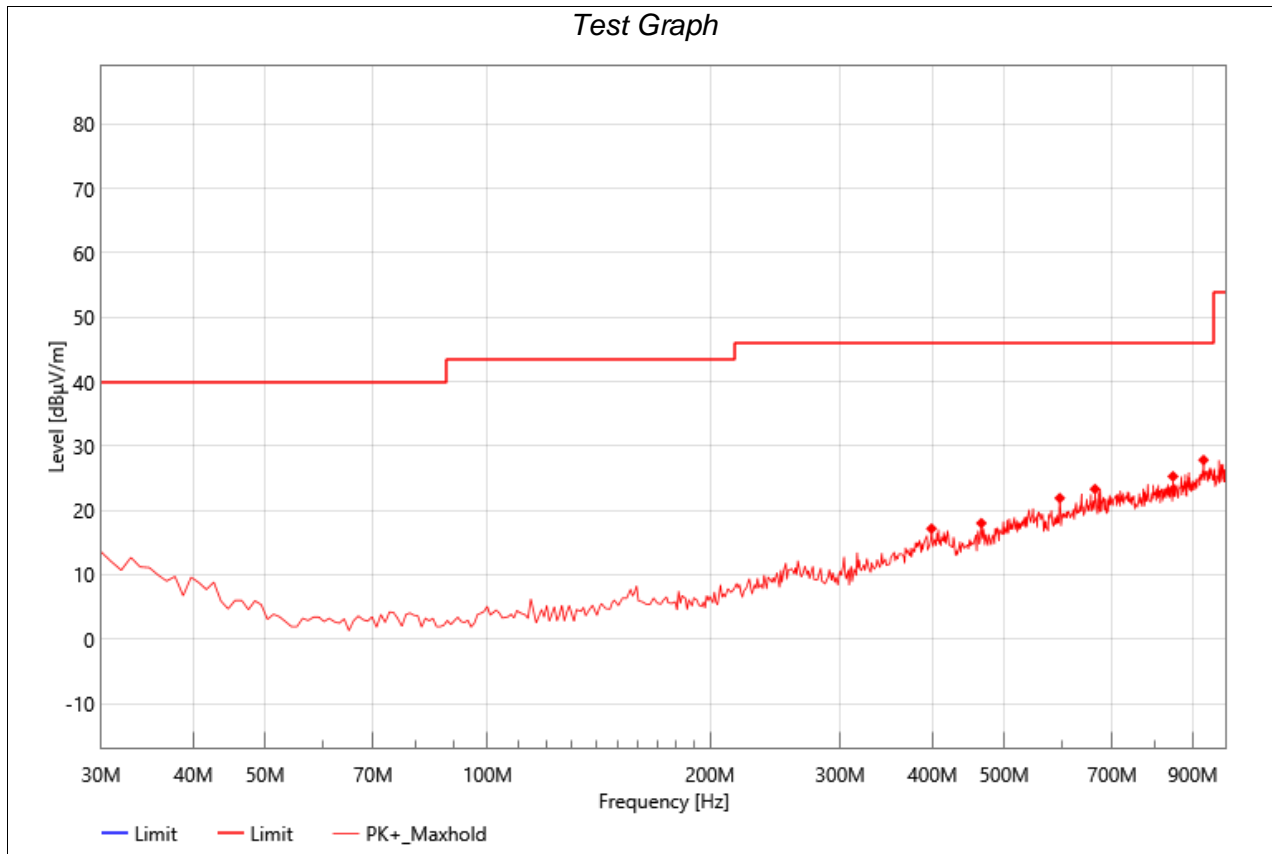
Test Mode:	802.11a20	Frequency(MHz):	5805
Polarity:	Vertical	Test Voltage:	DC 7.6V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	26910.000	50.64	-4.11	46.53	68.20	-21.67	peak
2	29150.000	47.71	-1.20	46.51	68.20	-21.69	peak
3	31530.000	48.30	-1.21	47.09	74.00	-26.91	peak
4	36388.000	43.82	3.52	47.34	68.20	-20.86	peak
5	38278.000	44.32	3.82	48.14	68.20	-20.06	peak
6	39972.000	44.45	5.13	49.58	68.20	-18.62	peak

8.6. SPURIOUS EMISSIONS(30 MHZ~1 GHZ)

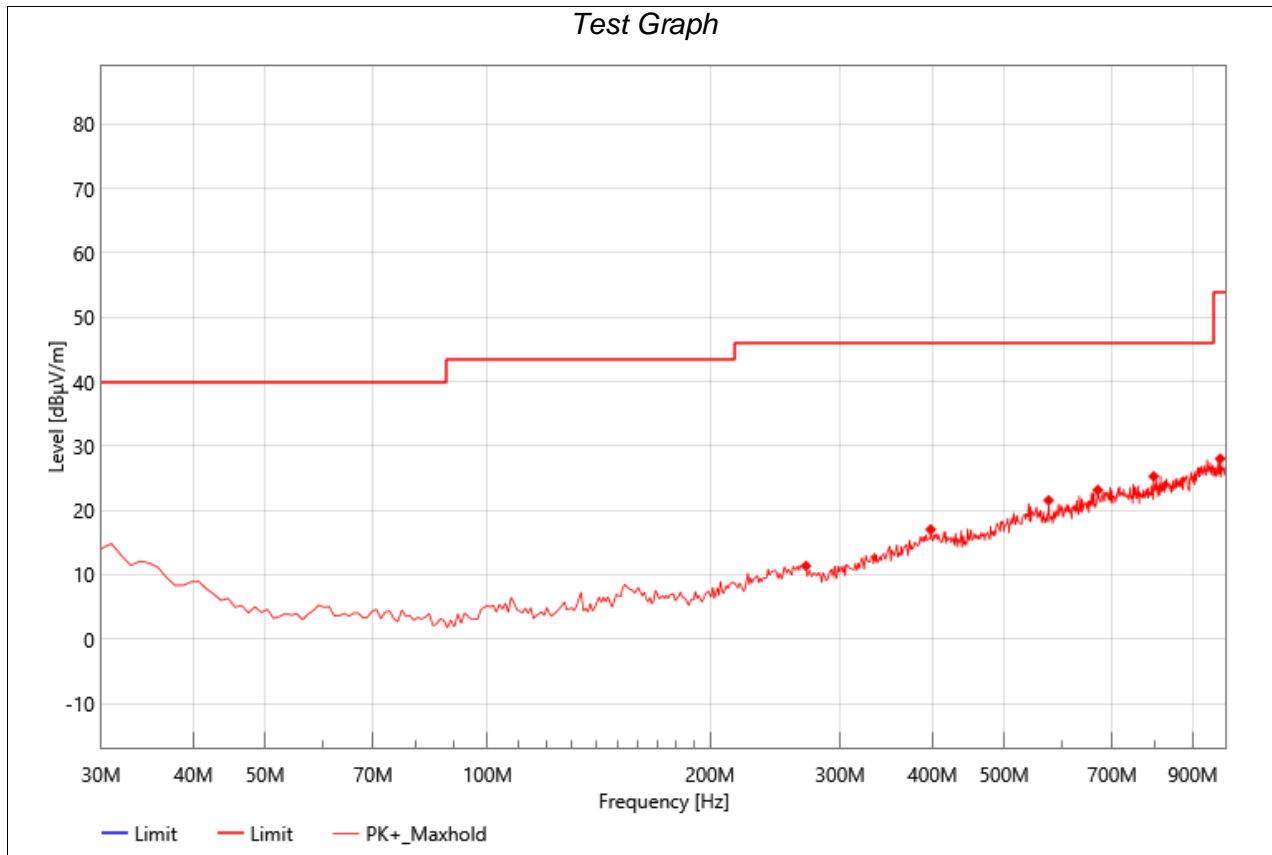
Test Mode:	802.11a20	Frequency(MHz):	5805
Polarity:	Horizontal	Test Voltage:	DC 7.6V



Suspected Data List									
NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Polarity	Detector	Verdict
1	398.60	30.82	17.17	-13.65	46.00	28.83	Horizontal	QP	PASS
2	465.53	31.20	18.03	-13.17	46.00	27.97	Horizontal	QP	PASS
3	594.54	31.48	21.92	-9.56	46.00	24.08	Horizontal	QP	PASS
4	663.41	31.05	23.32	-7.73	46.00	22.68	Horizontal	QP	PASS
5	845.77	30.45	25.29	-5.16	46.00	20.71	Horizontal	QP	PASS
6	930.16	29.94	27.84	-2.1	46.00	18.16	Horizontal	QP	PASS

Note:(1)Level=Reading+Factor
(2)Margin=Limit-Level]

Test Mode:	802.11a20	Frequency(MHz):	5805
Polarity:	Vertical	Test Voltage:	DC 7.6V



Suspected Data List									
NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Polarity	Detector	Verdict
1	269.59	29.84	11.39	-18.45	46.00	34.61	Vertical	QP	PASS
2	397.63	30.75	17.03	-13.72	46.00	28.97	Vertical	QP	PASS
3	574.17	31.95	21.57	-10.38	46.00	24.43	Vertical	QP	PASS
4	669.23	30.64	23.19	-7.45	46.00	22.81	Vertical	QP	PASS
5	796.30	31.23	25.30	-5.93	46.00	20.70	Vertical	QP	PASS
6	979.63	30.69	28.04	-2.65	53.90	25.86	Vertical	QP	PASS

Note:(1)Level=Reading+Factor
(2)Margin=Limit-Level]

Note: Suspected Data List is the peak test results. If the peak result overtakes the AV limit, the AV result is measured and shown in the Final Data List.

9. 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

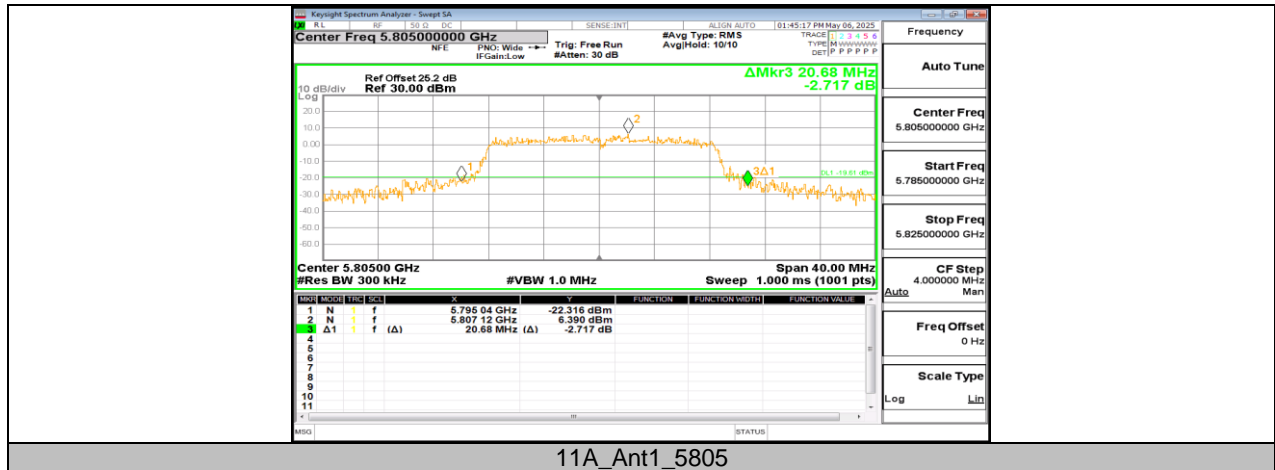
10. TEST DATA

10.1. APPENDIX A: EMISSION BANDWIDTH

10.1.1. Test Result

Test Mode	Antenna	Frequency[MHz]	26db EBW [MHz]	FL[MHz]	FH[MHz]
11A	Ant1	5805	20.680	5795.040	5815.720

10.1.2. Test Graphs

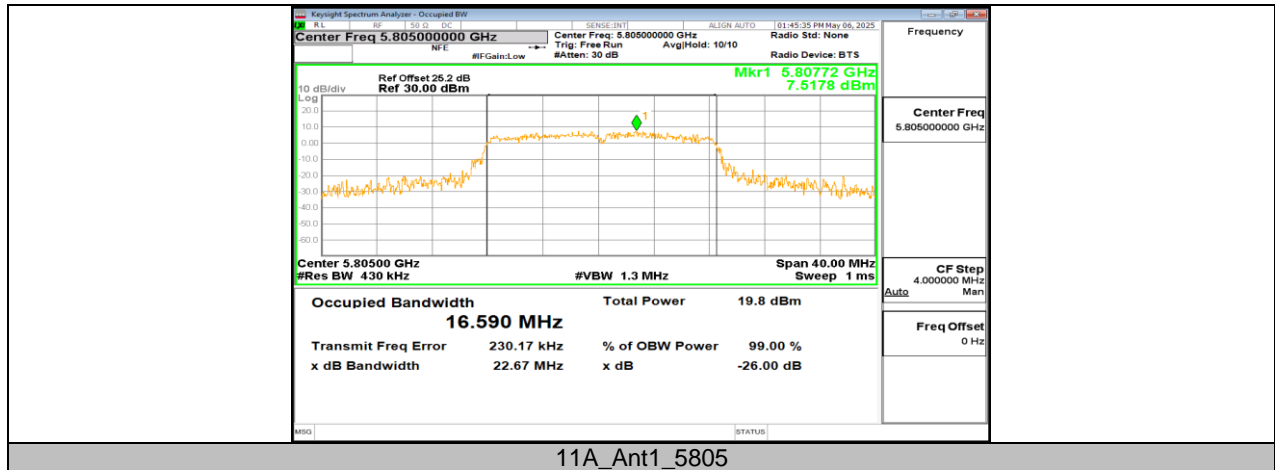


10.2. APPENDIX B: OCCUPIED CHANNEL BANDWIDTH

10.2.1. Test Result

Test Mode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]
11A	Ant1	5805	16.590	5796.9352	5813.5252

10.2.2. Test Graphs



10.3. APPENDIX C: MIN EMISSION BANDWIDTH**10.3.1. Test Result**

Test Mode	Antenna	Frequency[MHz]	6db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5805	16.360	5797.040	5813.400	≥0.5	PASS

10.3.2. Test Graphs



10.4. APPENDIX D: MAXIMUM CONDUCTED OUTPUT POWER**10.4.1. Test Result**

Test Mode	Antenna	Frequency[MHz]	Power [dBm]	FCC Limit [dBm]	Verdict
11A	Ant1	5805	20.25	≤30.00	PASS

Note: 1. Conducted Power=Meas. Level+ Correction Factor

2. The Duty Cycle Factor (refer to section 7.1) had already compensated to the test data.

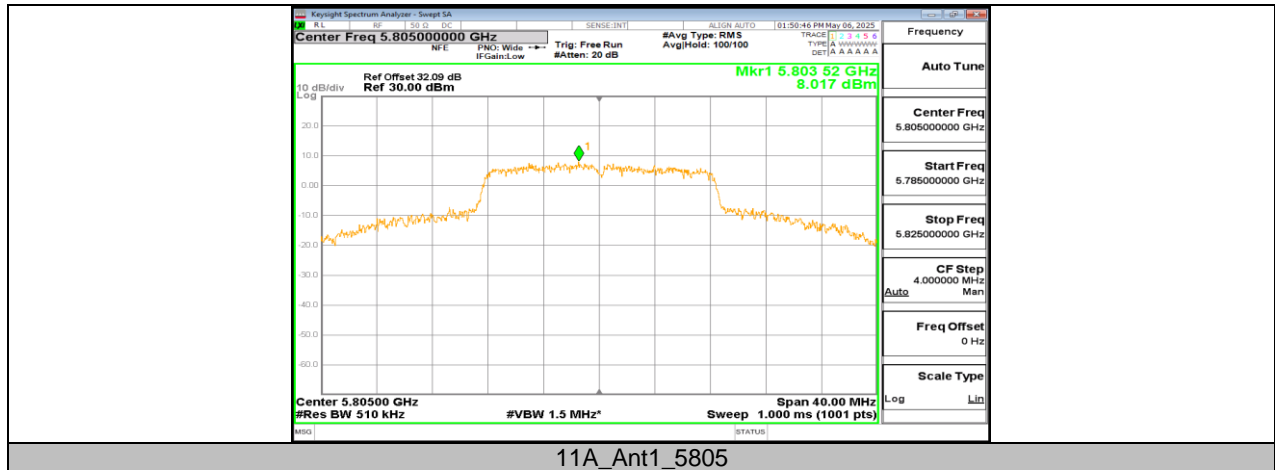
10.5. APPENDIX E: MAXIMUM POWER SPECTRAL DENSITY

10.5.1. Test Result

Test Mode	Antenna	Frequency[MHz]	Power [dBm/500kHz]	Limit [dBm/MHz]	Verdict
11A	Ant1	5805	8.02	≤30.00	PASS

Note: The Duty Cycle Factor and RBW Factor is compensated in the graph.

10.5.2. Test Graphs



10.6. APPENDIX F: FREQUENCY STABILITY

10.6.1. Test Result

Frequency Error vs. Voltage									
802.11a:5805MHz									
Temp .	Volt .	0 Minute		2 Minute		5 Minute		10 Minute	
		Freq.Error (MHz)	Toleran ce (ppm)	Freq.Error (MHz)	Toleranc e (ppm)	Freq.Error (MHz)	Toleran ce (ppm)	Freq.Error (MHz)	Tolera nce (ppm)
TN	VL	5805.0129	2.22	5804.9861	-2.40	5804.9791	-3.60	5804.9847	-2.63
TN	VN	5805.0215	3.71	5804.9792	-3.58	5805.0202	3.49	5805.0033	0.57
TN	VH	5805.0027	0.47	5805.0116	2.00	5804.9881	-2.06	5805.0092	1.58
Frequency Error vs. Temperature									
802.11a:5200MHz									
Temp .	Volt .	0 Minute		2 Minute		5 Minute		10 Minute	
		Freq.Error (MHz)	Toleran ce (ppm)	Freq.Error (MHz)	Toleranc e (ppm)	Freq.Error (MHz)	Toleranc e (ppm)	Freq.Error (MHz)	Toleranc e (ppm)
70	VN	5804.9883	-2.01	5804.9754	-4.24	5805.0221	3.80	5804.9969	-0.54
60	VN	5804.9809	-3.30	5805.0218	3.75	5804.9810	-3.27	5804.9969	-0.54
50	VN	5804.9767	-4.01	5804.9887	-1.94	5805.0145	2.50	5805.0237	4.08
40	VN	5805.0110	1.89	5804.9911	-1.54	5805.0249	4.28	5804.9885	-1.99
30	VN	5804.9938	-1.07	5805.0159	2.74	5804.9967	-0.57	5805.0244	4.21
20	VN	5804.9814	-3.21	5805.0225	3.87	5804.9984	-0.27	5804.9833	-2.88
10	VN	5804.9914	-1.48	5805.0052	0.89	5804.9948	-0.90	5805.0032	0.56
0	VN	5805.0109	1.88	5805.0119	2.05	5804.9863	-2.35	5804.9830	-2.92
-10	VN	5804.9883	-2.01	5804.9754	-4.24	5805.0221	3.80	5804.9969	-0.54

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.

10.7. APPENDIX G: DUTY CYCLE**10.7.1. 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	1.38	6.89	0.2003	20.03	6.98	0.72	1

Note:

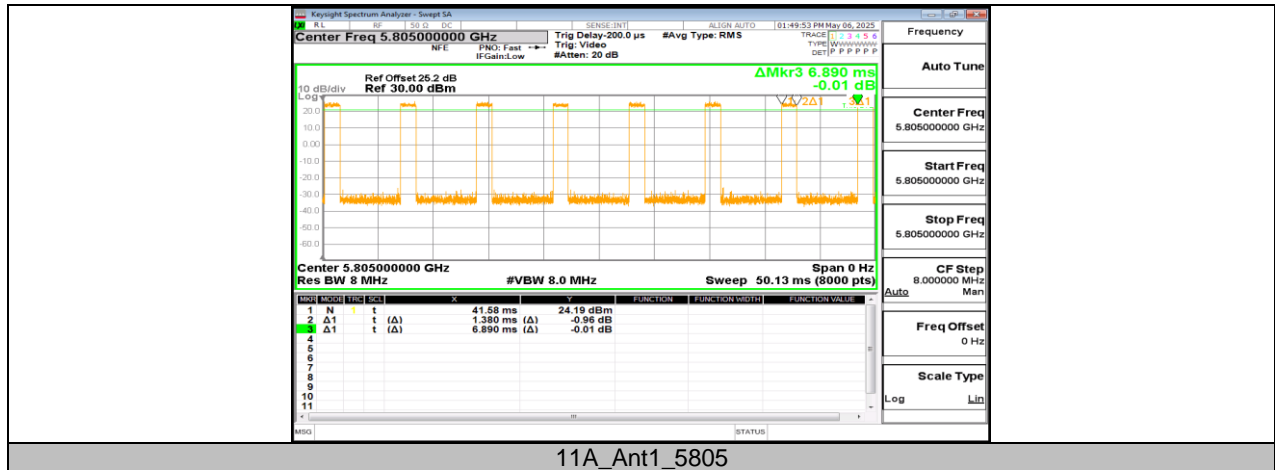
Duty Cycle Correction Factor= $10\log(1/x)$.

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.

10.7.2. Test Graphs



END OF REPORT