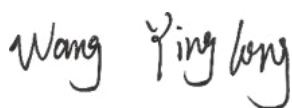


TEST REPORT

Applicant: Shenzhen SEI Robotics Co., Ltd.
Address: 11th Floor, Kangtai Group Building, No. 222 Kefa Road, Science and Technology Park Community, Yuehai Street, Nanshan District, Shenzhen
Equipment Type: Dongle
Model Name: GuestBox Dongle (refer to section 2.3)
Brand Name: GuestBox
FCC ID: 2AOVU-SEID00GSB
ISED Number: 25669-SEID00GSB
Test Standard: 47 CFR Part 15 Subpart C
RSS-Gen Issue 5
RSS-247 Issue 4
(refer to section 3.1)
Sample Arrival Date: Jul. 29, 2026
Test Date: Aug. 04, 2026 - Aug. 17, 2026
Date of Issue: Sep. 04, 2026

ISSUED BY:

Shenzhen BALUN Technology Co., Ltd.

**Tested by:** Wang Yinglong**Checked by:** Li Ganming**Approved by:** Tolan Tu
(Testing Director)

Revision History

Version	Issue Date	Revisions
<u>Rev. 01</u>	<u>Sep. 04, 2026</u>	<u>Initial Issue</u>

TABLE OF CONTENTS

1	GENERAL INFORMATION	4
1.1	Test Laboratory	4
1.2	Test Location	4
2	PRODUCT INFORMATION	5
2.1	Applicant Information	5
2.2	Manufacturer Information	5
2.3	General Description for Equipment under Test (EUT)	5
2.4	Technical Information	6
2.5	Channel List	7
2.6	Additional Instructions	9
3	SUMMARY OF TEST RESULTS	11
3.1	Test Standards	11
3.2	Test Verdict	11
4	GENERAL TEST CONFIGURATIONS	12
4.1	Test Environments	12
4.2	Test Equipment List	12
4.3	Test Software List	12
4.4	Measurement Uncertainty	13
4.5	Description of Test Setup	13
4.6	Measurement Results Explanation Example	16
5	TEST ITEMS	17
5.1	Antenna Requirements	17
5.2	Output Power	18
5.3	Occupied Bandwidth	20

5.4	Conducted Spurious Emission	22
5.5	Band Edge (Authorized-band band-edge).....	24
5.6	Conducted Emission.....	26
5.7	Radiated Spurious Emission	27
5.8	Band Edge (Restricted-band band-edge).....	32
5.9	Power Spectral density (PSD)	35
ANNEX A	TEST RESULT	36
A.1	Output Power	36
A.2	Occupied Bandwidth.....	45
A.3	Conducted Spurious Emissions	50
A.4	Band Edge (Authorized-band band-edge).....	57
A.5	Conducted Emissions	61
A.6	Radiated Emission.....	64
A.7	Band Edge (Restricted-band band-edge).....	79
A.8	Power Spectral Density (PSD).....	84
ANNEX B	TEST SETUP PHOTOS	87
ANNEX C	EUT EXTERNAL PHOTOS.....	87
ANNEX D	EUT INTERNAL PHOTOS.....	87

1 GENERAL INFORMATION

1.1 Test Laboratory

Name	Shenzhen BALUN Technology Co., Ltd.
Address	601, Building 2, Intelligent Connected Vehicle Industrial Park, No.55, Xiangshan Road, Luotian Community, Yanluo Sub-district, Bao'an District, Shenzhen
Phone Number	+86 755 6685 0100

1.2 Test Location

Name	Shenzhen BALUN Technology Co., Ltd.
Location	☒ Building 2, Intelligent Connected Vehicle Industrial Park, No.55, Xiangshan Road, Luotian Community, Yanluo Sub-district, Bao'an District, Shenzhen, Guangdong
	☐ 1/F., Building B, Ganghongji High-Tech Intelligent Industrial Park, No.1008, Songbai Road, Yangguang Community, Xili Subdistrict, Nanshan District, Shenzhen, Guangdong
Accreditation Certificate	The laboratory is a testing organization accredited by FCC as a accredited testing laboratory. The designation number is CN1196. The laboratory has been listed by Industry Canada to perform electromagnetic emission measurements. The CAB identifier number is CN0030.

2 PRODUCT INFORMATION

2.1 Applicant Information

Applicant	Shenzhen SEI Robotics Co., Ltd.
Address	11th Floor, Kangtai Group Building, No. 222 Kefa Road, Science and Technology Park Community, Yuehai Street, Nanshan District, Shenzhen

2.2 Manufacturer Information

Manufacturer	GuestBox Inc.
Address	131 Continental Drive, Suite 301, Newark, Delaware 19713 United States of America

2.3 General Description for Equipment under Test (EUT)

EUT Name	Dongle
Model Name Under Test	GuestBox Dongle
Series Model Name	SN6BTXX (X=A, B, C...X, Y, Z)
Description of Model name differentiation	The circuit, PCB layout, electrical components and appearance of the above model are exactly the same as the basic model, except the model names are different due to different market and customer needs. (this information provided by the applicant)
Serial Number	GZ2603059N250005
Hardware Version	SMB.450.02B
Software Version	N/A
Dimensions (Approx.)	N/A
Weight (Approx.)	N/A

2.4 Technical Information

Network and Wireless connectivity	Bluetooth (BR+EDR+BLE) WIFI 802.11a, 802.11b, 802.11g, 802.11n, 802.11ac and 802.11ax
-----------------------------------	--

The requirement for the following technical information of the EUT was tested in this report:

Frequency Range		2.400 GHz - 2.4835 GHz
Modulation Technology		DSSS, OFDM
Product Type		☒ Mobile ☐ Portable ☐ Fix Location
Antenna System (eg., MIMO, Smart Antenna)		Cyclic Delay Diversity (CDD) for 802.11b/g
Categorization as Correlated or Completely Uncorrelated		Categorization as Correlated for 802.11b/g
Antenna Type	ANT-A	PCB Antenna
	ANT-B	
Antenna Gain	ANT-A	5.18 dBi
	ANT-B	
Total directional gain	For power spectral density (PSD) measurements	Correlated: 8.19 dBi Formulas: Directional gain = $G_{ANT} + 10 \log(N_{ANT})$ dBi Uncorrelated: 5.18 dBi Formulas: Directional gain = G_{ANT}
	For power measurements	Correlated: 8.19 dBi Formulas: Directional gain = $G_{ANT} + 10 \log(N_{ANT})$ dBi Uncorrelated: 5.18 dBi Formulas: Directional gain = G_{ANT}
	For Conducted Out-of-Band and Spurious Measurements	Correlated: 8.19 dBi Formulas: Directional gain = $G_{ANT} + 10 \log(N_{ANT})$ dBi Uncorrelated: 5.18 dBi Formulas: Directional gain = G_{ANT}
About the Product		Only the WIFI 802.11b and 802.11g was tested in this report.

2.5 Channel List

20 MHz		40 MHz	
Channel Number	Frequency (MHz)	Channel Number	Frequency (MHz)
1	2412	3	2422
2	2417	4	2427
3	2422	5	2432
4	2427	6	2437
5	2432	7	2442
6	2437	8	2447
7	2442	9	2452
8	2447		
9	2452		
10	2457		
11	2462		

Mode	Antenna		
	ANT-A	ANT-B	MIMO
802.11b	√	√	√
802.11g	√	√	√
802.11n20	√	√	√
802.11n40	√	√	√
Note: All the configurations were tested, but only the worst data was shown in this report.			

Modulation technology	Modulation Type	Transfer Rate (Mbps)(Single RF path)
DSSS (802.11b)	DBPSK	1
	DQPSK	2
	CCK	5.5/11
OFDM (802.11g)	BPSK	6/9
	QPSK	12/18
	16QAM	24/36
	64QAM	48/54
OFDM (802.11n-20 MHz)	BPSK	6.5/7.2
	QPSK	13/19.5/14.4/21.7
	16QAM	26/39/28.9/43.3
	64QAM	52/58.5/65/57.8/65/72.2
OFDM (802.11n-40 MHz)	BPSK	13.5/15
	QPSK	27/40.5/30/45
	16QAM	54/81/60/90
	64QAM	108/121.5/135/120/150

Note: Preliminary tests were performed in different data rate in above table to find the worst radiated emission. The data rate shown in the table below is the worst-case rate with respect to the specific test item. Investigation has been done on all the possible configurations for searching the worst cases. The following table is a list of the test modes shown in this test report.

Test Items	Mode	Data Rate	Channel	
Output Power	11b/11g/11n20/11n40	1/6/6.5/13.5	1/6/11	3/6/9
Occupied Bandwidth	11b/11g/11n20/11n40	1/6/6.5/13.5	1/6/11	3/6/9
Conducted Spurious Emission	11b/11g/11n20/11n40	1/6/6.5/13.5	1/6/11	3/6/9
Conducted Emission	11b/11g/11n20/11n40	1/6/6.5/13.5	1/6/11	3/6/9
Radiated Spurious Emission	11b/11g/11n20/11n40	1/6/6.5/13.5	1/6/11	3/6/9
Band Edge	11b/11g/11n20/11n40	1/6/6.5/13.5	1/6/11	3/6/9
Power spectral density (PSD)	11b/11g/11n20/11n40	1/6/6.5/13.5	1/6/11	3/6/9

Note: The above EUT information in section 2.5 was declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or user's manual.

2.6 Additional Instructions

EUT Software Settings:

Mode	☒ Special software is used. The software provided by client to enable the EUT under transmission condition continuously at specific channel frequencies individually.
------	--

During testing. Channel and Power Controlling Software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product.

Power level setup in software			
Test Software Version	Engineer Mode		
Mode	Channel	Frequency (MHz)	Soft Set
802.11b	1	2412	12.5
	6	2437	12.5
	11	2462	12.5
802.11g	1	2412	15
	6	2437	15
	11	2462	15
802.11n-20 MHz	1	2412	15
	6	2437	15
	11	2462	15
802.11n-40 MHz	3	2422	15
	6	2437	15
	9	2452	15

Run Software:

```
C:\Windows\System32\cmd.exe x + - □ x
wlan0 mp_rate:Set data rate to 1M index 0
PPDU Type CCK
CMD: [mp_plcp_datappdu=%d]
PLCP (PPDU Type):
0:CCK
1:LEGACY
2:HT_MF
3:HT_GF
4:VHT
5:HE_SU
6:HE_ER_SU
7:HE_MU
8:HE_TB

SEID00GSB:/ # rtwpriv wlan0 mp_bandwidth 40M=0,shortGI=0
wlan0 mp_bandwidth:Change BW 0 to BW 0

SEID00GSB:/ # rtwpriv wlan0 mp_ctx background,pkt
wlan0 mp_ctx:
Start continuous DA=ffffffffffff len=1500 count=0

SEID00GSB:/ # rtwpriv wlan0 mp_get_txpower
wlan0 mp_get_txpower:
1SS dBm:19.50,2SS dBm:18.50
SEID00GSB:/ # rtwpriv wlan0 mp_txpower dbm=15.5
wlan0 mp_txpower:Set power dbm :15.50
Path:0 PwrAGC:101
Path:1 PwrAGC:101

SEID00GSB:/ # |
```

3 SUMMARY OF TEST RESULTS

3.1 Test Standards

No.	Identity	Document Title
1	47 CFR Part 15, Subpart C	Intentional radiators of radio frequency equipment
2	RSS-Gen Issue 5	General Requirements for Compliance of Radio Apparatus
3	RSS-247 Issue 4	Digital Transmission Systems, Frequency Hopping Systems and Licence Exempt Local Area Network Devices in 902-928 MHz, 2400-2483.5 MHz, 5150-5350 MHz, and 5470-5895 MHz bands
4	KDB Publication 662911 D01v02r01	Emissions Testing of Transmitters with Multiple Outputs in the Same Band (e.g., MIMO, Smart Antenna, etc) 单天线删除此标准
5	ANSI C63.10-2020 + Cor. 1-2023 + C63.10a-2024 + Errata to C63.10a-2024	American National Standard for Procedures for Compliance Testing of Unlicensed Wireless Devices
6	KDB Publication 558074 D01v05r02	GUIDANCE FOR COMPLIANCE MEASUREMENTS ON DIGITAL TRANSMISSION SYSTEM, FREQUENCY HOPPING SPREAD SPECTRUM SYSTEM, AND HYBRID SYSTEM DEVICES OPERATING UNDER SECTION 15.247 OF THE FCC RULES

3.2 Test Verdict

No.	Description	FCC PART No.	ISED Part No.	Test Result	Verdict
1	Antenna Requirement	15.203	RSS-Gen, 6.8	N/A	Pass ^{Note 1}
2	Output Power	15.247 (b)	RSS-247, 6.3.2	ANNEX A.1	Pass
3	Occupied Bandwidth	15.247 (a)	RSS-GEN, 6.7; RSS-247, 6.3.1(a)	ANNEX A.2	Pass
4	Conducted Spurious Emission	15.247 (d)	RSS-247, 6.6	ANNEX A.3	Pass
5	Band Edge(Authorized-band band-edge)	15.247 (d)	RSS-247, 6.6	ANNEX A.4	Pass
6	Conducted Emission	15.207	RSS-GEN, 8.8	ANNEX A.5	Pass
7	Radiated Spurious Emission	15.209; 15.247 (d)	RSS-247, 6.6	ANNEX A.6	Pass
8	Band Edge(Restricted-band band-edge)	15.209; 15.247 (d)	RSS-247, 6.6	ANNEX A.7	Pass
9	Power spectral density (PSD)	15.247 (e)	RSS-247, 6.3.1(b)	ANNEX A.8	Pass
10	Receiver Spurious Emissions	N/A	RSS-Gen, 7.3	N/A	N/A ^{Note 2}

Note 1: The EUT has a permanently and irreplaceable attached antenna, which complies with the requirement FCC 15.203.

Note 2: Only radio communication receivers operating in stand-alone mode within the band 30-960 MHz, as well as scanner receivers, are subject to Industry Canada requirements, so this test is not applicable.

4 GENERAL TEST CONFIGURATIONS

4.1 Test Environments

During the measurement, the normal environmental conditions were within the listed ranges:

Relative Humidity	41% to 69%	
Atmospheric Pressure	100 kPa to 102 kPa	
Temperature	NT (Normal Temperature)	+19.8℃ to +26.1℃
Working Voltage of the EUT	NV (Normal Voltage)	5V

4.2 Test Equipment List

Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due
Spectrum Analyzer	KEYSIGHT	N9020A	MY56060183	2026.06.01	2027.05.31
Power Sensor	KEYSIGHT	U2063XA	MY58000247	2026.06.01	2027.05.31
Spectrum Analyzer	ROHDE&SCHWARZ	FSV-40	101544	2025.10.30	2026.10.29
Spectrum Analyzer	KEYSIGHT	N9020A	MY54432240	2026.03.24	2027.03.23
Test Antenna-Bi-Log	SCHWARZBECK	VULB 9168	00884	2025.03.01	2028.02.29
Test Antenna-Horn	SCHWARZBECK	BBHA 9120D	01631	2025.02.22	2028.02.21
Anechoic Chamber	EMC Electronic Co, Ltd	9m*6m*6m	213	2026.03.03	2028.03.02
Amplifier	COM-MV	LSCX_LNA1-12G-01	180602	2026.05.20	2027.05.19
Amplifier	COM-MV	XKu_LNA7-18G-01	180601	2026.05.20	2027.05.19
EMI Receiver	Keysight	N9038A	MY53220118	2025.09.25	2026.09.24
Amplifier(30MHz-1GHz)	COM-MV	ZT30-1000M	B2017119082	2025.11.25	2026.11.24
Test Antenna-Bi-Log	SCHWARZBECK	VULB 9163	9163-624	2024.07.06	2027.07.05
Anechoic Chamber (#5)	ChangChuang	9m*6m*6m	104-1	2025.10.13	2028.10.12
EMI Receiver	KEYSIGHT	N9010B	MY57110309	2025.09.25	2026.09.24
LISN	SCHWARZBECK	NSLK 8127	8127-687	2026.03.25	2027.03.24
ISN	TESEQ	ISN T800	34449	2025.10.20	2026.10.19
ISN	TESEQ	ISN T8-Cat6	53561	2026.05.29	2027.05.28
Shielded Room	Chang Chuang	4m*4m*3m	662	2025.10.12	2028.10.11

4.3 Test Software List

Description	Manufacturer	Software Version	Serial No.	Applicable test Setup
BL410R	BALUN	V2.1.1.488	N/A	The section 4.5.1
BL410E	BALUN	V22.930	N/A	The section 4.5.2&4.5.3&4.5.4&4.5.5

4.4 Measurement Uncertainty

The following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2.

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

Parameters	Uncertainty
Occupied Channel Bandwidth	2.8%
RF output power, conducted	1.28 dB
Power Spectral Density, conducted	1.30 dB
Unwanted Emissions, conducted	1.84 dB
All emissions, radiated	5.36 dB
Temperature	0.8°C
Humidity	4%

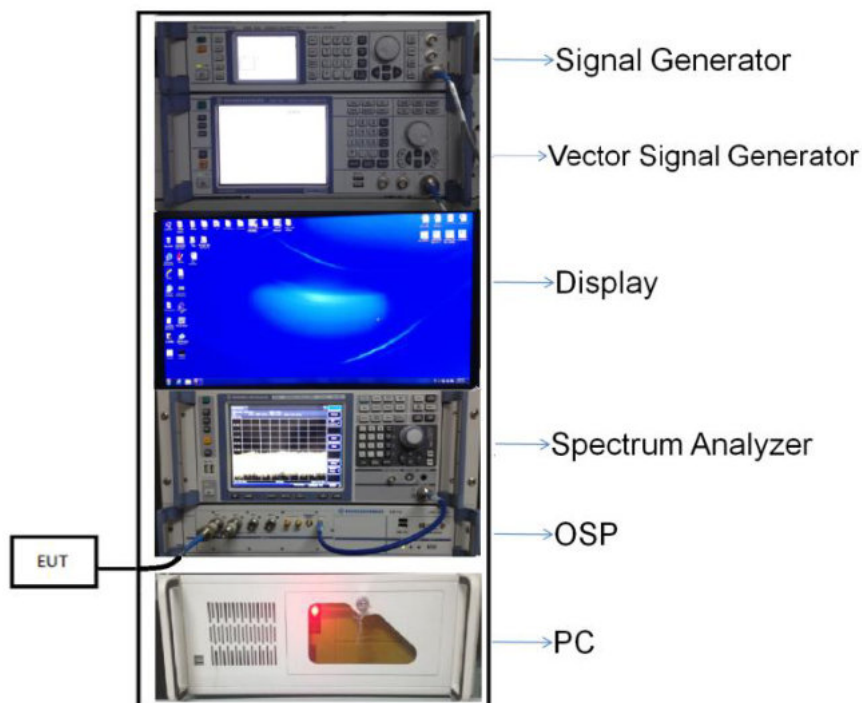
4.5 Description of Test Setup

4.5.1 For Antenna Port Test

Conducted value (dBm) = Measurement value (dBm) + cable loss (dB)

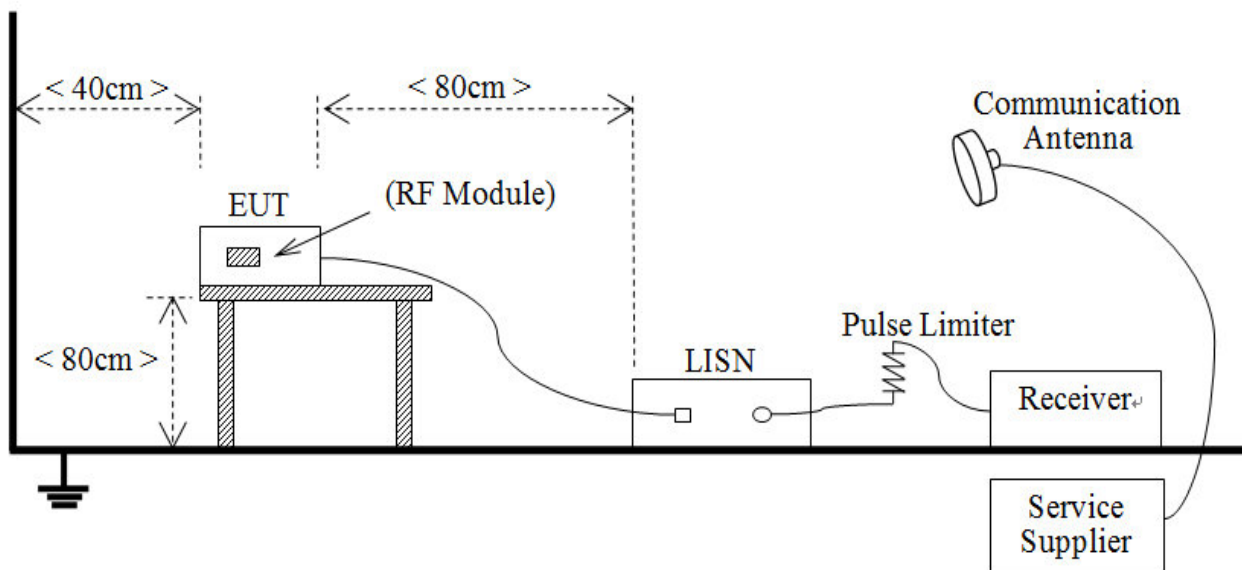
For example: the measurement value is 10 dBm and the cable 0.5dBm used, then the final result of EUT:

Conducted value (dBm) = 10 dBm + 0.5 dB = 10.5 dBm



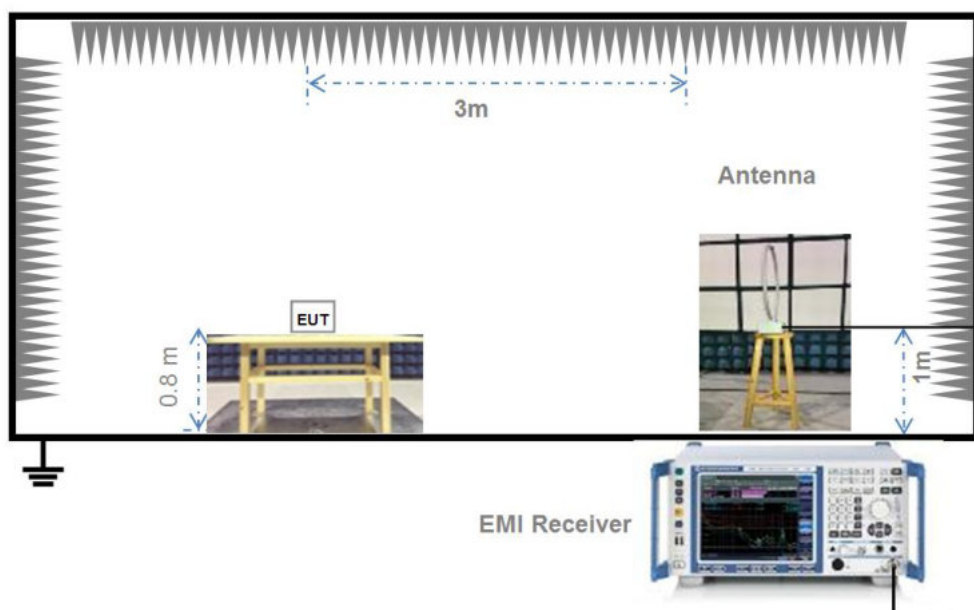
(Diagram 1)

4.5.2 For AC Power Supply Port Test



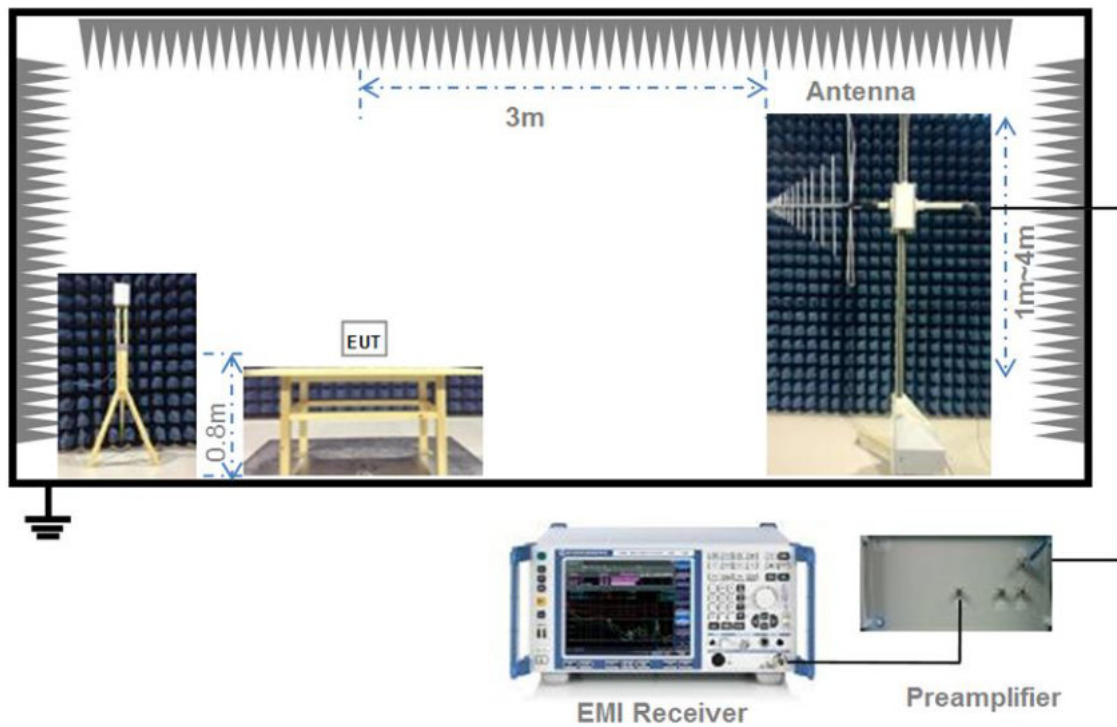
(Diagram 2)

4.5.3 For Radiated Test (Below 30 MHz)



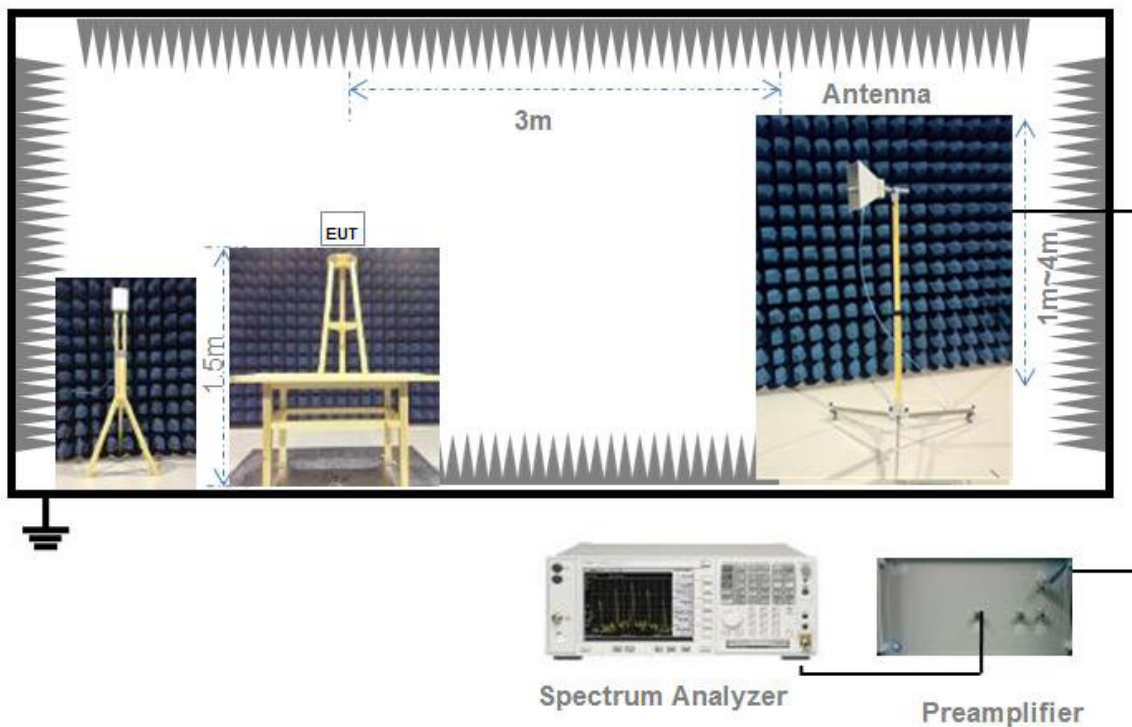
(Diagram 3)

4.5.4 For Radiated Test (30 MHz-1 GHz)



(Diagram 4)

4.5.5 For Radiated Test (Above 1 GHz)



(Diagram 5)

4.6 Measurement Results Explanation Example

4.6.1 For conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss and attenuator between EUT conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly the EUT RF output level.

The spectrum analyzer offset is derived from RF cable loss and attenuator factor.

Offset = RF cable loss + attenuator factor.

4.6.2 For radiated band edges and spurious emission test:

$$E = \text{EIRP} - 20 \log D + 104.8$$

where:

E = electric field strength in dB μ V/m,

EIRP = equivalent isotropic radiated power in dBm

D = specified measurement distance in meters.

EIRP = Measure Conducted output power Value (dBm) + Maximum transmit antenna gain (dBi) + the appropriate maximum ground reflection factor (dB)

5 TEST ITEMS

5.1 Antenna Requirements

5.1.1 Relevant Standards

FCC §15.203; RSS-Gen, 6.8

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. This requirement does not apply to carrier current devices or to devices operated under the provisions of § 15.211, § 15.213, § 15.217, § 15.219, or § 15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with § 15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

If directional gain of transmitting antennas is greater than 6 dBi, the power shall be reduced by the same level in dB comparing to gain minus 6 dBi. For the fixed point-to-point operation, the power shall be reduced by one dB for every 3 dB that the directional gain of the antenna exceeds 6 dBi. 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 FCC rule.

5.1.2 Antenna Anti-Replacement Construction

The Antenna Anti-Replacement as following method:

Protected Method	Description
The antenna is embedded in the product.	An embedded-in antenna design is used.

Reference Documents	Item
Photo	Please refer to the EUT Photo documents.

5.1.3 Antenna Gain

The antenna peak gain of EUT is less than 6 dBi. Therefore, it is not necessary to reduce maximum peak output power limit.

5.2 Output Power

5.2.1 Test Limit

FCC § 15.247(b); RSS-247, 6.3.2

For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt. As an alternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximum conducted output power. Maximum Conducted Output Power is defined as the total transmit power delivered to all antennas and antenna elements averaged across all symbols in the signaling alphabet when the transmitter is operating at its maximum power control level. Power must be summed across all antennas and antenna elements.

RSS-247, 6.3.2

For DTS operating in the band 2400-2483.5 MHz, the maximum peak conducted output power shall not exceed 1W, and the e.i.r.p. shall not exceed 4 W, except as provided in section 6.5 a) and b).

5.2.2 Test Setup

See section 4.5.1 for test setup description for the antenna port. The photo of test setup please refer to ANNEX B.

5.2.3 Test Procedure

Maximum peak conducted output power

The maximum peak conducted output power may be measured using a broadband peak RF power meter. The power meter shall have a video bandwidth that is greater than or equal to the DTS bandwidth and shall utilize a fast-responding diode detector.

The EUT shall be transmitted at its maximum power control level.

EIRP= Maximum peak conducted output power +Antenna Gain.

Maximum conducted (average) output power (Reporting Only)

a) As an alternative to spectrum analyzer or EMI receiver measurements, measurements may be performed using a wideband RF power meter with a thermocouple detector or equivalent if all of the conditions listed below are satisfied.

- 1) The EUT is configured to transmit continuously, or to transmit with a constant duty factor.
 - 2) At all times when the EUT is transmitting, it shall be transmitting at its maximum power control level.
 - 3) The integration period of the power meter exceeds the repetition period of the transmitted signal by at least a factor of five.
- b) If the transmitter does not transmit continuously, measure the duty cycle (x) of the transmitter output signal.
- c) Measure the average power of the transmitter. This measurement is an average over both the on and off periods of the transmitter.

d) Adjust the measurement in dBm by adding $10\log(1/x)$, where x is the duty cycle.

Measurements of duty cycle

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 $RBW \geq OBW$ 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 $> 50/T$ 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.)

5.2.4 Test Result

Please refer to ANNEX A.1.

5.3 Occupied Bandwidth

5.3.1 Limit

FCC §15.247(a); RSS-GEN, 6.7; RSS-247, 6.3.1(a)

Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 100 kHz. In order to make an accurate measurement, set the span greater than RBW. The 6 dB bandwidth must be greater than 500 kHz.

5.3.2 Test Setup

See section 4.5.1 for test setup description for the antenna port. The photo of test setup please refer to ANNEX B.

5.3.3 Test Procedure

Option 1:

Use the following spectrum analyzer settings:

Set RBW = shall be in the range of 1% to 5% of the OBW but not less than 100 kHz.

Set the video bandwidth (VBW) ≥ 3 RBW.

Detector = Peak.

Trace mode = max hold.

Sweep = No faster than coupled (auto) time.

Allow the trace to stabilize.

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 dB relative to the maximum level measured in the fundamental emission.

Option 2:

The automatic bandwidth measurement capability of an instrument may be employed using the X dB bandwidth mode with X set to 6 dB, if the functionality described in 11.8.1 (i.e., RBW = 100 kHz,

VBW $\geq 3 \times$ RBW, and peak detector with maximum hold) is implemented by the instrumentation function. When using this capability, care shall be taken so that the bandwidth measurement is not influenced by any intermediate power nulls in the fundamental emission that might be ≥ 6 dB.

99% bandwidth:

Use the following spectrum analyzer settings:

Set RBW = shall be in the range of 1% to 5% of the OBW.

Set the video bandwidth (VBW) ≥ 3 RBW.

Set the Span to 1.5 to 5 times of OBW.

Detector = Peak.

Trace mode = max hold.

The occupied bandwidth is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers are each equal to 0.5% of the total mean power of the given emission.

5.3.4 Test Result

Please refer to ANNEX A.2.

5.4 Conducted Spurious Emission

5.4.1 Limit

FCC §15.247(d); RSS-247, 6.6

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.

5.4.2 Test Setup

See section 4.5.1 for test setup description for the antenna port. The photo of test setup please refer to ANNEX B.

5.4.3 Test Procedure

The DTS rules specify that in any 100 kHz bandwidth outside of the authorized frequency band, the power shall be attenuated according to the following conditions:

- a) If the maximum peak conducted output power procedure was used to demonstrate compliance as described in 9.1, then the peak output power measured in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum in-band peak PSD level in 100 kHz (i.e., 20 dBc).
- b) If maximum conducted (average) output power was used to demonstrate compliance as described in 9.2, then the peak power in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 30 dB relative to the maximum in-band peak PSD level in 100 kHz (i.e., 30 dBc).
- c) In either case, attenuation to levels below the 15.209 general radiated emissions limits is not required.

The following procedures shall be used to demonstrate compliance to these limits. Note that these procedures can be used in either an antenna-port conducted or radiated test set-up. Radiated tests must conform to the test site requirements and utilize maximization procedures defined herein.

Reference level measurement

Establish a reference level by using the following procedure:

Set instrument center frequency to DTS channel center frequency.

Set the span to ≥ 1.5 times the DTS bandwidth.

Set the RBW = 100 kHz.

Set the VBW $\geq 3 \times$ RBW.

Detector = peak.

Sweep time = auto couple.

Trace mode = max hold.

Allow trace to fully stabilize.

Use the peak marker function to determine the maximum PSD level.

Emission level measurement

Use the following spectrum analyzer settings:

Span = wide enough to capture the peak level of the in-band emission and all spurious emissions (e.g., harmonics) from the lowest frequency generated in the EUT up through the 10th harmonic. Typically, several plots are required to cover this entire span.

Set the RBW = 100 kHz.

Set the VBW $\geq 3 \times$ RBW.

Detector = peak.

Sweep time = auto couple.

Trace mode = max hold.

Allow trace to fully stabilize.

Use the peak marker function to determine the maximum amplitude level.

Ensure that the amplitude of all unwanted emissions outside of the authorized frequency band (excluding restricted frequency bands) are attenuated by at least the minimum requirements specified in 11.1 a) or 11.1 b). Report the three highest emissions relative to the limit.

5.4.4 Test Result

Please refer to ANNEX A.3.

5.5 Band Edge (Authorized-band band-edge)

5.5.1 Limit

FCC §15.247(d); RSS-GEN, 8.9, RSS-247, 6.6

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.

5.5.2 Test Setup

See section 4.5.1 for test setup description for the antenna port. The photo of test setup please refer to ANNEX B.

5.5.3 Test Procedure

The DTS rules specify that in any 100 kHz bandwidth outside of the authorized frequency band, the power shall be attenuated according to the following conditions:

- a) If the maximum peak conducted output power procedure was used to demonstrate compliance as described in 9.1, then the peak output power measured in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum in-band peak PSD level in 100 kHz (i.e., 20 dBc).
- b) If maximum conducted (average) output power was used to demonstrate compliance as described in 9.2, then the peak power in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 30 dB relative to the maximum in-band peak PSD level in 100 kHz (i.e., 30 dBc).
- c) In either case, attenuation to levels below the 15.209 general radiated emissions limits is not required.

The following procedures shall be used to demonstrate compliance to these limits. Note that these procedures can be used in either an antenna-port conducted or radiated test set-up. Radiated tests must conform to the test site requirements and utilize maximization procedures defined herein.

Reference level measurement:

Establish a reference level by using the following procedure:

Set instrument center frequency to DTS channel center frequency.

Set the span to ≥ 1.5 times the DTS bandwidth.

Set the RBW = 100 kHz.

Set the VBW $\geq 3 \times$ RBW.

Detector = peak.

Sweep time = No faster than coupled auto time.

Trace mode = max hold.

Allow trace to fully stabilize.

Use the peak marker function to determine the maximum PSD level.

Emission level measurement:

Use the following spectrum analyzer settings:

Span = wide enough to capture the peak level of the in-band emission and all spurious emissions (e.g., harmonics) from the lowest frequency generated in the EUT up through the 10th harmonic. Typically, several plots are required to cover this entire span.

Set the RBW = 100 kHz.

Set the VBW $\geq 3 \times$ RBW.

Detector = peak.

Sweep time = No faster than coupled auto time.

Trace mode = max hold.

Allow trace to fully stabilize.

Use the peak marker function to determine the maximum amplitude level.

Ensure that the amplitude of all unwanted emissions outside of the authorized frequency band (excluding restricted frequency bands) are attenuated by at least the minimum requirements specified in 11.1 a) or 11.1 b). Report the three highest emissions relative to the limit.

5.5.4 Test Result

Please refer to ANNEX A.4.

5.6 Conducted Emission

5.6.1 Limit

FCC §15.207; RSS-GEN, 8.8

For an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency within the band 150 kHz to 30 MHz shall not exceed the limits in the following table, as measured using a 50 μ H/50 Ω line impedance stabilization network (LISN).

Frequency range (MHz)	Conducted Limit (dB μ V)	
	Quai-peak	Average
0.15 - 0.50	66 to 56	56 to 46
0.50 - 5	56	46
0.50 - 30	60	50

5.6.2 Test Setup

See section 4.5.2 for test setup description for the AC power supply port. The photo of test setup please refer to ANNEX B.

5.6.3 Test Procedure

The maximum conducted interference is searched using Peak (PK), if the emission levels more than the AV and QP limits, and that have narrow margins from the AV and QP limits will be re-measured with AV and QP detectors. Tests for both L phase and N phase lines of the power mains connected to the EUT are performed. Refer to recorded points and plots below.

Devices subject to Part 15 must be tested for all available U.S. voltages and frequencies (such as a nominal 120 VAC, 50/60 Hz and 240 VAC, 50/60 Hz) for which the device is capable of operation. A device rated for 50/60 Hz operation need not be tested at both frequencies provided the radiated and line conducted emissions are the same at both frequencies.

5.6.4 Test Result

Please refer to ANNEX A.5.

5.7 Radiated Spurious Emission

5.7.1 Limit

FCC §15.209&15.247(d); RSS-247, 6.6

Radiated emission outside the frequency band attenuation below the general limits specified in FCC section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in FCC section 15.205(a), must also comply with the radiated emission limits specified in FCC section 15.209(a).

According to FCC section 15.209 (a), except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength ($\mu\text{V}/\text{m}$)	Measurement Distance (m)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 - 30.0	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

Note:

1. For Above 1000 MHz, the emission limit in this paragraph is based on measurement instrumentation employing an average detector, measurement using instrumentation with a peak detector function, corresponding to 20dB above the maximum permitted average limit.
2. For above 1000 MHz, limit field strength of harmonics: 54dBuV/m@3m (AV) and 74dBuV/m@3m (PK).

5.7.2 Test Setup

See section 4.5.3 to 4.5.5 for test setup description for the antenna port. The photo of test setup please refer to ANNEX B.

5.7.3 Test Procedure

Since the emission limits are specified in terms of radiated field strength levels, measurements performed to demonstrate compliance have traditionally relied on a radiated test configuration. Radiated measurements remain the principal method for demonstrating compliance to the specified limits; however antenna-port conducted measurements are also now acceptable to demonstrate compliance (see below for details). When radiated measurements are utilized, test site requirements and procedures for maximizing and measuring radiated emissions that are described in ANSI C63.10-2020 + Cor. 1-2023 + C63.10a-2024 + Errata to C63.10a-2024 shall be followed.

Antenna-port conducted measurements may also be used as an alternative to radiated measurements for demonstrating compliance in the restricted frequency bands. If conducted measurements are performed, then proper impedance matching must be ensured and an additional radiated test for

cabinet/case spurious emissions is required.

General Procedure for conducted measurements in restricted bands

- a) Measure the conducted output power (in dBm) using the detector specified (see guidance regarding measurement procedures for determining quasi-peak, peak, and average conducted output power, respectively).
- b) Add the maximum transmit antenna gain (in dBi) to the measured output power level to determine the EIRP level (see guidance on determining the applicable antenna gain)
- c) Add the appropriate maximum ground reflection factor to the EIRP level (6 dB for frequencies ≤ 30 MHz, 4.7 dB for frequencies between 30 MHz and 1000 MHz, inclusive and 0 dB for frequencies > 1000 MHz).
- d) For devices with multiple antenna-ports, measure the power of each individual chain and sum the EIRP of all chains in linear terms (e.g., Watts, mW).
- e) Convert the resultant EIRP level to an equivalent electric field strength using the following relationship:

$$E = \text{EIRP} - 20\log D + 104.8$$

where:

E = electric field strength in dB μ V/m,

EIRP = equivalent isotropic radiated power in dBm

D = specified measurement distance in meters.

- f) Compare the resultant electric field strength level to the applicable limit.
- g) Perform radiated spurious emission test.

Quasi-Peak measurement procedure

The specifications for measurements using the CISPR quasi-peak detector can be found in Publication 16 of the International Special Committee on Radio Frequency Interference (CISPR) of the International Electrotechnical Commission.

As an alternative to CISPR quasi-peak measurement, compliance can be demonstrated to the applicable emission limits using a peak detector.

Peak power measurement procedure

Peak emission levels are measured by setting the instrument as follows:

- a) RBW = as specified in Table 1.
- b) VBW $\geq 3 \times$ RBW.
- c) Detector = Peak.
- d) Sweep time = auto.
- e) Trace mode = max hold.

f) Allow sweeps to continue until the trace stabilizes. (Note that the required measurement time may be longer for low duty cycle applications).

Table 1—RBW as a function of frequency

Frequency	RBW
9-150 kHz	200-300 Hz
0.15-30 MHz	9-10 kHz
30-1000 MHz	100-120 kHz
> 1000 MHz	1 MHz

If the peak-detected amplitude can be shown to comply with the average limit, then it is not necessary to perform a separate average measurement.

Trace averaging across on and off times of the EUT transmissions followed by duty cycle correction

If continuous transmission of the EUT (i.e., duty cycle ≥ 98 percent) cannot be achieved and the duty cycle is constant (i.e., duty cycle variations are less than ± 2 percent), then the following procedure shall be used:

- a) The EUT shall be configured to operate at the maximum achievable duty cycle.
- b) Measure the duty cycle, x , of the transmitter output signal as described in section 6.0.
- c) RBW = 1 MHz (unless otherwise specified).
- d) VBW $\geq 3 \times$ RBW.
- e) Detector = RMS, if $\text{span}/(\# \text{ of points in sweep}) \leq (\text{RBW}/2)$. Satisfying this condition may require increasing the number of points in the sweep or reducing the span. If this condition cannot be satisfied, then the detector mode shall be set to peak.
- f) Averaging type = power (i.e., RMS).
 - 1) As an alternative, the detector and averaging type may be set for linear voltage averaging.
 - 2) Some instruments require linear display mode in order to use linear voltage averaging. Log or dB averaging shall not be used.
- g) Sweep time = auto.
- h) Perform a trace average of at least 100 traces.
- i) A correction factor shall be added to the measurement results prior to comparing to the emission limit in order to compute the emission level that would have been measured had the test been performed at 100 percent duty cycle. The correction factor is computed as follows:
 - 1) If power averaging (RMS) mode was used in step f), then the applicable correction factor is $10 \log(1/x)$, where x is the duty cycle.
 - 2) If linear voltage averaging mode was used in step f), then the applicable correction factor is $20 \log(1/x)$, where x is the duty cycle.
 - 3) If a specific emission is demonstrated to be continuous (≥ 98 percent duty cycle) rather than turning

on and off with the transmit cycle, then no duty cycle correction is required for that emission.

NOTE: Reduction of the measured emission amplitude levels to account for operational duty factor is not permitted. Compliance is based on emission levels occurring during transmission - not on an average across on and off times of the transmitter.

Determining the applicable transmit antenna gain

A conducted power measurement will determine the maximum output power associated with a restricted band emission; however, in order to determine the associated EIRP level, the gain of the transmitting antenna (in dBi) must be added to the measured output power (in dBm).

Since the out-of-band characteristics of the EUT transmit antenna will often be unknown, the use of a conservative antenna gain value is necessary. Thus, when determining the EIRP based on the measured conducted power, the upper bound on antenna gain for a device with a single RF output shall be selected as the maximum in-band gain of the antenna across all operating bands, or 2 dBi, whichever is greater. However, for devices that operate in multiple frequency bands while using the same transmit antenna, the highest gain of the antenna within the operating band nearest in frequency to the restricted band emission being measured may be used in lieu of the overall highest gain when the emission is at a frequency that is within 20 percent of the nearest band edge frequency, but in no case shall a value less than 2 dBi be used.

See KDB 662911 for guidance on calculating the additional array gain term when determining the effective antenna gain for a EUT with multiple outputs occupying the same or overlapping frequency ranges in the same band.

Radiated spurious emission test

An additional consideration when performing conducted measurements of restricted band emissions is that unwanted emissions radiating from the EUT cabinet, control circuits, power leads, or intermediate circuit elements will likely go undetected in a conducted measurement configuration. To address this concern, a radiated test shall be performed to ensure that emissions emanating from the EUT cabinet (rather than the antenna port) also comply with the applicable limits.

For these cabinet radiated spurious emission measurements the EUT transmit antenna may be replaced with a termination matching the nominal impedance of the antenna. Procedures for performing radiated measurements are specified in ANSI C63.10-2020 + Cor. 1-2023 + C63.10a-2024 + Errata to C63.10a-2024. All detected emissions shall comply with the applicable limits.

The measurement frequency range is from 30 MHz to the 10th harmonic of the fundamental frequency. The Turn Table is actuated to turn from 0° to 360°, and both horizontal and vertical polarizations of the Test Antenna are used to find the maximum radiated power. Mid channels on all channel bandwidth verified. Only the worst RB size/offset presented.

The power of the EUT transmitting frequency should be ignored.

All Spurious Emission tests were performed in X, Y, Z axis direction. And only the worst axis test

condition was recorded in this test report.

Use the following spectrum analyzer settings:

Span = wide enough to fully capture the emission being measured

RBW = 1 MHz for $f \geq 1$ GHz, 100 kHz for $f < 1$ GHz

VBW $\geq$ RBW

Sweep = auto

Detector function = peak

Trace = max hold

5.7.4 Test Result

Please refer to ANNEX A.6.

5.8 Band Edge (Restricted-band band-edge)

5.8.1 Limit

FCC §15.209&15.247(d); RSS-247, 6.6

Radiated emission outside the frequency band attenuation below the general limits specified in FCC section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in FCC section 15.205(a), must also comply with the radiated emission limits specified in FCC section 15.209(a).

5.8.2 Test Setup

See section 4.5.1 for test setup description for the antenna port. The photo of test setup please refer to ANNEX B.

5.8.3 Test Procedure

The following procedures may be used to determine the average field strength or power of an unwanted emission that is within 2 MHz of the authorized band-edge. Use the procedure described in 11.12.3.2.2 when using an average detector and the EUT can be configured to transmit continuously (i.e., $D \geq 98\%$). Use the procedure described in 11.12.3.2.3 when using an average detector and the EUT cannot be configured to transmit continuously but the duty cycle is constant (i.e., duty cycle variations are less than $\pm 2\%$). Use the procedure described in 11.12.3.2.4 when using an average detector for those cases where the EUT cannot be configured to transmit continuously and the duty cycle is not constant (duty cycle variations equal or exceed 2%).

If the EUT can be configured or modified to transmit continuously ($D \geq 98\%$), measured using the following method (with EUT transmitting continuously):

Use the following spectrum analyzer settings:

Set instrument center frequency to the frequency of the emission to be measured (must be within 2 MHz of the authorized band-edge).

RBW = 100 kHz.

VBW $\geq [3 \times \text{RBW}]$.

Detector = Power averaging (rms), if $[\text{span} / (\# \text{ of points in sweep})] \leq (\text{RBW} / 2)$.

Averaging type = power (i.e., rms):

As an alternative, the detector and averaging type may be set for linear voltage averaging.

Some instruments require linear display mode to use linear voltage averaging. Log or dB averaging shall not be used.

Sweep time = auto.

Perform a trace average of at least 100 traces.

Compute the power by integrating the spectrum over 1 MHz using the analyzer's band-power

measurement function with band limits set equal to the emission frequency (femission) ± 0.5 MHz. If the instrument does not have a band-power function, then sum the amplitude levels (in power units) at 100 kHz intervals extending across the 1 MHz spectrum defined by femission) ± 0.5 MHz.

If continuous transmission of the EUT ($D \geq 98\%$) cannot be achieved and the duty cycle is constant (duty cycle variations are less $\pm 2\%$), then the following procedure may be used to measure the average power of unwanted emissions within 2 MHz of the authorized band-edge:

RBW = 100 kHz.

VBW $\geq [3 \times \text{RBW}]$.

Detector = Power averaging (rms), if $[\text{span} / (\# \text{ of points in sweep})] \leq (\text{RBW} / 2)$.

Averaging type = power (i.e., rms):

Detector = Power averaging (rms), if $[\text{span} / (\# \text{ of points in sweep})] \leq (\text{RBW} / 2)$. Satisfying this condition might require increasing the number of points in the sweep or reducing the span. If this condition cannot be satisfied, then the detector mode shall be set to peak.

Averaging type = power (i.e., rms):

- 1) As an alternative, the detector and averaging type may be set for linear voltage averaging
- 2) Some instruments require linear display mode to use linear voltage averaging. Log or dB averaging shall not be used.

Sweep time = auto.

Perform a trace average of at least 100 traces.

Compute the power by integrating the spectrum over 1 MHz using the instrument's band-power measurement function with band limits set equal to the emission frequency (femission) ± 0.5 MHz. If the spectrum analyzer does not have a band-power function, then sum the amplitude levels (in power units) at 100 kHz intervals extending across the 1 MHz spectrum defined by femission ± 0.5 MHz.

A correction factor shall be added to the measurement results prior to comparing with the emission limit to compute the emission level that would have been measured had the test been performed at 100% duty cycle. The correction factor is computed as follows:

- 1) If power averaging (rms) mode was used in step f), then the applicable correction factor is

$[10 \log (1 / D)]$, where D is the duty cycle.

- 2) If linear voltage averaging mode was used in step f), then the applicable correction factor is

$[20 \log (1 / D)]$, where D is the duty cycle.

- 3) If a specific emission is demonstrated to be continuous ($D \geq 98\%$) rather than turning ON and

OFF with the transmit cycle, then no duty cycle correction is required for that emission.

Reduction of the measured emission amplitude levels to account for operational duty cycle is not permitted. Determining compliance is based on emission levels occurring during transmission—it is not based on an average across ON and OFF times of the transmitter.

5.8.4 Test Result

Please refer to ANNEX A.7.

5.9 Power Spectral density (PSD)

5.9.1 Limit

FCC §15.247(e); RSS-247, 6.3.1 (b)

The same method of determining the conducted output power shall be used to determine the power spectral density. If a peak output power is measured, then a peak power spectral density measurement is required. If an average output power is measured, then an average power spectral density measurement should be used.

5.9.2 Test Setup

See section 4.5.1 for test setup description for the antenna port. The photo of test setup please refer to ANNEX B.

5.9.3 Test Procedure

Set analyzer center frequency to DTS channel center frequency.

Set the span to 1.5 times the DTS bandwidth.

Set the RBW to: $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$.

Set the VBW $\geq 3 \text{ RBW}$.

Detector = peak.

Sweep time = auto couple.

Trace mode = max hold.

Allow trace to fully stabilize.

Use the peak marker function to determine the maximum amplitude level within the RBW.

If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

5.9.4 Test Result

Please refer to ANNEX A.8.

ANNEX A TEST RESULT

A.1 Output Power

Note: All the configurations were pre tested, only the worst configuration has been reported in this report.

Duty Cycle

Test Mode	On Time (ms)	On+Off time (ms)	Duty Cycle	Duty Factor
802.11b	50	50	100.00%	0.00
802.11g	50	50	100.00%	0.00
802.11n-20 MHz	1.445	2.665	54.22%	2.66
802.11n-40 MHz	1.445	2.665	54.22%	2.66

Peak Power Test Data

SISO-ANT-A

802.11b Mode:

Channel	Measured Output Peak Power		Limit		Verdict
	dBm	mW	dBm	mW	
Low	15.06	32.06	30	1000	Pass
Middle	14.81	30.27			Pass
High	14.70	29.51			Pass

802.11g Mode:

Channel	Measured Output Peak Power		Limit		Verdict
	dBm	mW	dBm	mW	
Low	23.71	234.96	30	1000	Pass
Middle	23.73	236.05			Pass
High	23.54	225.94			Pass

802.11n-20 MHz Mode:

Channel	Measured Output Peak Power		Limit		Verdict
	dBm	mW	dBm	mW	
Low	21.46	139.96	30	1000	Pass
Middle	21.87	153.82			Pass
High	21.67	146.89			Pass

802.11n-40 MHz Mode:

Channel	Measured Output Peak Power		Limit		Verdict
	dBm	mW	dBm	mW	
Low	21.59	144.21	30	1000	Pass
Middle	21.37	137.09			Pass
High	21.51	141.58			Pass

SISO-ANT-B

802.11b Mode:

Channel	Measured Output Peak Power		Limit		Verdict
	dBm	mW	dBm	mW	
Low	14.75	29.85	30	1000	Pass
Middle	14.51	28.25			Pass
High	14.76	29.92			Pass

802.11g Mode:

Channel	Measured Output Peak Power		Limit		Verdict
	dBm	mW	dBm	mW	
Low	23.46	221.82	30	1000	Pass
Middle	23.42	219.79			Pass
High	23.18	207.97			Pass

802.11n-20 MHz Mode:

Channel	Measured Output Peak Power		Limit		Verdict
	dBm	mW	dBm	mW	
Low	21.37	137.09	30	1000	Pass
Middle	21.59	144.21			Pass
High	21.68	147.23			Pass

802.11n-40 MHz Mode:

Channel	Measured Output Peak Power		Limit		Verdict
	dBm	mW	dBm	mW	
Low	21.55	142.89	30	1000	Pass
Middle	21.69	147.57			Pass
High	21.53	142.23			Pass

MIMO

802.11b Mode:

Channel	Measured Output Peak Power		Limit		Verdict
	dBm	mW	dBm	mW	
Low	17.92	61.92	30	1000	Pass
Middle	17.67	58.52			Pass
High	17.74	59.43			Pass

802.11g Mode:

Channel	Measured Output Peak Power		Limit		Verdict
	dBm	mW	dBm	mW	
Low	26.60	456.78	30	1000	Pass
Middle	26.59	455.83			Pass
High	26.37	433.91			Pass

802.11n-20 MHz Mode:

Channel	Measured Output Peak Power		Limit		Verdict
	dBm	mW	dBm	mW	
Low	24.43	277.05	30	1000	Pass
Middle	24.74	298.03			Pass
High	24.69	294.12			Pass

802.11n-40 MHz Mode:

Channel	Measured Output Peak Power		Limit		Verdict
	dBm	mW	dBm	mW	
Low	24.58	287.10	30	1000	Pass
Middle	24.54	284.66			Pass
High	24.53	283.81			Pass

Average Power Test DataSISO-ANT-A

802.11b Mode:

Channel	Measured Output Average Power		Limit		Verdict
	dBm	mW	dBm	mW	
Low	12.52	17.86	30	1000	Pass
Middle	12.47	17.66			Pass
High	12.39	17.34			Pass

802.11g Mode:

Channel	Measured Output Average Power		Limit		Verdict
	dBm	mW	dBm	mW	
Low	15.31	33.96	30	1000	Pass
Middle	15.21	33.19			Pass
High	15.31	33.96			Pass

802.11n-20 MHz Mode:

Channel	Measured Output Average Power		Limit		Verdict
	dBm	mW	dBm	mW	
Low	18.15	65.31	30	1000	Pass
Middle	18.08	64.27			Pass
High	18.22	66.37			Pass

802.11n-40 MHz Mode:

Channel	Measured Output Average Power		Limit		Verdict
	dBm	mW	dBm	mW	
Low	18.30	67.61	30	1000	Pass
Middle	18.08	64.27			Pass
High	18.21	66.22			Pass

SISO-ANT-B

802.11b Mode:

Channel	Measured Output Average Power		Limit		Verdict
	dBm	mW	dBm	mW	
Low	12.30	16.98	30	1000	Pass
Middle	12.37	17.26			Pass
High	12.21	16.63			Pass

802.11g Mode:

Channel	Measured Output Average Power		Limit		Verdict
	dBm	mW	dBm	mW	
Low	14.90	30.90	30	1000	Pass
Middle	14.91	30.97			Pass
High	14.98	31.48			Pass

802.11n-20 MHz Mode:

Channel	Measured Output Average Power		Limit		Verdict
	dBm	mW	dBm	mW	
Low	17.93	62.09	30	1000	Pass
Middle	18.10	64.57			Pass
High	17.65	58.21			Pass

802.11n-40 MHz Mode:

Channel	Measured Output Average Power		Limit		Verdict
	dBm	mW	dBm	mW	
Low	17.79	60.12	30	1000	Pass
Middle	17.63	57.94			Pass
High	17.97	62.66			Pass

MIMO

802.11b Mode:

Channel	Measured Output Average Power		Limit		Verdict
	dBm	mW	dBm	mW	
Low	15.42	34.83	30	1000	Pass
Middle	15.43	34.91			Pass
High	15.31	33.96			Pass

802.11g Mode:

Channel	Measured Output Average Power		Limit		Verdict
	dBm	mW	dBm	mW	
Low	18.12	64.86	30	1000	Pass
Middle	18.07	64.12			Pass
High	18.16	65.46			Pass

802.11n-20 MHz Mode:

Channel	Measured Output Average Power		Limit		Verdict
	dBm	mW	dBm	mW	
Low	21.05	127.35	30	1000	Pass
Middle	21.10	128.82			Pass
High	20.95	124.45			Pass

802.11n-40 MHz Mode:

Channel	Measured Output Average Power		Limit		Verdict
	dBm	mW	dBm	mW	
Low	21.06	127.64	30	1000	Pass
Middle	20.87	122.18			Pass
High	21.10	128.82			Pass

E.I.R.P Test Data (For ISED)SISO-ANT-A

802.11b Mode:

Channel	E.I.R.P		Limit		Verdict
	dBm	mW	dBm	W	
Low	20.24	105.68	36	4	Pass
Middle	19.99	99.77			Pass
High	19.88	97.27			Pass

802.11g Mode:

Channel	E.I.R.P		Limit		Verdict
	dBm	mW	dBm	W	
Low	28.89	774.46	36	4	Pass
Middle	28.91	778.04			Pass
High	28.72	744.73			Pass

802.11n-20 MHz Mode:

Channel	E.I.R.P		Limit		Verdict
	dBm	mW	dBm	W	
Low	23.33	215.28	36	4	Pass
Middle	23.26	211.84			Pass
High	23.40	218.78			Pass

802.11n-40 MHz Mode:

Channel	E.I.R.P		Limit		Verdict
	dBm	mW	dBm	W	
Low	23.48	222.84	36	4	Pass
Middle	23.26	211.84			Pass
High	23.39	218.27			Pass

SISO-ANT-B

802.11b Mode:

Channel	E.I.R.P		Limit		Verdict
	dBm	mW	dBm	W	
Low	19.93	98.40	36	4	Pass
Middle	19.69	93.11			Pass
High	19.94	98.63			Pass

802.11g Mode:

Channel	E.I.R.P		Limit		Verdict
	dBm	mW	dBm	W	
Low	28.64	731.14	36	4	Pass
Middle	28.60	724.44			Pass
High	28.36	685.49			Pass

802.11n-20 MHz Mode:

Channel	E.I.R.P		Limit		Verdict
	dBm	mW	dBm	W	
Low	23.11	204.64	36	4	Pass
Middle	23.28	212.81			Pass
High	22.83	191.87			Pass

802.11n-40 MHz Mode:

Channel	E.I.R.P		Limit		Verdict
	dBm	mW	dBm	W	
Low	22.97	198.15	36	4	Pass
Middle	22.81	190.99			Pass
High	23.15	206.54			Pass

MIMO

802.11b Mode:

Channel	E.I.R.P		Limit		Verdict
	dBm	mW	dBm	W	
Low	23.10	204.17	36	4	Pass
Middle	22.85	192.75			Pass
High	22.92	195.88			Pass

802.11g Mode:

Channel	E.I.R.P		Limit		Verdict
	dBm	mW	dBm	W	
Low	31.78	1506.61	36	4	Pass
Middle	31.77	1503.14			Pass
High	31.55	1428.89			Pass

802.11n-20 MHz Mode:

Channel	E.I.R.P		Limit		Verdict
	dBm	mW	dBm	W	
Low	26.23	419.76	36	4	Pass
Middle	26.28	424.62			Pass
High	26.13	410.20			Pass

802.11n-40 MHz Mode:

Channel	E.I.R.P		Limit		Verdict
	dBm	mW	dBm	W	
Low	26.24	420.73	36	4	Pass
Middle	26.05	402.72			Pass
High	26.28	424.62			Pass

A.2 Occupied Bandwidth

Note ¹: All the configurations were pre tested, only the worst configuration has been reported in this report.

Note ²: All antenna were pre tested, but only the worst case has been reported in this report.

Test Data

802.11b Mode:

Channel	6 dB Bandwidth (MHz)	99% Bandwidth (MHz)	6 dB Bandwidth Limits (kHz)
Low	10.400000	13.847000	≥500
Middle	10.400000	13.846000	≥500
High	10.400000	13.830000	≥500

802.11g Mode:

Channel	6 dB Bandwidth (MHz)	99% Bandwidth (MHz)	6 dB Bandwidth Limits (kHz)
Low	15.600000	16.256000	≥500
Middle	15.600000	16.263000	≥500
High	15.500000	16.239000	≥500

802.11n-20MHz Mode:

Channel	6 dB Bandwidth (MHz)	99% Bandwidth (MHz)	6 dB Bandwidth Limits (kHz)
Low	17.200000	17.344000	≥500
Middle	17.200000	17.320000	≥500
High	17.300000	17.336000	≥500

802.11n-40MHz Mode:

Channel	6 dB Bandwidth (MHz)	99% Bandwidth (MHz)	6 dB Bandwidth Limits (kHz)
Low	30.200000	35.823000	≥500
Middle	35.800000	36.168000	≥500
High	36.400000	36.469000	≥500

Test Plots

6 dB Bandwidth

802.11b LOW CHANNEL



802.11b MIDDLE CHANNEL



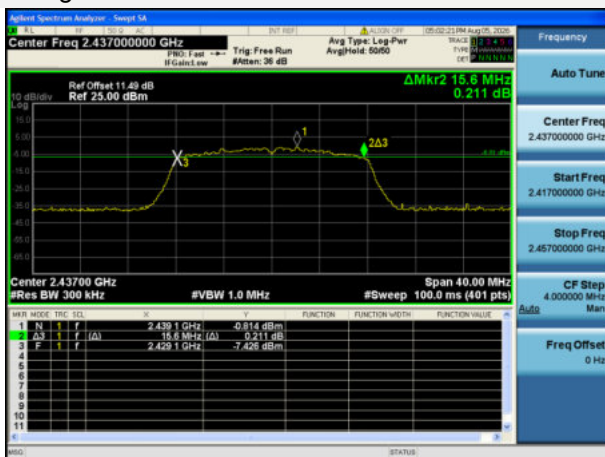
802.11b HIGH CHANNEL



802.11g LOW CHANNEL



802.11g MIDDLE CHANNEL



802.11g HIGH CHANNEL



802.11n-20 MHz LOW CHANNEL



802.11n-20 MHz MIDDLE CHANNEL



802.11n-20 MHz HIGH CHANNEL



802.11n-40 MHz LOW CHANNEL



802.11n-40 MHz MIDDLE CHANNEL

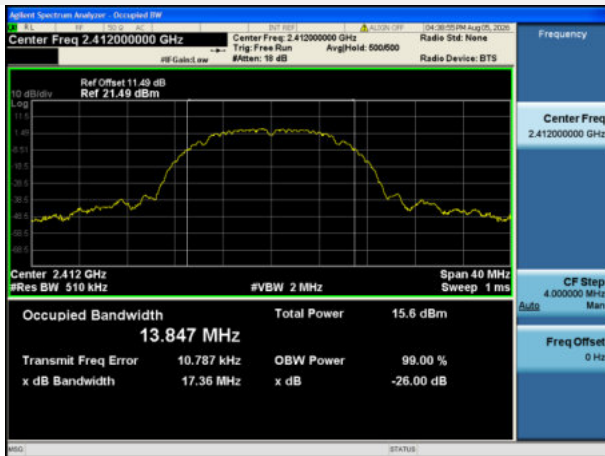


802.11n-40 MHz HIGH CHANNEL

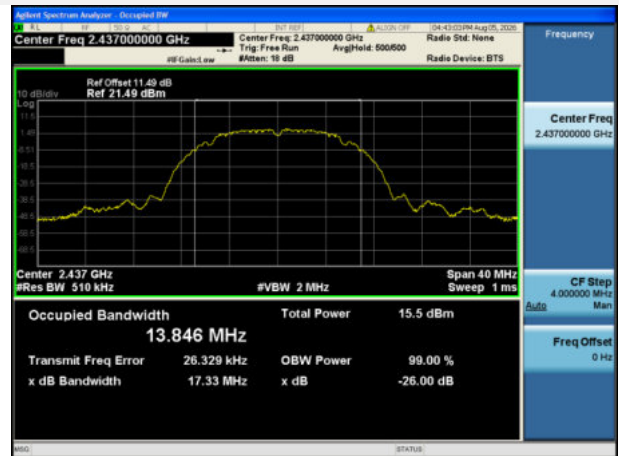


99% dB Bandwidth

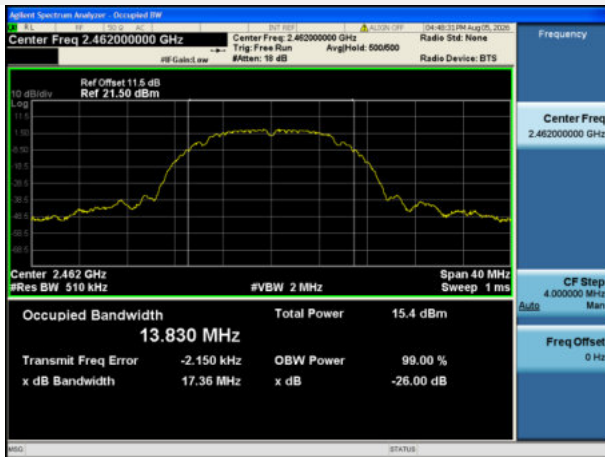
802.11b LOW CHANNEL



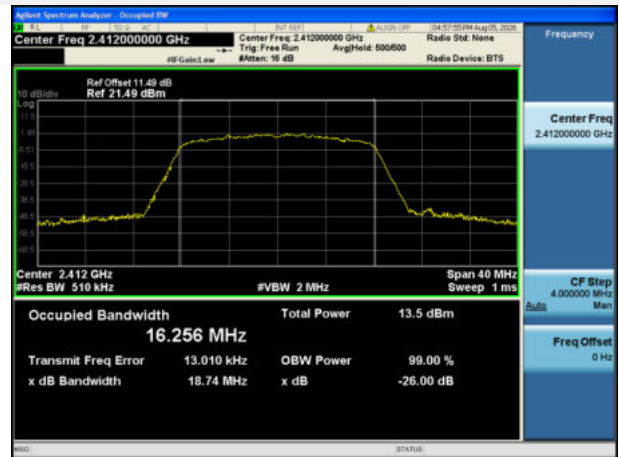
802.11b MIDDLE CHANNEL



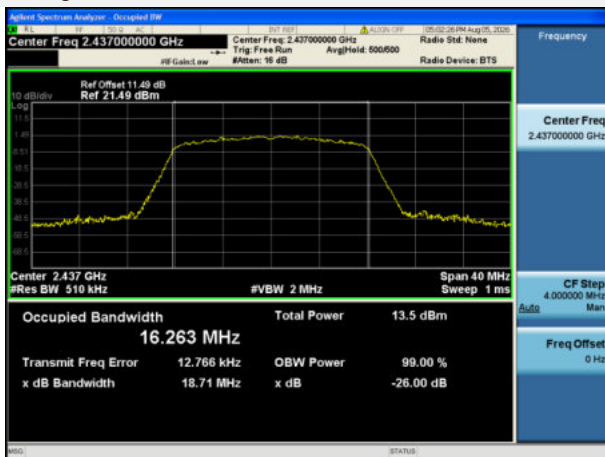
802.11b HIGH CHANNEL



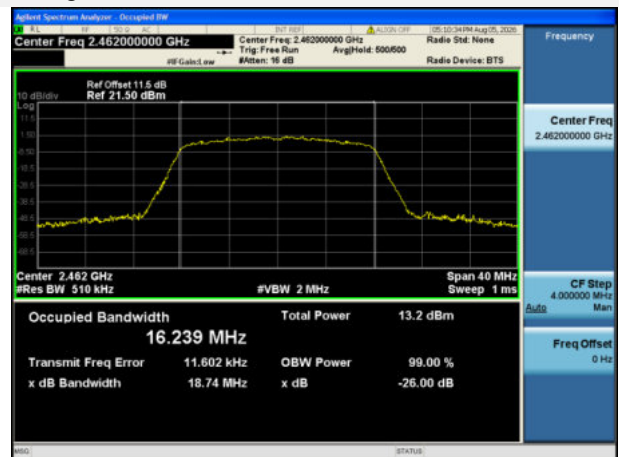
802.11g LOW CHANNEL



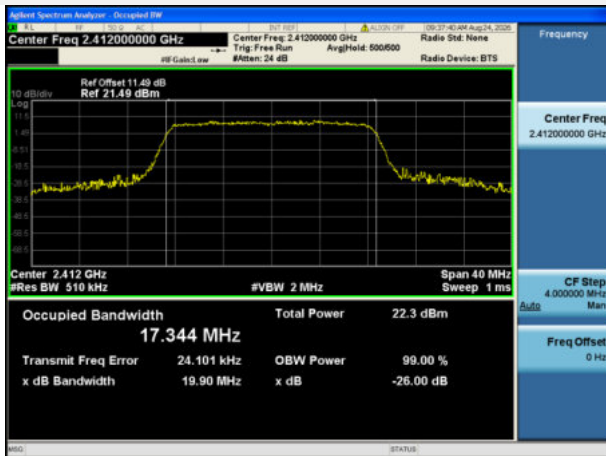
802.11g MIDDLE CHANNEL



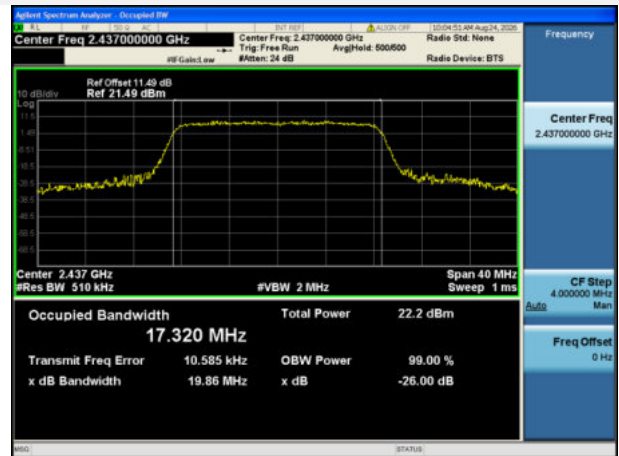
802.11g HIGH CHANNEL



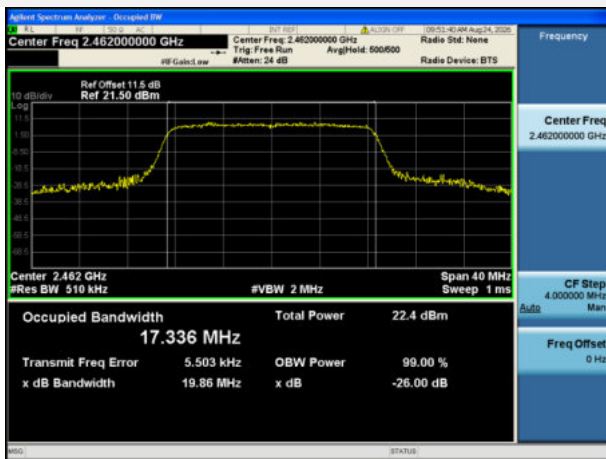
802.11n-20 MHz LOW CHANNEL



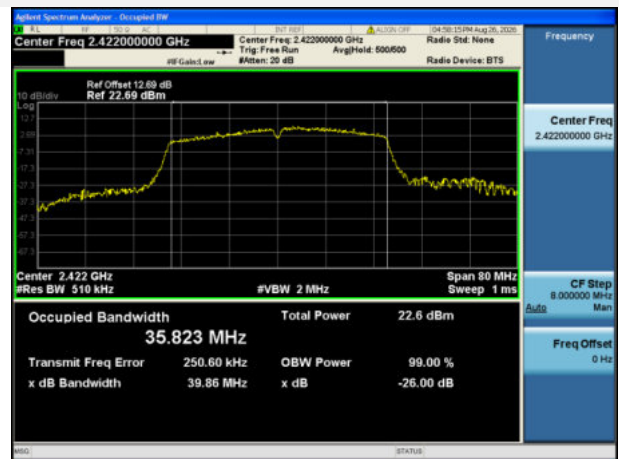
802.11n-20 MHz MIDDLE CHANNEL



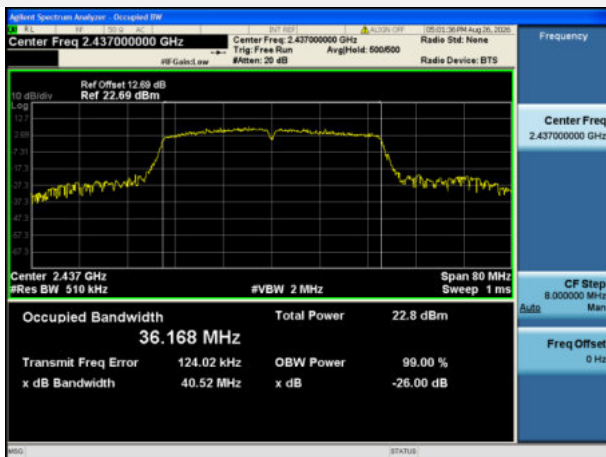
802.11n-20 MHz HIGH CHANNEL



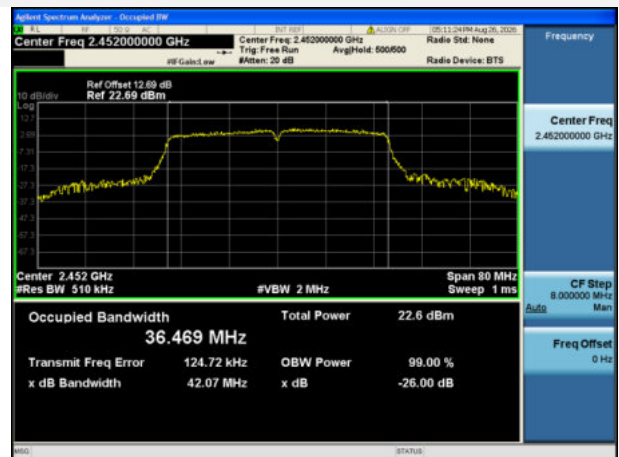
802.11n-40 MHz LOW CHANNEL



802.11n-40 MHz MIDDLE CHANNEL



802.11n-40 MHz HIGH CHANNEL



A.3 Conducted Spurious Emissions

Note ¹: All the configurations were pre tested, only the worst configuration has been reported in this report.

Note ²: All antenna were pre tested, but only the worst case has been reported in this report.

Test Data

802.11b Mode:

Channel	Measured Max. Out of Band Emission (dBm)	Limit (dBm)		Verdict
		Carrier Level	Calculated 20 dBc Limit	
Low	-35.19	3.44	-16.57	Pass
Middle	-36.71	3.38	-16.63	Pass
High	-44.78	3.17	-16.83	Pass

802.11g Mode:

Channel	Measured Max. Out of Band Emission (dBm)	Limit (dBm)		Verdict
		Carrier Level	Calculated 20 dBc Limit	
Low	-35.00	-2.60	-22.60	Pass
Middle	-35.12	-2.53	-22.53	Pass
High	-34.68	-2.87	-22.87	Pass

802.11n-20MHz Mode:

Channel	Measured Max. Out of Band Emission (dBm)	Limit (dBm)		Verdict
		Carrier Level	Calculated 20 dBc Limit	
Low	-43.90	4.33	-15.67	Pass
Middle	-36.11	4.66	-15.34	Pass
High	-37.14	4.92	-15.08	Pass

802.11n-40MHz Mode:

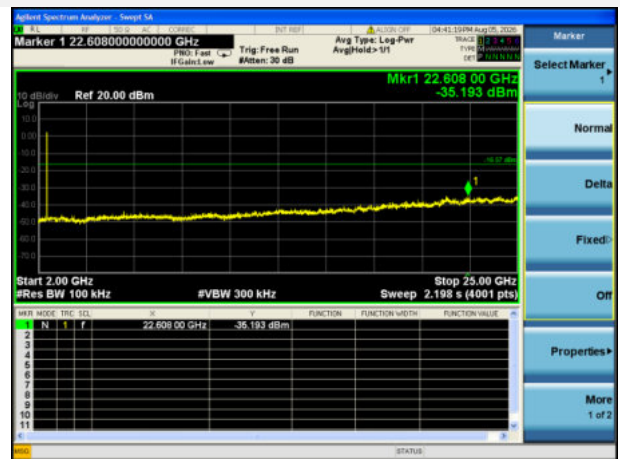
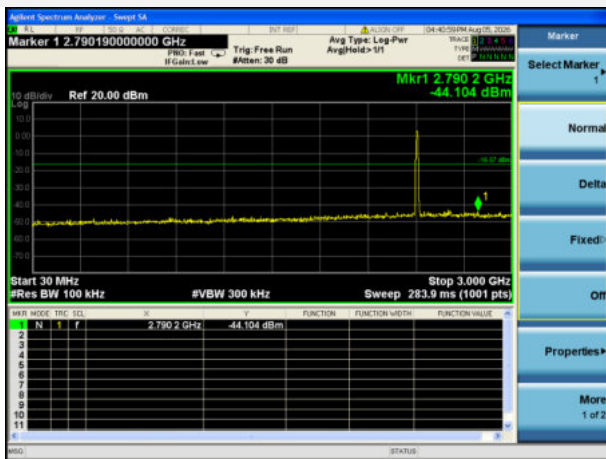
Channel	Measured Max. Out of Band Emission (dBm)	Limit (dBm)		Verdict
		Carrier Level	Calculated 20 dBc Limit	
Low	-34.98	3.55	-16.45	Pass
Middle	-34.68	3.17	-16.83	Pass
High	-34.85	2.68	-17.32	Pass

Test Plots

802.11b LOW CHANNEL CARRIER LEVEL



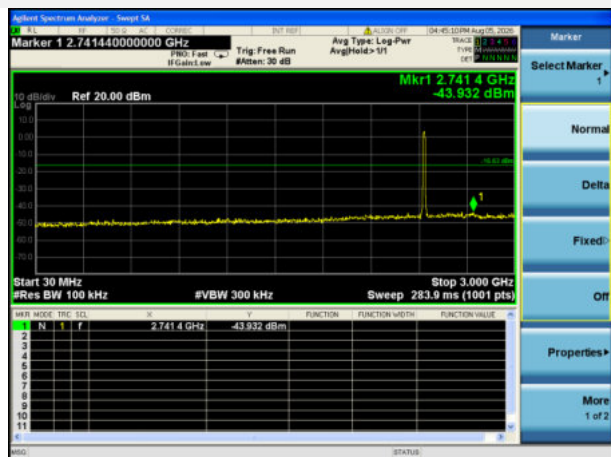
802.11b LOW CHANNEL, SPURIOUS 30 MHz ~ 3 GHz 802.11b LOW CHANNEL, SPURIOUS 2 GHz ~ 25 GHz



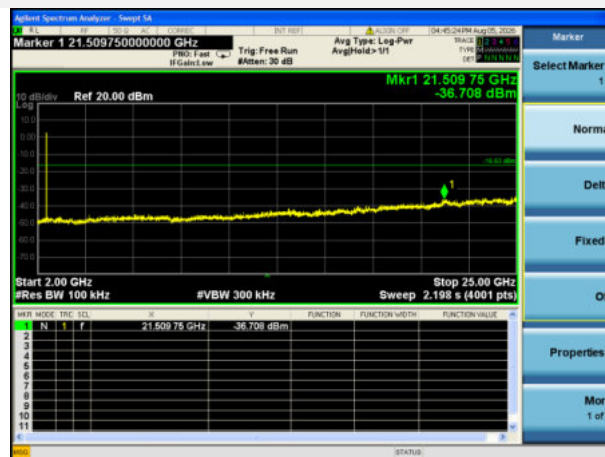
802.11b MIDDLE CHANNEL CARRIER LEVEL



802.11b MIDDLE CHANNEL, SPURIOUS 30 MHz ~ 3 GHz



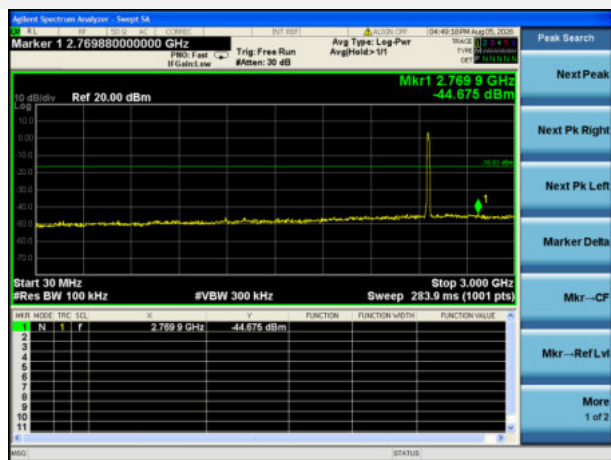
802.11b MIDDLE CHANNEL, SPURIOUS 2 GHz ~ 25 GHz



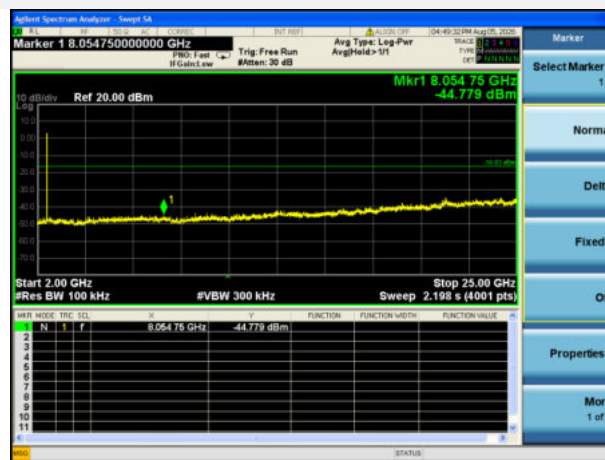
802.11b HIGH CHANNEL CARRIER LEVEL



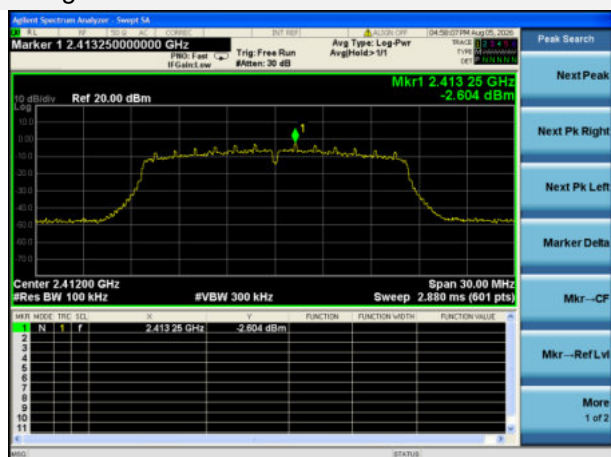
802.11b HIGH CHANNEL, SPURIOUS 30 MHz ~ 3 GHz



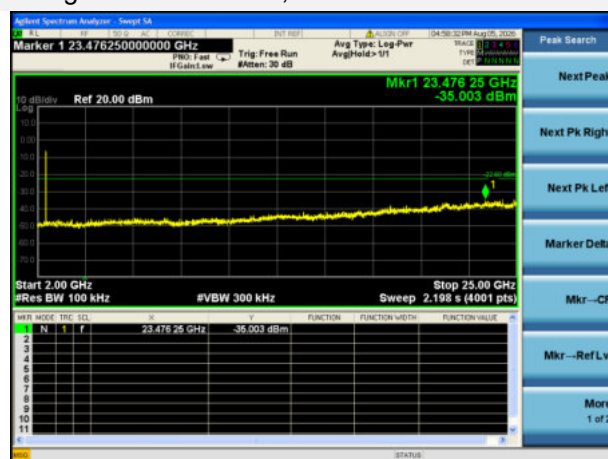
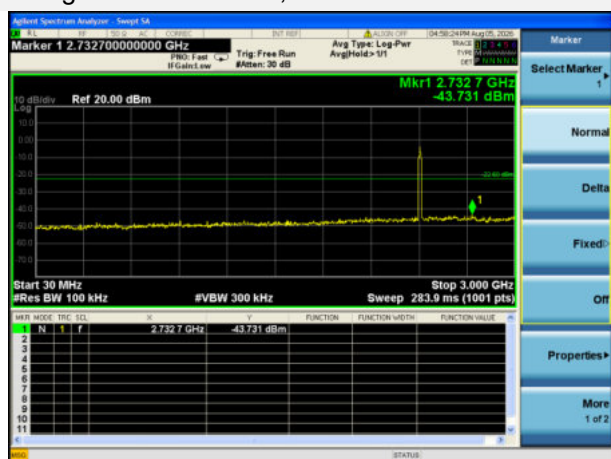
802.11b HIGH CHANNEL, SPURIOUS 2 GHz ~ 25 GHz



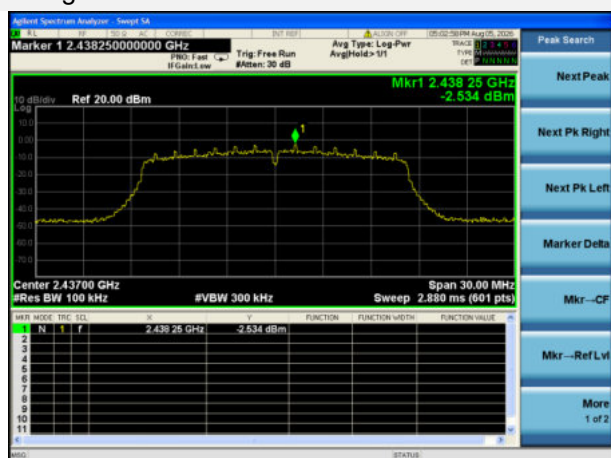
802.11g LOW CHANNEL CARRIER LEVEL



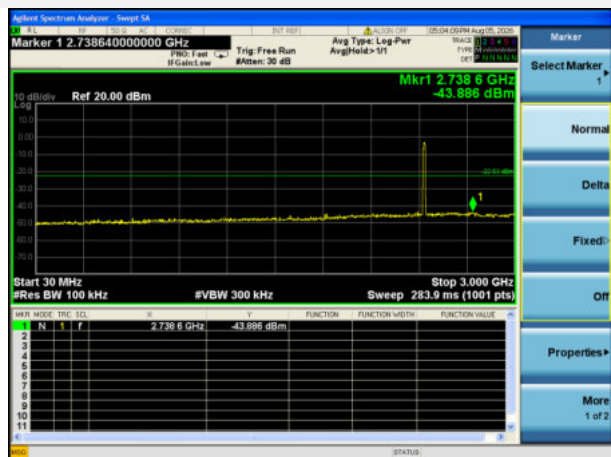
802.11g LOW CHANNEL, SPURIOUS 30 MHz ~ 3 GHz 802.11g LOW CHANNEL, SPURIOUS 2 GHz ~ 25 GHz



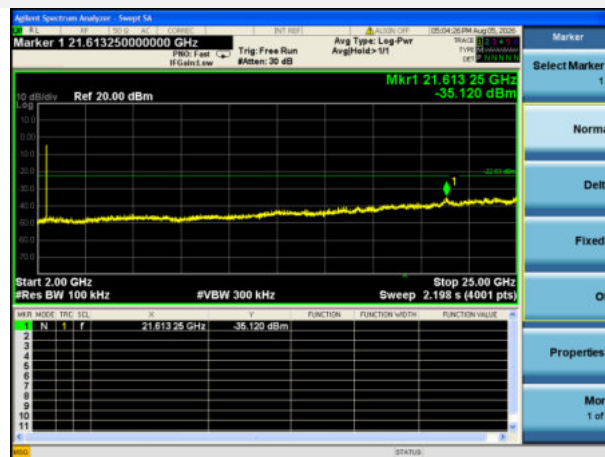
802.11g MIDDLE CHANNEL CARRIER LEVEL



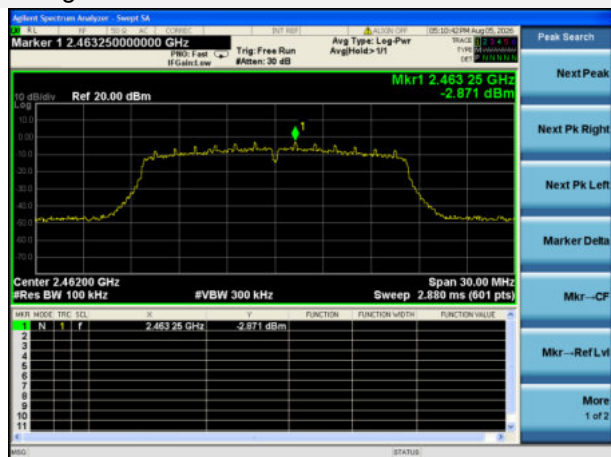
802.11g MIDDLE CHANNEL, SPURIOUS 30 MHz ~ 3 GHz



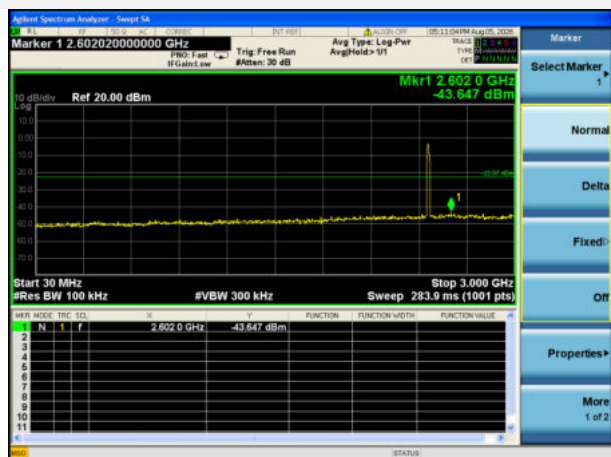
802.11g MIDDLE CHANNEL, SPURIOUS 2 GHz ~ 25 GHz



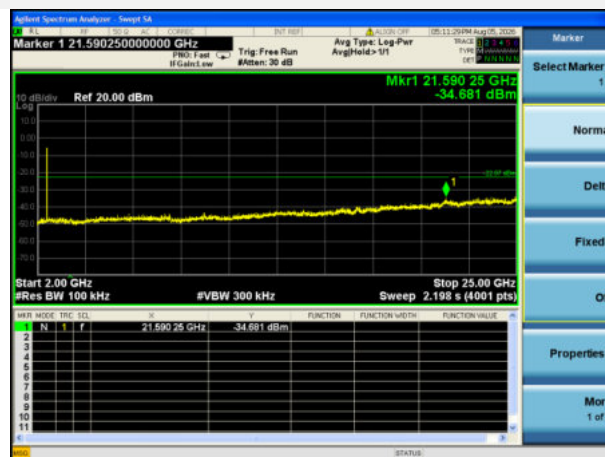
802.11g HIGH CHANNEL CARRIER LEVEL



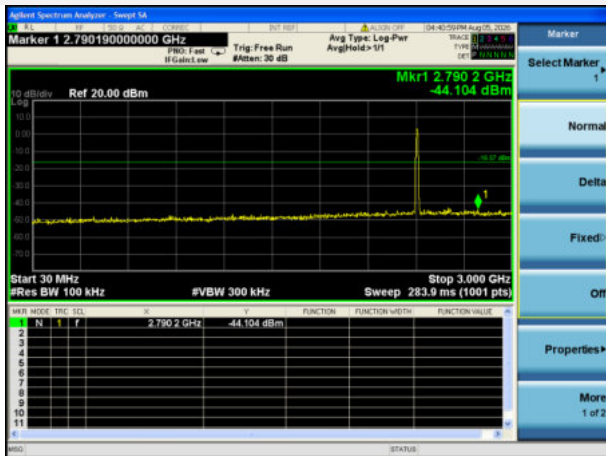
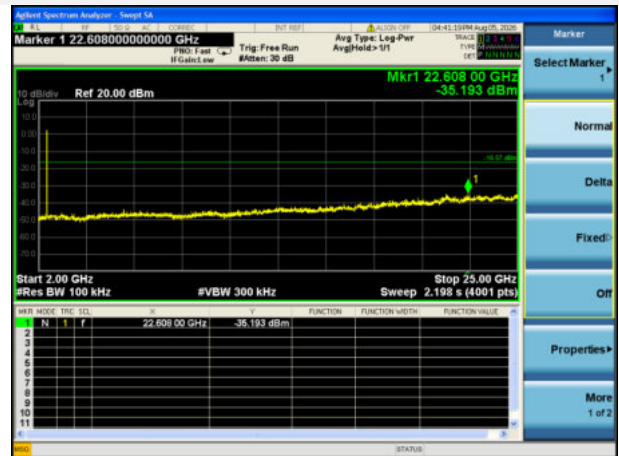
802.11g HIGH CHANNEL, SPURIOUS 30 MHz ~ 3 GHz



802.11g HIGH CHANNEL, SPURIOUS 2 GHz ~ 25 GHz



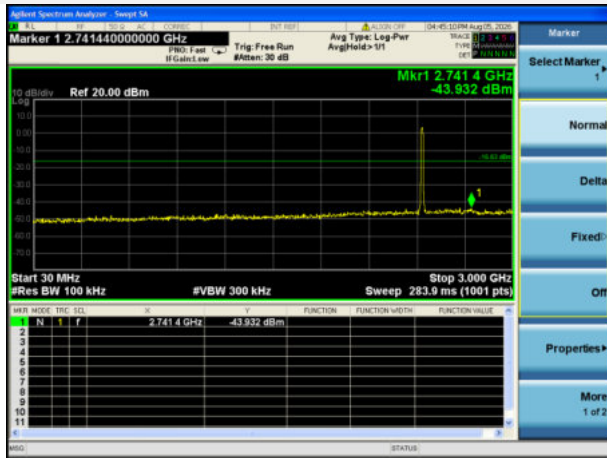
802.11n-20 MHz LOW CHANNEL CARRIER LEVEL

802.11n-20 MHz LOW CHANNEL, SPURIOUS
30 MHz ~ 3 GHz802.11n-20 MHz LOW CHANNEL, SPURIOUS
2 GHz ~ 25 GHz

802.11n-20 MHz MIDDLE CHANNEL CARRIER LEVEL



802.11n-20 MHz MIDDLE CHANNEL, SPURIOUS 30 MHz ~ 3 GHz



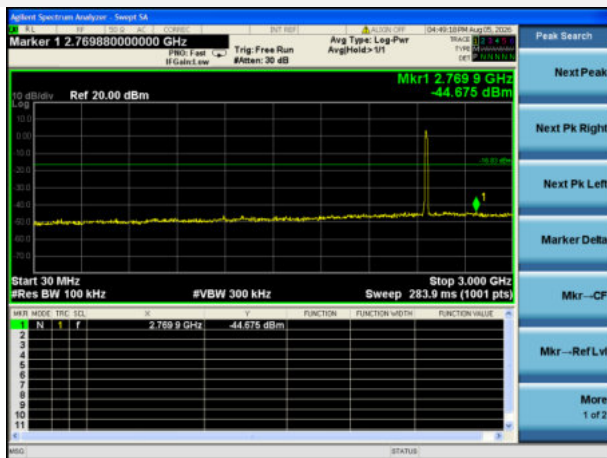
802.11n-20 MHz MIDDLE CHANNEL, SPURIOUS 2 GHz ~ 25 GHz



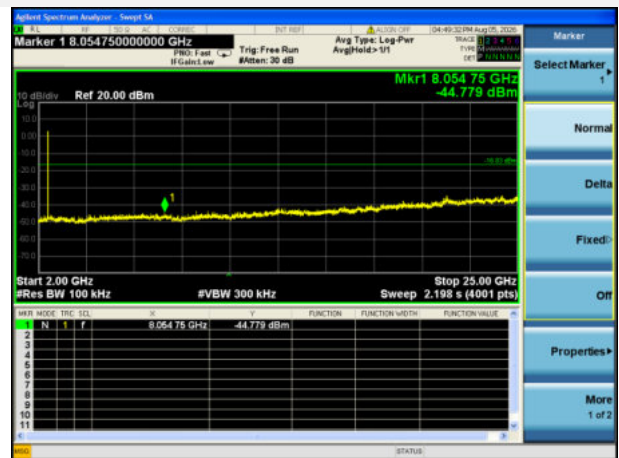
802.11n-20 MHz HIGH CHANNEL CARRIER LEVEL



802.11n-20 MHz HIGH CHANNEL, SPURIOUS 30 MHz ~ 3 GHz



802.11n-20 MHz HIGH CHANNEL, SPURIOUS 2 GHz ~ 25 GHz



A.4 Band Edge (Authorized-band band-edge)

Note ¹: The 99% OBW of the fundamental emission is without 2 MHz of the authorized band.

Note ²: All the configurations were pre tested, only the worst configuration has been reported in this report.

Note ³: All antenna were pre tested, but only the worst case has been reported in this report.

Test Data

802.11b Mode:

Channel	Measured Max. Band Edge Emission (dBm)	Limit (dBm)		Verdict
		Carrier Level	Calculated 20 dBc Limit	
Low Channel	-39.50	3.44	-16.57	Pass
High Channel	-45.03	3.17	-16.83	Pass

802.11g Mode:

Channel	Measured Max. Band Edge Emission (dBm)	Limit (dBm)		Verdict
		Carrier Level	Calculated 20 dBc Limit	
Low Channel	-46.83	-2.60	-22.60	Pass
High Channel	-47.40	-2.87	-22.87	Pass

802.11n-20 MHz Mode:

Channel	Measured Max. Band Edge Emission (dBm)	Limit (dBm)		Verdict
		Carrier Level	Calculated 20 dBc Limit	
Low Channel	-30.30	4.33	-15.67	Pass
High Channel	-40.32	4.92	-15.08	Pass

802.11n-40 MHz Mode:

Channel	Measured Max. Band Edge Emission (dBm)	Limit (dBm)		Verdict
		Carrier Level	Calculated 20 dBc Limit	
Low Channel	-36.14	3.55	-16.45	Pass
High Channel	-32.69	2.68	-17.32	Pass

Test Plots

802.11b LOW CHANNEL, CARRIER LEVEL



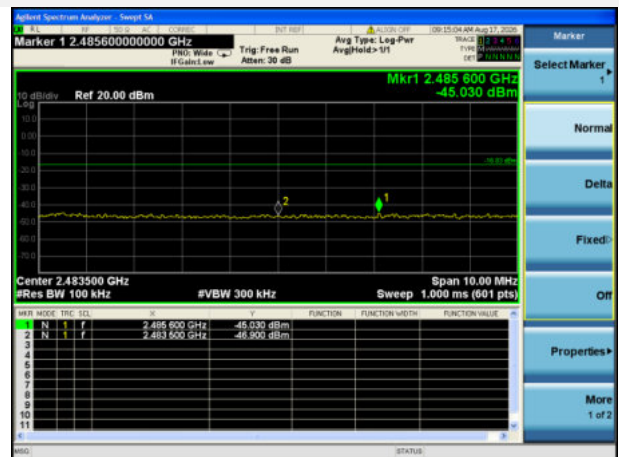
802.11b LOW CHANNEL, BAND EDGE



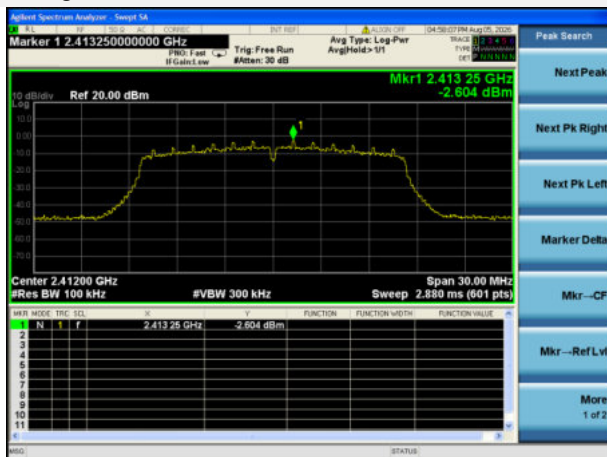
802.11b HIGH CHANNEL, CARRIER LEVEL



802.11b HIGH CHANNEL, BAND EDGE



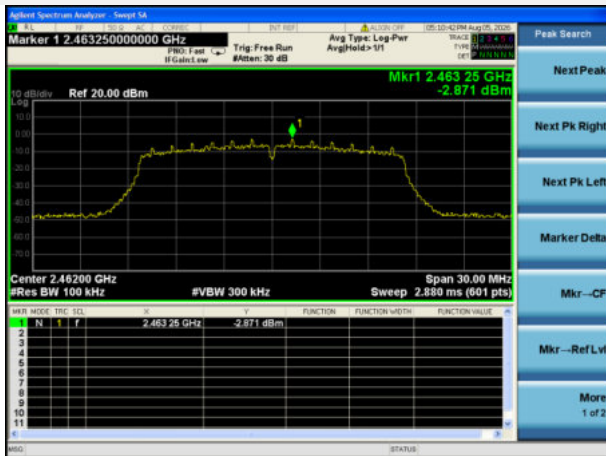
802.11g LOW CHANNEL, CARRIER LEVEL



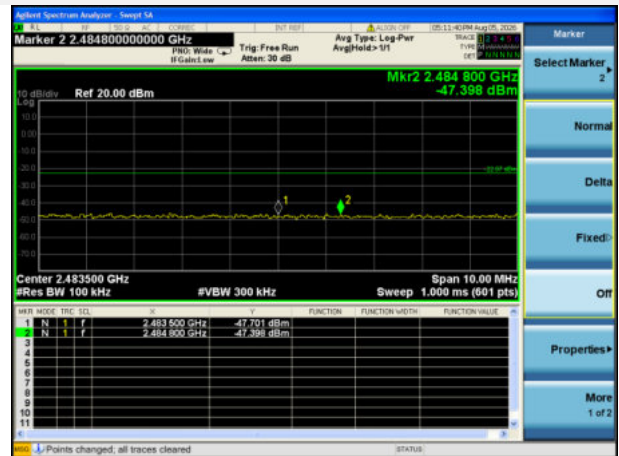
802.11g LOW CHANNEL, BAND EDGE



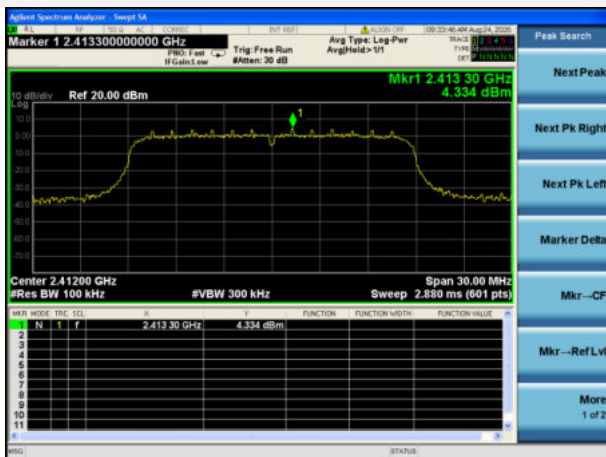
802.11g HIGH CHANNEL, CARRIER LEVEL



802.11g HIGH CHANNEL, BAND EDGE



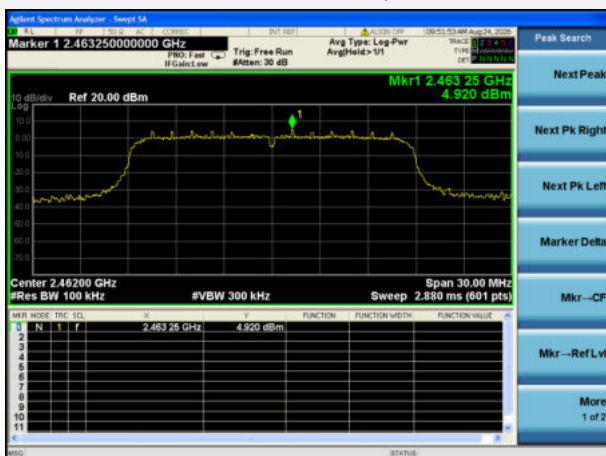
802.11n-20 MHz LOW CHANNEL, CARRIER LEVEL



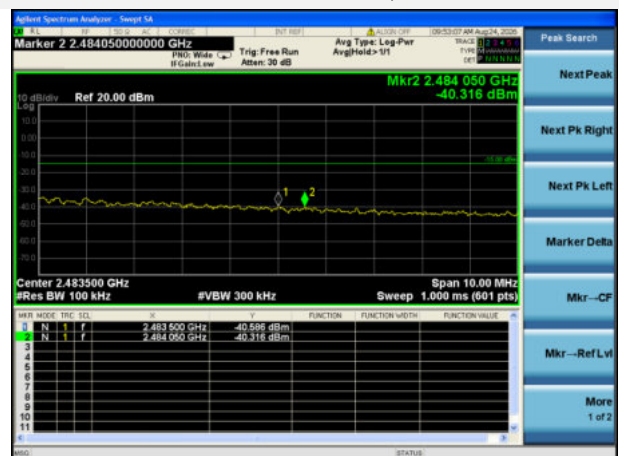
802.11n-20 MHz LOW CHANNEL, BAND EDGE



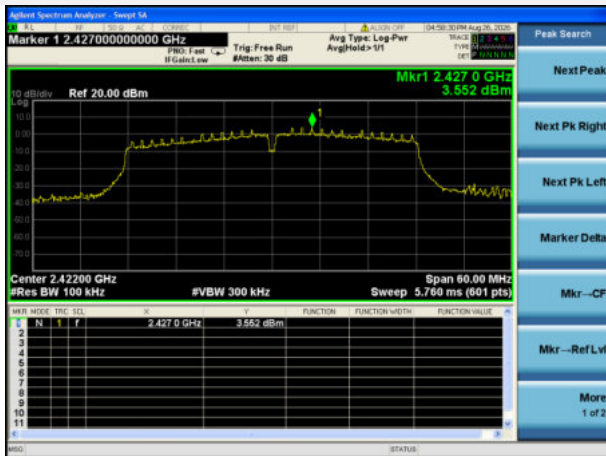
802.11n-20 MHz HIGH CHANNEL, CARRIER LEVEL



802.11n-20 MHz HIGH CHANNEL, BAND EDGE



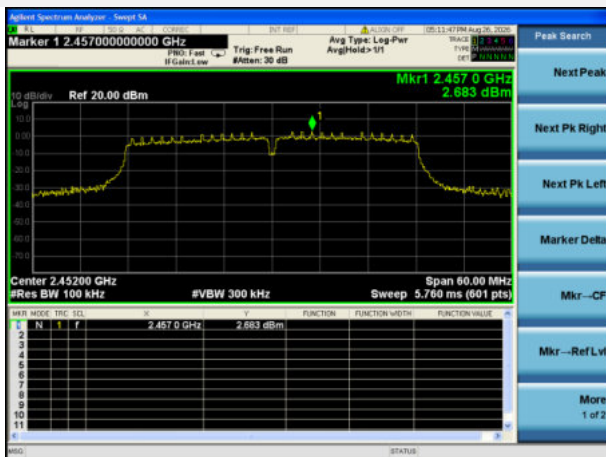
802.11n-40 MHz LOW CHANNEL, CARRIER LEVEL



802.11n-40 MHz LOW CHANNEL, BAND EDGE



802.11n-40 MHz HIGH CHANNEL, CARRIER LEVEL



802.11n-40 MHz HIGH CHANNEL, BAND EDGE



A.5 Conducted Emissions

Note ¹: The EUT is working in the Normal link mode. All modes have been tested and normal link mode is worst.

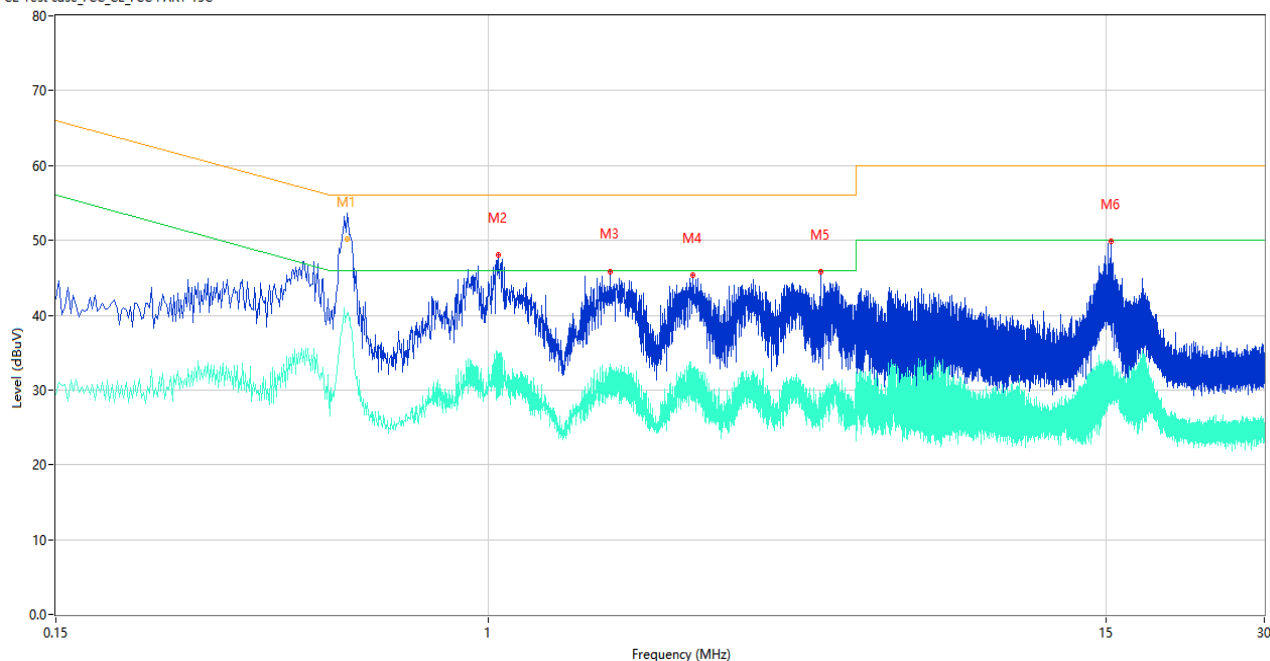
Note ²: Devices subject to Part 15 must be tested for all available U.S. voltages and frequencies (such as a nominal 120 VAC, 60 Hz and 240 VAC, 50 Hz) for which the device is capable of operation. So, The configuration 120 VAC, 60 Hz and 240 VAC, 50 Hz were tested respectively, but only the worst configuration (120 VAC, 60 Hz) shown here.

Note ³: Results (dBuV) = Original reading level of Spectrum Analyzer (dBuV) + Factor (dB)

Test Data and Plots

PHASE L

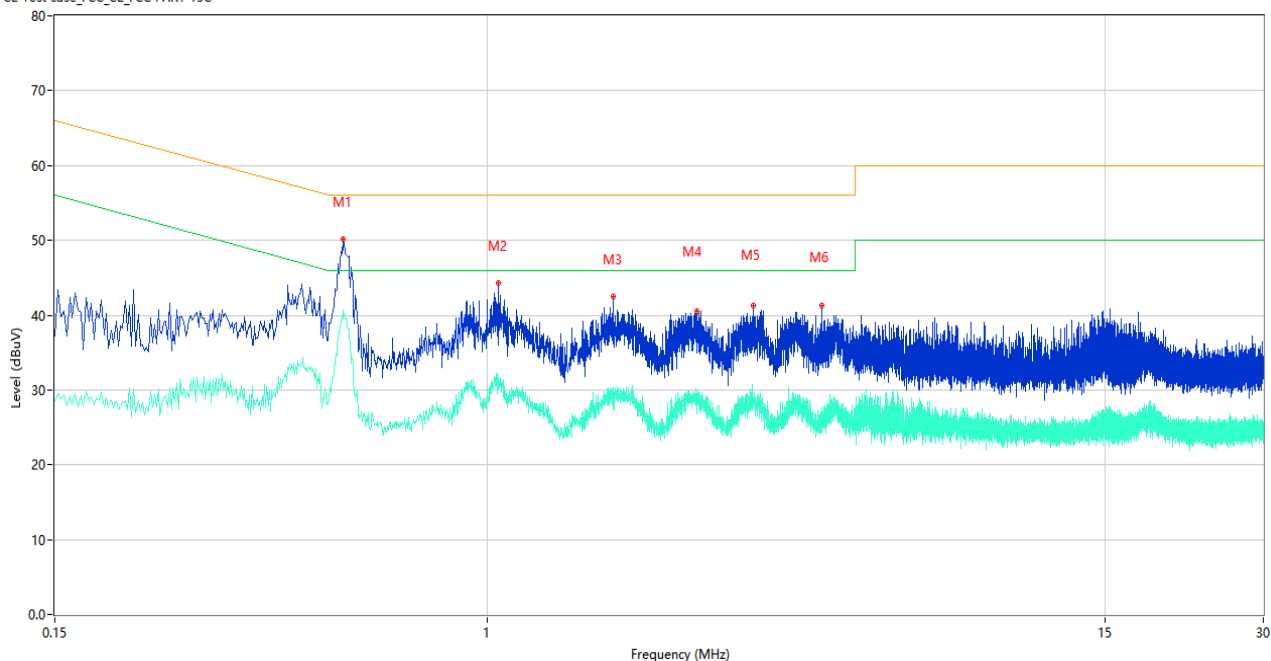
CE Test case_FCC_CE_FCC PART 15C



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.538	54.49	9.99	56.00	1.51	Peak	L	N/A
1*	0.538	50.20	9.99	56.00	5.80	QP	L	Pass
1**	0.538	40.08	9.99	46.00	5.92	AV	L	Pass
2	1.042	48.07	10.11	56.00	7.93	Peak	L	Pass
2**	1.042	30.42	10.11	46.00	15.58	AV	L	Pass
3	1.704	45.85	10.16	56.00	10.15	Peak	L	Pass
3**	1.704	32.82	10.16	46.00	13.18	AV	L	Pass
4	2.446	45.32	10.16	56.00	10.68	Peak	L	Pass
4**	2.446	29.61	10.16	46.00	16.39	AV	L	Pass
5	4.296	45.75	10.40	56.00	10.25	Peak	L	Pass
5**	4.296	28.80	10.40	46.00	17.20	AV	L	Pass
6	15.312	49.80	10.38	60.00	10.20	Peak	L	Pass
6**	15.312	33.93	10.38	50.00	16.07	AV	L	Pass

PHASE N

CE Test case_FCC_CE_FCC PART 15C



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.530	50.10	9.98	56.00	5.90	Peak	N	Pass
1**	0.530	39.47	9.98	46.00	6.53	AV	N	Pass
2	1.050	44.29	10.14	56.00	11.71	Peak	N	Pass
2**	1.050	31.68	10.14	46.00	14.32	AV	N	Pass
3	1.734	42.42	10.13	56.00	13.58	Peak	N	Pass
3**	1.734	30.32	10.13	46.00	15.68	AV	N	Pass
4	2.506	40.60	10.13	56.00	15.40	Peak	N	Pass
4**	2.506	29.52	10.13	46.00	16.48	AV	N	Pass
5	3.206	41.28	10.21	56.00	14.72	Peak	N	Pass
5**	3.206	28.90	10.21	46.00	17.10	AV	N	Pass
6	4.322	41.28	10.16	56.00	14.72	Peak	N	Pass
6**	4.322	27.71	10.16	46.00	18.29	AV	N	Pass

A.6 Radiated Emission

Note¹: The symbol of “--” in the table which means not application.

Note²: For the test data above 1 GHz, According the ANSI C63.10-2020 + Cor. 1-2023 + C63.10a-2024 + Errata to C63.10a-2024, where limits are specified for both average and peak (or quasi-peak) detector functions, if the peak (or quasi-peak) measured value complies with the average limit, it is unnecessary to perform an average measurement.

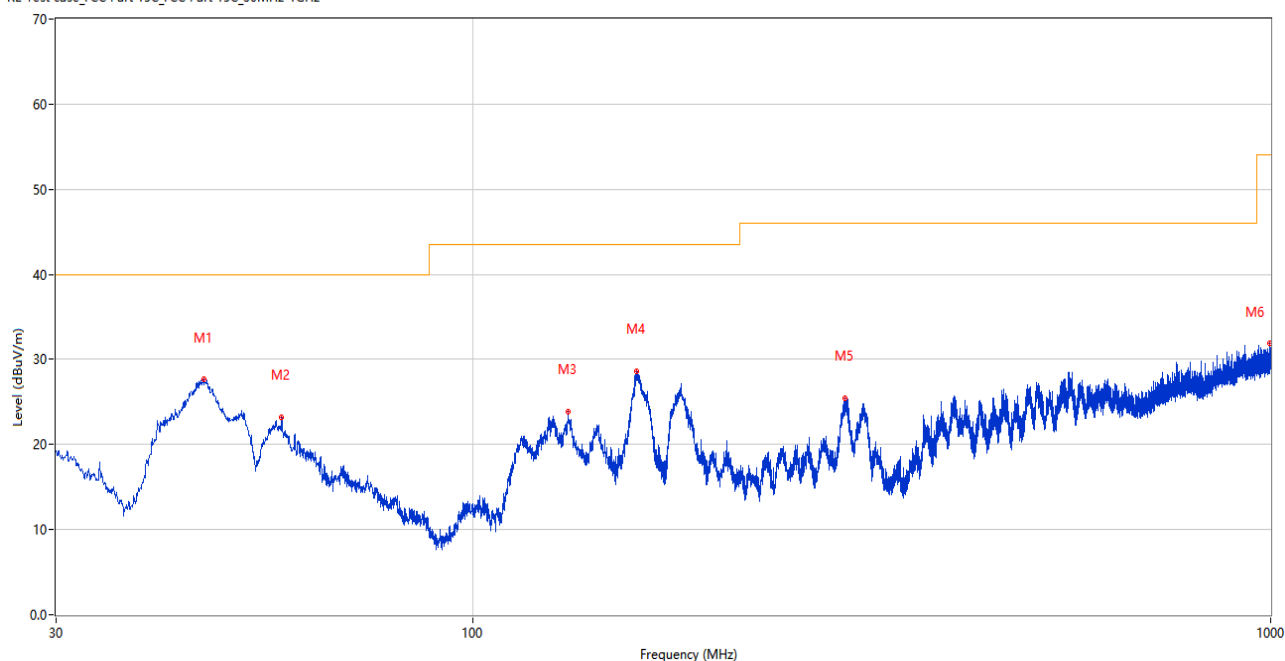
Note³: The low frequency, which started from 9 kHz to 30 MHz, was pre-scanned and the result which was 20 dB lower than the limit line per 15.31(o) was not reported.

Note⁴: The EUT is working in the Normal link mode below 1 GHz. All modes have been tested and normal link mode is worst.

Test Data and Plots

30 MHz to 1 GHz, ANT H

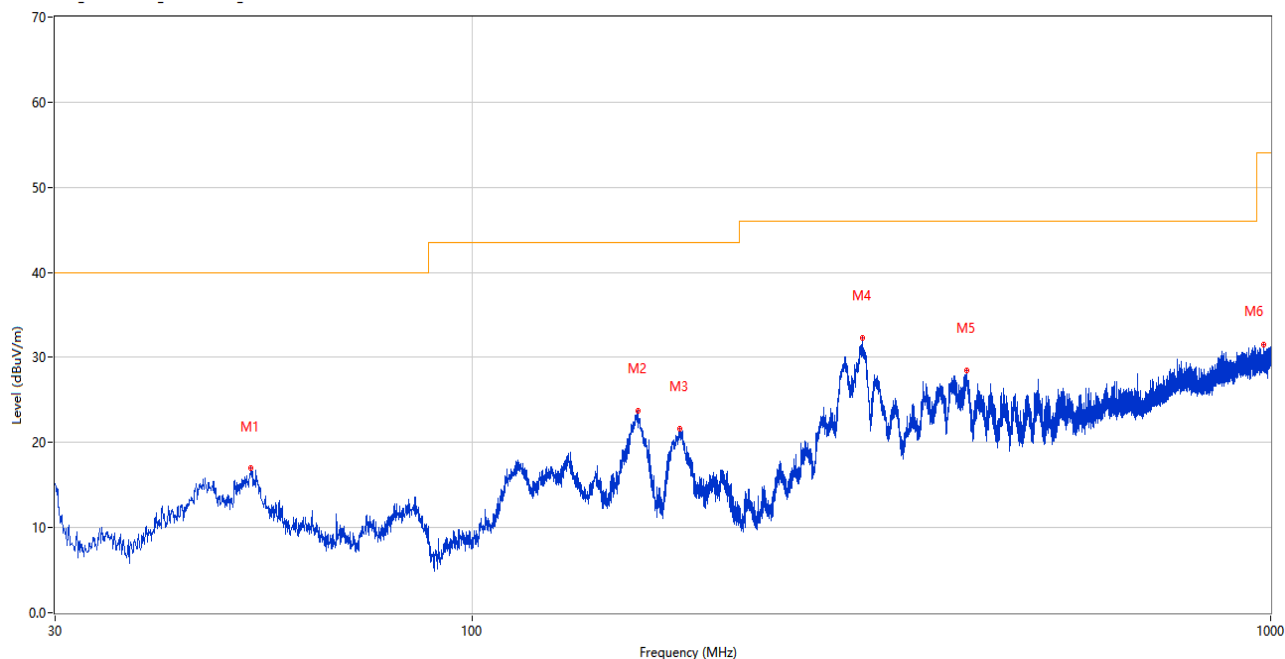
RE Test case_FCC Part 15C_FCC Part 15C_30MHz-1GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	46.005	27.62	-29.81	40.0	12.38	Peak	328.70	100	Vertical	Pass
2	57.548	23.22	-29.28	40.0	16.78	Peak	224.40	100	Vertical	Pass
3	131.510	23.87	-29.00	43.5	19.63	Peak	128.60	100	Vertical	Pass
4	160.368	28.67	-27.23	43.5	14.83	Peak	360.00	100	Vertical	Pass
5	292.579	25.42	-25.62	46.0	20.58	Peak	112.50	100	Vertical	Pass
6	997.721	31.96	-8.58	54.0	22.04	Peak	230.20	100	Vertical	Pass

30 MHz to 1 GHz, ANT V

RE Test case_FCC Part 15C_FCC Part 15C_30MHz-1GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	52.795	16.95	-29.87	40.0	23.05	Peak	207.10	100	Horizontal	Pass
2	161.290	23.77	-27.25	43.5	19.73	Peak	243.70	100	Horizontal	Pass
3	181.660	21.56	-28.89	43.5	21.94	Peak	280.00	100	Horizontal	Pass
4	308.196	32.25	-25.11	46.0	13.75	Peak	235.80	100	Horizontal	Pass
5	416.642	28.43	-21.70	46.0	17.57	Peak	124.20	100	Horizontal	Pass
6	979.727	31.52	-9.29	54.0	22.48	Peak	322.40	100	Horizontal	Pass

Note¹: The marked spikes near 2400 MHz with circle should be ignored because they are Fundamental signal.

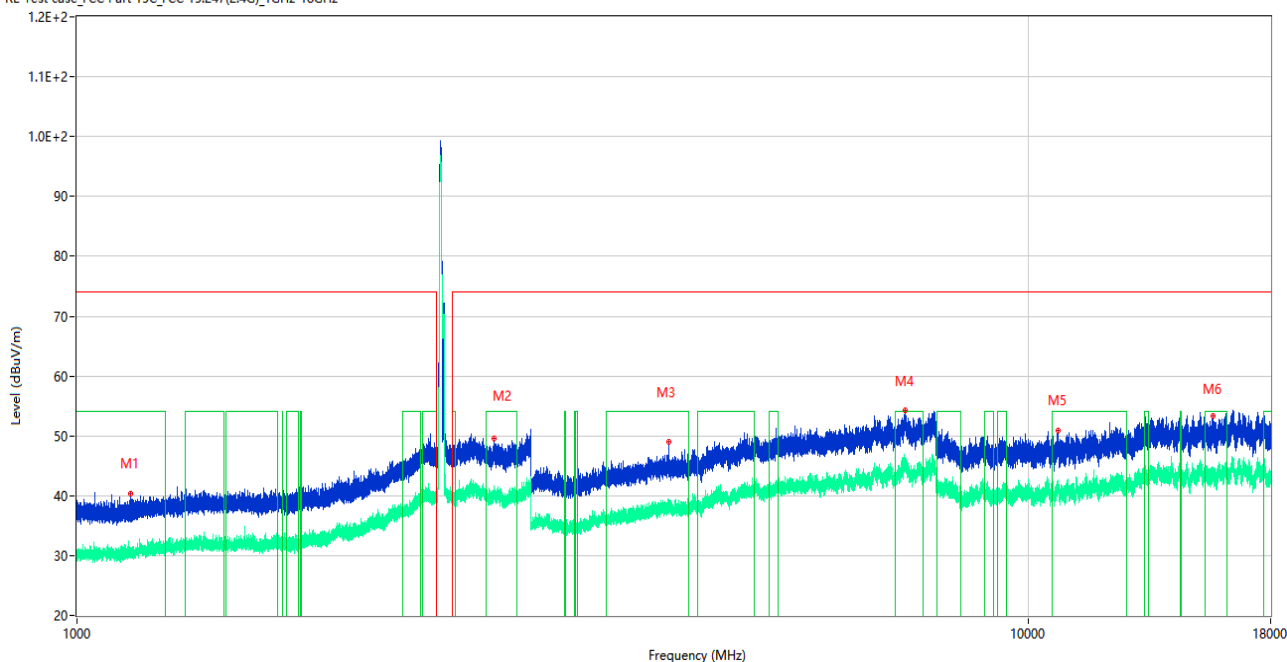
Note²: The spurious above 18G is noise only, do not show on the report.

Note³: All the configurations were pre tested, only the worst configuration has been reported in this report.

Note⁴: All antenna were pre tested, but only the worst case has been reported in this report.

1 GHz to 18 GHz, ANT H 802.11b Low Channel

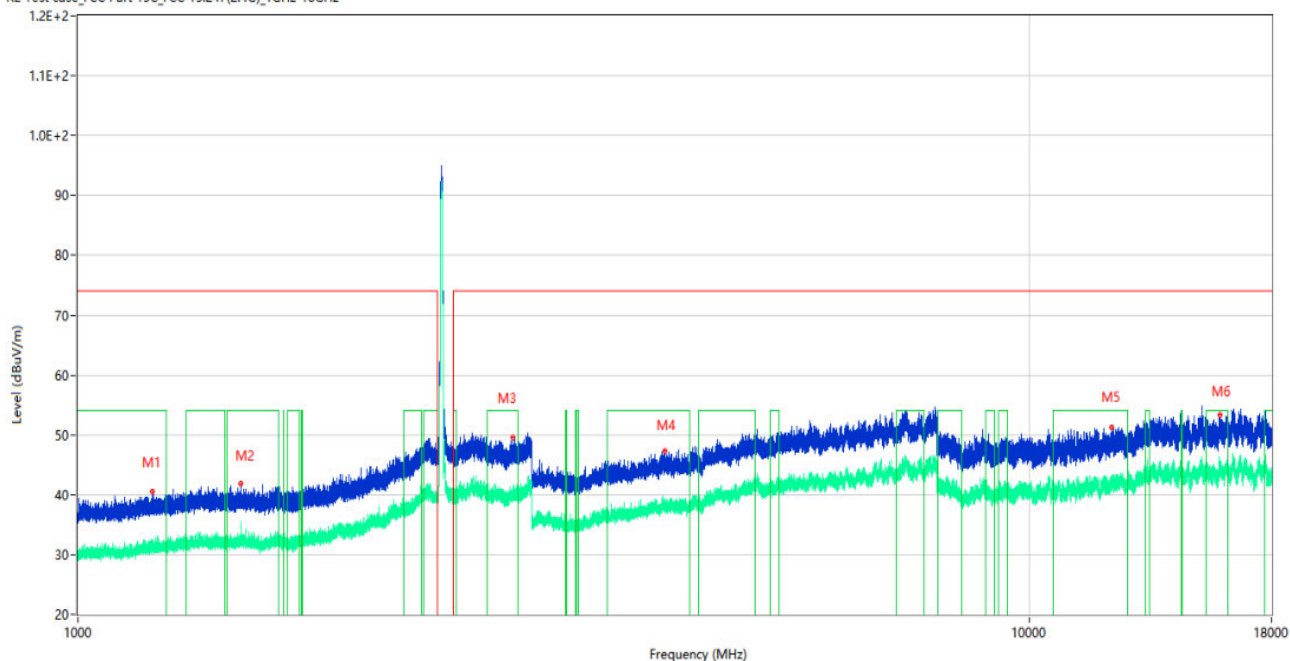
RE Test case_FCC Part 15C_FCC 15.247(2.4G)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1142.928	40.40	74.0	33.60	Peak	10.00	100	Horizontal	Pass
1**	1142.928	30.65	54.0	23.35	AV	10.00	100	Horizontal	Pass
2	2750.300	49.79	74.0	24.21	Peak	27.00	400	Horizontal	Pass
2**	2750.300	40.59	54.0	13.41	AV	27.00	400	Horizontal	Pass
3	4192.937	49.09	74.0	24.91	Peak	288.00	200	Horizontal	Pass
3**	4192.937	37.62	54.0	16.39	AV	288.00	200	Horizontal	Pass
4	7427.478	54.45	74.0	19.55	Peak	309.00	200	Horizontal	Pass
4**	7427.478	45.57	54.0	8.43	AV	309.00	200	Horizontal	Pass
5	10744.159	51.05	74.0	22.95	Peak	208.00	200	Horizontal	Pass
5**	10744.159	41.04	54.0	12.96	AV	208.00	200	Horizontal	Pass
6	15659.664	53.64	74.0	20.37	Peak	96.00	100	Horizontal	Pass
6**	15659.664	44.13	54.0	9.87	AV	96.00	100	Horizontal	Pass

1 GHz to 18 GHz, ANT V 802.11b Low Channel

RE Test case_FCC Part 15C_FCC 15.247(2.4G)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1198.776	40.78	74.0	33.22	Peak	139.00	400	Vertical	Pass
1**	1198.776	31.59	54.0	22.42	AV	139.00	400	Vertical	Pass
2	1481.122	42.06	74.0	31.94	Peak	236.00	300	Vertical	Pass
2**	1481.122	34.77	54.0	19.23	AV	236.00	300	Vertical	Pass
3	4143.977	47.54	74.0	26.46	Peak	208.00	200	Vertical	Pass
3**	4143.977	37.56	54.0	16.44	AV	208.00	200	Vertical	Pass
4	2867.604	49.55	74.0	24.45	Peak	309.00	100	Vertical	Pass
4**	2867.604	40.23	54.0	13.77	AV	309.00	100	Vertical	Pass
5	12226.645	51.42	74.0	22.59	Peak	175.00	200	Vertical	Pass
5**	12226.645	41.59	54.0	12.41	AV	175.00	200	Vertical	Pass
6	15892.450	53.50	74.0	20.50	Peak	166.00	300	Vertical	Pass
6**	15892.450	45.66	54.0	8.34	AV	166.00	300	Vertical	Pass

1 GHz to 18 GHz, ANT H 802.11b Middle Channel

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1138.577	39.96	74.0	34.04	Peak	36.00	300	Horizontal	Pass
1**	1138.577	30.05	54.0	23.95	AV	36.00	300	Horizontal	Pass
2	2746.644	49.14	74.0	24.86	Peak	283.00	200	Horizontal	Pass
2**	2746.644	40.42	54.0	13.58	AV	283.00	200	Horizontal	Pass
3	4189.104	48.49	74.0	25.51	Peak	0.00	200	Horizontal	Pass
3**	4189.104	37.37	54.0	16.64	AV	0.00	200	Horizontal	Pass
4	7429.786	54.09	74.0	19.91	Peak	213.00	400	Horizontal	Pass
4**	7429.786	44.57	54.0	9.43	AV	213.00	400	Horizontal	Pass
5	10750.878	50.73	74.0	23.27	Peak	300.00	400	Horizontal	Pass
5**	10750.878	40.15	54.0	13.85	AV	300.00	400	Horizontal	Pass
6	15658.175	53.13	74.0	20.88	Peak	204.00	300	Horizontal	Pass
6**	15658.175	43.20	54.0	10.80	AV	204.00	300	Horizontal	Pass

1 GHz to 18 GHz, ANT V 802.11b Middle Channel

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1197.540	40.06	74.0	33.94	Peak	259.00	200	Vertical	Pass
1**	1197.540	30.62	54.0	23.39	AV	259.00	200	Vertical	Pass
2	1484.814	41.12	74.0	32.88	Peak	329.00	200	Vertical	Pass
2**	1484.814	33.99	54.0	20.01	AV	329.00	200	Vertical	Pass
3	4141.632	46.77	74.0	27.23	Peak	191.00	200	Vertical	Pass
3**	4141.632	36.88	54.0	17.12	AV	191.00	200	Vertical	Pass
4	2864.252	49.41	74.0	24.59	Peak	349.00	400	Vertical	Pass
4**	2864.252	39.89	54.0	14.11	AV	349.00	400	Vertical	Pass
5	12222.242	51.41	74.0	22.60	Peak	122.00	300	Vertical	Pass
5**	12222.242	41.21	54.0	12.79	AV	122.00	300	Vertical	Pass
6	15896.244	53.01	74.0	20.99	Peak	271.00	200	Vertical	Pass
6**	15896.244	45.53	54.0	8.47	AV	271.00	200	Vertical	Pass

1 GHz to 18 GHz, ANT H 802.11b High Channel

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1141.060	39.65	74.0	34.35	Peak	255.00	100	Horizontal	Pass
1**	1141.060	30.62	54.0	23.38	AV	255.00	100	Horizontal	Pass
2	2749.585	49.38	74.0	24.62	Peak	216.00	400	Horizontal	Pass
2**	2749.585	40.53	54.0	13.47	AV	216.00	400	Horizontal	Pass
3	4189.183	49.03	74.0	24.97	Peak	92.00	200	Horizontal	Pass
3**	4189.183	37.35	54.0	16.66	AV	92.00	200	Horizontal	Pass
4	7426.158	53.46	74.0	20.54	Peak	80.00	400	Horizontal	Pass
4**	7426.158	45.07	54.0	8.93	AV	80.00	400	Horizontal	Pass
5	10745.535	50.57	74.0	23.43	Peak	320.00	400	Horizontal	Pass
5**	10745.535	40.32	54.0	13.68	AV	320.00	400	Horizontal	Pass
6	15654.975	53.00	74.0	21.01	Peak	200.00	200	Horizontal	Pass
6**	15654.975	43.23	54.0	10.77	AV	200.00	200	Horizontal	Pass

1 GHz to 18 GHz, ANT V 802.11b High Channel

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1198.432	39.91	74.0	34.09	Peak	105.00	300	Vertical	Pass
1**	1198.432	30.95	54.0	23.06	AV	105.00	300	Vertical	Pass
2	1479.503	41.26	74.0	32.74	Peak	177.00	100	Vertical	Pass
2**	1479.503	34.65	54.0	19.35	AV	177.00	100	Vertical	Pass
3	4139.960	47.03	74.0	26.97	Peak	103.00	200	Vertical	Pass
3**	4139.960	37.38	54.0	16.62	AV	103.00	200	Vertical	Pass
4	2861.607	49.04	74.0	24.96	Peak	25.00	100	Vertical	Pass
4**	2861.607	39.78	54.0	14.22	AV	25.00	100	Vertical	Pass
5	12223.772	51.24	74.0	22.77	Peak	166.00	300	Vertical	Pass
5**	12223.772	40.79	54.0	13.21	AV	166.00	300	Vertical	Pass
6	15891.137	52.77	74.0	21.23	Peak	208.00	200	Vertical	Pass
6**	15891.137	45.34	54.0	8.66	AV	208.00	200	Vertical	Pass

1 GHz to 18 GHz, ANT H 802.11g Low Channel

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1142.997	39.82	74.0	34.18	Peak	97.00	200	Horizontal	Pass
1**	1142.997	29.76	54.0	24.24	AV	97.00	200	Horizontal	Pass
2	2745.985	49.29	74.0	24.71	Peak	318.00	300	Horizontal	Pass
2**	2745.985	40.46	54.0	13.54	AV	318.00	300	Horizontal	Pass
3	4195.483	48.29	74.0	25.71	Peak	104.00	200	Horizontal	Pass
3**	4195.483	36.70	54.0	17.31	AV	104.00	200	Horizontal	Pass
4	7429.479	54.20	74.0	19.80	Peak	140.00	100	Horizontal	Pass
4**	7429.479	45.27	54.0	8.73	AV	140.00	100	Horizontal	Pass
5	10747.005	50.48	74.0	23.52	Peak	340.00	300	Horizontal	Pass
5**	10747.005	40.37	54.0	13.63	AV	340.00	300	Horizontal	Pass
6	15656.175	53.18	74.0	20.83	Peak	28.00	400	Horizontal	Pass
6**	15656.175	43.18	54.0	10.82	AV	28.00	400	Horizontal	Pass

1 GHz to 18 GHz, ANT V 802.11g Low Channel

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1197.755	39.11	74.0	34.89	Peak	121.00	300	Vertical	Pass
1**	1197.755	29.81	54.0	24.20	AV	121.00	300	Vertical	Pass
2	1482.315	41.04	74.0	32.96	Peak	103.00	100	Vertical	Pass
2**	1482.315	33.58	54.0	20.42	AV	103.00	100	Vertical	Pass
3	4139.916	46.73	74.0	27.27	Peak	47.00	200	Vertical	Pass
3**	4139.916	36.00	54.0	18.00	AV	47.00	200	Vertical	Pass
4	2865.758	48.58	74.0	25.42	Peak	319.00	300	Vertical	Pass
4**	2865.758	39.66	54.0	14.34	AV	319.00	300	Vertical	Pass
5	12226.431	50.43	74.0	23.58	Peak	17.00	400	Vertical	Pass
5**	12226.431	40.58	54.0	13.42	AV	17.00	400	Vertical	Pass
6	15894.715	52.10	74.0	21.90	Peak	228.00	200	Vertical	Pass
6**	15894.715	44.95	54.0	9.05	AV	228.00	200	Vertical	Pass

1 GHz to 18 GHz, ANT H 802.11g Middle Channel

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1137.620	39.55	74.0	34.45	Peak	53.00	400	Horizontal	Pass
1**	1137.620	29.91	54.0	24.09	AV	53.00	400	Horizontal	Pass
2	2743.470	48.40	74.0	25.60	Peak	55.00	400	Horizontal	Pass
2**	2743.470	39.84	54.0	14.16	AV	55.00	400	Horizontal	Pass
3	4196.041	47.85	74.0	26.15	Peak	174.00	200	Horizontal	Pass
3**	4196.041	36.48	54.0	17.53	AV	174.00	200	Horizontal	Pass
4	7425.890	53.90	74.0	20.10	Peak	322.00	300	Horizontal	Pass
4**	7425.890	44.24	54.0	9.76	AV	322.00	300	Horizontal	Pass
5	10750.090	50.13	74.0	23.87	Peak	198.00	400	Horizontal	Pass
5**	10750.090	39.84	54.0	14.16	AV	198.00	400	Horizontal	Pass
6	15656.384	52.51	74.0	21.50	Peak	82.00	400	Horizontal	Pass
6**	15656.384	42.24	54.0	11.76	AV	82.00	400	Horizontal	Pass

1 GHz to 18 GHz, ANT V 802.11g Middle Channel

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1198.331	39.31	74.0	34.69	Peak	30.00	200	Vertical	Pass
1**	1198.331	30.14	54.0	23.87	AV	30.00	200	Vertical	Pass
2	1485.721	40.69	74.0	33.31	Peak	229.00	300	Vertical	Pass
2**	1485.721	34.00	54.0	20.00	AV	229.00	300	Vertical	Pass
3	4140.791	46.10	74.0	27.90	Peak	12.00	200	Vertical	Pass
3**	4140.791	36.65	54.0	17.35	AV	12.00	200	Vertical	Pass
4	2864.672	48.20	74.0	25.80	Peak	138.00	400	Vertical	Pass
4**	2864.672	39.51	54.0	14.49	AV	138.00	400	Vertical	Pass
5	12222.859	50.73	74.0	23.28	Peak	356.00	400	Vertical	Pass
5**	12222.859	39.82	54.0	14.18	AV	356.00	400	Vertical	Pass
6	15890.290	52.07	74.0	21.93	Peak	28.00	300	Vertical	Pass
6**	15890.290	44.96	54.0	9.04	AV	28.00	300	Vertical	Pass

1 GHz to 18 GHz, ANT H 802.11g High Channel

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1139.537	38.91	74.0	35.09	Peak	295.00	200	Horizontal	Pass
1**	1139.537	30.49	54.0	23.51	AV	295.00	200	Horizontal	Pass
2	2748.665	49.20	74.0	24.80	Peak	98.00	200	Horizontal	Pass
2**	2748.665	39.59	54.0	14.41	AV	98.00	200	Horizontal	Pass
3	4191.238	48.17	74.0	25.83	Peak	94.00	200	Horizontal	Pass
3**	4191.238	36.94	54.0	17.07	AV	94.00	200	Horizontal	Pass
4	7424.639	52.79	74.0	21.21	Peak	321.00	200	Horizontal	Pass
4**	7424.639	45.03	54.0	8.97	AV	321.00	200	Horizontal	Pass
5	10746.734	50.14	74.0	23.86	Peak	27.00	100	Horizontal	Pass
5**	10746.734	39.55	54.0	14.45	AV	27.00	100	Horizontal	Pass
6	15658.448	52.46	74.0	21.55	Peak	107.00	100	Horizontal	Pass
6**	15658.448	42.44	54.0	11.56	AV	107.00	100	Horizontal	Pass

1 GHz to 18 GHz, ANT V 802.11g High Channel

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1195.134	39.10	74.0	34.90	Peak	62.00	300	Vertical	Pass
1**	1195.134	29.74	54.0	24.26	AV	62.00	300	Vertical	Pass
2	1484.309	41.02	74.0	32.99	Peak	298.00	400	Vertical	Pass
2**	1484.309	33.49	54.0	20.51	AV	298.00	400	Vertical	Pass
3	4138.115	46.69	74.0	27.31	Peak	133.00	200	Vertical	Pass
3**	4138.115	35.91	54.0	18.09	AV	133.00	200	Vertical	Pass
4	2868.451	48.54	74.0	25.46	Peak	83.00	400	Vertical	Pass
4**	2868.451	39.58	54.0	14.42	AV	83.00	400	Vertical	Pass
5	12227.679	50.39	74.0	23.61	Peak	303.00	200	Vertical	Pass
5**	12227.679	40.50	54.0	13.50	AV	303.00	200	Vertical	Pass
6	15889.823	52.03	74.0	21.97	Peak	73.00	400	Vertical	Pass
6**	15889.823	44.88	54.0	9.12	AV	73.00	400	Vertical	Pass

1 GHz to 18 GHz, ANT H 802.11n20 Low Channel

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1355.238	41.92	74.0	32.08	Peak	104.00	200	Horizontal	Pass
1**	1355.238	31.63	54.0	22.37	AV	104.00	200	Horizontal	Pass
2	3818.838	46.28	74.0	27.72	Peak	13.00	100	Horizontal	Pass
2**	3818.838	36.75	54.0	17.25	AV	13.00	100	Horizontal	Pass
3	5043.874	49.73	74.0	24.27	Peak	256.00	200	Horizontal	Pass
3**	5043.874	39.86	54.0	14.14	AV	256.00	200	Horizontal	Pass
4	7550.066	45.29	74.0	28.71	Peak	305.00	200	Horizontal	Pass
4**	7550.066	36.96	54.0	17.04	AV	305.00	200	Horizontal	Pass
5	12611.519	49.15	74.0	24.85	Peak	135.00	200	Horizontal	Pass
5**	12611.519	38.10	54.0	15.90	AV	135.00	200	Horizontal	Pass
6	15798.665	52.10	74.0	21.90	Peak	120.00	300	Horizontal	Pass
6**	15798.665	42.24	54.0	11.76	AV	120.00	300	Horizontal	Pass

1 GHz to 18 GHz, ANT V 802.11n20 Low Channel

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1162.249	49.06	74.0	24.95	Peak	112.00	300	Vertical	Pass
1**	1162.249	34.88	54.0	19.12	AV	112.00	300	Vertical	Pass
2	1324.099	43.39	74.0	30.61	Peak	157.00	200	Vertical	Pass
2**	1324.099	32.22	54.0	21.78	AV	157.00	200	Vertical	Pass
3	4819.444	49.58	74.0	24.42	Peak	181.00	200	Vertical	Pass
3**	4819.444	41.27	54.0	12.73	AV	181.00	200	Vertical	Pass
4	7940.132	53.89	74.0	20.12	Peak	42.00	300	Vertical	Pass
4**	7940.132	39.27	54.0	14.74	AV	42.00	300	Vertical	Pass
5	12981.236	52.85	74.0	21.16	Peak	11.00	300	Vertical	Pass
5**	12981.236	40.16	54.0	13.84	AV	11.00	300	Vertical	Pass
6	17439.519	55.24	74.0	18.76	Peak	35.00	300	Vertical	Pass
6**	17439.519	39.33	54.0	14.67	AV	35.00	300	Vertical	Pass

1 GHz to 18 GHz, ANT H 802.11n20 Middle Channel

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1355.237	42.09	74.0	31.91	Peak	133.00	300	Horizontal	Pass
1**	1355.237	32.32	54.0	21.68	AV	133.00	300	Horizontal	Pass
2	3815.795	47.21	74.0	26.79	Peak	340.00	300	Horizontal	Pass
2**	3815.795	37.61	54.0	16.39	AV	340.00	300	Horizontal	Pass
3	5040.727	49.77	74.0	24.23	Peak	176.00	200	Horizontal	Pass
3**	5040.727	39.91	54.0	14.09	AV	176.00	200	Horizontal	Pass
4	7546.685	46.24	74.0	27.76	Peak	108.00	300	Horizontal	Pass
4**	7546.685	37.48	54.0	16.52	AV	108.00	300	Horizontal	Pass
5	12614.087	49.30	74.0	24.70	Peak	79.00	400	Horizontal	Pass
5**	12614.087	38.56	54.0	15.44	AV	79.00	400	Horizontal	Pass
6	15796.709	52.74	74.0	21.27	Peak	272.00	300	Horizontal	Pass
6**	15796.709	42.69	54.0	11.31	AV	272.00	300	Horizontal	Pass

1 GHz to 18 GHz, ANT V 802.11n20 Middle Channel

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1163.436	47.70	74.0	26.30	Peak	56.00	300	Vertical	Pass
1**	1163.436	34.81	54.0	19.19	AV	56.00	300	Vertical	Pass
2	1329.210	43.82	74.0	30.18	Peak	13.00	400	Vertical	Pass
2**	1329.210	32.55	54.0	21.45	AV	13.00	400	Vertical	Pass
3	4819.010	48.76	74.0	25.24	Peak	274.00	200	Vertical	Pass
3**	4819.010	39.74	54.0	14.26	AV	274.00	200	Vertical	Pass
4	7938.546	53.20	74.0	20.80	Peak	270.00	300	Vertical	Pass
4**	7938.546	38.62	54.0	15.38	AV	270.00	300	Vertical	Pass
5	12977.844	53.00	74.0	21.00	Peak	291.00	400	Vertical	Pass
5**	12977.844	38.89	54.0	15.12	AV	291.00	400	Vertical	Pass
6	17442.081	55.34	74.0	18.66	Peak	199.00	100	Vertical	Pass
6**	17442.081	38.69	54.0	15.31	AV	199.00	100	Vertical	Pass

1 GHz to 18 GHz, ANT H 802.11n20 High Channel

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1354.420	42.06	74.0	31.94	Peak	157.00	300	Horizontal	Pass
1**	1354.420	32.31	54.0	21.69	AV	157.00	300	Horizontal	Pass
2	3816.504	47.22	74.0	26.78	Peak	240.00	300	Horizontal	Pass
2**	3816.504	37.63	54.0	16.37	AV	240.00	300	Horizontal	Pass
3	5039.069	49.70	74.0	24.30	Peak	189.00	200	Horizontal	Pass
3**	5039.069	39.96	54.0	14.04	AV	189.00	200	Horizontal	Pass
4	7551.799	46.24	74.0	27.76	Peak	77.00	300	Horizontal	Pass
4**	7551.799	37.53	54.0	16.47	AV	77.00	300	Horizontal	Pass
5	12612.759	49.27	74.0	24.73	Peak	360.00	400	Horizontal	Pass
5**	12612.759	38.51	54.0	15.49	AV	360.00	400	Horizontal	Pass
6	15794.322	52.71	74.0	21.29	Peak	198.00	100	Horizontal	Pass
6**	15794.322	42.69	54.0	11.32	AV	198.00	100	Horizontal	Pass

1 GHz to 18 GHz, ANT V 802.11n20 High Channel

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1161.942	49.04	74.0	24.97	Peak	206.00	400	Vertical	Pass
1**	1161.942	34.24	54.0	19.76	AV	206.00	400	Vertical	Pass
2	1324.106	43.21	74.0	30.79	Peak	159.00	400	Vertical	Pass
2**	1324.106	31.29	54.0	22.71	AV	159.00	400	Vertical	Pass
3	4823.739	48.73	74.0	25.27	Peak	313.00	200	Vertical	Pass
3**	4823.739	40.79	54.0	13.21	AV	313.00	200	Vertical	Pass
4	7938.046	53.50	74.0	20.51	Peak	177.00	400	Vertical	Pass
4**	7938.046	38.61	54.0	15.40	AV	177.00	400	Vertical	Pass
5	12974.970	52.23	74.0	21.78	Peak	152.00	200	Vertical	Pass
5**	12974.970	39.96	54.0	14.04	AV	152.00	200	Vertical	Pass
6	17441.548	54.76	74.0	19.24	Peak	218.00	400	Vertical	Pass
6**	17441.548	39.00	54.0	15.00	AV	218.00	400	Vertical	Pass

1 GHz to 18 GHz, ANT H 802.11n40 Low Channel

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1352.315	42.11	74.0	31.89	Peak	144.00	200	Horizontal	Pass
1**	1352.315	32.34	54.0	21.66	AV	144.00	200	Horizontal	Pass
2	3818.182	47.22	74.0	26.78	Peak	161.00	300	Horizontal	Pass
2**	3818.182	37.68	54.0	16.32	AV	161.00	300	Horizontal	Pass
3	5041.676	49.70	74.0	24.30	Peak	260.00	200	Horizontal	Pass
3**	5041.676	40.00	54.0	14.00	AV	260.00	200	Horizontal	Pass
4	7547.352	46.21	74.0	27.79	Peak	140.00	300	Horizontal	Pass
4**	7547.352	37.49	54.0	16.51	AV	140.00	300	Horizontal	Pass
5	12611.787	49.32	74.0	24.68	Peak	32.00	100	Horizontal	Pass
5**	12611.787	38.56	54.0	15.44	AV	32.00	100	Horizontal	Pass
6	15791.723	52.72	74.0	21.28	Peak	222.00	200	Horizontal	Pass
6**	15791.723	42.72	54.0	11.28	AV	222.00	200	Horizontal	Pass

1 GHz to 18 GHz, ANT V 802.11n40 Low Channel

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1162.592	49.12	74.0	24.88	Peak	196.00	300	Vertical	Pass
1**	1162.592	35.71	54.0	18.29	AV	196.00	300	Vertical	Pass
2	1330.765	44.64	74.0	29.36	Peak	163.00	100	Vertical	Pass
2**	1330.765	33.24	54.0	20.76	AV	163.00	100	Vertical	Pass
3	4823.132	50.71	74.0	23.29	Peak	168.00	200	Vertical	Pass
3**	4823.132	40.86	54.0	13.14	AV	168.00	200	Vertical	Pass
4	7938.182	54.27	74.0	19.73	Peak	134.00	100	Vertical	Pass
4**	7938.182	40.22	54.0	13.78	AV	134.00	100	Vertical	Pass
5	12982.045	53.28	74.0	20.72	Peak	273.00	300	Vertical	Pass
5**	12982.045	40.51	54.0	13.49	AV	273.00	300	Vertical	Pass
6	17443.734	56.42	74.0	17.58	Peak	27.00	100	Vertical	Pass
6**	17443.734	40.35	54.0	13.65	AV	27.00	100	Vertical	Pass

1 GHz to 18 GHz, ANT H 802.11n40 Middle Channel

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1355.160	40.41	74.0	33.59	Peak	183.00	300	Horizontal	Pass
1**	1355.160	30.82	54.0	23.18	AV	183.00	300	Horizontal	Pass
2	3818.206	46.66	74.0	27.34	Peak	91.00	100	Horizontal	Pass
2**	3818.206	36.09	54.0	17.91	AV	91.00	100	Horizontal	Pass
3	5042.802	48.93	74.0	25.07	Peak	238.00	200	Horizontal	Pass
3**	5042.802	38.87	54.0	15.13	AV	238.00	200	Horizontal	Pass
4	7550.460	45.92	74.0	28.08	Peak	83.00	300	Horizontal	Pass
4**	7550.460	36.44	54.0	17.56	AV	83.00	300	Horizontal	Pass
5	12613.735	48.07	74.0	25.93	Peak	72.00	300	Horizontal	Pass
5**	12613.735	37.93	54.0	16.07	AV	72.00	300	Horizontal	Pass
6	15794.196	52.12	74.0	21.88	Peak	38.00	200	Horizontal	Pass
6**	15794.196	41.07	54.0	12.94	AV	38.00	200	Horizontal	Pass

1 GHz to 18 GHz, ANT V 802.11n40 Middle Channel

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1164.145	48.67	74.0	25.33	Peak	214.00	100	Vertical	Pass
1**	1164.145	35.92	54.0	18.08	AV	214.00	100	Vertical	Pass
2	1323.936	43.38	74.0	30.62	Peak	82.00	400	Vertical	Pass
2**	1323.936	32.56	54.0	21.44	AV	82.00	400	Vertical	Pass
3	4818.654	49.90	74.0	24.10	Peak	128.00	200	Vertical	Pass
3**	4818.654	40.38	54.0	13.62	AV	128.00	200	Vertical	Pass
4	7937.920	53.12	74.0	20.88	Peak	328.00	300	Vertical	Pass
4**	7937.920	39.86	54.0	14.14	AV	328.00	300	Vertical	Pass
5	12980.722	52.96	74.0	21.04	Peak	64.00	200	Vertical	Pass
5**	12980.722	39.28	54.0	14.72	AV	64.00	200	Vertical	Pass
6	17436.415	55.75	74.0	18.25	Peak	4.00	400	Vertical	Pass
6**	17436.415	39.63	54.0	14.37	AV	4.00	400	Vertical	Pass

1 GHz to 18 GHz, ANT H 802.11n40 High Channel

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1350.430	41.79	74.0	32.21	Peak	241.00	100	Horizontal	Pass
1**	1350.430	32.36	54.0	21.64	AV	241.00	100	Horizontal	Pass
2	3818.078	46.26	74.0	27.74	Peak	244.00	300	Horizontal	Pass
2**	3818.078	37.07	54.0	16.93	AV	244.00	300	Horizontal	Pass
3	5042.145	48.93	74.0	25.07	Peak	201.00	200	Horizontal	Pass
3**	5042.145	39.90	54.0	14.10	AV	201.00	200	Horizontal	Pass
4	7548.028	46.19	74.0	27.81	Peak	322.00	100	Horizontal	Pass
4**	7548.028	37.01	54.0	16.99	AV	322.00	100	Horizontal	Pass
5	12616.676	48.38	74.0	25.62	Peak	242.00	400	Horizontal	Pass
5**	12616.676	38.32	54.0	15.68	AV	242.00	400	Horizontal	Pass
6	15798.875	52.62	74.0	21.38	Peak	45.00	400	Horizontal	Pass
6**	15798.875	42.51	54.0	11.50	AV	45.00	400	Horizontal	Pass

1 GHz to 18 GHz, ANT V 802.11n40 High Channel

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1162.037	49.79	74.0	24.21	Peak	273.00	200	Vertical	Pass
1**	1162.037	36.08	54.0	17.92	AV	273.00	200	Vertical	Pass
2	1330.735	44.66	74.0	29.34	Peak	251.00	300	Vertical	Pass
2**	1330.735	32.58	54.0	21.42	AV	251.00	300	Vertical	Pass
3	4826.030	51.13	74.0	22.87	Peak	65.00	200	Vertical	Pass
3**	4826.030	41.24	54.0	12.76	AV	65.00	200	Vertical	Pass
4	7935.386	54.22	74.0	19.78	Peak	151.00	200	Vertical	Pass
4**	7935.386	39.59	54.0	14.41	AV	151.00	200	Vertical	Pass
5	12976.092	52.95	74.0	21.05	Peak	112.00	400	Vertical	Pass
5**	12976.092	40.49	54.0	13.51	AV	112.00	400	Vertical	Pass
6	17443.824	55.62	74.0	18.38	Peak	130.00	300	Vertical	Pass
6**	17443.824	39.87	54.0	14.13	AV	130.00	300	Vertical	Pass

A.7 Band Edge (Restricted-band band-edge)

Note ¹: The lowest and highest channels are tested to verify the band edge emissions. Please refer to the following the plots for emissions values.

Note ²: The test data all are tested in the vertical and horizontal antenna which the trace is max hold. So these plots have shown the worst case.

Note ³: According the ANSI C63.10-2020 + Cor. 1-2023 + C63.10a-2024 + Errata to C63.10a-2024, where limits are specified for both average and peak (or quasi-peak) detector functions, if the peak (or quasi-peak) measured value complies with the average limit, it is unnecessary to perform an average measurement.

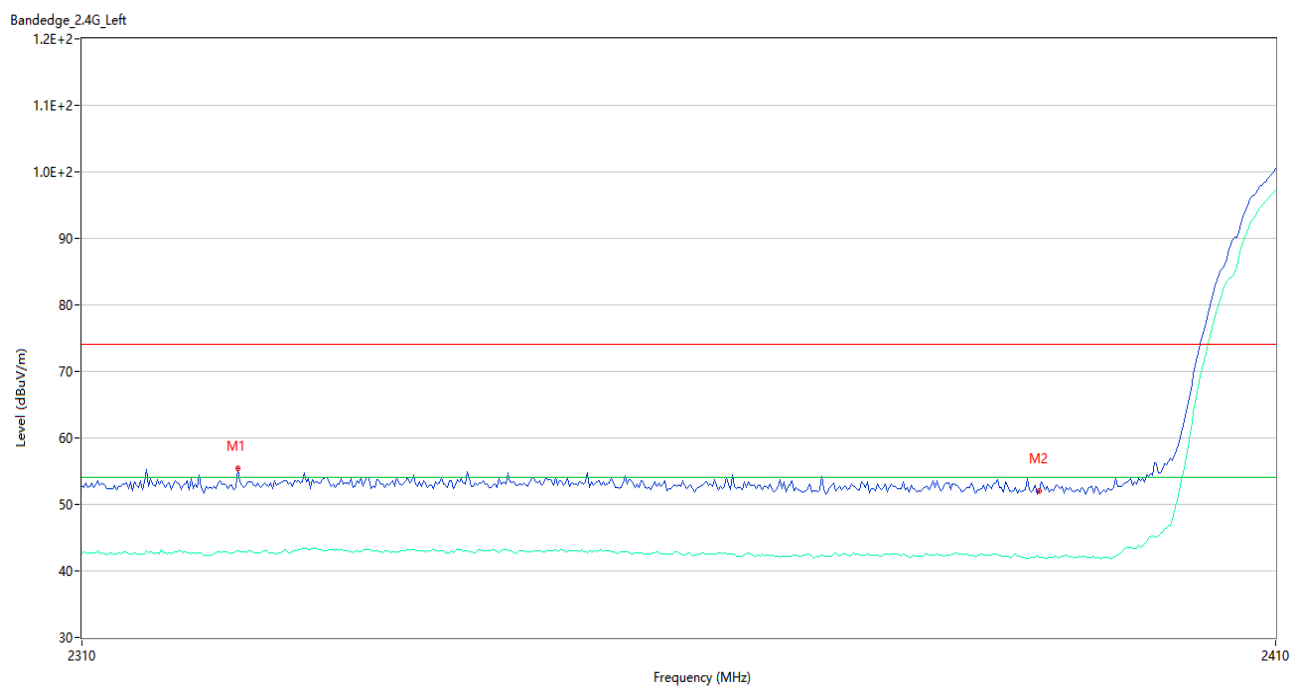
Note ⁴: All the configurations were pre tested, only the worst configuration has been reported in this report.

Note ⁵: All antenna were pre tested, but only the worst case has been reported in this report.

Note ⁶: Both horizontal and vertical directions were pre tested, only the worst configuration has been reported in this report.

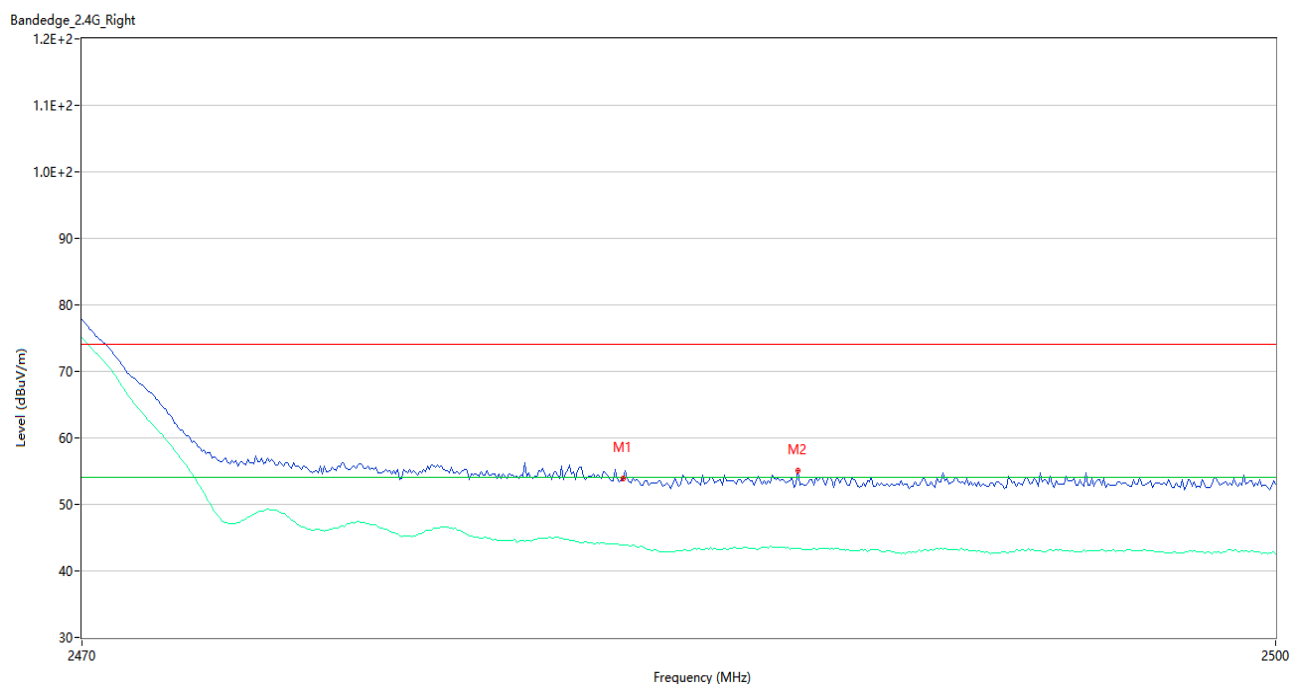
Test Data and Plots

802.11b LOW CHANNEL



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	2321.374	54.89	74.0	19.11	Peak	146.00	200	Horizontal	Pass
1**	2321.374	43.04	54.0	10.96	AV	146.00	200	Horizontal	Pass
2	2390.000	51.12	74.0	22.88	Peak	33.00	300	Horizontal	Pass
2**	2390.000	41.40	54.0	12.60	AV	33.00	300	Horizontal	Pass

802.11b HIGH CHANNEL



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	2483.500	53.55	74.0	20.45	Peak	175.00	200	Horizontal	Pass
1**	2483.500	43.23	54.0	10.77	AV	175.00	200	Horizontal	Pass
2	2488.880	54.31	74.0	19.69	Peak	34.00	300	Horizontal	Pass
2**	2488.880	43.11	54.0	10.89	AV	34.00	300	Horizontal	Pass

802.11g LOW CHANNEL

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	2336.264	54.67	74.0	19.33	Peak	1.00	100	Horizontal	Pass
1**	2336.264	42.11	54.0	11.89	AV	1.00	100	Horizontal	Pass
2	2390.000	55.89	74.0	18.11	Peak	175.00	200	Horizontal	Pass
2**	2390.000	42.68	54.0	11.32	AV	175.00	200	Horizontal	Pass

802.11g HIGH CHANNEL

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	2483.500	55.81	74.0	18.19	Peak	261.00	200	Horizontal	Pass
1**	2483.500	42.53	54.0	11.47	AV	261.00	200	Horizontal	Pass
2	2486.066	56.70	74.0	17.30	Peak	30.00	300	Horizontal	Pass
2**	2486.066	42.12	54.0	11.88	AV	30.00	300	Horizontal	Pass

802.11n20 LOW CHANNEL

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	2387.650	56.27	74.0	17.73	Peak	211.00	200	Horizontal	Pass
1**	2387.650	42.55	54.0	11.45	AV	211.00	200	Horizontal	Pass
2	2390.000	56.69	74.0	17.31	Peak	84.00	100	Horizontal	Pass
2**	2390.000	42.30	54.0	11.70	AV	84.00	100	Horizontal	Pass

802.11n20 HIGH CHANNEL

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	2483.500	54.25	74.0	19.75	Peak	142.00	100	Horizontal	Pass
1**	2483.500	42.40	54.0	11.60	AV	142.00	100	Horizontal	Pass
2	2486.684	58.88	74.0	15.12	Peak	156.00	300	Horizontal	Pass
2**	2486.684	41.28	54.0	12.72	AV	156.00	300	Horizontal	Pass

802.11n40 LOW CHANNEL

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	2388.806	57.37	74.0	16.63	Peak	109.00	200	Horizontal	Pass
1**	2388.806	42.88	54.0	11.12	AV	109.00	200	Horizontal	Pass
2	2390.000	57.01	74.0	16.99	Peak	339.00	300	Horizontal	Pass
2**	2390.000	42.22	54.0	11.78	AV	339.00	300	Horizontal	Pass

802.11n40 HIGH CHANNEL

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	2483.500	55.38	74.0	18.62	Peak	203.00	100	Horizontal	Pass
1**	2483.500	42.69	54.0	11.31	AV	203.00	100	Horizontal	Pass
2	2484.756	57.57	74.0	16.43	Peak	231.00	100	Horizontal	Pass
2**	2484.756	42.68	54.0	11.32	AV	231.00	100	Horizontal	Pass

A.8 Power Spectral Density (PSD)

Note ¹: All the configurations were pre tested, only the worst configuration has been reported in this report.

Note ²: All antenna were pre tested, but only the worst case has been reported in this report.

Test Data

802.11b Mode:

Channel	Spectral Power Density (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
Low	-11.85	8	Pass
Middle	-11.374	8	Pass
High	-12.392	8	Pass

802.11g Mode:

Channel	Spectral Power Density (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
Low	-18.137	8	Pass
Middle	-18.749	8	Pass
High	-19.122	8	Pass

802.11n-20 MHz Mode:

Channel	Spectral Power Density (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
Low	-9.874	8	Pass
Middle	-9.673	8	Pass
High	-9.379	8	Pass

802.11n-40 MHz Mode:

Channel	Spectral Power Density (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
Low	-11.34	8	Pass
Middle	-12.549	8	Pass
High	-11.834	8	Pass

Test Plots

802.11b LOW CHANNEL



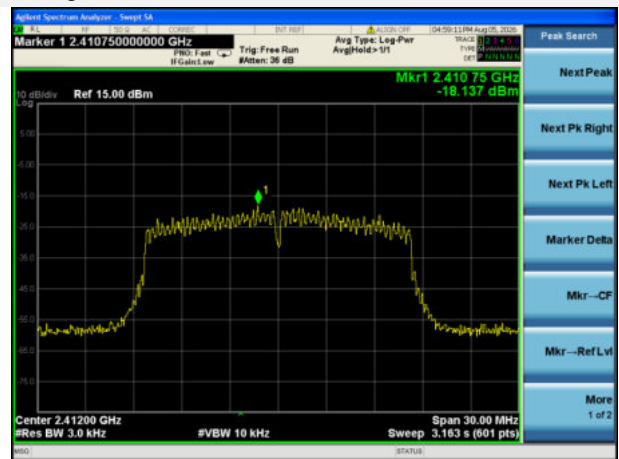
802.11b MIDDLE CHANNEL



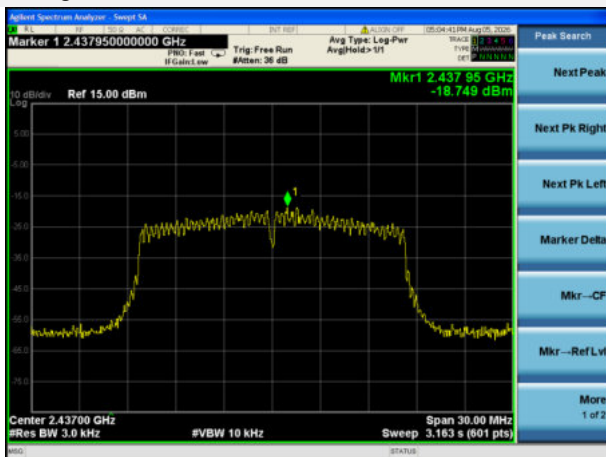
802.11b HIGH CHANNEL



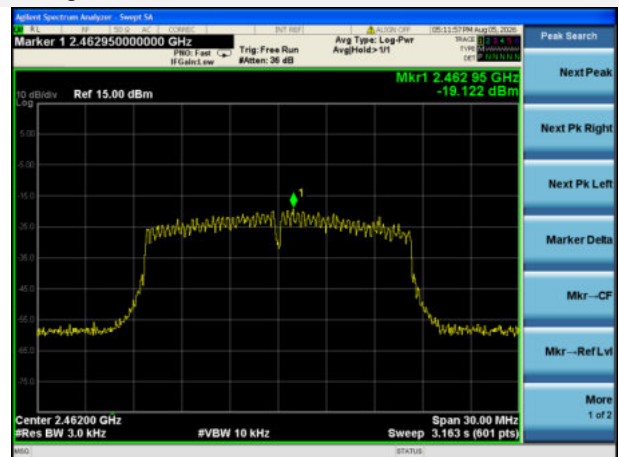
802.11g LOW CHANNEL



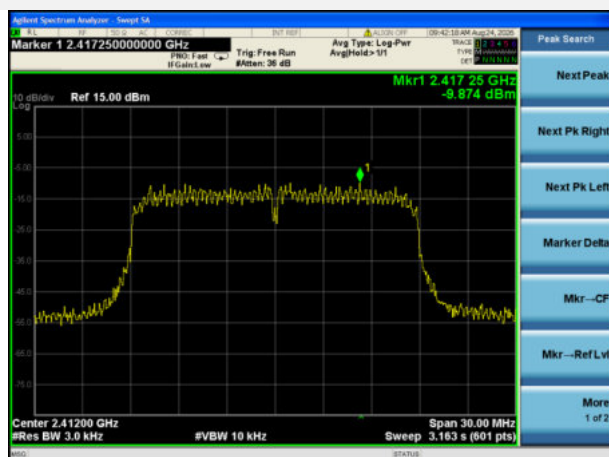
802.11g MIDDLE CHANNEL



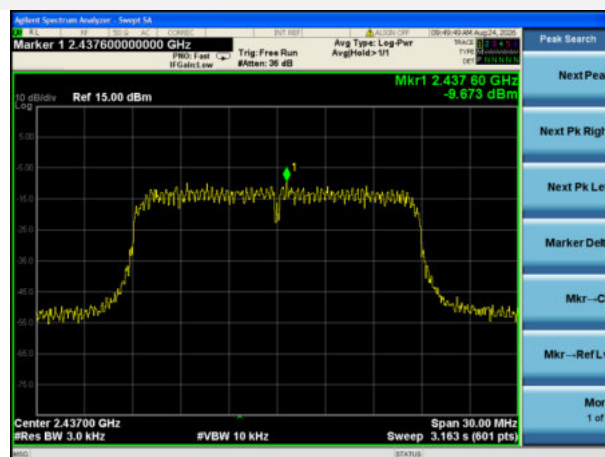
802.11g HIGH CHANNEL



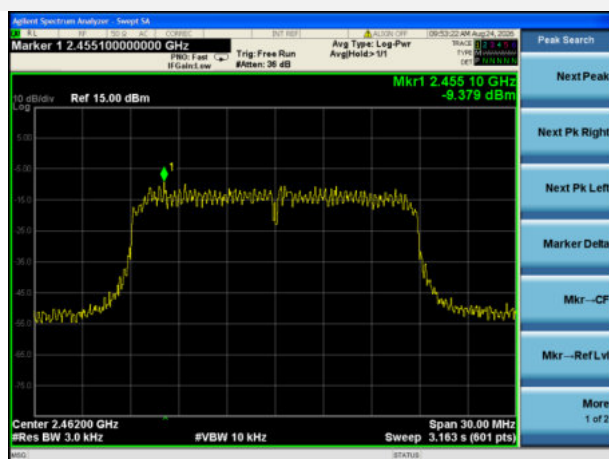
802.11n-20 MHz LOW CHANNEL



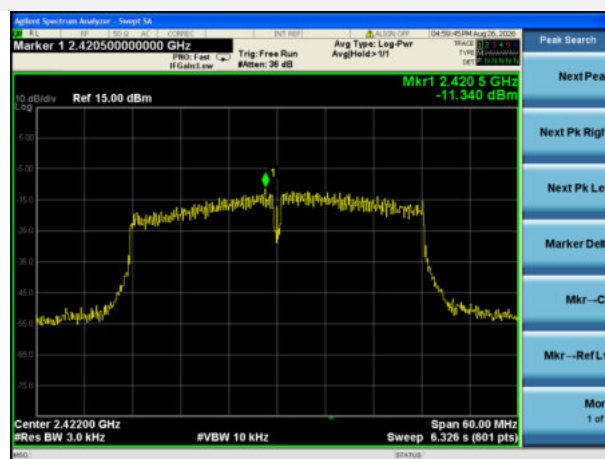
802.11n-20 MHz MIDDLE CHANNEL



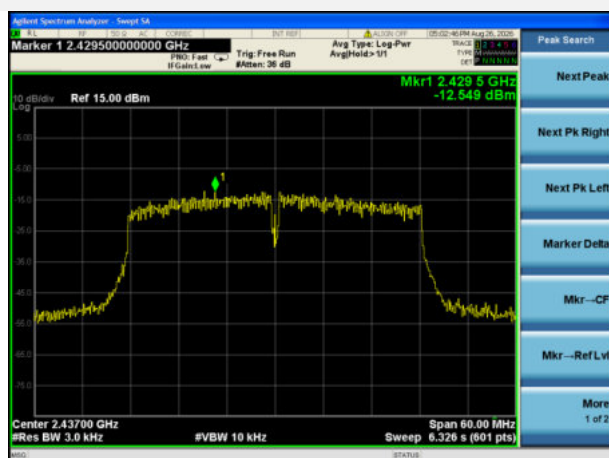
802.11n-20 MHz HIGH CHANNEL



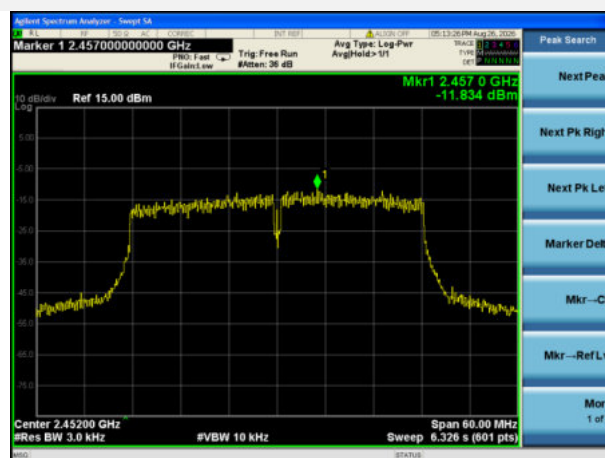
802.11n-40 MHz LOW CHANNEL



802.11n-40 MHz MIDDLE CHANNEL



802.11n-40 MHz HIGH CHANNEL



ANNEX B TEST SETUP PHOTOS

Please refer the document “Ti-EE26080048-AR.PDF”.

ANNEX C EUT EXTERNAL PHOTOS

Please refer the document “Ti-EE26080048-AW.PDF”.

ANNEX D EUT INTERNAL PHOTOS

Please refer the document “Ti-EE26080048-AI.PDF”.

Statement

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--END OF REPORT--