

TEST REPORT

Applicant: NEW POS Technology Limited
Address: AB Unit, 14th Floor, Block A, Financial Technology Building, No.11 Keyuan Rd, Nanshan District, Shenzhen
Equipment Type: Unattended Payment Terminal
Model Name: NEW5320
Brand Name: AMP POS
FCC ID: WAL5320
Test Standard: 47 CFR Part 15 Subpart C (refer to section 3.1)
Sample Arrival Date: Sep. 03, 2025
Test Date: Jan. 09, 2026 - Jan. 20, 2026
Date of Issue: Apr. 30, 2026

ISSUED BY:

Shenzhen BALUN Technology Co., Ltd.

**Tested by:** Yang Wenxuan**Checked by:** Ye Hongji**Approved by:** Tolan Tu
(Testing Director)

Revision History

Version	Issue Date	Revisions
<u>Rev. 01</u>	<u>Mar. 27, 2026</u>	<u>Initial Issue</u>
<u>Rev. 02</u>	<u>Apr. 30, 2026</u>	<u>Add the FCC ID of the module to the citation description</u>

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1 GENERAL INFORMATION

1.1 Test Laboratory

Name	Shenzhen BALUN Technology Co., Ltd.
Address	Block B, 1/F, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China
Phone Number	+86 755 6685 0100

1.2 Test Location

Name	Shenzhen BALUN Technology Co., Ltd.
Location	☐ Block B, 1/F, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China
	☒ 1/F, Building B, Ganghongji High-tech Intelligent Industrial Park, No. 1008, Songbai Road, Yangguang Community, Xili Sub-district, Nanshan District, Shenzhen, Guangdong Province, P. R. China
	☐ Building 2, Intelligent Connected Vehicle Industrial Park, No. 55, Xiangshan Road, Luotian Community, Yanluo Sub-district, Bao'an District, Shenzhen, Guangdong Province, China
Accreditation Certificate	The laboratory is a testing organization accredited by FCC as a accredited testing laboratory. The designation number is CN1196.

2 PRODUCT INFORMATION

2.1 Applicant Information

Applicant	NEW POS Technology Limited
Address	AB Unit, 14th Floor, Block A, Financial Technology Building, No.11 Keyuan Rd, Nanshan District, Shenzhen

2.2 Manufacturer Information

Manufacturer	NEW POS Technology Limited
Address	AB Unit, 14th Floor, Block A, Financial Technology Building, No.11 Keyuan Rd, Nanshan District, Shenzhen

2.3 General Description for Equipment under Test (EUT)

EUT Name	Unattended Payment Terminal
Model Name Under Test	NEW5320
Series Model Name	N/A
Description of Model name differentiation	N/A
Hardware Version	N/A
Software Version	N/A
Dimensions (Approx.)	N/A
Weight (Approx.)	N/A

2.4 Technical Information

Network and Wireless connectivity	4G Network LTE FDD Band 2/4/5/7/12/13/14/17/25/26/66/71 LTE TDD Band 41 Bluetooth (BR+EDR+BLE) WIFI 802.11a, 802.11b, 802.11g, 802.11n and 802.11ac GPS, GLONASS, NFC
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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)	N/A
Categorization as Correlated or Completely Uncorrelated	N/A
Antenna Type	FPC Antenna
Antenna Gain	1.27 dBi
About the Product	Only the WIFI 802.11b, 802.11g, 802.11n (HT20/40), 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		

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 Mbps	1/6/11	3/6/9
Occupied Bandwidth	11b/11g/11n20/11n40	1/6/6.5/13.5 Mbps	1/6/11	3/6/9
Conducted Spurious Emission	11b/11g/11n20/11n40	1/6/6.5/13.5 Mbps	1/6/11	3/6/9
Conducted Emission	11b/11g/11n20/11n40	1/6/6.5/13.5 Mbps	1/6/11	3/6/9
Radiated Spurious Emission	11b/11g/11n20/11n40	1/6/6.5/13.5 Mbps	1/6/11	3/6/9
Band Edge	11b/11g/11n20/11n40	1/6/6.5/13.5 Mbps	1/6/11	3/6/9
Power spectral density (PSD)	11b/11g/11n20/11n40	1/6/6.5/13.5 Mbps	1/6/11	3/6/9

Note: The above EUT information in section 2.4 was declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or user's manual.

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	ANSI C63.10-2020	American National Standard for Procedures for Compliance Testing of Unlicensed Wireless Devices
3	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.	Test Result	Verdict
1	Antenna Requirement	15.203	N/A	-- ^{Note1}
2	Output Power	15.247 (b)	ANNEX A.1	-- ^{Note2}
3	Occupied Bandwidth	15.247 (a)	ANNEX A.2	-- ^{Note2}
4	Conducted Spurious Emission	15.247 (d)	ANNEX A.3	-- ^{Note2}
5	Band Edge(Authorized-band band-edge)	15.247 (d)	ANNEX A.4	-- ^{Note2}
6	Conducted Emission	15.207	ANNEX A.5	Pass ^{Note2}
7	Radiated Spurious Emission	15.209; 15.247 (d)	ANNEX A.6	Pass ^{Note2}
8	Band Edge(Restricted-band band-edge)	15.209; 15.247 (d)	ANNEX A.7	Pass ^{Note2}
9	Power spectral density (PSD)	15.247 (e)	ANNEX A.8	-- ^{Note2}

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

Note ²: The RF module (Model Name: SC200E-NA, SC206E-NA) installed in the EUT is electronically and mechanically identical to the original certified module in the test report No. PD20240152-R3D (FCC ID: XMR2024SC200ENA) which issued by Hefei Panwin Technology Co., Ltd. on Feb. 17, 2025, so just Conducted Emission & Radiated Spurious Emission & Band Edge(Restricted-band band-edge) were retested in this report. Other test items please refer to the No. PD20240152-R3D (FCC ID: XMR2024SC200ENA) which issued by Hefei Panwin Technology Co., Ltd. on Feb. 17, 2025.

4 GENERAL TEST CONFIGURATIONS

4.1 Test Environments

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

Relative Humidity	45% to 67%	
Atmospheric Pressure	100 kPa to 102 kPa	
Temperature	NT (Normal Temperature)	+20.6℃ to +23.4℃
Working Voltage of the EUT	NV (Normal Voltage)	12 V

4.2 Test Equipment List

Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due
Spectrum Analyzer	KEYSIGHT	N9020A	MY54420186	2025.05.21	2026.05.20
Power meter	R&S	NRP8S	101498	2025.07.07	2026.07.06
Test Antenna-Horn	A-INFO	LB-180400KF	J211060273	2024.06.15	2027.06.14
Test Antenna-Bi-Log	Schwarzbeck	VULB 9163	01414	2023.11.03	2026.11.02
Test Antenna-Horn	Schwarzbeck	BBHA 9120D	02459	2023.10.26	2026.10.25
Test Antenna-Loop	Schwarzbeck	FMZB 1513-60	00015	2024.05.07	2026.05.06
Anechoic Chamber	YIHENG	C8-966	N/A	2024.05.15	2027.05.11
EMI Receiver	Keysight	N9038A	MY55330121	2025.04.16	2026.04.15
Filtering unit	balun	SU319F	LW-SZ19D0001F01	N/A	N/A
Switching unit	BALUN	SU319	LW-SZ19D0001S01	N/A	N/A
EMI Receiver	keysight	N9038B	MY61380132	2025.04.01	2026.03.31
LISN	SCHWARZBECK MESS- ELEKTRONIK	NSLK8127	01009	2025.07.15	2026.07.14
Shielded Enclosure	YiHeng Electronic Co., Ltd	4.3m*2.9m*2.4 m	235	2024.11.05	2027.11.04
EMI Receiver	ROHDE&SCHWA RZ	ESRP	101036	2025.06.16	2026.06.15
Test Antenna-Loop	SCHWARZBECK	FMZB 1519	1519-037	2024.01.23	2027.01.22
Amplifier	COM-MV	ZT30-1000M	B2018054558	2025.11.26	2026.11.25
Anechoic Chamber	EMC Electronic Co., Ltd	20.10*11.60*7. 35m	130	2024.07.13	2027.07.12

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%

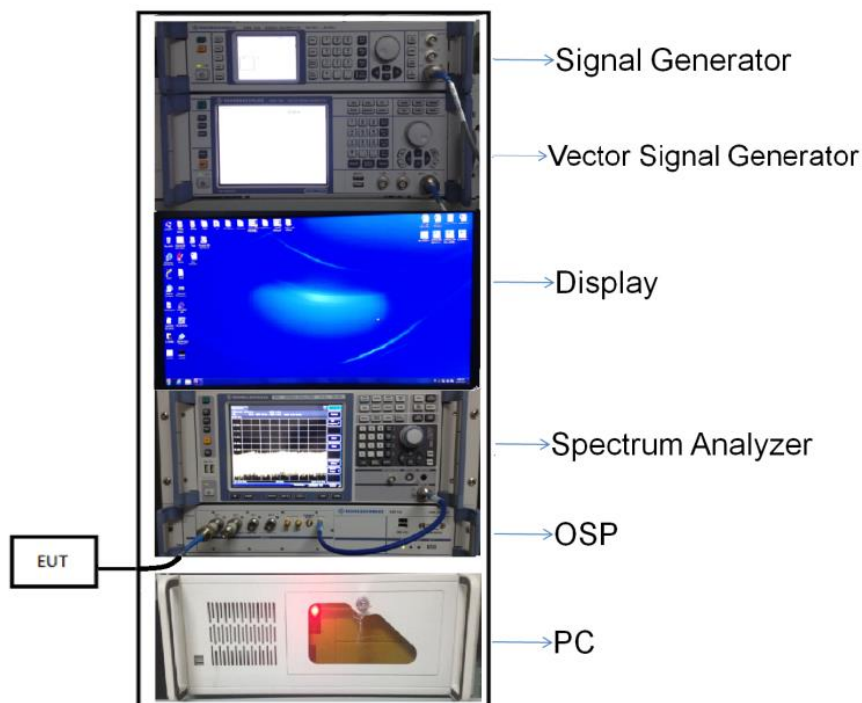
4.5 Description of Test Setup

4.5.1 For Antenna Port Test

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

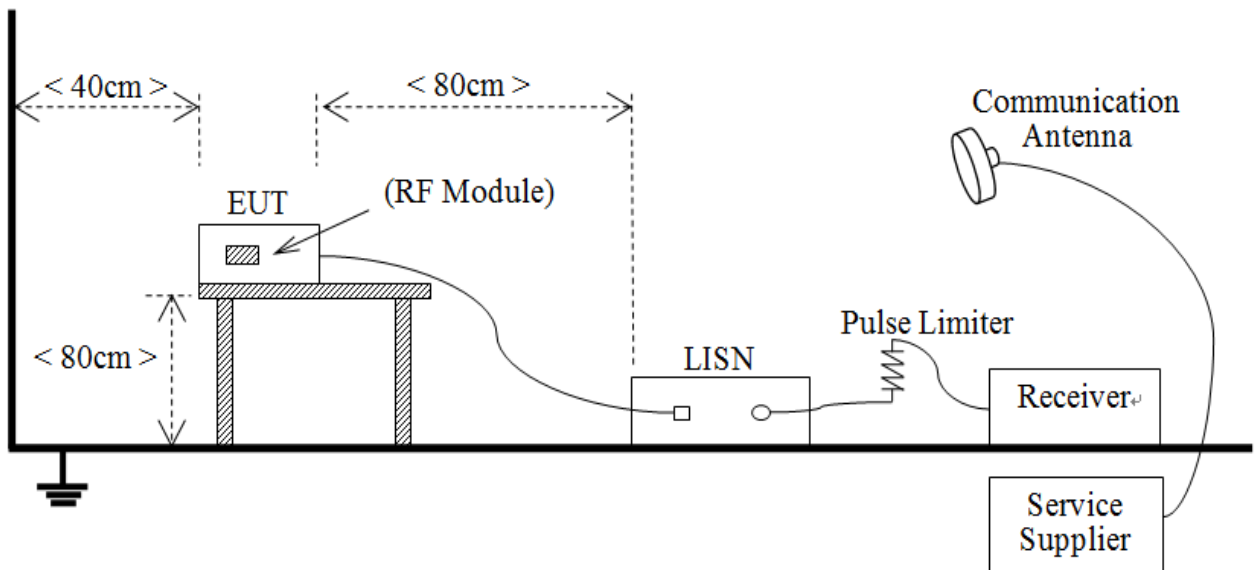
For example: the measurement value is 10 dBm and the cable 0.5dBm used, then the final result of EUT:

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



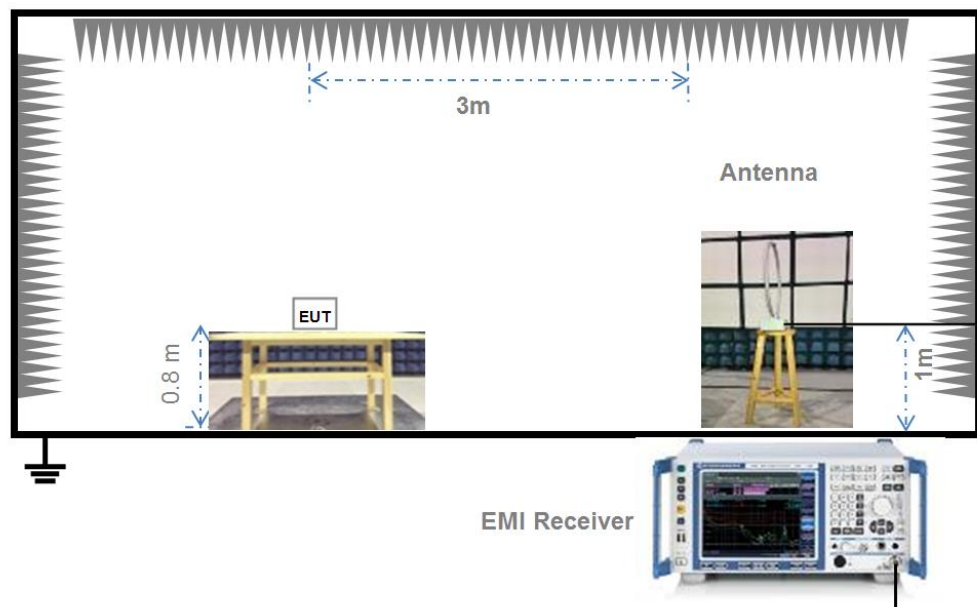
(Diagram 1)

4.5.2 For AC Power Supply Port Test



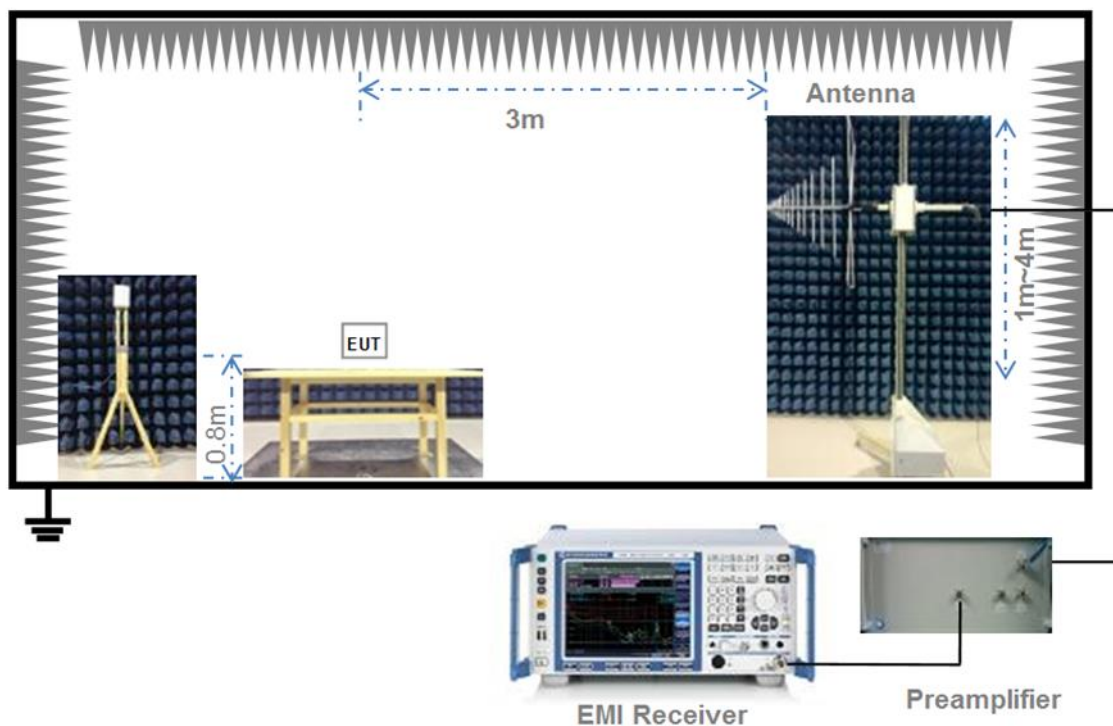
(Diagram 2)

4.5.3 For Radiated Test (Below 30 MHz)



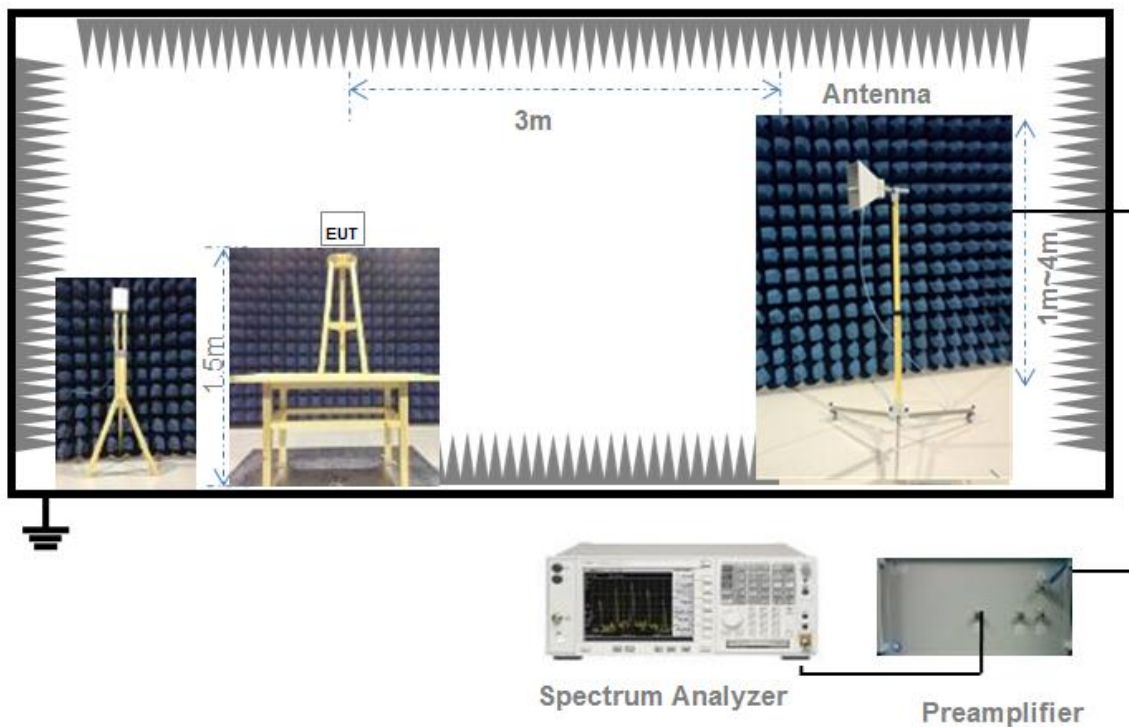
(Diagram 3)

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

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)

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.

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.

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)

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

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 = auto couple.

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.

5.3.4 Test Result

Please refer to ANNEX A.2.

5.4 Conducted Spurious Emission

5.4.1 Limit

FCC §15.247(d)

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)

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 following procedures may be used to determine the peak or average field strength or power of an unwanted emission that is within 2 MHz of the authorized band edge. If a peak detector is utilized, use the procedure described in 13.2.1. Use the procedure described in 13.2.2 when using an average detector and the EUT can be configured to transmit continuously (i.e., duty cycle $\geq 98\%$). Use the procedure described in 13.2.3 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 ± 2 percent). Use the procedure described in 13.2.4 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 percent).

When using a peak detector to measure unwanted emissions at or near the band edge (within 2 MHz of the authorized band), the following integration procedure can be used.

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

Set span to 2 MHz

RBW = 100 kHz.

VBW $\geq 3 \times$ RBW.

Detector = peak.

Sweep time = auto.

Trace mode = max hold.

Allow sweep to continue until the trace stabilizes (required measurement time may increase for low duty cycle applications)

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.

Standard method(The 99% OBW of the fundamental emission is without 2 MHz of the authorized band):

Span: Wide enough to capture the peak level of the emission operating on the channel closest to the band edge, as well as any modulation products that fall outside of the authorized band of operation.

Reference level: As required to keep the signal from exceeding the maximum instrument input mixer level for linear operation. In general, the peak of the spectral envelope shall be more than $[10 \log (\text{OBW/RBW})]$ below the reference level. Specific guidance is given in 4.1.5.2.

Attenuation: Auto (at least 10 dB preferred).

Sweep time: Coupled.

Resolution bandwidth: 100 kHz.

Video bandwidth: 300 kHz.

Detector: Peak.

Trace: Max hold.

5.5.4 Test Result

Please refer to ANNEX A.4.

5.6 Conducted Emission

5.6.1 Limit

FCC §15.207

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)

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 (μV/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 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. 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)

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 measurement frequency range is from 9 kHz 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

For measurement below 1GHz, If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported, Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.

For transmitters operating above 1 GHz repeat the measurement with an average detector.

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)

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: The Output Power please refer to the Report No. PD20240152-R3D (FCC ID: XMR2024SC200ENA) which issued by Hefei Panwin Technology Co., Ltd. on Feb. 17, 2025, **Section 4.1 Output Power Measurement.**

A.2 Occupied Bandwidth

Note: The Occupied Bandwidth please refer to the Report No. PD20240152-R3D (FCC ID: XMR2024SC200ENA) which issued by Hefei Panwin Technology Co., Ltd. on Feb. 17, 2025, **Section 4.2 6dB and 99% Bandwidth Measurement.**

A.3 Conducted Spurious Emissions

Note: The Occupied Bandwidth please refer to the Report No. PD20240152-R3D (FCC ID: XMR2024SC200ENA) which issued by Hefei Panwin Technology Co., Ltd. on Feb. 17, 2025, **Section 4.4 Conducted Band Edges and Spurious Emission Measurement.**

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

Note: The Band Edge (Authorized-band band-edge) please refer to the Report No. PD20240152-R3D (FCC ID: XMR2024SC200ENA) which issued by Hefei Panwin Technology Co., Ltd. on Feb. 17, 2025, **Section 4.4 Conducted Band Edges and Spurious Emission Measurement.**

A.5 Conducted Emissions

Note¹: The EUT is working in the Normal link mode. All modes have been tested and normal link mode is worst.

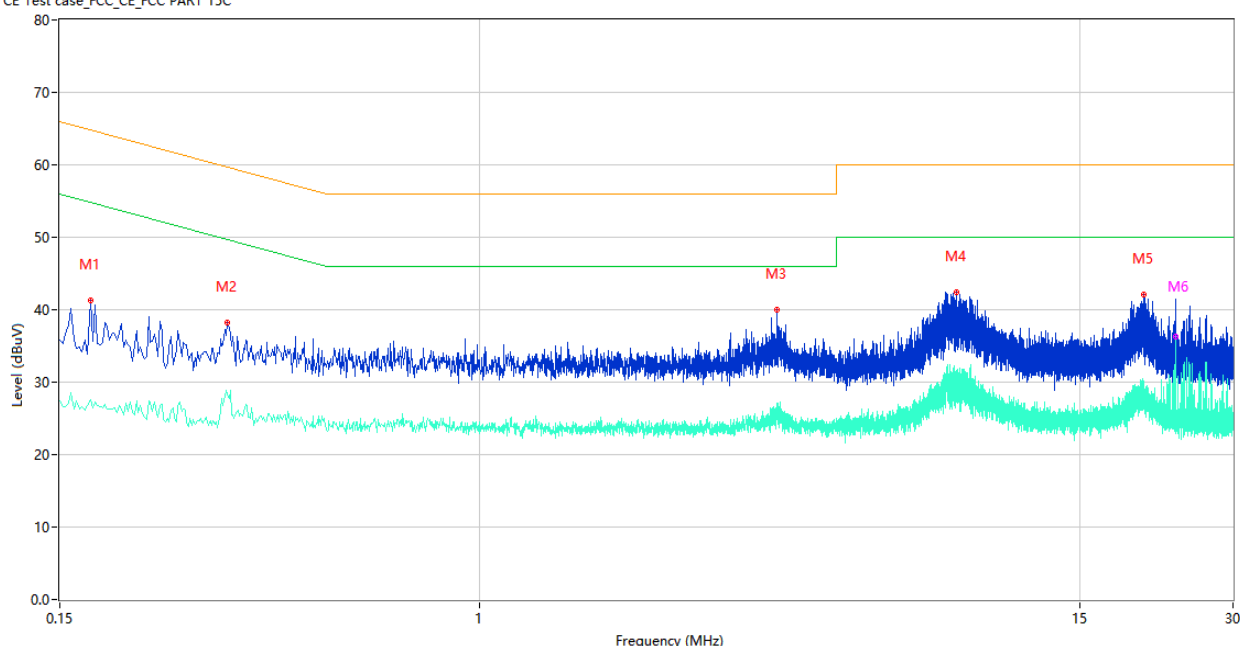
Note²: Devices subject to Part 15 must be tested for all available U.S. voltages and frequencies (such as a nominal 120 VAC, 60 Hz and 240 VAC, 50 Hz) for which the device is capable of operation. So, The configuration 120 VAC, 60 Hz and 240 VAC, 50 Hz were tested respectively, but only the worst configuration (120 VAC, 60 Hz) shown here.

Note³: Results (dBuV) = Original reading level of Spectrum Analyzer (dBuV) + Factor (dB)

Test Data and Plots

PHASE L

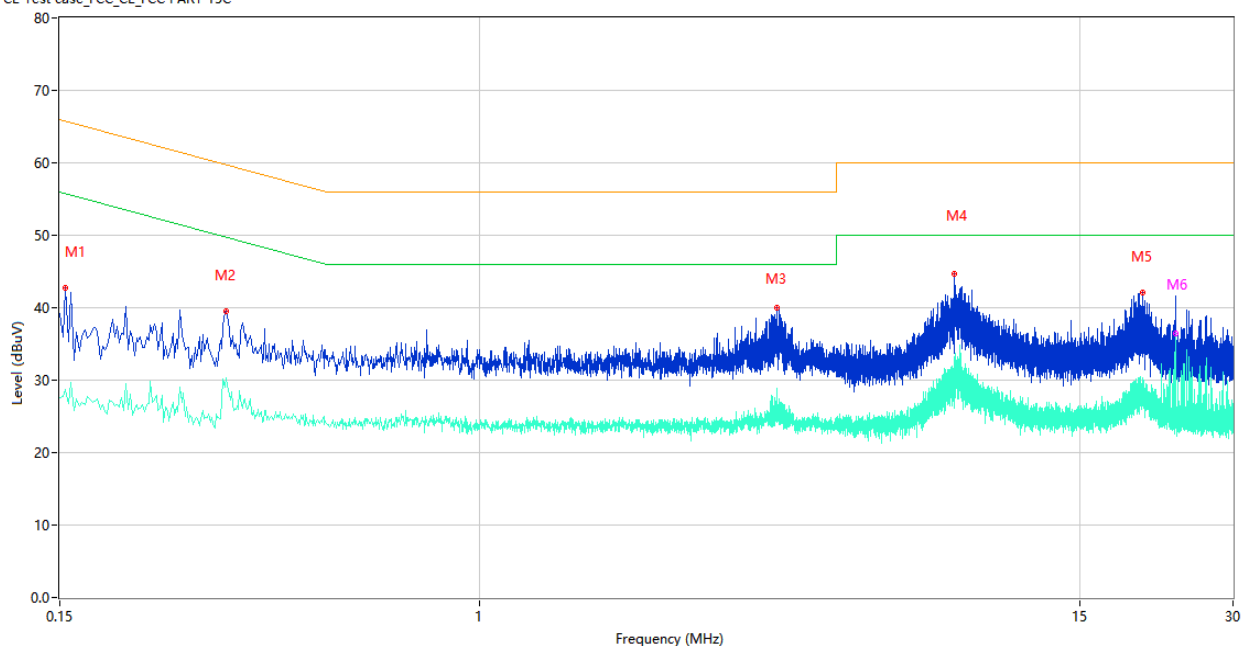
CE Test case_FCC_CE_FCC PART 15C



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.172	41.22	9.85	64.86	23.64	Peak	L	Pass
1**	0.172	27.58	9.85	54.86	27.28	AV	L	Pass
2	0.320	38.23	10.22	59.71	21.48	Peak	L	Pass
2**	0.320	28.44	10.22	49.71	21.27	AV	L	Pass
3	3.824	39.93	10.36	56.00	16.07	Peak	L	Pass
3**	3.824	27.16	10.36	46.00	18.84	AV	L	Pass
4	8.594	42.40	10.57	60.00	17.60	Peak	L	Pass
4**	8.594	31.56	10.57	50.00	18.44	AV	L	Pass
5	20.006	42.02	11.28	60.00	17.98	Peak	L	Pass
5**	20.006	28.86	11.28	50.00	21.14	AV	L	Pass
6	23.126	41.41	10.81	60.00	18.59	Peak	L	Pass
6**	23.126	36.36	10.81	50.00	13.64	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	0.154	42.79	9.86	65.78	22.99	Peak	N	Pass
1**	0.154	28.66	9.86	55.78	27.12	AV	N	Pass
2	0.318	39.56	10.18	59.76	20.20	Peak	N	Pass
2**	0.318	30.29	10.18	49.76	19.47	AV	N	Pass
3	3.818	39.96	10.37	56.00	16.04	Peak	N	Pass
3**	3.818	27.72	10.37	46.00	18.28	AV	N	Pass
4	8.518	44.75	10.37	60.00	15.25	Peak	N	Pass
4**	8.518	32.45	10.37	50.00	17.55	AV	N	Pass
5	19.942	42.02	11.22	60.00	17.98	Peak	N	Pass
5**	19.942	30.15	11.22	50.00	19.85	AV	N	Pass
6	23.128	41.68	10.82	60.00	18.32	Peak	N	Pass
6**	23.128	36.48	10.82	50.00	13.52	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, 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.

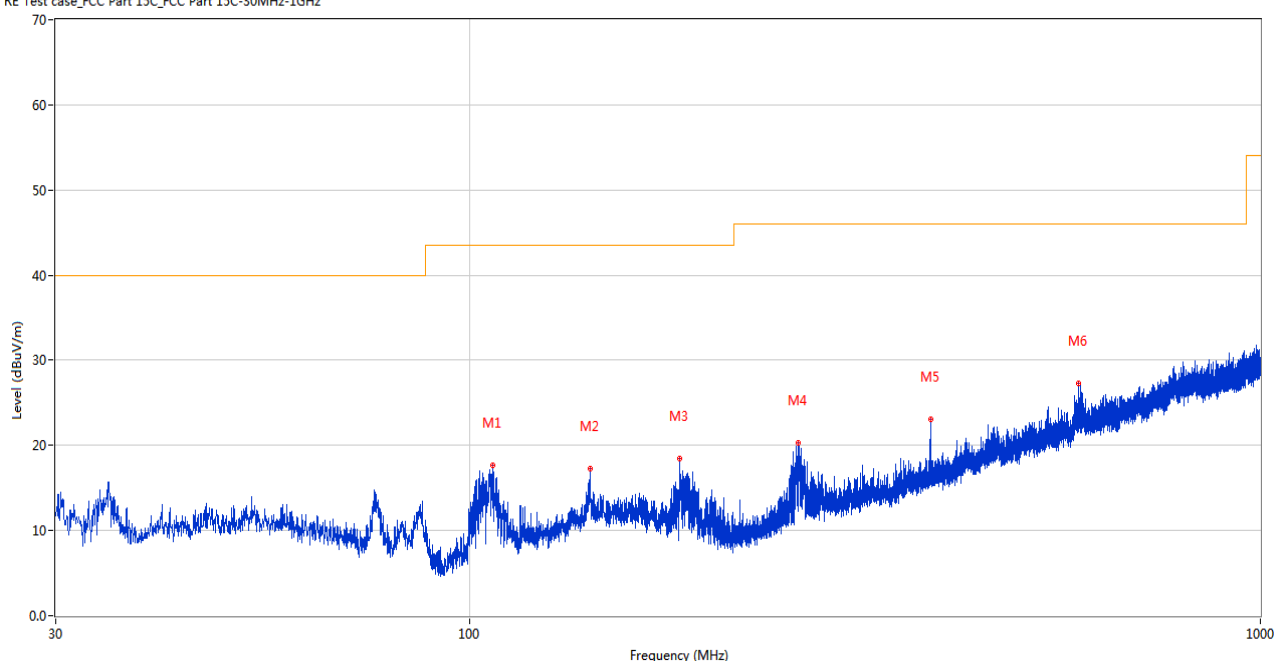
Note³: The low frequency, which started from 9 kHz to 30 MHz, was pre-scanned and the result which was 20 dB lower than the limit line per 15.31(o) was not reported.

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

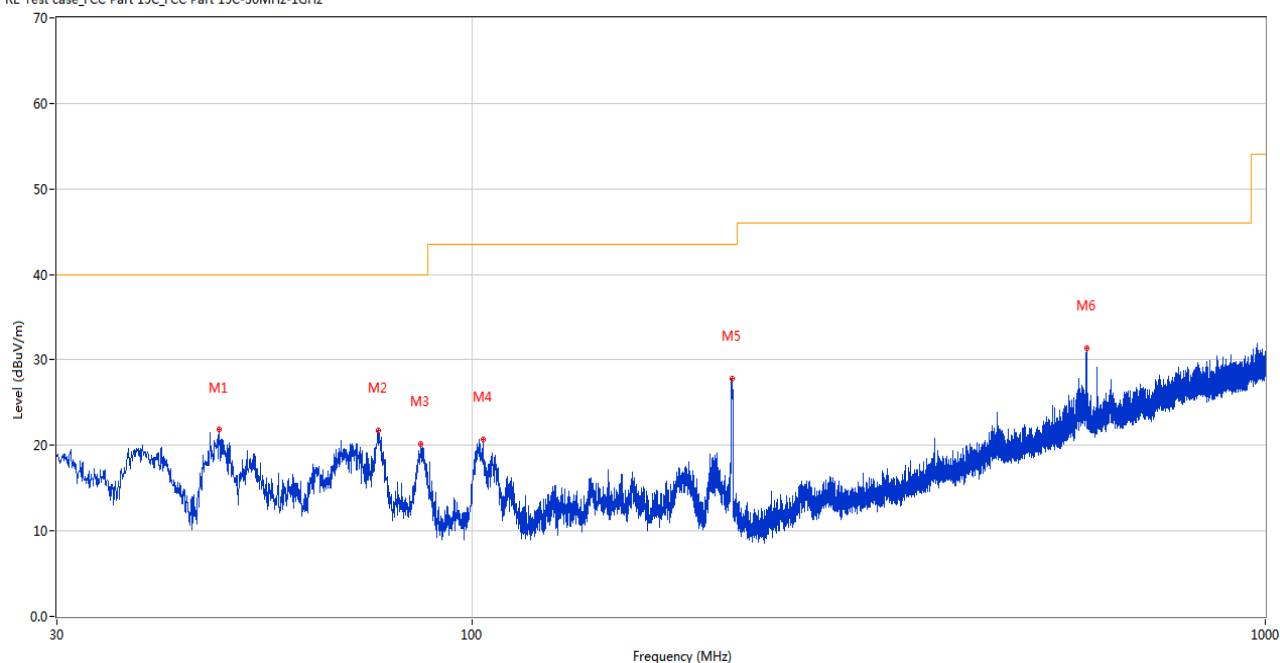
RE Test case_FCC Part 15C_FCC Part 15C-30MHz-1GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	107.066	17.65	-28.16	43.5	25.85	Peak	339.00	100	Horizontal	Pass
2	141.986	17.30	-24.70	43.5	26.20	Peak	337.00	100	Horizontal	Pass
3	184.666	18.45	-26.31	43.5	25.05	Peak	287.00	100	Horizontal	Pass
4	260.763	20.27	-24.51	46.0	25.73	Peak	149.00	100	Horizontal	Pass
5	382.692	23.02	-20.24	46.0	22.98	Peak	120.00	100	Horizontal	Pass
6	589.836	27.35	-14.54	46.0	18.65	Peak	334.00	100	Horizontal	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	48.042	21.82	-25.02	40.0	18.18	Peak	94.00	100	Vertical	Pass
2	76.317	21.81	-28.26	40.0	18.19	Peak	360.00	100	Vertical	Pass
3	86.212	20.14	-30.25	40.0	19.86	Peak	45.00	100	Vertical	Pass
4	103.381	20.70	-28.89	43.5	22.80	Peak	327.00	100	Vertical	Pass
5	213.087	27.88	-27.51	43.5	15.62	Peak	126.00	100	Vertical	Pass
6	595.122	31.34	-13.98	46.0	14.66	Peak	215.00	100	Vertical	Pass

Note ¹: The marked spikes near 2400 MHz with circle should be ignored because they are Fundamental signal.

Note ²: The spurious above 18G is noise only, do not show on the report.

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

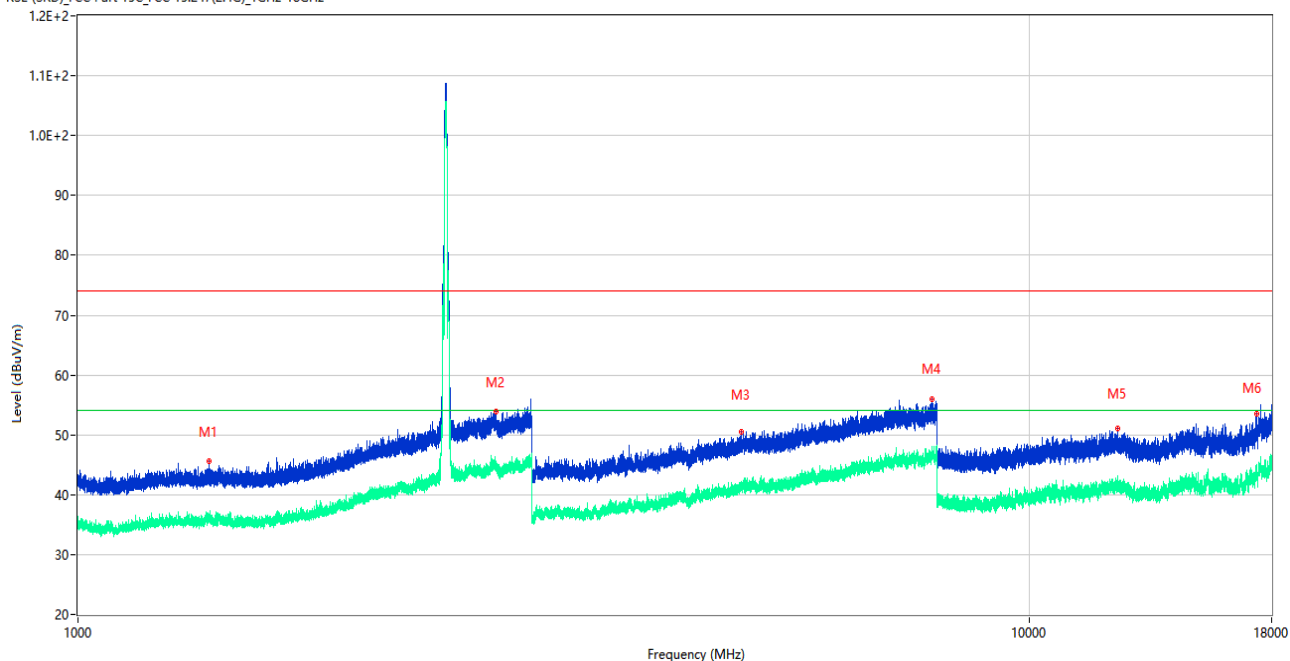
No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1377.343	45.60	74.0	28.40	Peak	213.00	100	Horizontal	Pass
1**	1377.343	36.48	54.0	17.52	AV	213.00	100	Horizontal	Pass
2	2753.138	54.05	74.0	19.95	Peak	333.00	300	Horizontal	Pass
2**	2753.138	44.28	54.0	9.72	AV	333.00	300	Horizontal	Pass
3	4979.195	50.83	74.0	23.18	Peak	69.00	200	Horizontal	Pass
3**	4979.195	42.02	54.0	11.98	AV	69.00	200	Horizontal	Pass
4	7901.504	56.19	74.0	17.81	Peak	87.00	200	Horizontal	Pass
4**	7901.504	46.36	54.0	7.64	AV	87.00	200	Horizontal	Pass
5	12383.970	51.15	74.0	22.85	Peak	94.00	400	Horizontal	Pass
5**	12383.970	40.90	54.0	13.10	AV	94.00	400	Horizontal	Pass
6	17351.673	53.76	74.0	20.24	Peak	195.00	100	Horizontal	Pass
6**	17351.673	44.57	54.0	9.43	AV	195.00	100	Horizontal	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1333.476	42.56	74.0	31.44	Peak	351.00	100	Vertical	Pass
1**	1333.476	31.25	54.0	22.76	AV	351.00	100	Vertical	Pass
2	2078.780	50.88	74.0	23.12	Peak	359.00	300	Vertical	Pass
2**	2078.780	44.06	54.0	9.94	AV	359.00	300	Vertical	Pass
3	6807.130	52.42	74.0	21.58	Peak	63.00	200	Vertical	Pass
3**	6807.130	43.17	54.0	10.83	AV	63.00	200	Vertical	Pass
4	7969.678	56.42	74.0	17.58	Peak	272.00	300	Vertical	Pass
4**	7969.678	43.81	54.0	10.19	AV	272.00	300	Vertical	Pass
5	12461.369	50.04	74.0	23.96	Peak	288.00	300	Vertical	Pass
5**	12461.369	40.12	54.0	13.88	AV	288.00	300	Vertical	Pass
6	17103.091	51.69	74.0	22.31	Peak	226.00	200	Vertical	Pass
6**	17103.091	42.97	54.0	11.03	AV	226.00	200	Vertical	Pass

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

RSE (SRD)_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	1377.900	45.67	74.0	28.33	Peak	84.00	100	Horizontal	Pass
1**	1377.900	36.51	54.0	17.49	AV	84.00	100	Horizontal	Pass
2	2750.666	53.97	74.0	20.04	Peak	300.00	200	Horizontal	Pass
2**	2750.666	44.35	54.0	9.65	AV	300.00	200	Horizontal	Pass
3	4983.857	50.72	74.0	23.28	Peak	89.00	200	Horizontal	Pass
3**	4983.857	42.12	54.0	11.88	AV	89.00	200	Horizontal	Pass
4	7905.734	56.04	74.0	17.96	Peak	277.00	400	Horizontal	Pass
4**	7905.734	46.54	54.0	7.46	AV	277.00	400	Horizontal	Pass
5	12387.030	51.27	74.0	22.73	Peak	37.00	300	Horizontal	Pass
5**	12387.030	40.99	54.0	13.01	AV	37.00	300	Horizontal	Pass
6	17349.414	53.58	74.0	20.42	Peak	22.00	100	Horizontal	Pass
6**	17349.414	44.69	54.0	9.31	AV	22.00	100	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	1333.819	42.24	74.0	31.76	Peak	238.00	300	Vertical	Pass
1**	1333.819	31.08	54.0	22.93	AV	238.00	300	Vertical	Pass
2	2083.181	50.49	74.0	23.51	Peak	189.00	100	Vertical	Pass
2**	2083.181	43.18	54.0	10.82	AV	189.00	100	Vertical	Pass
3	6807.479	52.15	74.0	21.85	Peak	180.00	200	Vertical	Pass
3**	6807.479	42.96	54.0	11.04	AV	180.00	200	Vertical	Pass
4	7968.399	55.45	74.0	18.55	Peak	126.00	200	Vertical	Pass
4**	7968.399	42.90	54.0	11.10	AV	126.00	200	Vertical	Pass
5	12461.173	49.79	74.0	24.21	Peak	307.00	400	Vertical	Pass
5**	12461.173	39.40	54.0	14.60	AV	307.00	400	Vertical	Pass
6	17105.322	51.46	74.0	22.54	Peak	295.00	200	Vertical	Pass
6**	17105.322	42.46	54.0	11.54	AV	295.00	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	1372.757	45.03	74.0	28.97	Peak	66.00	200	Horizontal	Pass
1**	1372.757	35.72	54.0	18.28	AV	66.00	200	Horizontal	Pass
2	2754.455	53.74	74.0	20.27	Peak	196.00	300	Horizontal	Pass
2**	2754.455	43.74	54.0	10.26	AV	196.00	300	Horizontal	Pass
3	4981.072	49.96	74.0	24.04	Peak	74.00	200	Horizontal	Pass
3**	4981.072	41.18	54.0	12.82	AV	74.00	200	Horizontal	Pass
4	7906.003	55.60	74.0	18.40	Peak	272.00	200	Horizontal	Pass
4**	7906.003	46.10	54.0	7.90	AV	272.00	200	Horizontal	Pass
5	12388.224	50.79	74.0	23.21	Peak	336.00	400	Horizontal	Pass
5**	12388.224	40.05	54.0	13.95	AV	336.00	400	Horizontal	Pass
6	17351.973	53.07	74.0	20.93	Peak	124.00	200	Horizontal	Pass
6**	17351.973	44.14	54.0	9.86	AV	124.00	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	1333.198	42.52	74.0	31.48	Peak	138.00	100	Vertical	Pass
1**	1333.198	30.70	54.0	23.31	AV	138.00	100	Vertical	Pass
2	2082.807	50.71	74.0	23.29	Peak	335.00	100	Vertical	Pass
2**	2082.807	43.26	54.0	10.74	AV	335.00	100	Vertical	Pass
3	6806.804	51.52	74.0	22.48	Peak	152.00	200	Vertical	Pass
3**	6806.804	42.64	54.0	11.36	AV	152.00	200	Vertical	Pass
4	7964.253	56.16	74.0	17.84	Peak	278.00	200	Vertical	Pass
4**	7964.253	43.27	54.0	10.73	AV	278.00	200	Vertical	Pass
5	12460.843	49.53	74.0	24.47	Peak	27.00	400	Vertical	Pass
5**	12460.843	39.31	54.0	14.69	AV	27.00	400	Vertical	Pass
6	17101.628	50.87	74.0	23.13	Peak	47.00	200	Vertical	Pass
6**	17101.628	42.49	54.0	11.51	AV	47.00	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	1373.121	44.69	74.0	29.31	Peak	215.00	100	Horizontal	Pass
1**	1373.121	36.47	54.0	17.53	AV	215.00	100	Horizontal	Pass
2	2755.370	53.41	74.0	20.60	Peak	42.00	200	Horizontal	Pass
2**	2755.370	44.25	54.0	9.75	AV	42.00	200	Horizontal	Pass
3	4981.301	50.64	74.0	23.36	Peak	168.00	200	Horizontal	Pass
3**	4981.301	42.00	54.0	12.00	AV	168.00	200	Horizontal	Pass
4	7903.341	55.47	74.0	18.53	Peak	2.00	200	Horizontal	Pass
4**	7903.341	46.45	54.0	7.55	AV	2.00	200	Horizontal	Pass
5	12386.989	51.26	74.0	22.74	Peak	219.00	200	Horizontal	Pass
5**	12386.989	40.72	54.0	13.28	AV	219.00	200	Horizontal	Pass
6	17354.018	52.59	74.0	21.41	Peak	66.00	400	Horizontal	Pass
6**	17354.018	44.44	54.0	9.56	AV	66.00	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	1331.493	41.40	74.0	32.60	Peak	86.00	300	Vertical	Pass
1**	1331.493	30.33	54.0	23.68	AV	86.00	300	Vertical	Pass
2	2076.895	50.22	74.0	23.78	Peak	358.00	200	Vertical	Pass
2**	2076.895	42.79	54.0	11.21	AV	358.00	200	Vertical	Pass
3	6802.537	51.40	74.0	22.60	Peak	108.00	200	Vertical	Pass
3**	6802.537	42.11	54.0	11.89	AV	108.00	200	Vertical	Pass
4	7963.901	54.48	74.0	19.52	Peak	357.00	100	Vertical	Pass
4**	7963.901	42.21	54.0	11.79	AV	357.00	100	Vertical	Pass
5	12465.932	48.83	74.0	25.17	Peak	133.00	300	Vertical	Pass
5**	12465.932	39.14	54.0	14.86	AV	133.00	300	Vertical	Pass
6	17105.433	51.22	74.0	22.78	Peak	337.00	300	Vertical	Pass
6**	17105.433	41.68	54.0	12.32	AV	337.00	300	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	1378.046	44.06	74.0	29.94	Peak	299.00	400	Horizontal	Pass
1**	1378.046	34.93	54.0	19.07	AV	299.00	400	Horizontal	Pass
2	2751.623	53.80	74.0	20.21	Peak	182.00	400	Horizontal	Pass
2**	2751.623	44.05	54.0	9.95	AV	182.00	400	Horizontal	Pass
3	4979.446	50.27	74.0	23.73	Peak	181.00	200	Horizontal	Pass
3**	4979.446	41.09	54.0	12.91	AV	181.00	200	Horizontal	Pass
4	7904.285	55.51	74.0	18.49	Peak	17.00	200	Horizontal	Pass
4**	7904.285	44.90	54.0	9.10	AV	17.00	200	Horizontal	Pass
5	12383.818	50.58	74.0	23.42	Peak	51.00	300	Horizontal	Pass
5**	12383.818	39.18	54.0	14.82	AV	51.00	300	Horizontal	Pass
6	17354.886	52.33	74.0	21.67	Peak	62.00	100	Horizontal	Pass
6**	17354.886	43.75	54.0	10.25	AV	62.00	100	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	1335.080	42.47	74.0	31.53	Peak	291.00	400	Vertical	Pass
1**	1335.080	30.38	54.0	23.63	AV	291.00	400	Vertical	Pass
2	2083.995	50.08	74.0	23.92	Peak	226.00	400	Vertical	Pass
2**	2083.995	43.02	54.0	10.98	AV	226.00	400	Vertical	Pass
3	6803.164	50.94	74.0	23.06	Peak	237.00	200	Vertical	Pass
3**	6803.164	41.77	54.0	12.23	AV	237.00	200	Vertical	Pass
4	7965.014	55.60	74.0	18.40	Peak	116.00	200	Vertical	Pass
4**	7965.014	43.23	54.0	10.77	AV	116.00	200	Vertical	Pass
5	12462.365	48.91	74.0	25.09	Peak	144.00	400	Vertical	Pass
5**	12462.365	39.13	54.0	14.87	AV	144.00	400	Vertical	Pass
6	17107.017	50.15	74.0	23.85	Peak	235.00	200	Vertical	Pass
6**	17107.017	42.24	54.0	11.76	AV	235.00	200	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	1377.267	44.73	74.0	29.27	Peak	190.00	200	Horizontal	Pass
1**	1377.267	35.33	54.0	18.67	AV	190.00	200	Horizontal	Pass
2	2752.447	52.94	74.0	21.07	Peak	153.00	100	Horizontal	Pass
2**	2752.447	43.34	54.0	10.66	AV	153.00	100	Horizontal	Pass
3	4985.752	49.43	74.0	24.57	Peak	87.00	200	Horizontal	Pass
3**	4985.752	41.14	54.0	12.86	AV	87.00	200	Horizontal	Pass
4	7899.537	55.09	74.0	18.91	Peak	231.00	300	Horizontal	Pass
4**	7899.537	45.41	54.0	8.59	AV	231.00	300	Horizontal	Pass
5	12388.272	50.21	74.0	23.79	Peak	356.00	200	Horizontal	Pass
5**	12388.272	39.66	54.0	14.34	AV	356.00	200	Horizontal	Pass
6	17350.895	52.45	74.0	21.55	Peak	217.00	200	Horizontal	Pass
6**	17350.895	43.52	54.0	10.48	AV	217.00	200	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	1333.433	41.31	74.0	32.69	Peak	73.00	200	Vertical	Pass
1**	1333.433	30.28	54.0	23.72	AV	73.00	200	Vertical	Pass
2	2078.181	50.16	74.0	23.84	Peak	30.00	400	Vertical	Pass
2**	2078.181	42.76	54.0	11.25	AV	30.00	400	Vertical	Pass
3	6806.803	51.32	74.0	22.68	Peak	35.00	200	Vertical	Pass
3**	6806.803	42.05	54.0	11.95	AV	35.00	200	Vertical	Pass
4	7968.799	54.48	74.0	19.52	Peak	341.00	200	Vertical	Pass
4**	7968.799	42.20	54.0	11.80	AV	341.00	200	Vertical	Pass
5	12467.275	48.76	74.0	25.24	Peak	358.00	100	Vertical	Pass
5**	12467.275	39.08	54.0	14.92	AV	358.00	100	Vertical	Pass
6	17103.489	51.13	74.0	22.87	Peak	50.00	400	Vertical	Pass
6**	17103.489	41.63	54.0	12.38	AV	50.00	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	1374.254	44.61	74.0	29.39	Peak	193.00	100	Horizontal	Pass
1**	1374.254	36.38	54.0	17.62	AV	193.00	100	Horizontal	Pass
2	2751.147	53.39	74.0	20.61	Peak	94.00	100	Horizontal	Pass
2**	2751.147	44.20	54.0	9.80	AV	94.00	100	Horizontal	Pass
3	4986.095	50.62	74.0	23.38	Peak	274.00	200	Horizontal	Pass
3**	4986.095	41.96	54.0	12.04	AV	274.00	200	Horizontal	Pass
4	7900.396	55.39	74.0	18.61	Peak	183.00	300	Horizontal	Pass
4**	7900.396	46.45	54.0	7.55	AV	183.00	300	Horizontal	Pass
5	12385.443	51.16	74.0	22.84	Peak	212.00	200	Horizontal	Pass
5**	12385.443	40.70	54.0	13.31	AV	212.00	200	Horizontal	Pass
6	17355.425	52.53	74.0	21.47	Peak	31.00	300	Horizontal	Pass
6**	17355.425	44.43	54.0	9.57	AV	31.00	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	1334.676	42.41	74.0	31.59	Peak	43.00	400	Vertical	Pass
1**	1334.676	30.31	54.0	23.70	AV	43.00	400	Vertical	Pass
2	2083.092	50.04	74.0	23.96	Peak	199.00	100	Vertical	Pass
2**	2083.092	42.93	54.0	11.07	AV	199.00	100	Vertical	Pass
3	6800.436	50.94	74.0	23.06	Peak	58.00	200	Vertical	Pass
3**	6800.436	41.70	54.0	12.30	AV	58.00	200	Vertical	Pass
4	7966.556	55.59	74.0	18.41	Peak	240.00	200	Vertical	Pass
4**	7966.556	43.22	54.0	10.78	AV	240.00	200	Vertical	Pass
5	12467.006	48.90	74.0	25.10	Peak	259.00	300	Vertical	Pass
5**	12467.006	39.12	54.0	14.88	AV	259.00	300	Vertical	Pass
6	17105.395	50.14	74.0	23.86	Peak	334.00	400	Vertical	Pass
6**	17105.395	42.21	54.0	11.79	AV	334.00	400	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	1370.153	45.61	74.0	28.39	Peak	340.00	400	Horizontal	Pass
1**	1370.153	36.43	54.0	17.57	AV	340.00	400	Horizontal	Pass
2	2749.138	53.95	74.0	20.05	Peak	106.00	100	Horizontal	Pass
2**	2749.138	44.32	54.0	9.68	AV	106.00	100	Horizontal	Pass
3	4983.137	50.67	74.0	23.33	Peak	44.00	200	Horizontal	Pass
3**	4983.137	42.10	54.0	11.90	AV	44.00	200	Horizontal	Pass
4	7903.315	55.97	74.0	18.03	Peak	207.00	400	Horizontal	Pass
4**	7903.315	46.50	54.0	7.50	AV	207.00	400	Horizontal	Pass
5	12384.064	51.26	74.0	22.74	Peak	351.00	200	Horizontal	Pass
5**	12384.064	40.91	54.0	13.09	AV	351.00	200	Horizontal	Pass
6	17352.183	53.56	74.0	20.44	Peak	35.00	200	Horizontal	Pass
6**	17352.183	44.68	54.0	9.32	AV	35.00	200	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	1334.405	40.58	74.0	33.42	Peak	338.00	200	Vertical	Pass
1**	1334.405	30.16	54.0	23.84	AV	338.00	200	Vertical	Pass
2	2078.329	50.10	74.0	23.90	Peak	177.00	300	Vertical	Pass
2**	2078.329	41.87	54.0	12.14	AV	177.00	300	Vertical	Pass
3	6803.199	50.76	74.0	23.24	Peak	333.00	200	Vertical	Pass
3**	6803.199	41.58	54.0	12.42	AV	333.00	200	Vertical	Pass
4	7965.582	53.88	74.0	20.12	Peak	62.00	200	Vertical	Pass
4**	7965.582	41.32	54.0	12.68	AV	62.00	200	Vertical	Pass
5	12463.317	48.20	74.0	25.80	Peak	209.00	200	Vertical	Pass
5**	12463.317	38.56	54.0	15.44	AV	209.00	200	Vertical	Pass
6	17104.936	50.78	74.0	23.22	Peak	15.00	300	Vertical	Pass
6**	17104.936	40.91	54.0	13.10	AV	15.00	300	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	1375.442	45.57	74.0	28.43	Peak	345.00	300	Horizontal	Pass
1**	1375.442	36.44	54.0	17.56	AV	345.00	300	Horizontal	Pass
2	2750.094	53.95	74.0	20.05	Peak	69.00	100	Horizontal	Pass
2**	2750.094	44.34	54.0	9.66	AV	69.00	100	Horizontal	Pass
3	4979.723	50.66	74.0	23.34	Peak	26.00	200	Horizontal	Pass
3**	4979.723	42.03	54.0	11.97	AV	26.00	200	Horizontal	Pass
4	7904.953	56.02	74.0	17.98	Peak	248.00	400	Horizontal	Pass
4**	7904.953	46.50	54.0	7.50	AV	248.00	400	Horizontal	Pass
5	12384.152	51.18	74.0	22.82	Peak	306.00	400	Horizontal	Pass
5**	12384.152	40.98	54.0	13.02	AV	306.00	400	Horizontal	Pass
6	17353.627	53.49	74.0	20.51	Peak	74.00	400	Horizontal	Pass
6**	17353.627	44.61	54.0	9.39	AV	74.00	400	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	1334.436	42.35	74.0	31.66	Peak	203.00	300	Vertical	Pass
1**	1334.436	30.19	54.0	23.82	AV	203.00	300	Vertical	Pass
2	2080.627	49.63	74.0	24.37	Peak	153.00	400	Vertical	Pass
2**	2080.627	42.51	54.0	11.49	AV	153.00	400	Vertical	Pass
3	6803.357	50.45	74.0	23.55	Peak	143.00	200	Vertical	Pass
3**	6803.357	41.36	54.0	12.64	AV	143.00	200	Vertical	Pass
4	7965.075	55.54	74.0	18.46	Peak	44.00	300	Vertical	Pass
4**	7965.075	42.53	54.0	11.47	AV	44.00	300	Vertical	Pass
5	12462.706	48.25	74.0	25.75	Peak	340.00	300	Vertical	Pass
5**	12462.706	38.96	54.0	15.04	AV	340.00	300	Vertical	Pass
6	17105.012	50.01	74.0	23.99	Peak	200.00	100	Vertical	Pass
6**	17105.012	42.09	54.0	11.91	AV	200.00	100	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	1373.431	45.62	74.0	28.38	Peak	282.00	400	Horizontal	Pass
1**	1373.431	36.45	54.0	17.55	AV	282.00	400	Horizontal	Pass
2	2750.120	53.91	74.0	20.09	Peak	153.00	100	Horizontal	Pass
2**	2750.120	44.31	54.0	9.69	AV	153.00	100	Horizontal	Pass
3	4980.239	50.70	74.0	23.30	Peak	358.00	200	Horizontal	Pass
3**	4980.239	42.09	54.0	11.91	AV	358.00	200	Horizontal	Pass
4	7906.232	55.99	74.0	18.01	Peak	7.00	400	Horizontal	Pass
4**	7906.232	46.53	54.0	7.47	AV	7.00	400	Horizontal	Pass
5	12387.672	51.19	74.0	22.81	Peak	146.00	200	Horizontal	Pass
5**	12387.672	40.99	54.0	13.01	AV	146.00	200	Horizontal	Pass
6	17350.258	53.51	74.0	20.49	Peak	293.00	200	Horizontal	Pass
6**	17350.258	44.65	54.0	9.35	AV	293.00	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	1329.899	42.45	74.0	31.55	Peak	245.00	100	Vertical	Pass
1**	1329.899	30.94	54.0	23.07	AV	245.00	100	Vertical	Pass
2	2083.802	50.57	74.0	23.43	Peak	228.00	400	Vertical	Pass
2**	2083.802	43.72	54.0	10.28	AV	228.00	400	Vertical	Pass
3	6805.480	51.94	74.0	22.06	Peak	34.00	200	Vertical	Pass
3**	6805.480	42.82	54.0	11.18	AV	34.00	200	Vertical	Pass
4	7968.275	56.09	74.0	17.91	Peak	35.00	100	Vertical	Pass
4**	7968.275	42.87	54.0	11.13	AV	35.00	100	Vertical	Pass
5	12463.544	49.78	74.0	24.22	Peak	12.00	100	Vertical	Pass
5**	12463.544	40.02	54.0	13.98	AV	12.00	100	Vertical	Pass
6	17108.032	50.84	74.0	23.16	Peak	74.00	300	Vertical	Pass
6**	17108.032	42.64	54.0	11.36	AV	74.00	300	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	1377.068	44.67	74.0	29.33	Peak	169.00	300	Horizontal	Pass
1**	1377.068	35.47	54.0	18.53	AV	169.00	300	Horizontal	Pass
2	2753.936	53.61	74.0	20.40	Peak	80.00	300	Horizontal	Pass
2**	2753.936	44.28	54.0	9.72	AV	80.00	300	Horizontal	Pass
3	4984.203	49.87	74.0	24.13	Peak	329.00	200	Horizontal	Pass
3**	4984.203	40.90	54.0	13.10	AV	329.00	200	Horizontal	Pass
4	7904.225	55.22	74.0	18.78	Peak	355.00	300	Horizontal	Pass
4**	7904.225	45.15	54.0	8.85	AV	355.00	300	Horizontal	Pass
5	12386.376	49.96	74.0	24.04	Peak	25.00	400	Horizontal	Pass
5**	12386.376	39.57	54.0	14.43	AV	25.00	400	Horizontal	Pass
6	17349.584	51.97	74.0	22.03	Peak	130.00	200	Horizontal	Pass
6**	17349.584	43.80	54.0	10.20	AV	130.00	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	1329.497	41.84	74.0	32.16	Peak	102.00	100	Vertical	Pass
1**	1329.497	30.83	54.0	23.18	AV	102.00	100	Vertical	Pass
2	2076.669	49.49	74.0	24.51	Peak	89.00	300	Vertical	Pass
2**	2076.669	42.23	54.0	11.77	AV	89.00	300	Vertical	Pass
3	6802.955	52.10	74.0	21.90	Peak	130.00	200	Vertical	Pass
3**	6802.955	42.19	54.0	11.81	AV	130.00	200	Vertical	Pass
4	7970.468	54.93	74.0	19.07	Peak	222.00	400	Vertical	Pass
4**	7970.468	42.55	54.0	11.45	AV	222.00	400	Vertical	Pass
5	12462.765	49.63	74.0	24.37	Peak	213.00	100	Vertical	Pass
5**	12462.765	38.51	54.0	15.49	AV	213.00	100	Vertical	Pass
6	17101.080	51.06	74.0	22.94	Peak	200.00	200	Vertical	Pass
6**	17101.080	41.60	54.0	12.40	AV	200.00	200	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	1374.709	45.57	74.0	28.43	Peak	246.00	400	Horizontal	Pass
1**	1374.709	36.43	54.0	17.57	AV	246.00	400	Horizontal	Pass
2	2753.667	53.65	74.0	20.36	Peak	93.00	300	Horizontal	Pass
2**	2753.667	44.09	54.0	9.91	AV	93.00	300	Horizontal	Pass
3	4981.580	50.55	74.0	23.45	Peak	188.00	200	Horizontal	Pass
3**	4981.580	41.54	54.0	12.46	AV	188.00	200	Horizontal	Pass
4	7905.361	55.47	74.0	18.53	Peak	134.00	300	Horizontal	Pass
4**	7905.361	46.36	54.0	7.64	AV	134.00	300	Horizontal	Pass
5	12387.195	50.48	74.0	23.52	Peak	84.00	200	Horizontal	Pass
5**	12387.195	40.09	54.0	13.91	AV	84.00	200	Horizontal	Pass
6	17354.030	53.05	74.0	20.95	Peak	157.00	300	Horizontal	Pass
6**	17354.030	43.79	54.0	10.21	AV	157.00	300	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	1329.024	41.81	74.0	32.19	Peak	64.00	200	Vertical	Pass
1**	1329.024	30.48	54.0	23.53	AV	64.00	200	Vertical	Pass
2	2077.837	50.12	74.0	23.88	Peak	244.00	300	Vertical	Pass
2**	2077.837	43.80	54.0	10.20	AV	244.00	300	Vertical	Pass
3	6804.689	52.12	74.0	21.88	Peak	150.00	200	Vertical	Pass
3**	6804.689	43.07	54.0	10.93	AV	150.00	200	Vertical	Pass
4	7964.367	55.92	74.0	18.08	Peak	222.00	300	Vertical	Pass
4**	7964.367	43.10	54.0	10.90	AV	222.00	300	Vertical	Pass
5	12465.004	49.53	74.0	24.47	Peak	218.00	100	Vertical	Pass
5**	12465.004	39.22	54.0	14.78	AV	218.00	100	Vertical	Pass
6	17103.301	51.62	74.0	22.38	Peak	254.00	100	Vertical	Pass
6**	17103.301	42.78	54.0	11.22	AV	254.00	100	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, 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: Both horizontal and vertical directions were pre tested, only the worst configuration has been reported in this report.

Test Data and Plots

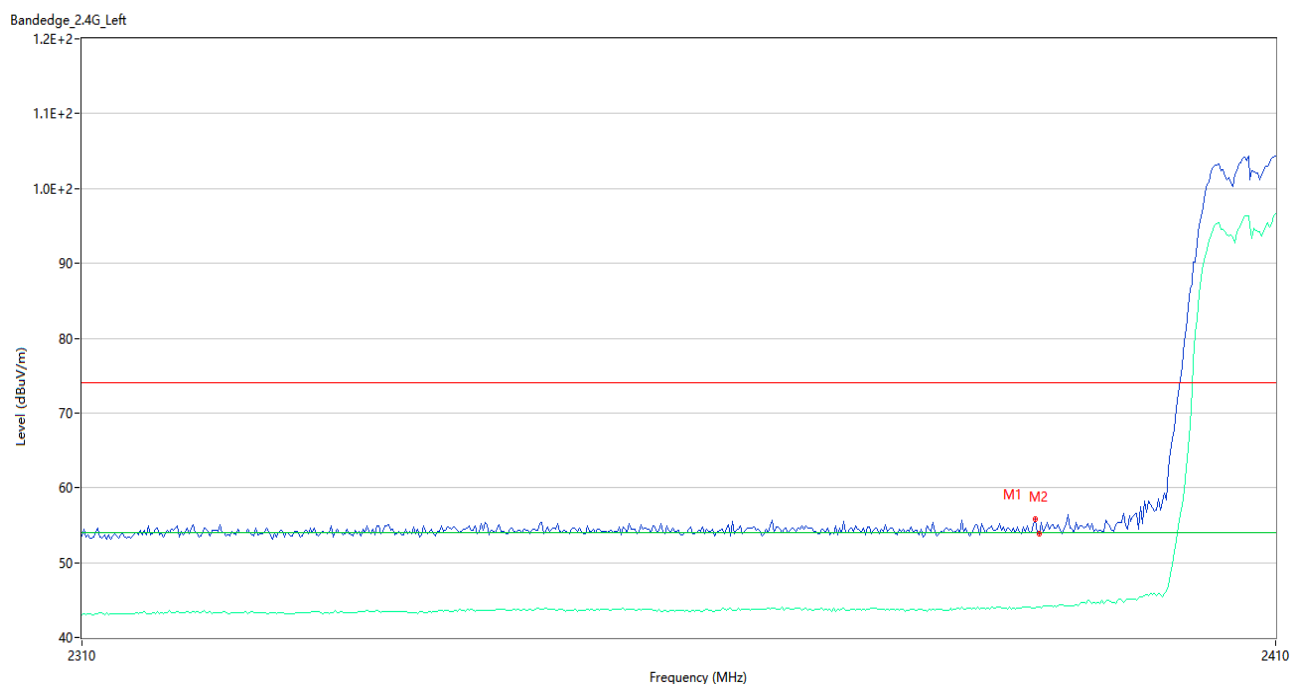
802.11b LOW CHANNEL

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	2387.555	55.50	74.0	18.50	Peak	308.00	200	Horizontal	Pass
1**	2387.555	43.18	54.0	10.82	AV	308.00	200	Horizontal	Pass
2	2390.000	53.42	74.0	20.58	Peak	308.00	100	Horizontal	Pass
2**	2390.000	43.26	54.0	10.74	AV	308.00	100	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	53.61	74.0	20.39	Peak	57.00	300	Horizontal	Pass
1**	2483.500	43.21	54.0	10.79	AV	57.00	300	Horizontal	Pass
2	2495.723	55.32	74.0	18.68	Peak	30.00	100	Horizontal	Pass
2**	2495.723	42.63	54.0	11.37	AV	30.00	100	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	2387.652	54.90	74.0	19.10	Peak	0.00	200	Horizontal	Pass
1**	2387.652	43.08	54.0	10.92	AV	0.00	200	Horizontal	Pass
2	2390.000	53.27	74.0	20.73	Peak	100.00	200	Horizontal	Pass
2**	2390.000	43.27	54.0	10.73	AV	100.00	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	54.99	74.0	19.01	Peak	51.00	200	Horizontal	Pass
1**	2483.500	42.71	54.0	11.29	AV	51.00	200	Horizontal	Pass
2	2485.752	56.11	74.0	17.89	Peak	278.00	200	Horizontal	Pass
2**	2485.752	43.20	54.0	10.80	AV	278.00	200	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	2387.301	56.76	74.0	17.24	Peak	51.00	200	Horizontal	Pass
1**	2387.301	42.79	54.0	11.21	AV	51.00	200	Horizontal	Pass
2	2390.000	55.87	74.0	18.13	Peak	220.00	300	Horizontal	Pass
2**	2390.000	42.67	54.0	11.33	AV	220.00	300	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	59.54	74.0	14.46	Peak	297.00	200	Horizontal	Pass
1**	2483.500	42.44	54.0	11.56	AV	297.00	200	Horizontal	Pass
2	2483.799	59.18	74.0	14.82	Peak	284.00	100	Horizontal	Pass
2**	2483.799	42.76	54.0	11.24	AV	284.00	100	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	2379.091	54.93	74.0	19.07	Peak	163.00	100	Horizontal	Pass
1**	2379.091	42.71	54.0	11.29	AV	163.00	100	Horizontal	Pass
2	2390.000	53.99	74.0	20.01	Peak	200.00	300	Horizontal	Pass
2**	2390.000	43.16	54.0	10.84	AV	200.00	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	50.73	74.0	23.27	Peak	326.00	300	Horizontal	Pass
1**	2483.500	41.42	54.0	12.58	AV	326.00	300	Horizontal	Pass
2	2485.006	52.40	74.0	21.60	Peak	235.00	300	Horizontal	Pass
2**	2485.006	42.50	54.0	11.50	AV	235.00	300	Horizontal	Pass

A.8 Power Spectral Density (PSD)

Note: The Power Spectral Density (PSD) please refer to the Report No. PD20240152-R3D (FCC ID: XMR2024SC200ENA) which issued by Hefei Panwin Technology Co., Ltd. on Feb. 17, 2025, **Section 4.3 Power Spectral Density Measurement.**

ANNEX B TEST SETUP PHOTOS

Please refer the document “BL-SZ2590416-AR.PDF”.

ANNEX C EUT EXTERNAL PHOTOS

Please refer the document “BL-SZ2590416-AW.PDF”.

ANNEX D EUT INTERNAL PHOTOS

Please refer the document “BL-SZ2590416-AI.PDF”.

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