TEST REPORT

Applicant:	Botslab Inc.
Address:	919 North Market Street, Suite 950, Wilmington, New Castle, Delaware, USA
Equipment Type:	Dash Cam
Model Name:	DC-BE05-M5
Brand Name:	Botslab
FCC ID:	2A22Z-G3004K
ISED Number:	27673-G3004K
Test Standard:	47 CFR Part 15 Subpart E RSS-Gen Issue 5 RSS-247 Issue 3 (refer to section 3.1)
Sample Arrival Date:	May 16, 2025
Test Date:	May 23, 2025 - May 27, 2025
Date of Issue:	Jun. 04, 2025

ISSUED BY:

Shenzhen BALUN Technology Co., Ltd.

Tested by: Yang Wenxuan **Checked by:** Ye Hongji **Approved by:** Sunny Zou

(Technical Director)

Revision History

Version	Issue Date	Revisions
Rev. 01	Jun. 04, 2025	Initial Issue

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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
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 recognition numbers of test site are 11524A.

2 PRODUCT INFORMATION

2.1 Applicant Information

Applicant	Botslab Inc.
Address	919 North Market Street, Suite 950, Wilmington, New Castle, Delaware, USA

2.2 Manufacturer Information

Manufacturer	Botslab Inc.
Address	919 North Market Street, Suite 950, Wilmington, New Castle, Delaware, USA

2.3 General Description for Equipment under Test (EUT)

EUT Name	Dash Cam
Model Name Under Test	DC-BE05-M5
Series Model Name	N/A
Description of Model name differentiation	N/A
Serial Number	TYANGA915200000074
Hardware Version	G300H-X652-3-V1.0
Software Version	G300HX6523-0.1.7-E
Dimensions (Approx.)	N/A
Weight (Approx.)	N/A

2.4 Technical Information

Network and Wireless connectivity	WIFI 802.11a, 802.11b, 802.11g, 802.11n GPS, BDS

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

Frequency Range	U-NII-3: 5725 MHz to 5850 MHz
Product Type	☒ Mobile ☐ Portable ☐ Fix Location Indoor for IC standard
Modulation technology	OFDM
Modulation Type	64QAM, 16QAM, BPSK, QPSK
Transfer Rate (Mbps) (Single RF path)	802.11a: 54/ 48/ 36/ 24/ 18/ 12/ 9/ 6 Mbps 802.11n: up to 150 Mbps
Channel Bandwidth	802.11a: 20 MHz 802.11n: 20 MHz, 40 MHz
Maximum Output Power	U-NII-3: 11.69 mW
Antenna System (eg., MIMO, Smart Antenna)	N/A
Categorization as Correlated or Completely Uncorrelated	N/A
Antenna Type	Copper-Nickel-Zinc Alloy Antenna
Antenna Gain	U-NII-3: 5725 MHz to 5850 MHz: 1.13 dBi
About the Product	The equipment is Dash Cam, intended for used with information technology equipment.

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.

2.5 Channel List

20 MHz		40 MHz	
Channel Number	Frequency (MHz)	Channel Number	Frequency (MHz)
149	**5745**	**151**	**5755**
153	5765	**159**	**5795**
157	**5785**		
161	5805		
165	**5825**		

The Lowest frequency, the middle frequency and the highest frequency of channel were selected to perform the test, and the selected channel see below:

For 802.11a/n(HT20)

U-NII-3 (5725 - 5850 MHz)		
Channel Number	Channel	Frequency (MHz)
149	Low	5745
157	Mid	5785
165	High	5825

For 802.11n(HT40)

U-NII-3 (5725 - 5850 MHz)		
Channel Number	Channel	Frequency (MHz)
151	Low	5755
159	High	5795

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	Modulation Type	U-NII-3 Channel
RF Output Power	11a	6	BPSK	165/157/149
	11n(20 MHz)	6.5		165/157/149
	11n(40 MHz)	13.5		159/151
Emission Bandwidth & 99% Occupied Bandwidth	11a	6	BPSK	165/157/149
	11n(20 MHz)	6.5		165/157/149
	11n(40 MHz)	13.5		159/151
6 dB bandwidth	11a	6	BPSK	165/157/149
	11n(20 MHz)	6.5		165/157/149
	11n(40 MHz)	13.5		159/151
Power Spectral Density	11a	6	BPSK	165/157/149
	11n(20 MHz)	6.5		165/157/149
	11n(40 MHz)	13.5		159/151
Radiated Spurious Emissions	11a	6	BPSK	165/157/149
	11n(20 MHz)	6.5		165/157/149
	11n(40 MHz)	13.5		159/151
Band Edge (Restricted-band)	11a	6	BPSK	165/149
	11n(20 MHz)	6.5		165/149
	11n(40 MHz)	13.5		159/151

3 SUMMARY OF TEST RESULTS

3.1 Test Standards

No.	Identity	Document Title
1	47 CFR Part 15 Subpart E	Unlicensed National Information Infrastructure Devices
2	RSS-Gen Issue 5	General Requirements for Compliance of Radio Apparatus
3	RSS-247 Issue 3	Digital Transmission Systems (DTSs), Frequency Hopping Systems(FHSs) and Licence-Exemp Local Area Network (LE-LAN) Devices
4	KDB Publication 789033 D02v02r01	Guidelines for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices Part 15, Subpart E
5	ANSI C63.10-2013	American National Standard for Testing Unlicensed Wireless Devices

3.2 Test Verdict

No.	Description	FCC Part No.	RSS Part No.	Test Result	Verdict
1	Antenna Requirement	15.203	RSS-247, 6.2	--	Pass[Note1]
2	RF Output Power	15.407(a)	RSS-247, 6.2	ANNEX A.1	Pass
3	Emission Bandwidth & 99% Occupied Bandwidth	15.407(a)	RSS-247, 6.2	ANNEX A.2	Pass
4	6 dB bandwidth	15.407(e)	RSS-247, 6.2	ANNEX A.3	Pass
5	Power Spectral Density	15.407(a)	RSS-247, 6.2	ANNEX A.4	Pass
6	Conducted Emission	15.207	RSS-GEN, 8.8	ANNEX A.5	N/A[Note3]
7	Radiated Spurious Emissions and Band Edge (Restricted-band)	15.407(b)	RSS-247, 6.2	ANNEX A.6	Pass
8	Receiver Spurious Emissions	--	RSS-Gen, 7.1.2	--	N/A[Note4]

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 U-NII-30-960 MHz, as well as scanner receivers, are subject to Industry Canada requirements, so this test is not applicable.

Note [3]: The EUT is used in vehicle environment, so this test item is not applicable.

Note [4]: Under all normal operating conditions specified in the user manual, frequency stability can keep radiation within the operating frequency band.

4 CGENERAL TEST CONFIGURATIONS

4.1 Test Environments

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

Relative Humidity	35% to 55%	
Atmospheric Pressure	100 kPa to 102 kPa	
Temperature	NT (Normal Temperature)	+21.1℃ to +23.9℃
Working Voltage of the EUT	NV (Normal Voltage)	5 V

4.2 Test Equipment List

Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due
Spectrum Analyzer	KEYSIGHT	N9020A	MY56060183	2024.08.01	2025.07.31
Power Sensor	KEYSIGHT	U2063XA	MY58000247	2024.07.04	2025.07.03
Spectrum Analyzer	KEYSIGHT	N9020A	MY50531259	2024.08.01	2025.07.31
Test Antenna-Horn	SCHWARZBECK	BBHA 9120D	02460	2024.05.16	2027.05.15
Test Antenna-Horn	A-INFO	LB-180400KF	J211060273	2024.06.15	2027.06.14
Anechoic Chamber	RAINFORD	9m*6m*6m	140	2024.07.28	2027.07.27
Amplifier	COM-MV	LSCX_LNA1-12G-01	7210214	2024.08.01	2025.07.31
Amplifier	COM-MV	XKu_LNA7-18G-01	7210209	2024.08.01	2025.07.31
EMI Receiver	ROHDE&SCHWARZ	ESRP	101036	2024.08.01	2025.07.31
Test Antenna-Bi-Log	SCHWARZBECK	VULB 9168	9168-01162	2023.08.04	2026.08.03
Test Antenna-Loop	SCHWARZBECK	FMZB 1519	1519-037	2024.01.23	2027.01.22
Amplifier	COM-MV	ZT30-1000M	B2018054558	2024.11.28	2025.11.27
Anechoic Chamber	EMC Electronic Co., Ltd	20.10*11.60*7.35m	130	2024.07.13	2027.07.12
EMI Receiver	KEYSIGHT	N9010B	MY57110309	2024.08.01	2025.07.31
LISN	SCHWARZBECK	NSLK 8127	8127-687	2024.05.09	2025.05.08
				2025.04.29	2026.04.28
Shielded Enclosure	YiHeng Electronic Co., Ltd	3.5m*3.1m*2.8m	112	2025.02.14	2028.02.13

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.

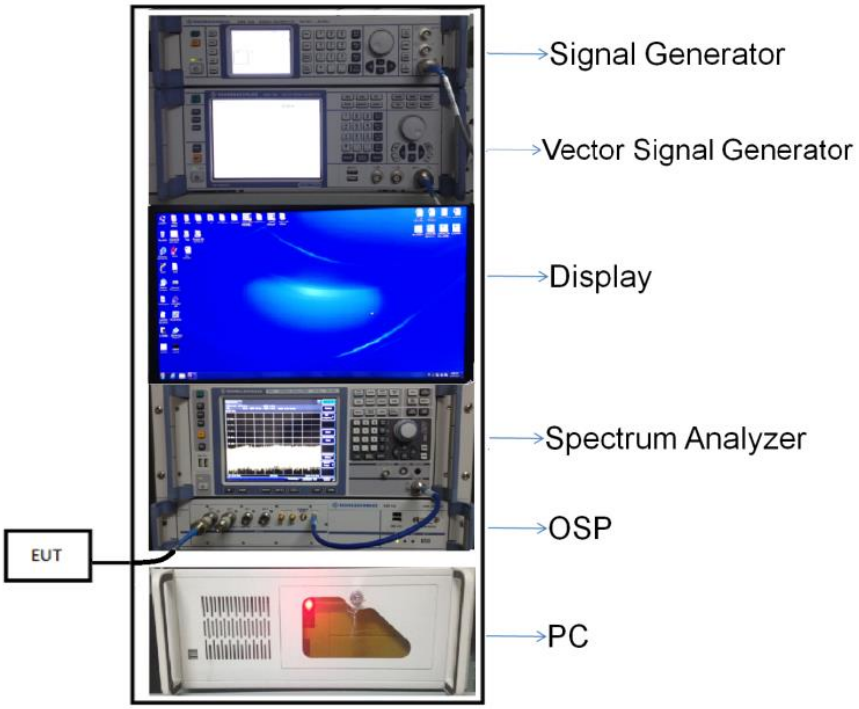
Parameters	Uncertainty
Occupied Channel Bandwidth	2.8%
RF output power, conducted	1.28 dB
Power Spectral Density, conducted	1.30 dB
Unwanted Emissions, conducted	1.84 dB
All emissions, radiated	5.36 dB
Temperature	0.8°C
Humidity	4%

4.5 Description of Test Setup

4.5.1 For Antenna Port Test

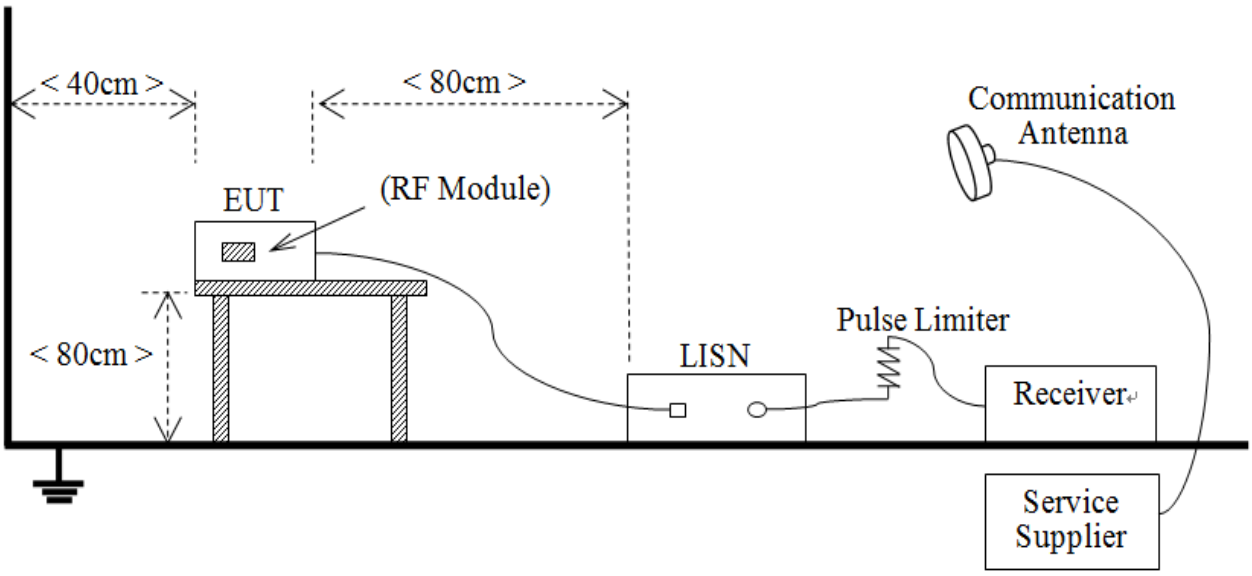
Conducted value (dBm) = Measurement value (dBm) + cable loss (dB)

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



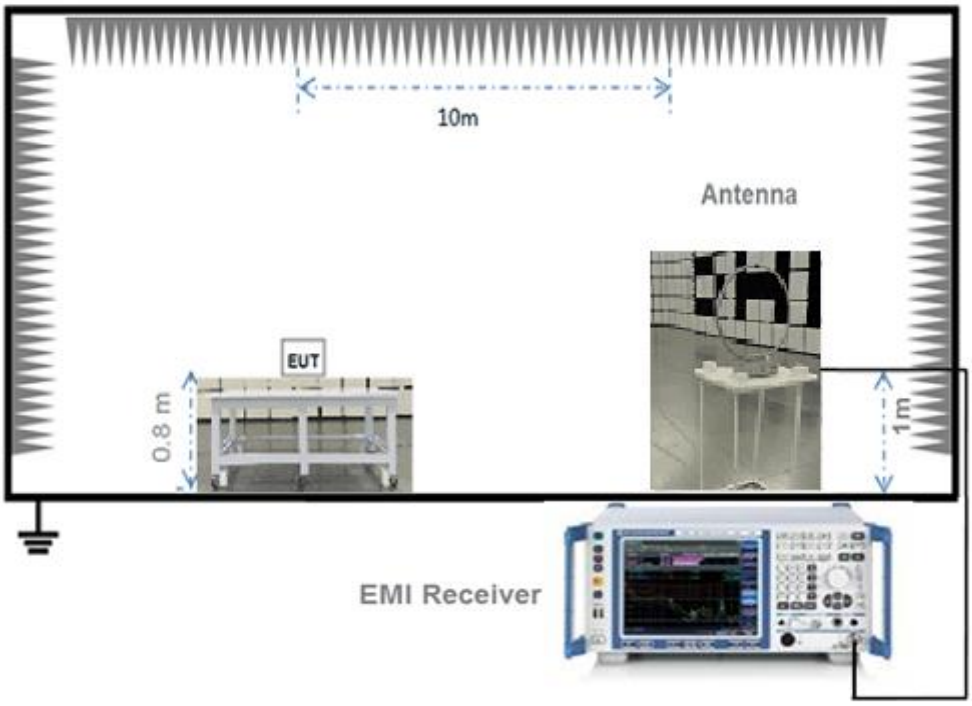
(Diagram 1)

4.5.2 For AC Power Supply Port Test



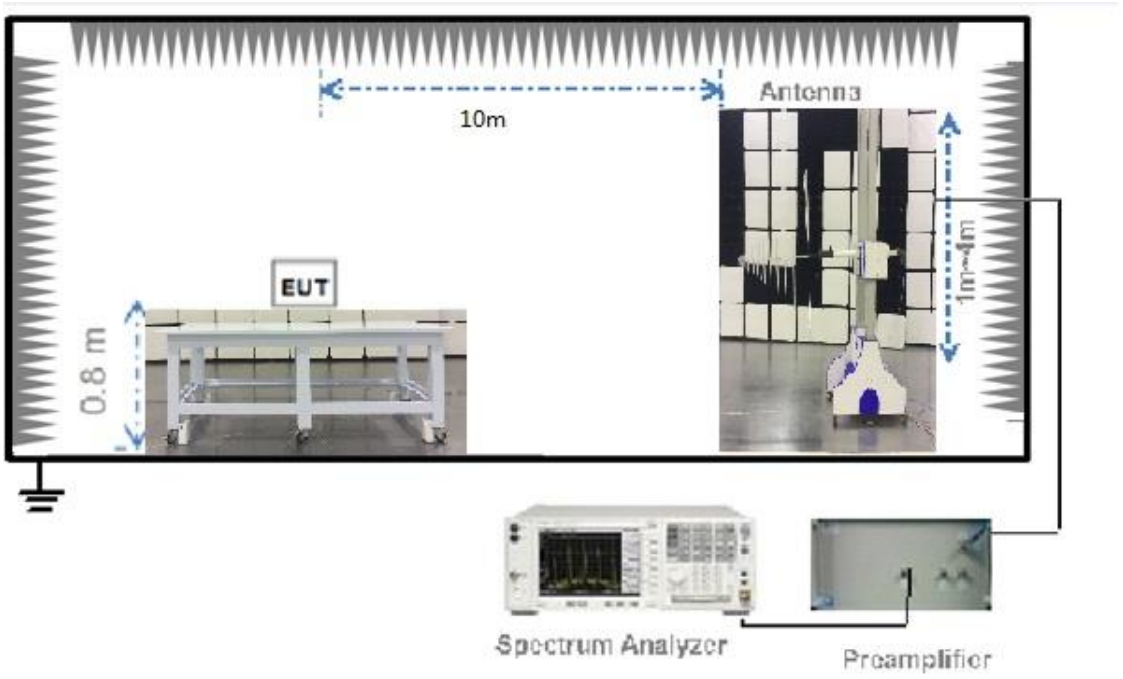
(Diagram 2)

4.5.3 For Radiated Test (Below 30 MHz)



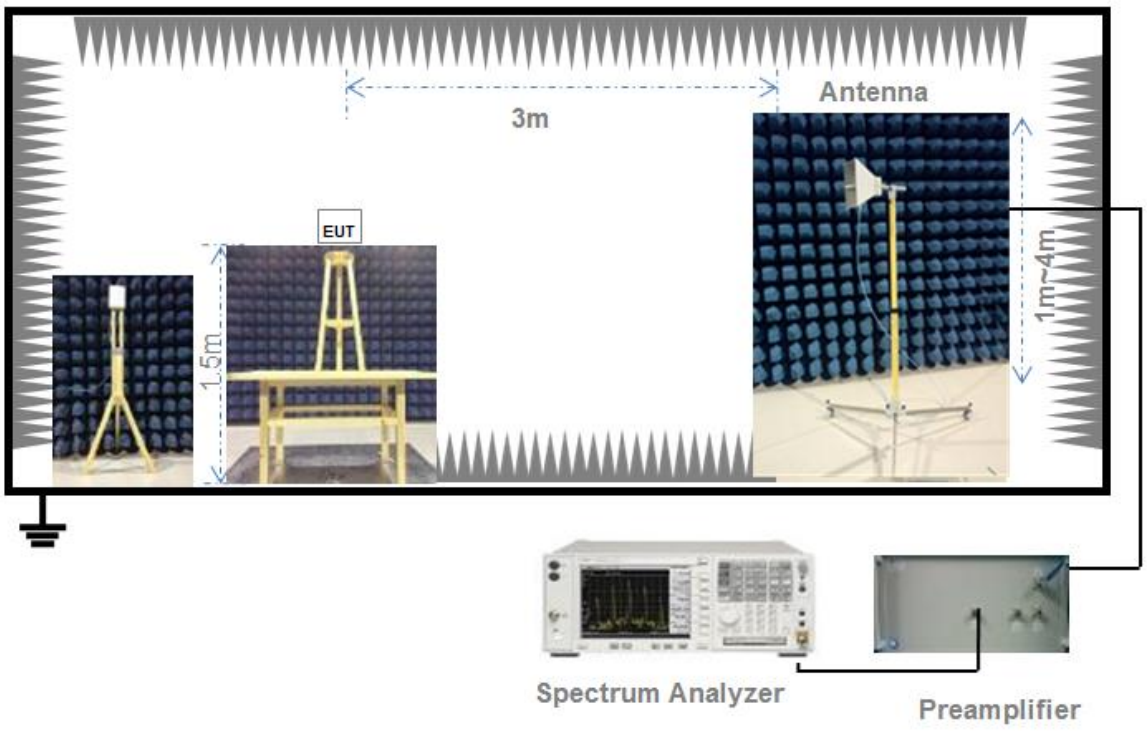
(Diagram 3)

4.5.4 For Radiated Test (30 MHz-1 GHz)



(Diagram 4)

4.5.5 For Radiated Test (Above 1 GHz)



(Diagram 5)

5 TEST ITEMS

5.1 RF Output Power

5.1.1 Test Limit

FCC §15.407(a)

The maximum conducted output power should not exceed:

Frequency Band (MHz)	Limit
5150-5250	250 mW
5250-5350	250 mW or 11 dBm + 10log B, whichever is less.
5470-5725	250 mW or 11 dBm + 10log B, whichever is less.
5725-5850	1 W
Note: Where “B” is the 26 dB emissions bandwidth in MHz.	

RSS-247, 6.2

The maximum conducted output power shall not exceed:

Frequency Band (MHz)	Limit
5150-5250	N/A
5250-5350	250 mW or 11 dBm + 10log B, whichever is less.
5470-5725	250 mW or 11 dBm + 10log B, whichever is less.
5725-5850	1 W
Note: Where “B” is the 99% emissions bandwidth in MHz.	

The maximum e.i.r.p. shall not exceed:

Frequency Band (MHz)	Limit
5150-5250	200 mW or 10 dBm + 10log B, whichever is less.
5250-5350	1W or 17 dBm + 10log B, whichever is less.
5470-5725	1W or 17 dBm + 10log B, whichever is less.
5725-5850	N/A
Note1: Where “B” is the 99% emissions bandwidth in MHz. Note2: EIRP= maximum conducted output power+ Antenna Gain.	

5.1.2 Test Setup

The section 4.5.1 (Diagram 1) test setup description was used for this test. The photo of test setup please refer to ANNEX B.

5.1.3 Test Procedure

Maximum conducted (average) output power

a) 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 cycle.

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 ≥ OBW if possible; otherwise, set RBW to the largest available value.

Set VBW ≥ RBW. Set detector = peak or average.

The zero-span measurement method shall not be used unless both RBW and VBW are > 50/T and the number of sweep points across duration T exceeds 100. (For example, if VBW and/or RBW are limited to 3 MHz, then the zero-span method of measuring duty cycle shall not be used if T ≤ 16.7 microseconds.)

The E.I.R.P used radiated test method. At a test site that has been validated using the procedures of ANSI C63.4 or the latest CISPR 16-1-4 for measurements above 1 GHz, so as to simulate a near free-space environment.

5.1.4 Test Result

Please refer to ANNEX A.1.

5.2 Emission Bandwidth and 6 dB Bandwidth

5.2.1 Limit

FCC §15.407(a), RSS-247, 6.2

Within the 5.725-5.85 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

5.2.2 Test Setup

The test setup photo please refer to 4.5.1 (Diagram 1) test setup description was used for this test. The photo of test setup please refer to ANNEX B.

5.2.3 Test Procedure

Emission bandwidth

1. Set RBW = approximately 1% of the emission bandwidth.

2. Set VBW ≥ 3*RBW,

3. Detector = Peak.

4. Trace mode = Max hold.

5. Measure the maximum width of the emission that is 26 dB down from the peak of the emission.

Occupied Bandwidth

1. Set Span = 1.5 times to 5.0 times the OBW

2. Set RBW = 1% to 5% of the OBW.

3. Set VBW ≥ 3*RBW, Detector = Peak.

4. Trace mode = Max hold.

5. Use the 99% power bandwidth function of the instrument.

6 dB bandwidth

1. Set RBW = 100 kHz, VBW = 300 kHz.

2. Detector = Peak.Trace mode = Max hold.

3. Allow the trace to stabilize.

4. 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.

5.2.4 Test Result

Please refer to ANNEX A.2 and ANNEX A.3.

5.3 Power Spectral density (PSD)

5.3.1 Limit

FCC §15.407(a)

The maximum power spectral density should not exceed:

Frequency Band (MHz)	Limit
5150-5250	11 dBm/MHz
5250-5350	11 dBm/MHz
5470-5725	11 dBm/MHz
5725-5850	30 dBm/500kHz

RSS-247, 6.2

The maximum power spectral density should not exceed:

Frequency Band (MHz)	Limit
5150-5250	N/A
5250-5350	11 dBm/MHz
5470-5725	11 dBm/MHz
5725-5850	30 dBm/500kHz

The e.i.r.p. spectral density should not exceed:

Frequency Band (MHz)	Limit
5150-5250	10 dBm/MHz
5250-5350	N/A
5470-5725	N/A
5725-5850	N/A
e.i.r.p. spectral density= maximum power spectral density+ Antenna Gain.	

5.3.2 Test Setup

The section 4.5.1 (Diagram 1) test setup description was used for this test. The photo of test setup please refer to ANNEX B.

5.3.3 Test Procedure

Set the spectrum analyzer or EMI receiver span to view the entire emission bandwidth.

1. Set RBW = 510 kHz/1 MHz, VBW ≥ 3*RBW, Sweep time = Auto, Detector = RMS.
2. Allow the sweeps to continue until the trace stabilizes.
3. Use the peak marker function to determine the maximum amplitude level.
4. The E.I.R.P spectral density used radiated test method. At a test site that has been validated using the procedures of ANSI C63.4 or the latest CISPR 16-1-4 for measurements above 1 GHz, so as to simulate a near free-space environment.

5.3.4 Test Result

Please refer to ANNEX A.4.

5.4 Conducted Emission

5.4.1 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 U-NII-150 kHz to 30 MHz shall not exceed the limits in the following table, as measured using a 50μH/50Ω line impedance stabilization network (LISN).

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

5.4.2 Test Setup

The section 4.5.2 (Diagram 2) test setup description was used for this test. The photo of test setup please refer to ANNEX B.

5.4.3 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.

5.4.4 Test Result

Please refer to ANNEX A.5.

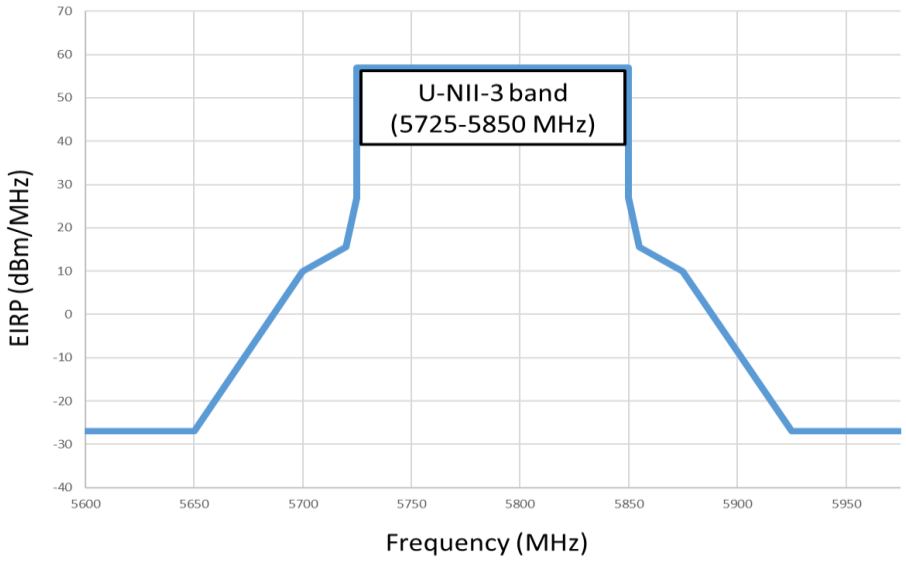
5.5 Radiated Spurious Emissions and Band Edge (Restricted-band)

5.5.1 Limit

FCC §15.209 & 15.407(b), RSS-247, 6.2

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]: The Limit for radiated test was performed according to FCC Part 15C
Note [2]: The tighter limit applies at the band edge.

Un-restricted band emissions	
Out Operating Band (MHz)	Limit
5150 - 5250	e.i.r.p. -27 dBm (68.2 dBuV/m@3m)
5250 - 5350	e.i.r.p. -27 dBm (68.2 dBuV/m@3m)
5470 - 5725	e.i.r.p. -27 dBm (68.2 dBuV/m@3m)
5725 - 5850	All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge. 

Note: The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength.

5.5.2 Test Setup

The section 4.5.3-4.5.5 (Diagram 3 - Diagram 5) test setup description was used for this test. The photo of test setup please refer to ANNEX B.

5.5.3 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 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).

c) 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).

d) Convert the resultant EIRP level to an equivalent electric field strength using the following relationship:

$E = EIRP – 20\log D + 104.8$

where:

E = electric field strength in dBμV/m,

EIRP = equivalent isotropic radiated power in dBm

D = specified measurement distance in meters.

e) Compare the resultant electric field strength level to the applicable limit.

f) 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 ≥ 3 x 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 ≥ 3 x RBW.

e) Detector = RMS, if span/(# of points in sweep) ≤ (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 ≥ 1 GHz, 100 kHz for f < 1 GHz
VBW ≥ RBW
Sweep = auto
Detector function = peak
Trace = max hold

5.5.4 Test Result

Please refer to ANNEX A.6.

ANNEX A TEST RESULT

A.1 RF Output Power

Note: For FCC standard, if transmitting antennas of directional gain greater than 6 dBi are used, all band maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Duty Cycle

Test Mode	On Time (ms)	On+Off time (ms)	Duty Cycle	Duty Factor
11a	1.38	1.42	97.04%	0.13
11n(HT20)	1.29	1.33	96.92%	0.14
11n(HT40)	0.64	0.68	93.72%	0.28

Test Data

Conducted Power

U-NII-3 (5725 - 5850 MHz)						
Mode	Channel	Conducted Power (dBm)	Conducted Power (mW)	FCC Limit (mW)	IC Limit (mW)	Verdict
11a	CH149	10.68	11.69	1000	1000	Pass
11a	CH157	9.10	8.13	1000	1000	Pass
11a	CH165	7.94	6.22	1000	1000	Pass
11n(HT20)	CH149	10.53	11.30	1000	1000	Pass
11n(HT20)	CH157	9.11	8.15	1000	1000	Pass
11n(HT20)	CH165	7.85	6.10	1000	1000	Pass
11n(HT40)	CH151	9.54	8.99	1000	1000	Pass
11n(HT40)	CH159	8.37	6.87	1000	1000	Pass

E.I.R.P

U-NII-3 (5725 - 5850 MHz)				
Mode	Channel	E.I.R.P (dBm)	E.I.R.P (mW)	Verdict
11a	CH149	11.81	15.17	Pass
11a	CH157	10.23	10.54	Pass
11a	CH165	9.07	8.07	Pass
11n(HT20)	CH149	11.66	14.66	Pass
11n(HT20)	CH157	10.24	10.57	Pass
11n(HT20)	CH165	8.98	7.91	Pass
11n(HT40)	CH151	10.67	11.67	Pass
11n(HT40)	CH159	9.50	8.91	Pass

A.2 Emission Bandwidth & 99% Bandwidth

Note: Test plots please refer to the document “Annex No.: BL-SZ2550494-602 Data Part 1.pdf”.

Test Data

U-NII-3 (5725 - 5850 MHz)			
Mode	Channel	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
11a	CH149	28.98	27.93
11a	CH157	28.07	26.90
11a	CH165	28.56	27.32
11n(HT20)	CH149	29.47	28.24
11n(HT20)	CH157	28.52	27.61
11n(HT20)	CH165	29.01	28.02
11n(HT40)	CH151	57.61	56.45
11n(HT40)	CH159	58.31	56.93

A.3 6 dB Bandwidth

Note: Test plots please refer to the document “Annex No.: BL-SZ2550494-602 Data Part 2.pdf”.

Test Data

U-NII-3 (5725 - 5850 MHz)				
Mode	Channel	6 dB Bandwidth (MHz)	Limit (kHz)	Verdict
11a	CH149	16.15	500.00	Pass
11a	CH157	15.65	500.00	Pass
11a	CH165	15.55	500.00	Pass
11n(HT20)	CH149	16.15	500.00	Pass
11n(HT20)	CH157	15.55	500.00	Pass
11n(HT20)	CH165	15.55	500.00	Pass
11n(HT40)	CH151	35.15	500.00	Pass
11n(HT40)	CH159	35.15	500.00	Pass

A.4 Power Spectral Density

Note: Test plots please refer to the document “Annex No.: BL-SZ2550494-602 Data Part 3.pdf”.

Test Data

U-NII-3 (5725 - 5850 MHz)					
Mode	Channel	PSD (dBm/500kHz)	FCC Limit (dBm/500kHz)	IC Limit (dBm/500kHz)	Verdict
11a	CH149	-3.39	30.00	30.00	Pass
11a	CH157	-4.68	30.00	30.00	Pass
11a	CH165	-5.70	30.00	30.00	Pass
11n(HT20)	CH149	-3.65	30.00	30.00	Pass
11n(HT20)	CH157	-4.88	30.00	30.00	Pass
11n(HT20)	CH165	-5.97	30.00	30.00	Pass
11n(HT40)	CH151	-8.15	30.00	30.00	Pass
11n(HT40)	CH159	-9.25	30.00	30.00	Pass

E.I.R.P

U-NII-3 (5725 - 5850 MHz)			
Mode	Channel	E.I.R.P PSD (dBm/500kHz)	Verdict
11a	CH149	-2.26	Pass
11a	CH157	-3.55	Pass
11a	CH165	-4.57	Pass
11n(HT20)	CH149	-2.52	Pass
11n(HT20)	CH157	-3.75	Pass
11n(HT20)	CH165	-4.84	Pass
11n(HT40)	CH151	-7.02	Pass
11n(HT40)	CH159	-8.12	Pass

A.5 Conducted Emissions

Note: Not applicable.

A.6 Radiated Spurious Emissions and Band Edge (Restricted-band)

Note [1]: The symbol of "--" in the table which means not application.

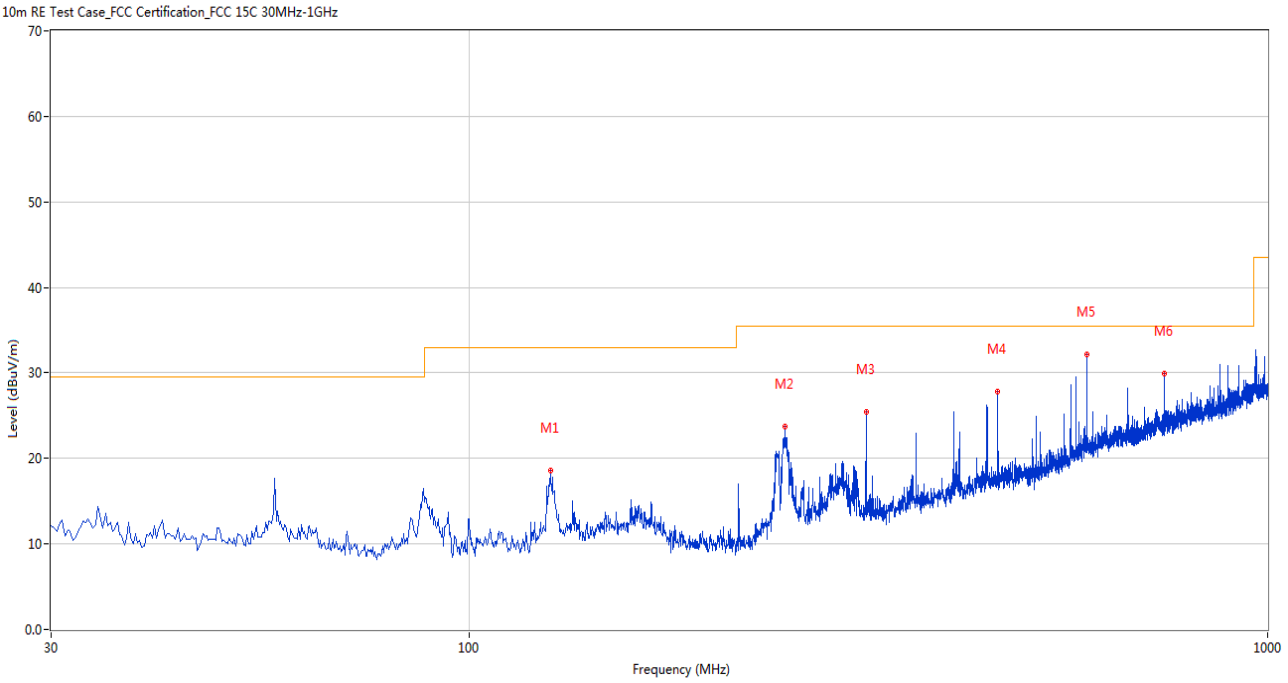
Note [2]: For the test data above 1 GHz，According the ANSI C63.4, where limits are specified for both average and peak (or quasi-peak) detector functions, if the peak (or quasi-peak) measured value complies with the average limit, it is unnecessary to perform an average measurement.

Note [3]: 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.

Note [4]: The EUT is working in the Normal link mode below 1 GHz. All modes have been tested and normal link mode is worst.

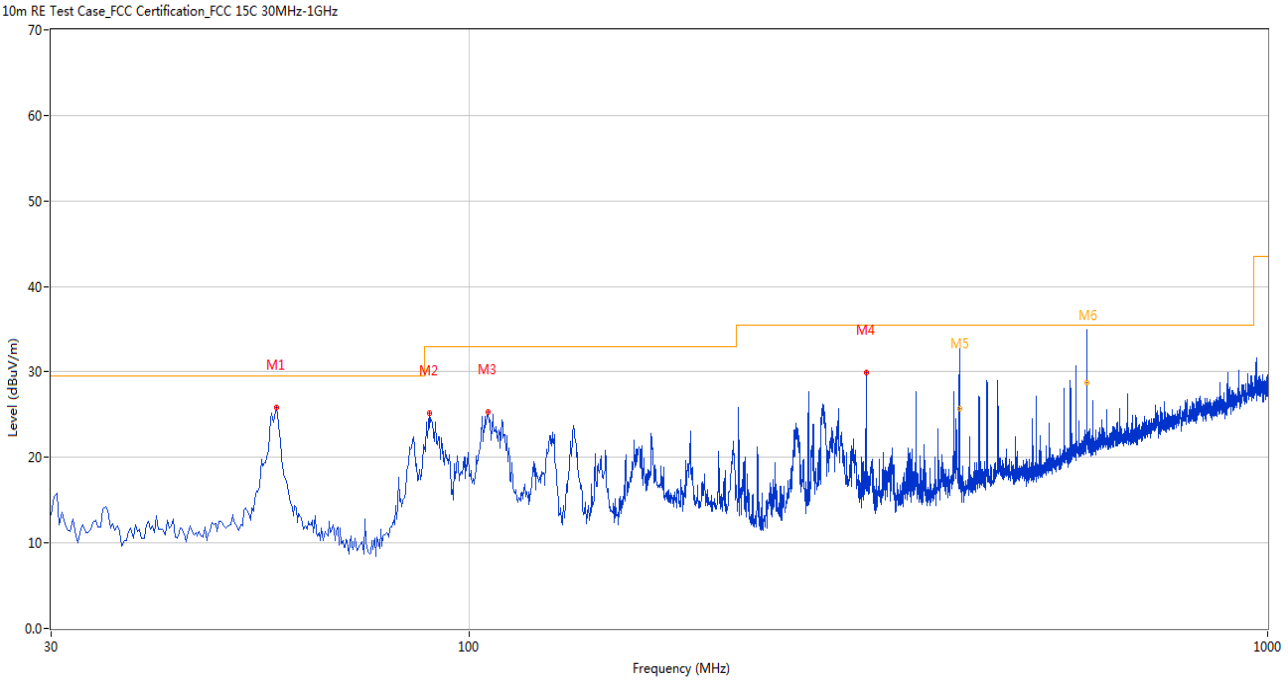
Test Data and Plots

30 MHz to 1 GHz, ANT H



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	126.491	18.65	-27.61	33.0	14.35	Peak	216.00	100	Horizontal	Pass
2	248.438	23.79	-27.49	35.5	11.71	Peak	360.00	200	Horizontal	Pass
3	314.381	25.45	-25.05	35.5	10.05	Peak	360.00	200	Horizontal	Pass
4	458.875	27.84	-21.05	35.5	7.66	Peak	360.00	200	Horizontal	Pass
5	593.914	32.11	-17.19	35.5	3.39	Peak	112.00	100	Horizontal	Pass
6	742.529	29.91	-13.97	35.5	5.59	Peak	145.00	100	Horizontal	Pass

30 MHz to 1 GHz, ANT V



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	57.396	25.80	-27.29	29.5	3.70	Peak	118.00	100	Vertical	Pass
2	89.155	25.22	-30.32	33.0	7.78	Peak	354.00	100	Vertical	Pass
3	105.641	25.32	-29.44	33.0	7.68	Peak	360.00	200	Vertical	Pass
4	314.381	29.92	-25.05	35.5	5.58	Peak	146.00	100	Vertical	Pass
5	411.366	29.02	-22.50	35.5	6.48	Peak	31.00	101	Vertical	N/A
5*	411.366	25.76	-22.50	35.5	9.74	QP	31.00	101	Vertical	Pass
6	594.003	31.57	-17.19	35.5	3.93	Peak	0.00	109	Vertical	N/A
6*	594.003	28.76	-17.19	35.5	6.74	QP	0.00	109	Vertical	Pass

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

11a, U-NII-3, 1 GHz to 18 GHz, Low Channel, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1521.407	38.55	74.0	35.45	Peak	296.00	300	Horizontal	Pass
1**	1521.407	28.24	54.0	25.76	AV	296.00	300	Horizontal	Pass
2	4016.663	48.01	74.0	25.99	Peak	291.00	400	Horizontal	Pass
2**	4016.663	37.74	54.0	16.26	AV	291.00	400	Horizontal	Pass
3	7597.936	52.54	74.0	21.46	Peak	92.00	200	Horizontal	Pass
3**	7597.936	40.66	54.0	13.34	AV	92.00	200	Horizontal	Pass
4	12459.194	53.59	74.0	20.41	Peak	100.00	100	Horizontal	Pass
4**	12459.194	46.43	54.0	7.57	AV	100.00	100	Horizontal	Pass
5	16096.188	52.79	74.0	21.21	Peak	312.00	300	Horizontal	Pass
5**	16096.188	45.22	54.0	8.78	AV	312.00	300	Horizontal	Pass
6	17419.059	58.88	74.0	15.12	Peak	346.00	100	Horizontal	Pass
6**	17419.059	48.66	54.0	5.34	AV	346.00	100	Horizontal	Pass

11a, U-NII-3, 1 GHz to 18 GHz, Low Channel, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1330.234	44.99	74.0	29.01	Peak	325.00	400	Vertical	Pass
1**	1330.234	32.52	54.0	21.48	AV	325.00	400	Vertical	Pass
2	1442.808	44.06	74.0	29.94	Peak	354.00	200	Vertical	Pass
2**	1442.808	38.33	54.0	15.67	AV	354.00	200	Vertical	Pass
3	4312.527	50.06	74.0	23.94	Peak	43.00	200	Vertical	Pass
3**	4312.527	40.63	54.0	13.37	AV	43.00	200	Vertical	Pass
4	7596.717	50.42	74.0	23.58	Peak	256.00	400	Vertical	Pass
4**	7596.717	43.95	54.0	10.05	AV	256.00	400	Vertical	Pass
5	12538.018	51.88	74.0	22.12	Peak	56.00	100	Vertical	Pass
5**	12538.018	43.22	54.0	10.78	AV	56.00	100	Vertical	Pass
6	15910.479	51.66	74.0	22.34	Peak	87.00	400	Vertical	Pass
6**	15910.479	43.90	54.0	10.10	AV	87.00	400	Vertical	Pass

11a, U-NII-3, 1 GHz to 18 GHz, Middle Channel, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1521.874	40.05	74.0	33.95	Peak	333.00	300	Horizontal	Pass
1**	1521.874	32.07	54.0	21.93	AV	333.00	300	Horizontal	Pass
2	4016.670	45.06	74.0	28.94	Peak	6.00	400	Horizontal	Pass
2**	4016.670	37.80	54.0	16.20	AV	6.00	400	Horizontal	Pass
3	7599.765	55.74	74.0	18.26	Peak	160.00	200	Horizontal	Pass
3**	7599.765	40.98	54.0	13.02	AV	160.00	200	Horizontal	Pass
4	12455.819	53.92	74.0	20.08	Peak	140.00	100	Horizontal	Pass
4**	12455.819	45.57	54.0	8.43	AV	140.00	100	Horizontal	Pass
5	16098.877	52.88	74.0	21.12	Peak	1.00	100	Horizontal	Pass
5**	16098.877	47.21	54.0	6.79	AV	1.00	100	Horizontal	Pass
6	17421.919	53.50	74.0	20.50	Peak	304.00	100	Horizontal	Pass
6**	17421.919	45.70	54.0	8.30	AV	304.00	100	Horizontal	Pass

11a, U-NII-3, 1 GHz to 18 GHz, Middle Channel, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1336.258	44.70	74.0	29.30	Peak	304.00	200	Vertical	Pass
1**	1336.258	31.95	54.0	22.05	AV	304.00	200	Vertical	Pass
2	1444.090	41.01	74.0	32.99	Peak	107.00	400	Vertical	Pass
2**	1444.090	39.11	54.0	14.89	AV	107.00	400	Vertical	Pass
3	4308.625	50.40	74.0	23.60	Peak	64.00	200	Vertical	Pass
3**	4308.625	37.82	54.0	16.18	AV	64.00	200	Vertical	Pass
4	7594.501	54.51	74.0	19.49	Peak	314.00	100	Vertical	Pass
4**	7594.501	44.96	54.0	9.04	AV	314.00	100	Vertical	Pass
5	12536.939	56.51	74.0	17.49	Peak	356.00	100	Vertical	Pass
5**	12536.939	42.66	54.0	11.34	AV	356.00	100	Vertical	Pass
6	15908.520	52.16	74.0	21.84	Peak	138.00	100	Vertical	Pass
6**	15908.520	47.91	54.0	6.09	AV	138.00	100	Vertical	Pass

11a, U-NII-3, 1 GHz to 18 GHz, High Channel, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1517.569	37.28	74.0	36.72	Peak	152.00	400	Horizontal	Pass
1**	1517.569	31.11	54.0	22.89	AV	152.00	400	Horizontal	Pass
2	4018.225	47.80	74.0	26.20	Peak	102.00	300	Horizontal	Pass
2**	4018.225	39.91	54.0	14.09	AV	102.00	300	Horizontal	Pass
3	7598.045	50.50	74.0	23.50	Peak	254.00	200	Horizontal	Pass
3**	7598.045	42.63	54.0	11.37	AV	254.00	200	Horizontal	Pass
4	12458.124	50.73	74.0	23.27	Peak	209.00	300	Horizontal	Pass
4**	12458.124	47.04	54.0	6.96	AV	209.00	300	Horizontal	Pass
5	16098.751	51.76	74.0	22.24	Peak	216.00	200	Horizontal	Pass
5**	16098.751	43.98	54.0	10.02	AV	216.00	200	Horizontal	Pass
6	17422.711	55.93	74.0	18.07	Peak	168.00	300	Horizontal	Pass
6**	17422.711	45.77	54.0	8.23	AV	168.00	300	Horizontal	Pass

11a, U-NII-3, 1 GHz to 18 GHz, High Channel, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1332.281	45.46	74.0	28.54	Peak	347.00	300	Vertical	Pass
1**	1332.281	31.21	54.0	22.79	AV	347.00	300	Vertical	Pass
2	1442.188	39.01	74.0	34.99	Peak	325.00	100	Vertical	Pass
2**	1442.188	38.15	54.0	15.85	AV	325.00	100	Vertical	Pass
3	4308.572	49.09	74.0	24.91	Peak	183.00	200	Vertical	Pass
3**	4308.572	38.49	54.0	15.51	AV	183.00	200	Vertical	Pass
4	7594.247	54.85	74.0	19.15	Peak	316.00	100	Vertical	Pass
4**	7594.247	41.23	54.0	12.77	AV	316.00	100	Vertical	Pass
5	12537.143	54.75	74.0	19.25	Peak	350.00	400	Vertical	Pass
5**	12537.143	45.40	54.0	8.60	AV	350.00	400	Vertical	Pass
6	15903.935	56.00	74.0	18.00	Peak	265.00	200	Vertical	Pass
6**	15903.935	46.55	54.0	7.45	AV	265.00	200	Vertical	Pass

11n20, U-NII-3, 1 GHz to 18 GHz, Low Channel, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1523.339	35.75	74.0	38.25	Peak	325.00	100	Horizontal	Pass
1**	1523.339	29.24	54.0	24.76	AV	325.00	100	Horizontal	Pass
2	4023.066	47.57	74.0	26.43	Peak	126.00	200	Horizontal	Pass
2**	4023.066	38.78	54.0	15.22	AV	126.00	200	Horizontal	Pass
3	7599.123	55.38	74.0	18.62	Peak	186.00	200	Horizontal	Pass
3**	7599.123	43.66	54.0	10.34	AV	186.00	200	Horizontal	Pass
4	12458.341	53.17	74.0	20.83	Peak	158.00	200	Horizontal	Pass
4**	12458.341	44.20	54.0	9.80	AV	158.00	200	Horizontal	Pass
5	16094.326	52.56	74.0	21.44	Peak	225.00	100	Horizontal	Pass
5**	16094.326	42.47	54.0	11.53	AV	225.00	100	Horizontal	Pass
6	17417.354	54.79	74.0	19.21	Peak	332.00	400	Horizontal	Pass
6**	17417.354	47.84	54.0	6.16	AV	332.00	400	Horizontal	Pass

11n20, U-NII-3, 1 GHz to 18 GHz, Low Channel, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1336.324	46.49	74.0	27.51	Peak	111.00	300	Vertical	Pass
1**	1336.324	35.84	54.0	18.16	AV	111.00	300	Vertical	Pass
2	1442.131	41.92	74.0	32.08	Peak	187.00	100	Vertical	Pass
2**	1442.131	36.46	54.0	17.54	AV	187.00	100	Vertical	Pass
3	4310.296	47.46	74.0	26.54	Peak	234.00	200	Vertical	Pass
3**	4310.296	41.49	54.0	12.51	AV	234.00	200	Vertical	Pass
4	7597.760	52.51	74.0	21.49	Peak	11.00	200	Vertical	Pass
4**	7597.760	45.95	54.0	8.05	AV	11.00	200	Vertical	Pass
5	12534.240	52.01	74.0	21.99	Peak	290.00	400	Vertical	Pass
5**	12534.240	44.57	54.0	9.43	AV	290.00	400	Vertical	Pass
6	15909.807	55.45	74.0	18.55	Peak	55.00	100	Vertical	Pass
6**	15909.807	43.65	54.0	10.35	AV	55.00	100	Vertical	Pass

11n20, U-NII-3, 1 GHz to 18 GHz, Middle Channel, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1523.406	39.76	74.0	34.24	Peak	282.00	200	Horizontal	Pass
1**	1523.406	27.53	54.0	26.47	AV	282.00	200	Horizontal	Pass
2	4020.555	45.38	74.0	28.62	Peak	265.00	400	Horizontal	Pass
2**	4020.555	36.86	54.0	17.14	AV	265.00	400	Horizontal	Pass
3	7596.244	51.35	74.0	22.65	Peak	166.00	200	Horizontal	Pass
3**	7596.244	43.47	54.0	10.53	AV	166.00	200	Horizontal	Pass
4	12457.058	51.64	74.0	22.36	Peak	44.00	400	Horizontal	Pass
4**	12457.058	41.43	54.0	12.57	AV	44.00	400	Horizontal	Pass
5	16098.775	53.69	74.0	20.31	Peak	158.00	300	Horizontal	Pass
5**	16098.775	47.46	54.0	6.54	AV	158.00	300	Horizontal	Pass
6	17421.423	55.31	74.0	18.69	Peak	128.00	100	Horizontal	Pass
6**	17421.423	49.42	54.0	4.58	AV	128.00	100	Horizontal	Pass

11n20, U-NII-3, 1 GHz to 18 GHz, Middle Channel, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1329.791	46.14	74.0	27.86	Peak	40.00	200	Vertical	Pass
1**	1329.791	35.96	54.0	18.04	AV	40.00	200	Vertical	Pass
2	1441.673	39.59	74.0	34.41	Peak	336.00	300	Vertical	Pass
2**	1441.673	39.96	54.0	14.04	AV	336.00	300	Vertical	Pass
3	4311.197	48.48	74.0	25.52	Peak	305.00	200	Vertical	Pass
3**	4311.197	36.09	54.0	17.91	AV	305.00	200	Vertical	Pass
4	7594.288	53.89	74.0	20.11	Peak	331.00	200	Vertical	Pass
4**	7594.288	44.28	54.0	9.72	AV	331.00	200	Vertical	Pass
5	12533.431	54.67	74.0	19.33	Peak	354.00	200	Vertical	Pass
5**	12533.431	46.29	54.0	7.71	AV	354.00	200	Vertical	Pass
6	15903.579	53.73	74.0	20.27	Peak	22.00	300	Vertical	Pass
6**	15903.579	43.19	54.0	10.81	AV	22.00	300	Vertical	Pass

11n20, U-NII-3, 1 GHz to 18 GHz, High Channel, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1518.552	37.83	74.0	36.17	Peak	161.00	200	Horizontal	Pass
1**	1518.552	31.70	54.0	22.30	AV	161.00	200	Horizontal	Pass
2	4022.052	47.25	74.0	26.75	Peak	162.00	400	Horizontal	Pass
2**	4022.052	35.37	54.0	18.63	AV	162.00	400	Horizontal	Pass
3	7598.705	50.61	74.0	23.39	Peak	59.00	200	Horizontal	Pass
3**	7598.705	46.04	54.0	7.96	AV	59.00	200	Horizontal	Pass
4	12457.861	52.16	74.0	21.84	Peak	77.00	200	Horizontal	Pass
4**	12457.861	43.60	54.0	10.40	AV	77.00	200	Horizontal	Pass
5	16096.196	54.99	74.0	19.01	Peak	32.00	400	Horizontal	Pass
5**	16096.196	43.21	54.0	10.79	AV	32.00	400	Horizontal	Pass
6	17417.080	56.65	74.0	17.35	Peak	224.00	200	Horizontal	Pass
6**	17417.080	48.18	54.0	5.82	AV	224.00	200	Horizontal	Pass

11n20, U-NII-3, 1 GHz to 18 GHz, High Channel, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1329.710	47.12	74.0	26.88	Peak	64.00	100	Vertical	Pass
1**	1329.710	35.38	54.0	18.62	AV	64.00	100	Vertical	Pass
2	1436.549	39.23	74.0	34.77	Peak	30.00	400	Vertical	Pass
2**	1436.549	36.78	54.0	17.22	AV	30.00	400	Vertical	Pass
3	4313.798	44.55	74.0	29.45	Peak	183.00	200	Vertical	Pass
3**	4313.798	36.54	54.0	17.46	AV	183.00	200	Vertical	Pass
4	7598.223	55.22	74.0	18.78	Peak	87.00	100	Vertical	Pass
4**	7598.223	46.33	54.0	7.67	AV	87.00	100	Vertical	Pass
5	12532.991	52.40	74.0	21.60	Peak	298.00	100	Vertical	Pass
5**	12532.991	44.57	54.0	9.43	AV	298.00	100	Vertical	Pass
6	15902.801	51.78	74.0	22.22	Peak	164.00	300	Vertical	Pass
6**	15902.801	48.60	54.0	5.40	AV	164.00	300	Vertical	Pass

11n40, U-NII-3, 1 GHz to 18 GHz, Low Channel, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1521.466	35.72	74.0	38.28	Peak	45.00	100	Horizontal	Pass
1**	1521.466	28.06	54.0	25.94	AV	45.00	100	Horizontal	Pass
2	4022.245	47.91	74.0	26.09	Peak	115.00	400	Horizontal	Pass
2**	4022.245	37.78	54.0	16.22	AV	115.00	400	Horizontal	Pass
3	7599.742	50.86	74.0	23.14	Peak	191.00	200	Horizontal	Pass
3**	7599.742	42.25	54.0	11.75	AV	191.00	200	Horizontal	Pass
4	12457.685	54.31	74.0	19.69	Peak	34.00	100	Horizontal	Pass
4**	12457.685	44.24	54.0	9.76	AV	34.00	100	Horizontal	Pass
5	16097.423	54.93	74.0	19.07	Peak	43.00	300	Horizontal	Pass
5**	16097.423	45.48	54.0	8.52	AV	43.00	300	Horizontal	Pass
6	17422.292	57.12	74.0	16.88	Peak	55.00	400	Horizontal	Pass
6**	17422.292	47.44	54.0	6.56	AV	55.00	400	Horizontal	Pass

11n40, U-NII-3, 1 GHz to 18 GHz, Low Channel, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1330.254	45.92	74.0	28.08	Peak	277.00	100	Vertical	Pass
1**	1330.254	35.64	54.0	18.36	AV	277.00	100	Vertical	Pass
2	1441.992	40.60	74.0	33.40	Peak	166.00	400	Vertical	Pass
2**	1441.992	35.73	54.0	18.27	AV	166.00	400	Vertical	Pass
3	4312.016	45.66	74.0	28.34	Peak	226.00	200	Vertical	Pass
3**	4312.016	36.30	54.0	17.70	AV	226.00	200	Vertical	Pass
4	7598.189	50.42	74.0	23.58	Peak	151.00	300	Vertical	Pass
4**	7598.189	40.77	54.0	13.23	AV	151.00	300	Vertical	Pass
5	12536.232	51.66	74.0	22.34	Peak	56.00	100	Vertical	Pass
5**	12536.232	41.76	54.0	12.24	AV	56.00	100	Vertical	Pass
6	15904.017	53.38	74.0	20.62	Peak	247.00	400	Vertical	Pass
6**	15904.017	46.76	54.0	7.24	AV	247.00	400	Vertical	Pass

11n40, U-NII-3, 1 GHz to 18 GHz, High Channel, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1521.036	40.26	74.0	33.74	Peak	228.00	300	Horizontal	Pass
1**	1521.036	27.74	54.0	26.26	AV	228.00	300	Horizontal	Pass
2	4016.875	47.76	74.0	26.24	Peak	145.00	400	Horizontal	Pass
2**	4016.875	36.92	54.0	17.08	AV	145.00	400	Horizontal	Pass
3	7595.054	55.26	74.0	18.74	Peak	306.00	200	Horizontal	Pass
3**	7595.054	44.38	54.0	9.62	AV	306.00	200	Horizontal	Pass
4	12457.185	50.88	74.0	23.12	Peak	72.00	100	Horizontal	Pass
4**	12457.185	42.31	54.0	11.69	AV	72.00	100	Horizontal	Pass
5	16093.690	53.13	74.0	20.87	Peak	35.00	400	Horizontal	Pass
5**	16093.690	45.03	54.0	8.97	AV	35.00	400	Horizontal	Pass
6	17420.652	58.72	74.0	15.28	Peak	12.00	200	Horizontal	Pass
6**	17420.652	44.87	54.0	9.13	AV	12.00	200	Horizontal	Pass

11n40, U-NII-3, 1 GHz to 18 GHz, High Channel, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1332.980	45.11	74.0	28.89	Peak	23.00	300	Vertical	Pass
1**	1332.980	34.08	54.0	19.92	AV	23.00	300	Vertical	Pass
2	1442.431	44.74	74.0	29.26	Peak	168.00	100	Vertical	Pass
2**	1442.431	37.16	54.0	16.84	AV	168.00	100	Vertical	Pass
3	4313.514	44.54	74.0	29.46	Peak	143.00	200	Vertical	Pass
3**	4313.514	36.57	54.0	17.43	AV	143.00	200	Vertical	Pass
4	7595.987	51.57	74.0	22.43	Peak	190.00	300	Vertical	Pass
4**	7595.987	43.73	54.0	10.27	AV	190.00	300	Vertical	Pass
5	12536.730	52.78	74.0	21.22	Peak	344.00	100	Vertical	Pass
5**	12536.730	46.17	54.0	7.83	AV	344.00	100	Vertical	Pass
6	15908.024	56.06	74.0	17.94	Peak	338.00	200	Vertical	Pass
6**	15908.024	44.77	54.0	9.23	AV	338.00	200	Vertical	Pass

A.6.2 Band Edge (Restricted-band)

Test Band	Mode	Channel	Verdict
U-NII-3	802.11a	Low	Pass
		High	Pass
	802.11n(HT20)	Low	Pass
		High	Pass
	802.11n(HT40)	Low	Pass
		High	Pass

Test Data

U-NII-3 11a Low Channel

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	5644.367	56.63	68.2	11.57	Peak	80.00	300	Horizontal	Pass
2	5650.000	52.77	68.2	15.43	Peak	80.00	300	Horizontal	Pass

U-NII-3 11a High Channel

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	5925.000	54.16	68.2	14.04	Peak	10.00	300	Horizontal	Pass
2	5943.890	56.07	68.2	12.13	Peak	242.00	300	Horizontal	Pass

U-NII-3 11n20 Low Channel

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	5641.585	54.98	68.2	13.22	Peak	103.00	100	Horizontal	Pass
2	5650.000	53.59	68.2	14.61	Peak	103.00	100	Horizontal	Pass

U-NII-3 11n20 High Channel

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	5925.000	52.01	68.2	16.19	Peak	170.00	100	Horizontal	Pass
2	5945.919	56.55	68.2	11.65	Peak	75.00	300	Horizontal	Pass

U-NII-3 11n40 Low Channel

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	5641.060	52.96	68.2	15.24	Peak	169.00	200	Horizontal	Pass
2	5650.000	54.22	68.2	13.98	Peak	169.00	200	Horizontal	Pass

U-NII-3 11n40 High Channel

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	5925.000	49.91	68.2	18.29	Peak	353.00	300	Horizontal	Pass
2	5948.849	55.06	68.2	13.14	Peak	16.00	300	Horizontal	Pass

ANNEX B TEST SETUP PHOTOS

Please refer the document “BL-SZ2550494-AR.PDF”.

ANNEX C EUT EXTERNAL PHOTOS

Please refer the document “BL-SZ2550494-AW.PDF”.

ANNEX D EUT INTERNAL PHOTOS

Please refer the document “BL-SZ2550494-AI.PDF”.

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