

FCC

RF

TEST REPORT

ISSUED BY
Shenzhen BALUN Technology Co., Ltd.



FOR
X9 FDD-LTE Smartphone

ISSUED TO
TP-LINK Technologies Co., Ltd.

Building 24-1F/3F/4F/5F, 28-1F/2F/3F/4F Science and Technology Park,
Shennan Road, Nanshan District, Shenzhen City, Guangdong Province,
P.R. China



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Date: Jun 05, 2018

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Date: Jun 05, 2018



Report No.: BL-SZ1840111-603
EUT Name: X9 FDD-LTE Smartphone
Model Name: TP913A(refer section 2.4)
Brand Name: neffos
Test Standard: 47 CFR Part 15 Subpart E
FCC ID: TE7X9V1

Test Conclusion: Pass
Test Date: Apr. 27, 2018 ~ May 07, 2018
Date of Issue: Jun. 05, 2018

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Revision History

Version	Issue Date	Revisions Content
<u>Rev. 01</u>	<u>Jun. 05, 2018</u>	<u>Initial Issue</u>

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1 ADMINISTRATIVE DATA (GENERAL INFORMATION)

1.1 Identification of the Testing Laboratory

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

1.2 Identification of the Responsible Testing Location

Test Location	Shenzhen BALUN Technology Co., Ltd.
Address	Block B, 1st FL, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China
Accreditation Certificate	<p>The laboratory has been listed by Industry Canada to perform electromagnetic emission measurements. The recognition numbers of test site are 11524A-1.</p> <p>The laboratory is a testing organization accredited by FCC as a accredited testing laboratory. The designation number is CN1196.</p> <p>The laboratory is a testing organization accredited by American Association for Laboratory Accreditation(A2LA) according to ISO/IEC 17025.The accreditation certificate is 4344.01.</p> <p>The laboratory is a testing organization accredited by China National Accreditation Service for Conformity Assessment (CNAS) according to ISO/IEC 17025. The accreditation certificate number is L6791.</p>
Description	All measurement facilities used to collect the measurement data are located at Block B, FL 1, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China 518055

1.3 Laboratory Condition

Ambient Temperature	20°C to 25°C
Ambient Relative Humidity	45% to 55%
Ambient Pressure	100 kPa to 102 kPa

1.4 Announce

- (1) The test report reference to the report template version v4.2.
- (2) The test report is invalid if not marked with the signatures of the persons responsible for preparing and approving the test report.
- (3) The test report is invalid if there is any evidence and/or falsification.
- (4) The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein.
- (5) This document may not be altered or revised in any way unless done so by BALUN and all revisions are duly noted in the revisions section.
- (6) Content of the test report, in part or in full, cannot be used for publicity and/or promotional purposes without prior written approval from the laboratory.

2 PRODUCT INFORMATION

2.1 Applicant

Applicant	TP-LINK Technologies Co., Ltd.
Address	Building 24-1F/3F/4F/5F, 28-1F/2F/3F/4F Science and Technology Park, Shennan Road, Nanshan District, Shenzhen City, Guangdong Province, P.R. China

2.2 Manufacturer

Manufacturer	TP-LINK Technologies Co., Ltd.
Address	Building 24-1F/3F/4F/5F, 28-1F/2F/3F/4F Science and Technology Park, Shennan Road, Nanshan District, Shenzhen City, Guangdong Province, P.R. China

2.3 Factory

Factory	N/A
Address	N/A

2.4 General Description for Equipment under Test (EUT)

EUT Type	X9 FDD-LTE Smartphone
Model Name Under Test	TP913A
Series Model Name	TP913A, TP913AXYZZ
Description of Model name differentiation	X = 5 or 6(5 indicates the color is Black,6 indicates the color is Silvery) Y = 6, indicates the memory is 3G RAM + 32G Flash Z = 'A' to 'Z', ZZ indicates different regions or customers
Hardware Version	1.0
Software Version	TP913Rxxxx

2.5 Ancillary Equipment

Ancillary Equipment 1	Battery	
	Brand Name	neffos
	Model No.	NBL-35B3000
	Serial No.	N/A
	Capacity	3000 mAh
	Rated Voltage	3.85 V
	Limit Charge Voltage	4.4 V
Ancillary Equipment 2	Adapter	
	Brand Name	neffos
	Model No.	A8A-050200U-US1
	Serial No.	N/A
	Rated Input	100-240 V~, 0.35 A, 50/60 Hz
	Rated Output	5 V= 2 A
Ancillary Equipment 3	USB Cable	
	Model No.	N/A
	Length (Approx.)	1 m
Ancillary Equipment 4	Earphone	
	Model No.	LYM165-093-001
	Length (Approx.)	1.2 m

2.6 Technical Information

Network and Wireless connectivity	2G Network GSM/GPRS/EDGE 850/1900 MHz 3G Network WCDMA/HSDPA/HSUPA Band 2/4/5 4G Network FDD LTE Band 2/4/5/7 Bluetooth 4.1 (BR+EDR+BLE) WIFI 802.11a,802.11b, 802.11g and 802.11n (HT20/40) GPS, GLONASS, FM
-----------------------------------	--

Frequency Range	Band I: 5150 MHz to 5250 MHz, Band IV: 5725 MHz to 5850 MHz
Product Type	<input type="checkbox"/> Mobile <input checked="" type="checkbox"/> Portable <input type="checkbox"/> Fix Location
Modulation technology	OFDM
Modulation Type	64QAM, 16QAM, BPSK, QPSK
Product Type	Mobile and portable for FCC standard
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	Band I: 13.01 dBm Band IV: 12.83 dBm
Antenna System (eg., MIMO, Smart Antenna)	N/A
Categorization as Correlated or Completely Uncorrelated	N/A
Antenna Type	PIFA Antenna
Antenna Gain	Band I: 5150 MHz to 5250 MHz: 1.61 dBi Band IV: 5725 MHz to 5850 MHz: -0.4 dBi
About the Product	The equipment is X9 FDD-LTE Smartphone, intended for used with information technology equipment.

2.7 Additional Instructions

Mode	<input checked="" type="checkbox"/> Special software is used. The software provided by client to enable the EUT under transmission condition continuously at specific channel frequencies individually.
------	--

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

EUT Software Settings:

Test Software Version	***#3646633#**#*
-----------------------	------------------

Band I (5150 - 5250 MHz) Power level setup in software			
Mode	Channel	Frequency (MHz)	Soft Set
11a	CH36	5180	14
11a	CH44	5220	14
11a	CH48	5240	14
11n (HT20)	CH36	5180	14
11n (HT20)	CH44	5220	14
11n (HT20)	CH48	5240	14
11n (HT40)	CH38	5190	14
11n (HT40)	CH46	5230	14

Band IV (5725 - 5850 MHz) Power level setup in software			
Mode	Channel	Frequency (MHz)	Soft Set
11a	CH149	5745	14
11a	CH157	5785	14
11a	CH165	5825	14
11n (HT20)	CH149	5745	14
11n (HT20)	CH157	5785	14
11n (HT20)	CH165	5825	14
11n (HT40)	CH151	5755	14
11n (HT40)	CH159	5795	14

Run Software



The screenshot shows the WiFi_Tx application interface. It features a title bar with an Android icon and the text "WiFi_Tx". Below the title bar, there are several rows of configuration parameters, each with a label on the left and a value on the right. At the bottom of the interface, there are two buttons: "Go" and "Stop".

Parameter	Value
Channel:	Channel 36 [5180MHz]
Pkt length:	1024
Pkt cnt:	0
Tx power (dBm):	14.0
Rate:	6M
Mode:	continuous packet tx
Preamble:	Normal
Bandwidth:	20MHz
Guard interval:	800ns

Buttons: Go, Stop

2.8 Channel List

20 MHz		40 MHz	
Channel Number	Frequency (MHz)	Channel Number	Frequency (MHz)
36	5180	38	5190
40	5200	46	5230
44	5220	151	5755
48	5240	159	5795
149	5745		
153	5765		
157	5785		
161	5805		
165	5825		

Note: Until further notice, devices subject to this section shall not be capable of transmitting in the band 5600-5650 MHz. This restriction is for the protection of weather radars operating in this band.

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)

Band I (5150 - 5250 MHz)			Band IV (5725 - 5850 MHz)		
Channel Number	Channel	Frequency (MHz)	Channel Number	Channel	Frequency (MHz)
36	Low	5180	149	Low	5745
44	Mid	5220	157	Mid	5785
48	High	5240	165	High	5825

For 802.11n (HT40)

Band I (5150 - 5250 MHz)			Band IV (5725 - 5850 MHz)		
Channel Number	Channel	Frequency (MHz)	Channel Number	Channel	Frequency (MHz)
38	Low	5190	151	Low	5755
46	High	5230	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	Band I	Band IV
				Channel	Channel
RF Output Power	11a	6	BPSK	48/44/36	165/157/149
	11n(20 MHz)	6.5		48/44/36	165/157/149
	11n(40 MHz)	13.5		46/38	159/151
Emission Bandwidth & 99% Occupied Bandwidth	11a	6	BPSK	48/44/36	165/157/149
	11n(20 MHz)	6.5		48/44/36	165/157/149
	11n(40 MHz)	13.5		46/38	159/151
6 dB bandwidth	11a	6	BPSK	N/A	165/157/149
	11n(20 MHz)	6.5		N/A	165/157/149
	11n(40 MHz)	13.5		N/A	159/151
Power Spectral Density	11a	6	BPSK	48/44/36	165/157/149
	11n(20 MHz)	6.5		48/44/36	165/157/149
	11n(40 MHz)	13.5		46/38	159/151
Conducted Spurious Emission and Band Edge (Authorized-band)	11a	6	BPSK	48/44/36	165/157/149
	11n(20 MHz)	6.5		48/44/36	165/157/149
	11n(40 MHz)	13.5		46/38	159/151
Radiated Spurious Emissions	11a	6	BPSK	48/44/36	165/157/149
	11n(20 MHz)	6.5		48/44/36	165/157/149
	11n(40 MHz)	13.5		46/38	159/151
Band Edge (Restricted-band)	11a	6	BPSK	48/36	165/149
	11n(20 MHz)	6.5		48/36	165/149
	11n(40 MHz)	13.5		46/38	159/151
Frequency Stability	Unmodulated	N/A	N/A	N/A	N/A

3 SUMMARY OF TEST RESULTS

3.1 Test Standards

No.	Identity	Document Title
1	47 CFR Part 15 Subpart E (10-1-16 Edition)	Unlicensed National Information Infrastructure Devices
2	KDB Publication 789033 D02v01r04	Guidelines for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices Part 15, Subpart E
3	ANSI C63.10-2013	American National Standard for Testing Unlicensed Wireless Devices

3.2 Verdict

No.	Description	FCC Part No.	Test Result	Verdict
1	Antenna Requirement	15.203	--	Pass ^{Note1}
2	RF Output Power	15.407(a)	ANNEX A.1	Pass
3	Emission Bandwidth & 99% Occupied Bandwidth	15.407(a)	ANNEX A.2	Pass
4	6 dB bandwidth	15.407(e)	ANNEX A.3	Pass
5	Power Spectral Density	15.407(a)	ANNEX A.4	Pass
6	Conducted Emission	15.207	ANNEX A.5	Pass
7	Conducted Spurious Emission and Band Edge (Authorized-band)	15.407(b) 15.209	ANNEX A.6	Pass
8	Radiated Spurious Emissions and Band Edge (Restricted- band)	15.407(b)	ANNEX A.7	Pass
9	Frequency Stability	15.407(g)	ANNEX A.8	Pass
10	Receiver Spurious Emissions	--	--	N/A ^{Note2}

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

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

4 GENERAL TEST CONFIGURATIONS

4.1 Test Environments

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

Relative Humidity	45% to 55%	
Atmospheric Pressure	100 kPa to 102 kPa	
Temperature	NT (Normal Temperature)	+22°C to +25°C
	LT (Low Temperature)	0°C
	HT (High Temperature)	+40°C
Working Voltage of the EUT	NV (Normal Voltage)	3.85 V
	LV (Low Voltage)	3.4 V
	HV (High Voltage)	4.4 V

4.2 Test Equipment List

Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due
Spectrum Analyzer	ROHDE&SCHWARZ	FSV-30	103118	2017.06.12	2018.06.11
Switch Unit with OSP-B157	ROHDE&SCHWARZ	OSP120	101270	2017.06.12	2018.06.11
EMI Receiver	KEYSIGHT	N9038A	MY53220118	2017.09.07	2018.09.06
EMI Receiver	ROHDE&SCHWARZ	ESRP	101036	2017.06.22	2018.06.21
LISN	SCHWARZBECK	NSLK 8127	8127-687	2017.06.22	2018.06.21
Bluetooth Tester	ROHDE&SCHWARZ	CBT	101005	2017.06.12	2018.06.11
Power Splitter	KMW	DCPD-LDC	1305003215	--	--
Power Sensor	ROHDE&SCHWARZ	NRP-Z21	103971	2017.06.12	2018.06.11
Attenuator (20 dB)	KMW	ZA-S1-201	110617091	--	--
Attenuator (6 dB)	KMW	ZA-S1-61	1305003189	--	--
DC Power Supply	ROHDE&SCHWARZ	HMP2020	018141664	2017.06.22	2018.06.21
Temperature Chamber	ANGELANTIONI SCIENCE	NTH64-40A	1310	2017.06.22	2018.06.21
Test Antenna- Loop(9 kHz-30 MHz)	SCHWARZBECK	FMZB 1519	1519-037	2017.06.22	2018.06.21
Test Antenna- Bi-Log(30 MHz-3 GHz)	SCHWARZBECK	VULB 9163	9163-624	2017.11.07	2019.11.08
Test Antenna- Horn(1-18 GHz)	SCHWARZBECK	BBHA 9120D	9120D-1148	2017.07.22	2019.07.21
Test Antenna- Horn(15-26.5 GHz)	SCHWARZBECK	BBHA 9170	9170-305	2016.07.12	2018.07.11
Test Antenna- Horn (18-40 GHz)	A-INFO	LB- 180400KF	J211060273	2017.01.07	2019.01.06
Anechoic Chamber	RAINFORD	9m*6m*6m	N/A	2017.02.21	2019.02.20
Anechoic Chamber	EMC Electronic Co., Ltd	20.10*11.60 *7.35m	N/A	2016.08.09	2018.08.08
Shielded Enclosure	ChangNing	CN-130701	130703	--	--
Signal Generator	ROHDE&SCHWARZ	SMB100A	177746	2017.06.12	2018.06.11
Power Amplifier	OPHIR RF	5225F	1037	2018.02.17	2019.02.16

Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due
Power Amplifier	OPHIR RF	5273F	1016	2018.02.17	2019.02.16
Directional Coupler	Werlantone	C5982-10	109275	N/A	N/A
Directional Coupler	Werlantone	CHP-273E	S00801z-01	N/A	N/A
Feld Strength Meter	Narda	EP601	511WX51129	2017.05.22	2018.05.21
Mouth Simulator	B&K	4227	2423931	2017.11.16	2018.11.15
Sound Calibrator	B&K	4231	2430337	2017.11.16	2018.11.15
Sound Level Meter	B&K	NL-20	00844023	2017.11.16	2018.11.15
Ear Simulator	B&K	4185	2409449	2017.11.16	2018.11.15
Ear Simulator	B&K	4195	2418189	2017.11.16	2018.11.15
Audio analyzer	B&K	UPL 16	100129	2017.11.16	2018.11.15

4.3 Measurement Uncertainty

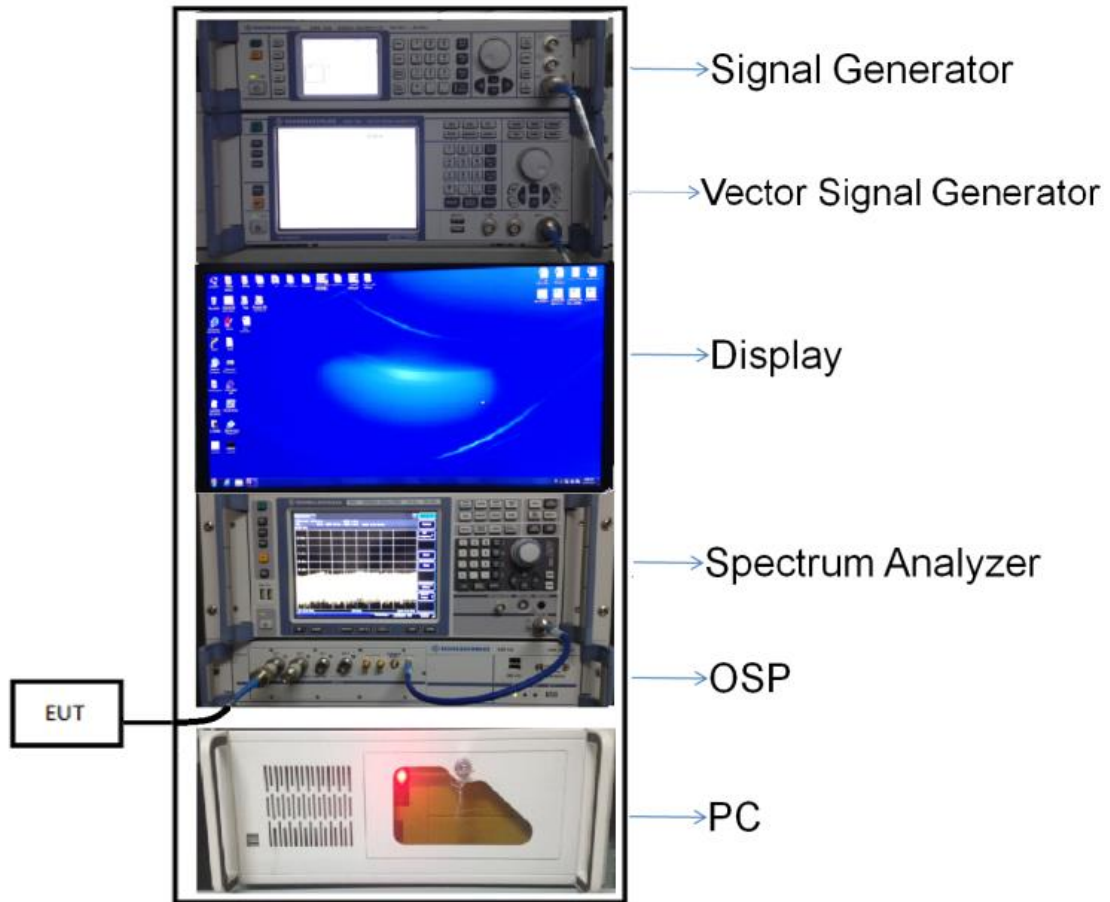
The following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2.

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

Measurement	Value
Occupied Channel Bandwidth	$\pm 4\%$
RF output power, conducted	± 1.4 dB
Power Spectral Density, conducted	± 2.5 dB
Unwanted Emissions, conducted	± 2.8 dB
All emissions, radiated	± 5.4 dB
Temperature	$\pm 1^\circ\text{C}$
Humidity	$\pm 4\%$

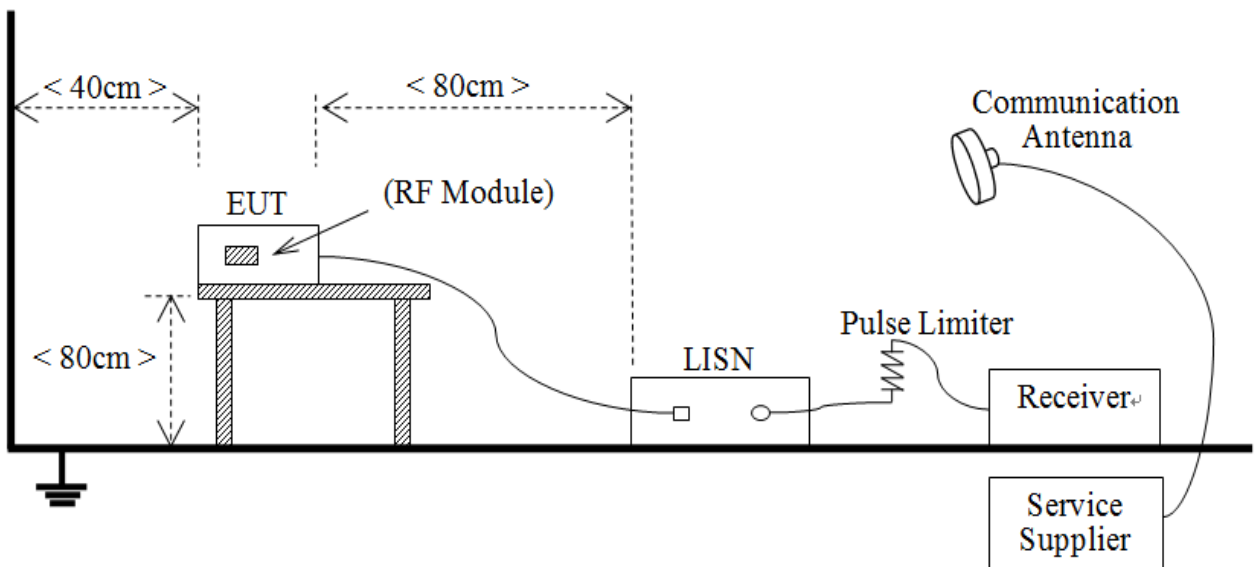
4.4 Description of Test Setup

4.4.1 For Antenna Port Test



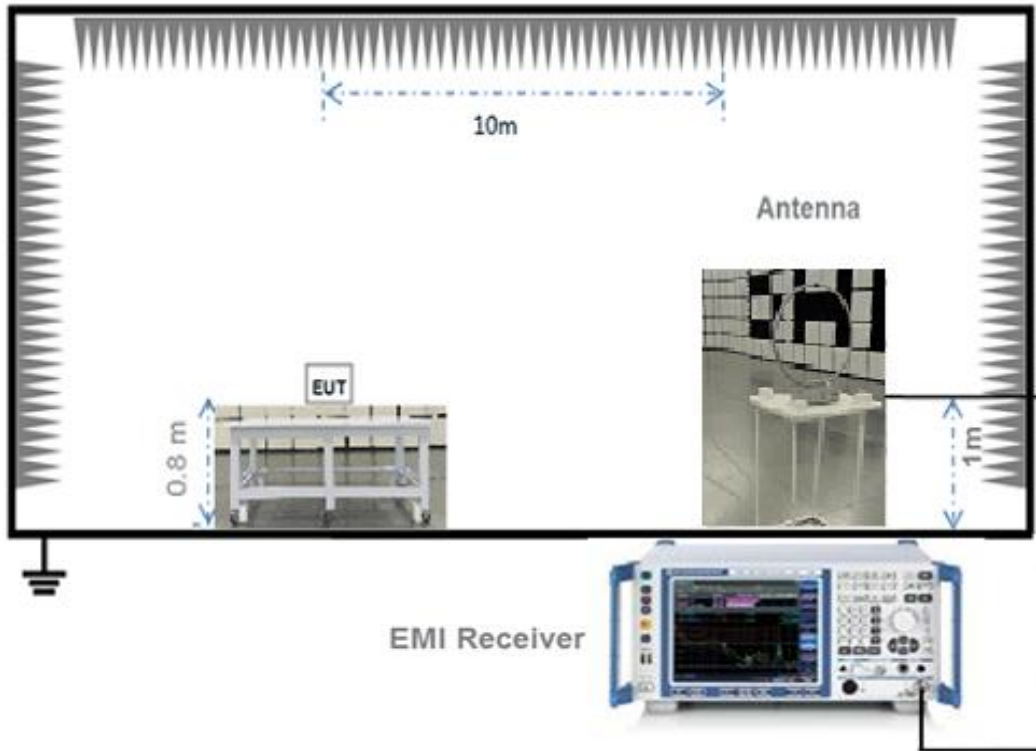
(Diagram 1)

4.4.2 For AC Power Supply Port Test



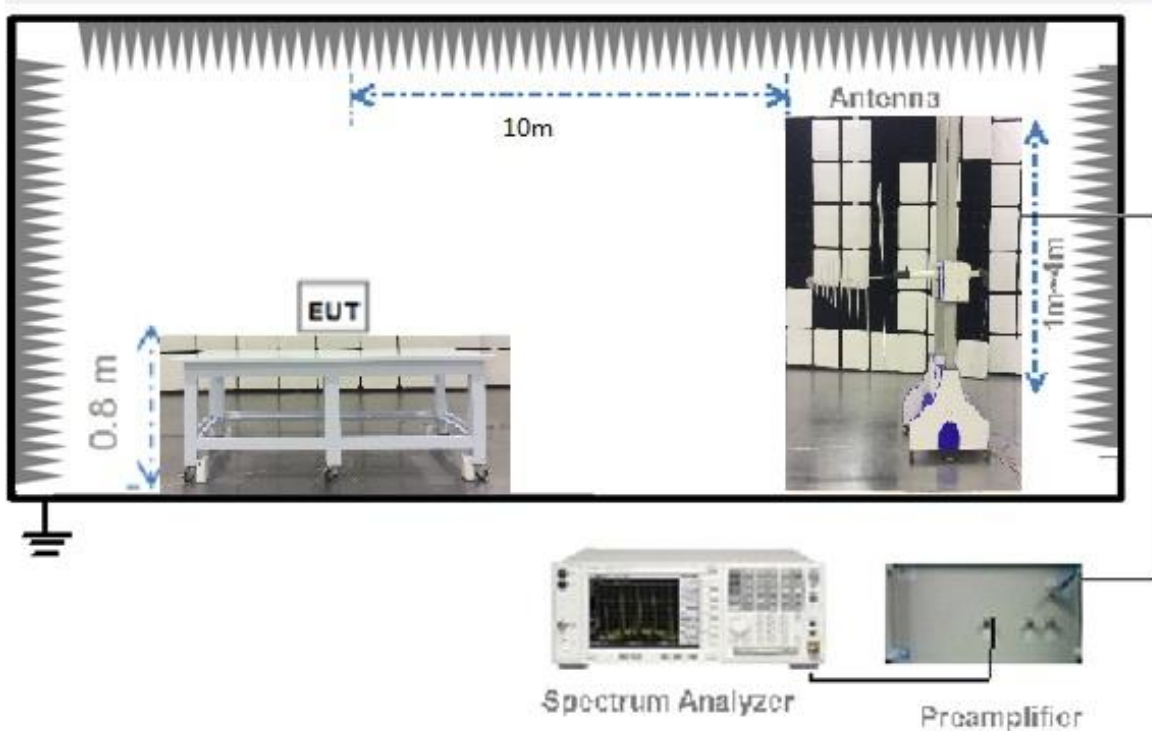
(Diagram 2)

4.4.3 For Radiated Test (Below 30 MHz)



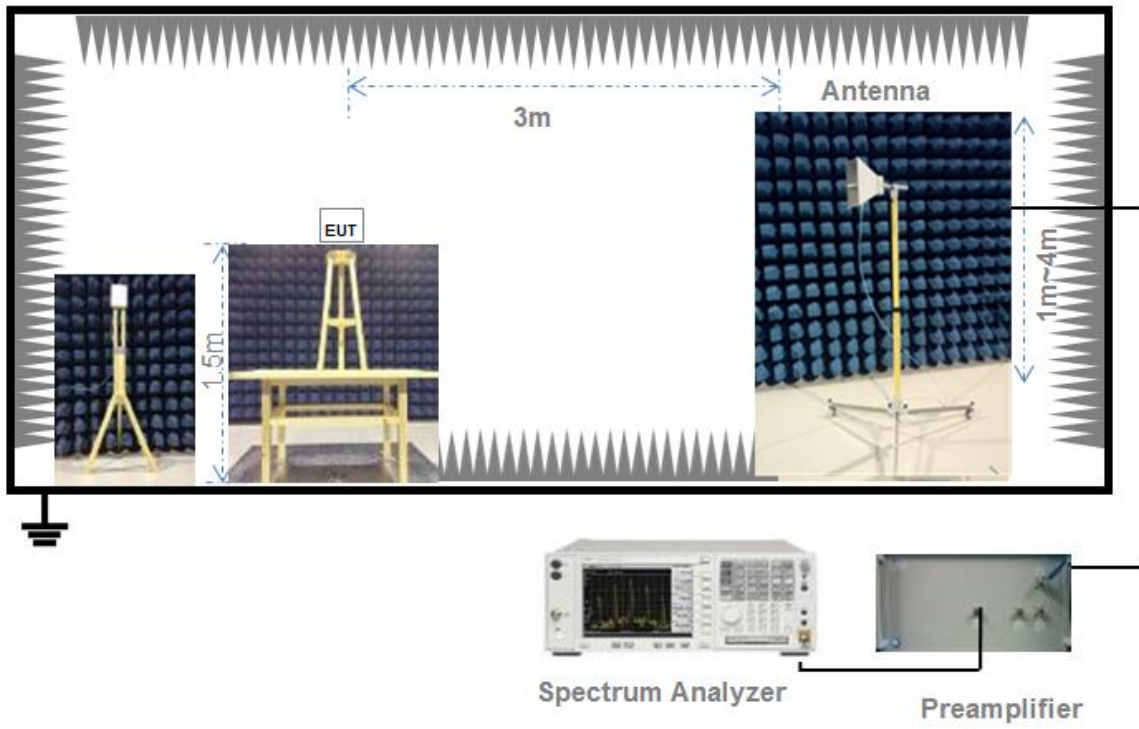
(Diagram 3)

4.4.4 For Radiated Test (30 MHz-1 GHz)



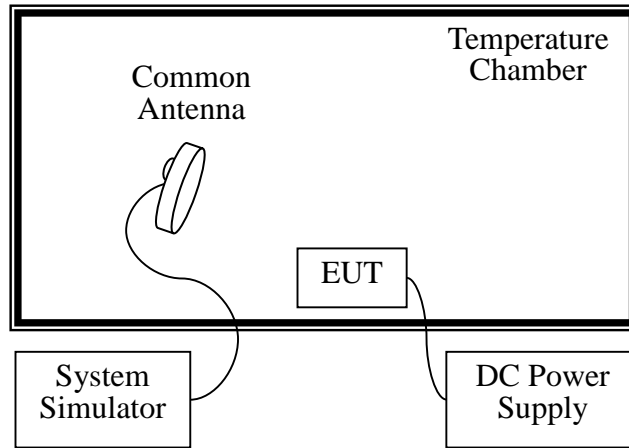
(Diagram 4)

4.4.5 For Radiated Test (Above 1 GHz)



(Diagram 5)

4.4.6 For Frequency Stability Test



(Diagram 6)

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
Note: Where "B" is the 99% emissions bandwidth in MHz.	

5.1.2 Test Setup

The section 4.4.1 (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

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

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 4.4.1 (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 $\geq 3 \times$ 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 $\geq 3 \times$ 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

5.3.2 Test Setup

The section 4.4.1 (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 $\geq 3 \times$ 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 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

5.4.2 Test Setup

The section 4.4.2 (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 Conducted Spurious Emission and Band Edge (Authorized-band)

5.5.1 Limit

FCC §15.407(b)

Un-restricted band emissions	
Frequency Band (MHz)	Limit
5150 - 5250	Outside of the 5.15-5.35 GHz band: e.i.r.p. -27 dBm
5250 - 5350	Outside of the 5.15-5.35 GHz band: e.i.r.p. -27 dBm
5470 - 5725	Outside of the 5.47-5.725 GHz band: e.i.r.p. -27 dBm
5725 - 5850	<p>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.</p>

RSS-247, 6.2

Un-restricted band emissions	
Frequency Band (MHz)	Limit
5150 - 5250	Outside of the 5.15-5.35 GHz band: e.i.r.p. -27 dBm, However, any unwanted emissions that fall into the band 5250-5350 MHz must be 26 dBc, when measured using a resolution bandwidth between 1 and 5% of the occupied bandwidth, above 5.25 GHz.
5250 - 5350	Outside of the 5.15-5.35 GHz band: e.i.r.p. -27 dBm. And any emissions within the band 5150-5250 MHz shall meet the power spectral density limits of 10 dBm/MHz, The device shall be labelled “for indoor use only.”
5470 - 5725	Outside of the 5.47-5.725 GHz band: e.i.r.p. -27 dBm
5725 - 5850	<p>5715 -5725 MHz: e.i.r.p. -17 dBm 5850 -5860 MHz: e.i.r.p. -17 dBm Other un-restricted band: e.i.r.p. -27 dBm</p>

5.5.2 Test Setup

See section 4.4.2 (Diagram 2) for test setup description for the antenna port. The photo of test setup please refer to ANNEX B.

5.5.3 Test Procedure

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.

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

Allow the trace to stabilize

5.5.4 Test Result

Please refer to ANNEX A.6.

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

5.6.1 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

Note¹: The Limit for radiated test was performed according to FCC Part 15C

Note²: 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	<p>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.</p>

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

5.6.2 Test Setup

The section 4.4.3-4.4.5 (Diagram 3 - Diagram 5) test setup description was used for this test. The photo of test

setup please refer to ANNEX B.

5.6.3 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 \leq 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 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 $\geq 3 \times$ RBW.
- e) Detector = RMS, if span/(# of points in sweep) \leq (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

5.6.4 Test Result

Please refer to ANNEX A.7 and Please refer to ANNEX A.9

5.7 Frequency Stability

5.7.1 Limit

FCC §15.407(g)

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

5.7.2 Test Setup

The section 4.4.6 (Diagram 6) test setup description was used for this test. The photo of test setup please refer to ANNEX B.

5.7.3 Test Procedure

The EUT is installed in an environment test chamber with external power source.

Set the chamber to operate at 50 centigrade and external power source to output at nominal voltage of EUT.

A sufficient stabilization period at each temperatures is used prior to each frequency measurement.

When temperature is stabled, measure the frequency stability.

The test shall be performed under -30 to 50 centigrade and 85 to 115 percent of the nominal voltage.

Change setting of chamber and external power source to complete all conditions.

5.7.4 Test Result

Please refer to ANNEX A.8.

ANNEX A TEST RESULT

A.1 RF Output Power

Note 1: 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.

Test Data

Conducted Power

Band I (5150 - 5250 MHz)						
Mode	Channel	Frequency (MHz)	Conducted Power (dBm)	Conducted Power (mW)	FCC Limit (mW)	Verdict
11a	CH36	5180	12.85	19.28	250.0	Pass
11a	CH44	5220	12.73	18.75	250.0	Pass
11a	CH48	5240	12.30	16.98	250.0	Pass
11n (HT20)	CH36	5180	12.84	19.23	250.0	Pass
11n (HT20)	CH44	5220	12.46	17.62	250.0	Pass
11n (HT20)	CH48	5240	12.34	17.14	250.0	Pass
11n (HT40)	CH38	5190	13.01	20.00	250.0	Pass
11n (HT40)	CH46	5230	12.42	17.46	250.0	Pass

Band IV (5725 - 5850 MHz)						
Mode	Channel	Frequency (MHz)	Conducted Power (dBm)	Conducted Power (mW)	FCC/IC Limit (W)	Verdict
11a	CH149	5745	12.61	18.24	1.00	Pass
11a	CH157	5785	12.21	16.63	1.00	Pass
11a	CH165	5825	11.92	15.56	1.00	Pass
11n (HT20)	CH149	5745	12.56	18.03	1.00	Pass
11n (HT20)	CH157	5785	12.25	16.79	1.00	Pass
11n (HT20)	CH165	5825	11.87	15.38	1.00	Pass
11n (HT40)	CH151	5755	12.83	19.19	1.00	Pass
11n (HT40)	CH159	5795	11.72	14.86	1.00	Pass

A.2 Emission Bandwidth & 99% Bandwidth

Note: Test plots please refer to the document "Annex No.: BL-SZ1840111-603 Data Part 1.pdf".

Test Data

Band I (5150 - 5250 MHz)				
Mode	Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
11a	CH36	5180	19.44	16.56
11a	CH44	5220	19.60	16.56
11a	CH48	5240	19.76	16.67
11n (HT20)	CH36	5180	19.88	17.60
11n (HT20)	CH44	5220	19.84	17.60
11n (HT20)	CH48	5240	19.80	17.60
11n (HT40)	CH38	5190	40.00	36.01
11n (HT40)	CH46	5230	40.20	36.24

Band IV (5725 - 5850 MHz)			
Mode	Channel	Frequency (MHz)	99% Bandwidth (MHz)
11a	CH149	5745	16.73
11a	CH157	5785	16.67
11a	CH165	5825	16.61
11n (HT20)	CH149	5745	17.60
11n (HT20)	CH157	5785	17.60
11n (HT20)	CH165	5825	17.60
11n (HT40)	CH151	5755	36.01
11n (HT40)	CH159	5795	36.12

A.3 6 dB Bandwidth

Note: Test plots please refer to the document "Annex No.: BL-SZ1840111-603 Data Part 2.pdf".

Test Data

Band IV (5725 - 5850 MHz)					
Mode	Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Limit (kHz)	Verdict
11a	CH149	5745	16.47	500	Pass
11a	CH157	5785	16.47	500	Pass
11a	CH165	5825	16.47	500	Pass
11n (HT20)	CH149	5745	17.67	500	Pass
11n (HT20)	CH157	5785	17.67	500	Pass
11n (HT20)	CH165	5825	17.67	500	Pass
11n (HT40)	CH151	5755	36.42	500	Pass
11n (HT40)	CH159	5795	36.42	500	Pass

A.4 Power Spectral Density

Note: Test plots please refer to the document "Annex No.: BL-SZ1840111-603 Data Part 3.pdf".

Test Data

Band I (5150 - 5250 MHz)					
Mode	Channel	Frequency (MHz)	PSD (dBm/MHz)	FCC Limit(dBm/MHz)	Verdict
11a	CH36	5180	9.53	11.0	Pass
11a	CH44	5220	9.86	11.0	Pass
11a	CH48	5240	8.73	11.0	Pass
11n (HT20)	CH36	5180	9.40	11.0	Pass
11n (HT20)	CH44	5220	9.26	11.0	Pass
11n (HT20)	CH48	5240	8.88	11.0	Pass
11n (HT40)	CH38	5190	6.26	11.0	Pass
11n (HT40)	CH46	5230	5.41	11.0	Pass

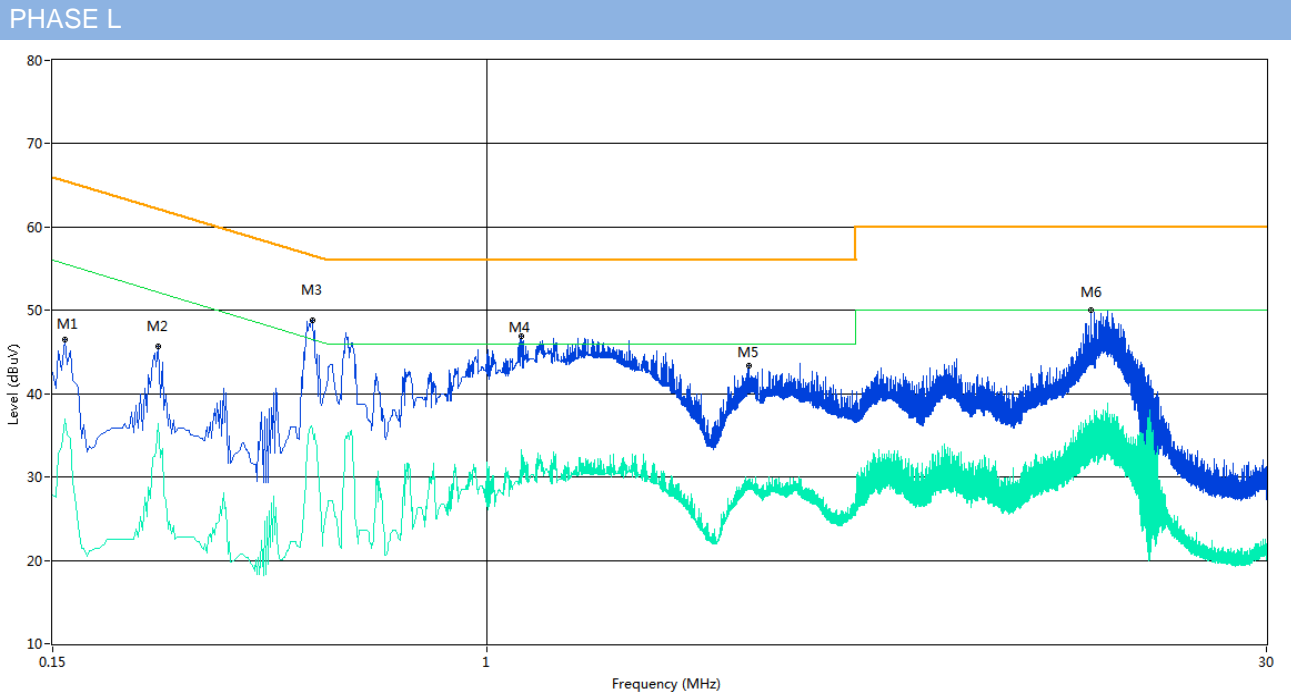
Band IV (5725 - 5850 MHz)					
Mode	Channel	Frequency (MHz)	PSD (dBm/MHz)	FCC/IC Limit(dBm/500 kHz)	Verdict
11a	CH149	5745	5.15	30	Pass
11a	CH157	5785	4.94	30	Pass
11a	CH165	5825	4.66	30	Pass
11n (HT20)	CH149	5745	5.35	30	Pass
11n (HT20)	CH157	5785	4.94	30	Pass
11n (HT20)	CH165	5825	4.71	30	Pass
11n (HT40)	CH151	5755	-2.01	30	Pass
11n (HT40)	CH159	5795	-3.18	30	Pass

A.5 Conducted Emissions

Note 1: The EUT is working in the Normal link mode.

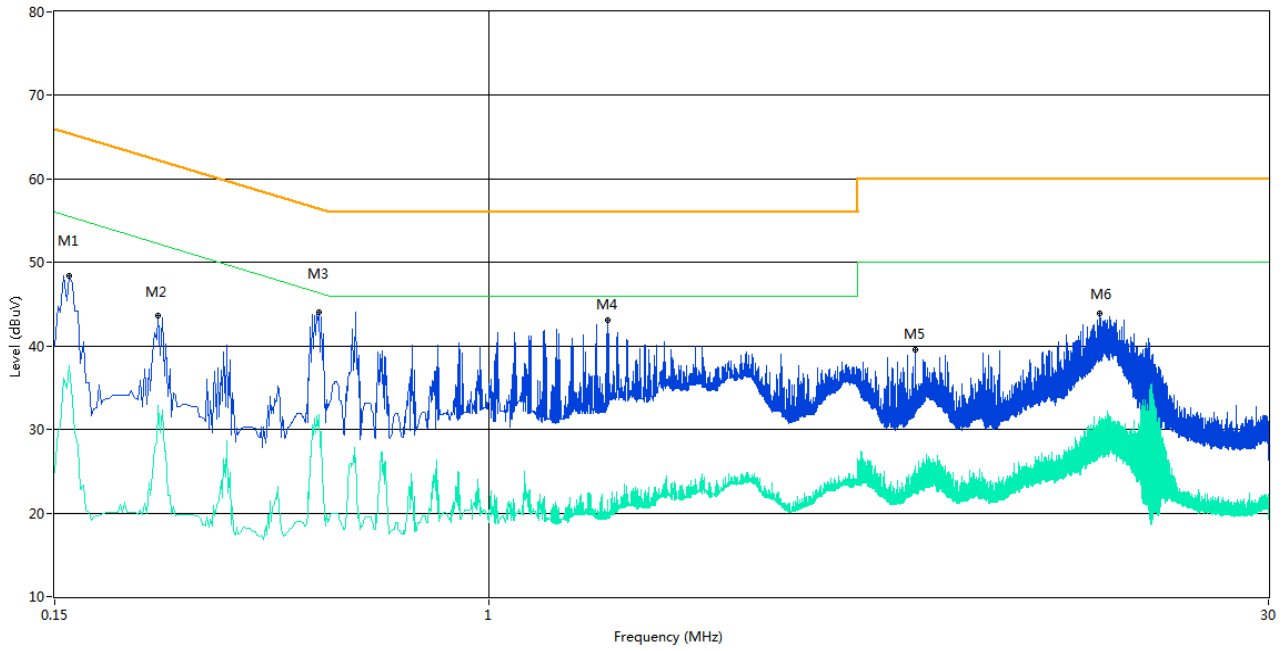
Note 2: Devices subject to Part 15 must be tested for all available U.S. voltages and frequencies (such as a nominal 120 VAC, 60 Hz and 240 VAC, 50 Hz) for which the device is capable of operation. So, The configuration 120 VAC, 60 Hz and 240 VAC, 50 Hz were tested respectively, but only the worst configuration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

Test Data and Plots



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.158	46.5	10.04	65.6	19.10	Peak	L Line	Pass
1**	0.158	37.0	10.04	55.6	18.60	AV	L Line	Pass
2	0.238	45.6	10.04	62.2	16.60	Peak	L Line	Pass
2**	0.238	36.4	10.04	52.2	15.80	AV	L Line	Pass
3	0.466	48.9	10.04	56.6	7.70	Peak	L Line	Pass
3**	0.466	35.9	10.04	46.6	10.70	AV	L Line	Pass
4	1.158	46.9	10.06	56.0	9.10	Peak	L Line	Pass
4**	1.158	32.1	10.06	46.0	13.90	AV	L Line	Pass
5	3.138	43.3	10.12	56.0	12.70	Peak	L Line	Pass
5**	3.138	29.2	10.12	46.0	16.80	AV	L Line	Pass
6	13.966	50.1	10.42	60.0	9.90	Peak	L Line	Pass
6**	13.966	29.6	10.42	50.0	20.40	AV	L Line	Pass

PHASE N



No.	Frequency (MHz)	Results (dBUV)	Factor (dB)	Limit (dBUV)	Margin (dB)	Detector	Line	Verdict
1	0.160	48.5	10.04	65.5	17.00	Peak	N Line	Pass
1**	0.160	37.6	10.04	55.5	17.90	AV	N Line	Pass
2	0.236	43.7	10.04	62.2	18.50	Peak	N Line	Pass
2**	0.236	32.9	10.04	52.2	19.30	AV	N Line	Pass
3	0.476	44.1	10.05	56.4	12.30	Peak	N Line	Pass
3**	0.476	31.9	10.05	46.4	14.50	AV	N Line	Pass
4	1.678	43.1	10.08	56.0	12.90	Peak	N Line	Pass
4**	1.678	21.5	10.08	46.0	24.50	AV	N Line	Pass
5	6.412	39.5	10.21	60.0	20.50	Peak	N Line	Pass
5**	6.412	25.2	10.21	50.0	24.80	AV	N Line	Pass
6	14.342	43.9	10.43	60.0	16.10	Peak	N Line	Pass
6**	14.342	29.8	10.43	50.0	20.20	AV	N Line	Pass

A.6 Conducted Spurious Emission and Band Edge (Authorized-band)

Note: Test plots please refer to the document “Annex No.: BL-SZ1840111-603 Data Part 4.pdf”.

Test Band	Mode	Channel	Verdict
Band I	802.11a	Low	Pass
		Middle	Pass
		High	Pass
	802.11n(HT20)	Low	Pass
		Middle	Pass
		High	Pass
	802.11n(HT40)	Low	Pass
		High	Pass
	Band IV	802.11a	Low
Middle			Pass
High			Pass
802.11n(HT20)		Low	Pass
		Middle	Pass
		High	Pass
802.11n(HT40)		Low	Pass
		High	Pass

A.7 Radiated Spurious Emissions and Band Edge (Restricted-band)

Test Data

Cabinet Radiated spurious emission test

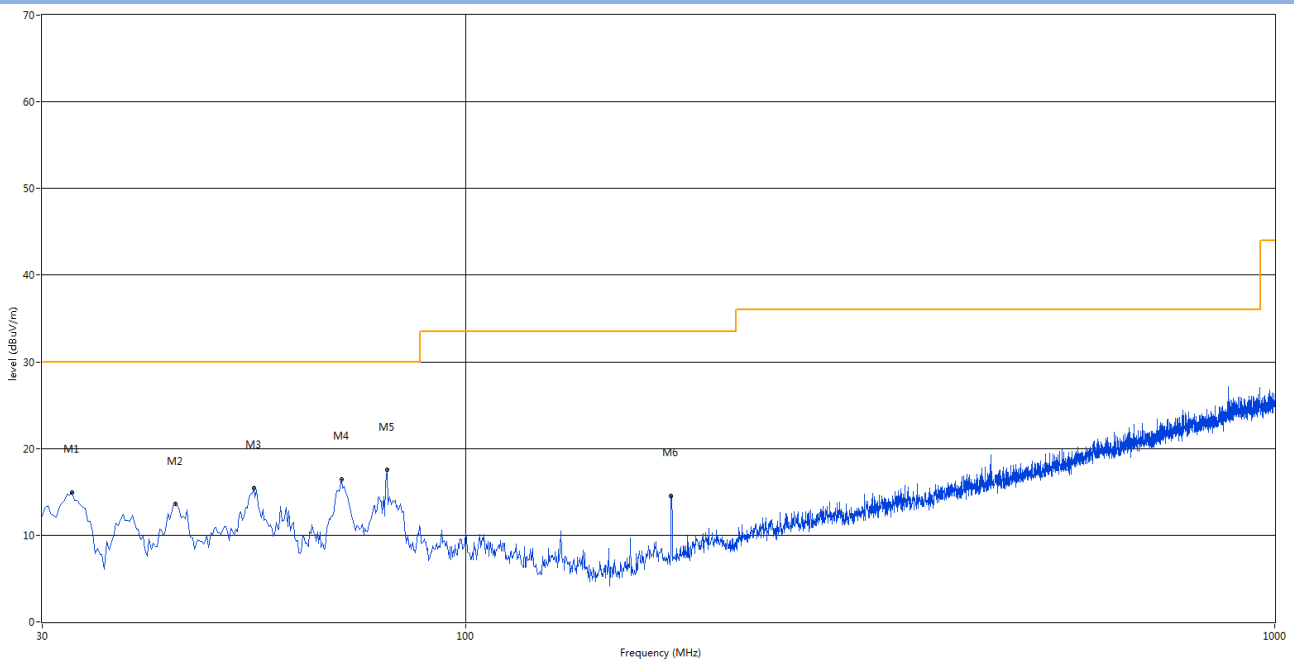
Note¹: The symbol of "--" in the table which means not application.

Note²: 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.

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.

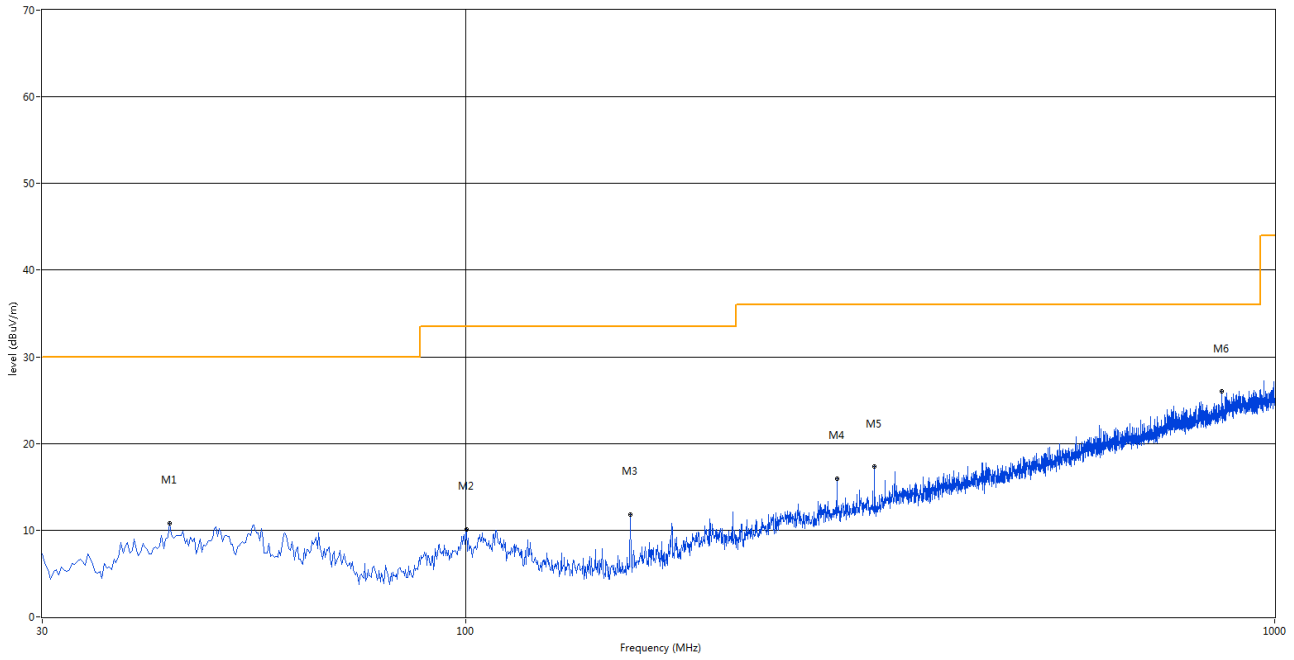
Note⁴: The EUT is working in the Normal link mode below 1 GHz.

30 MHz to 1 GHz, ANT V



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	32.667	14.96	-28.09	30.0	15.04	Peak	0.00	100	Vertical	Pass
2	43.822	13.60	-24.88	30.0	16.40	Peak	312.00	300	Vertical	Pass
3	54.735	15.48	-24.97	30.0	14.52	Peak	48.00	100	Vertical	Pass
4	70.255	16.48	-28.89	30.0	13.52	Peak	350.00	200	Vertical	Pass
5	79.955	17.51	-30.25	30.0	12.49	Peak	67.00	200	Vertical	Pass
6	179.622	14.55	-27.67	33.5	18.95	Peak	338.00	100	Vertical	Pass

30 MHz to 1 GHz, ANT H



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	43.095	10.81	-24.76	30.0	19.19	Peak	92.00	100	Horizontal	Pass
2	100.325	10.10	-26.25	33.5	23.40	Peak	268.00	100	Horizontal	Pass
3	159.738	11.84	-28.91	33.5	21.66	Peak	104.00	200	Horizontal	Pass
4	288.020	15.95	-22.86	36.0	20.05	Peak	155.00	200	Horizontal	Pass
5	320.030	17.34	-21.99	36.0	18.66	Peak	205.00	100	Horizontal	Pass
6	859.593	26.01	-11.36	36.0	9.99	Peak	268.00	100	Horizontal	Pass

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

1 GHz to 18 GHz, ANT V Band I 11a Low channel

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1**	1604.500	27.7	-17.18	54.0	26.30	AV	2.20	150	Vertical	Pass
1	1604.500	35.50	-17.18	74.0	38.50	Peak	2.20	150	Vertical	Pass
2**	2230.500	31.9	-12.24	54.0	22.10	AV	254.80	150	Vertical	Pass
2	2230.500	38.80	-12.24	74.0	35.20	Peak	254.80	150	Vertical	Pass
3**	4787.000	39.6	-4.74	54.0	14.40	AV	323.10	150	Vertical	Pass
3	4787.000	43.79	-4.74	74.0	30.21	Peak	323.10	150	Vertical	Pass
4**	5181.000	86.1	-3.43	--	-86.10	AV	195.40	150	Vertical	N/A
4	5181.000	90.39	-3.43	--	105.01	Peak	195.40	150	Vertical	N/A
5**	9116.000	43.1	15.54	54.0	10.90	AV	50.50	150	Vertical	Pass
5	9116.000	49.77	15.54	74.0	24.23	Peak	50.50	150	Vertical	Pass
6**	12668.063	46.2	17.52	54.0	7.80	AV	212.40	150	Vertical	Pass
6	12668.063	53.66	17.52	74.0	20.34	Peak	212.40	150	Vertical	Pass

1 GHz to 18 GHz, ANT H Band I 11a Low channel

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1**	1464.500	26.8	-16.60	54.0	27.20	AV	158.30	150	Horizontal	Pass
1	1464.500	35.41	-16.60	74.0	38.59	Peak	158.30	150	Horizontal	Pass
2**	2856.000	32.4	-8.89	54.0	21.60	AV	265.50	150	Horizontal	Pass
2	2856.000	40.42	-8.89	74.0	33.58	Peak	265.50	150	Horizontal	Pass
3**	4310.000	39.7	-6.30	54.0	14.30	AV	28.20	150	Horizontal	Pass
3	4310.000	44.18	-6.30	74.0	29.82	Peak	28.20	150	Horizontal	N/A
4**	5182.000	91.5	-3.47	--	-91.50	AV	116.40	150	Horizontal	N/A
4	5182.000	94.31	-3.47	--	22.09	Peak	116.40	150	Horizontal	Pass
5**	7661.250	41.9	13.37	54.0	12.10	AV	193.40	150	Horizontal	Pass
5	7661.250	48.55	13.37	74.0	25.45	Peak	193.40	150	Horizontal	Pass
6**	12423.687	47.4	17.28	54.0	6.60	AV	122.10	150	Horizontal	Pass
6	12423.687	53.10	17.28	74.0	20.90	Peak	122.10	150	Horizontal	Pass

1 GHz to 18 GHz, ANT V Band I 11a Middle channel

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1**	1521.000	26.7	-16.89	54.0	27.30	AV	304.20	150	Vertical	Pass
1	1521.000	34.53	-16.89	74.0	39.47	Peak	304.20	150	Vertical	Pass
2**	2284.000	31.0	-12.02	54.0	23.00	AV	87.90	150	Vertical	Pass
2	2284.000	39.00	-12.02	74.0	35.00	Peak	87.90	150	Vertical	Pass
3**	4747.000	39.5	-4.79	54.0	14.50	AV	51.90	150	Vertical	Pass
3	4747.000	44.34	-4.79	74.0	29.66	Peak	51.90	150	Vertical	Pass
4**	5220.000	87.8	-2.91	--	-87.80	AV	180.30	150	Vertical	N/A
4	5220.000	91.44	-2.91	--	88.86	Peak	180.30	150	Vertical	N/A
5**	9151.938	43.1	15.50	54.0	10.90	AV	26.10	150	Vertical	Pass
5	9151.938	49.53	15.50	74.0	24.47	Peak	26.10	150	Vertical	Pass
6**	12060.000	45.2	16.84	54.0	8.80	AV	162.30	150	Vertical	Pass
6	12060.000	53.48	16.84	74.0	20.52	Peak	162.30	150	Vertical	Pass

1 GHz to 18 GHz, ANT H Band I 11a Middle channel

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1**	1339.000	29.4	-16.21	54.0	24.60	AV	0.20	150	Horizontal	Pass
1	1339.000	34.47	-16.21	74.0	39.53	Peak	0.20	150	Horizontal	Pass
2**	2283.500	31.8	-12.03	54.0	22.20	AV	360.00	150	Horizontal	Pass
2	2283.500	39.18	-12.03	74.0	34.82	Peak	360.00	150	Horizontal	Pass
3**	4586.000	37.2	-5.34	54.0	16.80	AV	207.10	150	Horizontal	Pass
3	4586.000	44.03	-5.34	74.0	29.97	Peak	207.10	150	Horizontal	Pass
4**	5221.000	89.6	-2.88	--	-89.60	AV	134.80	150	Horizontal	N/A
4	5221.000	94.86	-2.88	--	39.94	Peak	134.80	150	Horizontal	N/A
5**	9113.125	44.4	15.55	54.0	9.60	AV	57.60	150	Horizontal	Pass
5	9113.125	50.37	15.55	74.0	23.63	Peak	57.60	150	Horizontal	Pass
6**	12578.938	45.8	18.11	54.0	8.20	AV	6.10	150	Horizontal	Pass
6	12578.938	52.55	18.11	74.0	21.45	Peak	6.10	150	Horizontal	Pass

1 GHz to 18 GHz, ANT V Band I 11a High channel

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1**	1674.000	27.0	-17.37	54.0	27.00	AV	151.10	150	Vertical	Pass
1	1674.000	36.08	-17.37	74.0	37.92	Peak	151.10	150	Vertical	Pass
2**	2364.000	31.3	-12.30	54.0	22.70	AV	151.10	150	Vertical	Pass
2	2364.000	38.73	-12.30	74.0	35.27	Peak	151.10	150	Vertical	Pass
3**	4656.000	37.9	-5.18	54.0	16.10	AV	166.60	150	Vertical	Pass
3	4656.000	43.49	-5.18	74.0	30.51	Peak	166.60	150	Vertical	Pass
4**	5239.000	86.7	-2.40	--	-86.70	AV	189.10	150	Vertical	N/A
4	5239.000	91.00	-2.40	--	98.10	Peak	189.10	150	Vertical	N/A
5**	9107.375	43.0	15.58	54.0	11.00	AV	185.60	150	Vertical	Pass
5	9107.375	50.27	15.58	74.0	23.73	Peak	185.60	150	Vertical	Pass
6**	12413.625	45.0	17.23	54.0	9.00	AV	250.70	150	Vertical	Pass
6	12413.625	53.24	17.23	74.0	20.76	Peak	250.70	150	Vertical	Pass

1 GHz to 18 GHz, ANT H Band I 11a High channel

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1**	1403.500	28.3	-16.48	54.0	25.70	AV	128.20	150	Horizontal	Pass
1	1403.500	35.65	-16.48	74.0	38.35	Peak	128.20	150	Horizontal	Pass
2**	2767.500	32.2	-9.77	54.0	21.80	AV	355.30	150	Horizontal	Pass
2	2767.500	40.60	-9.77	74.0	33.40	Peak	355.30	150	Horizontal	Pass
3**	4718.000	37.6	-5.33	54.0	16.40	AV	33.60	150	Horizontal	Pass
3	4718.000	44.32	-5.33	74.0	29.68	Peak	33.60	150	Horizontal	N/A
4**	5242.000	91.3	-2.37	--	-91.30	AV	271.00	150	Horizontal	N/A
4	5242.000	95.03	-2.37	--	175.97	Peak	271.00	150	Horizontal	Pass
5**	7340.687	41.5	13.92	54.0	12.50	AV	264.30	150	Horizontal	Pass
5	7340.687	48.23	13.92	74.0	25.77	Peak	264.30	150	Horizontal	Pass
6**	12589.000	47.0	17.89	54.0	7.00	AV	357.10	150	Horizontal	Pass
6	12589.000	53.99	17.89	74.0	20.01	Peak	357.10	150	Horizontal	Pass

1 GHz to 18 GHz, ANT V Band I 11n(HT20) Low channel

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1**	1357.500	26.7	-16.31	54.0	27.30	AV	334.90	150	Vertical	Pass
1	1357.500	34.97	-16.31	74.0	39.03	Peak	334.90	150	Vertical	Pass
2**	2338.000	31.0	-12.13	54.0	23.00	AV	247.20	150	Vertical	Pass
2	2338.000	39.11	-12.13	74.0	34.89	Peak	247.20	150	Vertical	Pass
3**	4709.000	38.4	-5.28	54.0	15.60	AV	308.20	150	Vertical	Pass
3	4709.000	44.10	-5.28	74.0	29.90	Peak	308.20	150	Vertical	Pass
4**	5181.000	85.8	-3.43	--	-85.80	AV	191.50	150	Vertical	N/A
4	5181.000	90.16	-3.43	--	101.34	Peak	191.50	150	Vertical	N/A
5**	8461.938	43.1	15.01	54.0	10.90	AV	101.50	150	Vertical	Pass
5	8461.938	48.17	15.01	74.0	25.83	Peak	101.50	150	Vertical	Pass
6**	12624.938	47.2	17.83	54.0	6.80	AV	0.60	150	Vertical	Pass
6	12624.938	53.90	17.83	74.0	20.10	Peak	0.60	150	Vertical	Pass

1 GHz to 18 GHz, ANT H Band I 11n(HT20) Low channel

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1**	2824.000	32.9	-9.72	54.0	21.10	AV	90.80	150	Horizontal	Pass
1	2824.000	39.97	-9.72	74.0	34.03	Peak	90.80	150	Horizontal	Pass
2**	4047.000	37.8	-7.14	54.0	16.20	AV	1.00	150	Horizontal	Pass
2	4047.000	41.94	-7.14	74.0	32.06	Peak	1.00	150	Horizontal	Pass
3**	4797.000	37.9	-4.78	54.0	16.10	AV	218.70	150	Horizontal	Pass
3	4797.000	45.15	-4.78	74.0	28.85	Peak	218.70	150	Horizontal	Pass
4**	5179.000	90.4	-3.39	--	-90.40	AV	130.20	150	Horizontal	N/A
4	5179.000	95.06	-3.39	--	35.14	Peak	130.20	150	Horizontal	N/A
5**	7691.438	43.7	14.08	54.0	10.30	AV	159.10	150	Horizontal	Pass
5	7691.438	48.96	14.08	74.0	25.04	Peak	159.10	150	Horizontal	Pass
6**	12528.625	47.0	16.96	54.0	7.00	AV	339.10	150	Horizontal	Pass
6	12528.625	52.92	16.96	74.0	21.08	Peak	339.10	150	Horizontal	Pass

1 GHz to 18 GHz, ANT V Band I 11n(HT20) Middle channel

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1**	1196.000	27.2	-16.40	54.0	26.80	AV	302.50	150	Vertical	Pass
1	1196.000	34.97	-16.40	74.0	39.03	Peak	302.50	150	Vertical	Pass
2**	2743.500	33.0	-10.28	54.0	21.00	AV	75.00	150	Vertical	Pass
2	2743.500	40.91	-10.28	74.0	33.09	Peak	75.00	150	Vertical	Pass
3**	4734.000	39.0	-5.13	54.0	15.00	AV	309.40	150	Vertical	Pass
3	4734.000	44.01	-5.13	74.0	29.99	Peak	309.40	150	Vertical	Pass
4**	5219.000	87.5	-2.93	--	-87.50	AV	188.60	150	Vertical	N/A
4	5219.000	90.92	-2.93	--	97.68	Peak	188.60	150	Vertical	N/A
5**	7336.375	43.4	13.92	54.0	10.60	AV	69.70	150	Vertical	Pass
5	7336.375	47.66	13.92	74.0	26.34	Peak	69.70	150	Vertical	Pass
6**	12415.062	45.9	17.24	54.0	8.10	AV	11.00	150	Vertical	Pass
6	12415.062	52.65	17.24	74.0	21.35	Peak	11.00	150	Vertical	Pass

1 GHz to 18 GHz, ANT H Band I 11n(HT20) Middle channel

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1**	1476.000	27.5	-16.91	54.0	26.50	AV	123.20	150	Horizontal	Pass
1	1476.000	34.89	-16.91	74.0	39.11	Peak	123.20	150	Horizontal	Pass
2**	2361.500	30.8	-12.31	54.0	23.20	AV	36.10	150	Horizontal	Pass
2	2361.500	38.88	-12.31	74.0	35.12	Peak	36.10	150	Horizontal	Pass
3**	4057.000	35.6	-7.26	54.0	18.40	AV	89.30	150	Horizontal	Pass
3	4057.000	42.28	-7.26	74.0	31.72	Peak	89.30	150	Horizontal	Pass
4**	5219.000	90.2	-2.93	--	-90.20	AV	138.80	150	Horizontal	N/A
4	5219.000	94.28	-2.93	--	44.52	Peak	138.80	150	Horizontal	N/A
5**	9085.813	42.5	15.68	54.0	11.50	AV	229.70	150	Horizontal	Pass
5	9085.813	49.75	15.68	74.0	24.25	Peak	229.70	150	Horizontal	Pass
6**	12566.000	47.2	17.74	54.0	6.80	AV	108.50	150	Horizontal	Pass
6	12566.000	53.14	17.74	74.0	20.86	Peak	108.50	150	Horizontal	Pass

1 GHz to 18 GHz, ANT V Band I 11n(HT20) High channel

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1**	1452.000	27.9	-16.56	54.0	26.10	AV	82.00	150	Vertical	Pass
1	1452.000	34.59	-16.56	74.0	39.41	Peak	82.00	150	Vertical	Pass
2**	2765.500	33.3	-9.87	54.0	20.70	AV	72.80	150	Vertical	Pass
2	2765.500	40.91	-9.87	74.0	33.09	Peak	72.80	150	Vertical	Pass
3**	3708.000	34.8	-7.84	54.0	19.20	AV	166.20	150	Vertical	Pass
3	3708.000	41.80	-7.84	74.0	32.20	Peak	166.20	150	Vertical	Pass
4**	5240.000	87.6	-2.36	--	-87.60	AV	27.40	150	Vertical	N/A
4	5240.000	90.80	-2.36	--	-63.40	Peak	27.40	150	Vertical	N/A
5**	7465.750	43.4	13.39	54.0	10.60	AV	354.40	150	Vertical	Pass
5	7465.750	48.61	13.39	74.0	25.39	Peak	354.40	150	Vertical	Pass
6**	12568.875	47.2	17.82	54.0	6.80	AV	271.40	150	Vertical	Pass
6	12568.875	53.05	17.82	74.0	20.95	Peak	271.40	150	Vertical	Pass

1 GHz to 18 GHz, ANT H Band I 11n(HT20) High channel

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1**	1506.500	27.3	-16.89	54.0	26.70	AV	313.10	150	Horizontal	Pass
1	1506.500	34.91	-16.89	74.0	39.09	Peak	313.10	150	Horizontal	Pass
2**	2766.000	33.1	-9.84	54.0	20.90	AV	322.90	150	Horizontal	Pass
2	2766.000	39.98	-9.84	74.0	34.02	Peak	322.90	150	Horizontal	Pass
3**	4711.000	37.4	-5.21	54.0	16.60	AV	240.90	150	Horizontal	Pass
3	4711.000	43.74	-5.21	74.0	30.26	Peak	240.90	150	Horizontal	Pass
4**	5241.000	89.7	-2.36	--	-89.70	AV	118.50	150	Horizontal	N/A
4	5241.000	95.05	-2.36	--	23.45	Peak	118.50	150	Horizontal	N/A
5**	9374.750	44.4	15.53	54.0	9.60	AV	173.30	150	Horizontal	Pass
5	9374.750	50.51	15.53	74.0	23.49	Peak	173.30	150	Horizontal	Pass
6**	12624.938	47.7	17.83	54.0	6.30	AV	205.30	150	Horizontal	Pass
6	12624.938	53.16	17.83	74.0	20.84	Peak	205.30	150	Horizontal	Pass

1 GHz to 18 GHz, ANT V Band I 11n(HT40) Low channel

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1**	1371.000	27.2	-16.47	54.0	26.80	AV	251.90	150	Vertical	Pass
1	1371.000	35.12	-16.47	74.0	38.88	Peak	251.90	150	Vertical	Pass
2**	2286.000	31.6	-12.02	54.0	22.40	AV	276.20	150	Vertical	Pass
2	2286.000	39.01	-12.02	74.0	34.99	Peak	276.20	150	Vertical	Pass
3**	5013.000	38.5	-4.44	54.0	15.50	AV	329.00	150	Vertical	Pass
3	5013.000	45.11	-4.44	74.0	28.89	Peak	329.00	150	Vertical	Pass
4**	5188.000	82.1	-3.48	--	-82.10	AV	4.10	150	Vertical	N/A
4	5188.000	86.43	-3.48	--	-82.33	Peak	4.10	150	Vertical	N/A
5**	9101.625	44.4	15.61	54.0	9.60	AV	283.70	150	Vertical	Pass
5	9101.625	49.37	15.61	74.0	24.63	Peak	283.70	150	Vertical	Pass
6**	12627.812	46.3	17.80	54.0	7.70	AV	72.30	150	Vertical	Pass
6	12627.812	52.67	17.80	74.0	21.33	Peak	72.30	150	Vertical	Pass

1 GHz to 18 GHz, ANT H Band I 11n(HT40) Low channel

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1**	1489.500	28.4	-16.89	54.0	25.60	AV	200.60	150	Horizontal	Pass
1	1489.500	35.12	-16.89	74.0	38.88	Peak	200.60	150	Horizontal	Pass
2**	2759.500	33.2	-10.13	54.0	20.80	AV	288.30	150	Horizontal	Pass
2	2759.500	40.01	-10.13	74.0	33.99	Peak	288.30	150	Horizontal	Pass
3**	4941.000	38.1	-4.59	54.0	15.90	AV	191.70	150	Horizontal	Pass
3	4941.000	44.47	-4.59	74.0	29.53	Peak	191.70	150	Horizontal	Pass
4**	5197.000	88.1	-3.31	--	-88.10	AV	108.70	150	Horizontal	N/A
4	5197.000	91.64	-3.31	--	17.06	Peak	108.70	150	Horizontal	N/A
5**	7659.812	41.1	13.38	54.0	12.90	AV	303.40	150	Horizontal	Pass
5	7659.812	48.16	13.38	74.0	25.84	Peak	303.40	150	Horizontal	Pass
6**	12577.500	47.9	18.07	54.0	6.10	AV	10.90	150	Horizontal	Pass
6	12577.500	53.67	18.07	74.0	20.33	Peak	10.90	150	Horizontal	Pass

1 GHz to 18 GHz, ANT V Band I 11n(HT40) High channel

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1**	1465.500	27.5	-16.60	54.0	26.50	AV	74.50	150	Vertical	Pass
1	1465.500	34.58	-16.60	74.0	39.42	Peak	74.50	150	Vertical	Pass
2**	2819.500	33.1	-9.68	54.0	20.90	AV	299.60	150	Vertical	Pass
2	2819.500	39.75	-9.68	74.0	34.25	Peak	299.60	150	Vertical	Pass
3**	4915.000	38.2	-4.38	54.0	15.80	AV	32.60	150	Vertical	Pass
3	4915.000	44.55	-4.38	74.0	29.45	Peak	32.60	150	Vertical	Pass
4**	5228.000	85.0	-2.67	--	-85.00	AV	154.50	150	Vertical	N/A
4	5228.000	88.57	-2.67	--	65.93	Peak	154.50	150	Vertical	N/A
5**	7628.188	41.0	13.80	54.0	13.00	AV	199.60	150	Vertical	Pass
5	7628.188	47.99	13.80	74.0	26.01	Peak	199.60	150	Vertical	Pass
6**	12610.562	46.9	17.74	54.0	7.10	AV	244.40	150	Vertical	Pass
6	12610.562	53.19	17.74	74.0	20.81	Peak	244.40	150	Vertical	Pass

1 GHz to 18 GHz, ANT H Band I 11n(HT40) High channel

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1**	1543.000	26.6	-16.87	54.0	27.40	AV	60.80	150	Horizontal	Pass
1	1543.000	34.89	-16.87	74.0	39.11	Peak	60.80	150	Horizontal	Pass
2**	2833.500	32.7	-9.36	54.0	21.30	AV	152.70	150	Horizontal	Pass
2	2833.500	40.33	-9.36	74.0	33.67	Peak	152.70	150	Horizontal	Pass
3**	4743.000	38.8	-4.97	54.0	15.20	AV	270.30	150	Horizontal	Pass
3	4743.000	43.81	-4.97	74.0	30.19	Peak	270.30	150	Horizontal	Pass
4**	5237.000	88.9	-2.43	--	-88.90	AV	121.00	150	Horizontal	N/A
4	5237.000	92.49	-2.43	--	28.51	Peak	121.00	150	Horizontal	N/A
5**	8492.125	41.5	14.90	54.0	12.50	AV	75.30	150	Horizontal	Pass
5	8492.125	48.34	14.90	74.0	25.66	Peak	75.30	150	Horizontal	Pass
6**	12587.563	46.4	17.93	54.0	7.60	AV	172.40	150	Horizontal	Pass
6	12587.563	53.06	17.93	74.0	20.94	Peak	172.40	150	Horizontal	Pass

1 GHz to 18 GHz, ANT V Band IV 11a Low channel

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1**	1343.000	27.7	-16.27	54.0	26.30	AV	287.00	150	Vertical	Pass
1	1343.000	35.37	-16.27	74.0	38.63	Peak	287.00	150	Vertical	Pass
2**	4025.000	38.0	-7.20	54.0	16.00	AV	360.00	150	Vertical	Pass
2	4025.000	42.40	-7.20	74.0	31.60	Peak	360.00	150	Vertical	Pass
3**	5746.000	79.4	-2.38	--	-79.40	AV	27.40	150	Vertical	N/A
3	5746.000	84.74	-2.38	--	-57.34	Peak	27.40	150	Vertical	N/A
4**	7585.062	42.5	13.60	54.0	11.50	AV	78.80	150	Vertical	Pass
4	7585.062	47.76	13.60	74.0	26.24	Peak	78.80	150	Vertical	Pass
5**	12456.750	47.0	17.10	54.0	7.00	AV	360.00	150	Vertical	Pass
5	12456.750	53.34	17.10	74.0	20.66	Peak	360.00	150	Vertical	Pass
6**	16070.625	43.9	17.09	54.0	10.10	AV	206.10	150	Vertical	Pass
6	16070.625	49.73	17.09	74.0	24.27	Peak	206.10	150	Vertical	Pass

1 GHz to 18 GHz, ANT H Band IV 11a Low channel

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1**	1483.500	27.6	-17.02	54.0	26.40	AV	198.70	150	Horizontal	Pass
1	1483.500	35.40	-17.02	74.0	38.60	Peak	198.70	150	Horizontal	Pass
2**	2995.500	33.3	-8.79	--	-33.30	AV	282.70	150	Horizontal	Pass
2	2995.500	41.28	-8.79	68.2	26.92	Peak	282.70	150	Horizontal	Pass
3**	5743.000	84.6	-2.35	--	-84.60	AV	132.10	150	Horizontal	N/A
3	5743.000	88.96	-2.35	--	43.14	Peak	132.10	150	Horizontal	N/A
4**	7610.937	42.6	14.02	54.0	11.40	AV	0.20	150	Horizontal	Pass
4	7610.937	48.55	14.02	74.0	25.45	Peak	0.20	150	Horizontal	Pass
5**	12058.563	46.4	16.83	54.0	7.60	AV	360.00	150	Horizontal	Pass
5	12058.563	53.15	16.83	74.0	20.85	Peak	360.00	150	Horizontal	Pass
6**	16889.625	45.8	17.45	--	-45.80	AV	159.40	150	Horizontal	Pass
6	16889.625	50.55	17.45	68.2	17.65	Peak	159.40	150	Horizontal	Pass

1 GHz to 18 GHz, ANT V Band IV 11a Middle channel

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1**	1495.000	27.6	-16.96	54.0	26.40	AV	0.10	150	Vertical	Pass
1	1495.000	34.94	-16.96	74.0	39.06	Peak	0.10	150	Vertical	Pass
2**	2810.000	33.0	-10.10	54.0	21.00	AV	144.90	150	Vertical	Pass
2	2810.000	40.64	-10.10	74.0	33.36	Peak	144.90	150	Vertical	Pass
3**	5784.000	80.3	-2.54	--	-80.30	AV	8.50	150	Vertical	N/A
3	5784.000	84.16	-2.54	--	-75.66	Peak	8.50	150	Vertical	N/A
4**	7550.562	42.6	13.38	54.0	11.40	AV	147.50	150	Vertical	Pass
4	7550.562	48.20	13.38	74.0	25.80	Peak	147.50	150	Vertical	Pass
5**	11824.250	45.8	16.53	54.0	8.20	AV	56.80	150	Vertical	Pass
5	11824.250	51.43	16.53	74.0	22.57	Peak	56.80	150	Vertical	Pass
6**	15755.625	42.6	16.92	54.0	11.40	AV	63.90	150	Vertical	Pass
6	15755.625	49.34	16.92	74.0	24.66	Peak	63.90	150	Vertical	Pass

1 GHz to 18 GHz, ANT H Band IV 11a Middle channel

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1**	1449.500	27.3	-16.60	54.0	26.70	AV	100.60	150	Horizontal	Pass
1	1449.500	35.36	-16.60	74.0	38.64	Peak	100.60	150	Horizontal	Pass
2**	3946.000	36.4	-6.88	54.0	17.60	AV	352.90	150	Horizontal	Pass
2	3946.000	41.80	-6.88	74.0	32.20	Peak	352.90	150	Horizontal	Pass
3**	5786.000	84.0	-2.47	--	-84.00	AV	132.30	150	Horizontal	N/A
3	5786.000	88.33	-2.47	--	43.97	Peak	132.30	150	Horizontal	N/A
4**	8177.312	39.8	14.18	54.0	14.20	AV	20.00	150	Horizontal	Pass
4	8177.312	47.55	14.18	74.0	26.45	Peak	20.00	150	Horizontal	Pass
5**	11771.062	45.7	16.52	54.0	8.30	AV	46.10	150	Horizontal	Pass
5	11771.062	51.01	16.52	74.0	22.99	Peak	46.10	150	Horizontal	Pass
6**	16595.625	44.3	17.71	--	-44.30	AV	254.30	150	Horizontal	Pass
6	16595.625	50.98	17.71	68.2	17.22	Peak	254.30	150	Horizontal	Pass

1 GHz to 18 GHz, ANT V Band IV 11a High channel

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1**	1450.500	27.4	-16.58	54.0	26.60	AV	109.40	150	Vertical	Pass
1	1450.500	35.04	-16.58	74.0	38.96	Peak	109.40	150	Vertical	Pass
2**	4017.000	38.3	-7.15	54.0	15.70	AV	126.50	150	Vertical	Pass
2	4017.000	42.63	-7.15	74.0	31.37	Peak	126.50	150	Vertical	Pass
3**	5827.000	81.3	-2.74	--	-81.30	AV	15.60	150	Vertical	N/A
3	5827.000	83.65	-2.74	--	-68.05	Peak	15.60	150	Vertical	N/A
4**	7593.688	42.6	13.83	54.0	11.40	AV	321.70	150	Vertical	Pass
4	7593.688	48.13	13.83	74.0	25.87	Peak	321.70	150	Vertical	Pass
5**	11949.312	45.8	16.66	54.0	8.20	AV	153.90	150	Vertical	Pass
5	11949.312	52.29	16.66	74.0	21.71	Peak	153.90	150	Vertical	Pass
6**	16880.437	44.0	17.72	--	-44.00	AV	52.20	150	Vertical	Pass
6	16880.437	51.58	17.72	68.2	16.62	Peak	52.20	150	Vertical	Pass

1 GHz to 18 GHz, ANT H Band IV 11a High channel

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1**	1388.500	27.4	-16.38	54.0	26.60	AV	360.00	150	Horizontal	Pass
1	1388.500	35.48	-16.38	74.0	38.52	Peak	360.00	150	Horizontal	Pass
2**	4303.000	36.3	-6.40	54.0	17.70	AV	237.90	150	Horizontal	Pass
2	4303.000	42.72	-6.40	74.0	31.28	Peak	237.90	150	Horizontal	Pass
3**	5827.000	83.4	-2.74	--	-83.40	AV	132.40	150	Horizontal	N/A
3	5827.000	87.21	-2.74	--	45.19	Peak	132.40	150	Horizontal	N/A
4**	7442.750	43.3	13.39	54.0	10.70	AV	1.30	150	Horizontal	Pass
4	7442.750	47.77	13.39	74.0	26.23	Peak	1.30	150	Horizontal	Pass
5**	12095.938	45.8	16.63	54.0	8.20	AV	147.30	150	Horizontal	Pass
5	12095.938	51.61	16.63	74.0	22.39	Peak	147.30	150	Horizontal	Pass
6**	16922.438	44.4	17.25	--	-44.40	AV	2.60	150	Horizontal	Pass
6	16922.438	51.07	17.25	68.2	17.13	Peak	2.60	150	Horizontal	Pass

1 GHz to 18 GHz, ANT V Band IV 11n(HT20) Low channel

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1**	1587.500	27.7	-17.29	54.0	26.30	AV	61.20	150	Vertical	Pass
1	1587.500	34.89	-17.29	74.0	39.11	Peak	61.20	150	Vertical	Pass
2**	4767.000	39.5	-4.47	54.0	14.50	AV	281.10	150	Vertical	Pass
2	4767.000	43.78	-4.47	74.0	30.22	Peak	281.10	150	Vertical	Pass
3**	5746.000	81.4	-2.38	--	-81.40	AV	26.70	150	Vertical	N/A
3	5746.000	84.99	-2.38	--	-58.29	Peak	26.70	150	Vertical	N/A
4**	8121.250	40.5	13.80	54.0	13.50	AV	199.50	150	Vertical	Pass
4	8121.250	48.06	13.80	74.0	25.94	Peak	199.50	150	Vertical	Pass
5**	12104.563	45.5	16.60	54.0	8.50	AV	114.80	150	Vertical	Pass
5	12104.563	51.59	16.60	74.0	22.41	Peak	114.80	150	Vertical	Pass
6**	16568.063	46.2	17.57	--	-46.20	AV	166.80	150	Vertical	Pass
6	16568.063	51.01	17.57	68.2	17.19	Peak	166.80	150	Vertical	Pass

1 GHz to 18 GHz, ANT H Band IV 11n(HT20) Low channel

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1**	1500.500	27.3	-16.91	54.0	26.70	AV	303.90	150	Horizontal	Pass
1	1500.500	35.25	-16.91	74.0	38.75	Peak	303.90	150	Horizontal	Pass
2**	4110.000	35.4	-6.77	54.0	18.60	AV	297.40	150	Horizontal	Pass
2	4110.000	41.03	-6.77	74.0	32.97	Peak	297.40	150	Horizontal	Pass
3**	5746.000	85.0	-2.38	--	-85.00	AV	125.30	150	Horizontal	N/A
3	5746.000	89.22	-2.38	--	36.08	Peak	125.30	150	Horizontal	Pass
4**	8309.562	41.5	14.18	54.0	12.50	AV	270.90	150	Horizontal	Pass
4	8309.562	47.71	14.18	74.0	26.29	Peak	270.90	150	Horizontal	Pass
5**	11821.375	44.5	16.52	54.0	9.50	AV	2.80	150	Horizontal	Pass
5	11821.375	51.68	16.52	74.0	22.32	Peak	2.80	150	Horizontal	Pass
6**	15764.813	42.2	16.79	54.0	11.80	AV	360.00	150	Horizontal	Pass
6	15764.813	49.93	16.79	74.0	24.07	Peak	360.00	150	Horizontal	Pass

1 GHz to 18 GHz, ANT V Band IV 11n(HT20) Middle channel

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1**	1392.000	27.2	-16.31	54.0	26.80	AV	7.80	150	Vertical	Pass
1	1392.000	35.57	-16.31	74.0	38.43	Peak	7.80	150	Vertical	Pass
2**	3810.000	34.9	-7.27	54.0	19.10	AV	149.90	150	Vertical	Pass
2	3810.000	42.38	-7.27	74.0	31.62	Peak	149.90	150	Vertical	Pass
3**	5784.000	80.2	-2.54	--	-80.20	AV	16.30	150	Vertical	N/A
3	5784.000	84.54	-2.54	--	-68.24	Peak	16.30	150	Vertical	N/A
4**	7488.750	44.1	13.51	54.0	9.90	AV	1.40	150	Vertical	Pass
4	7488.750	48.01	13.51	74.0	25.99	Peak	1.40	150	Vertical	Pass
5**	11923.438	44.7	16.53	54.0	9.30	AV	256.60	150	Vertical	Pass
5	11923.438	51.56	16.53	74.0	22.44	Peak	256.60	150	Vertical	Pass
6**	16612.688	44.6	17.32	--	-44.60	AV	110.90	150	Vertical	Pass
6	16612.688	51.57	17.32	68.2	16.63	Peak	110.90	150	Vertical	Pass

1 GHz to 18 GHz, ANT H Band IV 11n(HT20) Middle channel

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1**	1364.000	28.4	-16.34	54.0	25.60	AV	283.30	150	Horizontal	Pass
1	1364.000	35.96	-16.34	74.0	38.04	Peak	283.30	150	Horizontal	Pass
2**	4023.000	38.0	-7.13	54.0	16.00	AV	337.70	150	Horizontal	Pass
2	4023.000	42.15	-7.13	74.0	31.85	Peak	337.70	150	Horizontal	Pass
3**	5786.000	84.4	-2.47	--	-84.40	AV	237.80	150	Horizontal	N/A
3	5786.000	88.13	-2.47	--	149.67	Peak	237.80	150	Horizontal	N/A
4**	7631.063	42.6	13.89	54.0	11.40	AV	62.20	150	Horizontal	Pass
4	7631.063	48.32	13.89	74.0	25.68	Peak	62.20	150	Horizontal	Pass
5**	11929.187	44.9	16.53	54.0	9.10	AV	0.00	150	Horizontal	Pass
5	11929.187	52.09	16.53	74.0	21.91	Peak	0.00	150	Horizontal	Pass
6**	16556.250	45.9	17.52	--	-45.90	AV	334.90	150	Horizontal	Pass
6	16556.250	50.35	17.52	68.2	17.85	Peak	334.90	150	Horizontal	Pass

1 GHz to 18 GHz, ANT V Band IV 11n(HT20) High channel

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1**	1411.500	28.2	-16.56	54.0	25.80	AV	323.50	150	Vertical	Pass
1	1411.500	35.36	-16.56	74.0	38.64	Peak	323.50	150	Vertical	Pass
2**	2613.500	33.6	-10.95	--	-33.60	AV	253.60	150	Vertical	Pass
2	2613.500	43.53	-10.95	68.2	24.67	Peak	253.60	150	Vertical	Pass
3**	5824.000	79.7	-2.80	--	-79.70	AV	38.60	150	Vertical	N/A
3	5824.000	83.37	-2.80	--	-44.77	Peak	38.60	150	Vertical	N/A
4**	7671.312	43.1	13.75	54.0	10.90	AV	202.40	150	Vertical	Pass
4	7671.312	49.56	13.75	74.0	24.44	Peak	202.40	150	Vertical	Pass
5**	12095.938	46.3	16.63	54.0	7.70	AV	39.90	150	Vertical	Pass
5	12095.938	52.13	16.63	74.0	21.87	Peak	39.90	150	Vertical	Pass
6**	16603.500	46.4	17.68	--	-46.40	AV	321.40	150	Vertical	Pass
6	16603.500	51.03	17.68	68.2	17.17	Peak	321.40	150	Vertical	Pass

1 GHz to 18 GHz, ANT H Band IV 11n(HT20) High channel

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1**	1597.500	28.1	-17.17	54.0	25.90	AV	230.00	150	Horizontal	Pass
1	1597.500	35.56	-17.17	74.0	38.44	Peak	230.00	150	Horizontal	Pass
2**	4060.000	35.4	-7.25	54.0	18.60	AV	104.30	150	Horizontal	Pass
2	4060.000	41.75	-7.25	74.0	32.25	Peak	104.30	150	Horizontal	Pass
3**	5824.000	83.9	-2.80	--	-83.90	AV	132.00	150	Horizontal	N/A
3	5824.000	88.16	-2.80	--	43.84	Peak	132.00	150	Horizontal	N/A
4**	7685.687	42.5	14.14	54.0	11.50	AV	335.40	150	Horizontal	Pass
4	7685.687	48.36	14.14	74.0	25.64	Peak	335.40	150	Horizontal	Pass
5**	12576.062	47.1	18.03	54.0	6.90	AV	1.30	150	Horizontal	Pass
5	12576.062	53.89	18.03	74.0	20.11	Peak	1.30	150	Horizontal	Pass
6**	16943.438	44.5	17.28	--	-44.50	AV	356.80	150	Horizontal	Pass
6	16943.438	51.02	17.28	68.2	17.18	Peak	356.80	150	Horizontal	Pass

1 GHz to 18 GHz, ANT V Band IV 11n(HT40) Low channel

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1**	1560.500	27.4	-17.11	54.0	26.60	AV	57.50	150	Vertical	Pass
1	1560.500	34.70	-17.11	74.0	39.30	Peak	57.50	150	Vertical	Pass
2**	3838.000	36.0	-7.19	54.0	18.00	AV	360.00	150	Vertical	Pass
2	3838.000	40.88	-7.19	74.0	33.12	Peak	360.00	150	Vertical	Pass
3**	5761.000	77.2	-2.61	--	-77.20	AV	21.70	150	Vertical	N/A
3	5761.000	81.49	-2.61	--	-59.79	Peak	21.70	150	Vertical	N/A
4**	7609.500	40.6	13.95	54.0	13.40	AV	0.00	150	Vertical	Pass
4	7609.500	47.97	13.95	74.0	26.03	Peak	0.00	150	Vertical	Pass
5**	12068.625	46.5	16.71	54.0	7.50	AV	147.10	150	Vertical	Pass
5	12068.625	52.21	16.71	74.0	21.79	Peak	147.10	150	Vertical	Pass
6**	16919.812	44.6	17.23	--	-44.60	AV	334.00	150	Vertical	Pass
6	16919.812	51.28	17.23	68.2	16.92	Peak	334.00	150	Vertical	Pass

1 GHz to 18 GHz, ANT H Band IV 11n(HT40) Low channel

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1**	1520.000	27.3	-16.86	54.0	26.70	AV	358.10	150	Horizontal	Pass
1	1520.000	35.54	-16.86	74.0	38.46	Peak	358.10	150	Horizontal	Pass
2**	4021.000	38.9	-7.15	54.0	15.10	AV	356.00	150	Horizontal	Pass
2	4021.000	42.79	-7.15	74.0	31.21	Peak	356.00	150	Horizontal	Pass
3**	5751.000	81.4	-2.48	--	-81.40	AV	127.40	150	Horizontal	N/A
3	5751.000	85.87	-2.48	--	41.53	Peak	127.40	150	Horizontal	N/A
4**	7682.812	41.5	14.07	54.0	12.50	AV	43.90	150	Horizontal	Pass
4	7682.812	47.99	14.07	74.0	26.01	Peak	43.90	150	Horizontal	Pass
5**	12461.062	46.2	17.04	54.0	7.80	AV	107.90	150	Horizontal	Pass
5	12461.062	52.83	17.04	74.0	21.17	Peak	107.90	150	Horizontal	Pass
6**	16638.937	45.2	17.89	--	-45.20	AV	29.30	150	Horizontal	Pass
6	16638.937	50.85	17.89	68.2	17.35	Peak	29.30	150	Horizontal	Pass

1 GHz to 18 GHz, ANT V Band IV 11n(HT40) High channel

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1**	1491.500	27.4	-16.86	54.0	26.60	AV	120.30	150	Vertical	Pass
1	1491.500	35.05	-16.86	74.0	38.95	Peak	120.30	150	Vertical	Pass
2**	3949.000	36.2	-6.85	54.0	17.80	AV	215.20	150	Vertical	Pass
2	3949.000	41.49	-6.85	74.0	32.51	Peak	215.20	150	Vertical	Pass
3**	5789.000	76.2	-2.55	--	-76.20	AV	21.40	150	Vertical	N/A
3	5789.000	80.73	-2.55	--	-59.33	Peak	21.40	150	Vertical	N/A
4**	8457.625	41.3	14.93	54.0	12.70	AV	102.00	150	Vertical	Pass
4	8457.625	48.69	14.93	74.0	25.31	Peak	102.00	150	Vertical	Pass
5**	11907.625	45.0	16.52	54.0	9.00	AV	108.70	150	Vertical	Pass
5	11907.625	51.77	16.52	74.0	22.23	Peak	108.70	150	Vertical	Pass
6**	16894.875	44.9	17.30	--	-44.90	AV	239.30	150	Vertical	Pass
6	16894.875	51.40	17.30	68.2	16.80	Peak	239.30	150	Vertical	Pass

1 GHz to 18 GHz, ANT H Band IV 11n(HT40) High channel

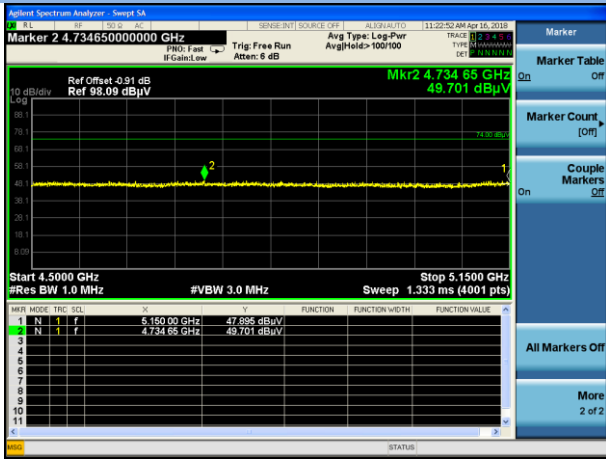
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1**	1521.000	27.0	-16.89	54.0	27.00	AV	287.90	150	Horizontal	Pass
1	1521.000	34.56	-16.89	74.0	39.44	Peak	287.90	150	Horizontal	Pass
2**	4332.000	35.9	-6.46	54.0	18.10	AV	2.30	150	Horizontal	Pass
2	4332.000	42.56	-6.46	74.0	31.44	Peak	2.30	150	Horizontal	Pass
3**	5793.000	81.4	-2.57	--	-81.40	AV	275.50	150	Horizontal	N/A
3	5793.000	85.27	-2.57	--	190.23	Peak	275.50	150	Horizontal	N/A
4**	8135.625	41.6	14.07	54.0	12.40	AV	307.90	150	Horizontal	Pass
4	8135.625	47.74	14.07	74.0	26.26	Peak	307.90	150	Horizontal	Pass
5**	11906.187	45.4	16.52	54.0	8.60	AV	146.30	150	Horizontal	Pass
5	11906.187	51.68	16.52	74.0	22.32	Peak	146.30	150	Horizontal	Pass
6**	15961.687	42.4	16.48	54.0	11.60	AV	159.40	150	Horizontal	Pass
6	15961.687	50.26	16.48	74.0	23.74	Peak	159.40	150	Horizontal	Pass

A.7.2 Band Edge (Restricted-band)

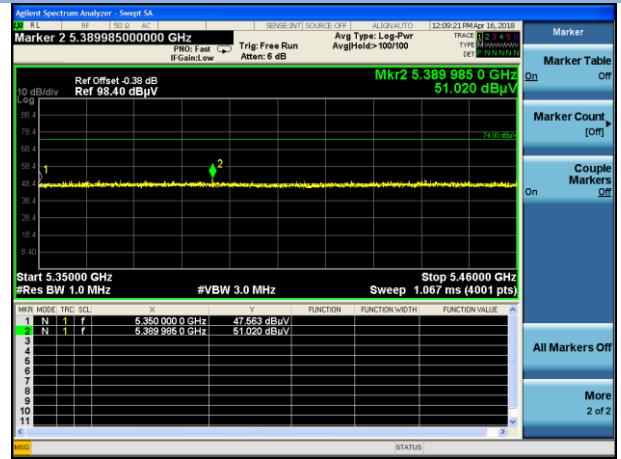
Test Band	Mode	Channel	Verdict
Band I	802.11a	Low	Pass
		High	Pass
	802.11n(HT20)	Low	Pass
		High	Pass
	802.11n(HT40)	Low	Pass
		High	Pass
Band IV	802.11a	Low	Pass
		High	Pass
	802.11n(HT20)	Low	Pass
		High	Pass
	802.11n(HT40)	Low	Pass
		High	Pass

Test Plots

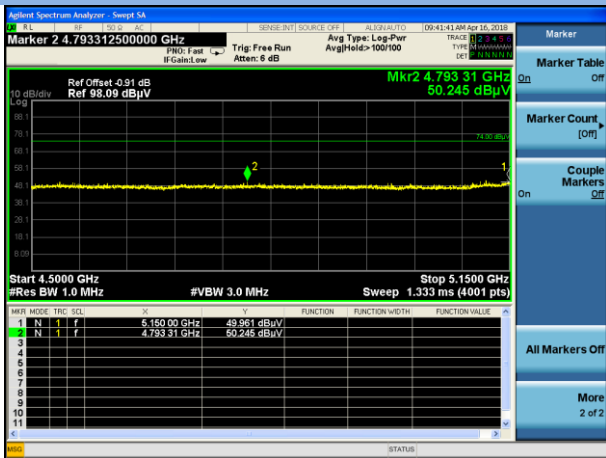
Band I 11a Low channel, PEAK



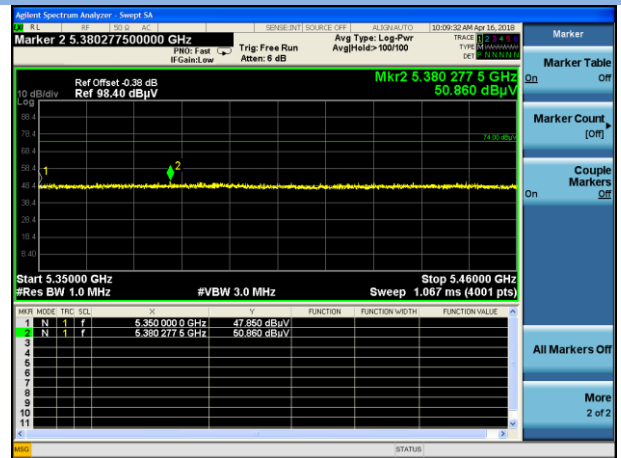
Band I 11a High channel, PEAK



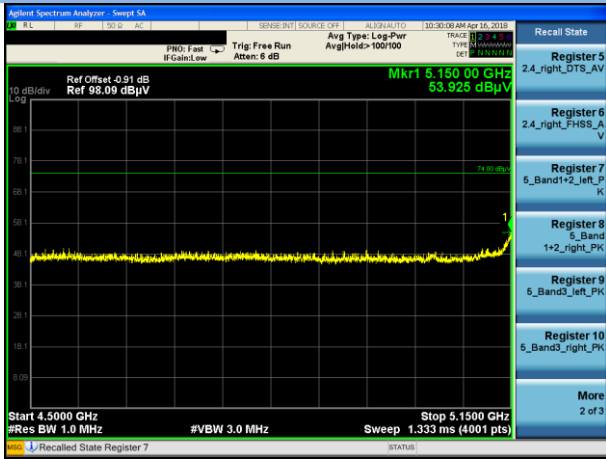
Band I 11n(HT20) Low channel, PEAK



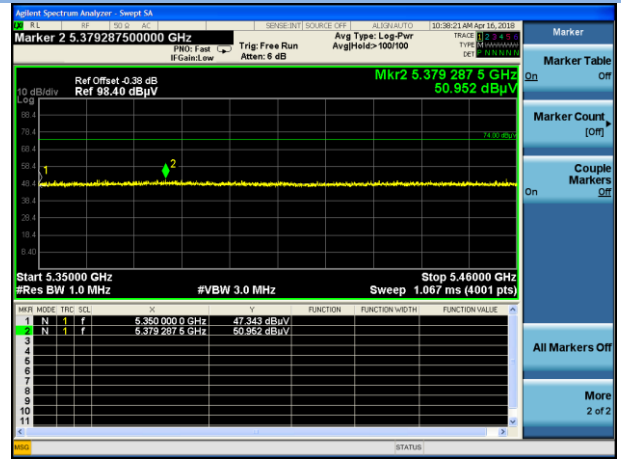
Band I 11n(HT20) High channel, PEAK



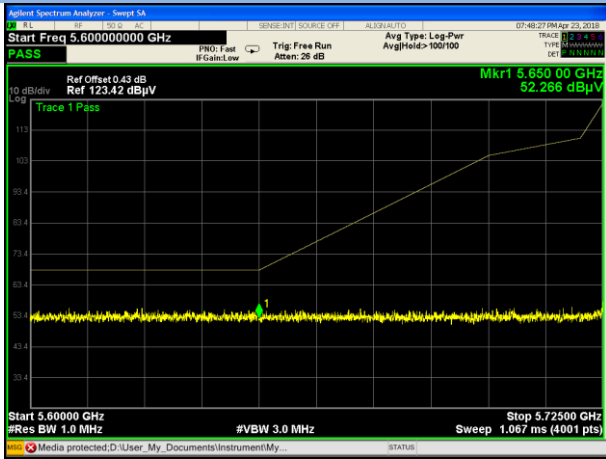
Band I 11n(HT40) Low channel, PEAK



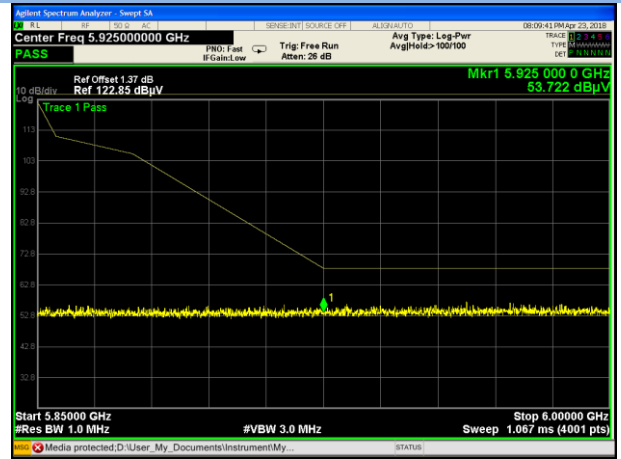
Band I 11n(HT40) High channel, PEAK



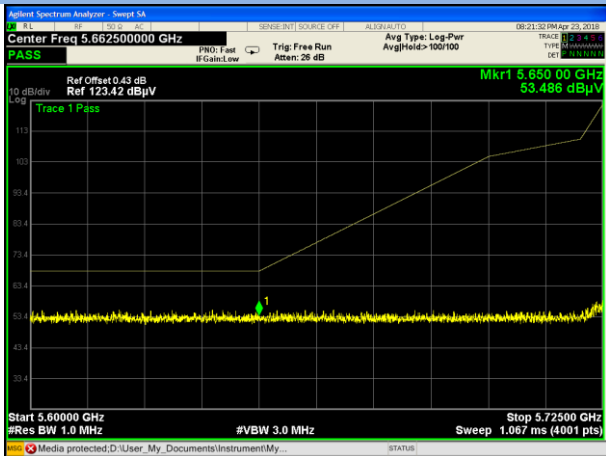
Band IV 11a Low channel, PEAK



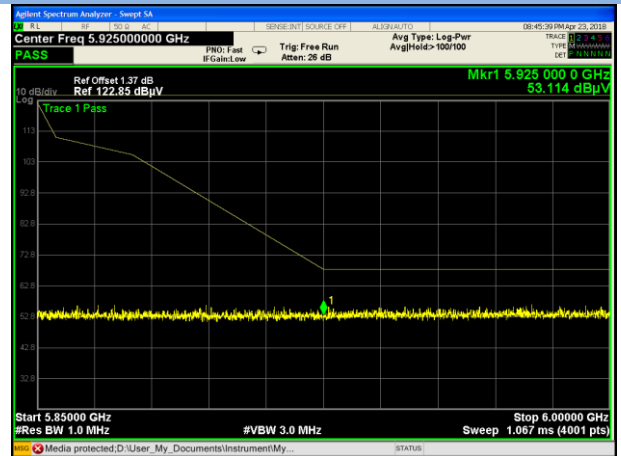
Band IV 11a High channel, PEAK



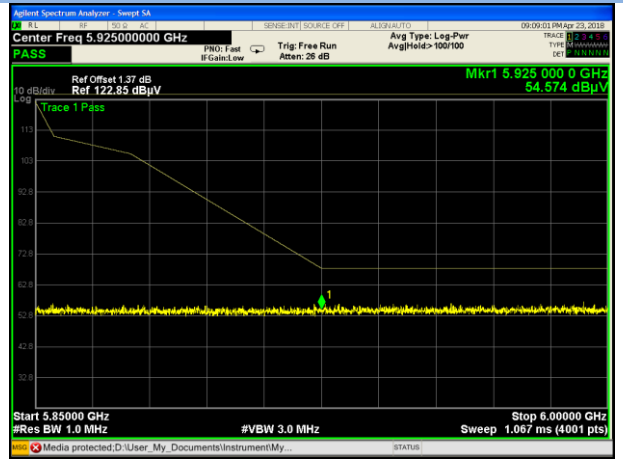
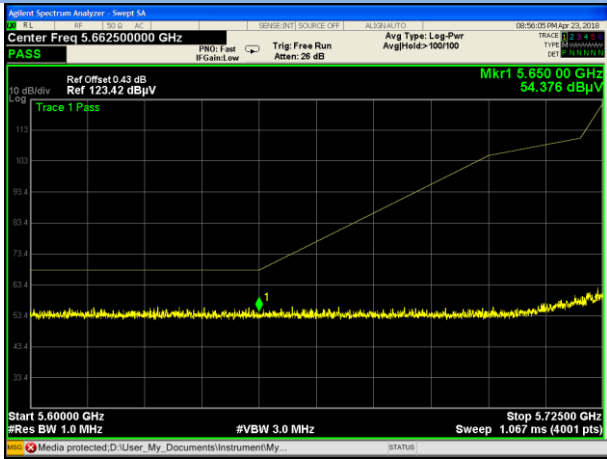
Band IV 11n(HT20) Low channel, PEAK



Band IV 11n(HT20) High channel, PEAK



Band IV 11n(HT40) Low channel, PEAK Band IV 11n(HT40) High channel, PEAK



A.8 Frequency Stability

Voltage vs. Frequency Stability (5180 MHz)

Test Conditions		Test Frequency (MHz)	0 Minute		2 Minute		5 Minute		10Minute	
TEMP. (°C)	Voltage (VDC)		Measurement Frequency (MHz)	Max. Deviation (ppm)	Measurement Frequency (MHz)	Max. Deviation (ppm)	Measurement Frequency (MHz)	Max. Deviation (ppm)	Measurement Frequency (MHz)	Max. Deviation (ppm)
20	3.40	5180	5180.0795 16	15.35	5180.066 408	12.82	5180.094 753	18.29	5180.053 522	10.33
	3.85	5180	5180.0367 83	7.10	5180.092 308	17.82	5180.027 218	5.25	5180.047 574	9.18
	4.40	5180	5180.0070 46	1.36	5180.086 128	16.63	5180.063 91	12.34	5180.047 625	9.19

Temperature vs. Frequency Stability (5180 MHz)

Test Conditions		Test Frequency (MHz)	0 Minute		2 Minute		5 Minute		10Minute	
Voltage (VDC)	TEMP. (°C)		Measurement Frequency (MHz)	Max. Deviation (ppm)	Measurement Frequency (MHz)	Max. Deviation (ppm)	Measurement Frequency (MHz)	Max. Deviation (ppm)	Measurement Frequency (MHz)	Max. Deviation (ppm)
3.85	-30	5180	5180.0138 88	2.68	5180.037 884	7.31	5180.064 235	12.40	5180.037 414	7.22
	-20	5180	5180.0376 64	7.27	5180.100 282	19.36	5180.065 132	12.57	5180.077 108	14.89
	-10	5180	5180.0259 26	5.00	5180.044 216	8.54	5180.010 476	2.02	5180.093 661	18.08
	0	5180	5180.0380 96	7.35	5180.058 719	11.34	5180.078 433	15.14	5180.040 746	7.87
	10	5180	5180.0974 57	18.81	5180.087 662	16.92	5180.091 134	17.59	5180.011 813	2.28
	20	5180	5180.0098 44	1.90	5180.085 866	16.58	5180.075 72	14.62	5180.065 329	12.61
	30	5180	5180.0158 47	3.06	5180.042 366	8.18	5180.047 137	9.10	5180.065 027	12.55
	40	5180	5180.0477 43	9.22	5180.055 596	10.73	5180.091 384	17.64	5180.048 523	9.37
	50	5180	5180.1026 98	19.83	5180.087 475	16.89	5180.096 883	18.70	5180.012 734	2.46

Voltage vs. Frequency Stability (5745 MHz)

Test Conditions		Test Frequency (MHz)	0 Minute		2 Minute		5 Minute		10Minute	
TEMP. (°C)	Voltage (VDC)		Measurement Frequency (MHz)	Max. Deviation (ppm)	Measurement Frequency (MHz)	Max. Deviation (ppm)	Measurement Frequency (MHz)	Max. Deviation (ppm)	Measurement Frequency (MHz)	Max. Deviation (ppm)
20	3.40	5745	5745.00694	1.21	5745.09335	16.25	5745.030087	5.24	5745.030659	5.34
	3.85	5745	5745.09103	15.85	5745.044322	7.71	5745.091117	15.86	5745.030181	5.25
	4.40	5745	5745.081265	14.15	5745.097691	17.00	5745.071047	12.37	5745.023444	4.08

Temperature vs. Frequency Stability (5745 MHz)

Test Conditions		Test Frequency (MHz)	0 Minute		2 Minute		5 Minute		10Minute	
Voltage (VDC)	TEMP. (°C)		Measurement Frequency (MHz)	Max. Deviation (ppm)	Measurement Frequency (MHz)	Max. Deviation (ppm)	Measurement Frequency (MHz)	Max. Deviation (ppm)	Measurement Frequency (MHz)	Max. Deviation (ppm)
3.85	-30	5745	5745.014964	2.60	5745.04329	7.54	5745.045493	7.92	5745.05432	9.46
	-20	5745	5745.092177	16.04	5745.040218	7.00	5745.08857	15.42	5745.090738	15.79
	-10	5745	5745.083063	14.46	5745.093058	16.20	5745.06178	10.75	5745.080377	13.99
	0	5745	5745.053027	9.23	5745.095228	16.58	5745.00748	1.30	5745.056911	9.91
	10	5745	5745.080566	14.02	5745.066159	11.52	5745.071829	12.50	5745.056174	9.78
	20	5745	5745.081915	14.26	5745.070532	12.28	5745.068785	11.97	5745.088351	15.38
	30	5745	5745.088771	15.45	5745.101015	17.58	5745.04957	8.63	5745.102832	17.90
	40	5745	5745.085521	14.89	5745.075095	13.07	5745.014715	2.56	5745.086834	15.11
	50	5745	5745.097925	17.05	5745.092096	16.03	5745.03815	6.64	5745.049209	8.57

ANNEX B TEST SETUP PHOTOS

Please refer the document "BL-SZ1840111-AR.PDF".

ANNEX C EUT EXTERNAL PHOTOS

Please refer the document "BL-SZ1840111-AW.PDF".

ANNEX D EUT INTERNAL PHOTOS

Please refer the document "BL-SZ1840111-AI.PDF".

--END OF REPORT--