

ISSUED BY
Shenzhen BALUN Technology Co., Ltd.



FOR

### **Smart POS Terminal**

ISSUED TO
NEW POS TECHNOLOGY LIMITED

14/A, Financial Technology Building, Financial & Technology Building, No.11, Keyuan Rd, Nanshan District, ShenZhen, China





Report No.:

BL-SZ1840038-604

EUT Name:

Smart POS Terminal

Model Name:

NEW9210 NEWPOS

Brand Name: Test Standard:

47 CFR Part 15 Subpart E

FCC ID:

WAL9210

Test Conclusion:

Pass

Test Date:

Apr. 10, 2018 ~ Apr. 16, 2018

Date of Issue:

Jun. 11, 2018

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## **Revision History**

VersionIssue DateRevisions ContentRev. 01Jun. 11, 2018Initial Issue

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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.
	Block B, 1st FL, Baisha Science and Technology Park, Shahe Xi Road,
Address	Nanshan District, Shenzhen, Guangdong Province, P. R. China
	The laboratory has been listed by Industry Canada to perform
	electromagnetic emission measurements. The recognition numbers of
	test site are 11524A-1.
	The laboratory is a testing organization accredited by FCC as a
Accreditation	accredited testing laboratory. The designation number is CN1196.
Certificate	The laboratory is a testing organization accredited by American
Certificate	Association for Laboratory Accreditation(A2LA) according to ISO/IEC
	17025.The accreditation certificate is 4344.01.
	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.
	All measurement facilities used to collect the measurement data are
Description	located at Block B, FL 1, Baisha Science and Technology Park, Shahe
Description	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	NEW POS TECHNOLOGY LIMITED
Addroop	14/A, Financial Technology Building, Financial & Technology
Address	Building, No.11, Keyuan Rd, Nanshan District, ShenZhen, China

## 2.2 Manufacturer

Manu	facturer	NEW POS TECHNOLOGY LIMITED
^ ddro		14/A, Financial Technology Building, Financial & Technology
Addre	Address	Building, No.11, Keyuan Rd, Nanshan District, ShenZhen, China

## 2.3 Factory

Factory	NEW POS TECHNOLOGY LIMITED DONGGUAN BRANCH, China
Addross	No.8 Xintoulong Rd, Pingshan 188 Industry District, Tangxia Town,
Address	Dongguan, China

# 2.4 General Description for Equipment under Test (EUT)

EUT Name	Smart POS Terminal
Model Name Under Test	NEW9210
Series Model Name	N/A
Description of Model	N/A
name differentiation	IN/A
Hardware Version	N0000H30225E0
Software Version	V1.0.1
Dimensions (Approx.)	N/A
Weight (Approx.)	N/A



# 2.5 Ancillary Equipment

	Battery	
	Brand Name	IES
	Model No.	IS928
Ancillary Equipment 1	Serial No.	N/A
	Capacity	2600 mAh
	Rated Voltage	7.2 V
	Limit Charge Voltage	8.4 V
	Adapter	
	Brand Name	<b>企 監禁通</b>
Ancillary Equipment 2	Model No.	ADS-12AM-06 05010EPG
	Serial No.	N/A
	Rated Input	100-240 V~, 0.3 A, 50/60 Hz
	Rated Output	5 V= 2 A



# 2.6 Technical Information

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

Frequency Range	Band I: 5150 MHz to 5250 MHz,	
r requeries rearige	Band IV: 5725 MHz to 5850 MHz	
	☐ Mobile	
Product Type	□ Portable	
	Fix Location	
Modulation technology	OFDM	
Modulation Type	64QAM, 16QAM, BPSK, QPSK	
Droduct Type	Indoor for IC standard	
Product Type	Mobile and portable for FCC standard	
Transfer Rate (Mbps) (Single	802.11a: 54/ 48/ 36 / 24 / 18/12 / 9/ 6 Mbps	
RF path)	802.11n: up to 150 Mbps	
Channel Bandwidth	802.11a: 20 MHz	
Chame Bandwidth	802.11n: 20 MHz, 40 MHz	
Maximum Output Davier	Band I: 16.45 dBm	
Maximum Output Power	Band IV: 18.37 dBm	
Antenna System (eg., MIMO,	AL/A	
Smart Antenna)	N/A	
Categorization as Correlated	NI/A	
or Completely Uncorrelated	N/A	
Antenna Type	PIFA Antenna	
Antonna Cain	Band I: 5150 MHz to 5250 MHz: 1.5 dBi	
Antenna Gain	Band IV: 5725 MHz to 5850 MHz: 1.5 dBi	
About the Draduat	The equipment is Smart POS Terminal, intended for used	
About the Product	with information technology equipment.	



### 2.7 Additional Instructions

	Special software is used.
Mode	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:

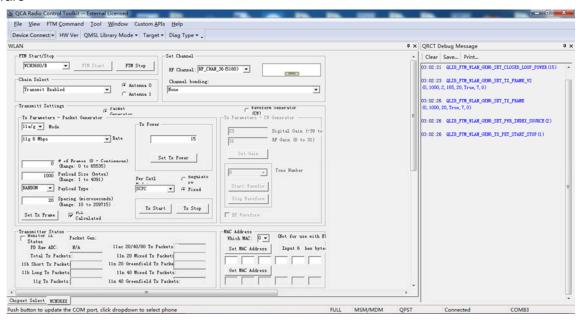
Test Software Version	QRCT3			
Support Units	Description	Manufacturer	Model	
(Software installation media)	Laptop	Lenovo	X220	

Band I (5150 - 5250 MHz ) Power level setup in software						
Mode	Channel	Frequency (MHz) Soft Set				
11a	CH36	5180	13.0			
11a	CH44	5220	13.0			
11a	CH48	5240	13.0			
11n (HT20)	CH36	5180	13.5			
11n (HT20)	CH44	5220	13.5			
11n (HT20)	CH48	5240	13.0			
11n (HT40)	CH38	5190	13.0			
11n (HT40)	CH46	5230	13.0			

Band IV (5725 - 5850 MHz) Power level setup in software						
Mode	Channel	nel Frequency (MHz) Soft Set				
11a	CH149	5745	13.0			
11a	CH157	5785	13.0			
11a	CH165	5825	13.0			
11n (HT20)	CH149	5745	13.5			
11n (HT20)	CH157	5785	13.5			
11n (HT20)	CH165	5825	13.0			
11n (HT40)	CH151	5755	13.0			
11n (HT40)	CH159	5795	13.0			



### Run Software





### 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 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 Channel	Band IV Channel
	11a	6	Турс	48/44/36	165/157/149
RF Output Power	11n(20 MHz)	6.5	BPSK	48/44/36	165/157/149
Ni Output Fower	11n(20 MHz)	13.5	Di Oit	46/38	159/151
Fraissian Dandwidth	` '	6			165/157/149
Emission Bandwidth	11a		, ppour	48/44/36	
& 99% Occupied	11n(20 MHz)	6.5	BPSK	48/44/36	165/157/149
Bandwidth	11n(40 MHz)	13.5		46/38	159/151
6 dB bandwidth	11a	6		N/A	165/157/149
	11n(20 MHz)	6.5	BPSK	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
	11a	6		48/44/36	165/157/149
Conducted Spurious	11n(20 MHz)	6.5		48/44/36	165/157/149
Emission and Band Edge (Authorized-band)	11n(40 MHz)	13.5	BPSK	46/38	159/151
5 " / 10 .	11a	6		48/44/36	165/157/149
Radiated Spurious Emissions	11n(20 MHz)	6.5	BPSK	48/44/36	165/157/149
EIIIISSIOIIS	11n(40 MHz)	13.5		46/38	159/151
	11a	6		48/36	165/149
Band Edge (Restricted-	11n(20 MHz)	6.5	BPSK	48/36	165/149
band)	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	Unlicensed National Information Infrastructure Devices		
'	(10-1-16 Edition)	Officerised National Information infrastructure Devices		
2	KDB Publication	Guidelines for Compliance Testing of Unlicensed National		
2	789033 D02v01r04	Information Infrastructure (U-NII) Devices Part 15, Subpart E		
2	ANSI C63.10-2013	American National Standard for Testing Unlicensed Wireless		
3	ANSI 003. 10-2013	Devices		

## 3.2 Verdict

No.	Description	FCC Part No.	Test Result	Verdict
1	Antenna Requirement	15.203		Pass <sup>Note1</sup>
2	RF Output Power	15.407(a)	ANNEX A.1	Pass
3	Emission Bandwidth	15.407(a)	ANNEX A.2	Pass
3	& 99% Occupied Bandwidth	15.407 (a)	AININEA 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	15.407(b)	ANNEX A.6	Pass
_ ′	Band Edge (Authorized-band)	15.209	ANNEX A.0	F d 5 5
8	Radiated Spurious Emissions and	15.407(b)	ANNEX A.7	Pass
0	Band Edge (Restricted-band)	15.407(b)	AININEA A.7	F d 5 5
9	Frequency Stability	15.407(g)	ANNEX A.8	Pass
10	Receiver Spurious Emissions			N/A <sup>Note2</sup>

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

Note <sup>2</sup>: 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			
	NT (Normal Temperature)	+22°C to +25°C		
Temperature	LT (Low Temperature)	0°C		
	HT (High Temperature)	+50°C		
	NV (Normal Voltage)	7.2 V		
Working Voltage of the EUT	LV (Low Voltage)	6.5 V		
	HV (High Voltage)	8.0 V		

# **4.2Test 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.

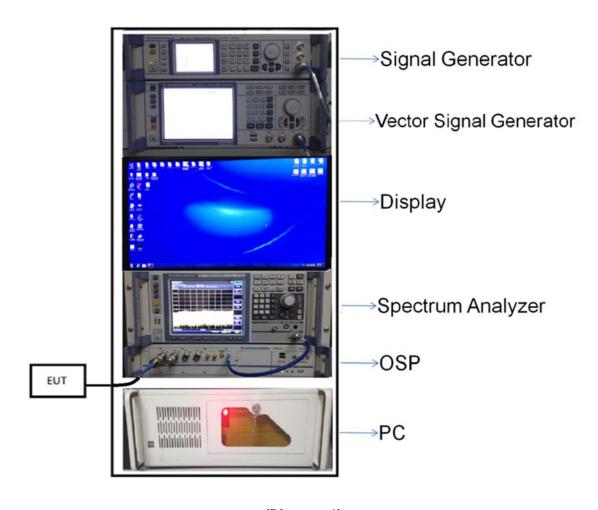
This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

Measurement	Value
Occupied Channel Bandwidth	±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	±1°C
Humidity	±4%



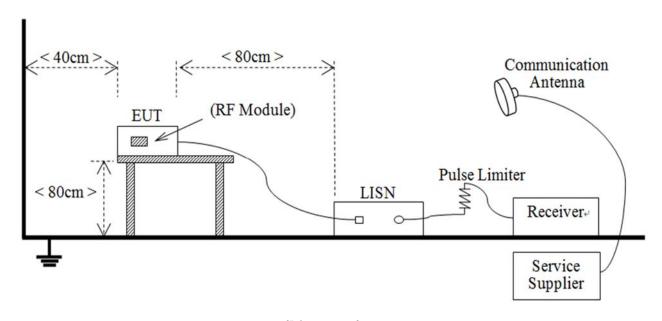
## 4.4 Description of Test Setup

### 4.4.1 For Antenna Port Test



(Diagram 1)

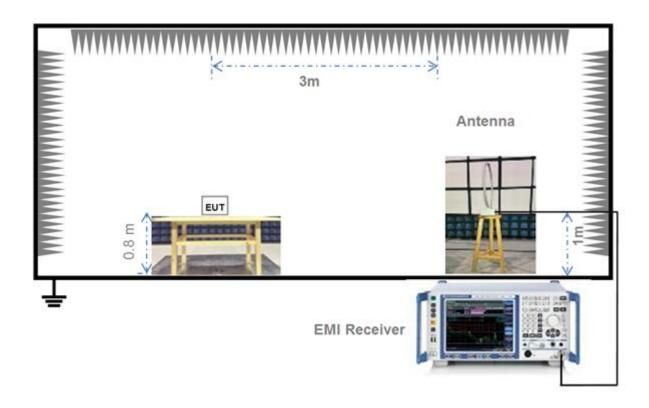
## 4.4.2 For AC Power Supply Port Test



(Diagram 2)

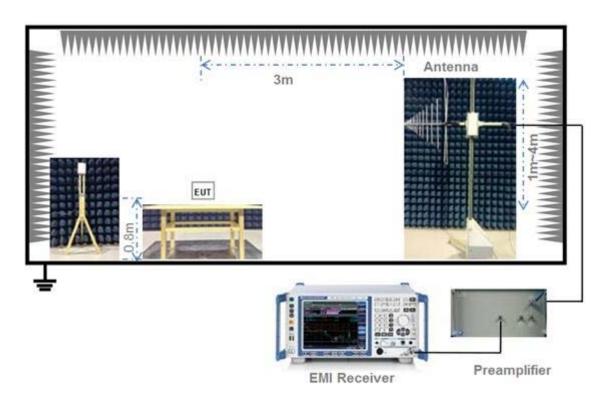


## 4.4.3 For Radiated Test (Below 30 MHz)



(Diagram 3)

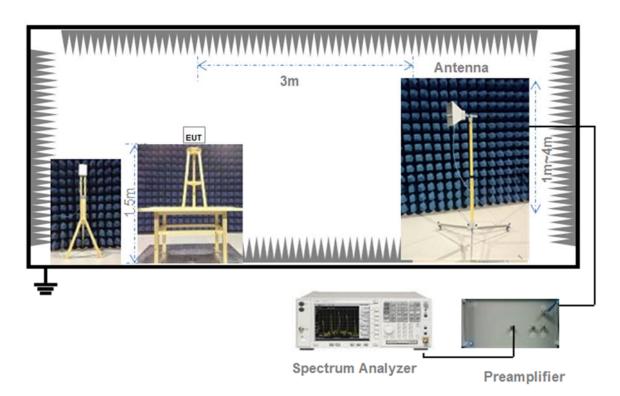
## 4.4.4 For Radiated Test (30 MHz-1 GHz)



(Diagram 4)

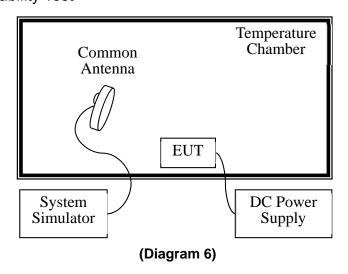


## 4.4.5 For Radiated Test (Above 1 GHz)



(Diagram 5)

## 4.4.6 For Frequency Stability Test





### 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:

Fraguesay Bond (MUII)			
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 ≥ 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.
- 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

### 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 ≥ 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 band 150 kHz to 30 MHz shall not exceed the limits in the following table, as measured using a  $50\mu\text{H}/50\Omega$  line impedance stabilization network (LISN).

Frequency range	Conducted Limit (dBμV)		
(MHz)	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

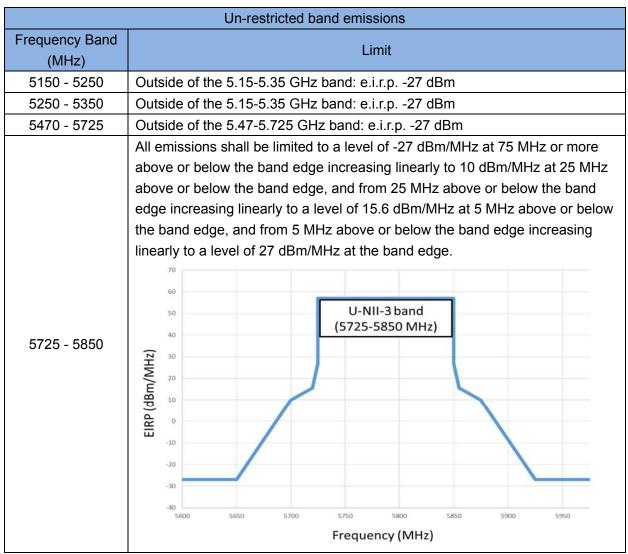
Please refer to ANNEX A.5.



## 5.5 Conducted Spurious Emission and Band Edge (Authorized-band)

### 5.5.1 Limit

FCC §15.407(b)



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.p27 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.p27 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.p27 dBm
5725 - 5850	5715 -5725 MHz: e.i.r.p17 dBm 5850 -5860 MHz: e.i.r.p17 dBm Other un-restricted band: e.i.r.p27 dBm



### 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  $f \ge 1$  GHz, 100 kHz for f < 1 GHz VBW  $\ge$  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)

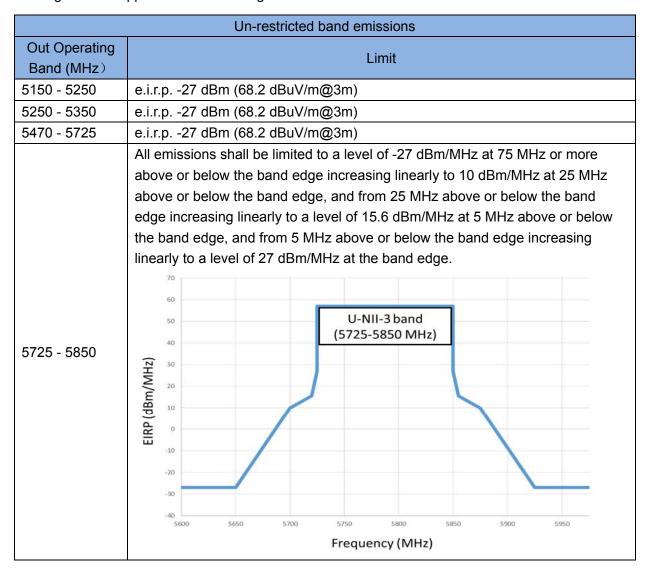
### 5.6.1 Limit

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

Note 1: The Limit for radiated test was performed according to FCC Part 15C

Note 2: The tighter limit applies at the band edge.



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 ≤ 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 = EIRP - 20log D + 104.8

where:

 $E = electric field strength in dB\mu V/m$ ,

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	uencv
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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  $\geq$  98 percent) cannot be achieved and the duty cycle is constant (i.e., duty cycle variations are less than  $\pm$  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 x RBW.
- e) Detector = RMS, if  $span/(\# of points in sweep) \le (RBW/2)$ . 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

5.6.4 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 <sup>1</sup>: 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	Conducted Power	Conducted Power	FCC Limit	Verdict	
		(MHz)	(dBm)	Total (mW)	(mW)	10.0.00	
11a	CH36	5180	9.52	8.95	250.00	Pass	
11a	CH44	5220	9.68	9.29	250.00	Pass	
11a	CH48	5240	11.03	12.68	250.00	Pass	
11n (HT20)	CH36	5180	10.15	10.35	250.00	Pass	
11n (HT20)	CH44	5220	10.19	10.45	250.00	Pass	
11n (HT20)	CH48	5240	11.01	12.65	250.00	Pass	
11n (HT40)	CH38	5190	9.47	8.85	250.00	Pass	
11n (HT40)	CH46	5230	10.64	11.59	250.00	Pass	

	Band IV (5725 - 5850 MHz )							
Mode	Channel	Frequency	Conducted Power	Conducted Power	FCC/IC	Verdict		
Wiode	Charine	(MHz)	(dBm)	Total (mW)	Limit (W)	Verdict		
11a	CH149	5745	11.25	13.34	1.00	Pass		
11a	CH157	5785	9.53	8.97	1.00	Pass		
11a	CH165	5825	10.51	11.25	1.00	Pass		
11n (HT20)	CH149	5745	11.71	14.83	1.00	Pass		
11n (HT20)	CH157	5785	10.33	10.79	1.00	Pass		
11n (HT20)	CH165	5825	10.58	11.43	1.00	Pass		
11n (HT40)	CH151	5755	10.67	11.67	1.00	Pass		
11n (HT40)	CH159	5795	8.92	7.80	1.00	Pass		



## A.2 Emission Bandwidth & 99% Bandwidth

Note: Test plots please refer to the document "Annex No.: BL-SZ1840038-604 Data Part 1.pdf".

Test Data

Band I (5150 - 5250 MHz )							
Mode	Mode Channel		26 dB Bandwidth (MHz)	99% Bandwidth (MHz)			
11a	CH36	5180	18.80	17.25			
11a	CH44	5220	18.84	17.25			
11a	CH48	5240	18.80	17.19			
11n (HT20)	CH36	5180	19.10	18.18			
11n (HT20)	CH44	5220	19.02	18.23			
11n (HT20)	CH48	5240	18.98	18.12			
11n (HT40)	CH38	5190	38.20	36.70			
11n (HT40)	CH46	5230	38.56	45.50			

Band IV (5725 - 5850 MHz )						
Mode	Channel	Frequency (MHz)	99% Bandwidth (MHz)			
11a	CH149	5745	17.19			
11a	CH157	5785	17.30			
11a	CH165	5825	17.19			
11n (HT20)	CH149	5745	18.18			
11n (HT20)	CH157	5785	18.18			
11n (HT20)	CH165	5825	18.12			
11n (HT40)	CH151	5755	47.93			
11n (HT40)	CH159	5795	40.75			



## A.3 6 dB Bandwidth

Note: Test plots please refer to the document "Annex No.: BL-SZ1840038-604 Data Part 2.pdf". <u>Test Data</u>

Band IV (5725 - 5850 MHz )								
Mode	Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Limit (kHz)	Verdict			
11a	CH149	5745	16.62	500	Pass			
11a	CH157	5785	16.67	500	Pass			
11a	CH165	5825	16.67	500	Pass			
11n (HT20)	CH149	5745	17.72	500	Pass			
11n (HT20)	CH157	5785	17.72	500	Pass			
11n (HT20)	CH165	5825	17.42	500	Pass			
11n (HT40)	CH151	5755	35.57	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-SZ1840038-604 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	10.12	11.0	Pass		
11a	CH44	5220	9.69	11.0	Pass		
11a	CH48	5240	10.17	11.0	Pass		
11n (HT20)	CH36	5180	10.28	11.0	Pass		
11n (HT20)	CH44	5220	9.47	11.0	Pass		
11n (HT20)	CH48	5240	9.96	11.0	Pass		
11n (HT40)	CH38	5190	0.05	11.0	Pass		
11n (HT40)	CH46	5230	9.32	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	6.00	30	Pass			
11a	CH157	5785	6.08	30	Pass			
11a	CH165	5825	5.18	30	Pass			
11n (HT20)	CH149	5745	5.81	30	Pass			
11n (HT20)	CH157	5785	5.85	30	Pass			
11n (HT20)	CH165	5825	5.07	30	Pass			
11n (HT40)	CH151	5755	-9.78	30	Pass			
11n (HT40)	CH159	5795	-11.73	30	Pass			

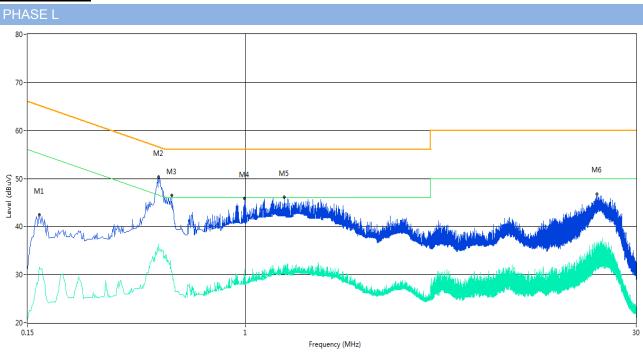


### A.5 Conducted Emissions

Note <sup>1</sup>: The EUT is working in the Normal link mode.

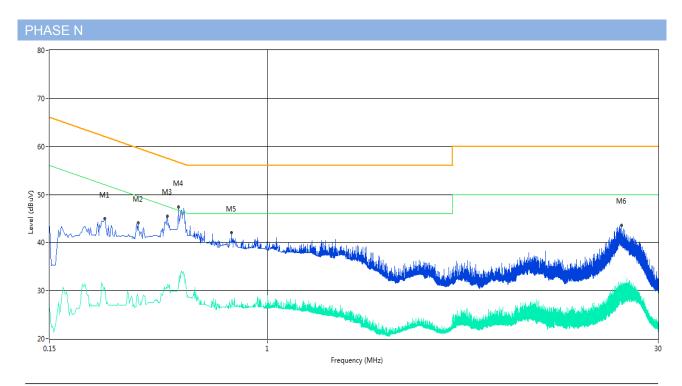
Note <sup>2</sup>: Devices subject to Part 15 must be tested for all available U.S. voltages and frequencies (such as a nominal 120 VAC, 60 Hz and 240 VAC, 50 Hz) for which the device is capable of operation. So, The configuration 120 VAC, 60 Hz and 240 VAC, 50 Hz were tested respectively, but only the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

### Test Data and Plots



No.	Frequency	Results	Factor (dB)	Limit	Margin	Detector	Line	Verdict
	(MHz)	(dBuV)		(dBuV)	(dB)			
1	0.166	42.5	10.04	65.2	22.70	Peak	L Line	Pass
1**	0.166	31.6	10.04	55.2	23.60	AV	L Line	Pass
2	0.468	50.3	10.04	56.5	6.20	Peak	L Line	Pass
2**	0.468	36.4	10.04	46.5	10.10	AV	L Line	Pass
3	0.526	46.5	10.05	56.0	9.50	Peak	L Line	Pass
3**	0.526	30.7	10.05	46.0	15.30	AV	L Line	Pass
4	0.992	45.9	10.06	56.0	10.10	Peak	L Line	Pass
4**	0.992	31.1	10.06	46.0	14.90	AV	L Line	Pass
5	1.402	46.1	10.07	56.0	9.90	Peak	L Line	Pass
5**	1.402	32.1	10.07	46.0	13.90	AV	L Line	Pass
6	21.280	46.7	10.63	60.0	13.30	Peak	L Line	Pass
6**	21.280	33.2	10.63	50.0	16.80	AV	L Line	Pass





	1		ı		ı	ı	I	
No.	Frequency	Results	Factor (dB)	Limit	Margin	Detector	Line	Verdict
	(MHz)	(dBuV)		(dBuV)	(dB)			
1	0.242	45.0	10.04	62.0	17.00	Peak	N Line	Pass
1**	0.242	30.8	10.04	52.0	21.20	AV	N Line	Pass
2	0.324	44.0	10.04	59.6	15.60	Peak	N Line	Pass
2**	0.324	28.4	10.04	49.6	21.20	AV	N Line	Pass
3	0.418	45.5	10.04	57.5	12.00	Peak	N Line	Pass
3**	0.418	31.3	10.04	47.5	16.20	AV	N Line	Pass
4	0.460	47.4	10.04	56.7	9.30	Peak	N Line	Pass
4**	0.460	30.6	10.04	46.7	16.10	AV	N Line	Pass
5	0.732	42.1	10.05	56.0	13.90	Peak	N Line	Pass
5**	0.732	28.1	10.05	46.0	17.90	AV	N Line	Pass
6	21.808	43.6	10.64	60.0	16.40	Peak	N Line	Pass
6**	21.808	30.1	10.64	50.0	19.90	AV	N Line	Pass



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

Note <sup>1</sup>: Test plots please refer to the document "Annex No.: BL-SZ1840038-604 Data Part 4.pdf".

Test Band	Mode	Channel	Verdict
		Low	Pass
	802.11a	Middle	Pass
		High	Pass
Band I		Low	Pass
Dallu I	802.11n(HT20)	Middle	Pass
		High	Pass
	000 11n/UT40)	Low	Pass
	802.11n(HT40)	High	Pass
		Low	Pass
	802.11a	Middle	Pass
		High	Pass
Dond IV		Low	Pass
Band IV	802.11n(HT20)	Middle	Pass
		High	Pass
	002 11p/UT40)	Low	Pass
	802.11n(HT40)	High	Pass



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

#### **Test Data**

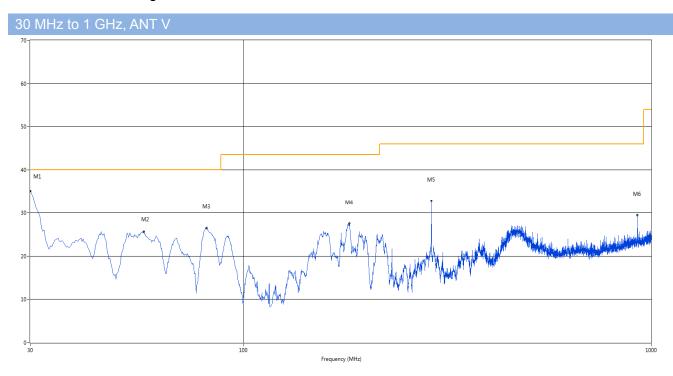
#### Cabinet Radiated spurious emission test

Note <sup>1</sup>: The symbol of "--" in the table which means not application.

Note <sup>2</sup>: 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.

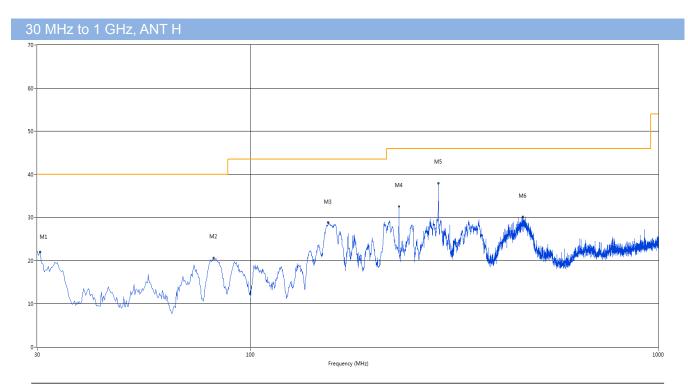
Note <sup>3</sup>: The low frequency, which started from 9 kHz to 30 MHz, was pre-scanned and the result which was 20 dB lower than the limit line per 15.31(o) was not reported.

Note 4: The EUT is working in the Normal link mode below 1 GHz.



No.	Frequency	Results	Factor (dB)	Limit	Margin	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)		(dBuV/m)	(dB)		(0)	(cm)		
1	30.000	35.13	-27.46	40.0	4.87	Peak	334.50	100	Vertical	Pass
2	56.917	25.58	-25.19	40.0	14.42	Peak	220.40	100	Vertical	Pass
3	81.168	26.46	-29.72	40.0	13.54	Peak	154.30	200	Vertical	Pass
4	181.805	27.49	-27.29	43.5	16.01	Peak	228.90	200	Vertical	Pass
5	289.233	32.75	-22.98	46.0	13.25	Peak	308.20	100	Vertical	Pass
6	925.310	29.49	-10.68	46.0	16.51	Peak	348.20	200	Vertical	Pass



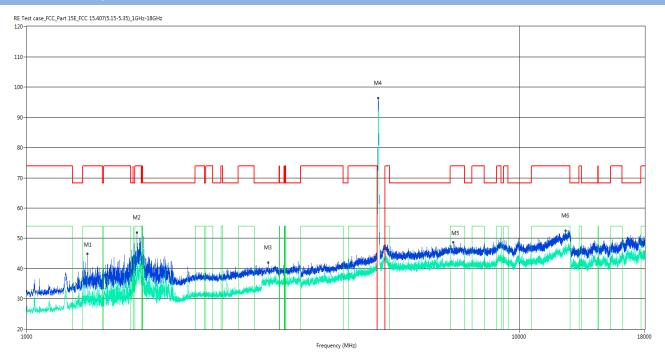


No.	Frequency	Results	Factor (dB)	Limit	Margin	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)		(dBuV/m)	(dB)		(o)	(cm)		
1	30.485	21.95	-27.48	40.0	18.05	Peak	66.30	100	Horizontal	Pass
2	81.168	20.56	-29.72	40.0	19.44	Peak	265.50	200	Horizontal	Pass
3	155.130	28.77	-28.74	43.5	14.73	Peak	292.20	200	Horizontal	Pass
4	231.275	32.57	-24.85	46.0	13.43	Peak	84.50	300	Horizontal	Pass
5	289.233	38.02	-22.98	46.0	7.98	Peak	97.70	100	Horizontal	Pass
6	465.288	30.09	-18.72	46.0	15.91	Peak	292.20	100	Horizontal	Pass



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

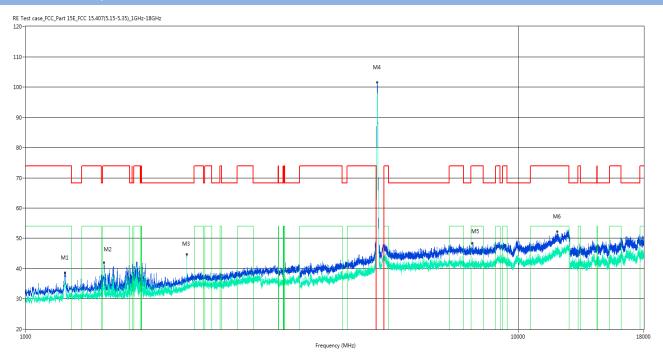
# 1 GHz to 18 GHz, ANT V Band I 11a Low channel



No.	Frequency	Results	Factor (dB)	Limit	Margin	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)		(dBuV/m)	(dB)		(0)	(cm)		
1**	1327.500	28.9	-16.27	54.0	25.10	AV	153.00	150	Vertical	Pass
1	1327.500	44.91	-16.27	74.0	29.09	Peak	153.00	150	Vertical	Pass
2**	1675.500	40.4	-17.44	54.0	13.60	AV	147.80	150	Vertical	Pass
2	1675.500	51.84	-17.44	74.0	22.16	Peak	147.80	150	Vertical	Pass
3**	3095.000	35.9	-8.33		-35.90	AV	211.30	150	Vertical	N/A
3	3095.000	41.96	-8.33	68.2	26.24	Peak	211.30	150	Vertical	Pass
4**	5176.000	91.4	-3.38		-91.40	AV	194.40	150	Vertical	N/A
4	5176.000	96.33	-3.38		98.07	Peak	194.40	150	Vertical	Pass
5**	7345.000	41.3	13.85	54.0	12.70	AV	10.60	150	Vertical	Pass
5	7345.000	48.71	13.85	74.0	25.29	Peak	10.60	150	Vertical	Pass
6**	12423.687	46.0	17.28	54.0	8.00	AV	210.20	150	Vertical	Pass
6	12423.687	52.45	17.28	74.0	21.55	Peak	210.20	150	Vertical	Pass



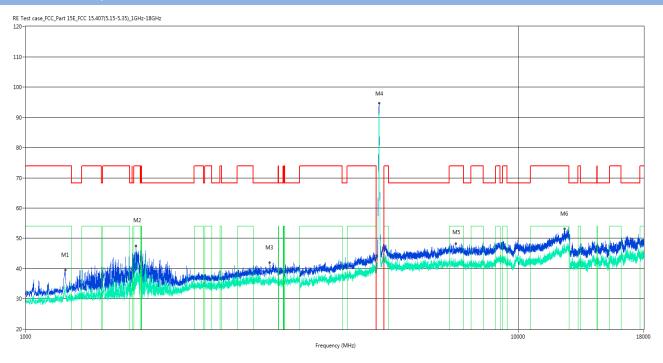
#### 1 GHz to 18 GHz, ANT H Band I 11a Low channe



No.	Frequency	Results	Factor (dB)	Limit	Margin	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)		(dBuV/m)	(dB)		(0)	(cm)		
1**	1203.000	36.0	-16.36	54.0	18.00	AV	37.20	150	Horizontal	Pass
1	1203.000	38.58	-16.36	74.0	35.42	Peak	37.20	150	Horizontal	Pass
2**	1442.500	39.9	-16.50	54.0	14.10	AV	57.40	150	Horizontal	Pass
2	1442.500	41.96	-16.50	74.0	32.04	Peak	57.40	150	Horizontal	Pass
3**	2125.500	43.4	-13.66		-43.40	AV	95.70	150	Horizontal	N/A
3	2125.500	44.65	-13.66	68.2	23.55	Peak	95.70	150	Horizontal	Pass
4**	5177.000	95.8	-3.38		-95.80	AV	159.90	150	Horizontal	N/A
4	5177.000	101.53	-3.38		58.37	Peak	159.90	150	Horizontal	Pass
5**	8066.625	41.8	13.85	54.0	12.20	AV	190.80	150	Horizontal	Pass
5	8066.625	48.32	13.85	74.0	25.68	Peak	190.80	150	Horizontal	Pass
6**	12011.125	44.8	16.48	54.0	9.20	AV	345.30	150	Horizontal	Pass
6	12011.125	52.15	16.48	74.0	21.85	Peak	345.30	150	Horizontal	Pass



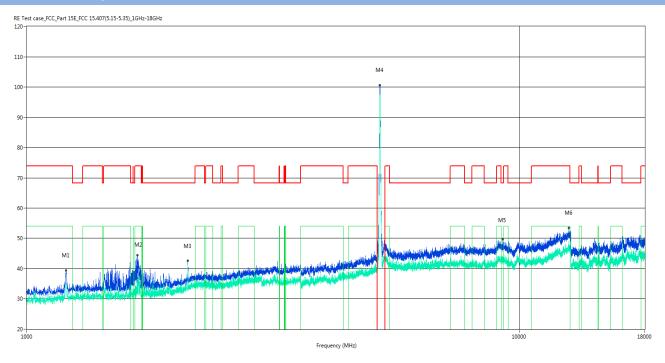
#### 1 GHz to 18 GHz, ANT V Band I 11a Middle channe



No.	Frequency	Results	Factor (dB)	Limit	Margin	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)		(dBuV/m)	(dB)		(0)	(cm)		
1**	1203.500	32.9	-16.37	54.0	21.10	AV	102.20	150	Vertical	Pass
1	1203.500	39.57	-16.37	74.0	34.43	Peak	102.20	150	Vertical	Pass
2**	1675.500	41.5	-17.44	54.0	12.50	AV	145.60	150	Vertical	Pass
2	1675.500	47.46	-17.44	74.0	26.54	Peak	145.60	150	Vertical	Pass
3**	3131.000	35.2	-8.43		-35.20	AV	66.20	150	Vertical	N/A
3	3131.000	42.00	-8.43	68.2	26.20	Peak	66.20	150	Vertical	Pass
4**	5225.000	89.9	-2.90		-89.90	AV	359.00	150	Vertical	N/A
4	5225.000	94.74	-2.90		264.26	Peak	359.00	150	Vertical	Pass
5**	7480.125	40.9	13.49	54.0	13.10	AV	106.90	150	Vertical	Pass
5	7480.125	48.26	13.49	74.0	25.74	Peak	106.90	150	Vertical	Pass
6**	12433.750	46.7	17.32	54.0	7.30	AV	222.70	150	Vertical	Pass
6	12433.750	53.10	17.32	74.0	20.90	Peak	222.70	150	Vertical	Pass



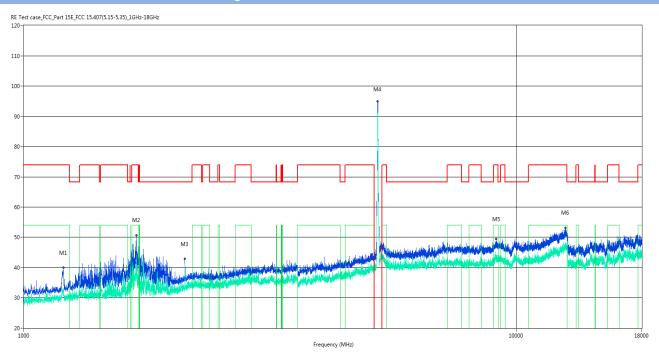
#### 1 GHz to 18 GHz, ANT H Band I 11a Middle channe



No.	Frequency	Results	Factor (dB)	Limit	Margin	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)		(dBuV/m)	(dB)		(0)	(cm)		
1**	1202.000	33.9	-16.34	54.0	20.10	AV	32.60	150	Horizontal	Pass
1	1202.000	39.38	-16.34	74.0	34.62	Peak	32.60	150	Horizontal	Pass
2**	1679.500	35.3	-17.31	54.0	18.70	AV	96.20	150	Horizontal	Pass
2	1679.500	44.43	-17.31	74.0	29.57	Peak	96.20	150	Horizontal	Pass
3**	2125.000	38.5	-13.65		-38.50	AV	23.10	150	Horizontal	N/A
3	2125.000	42.49	-13.65	68.2	25.71	Peak	23.10	150	Horizontal	Pass
4**	5214.000	96.9	-3.06		-96.90	AV	155.80	150	Horizontal	N/A
4	5214.000	100.64	-3.06		55.16	Peak	155.80	150	Horizontal	Pass
5**	9262.625	42.7	15.19		-42.70	AV	119.50	150	Horizontal	N/A
5	9262.625	49.72	15.19	68.2	18.48	Peak	119.50	150	Horizontal	Pass
6**	12622.063	47.2	17.86	54.0	6.80	AV	171.40	150	Horizontal	Pass
6	12622.063	53.42	17.86	74.0	20.58	Peak	171.40	150	Horizontal	Pass



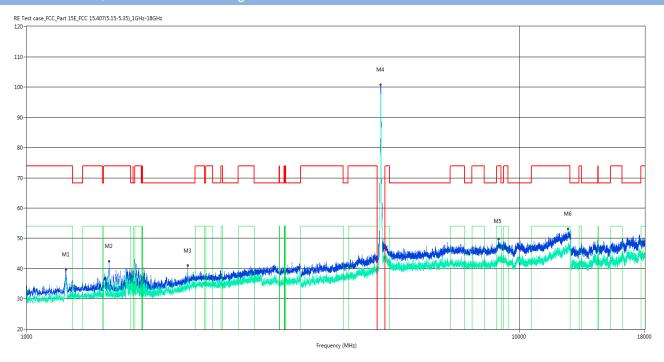
#### 1 GHz to 18 GHz, ANT V Band I 11a High channe



No.	Frequency	Results	Factor (dB)	Limit	Margin	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)		(dBuV/m)	(dB)		(0)	(cm)		
1**	1203.500	31.4	-16.37	54.0	22.60	AV	107.80	150	Vertical	Pass
1	1203.500	39.89	-16.37	74.0	34.11	Peak	107.80	150	Vertical	Pass
2**	1694.000	44.3	-17.24	54.0	9.70	AV	154.90	150	Vertical	Pass
2	1694.000	50.70	-17.24	74.0	23.30	Peak	154.90	150	Vertical	Pass
3**	2127.000	39.4	-13.70		-39.40	AV	344.40	150	Vertical	N/A
3	2127.000	42.81	-13.70	68.2	25.39	Peak	344.40	150	Vertical	Pass
4**	5236.000	90.6	-2.43		-90.60	AV	1.00	150	Vertical	N/A
4	5236.000	94.97	-2.43		-93.97	Peak	1.00	150	Vertical	N/A
5**	9116.000	42.2	15.54	54.0	11.80	AV	146.00	150	Vertical	Pass
5	9116.000	49.40	15.54	74.0	24.60	Peak	146.00	150	Vertical	Pass
6**	12607.688	46.1	17.70	54.0	7.90	AV	360.00	150	Vertical	Pass
6	12607.688	53.03	17.70	74.0	20.97	Peak	360.00	150	Vertical	Pass



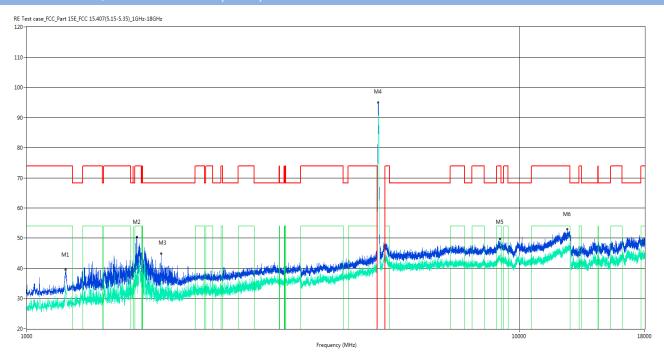
#### 1 GHz to 18 GHz, ANT H Band I 11a High channel



No.	Frequency	Results	Factor (dB)	Limit	Margin	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)		(dBuV/m)	(dB)		(0)	(cm)		
1**	1201.500	37.1	-16.33	54.0	16.90	AV	52.80	150	Horizontal	Pass
1	1201.500	39.65	-16.33	74.0	34.35	Peak	52.80	150	Horizontal	Pass
2**	1469.000	39.5	-16.73	54.0	14.50	AV	43.10	150	Horizontal	Pass
2	1469.000	42.42	-16.73	74.0	31.58	Peak	43.10	150	Horizontal	Pass
3**	2126.000	38.5	-13.67		-38.50	AV	130.50	150	Horizontal	N/A
3	2126.000	40.99	-13.67	68.2	27.21	Peak	130.50	150	Horizontal	Pass
4**	5235.000	97.7	-2.44		-97.70	AV	149.90	150	Horizontal	N/A
4	5235.000	100.79	-2.44		49.11	Peak	149.90	150	Horizontal	Pass
5**	9094.438	42.3	15.64	54.0	11.70	AV	216.80	150	Horizontal	Pass
5	9094.438	49.68	15.64	74.0	24.32	Peak	216.80	150	Horizontal	Pass
6**	12573.187	46.1	17.95	54.0	7.90	AV	249.20	150	Horizontal	Pass
6	12573.187	53.08	17.95	74.0	20.92	Peak	249.20	150	Horizontal	Pass



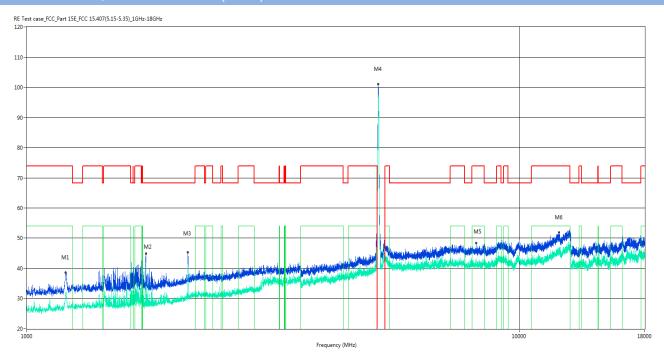
#### 1 GHz to 18 GHz, ANT V Band I 11n(HT20) Low channel



No.	Frequency	Results	Factor (dB)	Limit	Margin	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)		(dBuV/m)	(dB)		(0)	(cm)		
1**	1199.000	32.1	-16.43	54.0	21.90	AV	102.00	150	Vertical	Pass
1	1199.000	39.57	-16.43	74.0	34.43	Peak	102.00	150	Vertical	Pass
2**	1674.000	41.6	-17.37	54.0	12.40	AV	155.00	150	Vertical	Pass
2	1674.000	50.31	-17.37	74.0	23.69	Peak	155.00	150	Vertical	Pass
3**	1876.500	36.7	-16.24		-36.70	AV	179.20	150	Vertical	N/A
3	1876.500	44.80	-16.24	68.2	23.40	Peak	179.20	150	Vertical	Pass
4**	5176.000	91.0	-3.38		-91.00	AV	194.10	150	Vertical	N/A
4	5176.000	95.01	-3.38		99.09	Peak	194.10	150	Vertical	Pass
5**	9147.625	44.4	15.49	54.0	9.60	AV	184.20	150	Vertical	Pass
5	9147.625	49.73	15.49	74.0	24.27	Peak	184.20	150	Vertical	Pass
6**	12527.188	47.3	16.94	54.0	6.70	AV	119.70	150	Vertical	Pass
6	12527.188	52.92	16.94	74.0	21.08	Peak	119.70	150	Vertical	Pass



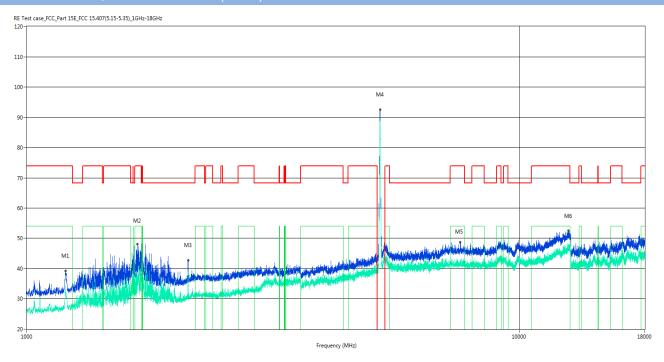
#### 1 GHz to 18 GHz, ANT H Band I 11n(HT20) Low channel



No.	Frequency	Results	Factor (dB)	Limit	Margin	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)		(dBuV/m)	(dB)		(0)	(cm)		
1**	1201.000	31.8	-16.32	54.0	22.20	AV	49.90	150	Horizontal	Pass
1	1201.000	38.67	-16.32	74.0	35.33	Peak	49.90	150	Horizontal	Pass
2**	1746.000	40.1	-17.19		-40.10	AV	329.50	150	Horizontal	N/A
2	1746.000	44.90	-17.19	68.2	23.30	Peak	329.50	150	Horizontal	Pass
3**	2125.500	30.7	-13.66		-30.70	AV	64.50	150	Horizontal	N/A
3	2125.500	45.36	-13.66	68.2	22.84	Peak	64.50	150	Horizontal	Pass
4**	5174.000	96.6	-3.39		-96.60	AV	154.60	150	Horizontal	N/A
4	5174.000	101.07	-3.39		53.53	Peak	154.60	150	Horizontal	Pass
5**	8184.500	40.9	14.10	54.0	13.10	AV	88.40	150	Horizontal	Pass
5	8184.500	48.32	14.10	74.0	25.68	Peak	88.40	150	Horizontal	Pass
6**	12058.563	45.1	16.83	54.0	8.90	AV	306.80	150	Horizontal	Pass
6	12058.563	51.84	16.83	74.0	22.16	Peak	306.80	150	Horizontal	Pass



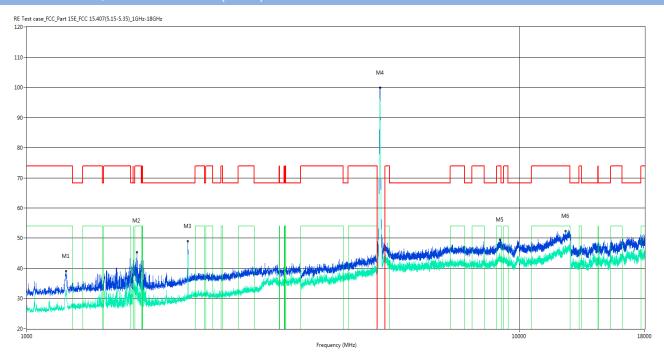
#### 1 GHz to 18 GHz, ANT V Band I 11n(HT20) Middle channel



No.	Frequency	Results	Factor (dB)	Limit	Margin	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)		(dBuV/m)	(dB)		(0)	(cm)		
1**	1200.000	33.3	-16.37	54.0	20.70	AV	96.50	150	Vertical	Pass
1	1200.000	39.18	-16.37	74.0	34.82	Peak	96.50	150	Vertical	Pass
2**	1678.000	38.5	-17.40	54.0	15.50	AV	131.30	150	Vertical	Pass
2	1678.000	48.07	-17.40	74.0	25.93	Peak	131.30	150	Vertical	Pass
3**	2129.000	34.7	-13.65		-34.70	AV	57.70	150	Vertical	N/A
3	2129.000	42.76	-13.65	68.2	25.44	Peak	57.70	150	Vertical	Pass
4**	5222.000	87.6	-2.88		-87.60	AV	3.80	150	Vertical	N/A
4	5222.000	92.63	-2.88		-88.83	Peak	3.80	150	Vertical	N/A
5**	7599.437	41.8	13.96	54.0	12.20	AV	192.00	150	Vertical	Pass
5	7599.437	48.61	13.96	74.0	25.39	Peak	192.00	150	Vertical	Pass
6**	12594.750	46.5	17.73	54.0	7.50	AV	198.80	150	Vertical	Pass
6	12594.750	52.41	17.73	74.0	21.59	Peak	198.80	150	Vertical	Pass



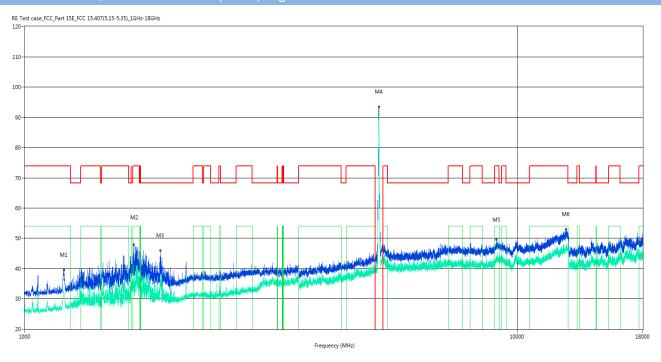
#### 1 GHz to 18 GHz, ANT H Band I 11n(HT20) Middle channel



No.	Frequency	Results	Factor (dB)	Limit	Margin	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)		(dBuV/m)	(dB)		(0)	(cm)		
1**	1202.500	33.0	-16.35	54.0	21.00	AV	30.20	150	Horizontal	Pass
1	1202.500	39.07	-16.35	74.0	34.93	Peak	30.20	150	Horizontal	Pass
2**	1676.500	38.3	-17.47	54.0	15.70	AV	50.50	150	Horizontal	Pass
2	1676.500	45.27	-17.47	74.0	28.73	Peak	50.50	150	Horizontal	Pass
3**	2126.000	41.1	-13.67		-41.10	AV	89.80	150	Horizontal	N/A
3	2126.000	48.97	-13.67	68.2	19.23	Peak	89.80	150	Horizontal	Pass
4**	5228.000	95.5	-2.67		-95.50	AV	161.10	150	Horizontal	N/A
4	5228.000	99.88	-2.67		61.22	Peak	161.10	150	Horizontal	Pass
5**	9149.062	43.5	15.49	54.0	10.50	AV	275.10	150	Horizontal	Pass
5	9149.062	49.46	15.49	74.0	24.54	Peak	275.10	150	Horizontal	Pass
6**	12440.937	45.7	17.34	54.0	8.30	AV	15.90	150	Horizontal	Pass
6	12440.937	52.28	17.34	74.0	21.72	Peak	15.90	150	Horizontal	Pass



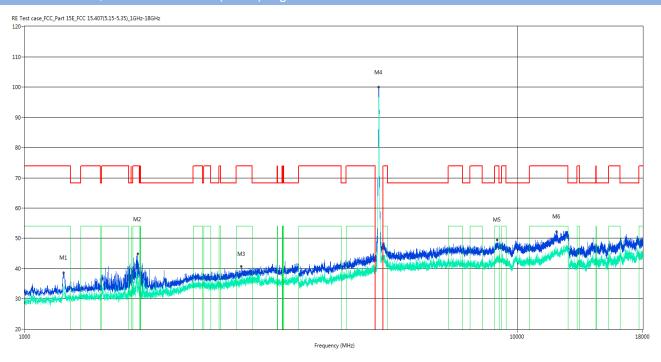
#### 1 GHz to 18 GHz, ANT V Band I 11n(HT20) High channel



No.	Frequency	Results	Factor (dB)	Limit	Margin	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)		(dBuV/m)	(dB)		(0)	(cm)		
1**	1202.000	32.0	-16.34	54.0	22.00	AV	103.80	150	Vertical	Pass
1	1202.000	39.51	-16.34	74.0	34.49	Peak	103.80	150	Vertical	Pass
2**	1666.000	33.2	-17.34	54.0	20.80	AV	142.30	150	Vertical	Pass
2	1666.000	47.95	-17.34	74.0	26.05	Peak	142.30	150	Vertical	Pass
3**	1887.500	38.2	-16.15		-38.20	AV	175.80	150	Vertical	N/A
3	1887.500	45.93	-16.15	68.2	22.27	Peak	175.80	150	Vertical	Pass
4**	5247.000	90.3	-2.27		-90.30	AV	0.00	150	Vertical	N/A
4	5247.000	93.52	-2.27		-93.52	Peak	0.00	150	Vertical	N/A
5**	9072.874	42.1	15.52	54.0	11.90	AV	309.80	150	Vertical	Pass
5	9072.874	49.51	15.52	74.0	24.49	Peak	309.80	150	Vertical	Pass
6**	12574.625	47.0	17.99	54.0	7.00	AV	51.60	150	Vertical	Pass
6	12574.625	52.99	17.99	74.0	21.01	Peak	51.60	150	Vertical	Pass



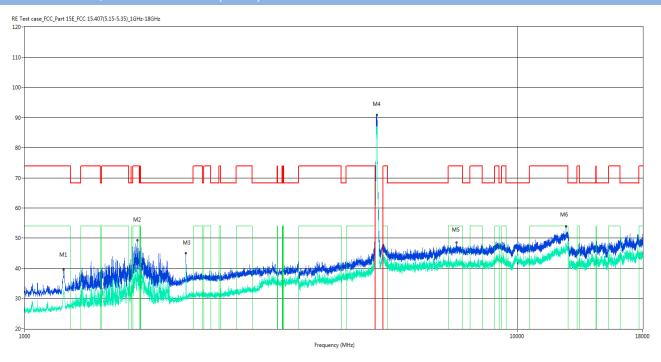
#### 1 GHz to 18 GHz, ANT H Band I 11n(HT20) High channel



No.	Frequency	Results	Factor (dB)	Limit	Margin	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)		(dBuV/m)	(dB)		(0)	(cm)		
1**	1201.000	32.8	-16.32	54.0	21.20	AV	33.80	150	Horizontal	Pass
1	1201.000	38.57	-16.32	74.0	35.43	Peak	33.80	150	Horizontal	Pass
2**	1699.000	32.2	-17.17	54.0	21.80	AV	62.80	150	Horizontal	Pass
2	1699.000	44.81	-17.17	74.0	29.19	Peak	62.80	150	Horizontal	Pass
3**	2752.000	36.0	-10.49	54.0	18.00	AV	82.40	150	Horizontal	Pass
3	2752.000	40.75	-10.49	74.0	33.25	Peak	82.40	150	Horizontal	Pass
4**	5234.000	95.7	-2.46		-95.70	AV	148.80	150	Horizontal	N/A
4	5234.000	99.98	-2.46		48.82	Peak	148.80	150	Horizontal	Pass
5**	9113.125	43.3	15.55	54.0	10.70	AV	315.30	150	Horizontal	Pass
5	9113.125	49.47	15.55	74.0	24.53	Peak	315.30	150	Horizontal	Pass
6**	12039.875	45.2	16.72	54.0	8.80	AV	270.00	150	Horizontal	Pass
6	12039.875	52.18	16.72	74.0	21.82	Peak	270.00	150	Horizontal	Pass



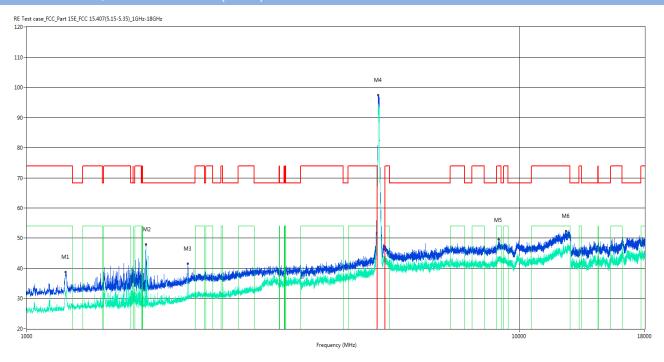
#### 1 GHz to 18 GHz, ANT V Band I 11n(HT40) Low channe



No.	Frequency	Results	Factor (dB)	Limit	Margin	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)		(dBuV/m)	(dB)		(0)	(cm)		
1**	1200.000	32.1	-16.37	54.0	21.90	AV	110.10	150	Vertical	Pass
1	1200.000	39.55	-16.37	74.0	34.45	Peak	110.10	150	Vertical	Pass
2**	1695.000	37.9	-17.30	54.0	16.10	AV	152.90	150	Vertical	Pass
2	1695.000	49.26	-17.30	74.0	24.74	Peak	152.90	150	Vertical	Pass
3**	2124.500	34.6	-13.67		-34.60	AV	80.80	150	Vertical	N/A
3	2124.500	44.93	-13.67	68.2	23.27	Peak	80.80	150	Vertical	Pass
4**	5197.000	85.8	-3.31		-85.80	AV	194.10	150	Vertical	N/A
4	5197.000	90.84	-3.31		103.26	Peak	194.10	150	Vertical	Pass
5**	7534.750	41.2	13.54	54.0	12.80	AV	0.00	150	Vertical	Pass
5	7534.750	48.53	13.54	74.0	25.47	Peak	0.00	150	Vertical	Pass
6**	12577.500	47.3	18.07	54.0	6.70	AV	359.40	150	Vertical	Pass
6	12577.500	53.80	18.07	74.0	20.20	Peak	359.40	150	Vertical	Pass



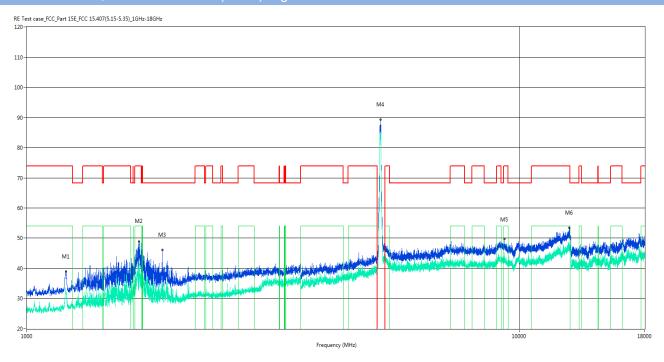
#### 1 GHz to 18 GHz, ANT H Band I 11n(HT40) Low channel



No.	Frequency	Results	Factor (dB)	Limit	Margin	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)		(dBuV/m)	(dB)		(0)	(cm)		
1**	1200.000	31.4	-16.37	54.0	22.60	AV	31.90	150	Horizontal	Pass
1	1200.000	38.73	-16.37	74.0	35.27	Peak	31.90	150	Horizontal	Pass
2**	1746.000	41.5	-17.19		-41.50	AV	360.00	150	Horizontal	N/A
2	1746.000	47.83	-17.19	68.2	20.37	Peak	360.00	150	Horizontal	Pass
3**	2124.500	33.2	-13.67		-33.20	AV	12.30	150	Horizontal	N/A
3	2124.500	41.46	-13.67	68.2	26.74	Peak	12.30	150	Horizontal	Pass
4**	5179.000	93.4	-3.39		-93.40	AV	148.50	150	Horizontal	N/A
4	5179.000	97.42	-3.39		51.08	Peak	148.50	150	Horizontal	Pass
5**	9101.625	43.4	15.61	54.0	10.60	AV	145.90	150	Horizontal	Pass
5	9101.625	49.59	15.61	74.0	24.41	Peak	145.90	150	Horizontal	Pass
6**	12443.813	46.2	17.30	54.0	7.80	AV	0.50	150	Horizontal	Pass
6	12443.813	52.38	17.30	74.0	21.62	Peak	0.50	150	Horizontal	Pass



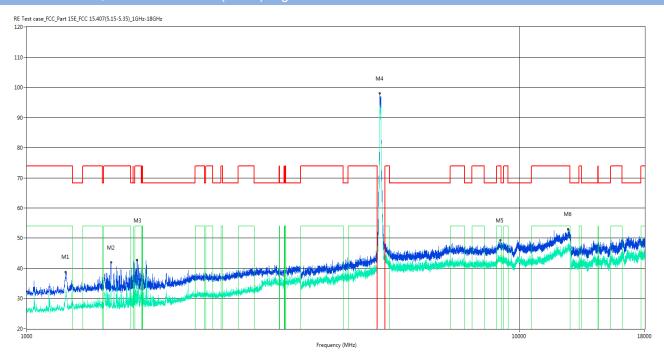
#### 1 GHz to 18 GHz, ANT V Band I 11n(HT40) High channel



No.	Frequency	Results	Factor (dB)	Limit	Margin	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)		(dBuV/m)	(dB)		(0)	(cm)		
1**	1202.000	32.6	-16.34	54.0	21.40	AV	106.80	150	Vertical	Pass
1	1202.000	38.93	-16.34	74.0	35.07	Peak	106.80	150	Vertical	Pass
2**	1692.500	35.2	-17.24	54.0	18.80	AV	140.70	150	Vertical	Pass
2	1692.500	48.74	-17.24	74.0	25.26	Peak	140.70	150	Vertical	Pass
3**	1885.500	34.9	-16.24		-34.90	AV	179.50	150	Vertical	N/A
3	1885.500	46.05	-16.24	68.2	22.15	Peak	179.50	150	Vertical	Pass
4**	5238.000	84.1	-2.44		-84.10	AV	360.00	150	Vertical	N/A
4	5238.000	89.42	-2.44		270.58	Peak	360.00	150	Vertical	Pass
5**	9335.937	43.3	15.45	54.0	10.70	AV	121.70	150	Vertical	Pass
5	9335.937	49.66	15.45	74.0	24.34	Peak	121.70	150	Vertical	Pass
6**	12642.187	46.1	17.67	54.0	7.90	AV	212.20	150	Vertical	Pass
6	12642.187	53.38	17.67	74.0	20.62	Peak	212.20	150	Vertical	Pass



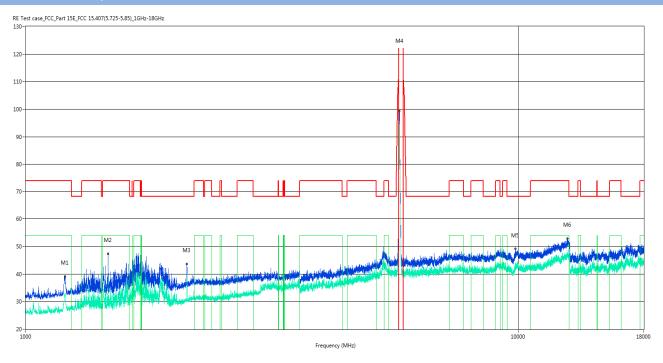
#### 1 GHz to 18 GHz, ANT H Band I 11n(HT40) High channel



No.	Frequency	Results	Factor (dB)	Limit	Margin	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)		(dBuV/m)	(dB)		(0)	(cm)		
1**	1200.000	31.8	-16.37	54.0	22.20	AV	128.80	150	Horizontal	Pass
1	1200.000	38.75	-16.37	74.0	35.25	Peak	128.80	150	Horizontal	Pass
2**	1483.500	36.3	-17.02	54.0	17.70	AV	41.50	150	Horizontal	Pass
2	1483.500	41.88	-17.02	74.0	32.12	Peak	41.50	150	Horizontal	Pass
3**	1676.000	37.5	-17.45	54.0	16.50	AV	60.80	150	Horizontal	Pass
3	1676.000	42.68	-17.45	74.0	31.32	Peak	60.80	150	Horizontal	Pass
4**	5217.000	92.0	-2.91		-92.00	AV	154.70	150	Horizontal	N/A
4	5217.000	98.00	-2.91		56.70	Peak	154.70	150	Horizontal	Pass
5**	9156.250	42.7	15.51	54.0	11.30	AV	0.00	150	Horizontal	Pass
5	9156.250	49.24	15.51	74.0	24.76	Peak	0.00	150	Horizontal	Pass
6**	12574.625	46.6	17.99	54.0	7.40	AV	81.60	150	Horizontal	Pass
6	12574.625	52.87	17.99	74.0	21.13	Peak	81.60	150	Horizontal	Pass



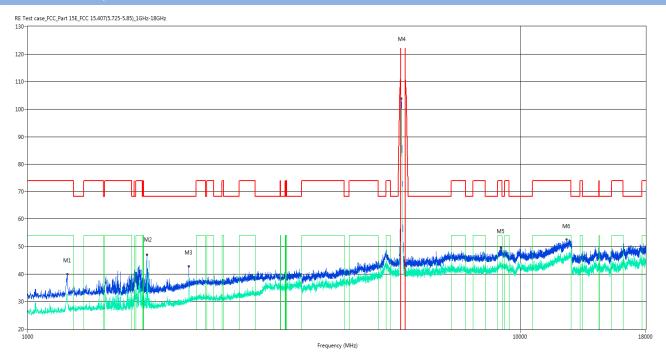
#### 1 GHz to 18 GHz, ANT V Band IV 11a Low channe



No.	Frequency	Results	Factor (dB)	Limit	Margin	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)		(dBuV/m)	(dB)		(0)	(cm)		
1**	1201.500	32.3	-16.33	54.0	21.70	AV	103.60	150	Vertical	Pass
1	1201.500	39.18	-16.33	74.0	34.82	Peak	103.60	150	Vertical	Pass
2**	1469.500	31.8	-16.73	54.0	22.20	AV	162.70	150	Vertical	Pass
2	1469.500	47.33	-16.73	74.0	26.67	Peak	162.70	150	Vertical	Pass
3**	2127.000	33.4	-13.70		-33.40	AV	347.70	150	Vertical	N/A
3	2127.000	43.62	-13.70	68.2	24.58	Peak	347.70	150	Vertical	Pass
4**	5743.000	95.6	-2.35		-95.60	AV	139.70	150	Vertical	N/A
4	5743.000	99.33	-2.35		40.37	Peak	139.70	150	Vertical	Pass
5**	9883.625	41.9	15.00		-41.90	AV	172.30	150	Vertical	N/A
5	9883.625	49.10	15.00	68.2	19.10	Peak	172.30	150	Vertical	Pass
6**	12593.313	46.6	17.77	54.0	7.40	AV	166.20	150	Vertical	Pass
6	12593.313	52.93	17.77	74.0	21.07	Peak	166.20	150	Vertical	Pass



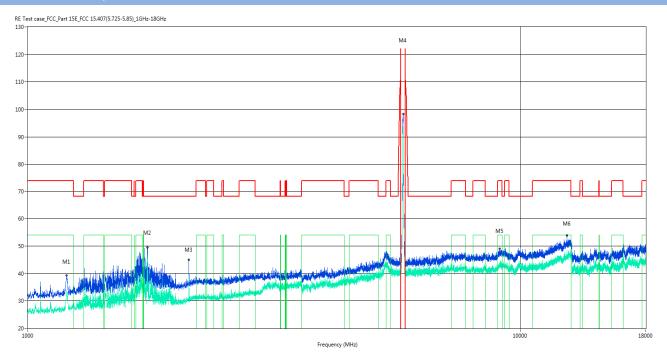
#### 1 GHz to 18 GHz, ANT H Band IV 11a Low channe



No.	Frequency	Results	Factor (dB)	Limit	Margin	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)		(dBuV/m)	(dB)		(0)	(cm)		
1**	1203.500	32.7	-16.37	54.0	21.30	AV	32.00	150	Horizontal	Pass
1	1203.500	39.92	-16.37	74.0	34.08	Peak	32.00	150	Horizontal	Pass
2**	1746.500	43.8	-17.19		-43.80	AV	133.90	150	Horizontal	N/A
2	1746.500	46.93	-17.19	68.2	21.27	Peak	133.90	150	Horizontal	Pass
3**	2126.000	32.1	-13.67		-32.10	AV	89.80	150	Horizontal	N/A
3	2126.000	42.87	-13.67	68.2	25.33	Peak	89.80	150	Horizontal	Pass
4**	5739.000	100.1	-2.33		-100.10	AV	149.70	150	Horizontal	N/A
4	5739.000	103.85	-2.33		45.85	Peak	149.70	150	Horizontal	Pass
5**	9141.875	43.2	15.48	54.0	10.80	AV	42.90	150	Horizontal	Pass
5	9141.875	49.51	15.48	74.0	24.49	Peak	42.90	150	Horizontal	Pass
6**	12420.813	45.0	17.27	54.0	9.00	AV	16.90	150	Horizontal	Pass
6	12420.813	52.54	17.27	74.0	21.46	Peak	16.90	150	Horizontal	Pass



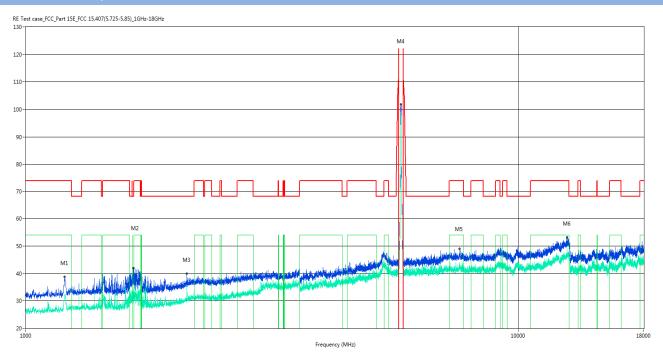
#### 1 GHz to 18 GHz, ANT V Band IV 11a Middle channel



No.	Frequency	Results	Factor (dB)	Limit	Margin	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)		(dBuV/m)	(dB)		(0)	(cm)		
1**	1200.000	33.2	-16.37	54.0	20.80	AV	103.70	150	Vertical	Pass
1	1200.000	39.30	-16.37	74.0	34.70	Peak	103.70	150	Vertical	Pass
2**	1752.000	43.4	-17.12		-43.40	AV	249.90	150	Vertical	N/A
2	1752.000	49.55	-17.12	68.2	18.65	Peak	249.90	150	Vertical	Pass
3**	2126.000	32.3	-13.67		-32.30	AV	65.00	150	Vertical	N/A
3	2126.000	45.00	-13.67	68.2	23.20	Peak	65.00	150	Vertical	Pass
4**	5790.000	93.5	-2.52		-93.50	AV	176.70	150	Vertical	N/A
4	5790.000	98.25	-2.52		78.45	Peak	176.70	150	Vertical	Pass
5**	9095.875	44.0	15.64	54.0	10.00	AV	30.00	150	Vertical	Pass
5	9095.875	48.95	15.64	74.0	25.05	Peak	30.00	150	Vertical	Pass
6**	12462.500	46.3	17.02	54.0	7.70	AV	357.00	150	Vertical	Pass
6	12462.500	53.84	17.02	74.0	20.16	Peak	357.00	150	Vertical	Pass



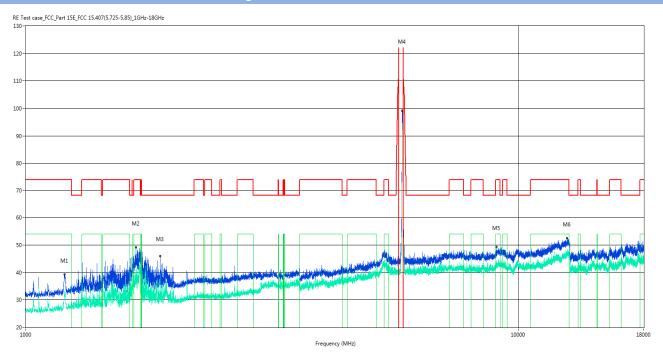
#### 1 GHz to 18 GHz, ANT H Band IV 11a Middle channel



No.	Frequency	Results	Factor (dB)	Limit	Margin	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)		(dBuV/m)	(dB)		(0)	(cm)		
1**	1201.000	31.8	-16.32	54.0	22.20	AV	39.30	150	Horizontal	Pass
1	1201.000	38.85	-16.32	74.0	35.15	Peak	39.30	150	Horizontal	Pass
2**	1657.500	31.2	-17.30		-31.20	AV	58.60	150	Horizontal	N/A
2	1657.500	41.99	-17.30	68.2	26.21	Peak	58.60	150	Horizontal	Pass
3**	2124.500	35.0	-13.67		-35.00	AV	29.50	150	Horizontal	N/A
3	2124.500	39.87	-13.67	68.2	28.33	Peak	29.50	150	Horizontal	Pass
4**	5782.000	96.7	-2.63		-96.70	AV	143.50	150	Horizontal	N/A
4	5782.000	101.84	-2.63		41.66	Peak	143.50	150	Horizontal	Pass
5**	7612.375	42.6	14.04	54.0	11.40	AV	295.40	150	Horizontal	Pass
5	7612.375	49.04	14.04	74.0	24.96	Peak	295.40	150	Horizontal	Pass
6**	12576.062	47.8	18.03	54.0	6.20	AV	244.00	150	Horizontal	Pass
6	12576.062	53.24	18.03	74.0	20.76	Peak	244.00	150	Horizontal	Pass



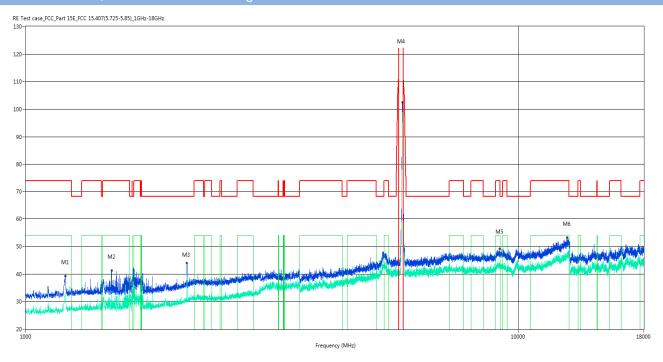
#### 1 GHz to 18 GHz, ANT V Band IV 11a High channel



No.	Frequency	Results	Factor (dB)	Limit	Margin	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)		(dBuV/m)	(dB)		(0)	(cm)		
1**	1200.000	31.0	-16.37	54.0	23.00	AV	101.20	150	Vertical	Pass
1	1200.000	39.24	-16.37	74.0	34.76	Peak	101.20	150	Vertical	Pass
2**	1675.500	35.7	-17.44	54.0	18.30	AV	139.20	150	Vertical	Pass
2	1675.500	49.16	-17.44	74.0	24.84	Peak	139.20	150	Vertical	Pass
3**	1876.500	33.7	-16.24		-33.70	AV	168.80	150	Vertical	N/A
3	1876.500	45.93	-16.24	68.2	22.27	Peak	168.80	150	Vertical	Pass
4**	5820.000	94.2	-3.01		-94.20	AV	177.30	150	Vertical	N/A
4	5820.000	99.20	-3.01		78.10	Peak	177.30	150	Vertical	Pass
5**	9041.250	44.5	15.17	54.0	9.50	AV	36.70	150	Vertical	Pass
5	9041.250	49.39	15.17	74.0	24.61	Peak	36.70	150	Vertical	Pass
6**	12574.625	46.9	17.99	54.0	7.10	AV	166.30	150	Vertical	Pass
6	12574.625	52.56	17.99	74.0	21.44	Peak	166.30	150	Vertical	Pass



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



No.	Frequency	Results	Factor (dB)	Limit	Margin	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)		(dBuV/m)	(dB)		(0)	(cm)		
1**	1203.500	31.2	-16.37	54.0	22.80	AV	35.50	150	Horizontal	Pass
1	1203.500	39.33	-16.37	74.0	34.67	Peak	35.50	150	Horizontal	Pass
2**	1495.000	33.8	-16.96	54.0	20.20	AV	45.30	150	Horizontal	Pass
2	1495.000	41.28	-16.96	74.0	32.72	Peak	45.30	150	Horizontal	Pass
3**	2124.500	34.4	-13.67		-34.40	AV	107.00	150	Horizontal	N/A
3	2124.500	43.98	-13.67	68.2	24.22	Peak	107.00	150	Horizontal	Pass
4**	5824.000	97.4	-2.80		-97.40	AV	144.10	150	Horizontal	N/A
4	5824.000	102.52	-2.80		41.58	Peak	144.10	150	Horizontal	Pass
5**	9180.687	41.9	15.07	54.0	12.10	AV	359.90	150	Horizontal	Pass
5	9180.687	49.11	15.07	74.0	24.89	Peak	359.90	150	Horizontal	Pass
6**	12574.625	47.3	17.99	54.0	6.70	AV	338.00	150	Horizontal	Pass
6	12574.625	53.20	17.99	74.0	20.80	Peak	338.00	150	Horizontal	Pass



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



No.	Frequency	Results	Factor (dB)	Limit	Margin	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)		(dBuV/m)	(dB)		(0)	(cm)		
1**	1200.000	31.8	-16.37	54.0	22.20	AV	113.60	150	Vertical	Pass
1	1200.000	39.17	-16.37	74.0	34.83	Peak	113.60	150	Vertical	Pass
2**	1666.000	32.3	-17.34	54.0	21.70	AV	151.90	150	Vertical	Pass
2	1666.000	49.29	-17.34	74.0	24.71	Peak	151.90	150	Vertical	Pass
3**	2125.500	32.7	-13.66		-32.70	AV	65.30	150	Vertical	N/A
3	2125.500	44.91	-13.66	68.2	23.29	Peak	65.30	150	Vertical	Pass
4**	5740.000	93.7	-2.39		-93.70	AV	138.90	150	Vertical	N/A
4	5740.000	98.82	-2.39		40.08	Peak	138.90	150	Vertical	Pass
5**	9430.813	42.0	15.18	54.0	12.00	AV	327.10	150	Vertical	Pass
5	9430.813	48.55	15.18	74.0	25.45	Peak	327.10	150	Vertical	Pass
6**	12606.250	47.1	17.68	54.0	6.90	AV	88.90	150	Vertical	Pass
6	12606.250	53.68	17.68	74.0	20.32	Peak	88.90	150	Vertical	Pass



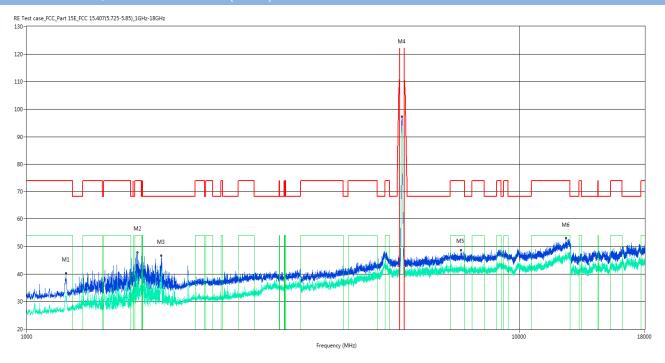
#### 1 GHz to 18 GHz, ANT H Band IV 11n(HT20) Low channel



No.	Frequency	Results	Factor (dB)	Limit	Margin	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)		(dBuV/m)	(dB)		(o)	(cm)		
1**	1201.500	32.5	-16.33	54.0	21.50	AV	29.60	150	Horizontal	Pass
1	1201.500	38.84	-16.33	74.0	35.16	Peak	29.60	150	Horizontal	Pass
2**	1531.000	28.1	-16.93	54.0	25.90	AV	48.90	150	Horizontal	Pass
2	1531.000	40.76	-16.93	74.0	33.24	Peak	48.90	150	Horizontal	Pass
3**	2124.500	34.3	-13.67		-34.30	AV	14.90	150	Horizontal	N/A
3	2124.500	39.59	-13.67	68.2	28.61	Peak	14.90	150	Horizontal	Pass
4**	5740.000	98.6	-2.39		-98.60	AV	137.80	150	Horizontal	N/A
4	5740.000	103.09	-2.39		34.71	Peak	137.80	150	Horizontal	Pass
5**	9139.000	43.5	15.48	54.0	10.50	AV	11.10	150	Horizontal	Pass
5	9139.000	49.26	15.48	74.0	24.74	Peak	11.10	150	Horizontal	Pass
6**	12518.563	45.3	16.81	54.0	8.70	AV	281.60	150	Horizontal	Pass
6	12518.563	53.03	16.81	74.0	20.97	Peak	281.60	150	Horizontal	Pass



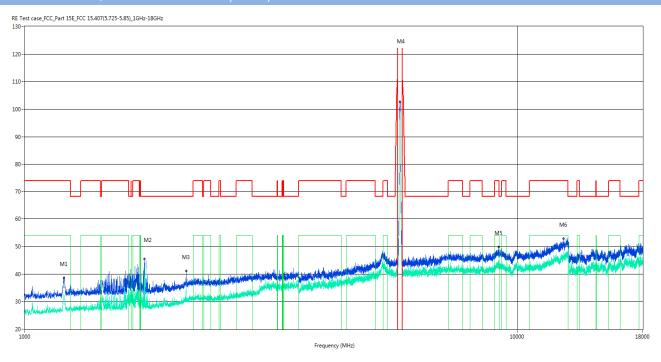
#### 1 GHz to 18 GHz, ANT V Band IV 11n(HT20) Middle channel



No.	Frequency	Results	Factor (dB)	Limit	Margin	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)		(dBuV/m)	(dB)		(0)	(cm)		
1**	1202.000	32.0	-16.34	54.0	22.00	AV	102.80	150	Vertical	Pass
1	1202.000	40.36	-16.34	74.0	33.64	Peak	102.80	150	Vertical	Pass
2**	1680.000	36.3	-17.30	54.0	17.70	AV	147.80	150	Vertical	Pass
2	1680.000	47.82	-17.30	74.0	26.18	Peak	147.80	150	Vertical	Pass
3**	1877.500	34.8	-16.23		-34.80	AV	181.50	150	Vertical	N/A
3	1877.500	46.72	-16.23	68.2	21.48	Peak	181.50	150	Vertical	Pass
4**	5779.000	93.7	-2.60		-93.70	AV	182.40	150	Vertical	N/A
4	5779.000	97.30	-2.60		85.10	Peak	182.40	150	Vertical	Pass
5**	7623.875	41.9	13.92	54.0	12.10	AV	211.40	150	Vertical	Pass
5	7623.875	48.61	13.92	74.0	25.39	Peak	211.40	150	Vertical	Pass
6**	12465.375	46.1	16.99	54.0	7.90	AV	0.00	150	Vertical	Pass
6	12465.375	52.96	16.99	74.0	21.04	Peak	0.00	150	Vertical	Pass



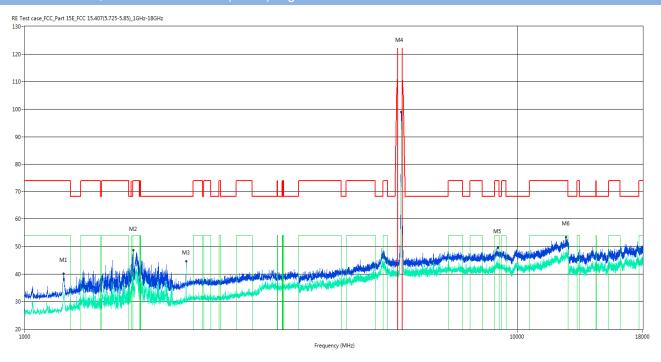
#### 1 GHz to 18 GHz, ANT H Band IV 11n(HT20) Middle channel



No.	Frequency	Results	Factor (dB)	Limit	Margin	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)		(dBuV/m)	(dB)		(0)	(cm)		
1**	1202.000	32.2	-16.34	54.0	21.80	AV	32.60	150	Horizontal	Pass
1	1202.000	38.68	-16.34	74.0	35.32	Peak	32.60	150	Horizontal	Pass
2**	1752.000	35.1	-17.12		-35.10	AV	117.00	150	Horizontal	N/A
2	1752.000	45.49	-17.12	68.2	22.71	Peak	117.00	150	Horizontal	Pass
3**	2128.500	34.2	-13.67		-34.20	AV	283.30	150	Horizontal	N/A
3	2128.500	41.12	-13.67	68.2	27.08	Peak	283.30	150	Horizontal	Pass
4**	5781.000	97.3	-2.60		-97.30	AV	137.70	150	Horizontal	N/A
4	5781.000	102.73	-2.60		34.97	Peak	137.70	150	Horizontal	Pass
5**	9179.250	43.5	15.09	54.0	10.50	AV	133.20	150	Horizontal	Pass
5	9179.250	49.80	15.09	74.0	24.20	Peak	133.20	150	Horizontal	Pass
6**	12429.438	47.1	17.31	54.0	6.90	AV	360.00	150	Horizontal	Pass
6	12429.438	52.91	17.31	74.0	21.09	Peak	360.00	150	Horizontal	Pass



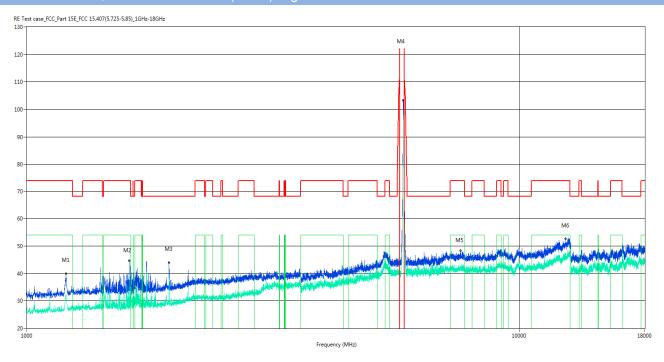
#### 1 GHz to 18 GHz, ANT V Band IV 11n(HT20) High channe



No.	Frequency	Results	Factor (dB)	Limit	Margin	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)		(dBuV/m)	(dB)		(0)	(cm)		
1**	1201.000	31.8	-16.32	54.0	22.20	AV	104.60	150	Vertical	Pass
1	1201.000	40.14	-16.32	74.0	33.86	Peak	104.60	150	Vertical	Pass
2**	1661.500	40.6	-17.46	54.0	13.40	AV	148.60	150	Vertical	Pass
2	1661.500	48.60	-17.46	74.0	25.40	Peak	148.60	150	Vertical	Pass
3**	2128.500	32.6	-13.67		-32.60	AV	85.00	150	Vertical	N/A
3	2128.500	44.67	-13.67	68.2	23.53	Peak	85.00	150	Vertical	Pass
4**	5820.000	95.5	-3.01		-95.50	AV	179.50	150	Vertical	N/A
4	5820.000	98.97	-3.01		80.53	Peak	179.50	150	Vertical	Pass
5**	9151.938	44.8	15.50	54.0	9.20	AV	127.60	150	Vertical	Pass
5	9151.938	49.43	15.50	74.0	24.57	Peak	127.60	150	Vertical	Pass
6**	12577.500	47.7	18.07	54.0	6.30	AV	43.30	150	Vertical	Pass
6	12577.500	53.37	18.07	74.0	20.63	Peak	43.30	150	Vertical	Pass



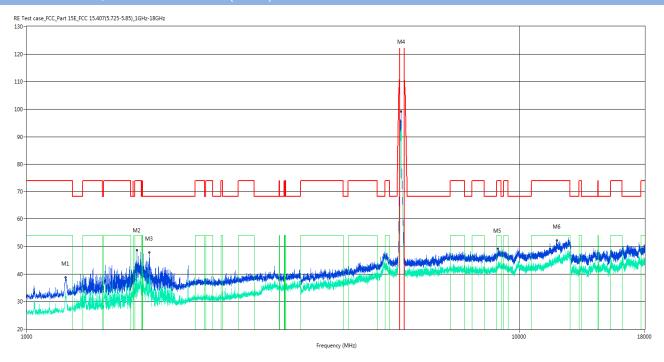
#### 1 GHz to 18 GHz, ANT H Band IV 11n(HT20) High channe



No.	Frequency	Results	Factor (dB)	Limit	Margin	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)		(dBuV/m)	(dB)		(0)	(cm)		
1**	1202.000	32.0	-16.34	54.0	22.00	AV	36.50	150	Horizontal	Pass
1	1202.000	39.94	-16.34	74.0	34.06	Peak	36.50	150	Horizontal	Pass
2**	1614.500	28.0	-17.14	54.0	26.00	AV	41.40	150	Horizontal	Pass
2	1614.500	44.73	-17.14	74.0	29.27	Peak	41.40	150	Horizontal	Pass
3**	1946.500	37.1	-15.34		-37.10	AV	314.30	150	Horizontal	N/A
3	1946.500	43.96	-15.34	68.2	24.24	Peak	314.30	150	Horizontal	Pass
4**	5818.000	98.0	-3.08		-98.00	AV	138.70	150	Horizontal	N/A
4	5818.000	103.33	-3.08		35.37	Peak	138.70	150	Horizontal	Pass
5**	7615.250	42.5	13.96	54.0	11.50	AV	0.60	150	Horizontal	Pass
5	7615.250	48.36	13.96	74.0	25.64	Peak	0.60	150	Horizontal	Pass
6**	12432.312	47.2	17.32	54.0	6.80	AV	0.00	150	Horizontal	Pass
6	12432.312	52.66	17.32	74.0	21.34	Peak	0.00	150	Horizontal	Pass



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



No.	Frequency	Results	Factor (dB)	Limit	Margin	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)		(dBuV/m)	(dB)		(0)	(cm)		
1**	1200.000	33.6	-16.37	54.0	20.40	AV	99.80	150	Vertical	Pass
1	1200.000	38.79	-16.37	74.0	35.21	Peak	99.80	150	Vertical	Pass
2**	1674.500	34.1	-17.40	54.0	19.90	AV	153.70	150	Vertical	Pass
2	1674.500	48.68	-17.40	74.0	25.32	Peak	153.70	150	Vertical	Pass
3**	1775.500	37.9	-16.93		-37.90	AV	134.10	150	Vertical	N/A
3	1775.500	47.82	-16.93	68.2	20.38	Peak	134.10	150	Vertical	Pass
4**	5764.000	91.4	-2.65		-91.40	AV	138.60	150	Vertical	N/A
4	5764.000	99.17	-2.65		39.43	Peak	138.60	150	Vertical	Pass
5**	9051.312	41.9	15.18	54.0	12.10	AV	295.00	150	Vertical	Pass
5	9051.312	49.11	15.18	74.0	24.89	Peak	295.00	150	Vertical	Pass
6**	11943.562	45.0	16.58	54.0	9.00	AV	69.60	150	Vertical	Pass
6	11943.562	52.18	16.58	74.0	21.82	Peak	69.60	150	Vertical	Pass



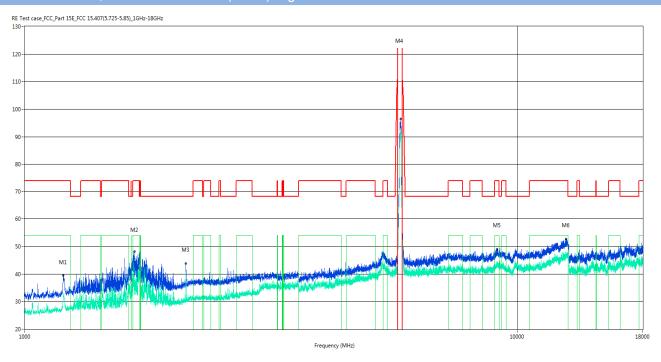
#### 1 GHz to 18 GHz, ANT H Band IV 11n(HT40) Low channel



No.	Frequency	Results	Factor (dB)	Limit	Margin	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)		(dBuV/m)	(dB)		(0)	(cm)		
1**	1202.000	32.3	-16.34	54.0	21.70	AV	26.20	150	Horizontal	Pass
1	1202.000	40.11	-16.34	74.0	33.89	Peak	26.20	150	Horizontal	Pass
2**	1664.500	34.9	-17.33	54.0	19.10	AV	93.50	150	Horizontal	Pass
2	1664.500	44.12	-17.33	74.0	29.88	Peak	93.50	150	Horizontal	Pass
3**	3078.000	37.6	-7.39		-37.60	AV	260.40	150	Horizontal	N/A
3	3078.000	42.08	-7.39	68.2	26.12	Peak	260.40	150	Horizontal	Pass
4**	5763.000	95.4	-2.60		-95.40	AV	139.40	150	Horizontal	N/A
4	5763.000	101.12	-2.60		38.28	Peak	139.40	150	Horizontal	Pass
5**	9095.875	43.9	15.64	54.0	10.10	AV	1.30	150	Horizontal	Pass
5	9095.875	49.28	15.64	74.0	24.72	Peak	1.30	150	Horizontal	Pass
6**	12039.875	45.6	16.72	54.0	8.40	AV	144.50	150	Horizontal	Pass
6	12039.875	52.32	16.72	74.0	21.68	Peak	144.50	150	Horizontal	Pass



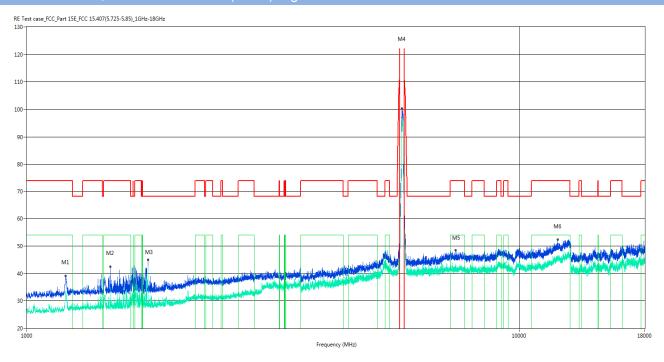
#### 1 GHz to 18 GHz, ANT V Band IV 11n(HT40) High channe



No.	Frequency	Results	Factor (dB)	Limit	Margin	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)		(dBuV/m)	(dB)		(0)	(cm)		
1**	1198.500	31.2	-16.44	54.0	22.80	AV	101.70	150	Vertical	Pass
1	1198.500	39.39	-16.44	74.0	34.61	Peak	101.70	150	Vertical	Pass
2**	1671.000	38.8	-17.38	54.0	15.20	AV	135.60	150	Vertical	Pass
2	1671.000	48.10	-17.38	74.0	25.90	Peak	135.60	150	Vertical	Pass
3**	2126.500	33.3	-13.68		-33.30	AV	335.80	150	Vertical	N/A
3	2126.500	43.83	-13.68	68.2	24.37	Peak	335.80	150	Vertical	Pass
4**	5807.000	90.8	-2.84		-90.80	AV	178.10	150	Vertical	N/A
4	5807.000	96.44	-2.84		81.66	Peak	178.10	150	Vertical	Pass
5**	9113.125	43.2	15.55	54.0	10.80	AV	94.80	150	Vertical	Pass
5	9113.125	48.96	15.55	74.0	25.04	Peak	94.80	150	Vertical	Pass
6**	12580.375	46.9	18.13	54.0	7.10	AV	133.40	150	Vertical	Pass
6	12580.375	52.67	18.13	74.0	21.33	Peak	133.40	150	Vertical	Pass



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



No.	Frequency	Results	Factor (dB)	Limit	Margin	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)		(dBuV/m)	(dB)		(0)	(cm)		
1**	1200.000	31.8	-16.37	54.0	22.20	AV	28.30	150	Horizontal	Pass
1	1200.000	39.07	-16.37	74.0	34.93	Peak	28.30	150	Horizontal	Pass
2**	1478.000	34.9	-16.95	54.0	19.10	AV	43.00	150	Horizontal	Pass
2	1478.000	42.45	-16.95	74.0	31.55	Peak	43.00	150	Horizontal	Pass
3**	1764.000	39.4	-17.08		-39.40	AV	360.00	150	Horizontal	N/A
3	1764.000	44.91	-17.08	68.2	23.29	Peak	360.00	150	Horizontal	Pass
4**	5781.000	94.2	-2.60		-94.20	AV	139.20	150	Horizontal	N/A
4	5781.000	100.31	-2.60		38.89	Peak	139.20	150	Horizontal	Pass
5**	7432.688	43.5	13.54	54.0	10.50	AV	275.70	150	Horizontal	Pass
5	7432.688	48.45	13.54	74.0	25.55	Peak	275.70	150	Horizontal	Pass
6**	11975.187	44.7	16.76	54.0	9.30	AV	256.80	150	Horizontal	Pass
6	11975.187	52.29	16.76	74.0	21.71	Peak	256.80	150	Horizontal	Pass

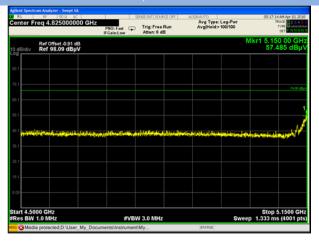


#### A.7.2 Band Edge (Restricted-band)

Test Band	Mode	Channel	Verdict
	802.11a	Low	Pass
	0U2.11a	High	Pass
Band I	002 11 <sub>2</sub> /UT20)	Low	Pass
Dallu I	802.11n(HT20)	High	
	002 11p/UT40)	Low	Pass
	802.11n(HT40)	High	Pass
	802.11a	Low	Pass
	002.11a	High	Pass
Band IV	002 11 <sub>2</sub> /UT20)	Low	Pass
Dailu IV	802.11n(HT20)	High	Pass
	902 11n/UT40)	Low	Pass
	802.11n(HT40)	High	Pass

#### **Test Plots**

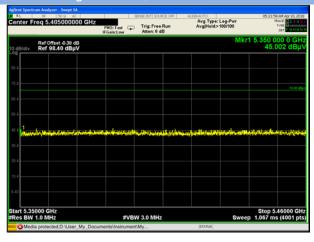
#### Band I 11a Low channel, PEAK



#### Band I 11a Low channel AVERAGE



#### Band I 11a High channel, PEAK





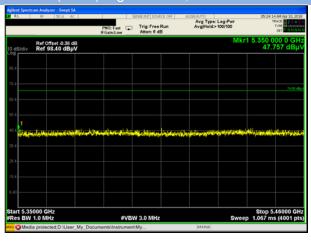
#### Band I 11n(HT20) Low channel, PEAK

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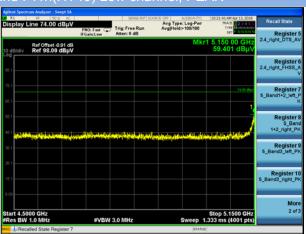
#### Band I 11n(HT20) Low channel AVERAGE



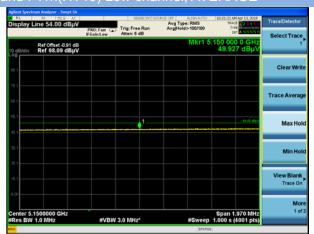
#### Band I 11n(HT20) High channel, PEAK



## Band I 11n(HT40) Low channel, PEAK

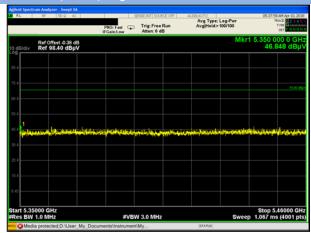


Band I 11n(HT40) Low channel, AVERAGE





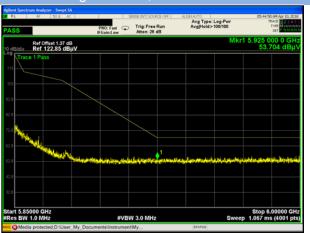
#### Band I 11n(HT40) High channel, PEAK



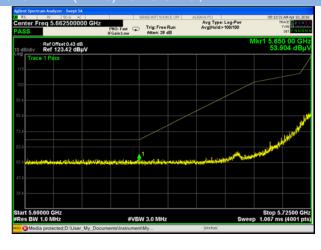
#### Band IV 11a Low channel, PEAK



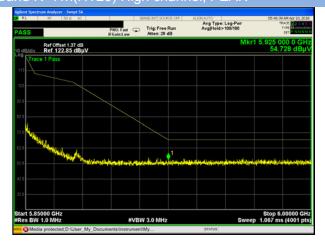
#### Band IV 11a High channel, PEAK



### Band IV 11n(HT20) Low channel, PEAK



#### Band IV 11n(HT20) High channel, PEAK

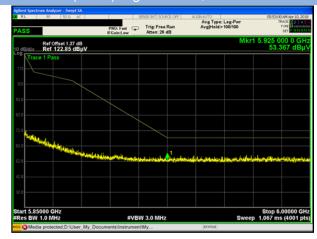




#### Band IV 11n(HT40) Low channel, PEAK

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





# **A.8 Frequency Stability**Measurement Data (the worst channel)

### Voltage vs. Frequency Stability (5180 MHz)

Test Co	nditions		0 Mir	nute	2 Mi	nute	5 Mi	nute	10Mi	inute
TEMP.	Voltage (VDC)	Test Frequen cy (MHz)	Measurem ent Frequency (MHz)	Max. Deviation (ppm)	Measure ment Frequenc y (MHz)	Max. Deviation (ppm)	Measure ment Frequenc y (MHz)	Max. Deviation (ppm)	Measure ment Frequenc y (MHz)	Max. Deviation (ppm)
	6.5	5180	5179.9550 16	-8.68	5179.978 114	-4.23	5179.951 692	-9.33	5179.960 335	-7.66
20	7.2	5180	5180.0351 04	6.78	5180.047 893	9.25	5180.012 943	2.50	5180.016 519	3.19
	8.0	5180	5180.0425 73	8.22	5180.008 459	1.63	5180.028 242	5.45	5180.037 999	7.34

#### Temperature vs. Frequency Stability (5180 MHz)

Test Conditions			0 Minute		2 Minute		5 Minute		10Minute	
Voltage (VDC)	TEMP.	Test Frequen cy (MHz)	Measurem ent Frequency (MHz)	Max. Deviation (ppm)	Measure ment Frequenc y (MHz)	Max. Deviation (ppm)	Measure ment Frequenc y (MHz)	Max. Deviation (ppm)	Measure ment Frequenc y (MHz)	Max. Deviation (ppm)
7.2	0	5180	5179.9685 54	-6.07	5179.954 706	-8.74	5179.979 215	-4.01	5179.994 272	-1.11
	10	5180	5180.0489 85	9.46	5180.002 551	0.49	5180.020 766	4.01	5180.014 38	2.78
	20	5180	5180.0075 05	1.45	5180.012 384	2.39	5180.016 856	3.25	5180.011 759	2.27
	30	5180	5180.0214 03	4.13	5180.046 737	9.02	5180.013 016	2.51	5180.033 032	6.38
	40	5180	5179.9509 87	-9.46	5179.978 614	-4.13	5179.981 987	-3.48	5179.991 757	-1.59
	50	5180	5180.0328 62	6.34	5180.049 535	9.56	5180.008 658	1.67	5180.016 171	3.12



# ANNEX B TEST SETUP PHOTOS

Please refer the document "BL-SZ1840038-AR.PDF".

# ANNEX C EUT EXTERNAL PHOTOS

Please refer the document "BL-SZ1840038-AW.PDF".

# ANNEX D EUT INTERNAL PHOTOS

Please refer the document "BL-SZ1840038-AI.PDF".

--END OF REPORT--