
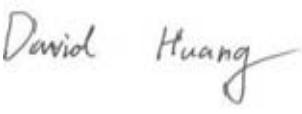



# RF TEST REPORT



Report No.: 16070893-FCC-R1

Supersede Report No.: N/A

Applicant	Bean Information Technology Co., Ltd	
Product Name	Core+ 10.1,Core+11.6	
Model No.	W1102	
Serial No.	W1001	
Test Standard	FCC Part 15.247: 2015, ANSI C63.10: 2013	
Test Date	August 05 to September 01&October 15&23, 2016	
Issue Date	October 24, 2016	
Test Result	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail	
Equipment complied with the specification <input checked="" type="checkbox"/>		
Equipment did not comply with the specification <input type="checkbox"/>		
		
Loren Luo Test Engineer	David Huang Checked By	
This test report may be reproduced in full only Test result presented in this test report is applicable to the tested sample only		

Issued by:

**SIEMIC (SHENZHEN-CHINA) LABORATORIES**

Zone A, Floor 1, Building 2 Wan Ye Long Technology Park

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Phone: +86 0755 2601 4629801 Email: [China@siemic.com.cn](mailto:China@siemic.com.cn)

## Laboratories Introduction

SIEMIC, headquartered in the heart of Silicon Valley, with superior facilities in US and Asia, is one of the leading independent testing and certification facilities providing customers with one-stop shop services for Compliance Testing and Global Certifications.



In addition to testing and certification, SIEMIC provides initial design reviews and compliance management throughout a project. Our extensive experience with China, Asia Pacific, North America, European, and International compliance requirements, assures the fastest, most cost effective way to attain regulatory compliance for the global markets.

### Accreditations for Conformity Assessment

Country/Region	Scope
USA	EMC, RF/Wireless, SAR, Telecom
Canada	EMC, RF/Wireless, SAR, Telecom
Taiwan	EMC, RF, Telecom, SAR, Safety
Hong Kong	RF/Wireless, SAR, Telecom
Australia	EMC, RF, Telecom, SAR, Safety
Korea	EMI, EMS, RF, SAR, Telecom, Safety
Japan	EMI, RF/Wireless, SAR, Telecom
Singapore	EMC, RF, SAR, Telecom
Europe	EMC, RF, SAR, Telecom, Safety

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## 1. Report Revision History

Report No.	Report Version	Description	Issue Date
16070893-FCC-R1	NONE	Original	September 02, 2016
16070893-FCC-R1	V1	Added the channel 6/11/12 test data	October 17, 2016
16070893-FCC-R1	V2	Added the Band-Edge channel 11/12 test data	October 24, 2016

## 2. Customer information

Applicant Name	Bean Information Technology Co., Ltd
Applicant Add	No. 810 of Software Building, Keji RD 1St., Science and Technology Park, Nanshan District, Shenzhen City, Guangdong Province, China
Manufacturer	Dongguan WeiHeng Digital Technology Co.,Ltd.
Manufacturer Add	Build 3, Fengquan Industry Area YaoShan,XieGang Town DongGuan

## 3. Test site information

Lab performing tests	SIEMIC (Shenzhen-China) LABORATORIES
Lab Address	Zone A, Floor 1, Building 2 Wan Ye Long Technology Park South Side of Zhoushi Road, Bao' an District, Shenzhen, Guangdong China 518108
FCC Test Site No.	718246
IC Test Site No.	4842E-1
Test Software	Radiated Emission Program-To Shenzhen v2.0

## 4. Equipment under Test (EUT) Information

Description of EUT:	Core+ 10.1,Core+11.6
Main Model:	W1102
Serial Model:	W1001
Date EUT received:	August 04, 2016
Test Date(s):	August 05 to September 01&October 15&23, 2016
Equipment Category :	DTS
Antenna Gain:	Bluetooth/ WIFI: 4.36dBi
Antenna Type:	PIFA antenna
Type of Modulation:	802.11b/g/n: DSSS, OFDM Bluetooth: GFSK, $\pi$ /4DQPSK, 8DPSK
RF Operating Frequency (ies):	WIFI: 802.11b/g/n(20M): 2412-2472 MHz Bluetooth: 2402-2480 MHz
Max. Output Power:	802.11b: 14.77dBm 802.11g:11.98dBm 802.11n(20M): 11.98dBm
Number of Channels:	WIFI :802.11b/g/n(20M): 13CH Bluetooth: 79CH

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Port: Power Port, Earphone Port, USB Port, USB-C Port, HDMI Port, Docking Port, MIC Port

Adapter 1:  
Model: PS12F050K2000UD  
Input: AC100-240V~50/60Hz,0.35A  
Output: DC 5.0V,2000mA  
Adapter 2:  
Model: JK050200-S04USA  
Input: AC100-240V~50/60Hz,0.5A  
Output: DC 5.0V,2000mA  
Battery:  
Spec: 3.7V,3500mAh(31.45Wh)

Trade Name : BIT

FCC ID: 2AHWT-W1102

## 5. Test Summary

The product was tested in accordance with the following specifications.

All testing has been performed according to below product classification:

FCC Rules	Description of Test	Result
§15.203	Antenna Requirement	Compliance
§15.247 (a)(2)	DTS (6 dB&20 dB) CHANNEL BANDWIDTH	Compliance
§15.247(b)(3)	Conducted Maximum Output Power	Compliance
§15.247(e)	Power Spectral Density	Compliance
§15.247(d)	Band-Edge & Unwanted Emissions into Restricted Frequency Bands	Compliance
§15.207 (a),	AC Power Line Conducted Emissions	Compliance
§15.205, §15.209, §15.247(d)	Radiated Spurious Emissions & Unwanted Emissions into Restricted Frequency Bands	Compliance

### Measurement Uncertainty

Emissions		
Test Item	Description	Uncertainty
Band Edge and Radiated Spurious Emissions	Confidence level of approximately 95% (in the case where distributions are normal), with a coverage factor of 2 (for EUTs < 0.5m X 0.5m X 0.5m)	+5.6dB/-4.5dB
-	-	-



## 6. Measurements, Examination And Derived Results

### 6.1 Antenna Requirement

#### **Applicable Standard**

According to § 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the user of a standard antenna jack or electrical connector is prohibited. The structure and application of the EUT were analyzed to determine compliance with section §15.203 of the rules. §15.203 state that the subject device must meet the following criteria:

- a. Antenna must be permanently attached to the unit.
- b. Antenna must use a unique type of connector to attach to the EUT.

Unit must be professionally installed, and installer shall be responsible for verifying that the correct antenna is employed with the unit.

And according to FCC 47 CFR section 15.247 (b), if the transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

#### **Antenna Connector Construction**

The EUT has 1 antenna:

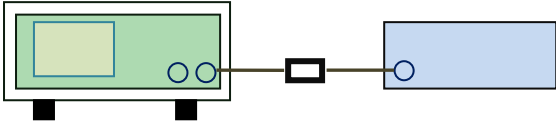
A permanently attached PIFA antenna for Bluetooth/ WIFI, the gain is 4.36dBi for Bluetooth/ WIFI.

**The antenna meets up with the ANTENNA REQUIREMENT.**

**Result:** Compliance.

## 6.2 DTS (6 dB&20 dB) Channel Bandwidth

Temperature	23°C
Relative Humidity	54%
Atmospheric Pressure	1030mbar
Test date :	August 30&October 15, 2016
Tested By :	Loren Luo

Spec	Item	Requirement	Applicable
§ 15.247(a)(2)	a)	6dB BW $\geq$ 500kHz; 20dB BW $\geq$ 500kHz;	<input checked="" type="checkbox"/>
RSS Gen(4.6.1)	b)	99% BW: For FCC reference only; required by IC.	<input checked="" type="checkbox"/>
Test Setup			
Test Procedure	<p>558074 D01 DTS MEAS Guidance v03r03, 8.1 DTS bandwidth</p> <p><u>6dB bandwidth</u></p> <ol style="list-style-type: none"> <li>Set RBW = 100 kHz.</li> <li>Set the video bandwidth (VBW) <math>\geq 3 \times</math> RBW.</li> <li>Detector = Peak.</li> <li>Trace mode = max hold.</li> <li>Sweep = auto couple.</li> <li>Allow the trace to stabilize.</li> <li>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.</li> </ol> <p><u>20dB bandwidth</u></p> <p>C63.10 Occupied Bandwidth (OBW=20dB bandwidth)</p> <ol style="list-style-type: none"> <li>Set RBW = 1%-5% OBW.</li> <li>Set the video bandwidth (VBW) <math>\geq 3 \times</math> RBW.</li> <li>Set the span range between 2 times and 5 times of the OBW.</li> <li>Sweep time=Auto, Detector=PK, Trace=Max hold.</li> <li>Once the reference level is established, the equipment is conditioned with typical modulating signals to produce the worst-</li> </ol>		

	case (i.e., the widest) bandwidth. Unless otherwise specified for an unlicensed wireless device, measure the bandwidth at the 20 dB levels with respect to the reference level.
Remark	
Result	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail

Test Data ☒ Yes ☐ N/A

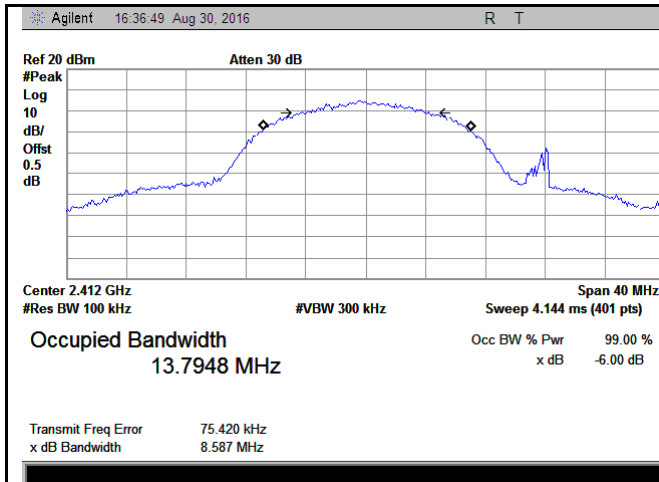
Test Plot ☒ Yes (See below) ☐ N/A

### Measurement result

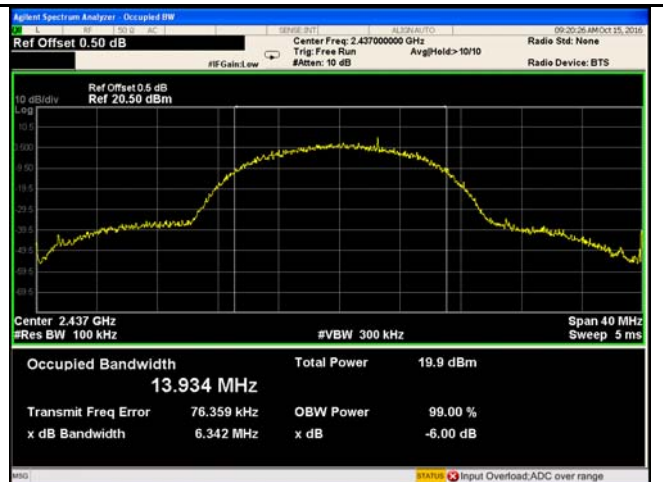
Test mode	CH	Freq (MHz)	6dB Bandwidth (MHz)	20dB Bandwidth (MHz)	Limit (MHz)
802.11b	CH1	2412	8.587	15.670	$\geq 0.5$
	CH6	2437	6.342	16.720	$\geq 0.5$
	CH11	2462	7.784	16.710	$\geq 0.5$
	CH12	2467	9.626	16.880	$\geq 0.5$
	CH13	2472	8.501	15.940	$\geq 0.5$
802.11g	CH1	2412	16.387	19.083	$\geq 0.5$
	CH6	2437	15.650	18.530	$\geq 0.5$
	CH11	2462	15.370	18.500	$\geq 0.5$
	CH12	2467	15.110	18.490	$\geq 0.5$
	CH13	2472	16.117	19.299	$\geq 0.5$
802.11n (20M)	CH1	2412	17.727	19.634	$\geq 0.5$
	CH6	2437	15.120	19.410	$\geq 0.5$
	CH11	2462	15.390	19.250	$\geq 0.5$
	CH12	2467	15.380	19.310	$\geq 0.5$
	CH13	2472	16.769	19.543	$\geq 0.5$

## Test Plots

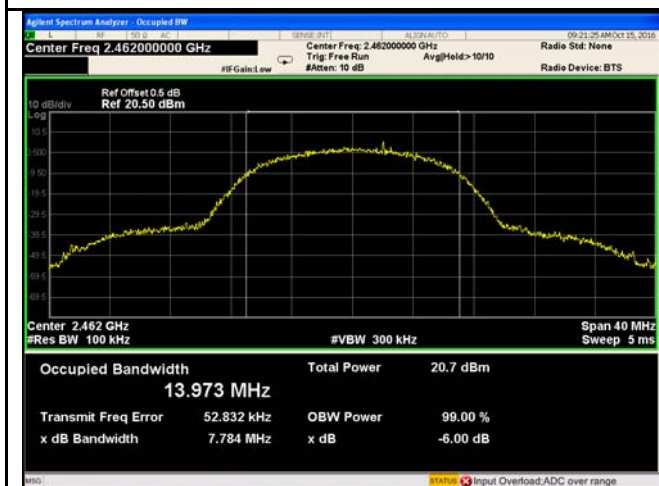
### 6dB Bandwidth measurement result



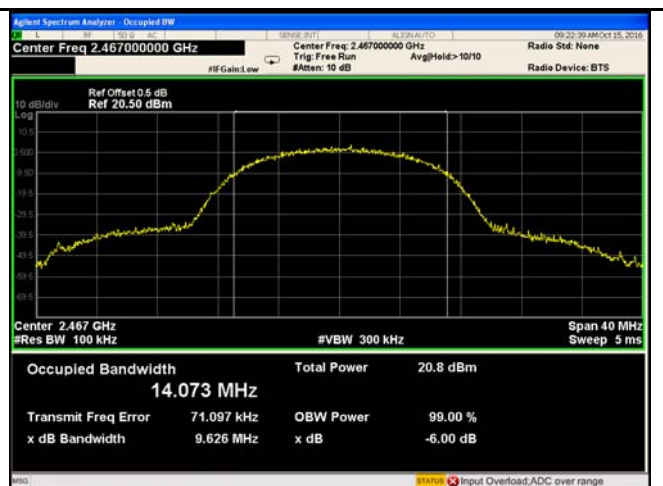
802.11b 6dB Bandwidth – CH1 2412



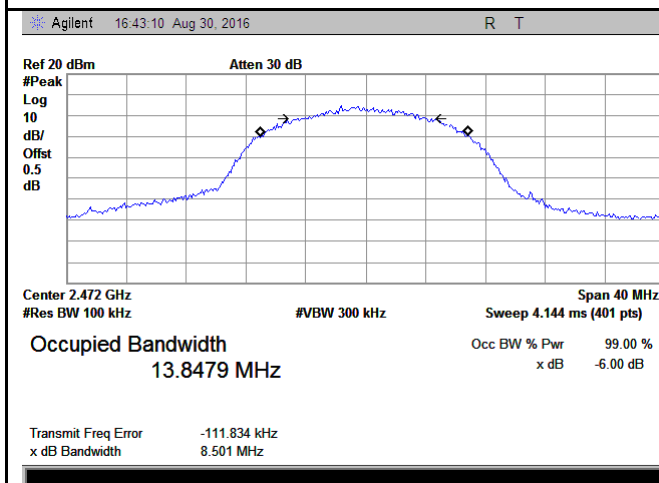
802.11b 6dB Bandwidth – CH6 2437



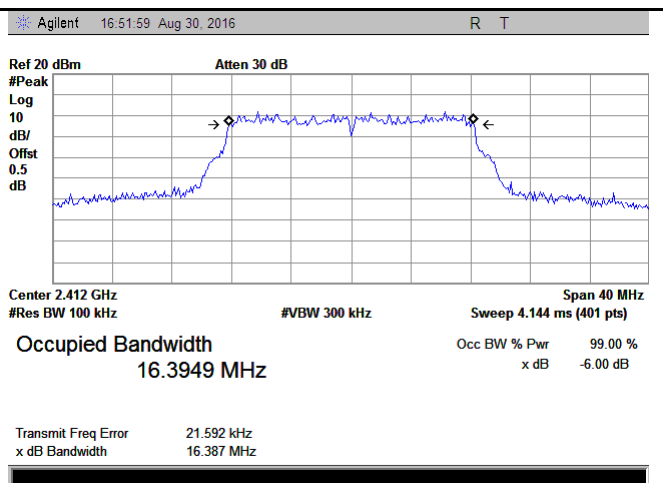
802.11b 6dB Bandwidth – CH11 2462



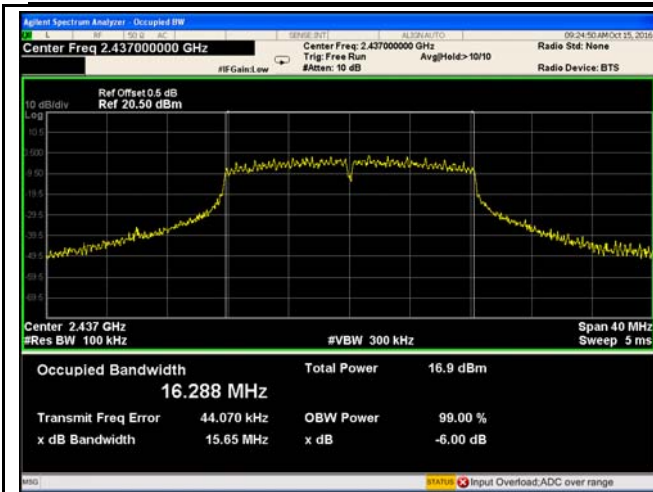
802.11b 6dB Bandwidth - CH12 2467



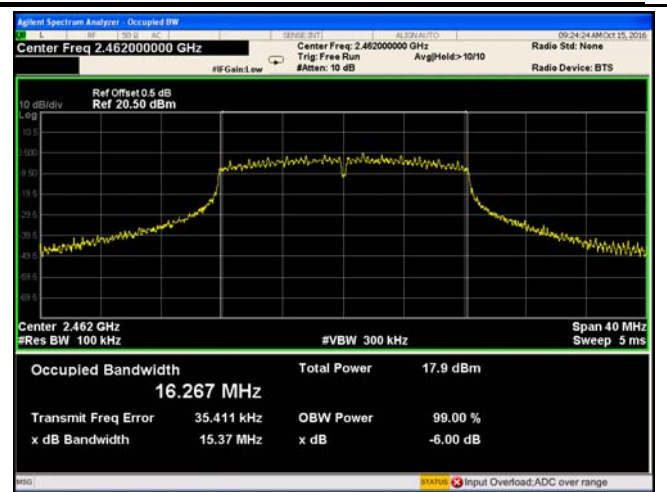
802.11b 6dB Bandwidth – CH13 2472



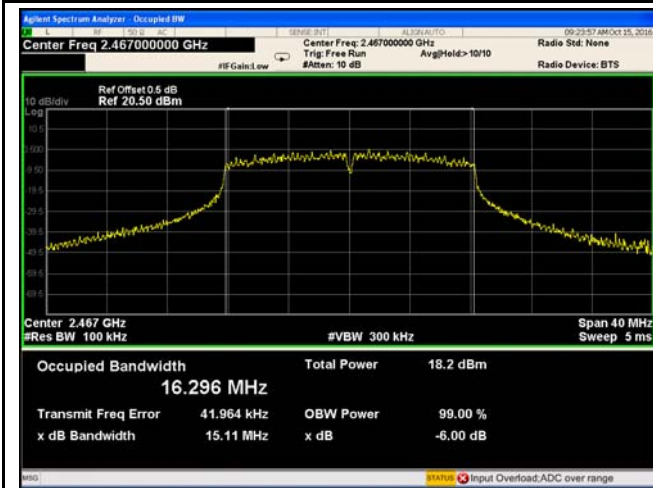
802.11g 6dB Bandwidth – CH1 2412



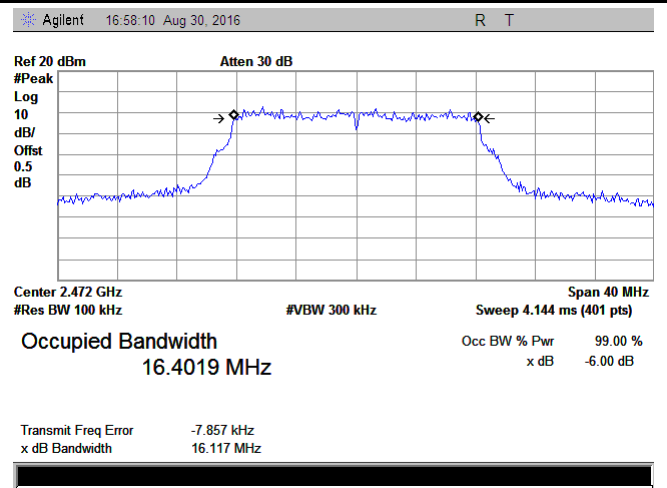
802.11g 6dB Bandwidth – CH6 2437



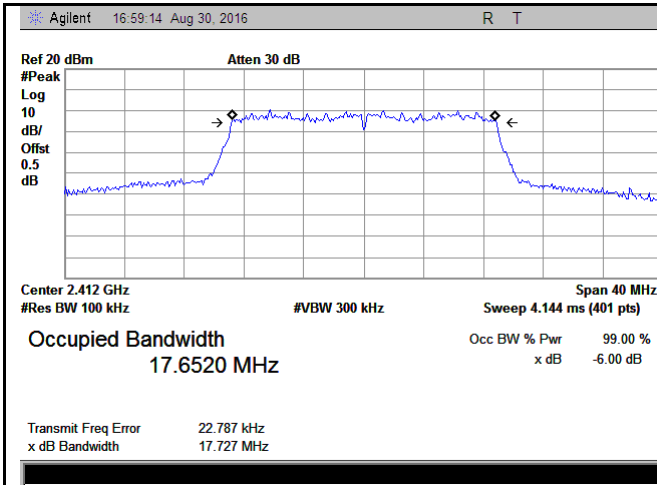
802.11g 6dB Bandwidth – CH11 2462



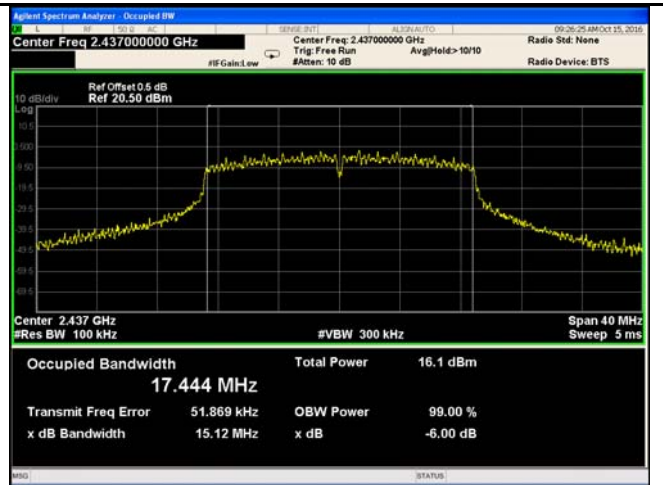
802.11g 6dB Bandwidth – CH12 2467



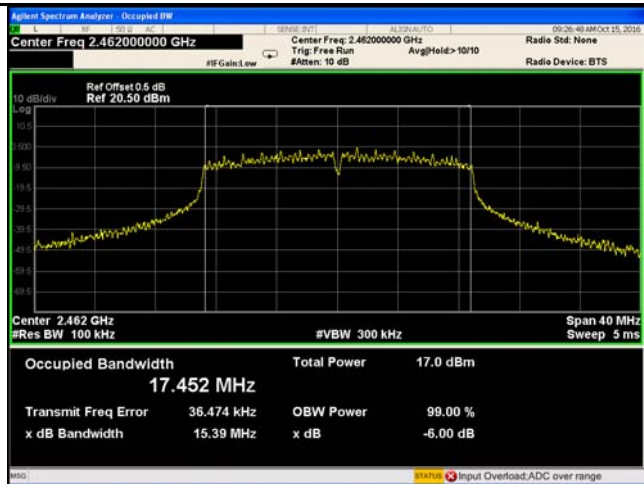
802.11g 6dB Bandwidth – CH13 2472



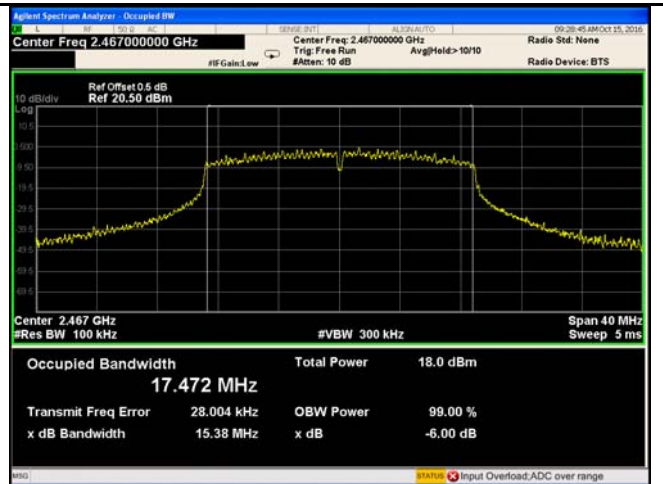
802.11n20 6dB Bandwidth – CH1 2412



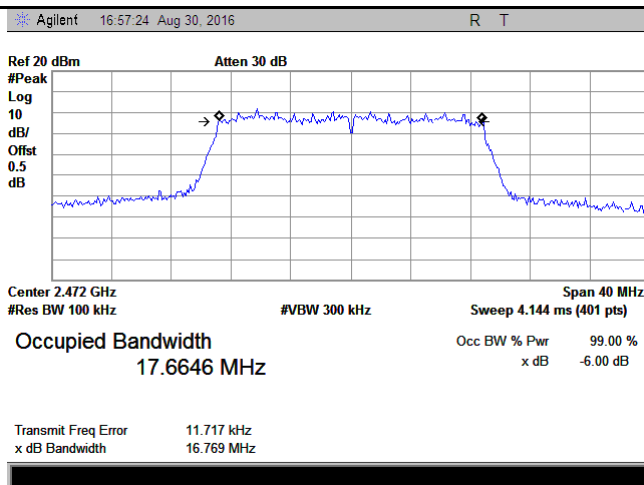
802.11n20 6dB Bandwidth – CH6 2437



802.11n20 6dB Bandwidth – CH11 2462

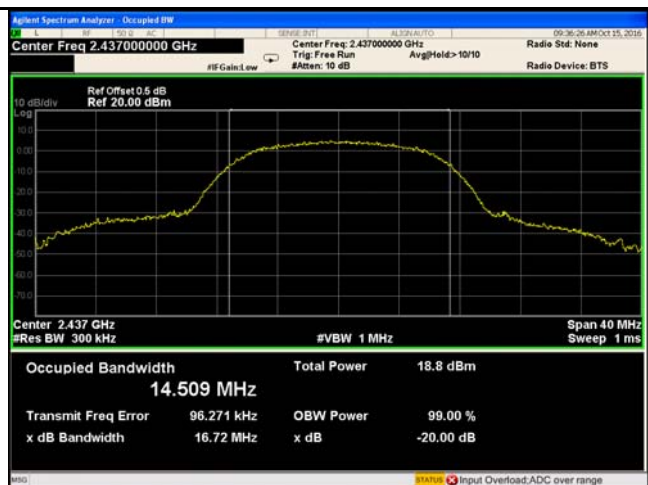
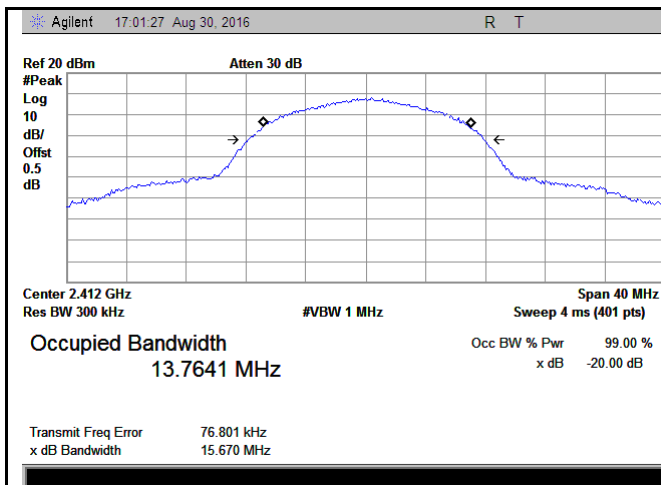


802.11n20 6dB Bandwidth – CH12 2467



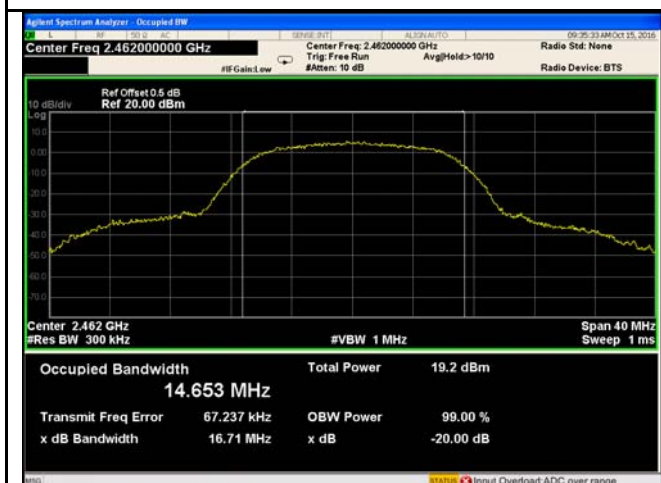
802.11n20 6dB Bandwidth – CH13 2472

## 20 dB Bandwidth measurement result



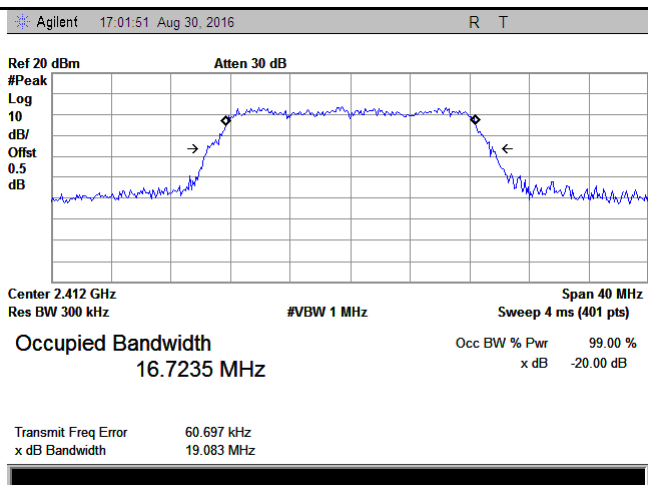
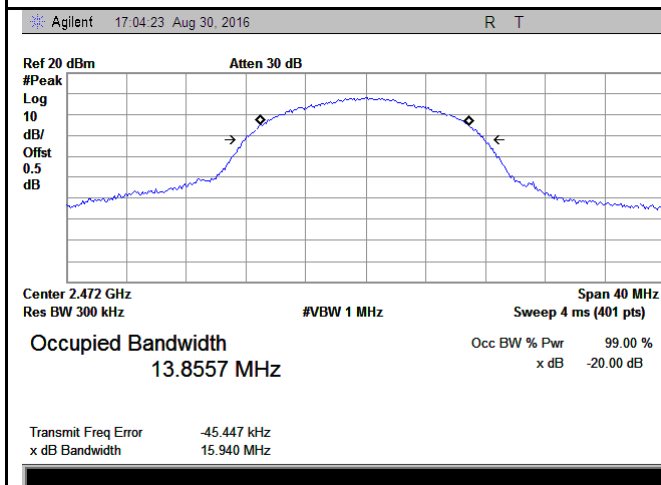
802.11b 20dB Bandwidth – CH1 2412

802.11b 20dB Bandwidth – CH6 2437



802.11b 20dB Bandwidth – CH11 2462

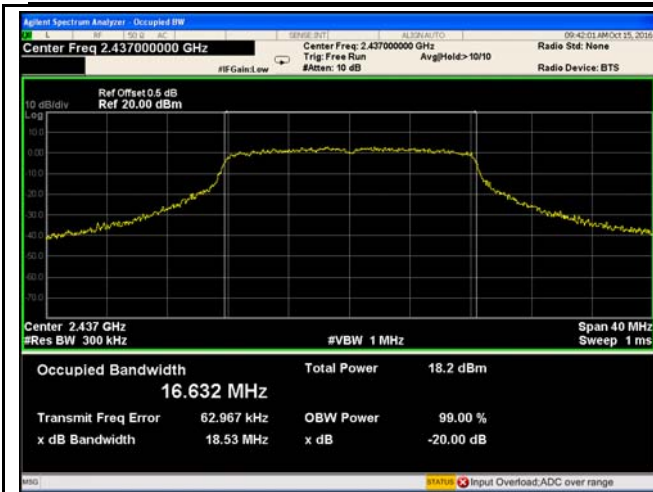
802.11b 20dB Bandwidth – CH12 2467



802.11b 20dB Bandwidth – CH13 2472

802.11g 20dB Bandwidth – CH1 2412

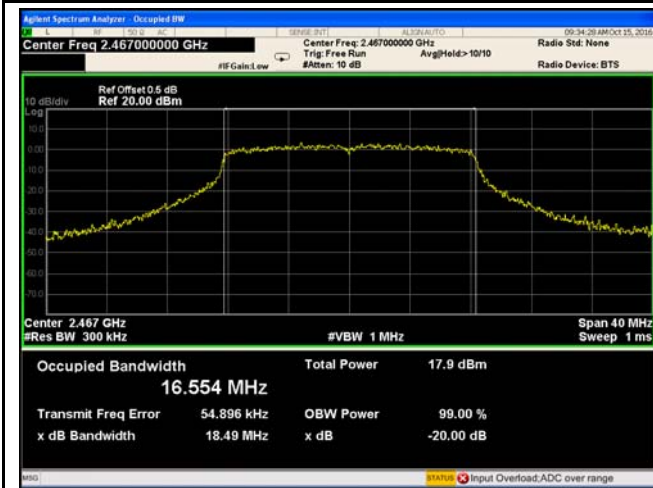




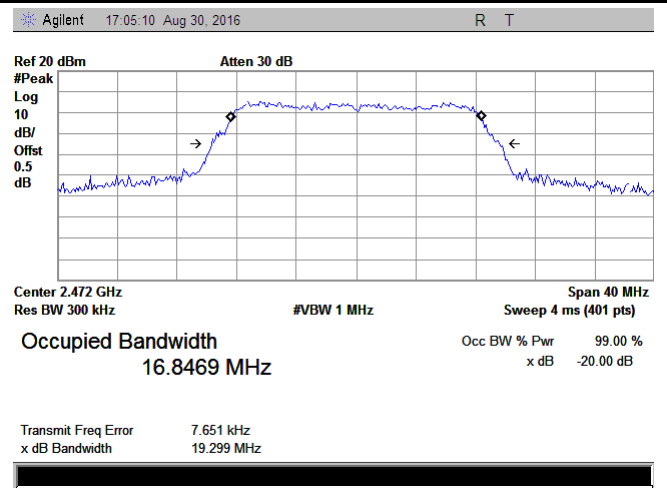
802.11g 20dB Bandwidth – CH6 2437



802.11g 20dB Bandwidth – CH11 2462

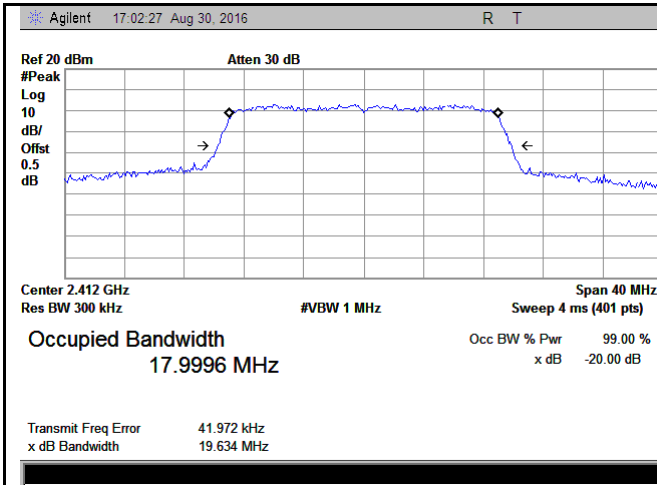


802.11g 20dB Bandwidth – CH12 2467



802.11g 20dB Bandwidth – CH13 2472

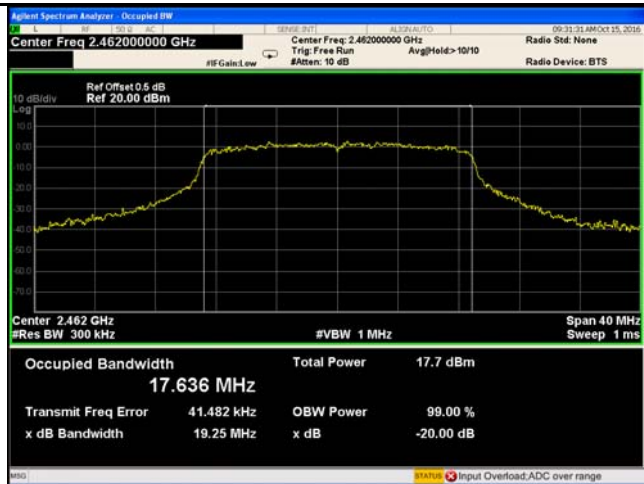




802.11n20 20dB Bandwidth – CH1 2412



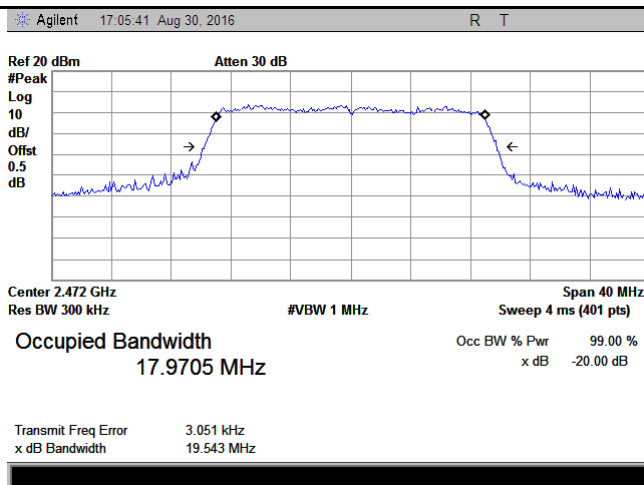
802.11n20 20dB Bandwidth – CH6 2437



802.11n20 20dB Bandwidth – CH11 2462



802.11n20 20dB Bandwidth – CH12 2467

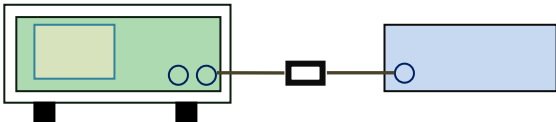


802.11n20 20dB Bandwidth – CH13 2472

### 6.3 Maximum Output Power

Temperature	23°C
Relative Humidity	54%
Atmospheric Pressure	1030mbar
Test date :	August 30&October 15, 2016
Tested By :	Loren Luo

#### Requirement(s):

Spec	Item	Requirement	Applicable
§15.247(b) (3),RSS210 (A8.4)	a)	FHSS in 2400-2483.5MHz with $\geq 75$ channels: $\leq 1$ Watt	<input type="checkbox"/>
	b)	FHSS in 5725-5850MHz: $\leq 1$ Watt	<input type="checkbox"/>
	c)	For all other FHSS in the 2400-2483.5MHz band: $\leq 0.125$ Watt.	<input type="checkbox"/>
	d)	FHSS in 902-928MHz with $\geq 50$ channels: $\leq 1$ Watt	<input type="checkbox"/>
	e)	FHSS in 902-928MHz with $\geq 25$ & $<50$ channels: $\leq 0.25$ Watt	<input type="checkbox"/>
	f)	DTS in 902-928MHz, 2400-2483.5MHz: $\leq 1$ Watt	<input checked="" type="checkbox"/>
Test Setup			
Test Procedure	<p>558074 D01 DTS MEAS Guidance v03r03, 9.1.2 Integrated band power method Maximum output power measurement procedure</p> <ul style="list-style-type: none"> <li>- a) Set span to at least 1.5 times the OBW.</li> <li>- b) Set RBW = 1-5% of the OBW, not to exceed 1 MHz.</li> <li>- c) Set VBW <math>\geq 3 \times</math> RBW.</li> <li>- d) Number of points in sweep <math>\geq 2 \times</math> span / RBW. (This gives bin-to-bin spacing <math>\leq</math> RBW/2, so that narrowband signals are not lost between frequency bins.)</li> <li>- e) Sweep time = auto.</li> <li>- f) Detector = RMS (i.e., power averaging), if available. Otherwise, use sample detector mode.</li> <li>- g) If transmit duty cycle <math>&lt; 98\%</math>, use a sweep trigger with the level set to enable triggering only on full power pulses. The transmitter shall operate at maximum</li> </ul>		

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	<p>power control level for the entire duration of every sweep. If the EUT transmits continuously (i.e., with no off intervals) or at duty cycle <math>\geq 98\%</math>, and if each transmission is entirely at the maximum power control level, then the trigger shall be set to "free run".</p> <ul style="list-style-type: none"> <li>- h) Trace average at least 100 traces in power averaging (i.e., RMS) mode.</li> <li>- i) Compute power by integrating the spectrum across the OBW of the signal using the instrument's band power measurement function, with band limits set equal to the OBW band edges. If the instrument does not have a band power function, sum the spectrum levels (in power units) at intervals equal to the RBW extending across the entire OBW of the spectrum.</li> </ul>
Remark	
Result	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail

Test Data ☒ Yes ☐ N/A

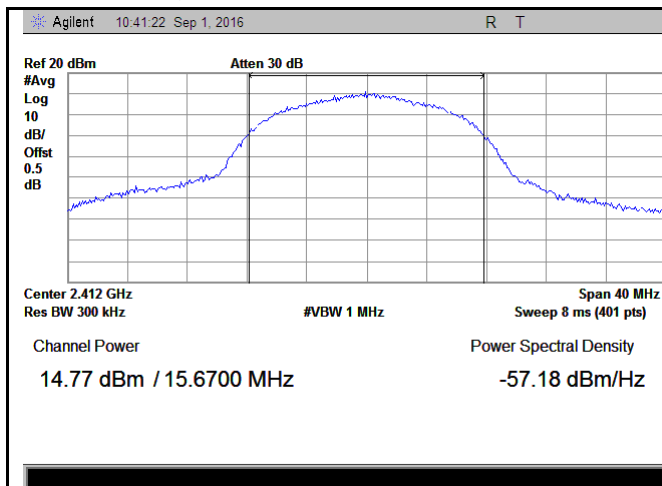
Test Plot ☒ Yes (See below) ☐ N/A

#### Output Power measurement result

Type	Test mode	CH	Frequency (MHz)	Conducted Power (dBm)	Limit (dBm)	Result
Output power	802.11b	CH1	2412	<b>14.77</b>	30	Pass
		CH6	2437	14.53	30	Pass
		CH11	2462	14.43	30	Pass
		CH12	2467	14.75	30	Pass
		CH13	2472	14.39	30	Pass
	802.11g	CH1	2412	11.16	30	Pass
		CH6	2437	11.19	30	Pass
		CH11	2462	11.19	30	Pass
		CH12	2467	11.37	30	Pass
		CH13	2472	<b>11.98</b>	30	Pass
	802.11n (20M)	CH1	2412	11.62	30	Pass
		CH6	2437	11.44	30	Pass
		CH11	2462	<b>11.98</b>	30	Pass
		CH12	2467	11.78	30	Pass
		CH13	2472	11.25	30	Pass

## Test Plots

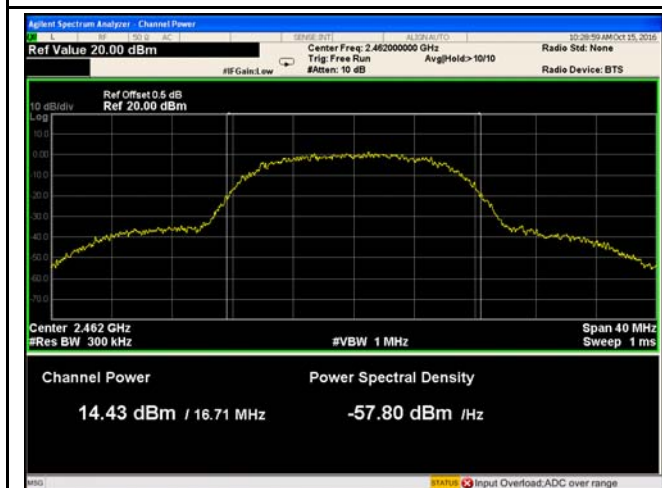
### The Average Power



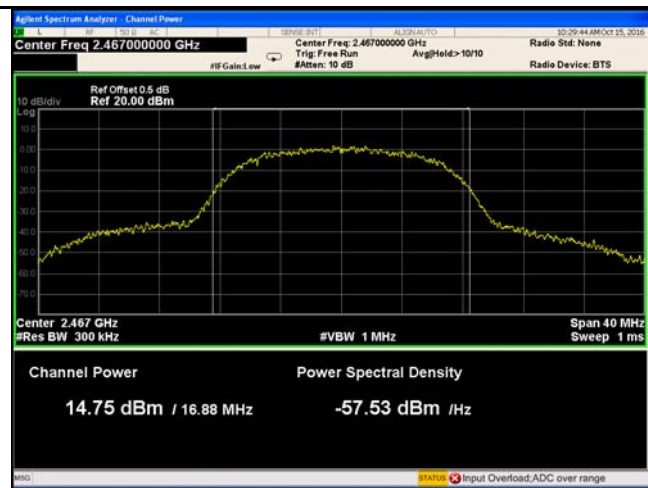
802.11b - AV Output power – CH1 2412



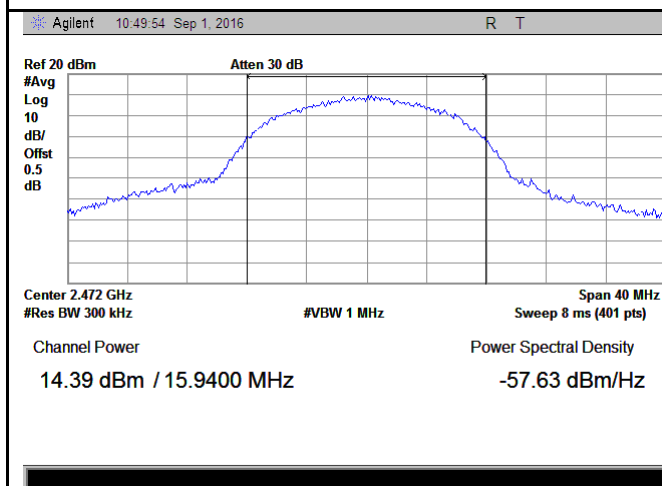
802.11b - AV Output power – CH6 2437



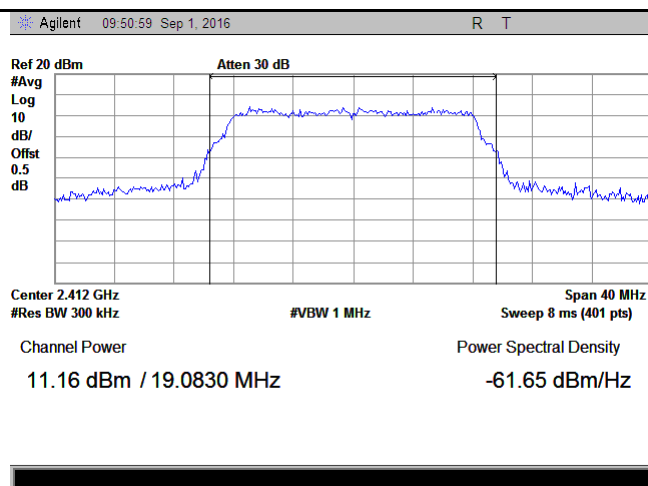
802.11b - AV Output power - CH11 2462



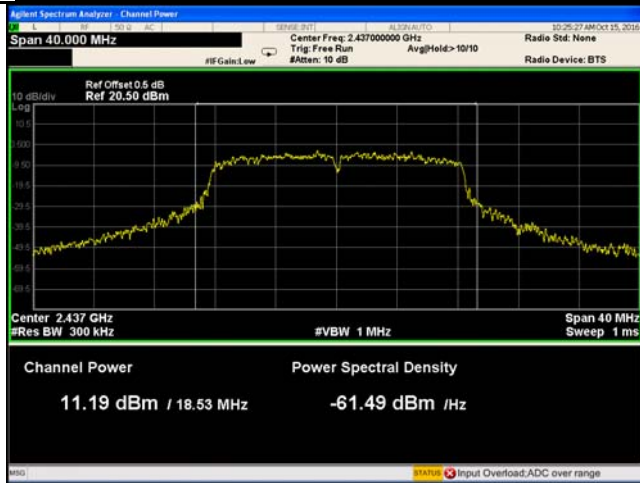
802.11b - AV Output power - CH12 2467



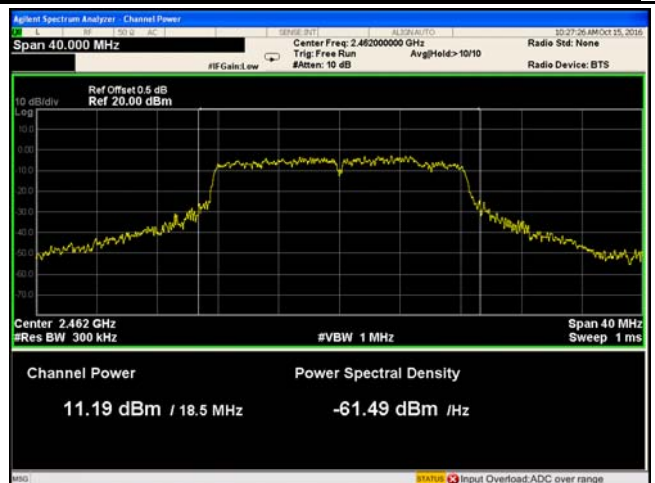
802.11b - AV Output power - CH13 2472



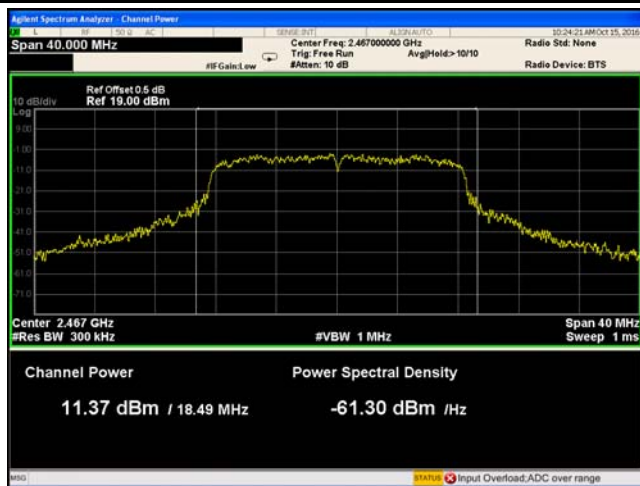
802.11g - AV Output power – CH1 2412



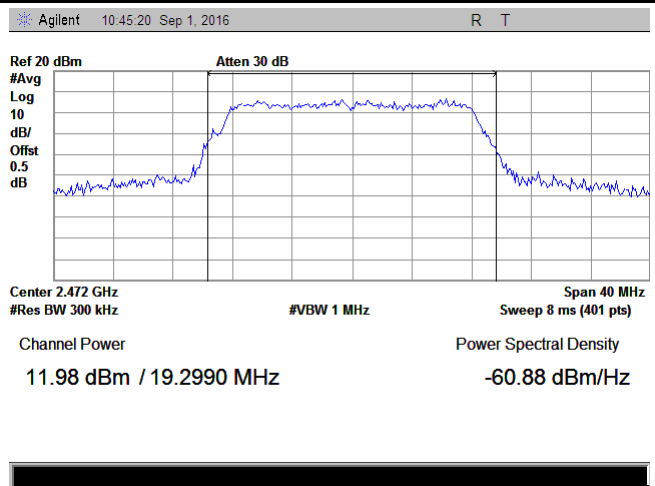
802.11g - AV Output power – CH6 2437



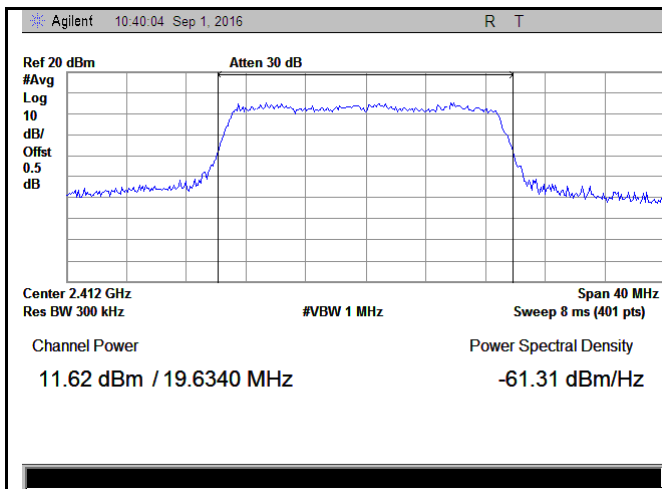
802.11g - AV Output power - CH11 2462



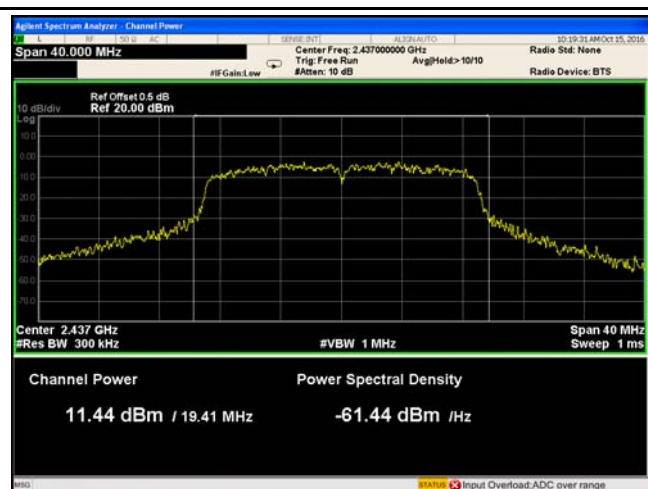
802.11g - AV Output power - CH12 2467



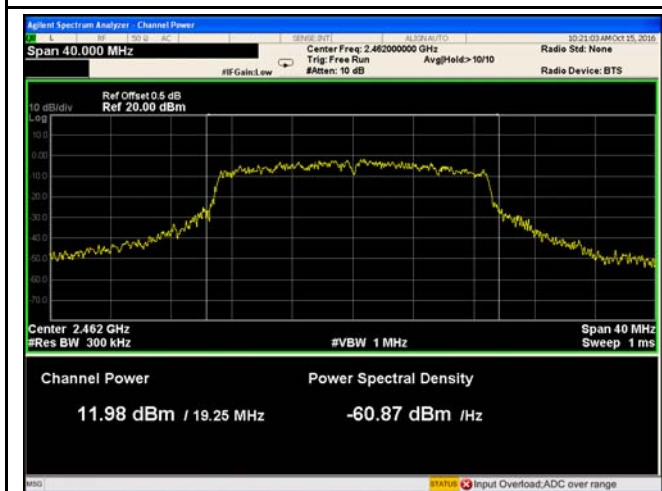
802.11g - AV Output power - CH13 2472



802.11n20 - AV Output power – CH1 2412



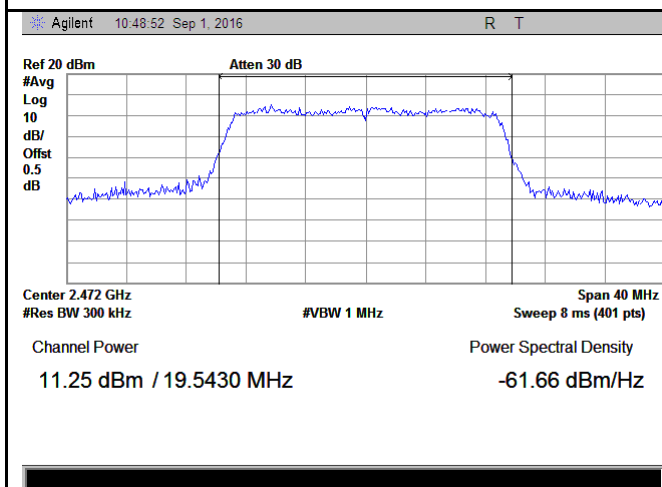
802.11n20 - AV Output power – CH6 2437



802.11n20 - AV Output power - CH11 2462



802.11n20 - AV Output power - CH12 2467

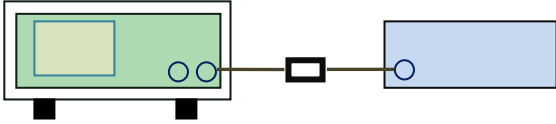


802.11n20 - AV Output power - CH13 2472



## 6.4 Power Spectral Density

Temperature	23°C
Relative Humidity	54%
Atmospheric Pressure	1030mbar
Test date :	August 30&October 15, 2016
Tested By :	Loren Luo

Spec	Item	Requirement	Applicable
§15.247(e)	a)	The power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.	<input checked="" type="checkbox"/>
Test Setup			
Test Procedure	<p>558074 D01 DTS MEAS Guidance v03r03, 10.2 power spectral density method power spectral density measurement procedure</p> <ul style="list-style-type: none"> <li>- a) Set analyzer center frequency to DTS channel center frequency.</li> <li>- b) Set the span to 1.5 times the DTS bandwidth.</li> <li>- c) Set the RBW to: <math>3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}</math>.</li> <li>- d) Set the VBW <math>\geq 3 \times \text{RBW}</math>.</li> <li>- e) Detector = peak.</li> <li>- f) Sweep time = auto couple.</li> <li>- g) Trace mode = max hold.</li> <li>- h) Allow trace to fully stabilize.</li> <li>- i) Use the peak marker function to determine the maximum amplitude level within the RBW.</li> <li>- j) If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.</li> </ul>		
Remark			
Result	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail		

Test Data ☒ Yes ☐ N/A  
Test Plot ☒ Yes (See below) ☐ N/A

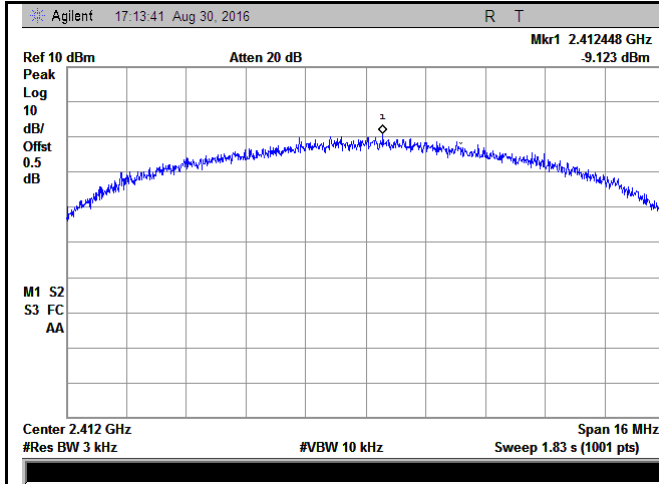
### Power Spectral Density measurement result

Type	Test mode	CH	Freq (MHz)	PSD	Limit (dBm)	Result
				(dBm)		
PSD	802.11b	CH1	2412	-9.123	8	Pass
		CH6	2437	-9.267	8	Pass
		CH11	2462	-9.174	8	Pass
		CH12	2467	-8.257	8	Pass
		CH13	2472	-8.987	8	Pass
	802.11g	CH1	2412	-12.22	8	Pass
		CH6	2437	-11.891	8	Pass
		CH11	2462	-11.068	8	Pass
		CH12	2467	-11.596	8	Pass
		CH13	2472	-12.63	8	Pass
	802.11n (20M)	CH1	2412	-14.67	8	Pass
		CH6	2437	-15.224	8	Pass
		CH11	2462	-13.776	8	Pass
		CH12	2467	-14.715	8	Pass
		CH13	2472	-14.19	8	Pass

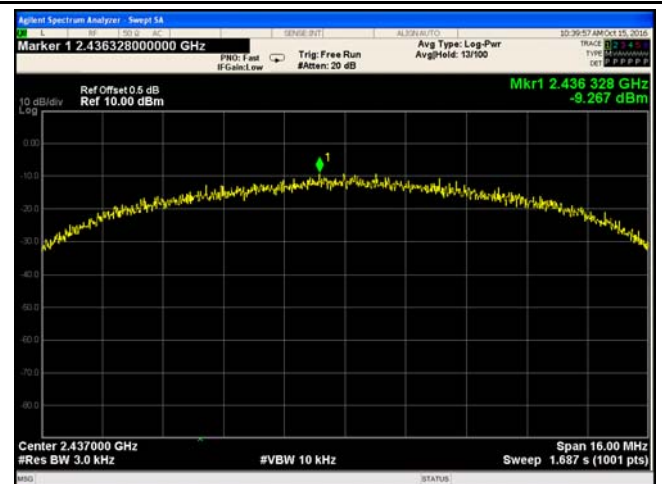


## Test Plots

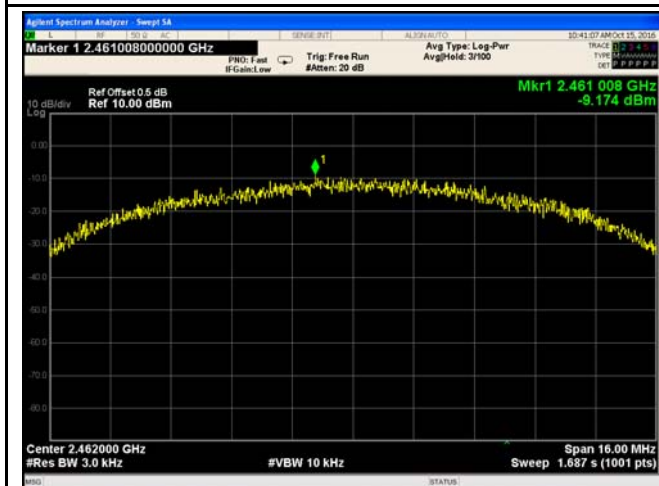
### Power Spectral Density measurement result



PSD - CH1 2412 - 802.11b



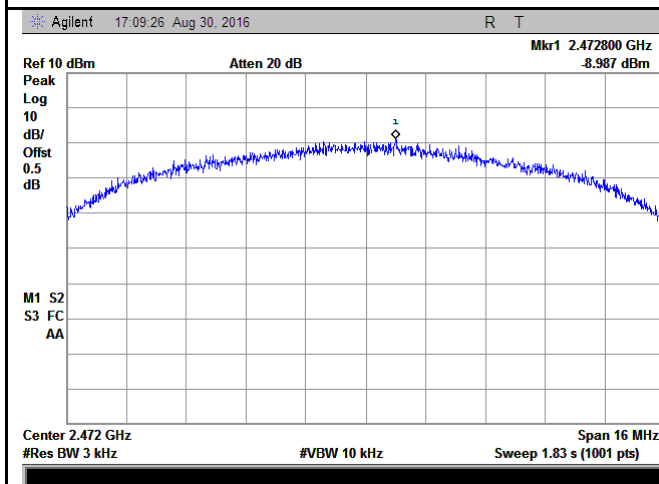
PSD - CH6 2437 - 802.11b



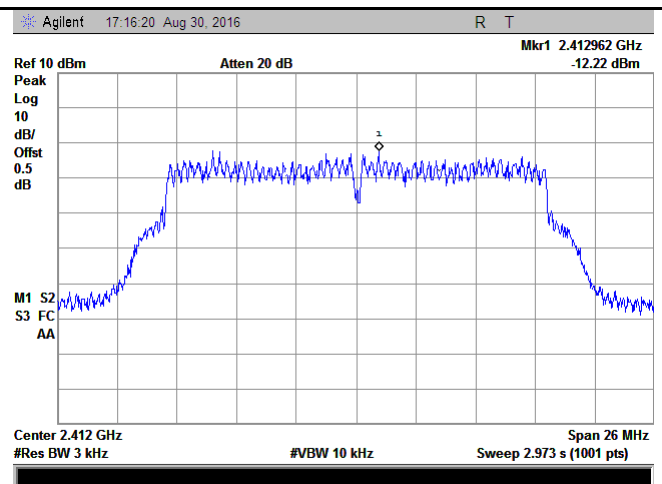
PSD - CH11 2462 - 802.11b



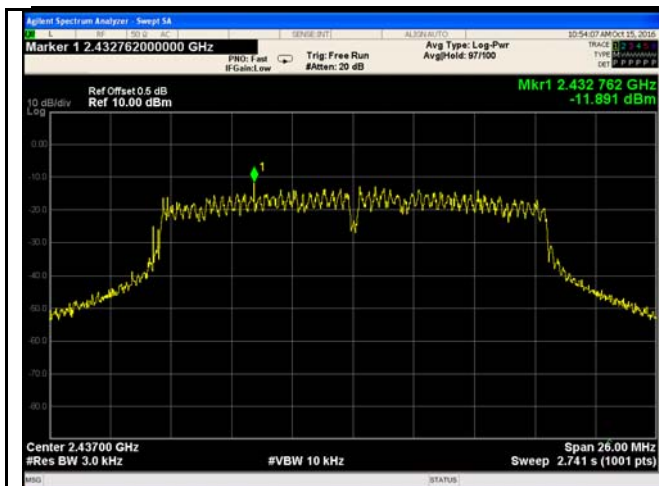
PSD - CH12 2467 - 802.11b



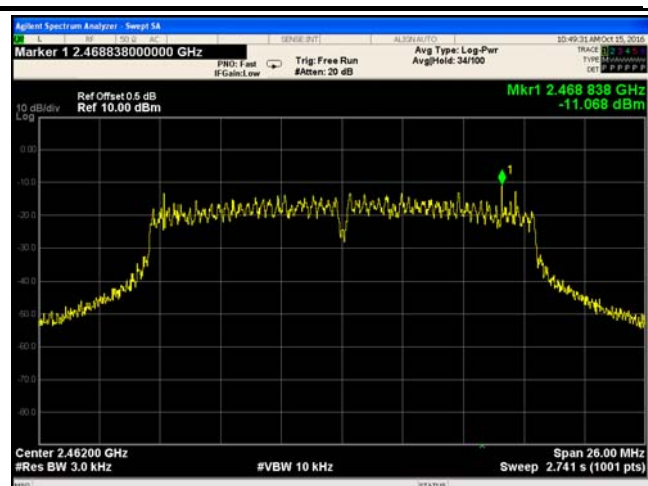
PSD - CH13 2472 - 802.11b



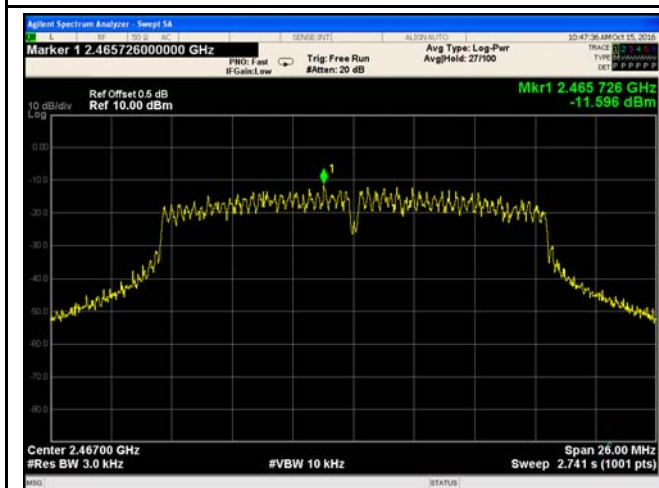
PSD - CH1 2412 - 802.11g



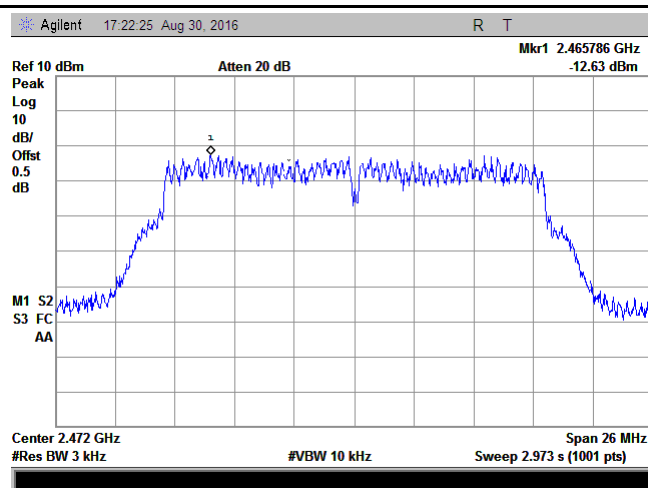
PSD – CH6 2437 -802.11g



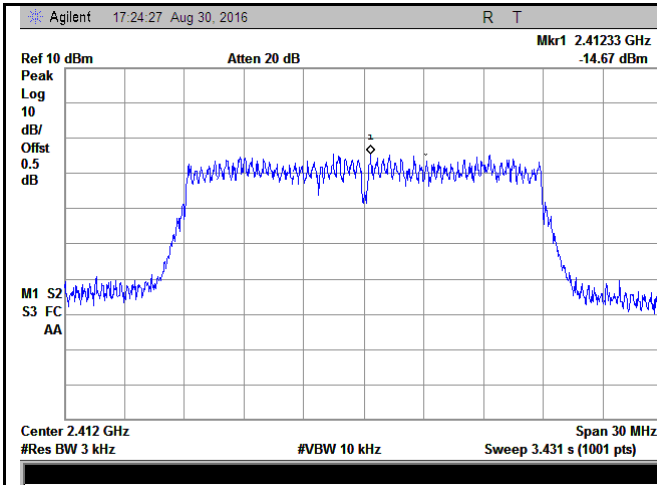
PSD - CH11 2462 – 802.11g



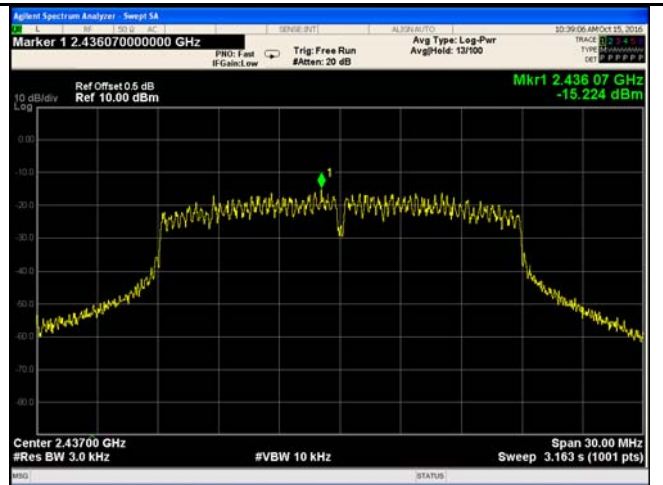
PSD - CH12 2467 - 802.11g



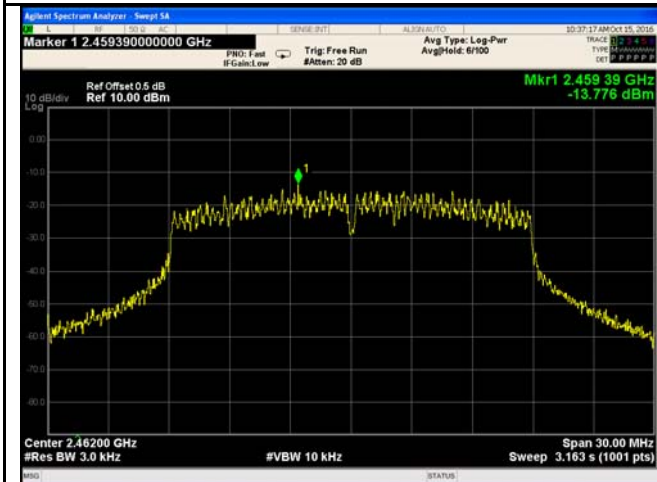
PSD - CH13 2472 - 802.11g



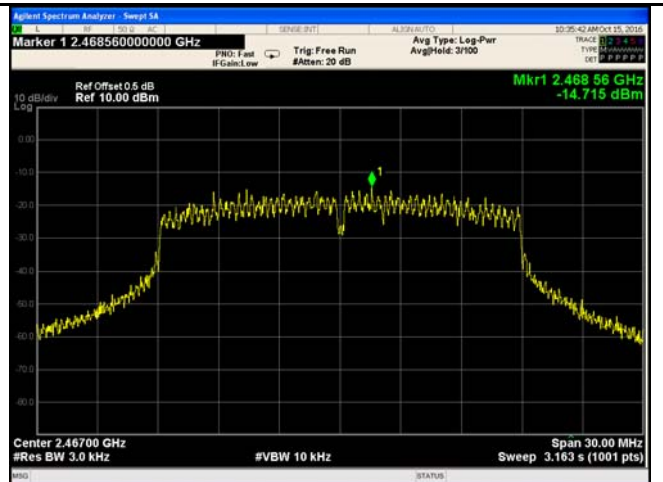
PSD - CH1 2412 - 802.11n20



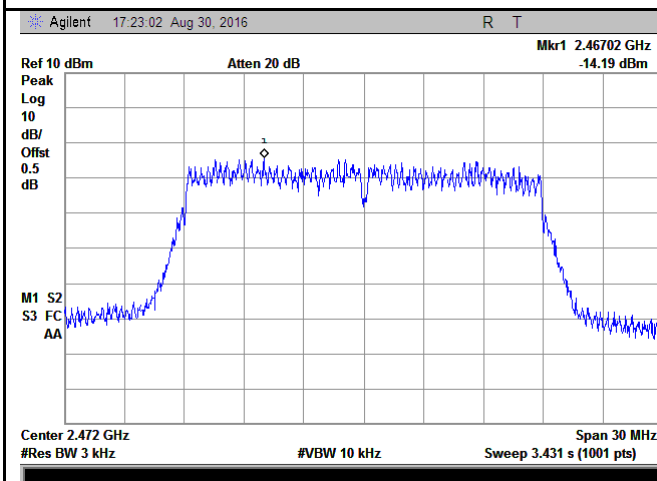
PSD - CH6 2437 - 802.11n20



PSD - CH11 2462 - 802.11n20



PSD - CH12 2467 - 802.11n20

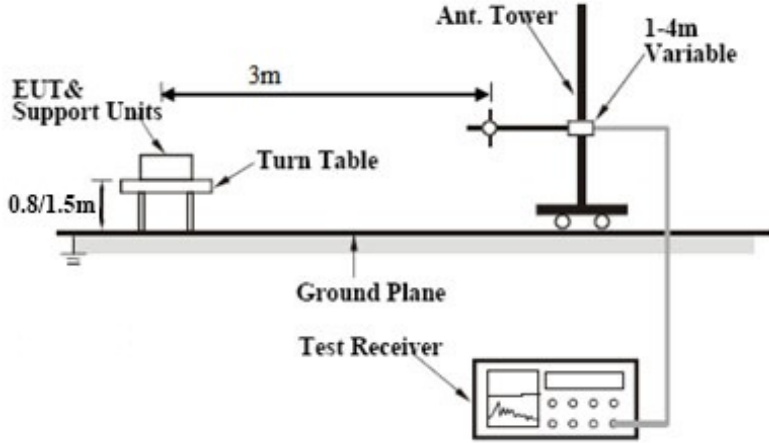


PSD - CH13 2472 - 802.11n20

## 6.5 Band-Edge & Unwanted Emissions into Restricted Frequency Bands

Temperature	22°C
Relative Humidity	53%
Atmospheric Pressure	1029mbar
Test date :	August 29&October 23, 2016
Tested By :	Loren Luo

### Requirement(s):

Spec	Item	Requirement	Applicable
§15.247(d)	a)	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits.	<input checked="" type="checkbox"/>
Test Setup			
Test Procedure	<p>Radiated Method Only</p> <ul style="list-style-type: none"> <li>1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.</li> <li>2. Position the EUT without connection to measurement instrument. Put it on the Rotated table and turn on the EUT and make it operate in transmitting mode. Then set it to Low Channel and High Channel within its operating range, and make sure the instrument is operated in its linear range.</li> </ul>		

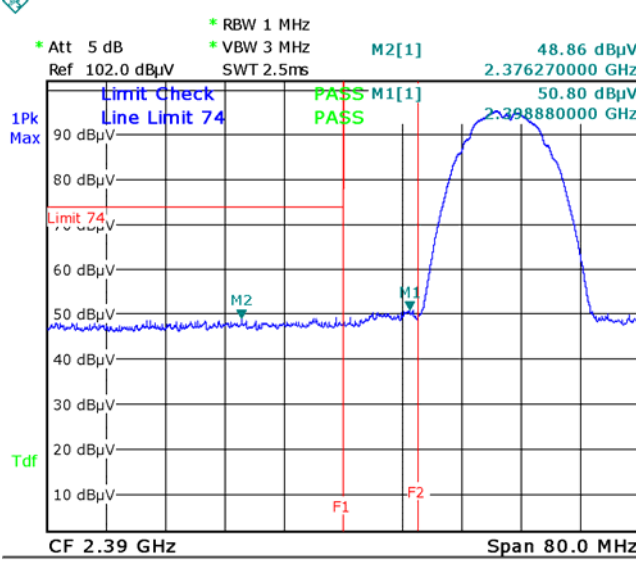
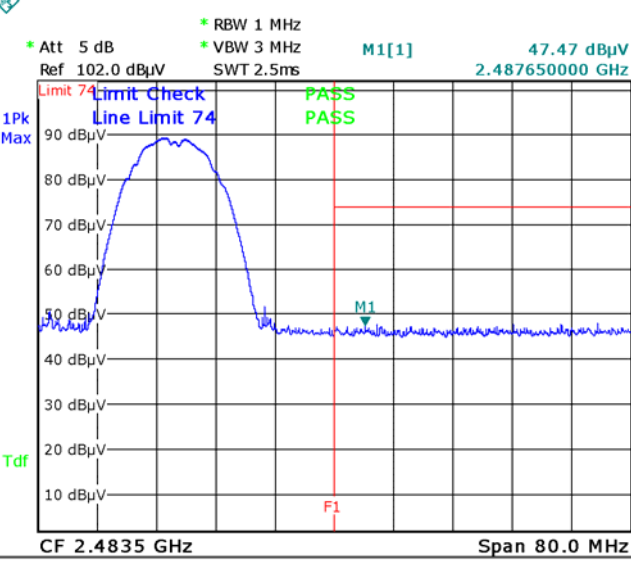
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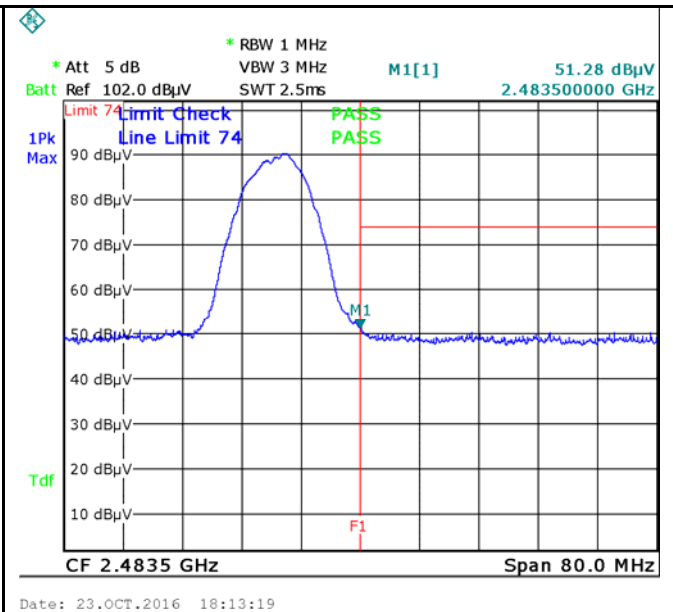
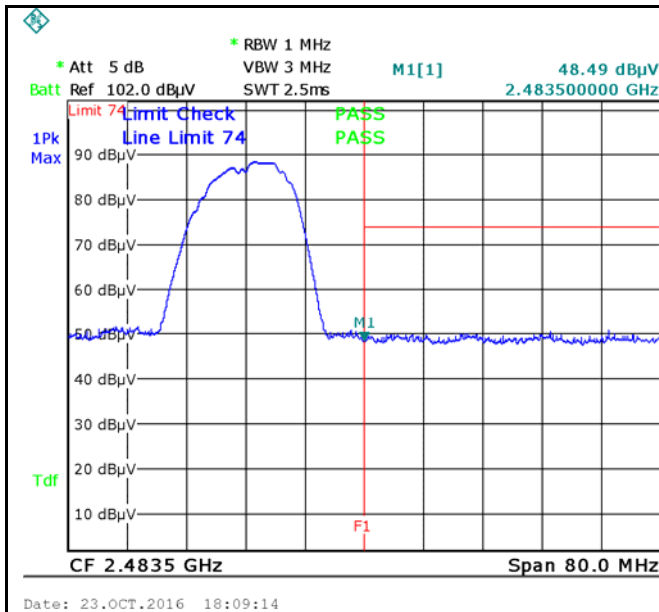
	<ul style="list-style-type: none"> <li>- 3. First, set both RBW and VBW of spectrum analyzer to 100 kHz with a convenient frequency span including 100kHz bandwidth from band edge, check the emission of EUT, if pass then set Spectrum Analyzer as below:               <ul style="list-style-type: none"> <li>a. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 kHz for Quasiy Peak detection at frequency below 1GHz.</li> <li>b. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz with Peak detection for Peak measurement at frequency above 1GHz.</li> <li>c. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 10Hz with Peak detection for Average Measurement as below at frequency above 1GHz.</li> </ul> </li> <li>- 4. Measure the highest amplitude appearing on spectral display and set it as a reference level. Plot the graph with marking the highest point and edge frequency.</li> <li>- 5. Repeat above procedures until all measured frequencies were complete.</li> </ul>
Remark	
Result	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail

Test Data ☒ Yes ☐ N/A  
 Test Plot ☒ Yes (See below) ☐ N/A

## Test Plots

### Band Edge measurement result

 <p>             * RBW 1 MHz              * Att 5 dB              * VBW 3 MHz              Ref 102.0 dBμV              SWT 2.5ms              M2[1] 48.86 dBμV              2.376270000 GHz              50.80 dBμV              2.398880000 GHz              Limit Check              Line Limit 74              PASS M1[1]              PASS              1Pk Max              90 dBμV              80 dBμV              70 dBμV              60 dBμV              50 dBμV              40 dBμV              30 dBμV              20 dBμV              10 dBμV              Tdf              CF 2.39 GHz              Span 80.0 MHz              Date: 29.AUG.2016 08:57:39         </p>	 <p>             * RBW 1 MHz              * Att 5 dB              * VBW 3 MHz              Ref 102.0 dBμV              SWT 2.5ms              M1[1] 47.47 dBμV              2.487650000 GHz              Limit Check              Line Limit 74              PASS              PASS              1Pk Max              90 dBμV              80 dBμV              70 dBμV              60 dBμV              50 dBμV              40 dBμV              30 dBμV              20 dBμV              10 dBμV              Tdf              CF 2.4835 GHz              Span 80.0 MHz              Date: 29.AUG.2016 09:34:39         </p>
<p>Band Edge, Left Side (Peak) - 802.11b(1CH)</p> <p>Note: F1 is frequency 2390MHz; F2 is frequency 2400MHz</p>	<p>Band Edge, Right Side (Peak) - 802.11b(11CH)</p> <p>Note: F1 is frequency 2483.5MHz</p>
<p>Note: (no need if PK value less than the AV limit)</p>	<p>Note: (no need if PK value less than the AV limit)</p>
<p>Band Edge, Left Side (Average) - 802.11b</p>	<p>Band Edge, Right Side (Average) - 802.11b</p>



Band Edge, Right Side (Peak) - 802.11b(12CH)

Note: F1 is frequency 2483.5MHz

Band Edge, Right Side (Peak) - 802.11b(13CH)

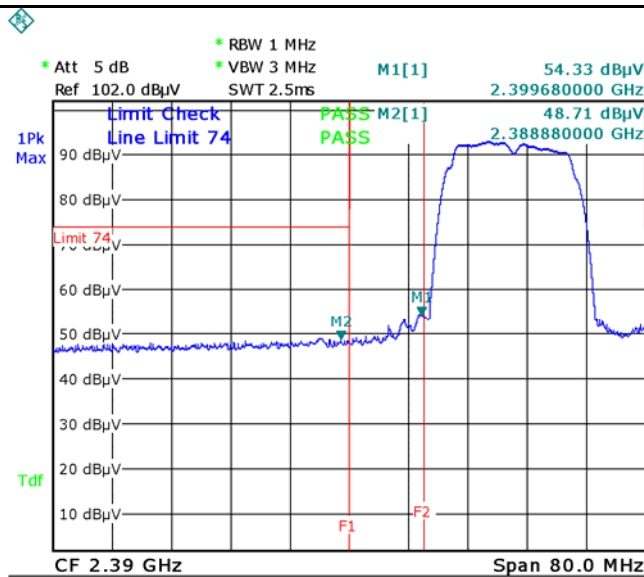
Note: F1 is frequency 2483.5MHz

Note: (no need if PK value less than the AV limit)

Note: (no need if PK value less than the AV limit)

Band Edge, Left Side (Average) - 802.11b

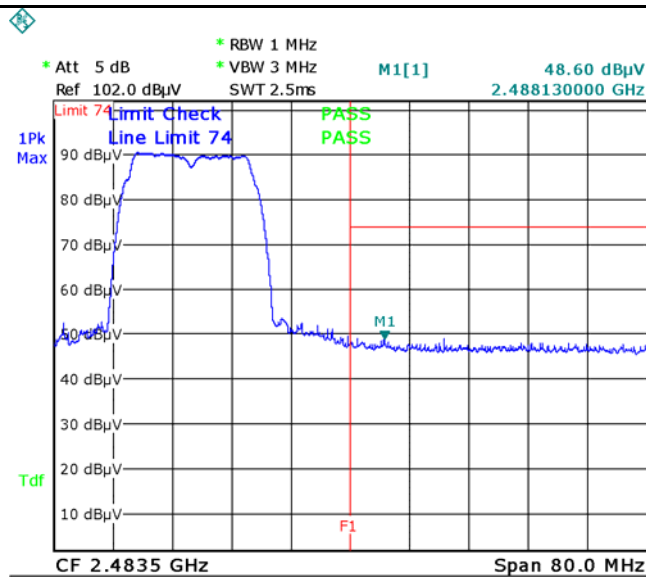
Band Edge, Right Side (Average) - 802.11b



Date: 29.AUG.2016 09:13:36

Band Edge, Left Side (Peak) - 802.11g(1CH)

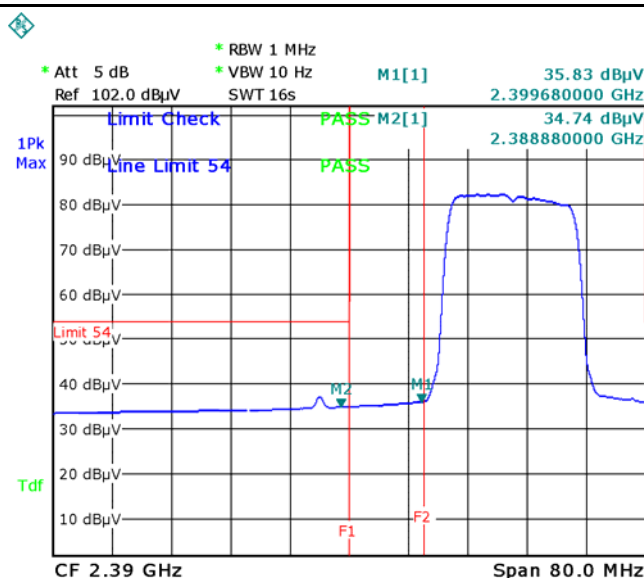
Note: F1 is frequency 2390MHz; F2 is frequency 2400MHz



Date: 29.AUG.2016 09:31:24

Band Edge, Right Side (Peak) - 802.11g(11CH)

Note: F1 is frequency 2483.5MHz



Date: 29.AUG.2016 09:15:32

Band Edge, Left Side (Average) - 802.11g(1CH)

Note: F1 is frequency 2390MHz; F2 is frequency 2400MHz

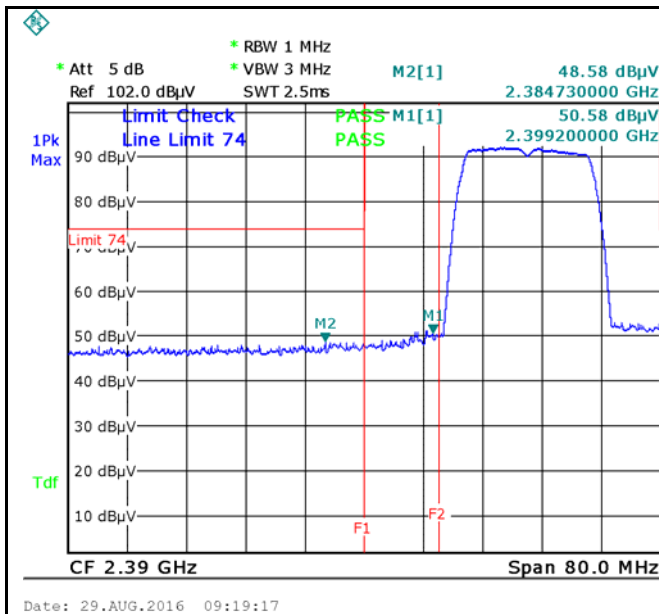
Note: (no need if PK value less than the AV limit)

Band Edge, Right Side (Average) - 802.11g

Note: F1 is frequency 2483.5MHz



<p>* Att 5 dB * RBW 1 MHz VBW 3 MHz M1[1] 52.00 dBμV Batt Ref 102.0 dBμV SWT 2.5ms 2.486210000 GHz Limit 74 Line Limit 74 PASS PASS 1Pk Max Tdf CF 2.4835 GHz Span 80.0 MHz Date: 23.OCT.2016 18:17:00</p>	<p>* Att 5 dB * RBW 1 MHz VBW 3 MHz M1[1] 50.54 dBμV Batt Ref 102.0 dBμV SWT 2.5ms 2.483500000 GHz Limit 74 Line Limit 74 PASS PASS 1Pk Max Tdf CF 2.4835 GHz Span 80.0 MHz Date: 23.OCT.2016 18:19:09</p>
<p>Band Edge, Right Side (Peak) - 802.11g(12CH) Note: F1 is frequency 2483.5MHz</p>	<p>Band Edge, Right Side (Peak) - 802.11g(13CH) Note: F1 is frequency 2483.5MHz</p>
<p>Note: (no need if PK value less than the AV limit)</p>	<p>Note: (no need if PK value less than the AV limit)</p>
<p>Band Edge, Left Side (Average) - 802.11g</p>	<p>Band Edge, Right Side (Average) - 802.11g</p>



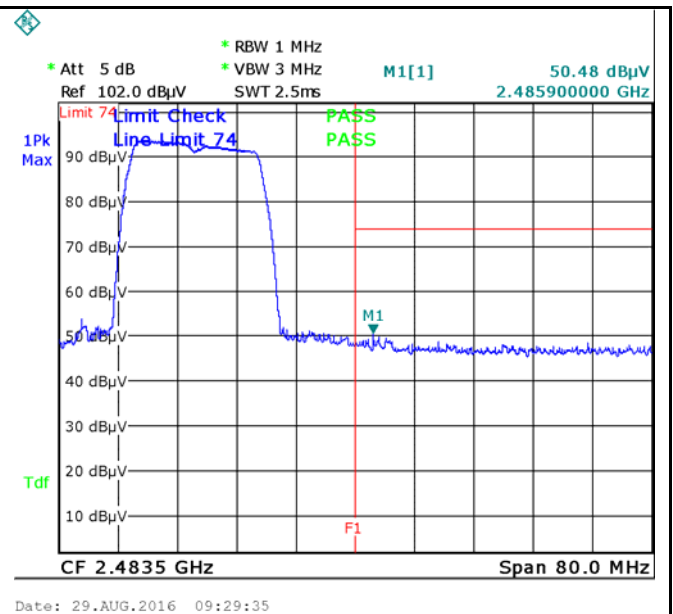
Band Edge, Left Side (Peak) - 802.11n20(1CH)

**Note: F1 is frequency 2390MHz; F2 is frequency 2400MHz**

Note: (no need if PK value less than the AV limit)

Band Edge, Left Side (Average) - 802.11n20

**Note: F1 is frequency 2390MHz; F2 is frequency 2400MHz**



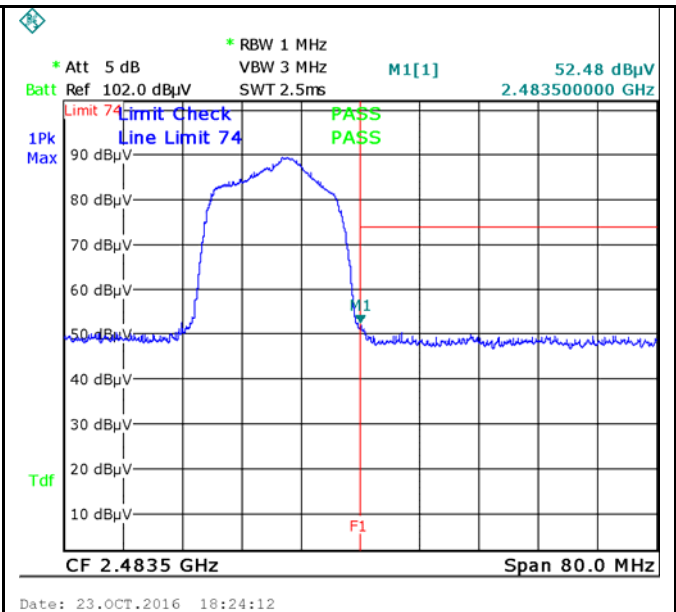
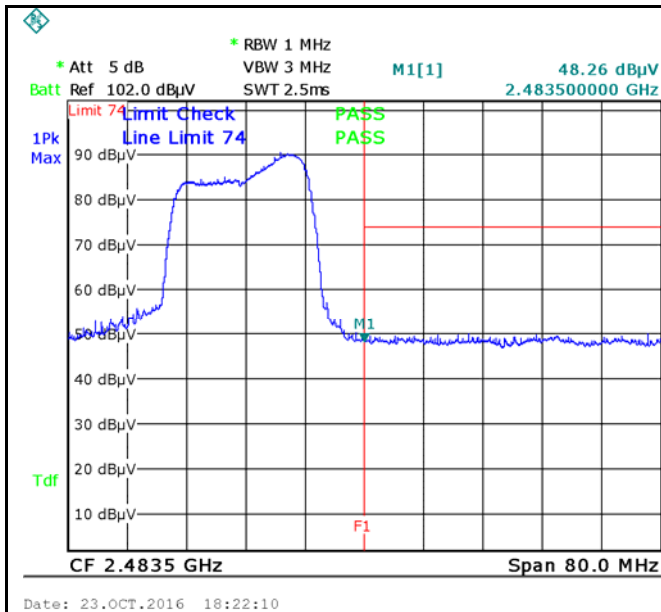
Band Edge, Right Side (Peak) - 802.11n20(11CH)

**Note: F1 is frequency 2483.5MHz**

Note: (no need if PK value less than the AV limit)

Band Edge, Right Side (Average) - 802.11n20

**Note: F1 is frequency 2483.5MHz**



Band Edge, Right Side (Peak) - 802.11n20(12CH)

Note: F1 is frequency 2483.5MHz

Band Edge, Right Side (Peak) - 802.11n20(13CH)

Note: F1 is frequency 2483.5MHz

Note: (no need if PK value less than the AV limit)

Note: (no need if PK value less than the AV limit)

Band Edge, Left Side (Average) - 802.11n20

Note: F1 is frequency 2390MHz; F2 is frequency 2400MHz

Band Edge, Right Side (Average) - 802.11n20

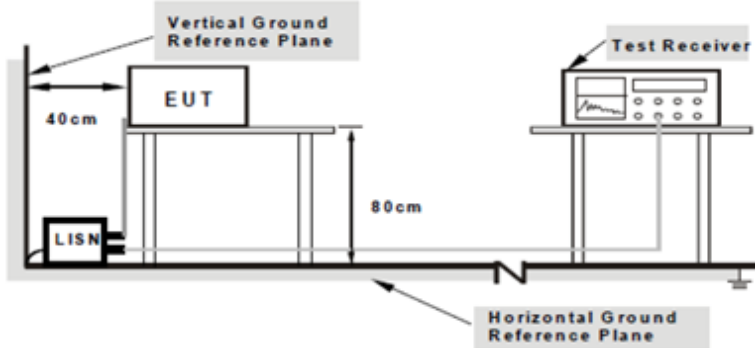
Note: F1 is frequency 2483.5MHz

## 6.6 AC Power Line Conducted Emissions

Temperature	22°C
Relative Humidity	53%
Atmospheric Pressure	1029mbar
Test date :	August 29, 2016
Tested By :	Loren Luo

### Requirement(s):

Spec	Item	Requirement	Applicable		
47CFR§15.207, RSS210 (A8.1)	a)	For Low-power radio-frequency devices 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 or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50 [mu] H/50 ohms line impedance stabilization network (LISN). The lower limit applies at the boundary between the frequencies ranges.	<div><input checked="" type="checkbox"/></div>		
		Frequency ranges (MHz)		Limit (dBµV)	
				QP	Average
		0.15 ~ 0.5		66 – 56	56 – 46
		0.5 ~ 5		56	46
5 ~ 30	60	50			

Test Setup	 <p>Note: 1.Support units were connected to second LISN. 2.Both of LISNs (AMN) are 80cm from EUT and at least 80cm from other units and other metal planes support units.</p>
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Procedure	<ol style="list-style-type: none"> <li>The EUT and supporting equipment were set up in accordance with the requirements of the standard on top of a 1.5m x 1m x 0.8m high, non-metallic table.</li> <li>The power supply for the EUT was fed through a 50W/50mH EUT LISN, connected to filtered mains.</li> <li>The RF OUT of the EUT LISN was connected to the EMI test receiver via a low-loss</li> </ol>
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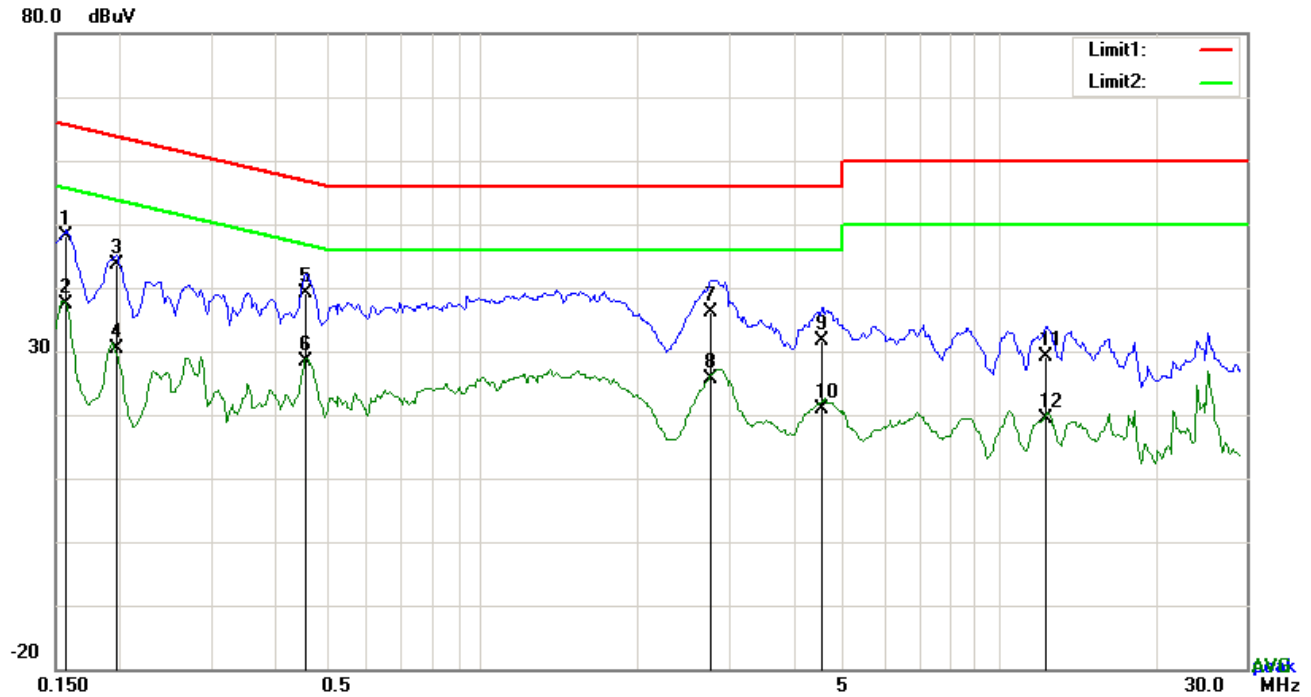
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	<p>coaxial cable.</p> <ol style="list-style-type: none"> <li>4. All other supporting equipment were powered separately from another main supply.</li> <li>5. The EUT was switched on and allowed to warm up to its normal operating condition.</li> <li>6. A scan was made on the NEUTRAL line (for AC mains) or Earth line (for DC power) over the required frequency range using an EMI test receiver.</li> <li>7. High peaks, relative to the limit line, The EMI test receiver was then tuned to the selected frequencies and the necessary measurements made with a receiver bandwidth setting of 10 kHz.</li> <li>8. Step 7 was then repeated for the LIVE line (for AC mains) or DC line (for DC power).</li> </ol>
Remark	
Result	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail

Test Data ☒ Yes ☐ N/A

Test Plot ☒ Yes (See below) ☐ N/A

**Test Mode:** Transmitting Mode

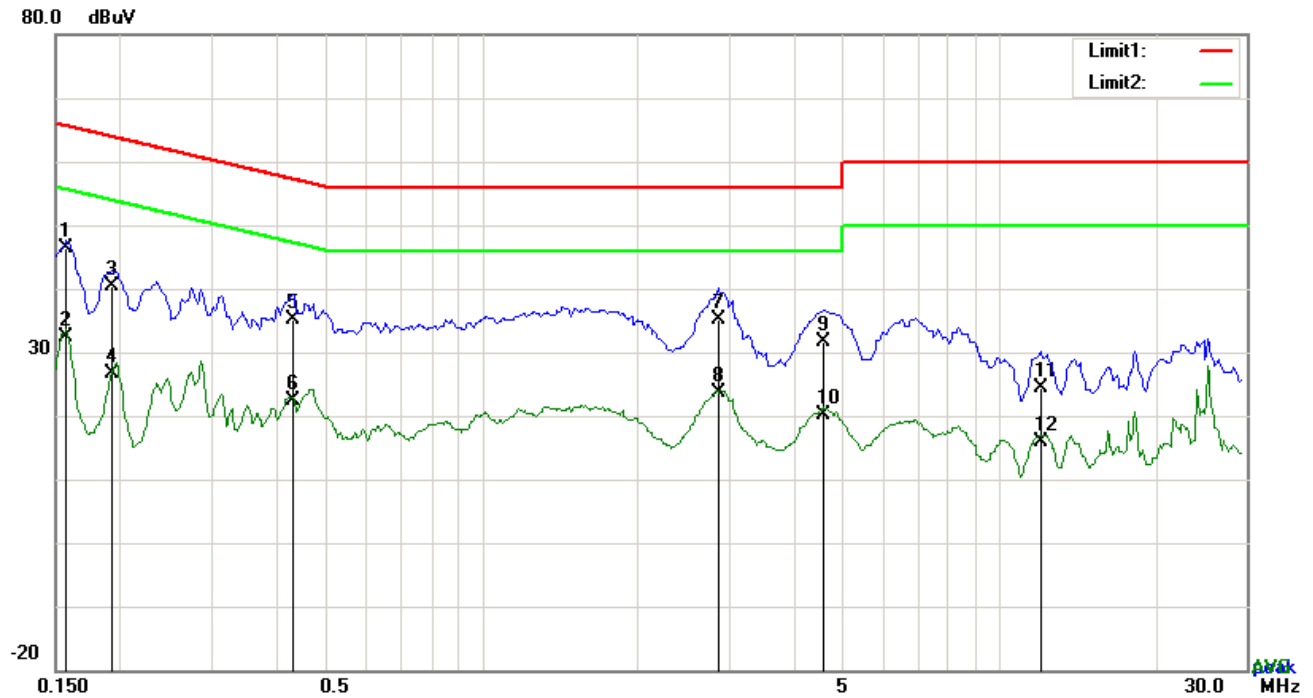


### Test Data

#### Phase Line Plot at 120Vac, 60Hz

No.	P/L	Frequency (MHz)	Reading (dBμV)	Detector	Corrected (dB)	Result (dBμV)	Limit (dBμV)	Margin (dB)
1	L1	0.1578	37.98	QP	10.03	48.01	65.58	-17.57
2	L1	0.1578	27.42	AVG	10.03	37.45	55.58	-18.13
3	L1	0.1968	33.53	QP	10.03	43.56	63.74	-20.18
4	L1	0.1968	20.45	AVG	10.03	30.48	53.74	-23.26
5	L1	0.4581	29.06	QP	10.03	39.09	56.73	-17.64
6	L1	0.4581	18.35	AVG	10.03	28.38	46.73	-18.35
7	L1	2.7747	26.14	QP	10.05	36.19	56.00	-19.81
8	L1	2.7747	15.64	AVG	10.05	25.69	46.00	-20.31
9	L1	4.5405	21.64	QP	10.07	31.71	56.00	-24.29
10	L1	4.5405	10.75	AVG	10.07	20.82	46.00	-25.18
11	L1	12.3171	18.86	QP	10.18	29.04	60.00	-30.96
12	L1	12.3171	9.10	AVG	10.18	19.28	50.00	-30.72

**Test Mode:** Transmitting Mode

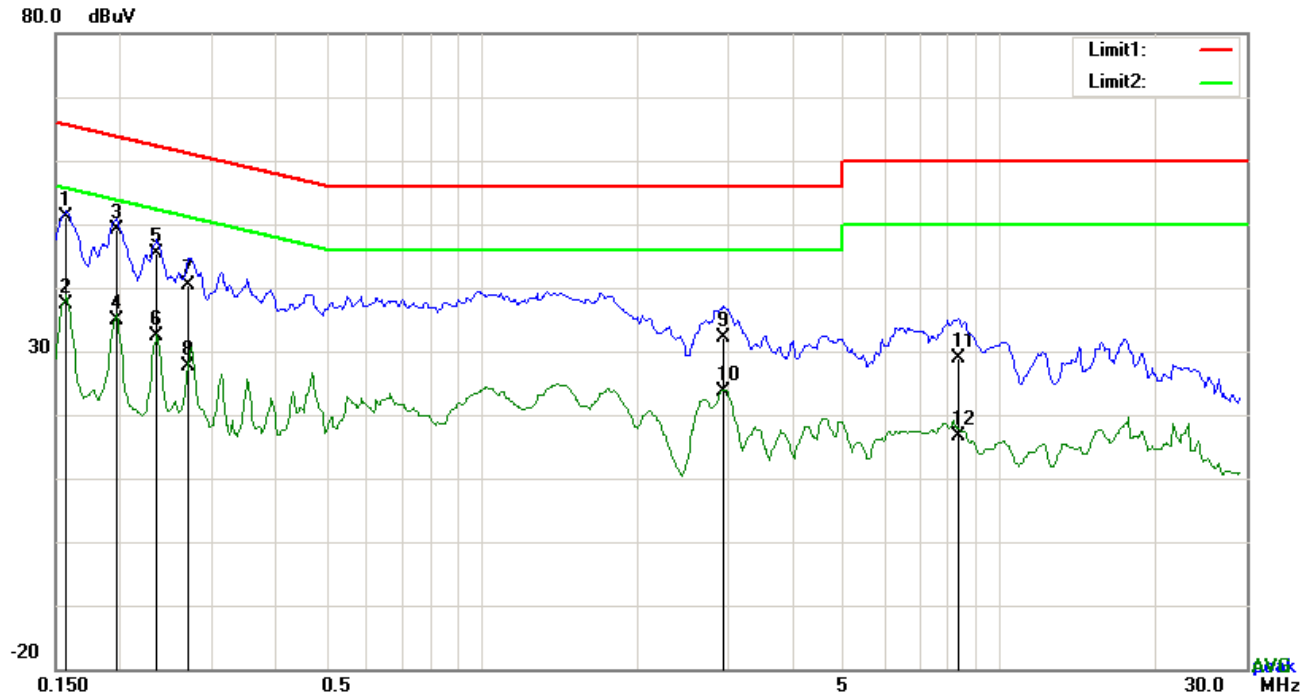


### Test Data

### Phase Neutral Plot at 120Vac, 60Hz

No.	P/L	Frequency (MHz)	Reading (dBuV)	Detector	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)
1	N	0.1578	36.31	QP	10.02	46.33	65.58	-19.25
2	N	0.1578	22.41	AVG	10.02	32.43	55.58	-23.15
3	N	0.1929	30.28	QP	10.02	40.30	63.91	-23.61
4	N	0.1929	16.60	AVG	10.02	26.62	53.91	-27.29
5	N	0.4308	25.07	QP	10.02	35.09	57.24	-22.15
6	N	0.4308	12.29	AVG	10.02	22.31	47.24	-24.93
7	N	2.8605	24.96	QP	10.05	35.01	56.00	-20.99
8	N	2.8605	13.56	AVG	10.05	23.61	46.00	-22.39
9	N	4.5717	21.67	QP	10.07	31.74	56.00	-24.26
10	N	4.5717	10.06	AVG	10.07	20.13	46.00	-25.87
11	N	11.9973	14.20	QP	10.16	24.36	60.00	-35.64
12	N	11.9973	5.80	AVG	10.16	15.96	50.00	-34.04

**Test Mode:** Transmitting Mode



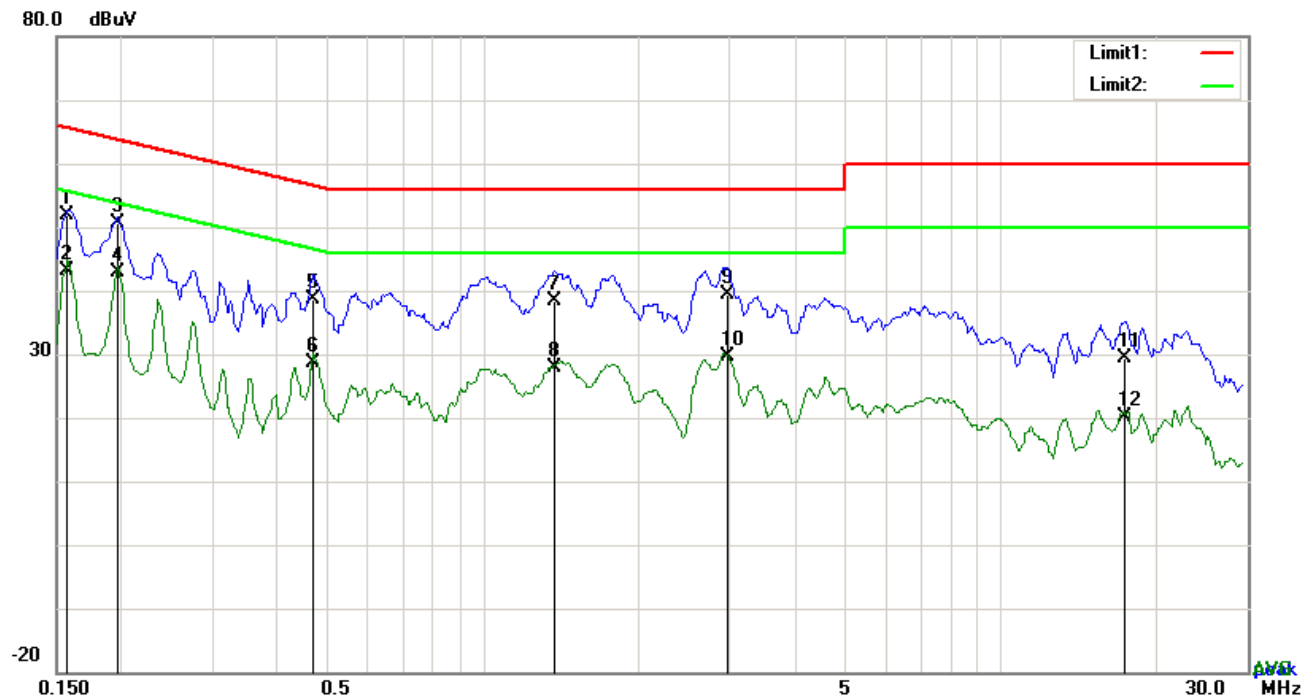
**Test Data**

**Phase Line Plot at 240Vac, 60Hz**

No.	P/L	Frequency (MHz)	Reading (dBμV)	Detector	Corrected (dB)	Result (dBμV)	Limit (dBμV)	Margin (dB)
1	L1	0.1578	41.06	QP	10.03	51.09	65.58	-14.49
2	L1	0.1578	27.38	AVG	10.03	37.41	55.58	-18.17
3	L1	0.1968	39.05	QP	10.03	49.08	63.74	-14.66
4	L1	0.1968	24.73	AVG	10.03	34.76	53.74	-18.98
5	L1	0.2358	35.23	QP	10.03	45.26	62.24	-16.98
6	L1	0.2358	22.25	AVG	10.03	32.28	52.24	-19.96
7	L1	0.2709	30.39	QP	10.03	40.42	61.09	-20.67
8	L1	0.2709	17.62	AVG	10.03	27.65	51.09	-23.44
9	L1	2.9190	22.20	QP	10.05	32.25	56.00	-23.75
10	L1	2.9190	13.66	AVG	10.05	23.71	46.00	-22.29
11	L1	8.3352	18.87	QP	10.13	29.00	60.00	-31.00
12	L1	8.3352	6.53	AVG	10.13	16.66	50.00	-33.34



**Test Mode:** Transmitting Mode



### Test Data

### Phase Neutral Plot at 240Vac, 60Hz

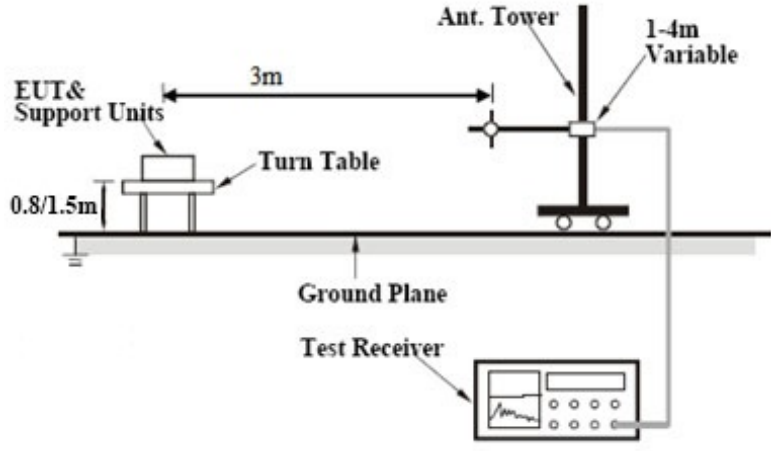
No.	P/L	Frequency (MHz)	Reading (dBμV)	Detector	Corrected (dB)	Result (dBμV)	Limit (dBμV)	Margin (dB)
1	N	0.1578	41.95	QP	10.02	51.97	65.58	-13.61
2	N	0.1578	33.02	AVG	10.02	43.04	55.58	-12.54
3	N	0.1968	40.62	QP	10.02	50.64	63.74	-13.10
4	N	0.1968	32.95	AVG	10.02	42.97	53.74	-10.77
5	N	0.4698	28.66	QP	10.02	38.68	56.52	-17.84
6	N	0.4698	18.65	AVG	10.02	28.67	46.52	-17.85
7	N	1.3746	28.30	QP	10.03	38.33	56.00	-17.67
8	N	1.3746	17.84	AVG	10.03	27.87	46.00	-18.13
9	N	2.9619	29.41	QP	10.05	39.46	56.00	-16.54
10	N	2.9619	19.57	AVG	10.05	29.62	46.00	-16.38
11	N	17.4456	19.25	QP	10.23	29.48	60.00	-30.52
12	N	17.4456	9.90	AVG	10.23	20.13	50.00	-29.87

## 6.7 Radiated Spurious Emissions & Restricted Band

Temperature	22°C
Relative Humidity	53%
Atmospheric Pressure	1029mbar
Test date :	August 29&October 15, 2016
Tested By :	Loren Luo

### Requirement(s):

Spec	Item	Requirement	Applicable											
47CFR§15.247(d), RSS210 (A8.5)	a)	Except higher limit as specified elsewhere in other section, the emissions from the low-power radio-frequency devices shall not exceed the field strength levels specified in the following table and the level of any unwanted emissions shall not exceed the level of the fundamental emission. The tighter limit applies at the band edges	<input checked="" type="checkbox"/>											
		<table><tr><th>Frequency range (MHz)</th><th>Field Strength (µV/m)</th></tr><tr><td>30 – 88</td><td>100</td></tr><tr><td>88 – 216</td><td>150</td></tr><tr><td>216 960</td><td>200</td></tr><tr><td>Above 960</td><td>500</td></tr></table>		Frequency range (MHz)	Field Strength (µV/m)	30 – 88	100	88 – 216	150	216 960	200	Above 960	500	
		Frequency range (MHz)		Field Strength (µV/m)										
		30 – 88		100										
88 – 216		150												
216 960		200												
Above 960	500													
	b)	For non-restricted band, In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB or 30dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, determined by the measurement method on output power to be used. Attenuation below the general limits specified in § 15.209(a) is not required <input checked="" type="checkbox"/> 20 dB down <input type="checkbox"/> 30 dB down	<input checked="" type="checkbox"/>											
	c)	or restricted band, emission must also comply with the radiated emission limits specified in 15.209	<input checked="" type="checkbox"/>											

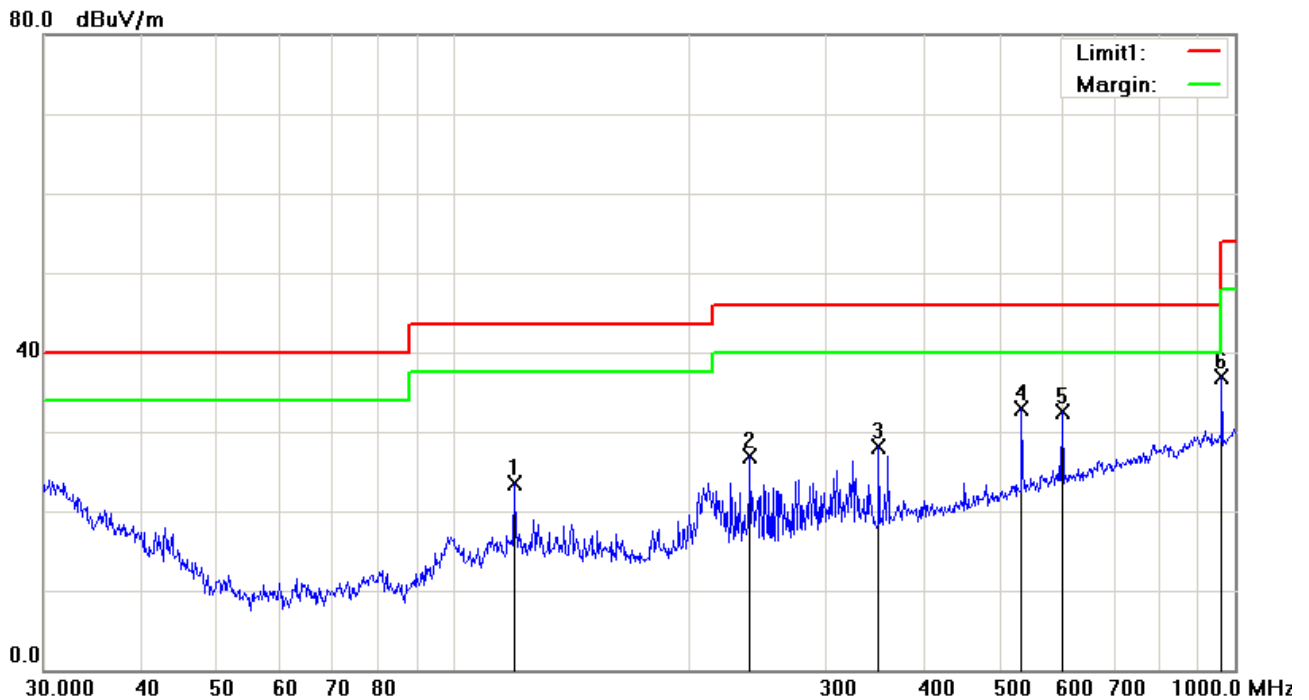
Test Setup	
Procedure	<ol style="list-style-type: none"> <li>The EUT was switched on and allowed to warm up to its normal operating condition.</li> <li>The test was carried out at the selected frequency points obtained from the EUT characterization. Maximization of the emissions, was carried out by rotating the EUT, changing the antenna polarization, and adjusting the antenna height in the following manner: <ol style="list-style-type: none"> <li>Vertical or horizontal polarization (whichever gave the higher emission level over a full rotation of the EUT) was chosen.</li> <li>The EUT was then rotated to the direction that gave the maximum emission.</li> <li>Finally, the antenna height was adjusted to the height that gave the maximum emission.</li> </ol> </li> <li>The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 kHz for Quasi Peak detection at frequency below 1GHz.</li> <li>The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz with Peak detection for Peak measurement at frequency above 1GHz. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 10Hz with Peak detection for Average Measurement as below at frequency above 1GHz.</li> <li>Steps 2 and 3 were repeated for the next frequency point, until all selected frequency points were measured.</li> </ol>
Remark	Different RF configuration has been evaluated but not much difference was found. The data presented here is the worst case data with EUT under 802.11n – HT20-2437MHz mode.
Result	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail

Test Data ☒ Yes ☐ N/A

Test Plot ☒ Yes (See below) ☐ N/A

**Test Mode:** Transmitting Mode

(Below 1GHz)

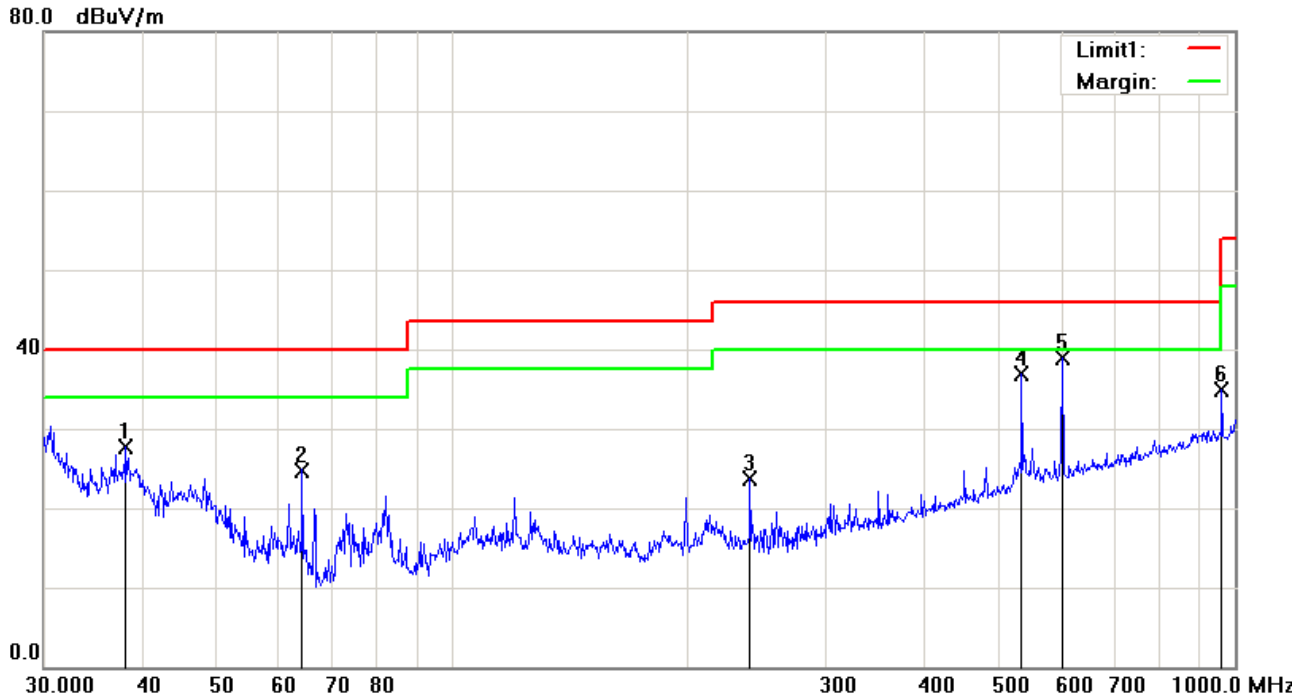


**Test Data**

**Vertical Polarity Plot @3m**

No	P/L	Frequency (MHz)	Reading (dBuV)	Detector	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Height	Degree
1	H	119.8556	30.77	peak	-7.33	23.44	43.50	-20.06	100	212
2	H	239.9873	35.91	peak	-9.10	26.81	46.00	-19.19	100	261
3	H	350.4768	33.55	peak	-5.45	28.10	46.00	-17.90	100	242
4	H	533.8321	34.02	peak	-1.10	32.92	46.00	-13.08	100	0
5	H	601.4265	32.43	peak	0.03	32.46	46.00	-13.54	100	89
6	H	962.1623	31.64	peak	5.29	36.93	54.00	-17.07	100	269

**(Below 1GHz)**



**Test Data**

**Horizontal Polarity Plot @3m**

No	P/L	Frequency (MHz)	Reading (dBμV)	Detector	Corrected (dB)	Result (dBμV)	Limit (dBμV)	Margin (dB)	Height	Degree
1	V	38.2120	33.89	peak	-6.28	27.61	40.00	-12.39	100	0
2	V	64.2075	38.83	peak	-14.03	24.80	40.00	-15.20	100	145
3	V	239.9873	32.85	peak	-9.10	23.75	46.00	-22.25	100	333
4	V	533.8321	38.04	peak	-1.10	36.94	46.00	-9.06	100	321
5	V	601.4265	38.91	peak	0.03	38.94	46.00	-7.06	100	44
6	V	962.1623	29.66	peak	5.29	34.95	54.00	-19.05	100	107

## Above 1GHz

Test Mode:	Transmitting Mode
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### CH1: 2412MHz (b mode worst case)

Frequency (MHz)	S.A. Reading (dBμV)	Detector (PK/AV)	Polarity (H/V)	Ant. Factor (dB/m)	Cable Loss (dB)	Pre-Amp. Gain (dB)	Cord Amp. (dBμV/m)	Limit (dBμV/m)	Margin (dB)
4824	39.18	AV	V	33.8	6.86	32.69	47.15	54	-6.85
4824	38.72	AV	H	33.8	6.86	32.69	46.69	54	-7.31
4824	47.31	PK	V	33.8	6.86	32.69	55.28	74	-18.72
4824	47.46	PK	H	33.8	6.86	32.69	55.43	74	-18.57
17863	23.67	AV	V	45.12	11.57	32.11	48.25	54	-5.75
17863	23.48	AV	H	45.12	11.57	32.11	48.06	54	-5.94
17863	40.62	PK	V	45.12	11.57	32.11	65.2	74	-8.8
17863	40.11	PK	H	45.12	11.57	32.11	64.69	74	-9.31

### CH6: 2437MHz (b mode worst case)

Frequency (MHz)	S.A. Reading (dBμV)	Detector (PK/AV)	Polarity (H/V)	Ant. Factor (dB/m)	Cable Loss (dB)	Pre-Amp. Gain (dB)	Cord Amp. (dBμV/m)	Limit (dBμV/m)	Margin (dB)
4874	39.21	AV	V	33.6	6.82	32.71	46.92	54	-7.08
4874	38.89	AV	H	33.6	6.82	32.71	46.6	54	-7.4
4874	47.84	PK	V	33.6	6.82	32.71	55.55	74	-18.45
4874	48.23	PK	H	33.6	6.82	32.71	55.94	74	-18.06
17894	23.59	AV	V	45.17	11.63	32.18	48.21	54	-5.79
17894	23.32	AV	H	45.17	11.63	32.18	47.94	54	-6.06
17894	40.54	PK	V	45.17	11.63	32.18	65.16	74	-8.84
17894	40.26	PK	H	45.17	11.63	32.18	64.88	74	-9.12

### CH11: 2462 MHz (b mode worst case)

Frequency (MHz)	S.A. Reading (dBμV)	Detector (PK/AV)	Polarity (H/V)	Ant. Factor (dB/m)	Cable Loss (dB)	Pre-Amp. Gain (dB)	Cord Amp. (dBμV/m)	Limit (dBμV/m)	Margin (dB)
4924	38.95	AV	V	33.83	6.95	32.79	46.94	54	-7.06
4924	38.73	AV	H	33.83	6.95	32.79	46.72	54	-7.28
4924	47.69	PK	V	33.83	6.95	32.79	55.68	74	-18.32
4924	47.78	PK	H	33.83	6.95	32.79	55.77	74	-18.23
17847	23.51	AV	V	45.19	11.61	32.24	48.07	54	-5.93
17847	23.36	AV	H	45.19	11.61	32.24	47.92	54	-6.08
17847	40.35	PK	V	45.19	11.61	32.24	64.91	74	-9.09
17847	40.03	PK	H	45.19	11.61	32.24	64.59	74	-9.41

### CH12: 2467 MHz (b mode worst case)

Frequency (MHz)	S.A. Reading (dBμV)	Detector (PK/AV)	Polarity (H/V)	Ant. Factor (dB/m)	Cable Loss (dB)	Pre-Amp. Gain (dB)	Cord Amp. (dBμV/m)	Limit (dBμV/m)	Margin (dB)
4934	39.23	AV	V	33.75	6.92	32.73	47.17	54	-6.83
4934	38.97	AV	H	33.75	6.92	32.73	46.91	54	-7.09
4934	47.72	PK	V	33.75	6.92	32.73	55.66	74	-18.34
4934	47.83	PK	H	33.75	6.92	32.73	55.77	74	-18.23
17852	23.48	AV	V	45.23	11.54	32.22	48.03	54	-5.97
17852	23.29	AV	H	45.23	11.54	32.22	47.84	54	-6.16
17852	40.51	PK	V	45.23	11.54	32.22	65.06	74	-8.94
17852	40.12	PK	H	45.23	11.54	32.22	64.67	74	-9.33

**CH13: 2472 MHz (b mode worst case)**

Frequency (MHz)	S.A. Reading (dBμV)	Detector (PK/AV)	Polarity (H/V)	Ant. Factor (dB/m)	Cable Loss (dB)	Pre-Amp. Gain (dB)	Cord Amp. (dBμV/m)	Limit (dBμV/m)	Margin (dB)
4944	39.32	AV	V	33.68	6.85	32.75	47.1	54	-6.9
4944	39.02	AV	H	33.68	6.85	32.75	46.8	54	-7.2
4944	47.86	PK	V	33.68	6.85	32.75	55.64	74	-18.36
4944	47.95	PK	H	33.68	6.85	32.75	55.73	74	-18.27
17871	23.45	AV	V	45.16	11.59	32.16	48.04	54	-5.96
17871	23.16	AV	H	45.16	11.59	32.16	47.75	54	-6.25
17871	40.42	PK	V	45.16	11.59	32.16	65.01	74	-8.99
17871	40.06	PK	H	45.16	11.59	32.16	64.65	74	-9.35

**Note:**

1, The testing has been conformed to  $10 \times 2462 \text{ MHz} = 24,620 \text{ MHz}$

2, All other emissions more than 30 dB below the limit

3, X-Axis, Y-Axis and Z-Axis were investigated. The results above show only the worst case.



## Annex A. TEST INSTRUMENT

Instrument	Model	Serial #	Cal Date	Cal Due	In use
<b>AC Line Conducted</b>					
EMI test receiver	ESCS30	8471241027	09/17/2015	09/16/2016	<input checked="" type="checkbox"/>
Line Impedance	LI-125A	191106	09/25/2015	09/24/2016	<input checked="" type="checkbox"/>
Line Impedance	LI-125A	191107	09/25/2015	09/24/2016	<input checked="" type="checkbox"/>
LISN	ISN T800	34373	09/25/2015	09/24/2016	<input checked="" type="checkbox"/>
Double Ridge Horn Antenna (1 ~18GHz)	AH-118	71283	09/24/2015	09/23/2016	<input checked="" type="checkbox"/>
Transient Limiter	LIT-153	531118	09/01/2015	08/31/2016	<input checked="" type="checkbox"/>
<b>RF conducted test</b>					
Agilent ESA-E SERIES	E4407B	MY45108319	09/17/2015	09/16/2016	<input checked="" type="checkbox"/>
Agilent ESA-E SERIES	E4407B	MY45108319	09/16/2016	09/15/2017	<input checked="" type="checkbox"/>
Power Splitter	1#	1#	09/01/2015	08/31/2016	<input checked="" type="checkbox"/>
Power Splitter	1#	1#	08/31/2016	08/30/2017	<input checked="" type="checkbox"/>
DC Power Supply	E3640A	MY40004013	09/17/2015	09/16/2016	<input checked="" type="checkbox"/>
DC Power Supply	E3640A	MY40004013	09/16/2016	09/15/2017	<input checked="" type="checkbox"/>
<b>Radiated Emissions</b>					
EMI test receiver	ESL6	100262	09/17/2015	09/16/2016	<input checked="" type="checkbox"/>
EMI test receiver	ESL6	100262	09/16/2016	09/15/2017	
EMI test receiver	ESL6	100262	09/16/2016	09/15/2017	<input checked="" type="checkbox"/>
Positioning Controller	UC3000	MF780208282	11/19/2015	11/18/2016	<input checked="" type="checkbox"/>
OPT 010 AMPLIFIER (0.1-1300MHz)	8447E	2727A02430	09/01/2015	08/31/2016	<input checked="" type="checkbox"/>
Microwave Preamplifier (1 ~ 26.5GHz)	8449B	3008A02402	03/24/2016	03/23/2017	<input checked="" type="checkbox"/>
Bilog Antenna (30MHz~6GHz)	JB6	A110712	09/21/2015	09/20/2016	<input checked="" type="checkbox"/>
Double Ridge Horn Antenna (1 ~18GHz)	AH-118	71283	09/24/2015	09/23/2016	<input checked="" type="checkbox"/>

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Universal Radio Communication Tester	CMU200	121393	09/25/2015	09/24/2016	<input checked="" type="checkbox"/>
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## Annex B. EUT and Test Setup Photographs

### Annex B.i. Photograph: EUT External Photo



Whole Package View 1



Whole Package View 2



Adapter 1- Front View



Adapter 2- Front View



EUT - Front View



EUT - Rear View

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EUT - Top View



EUT - Bottom View



EUT - Left View



EUT - Right View





Screen - Front View



Screen - Rear View



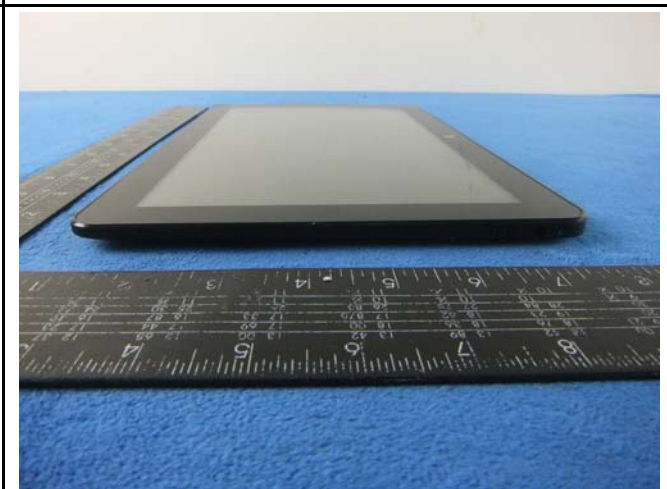
Screen - Top View



Screen - Bottom View



Screen - Left View



Screen - Right View



Keyboard - Front View



Keyboard - Rear View



Keyboard - Top View



Keyboard - Bottom View



Keyboard - Left View



Keyboard - Right View



**Annex B.ii. Photograph: EUT Internal Photo**



Cover Off - Top View 1



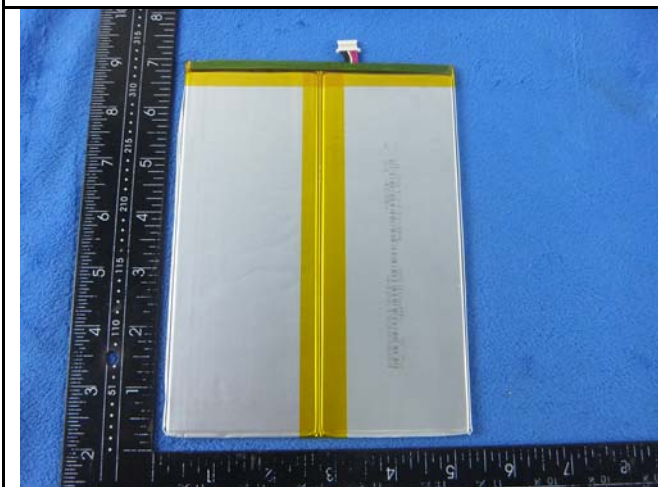
Cover Off - Top View 2



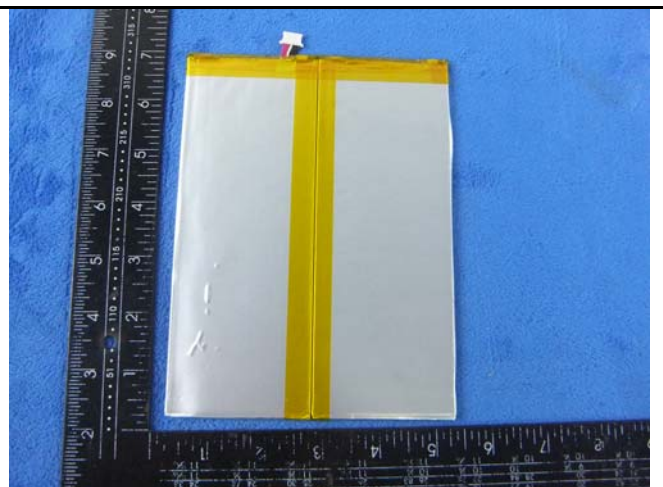
Key board Cover Off - Top View 1



Key board Cover Off - Top View 2



Battery - Front View

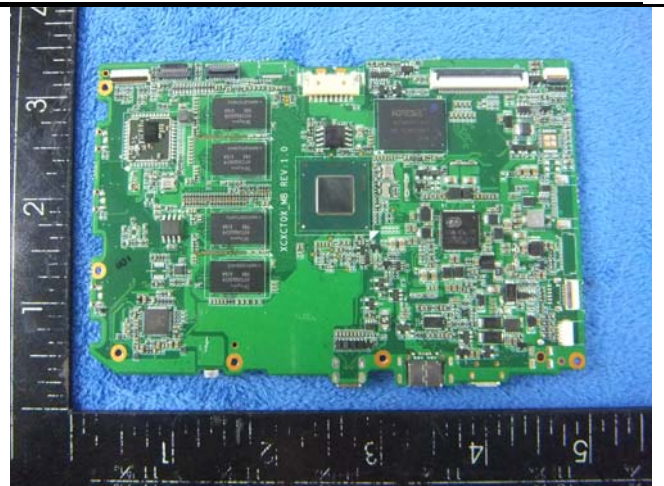


Battery - Rear View

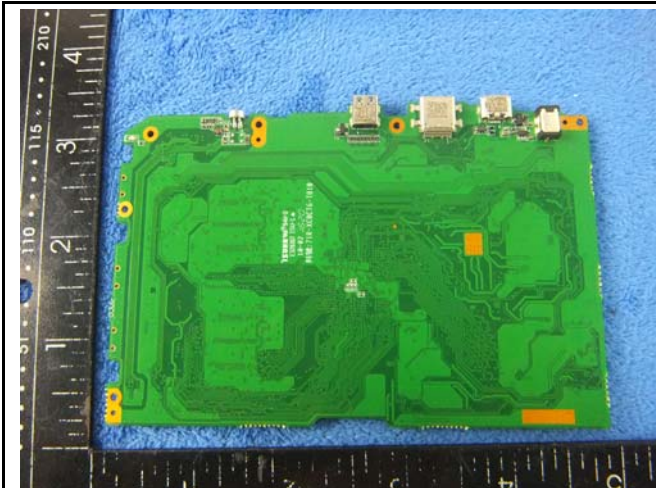




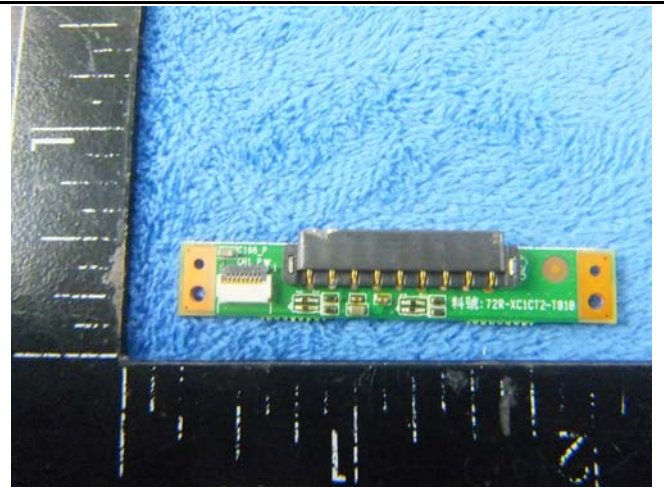
Mainboard with Shielding - Front View



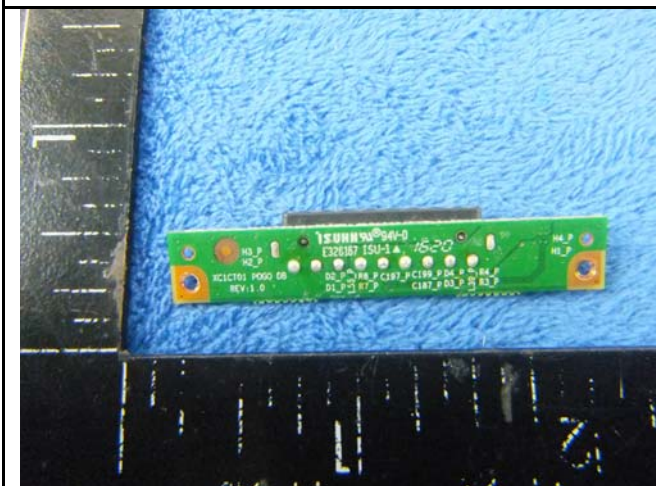
Mainboard without Shielding - Front View



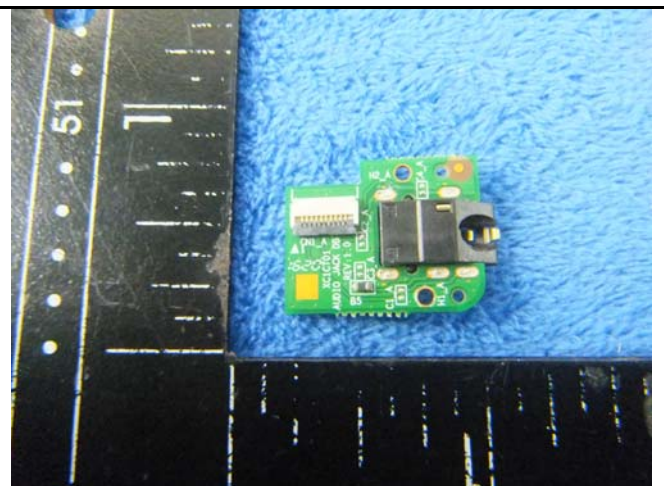
Mainboard - Rear View



Contact board - Front View

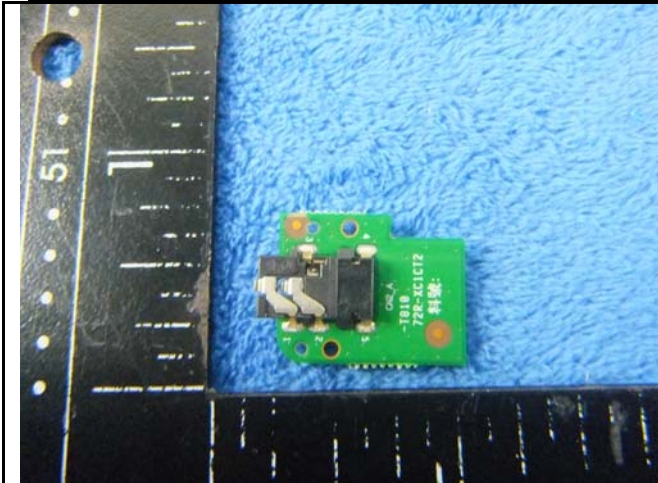


Contact board - Rear View

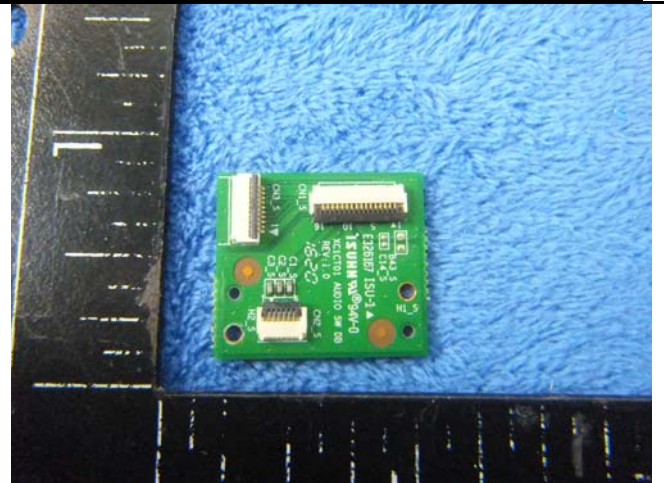


Audio board - Front View

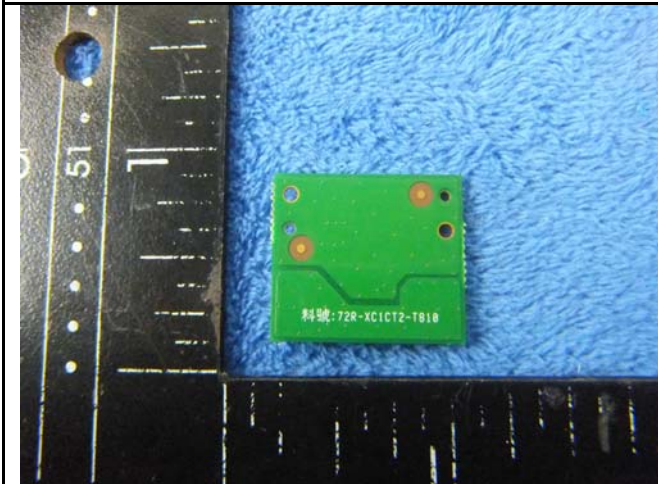




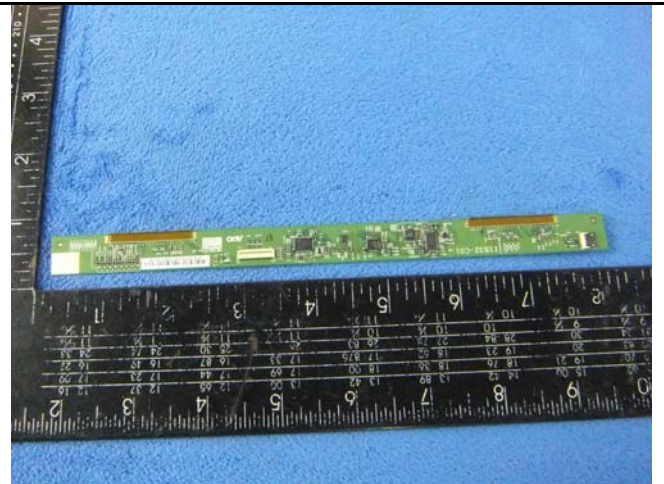
Audio board - Rear View



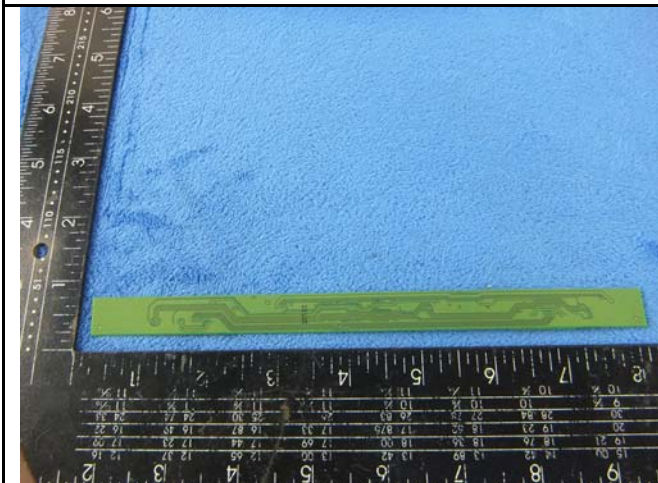
On/off board – Front View



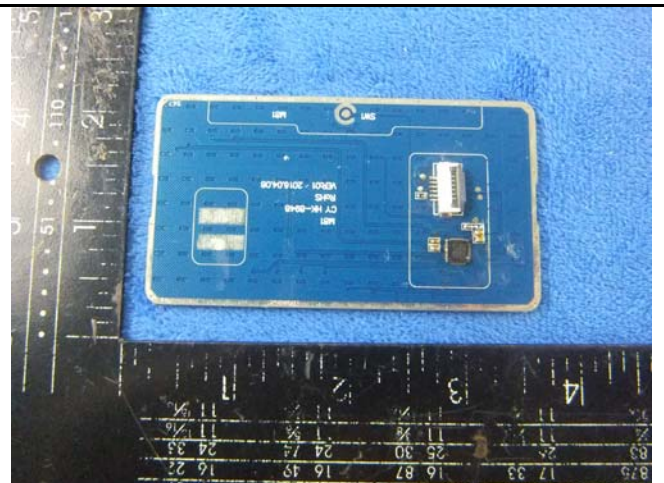
On/off board - Rear View



Small board – Front View



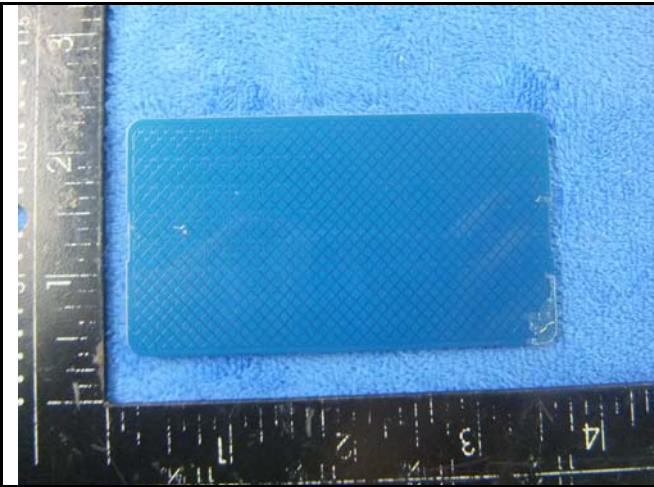
Small board - Rear View



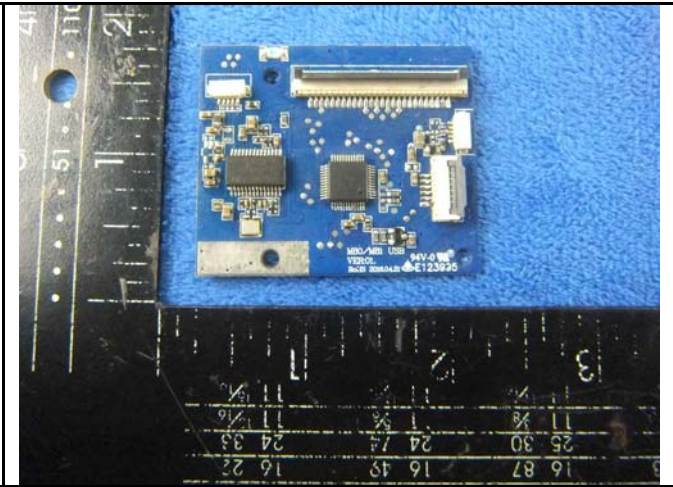
Keyboard board- Front View



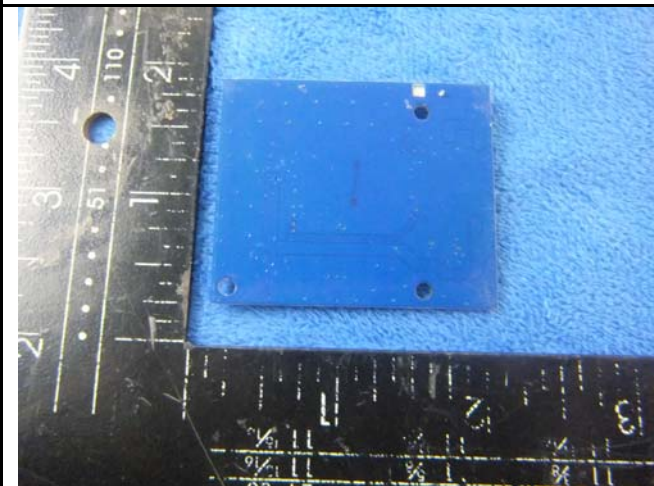
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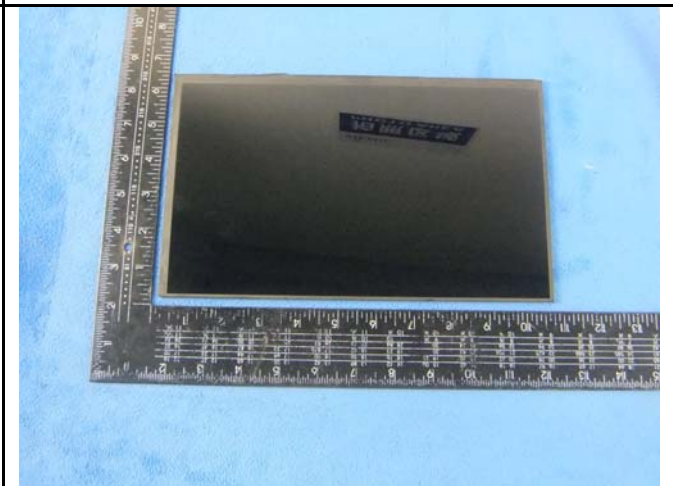
Keyboard board- Rear View



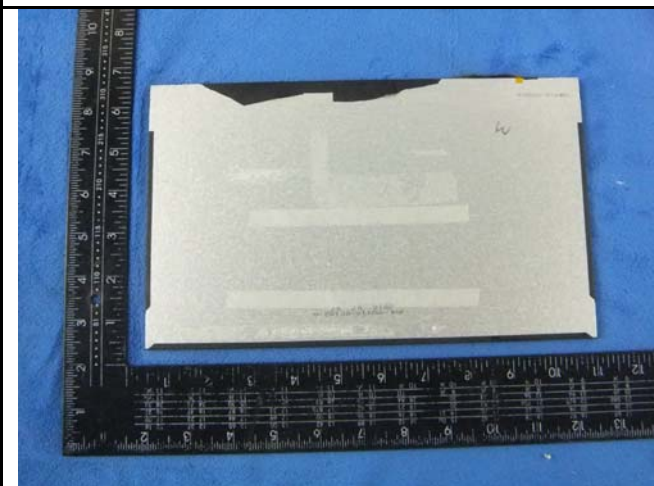
Small Keyboard board- Front View



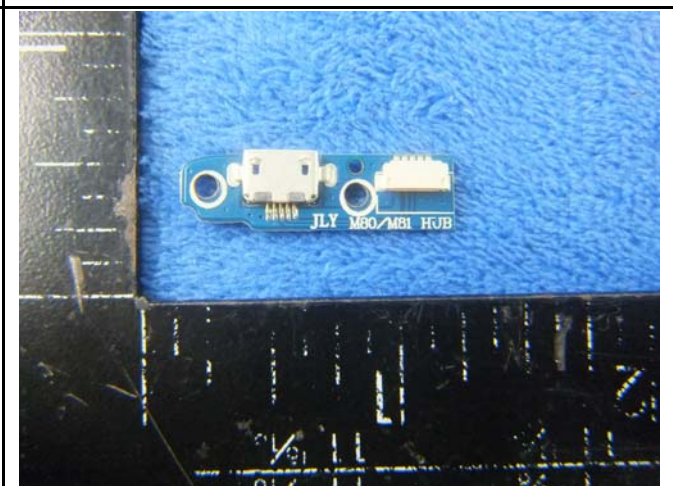
Small Keyboard board- Rear View



LCD – Front View

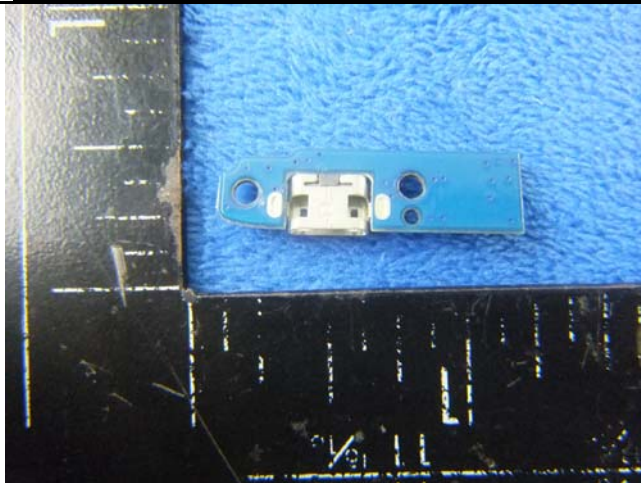


LCD – Rear View



Connect board- Front View

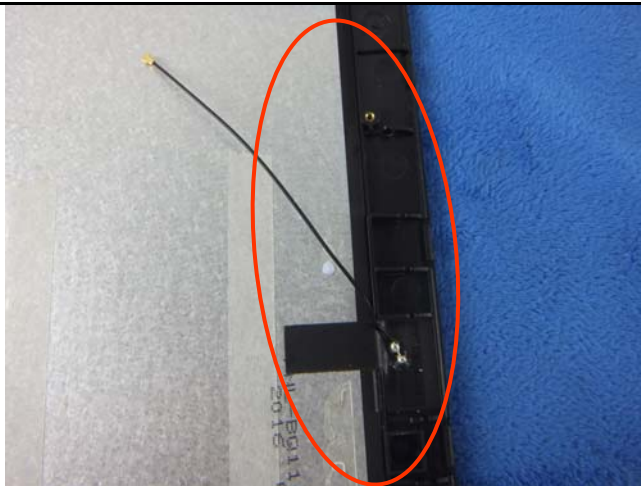
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Connect board- Rear View



BT/WIFI Cricuit



WIFI/BT - Antenna View



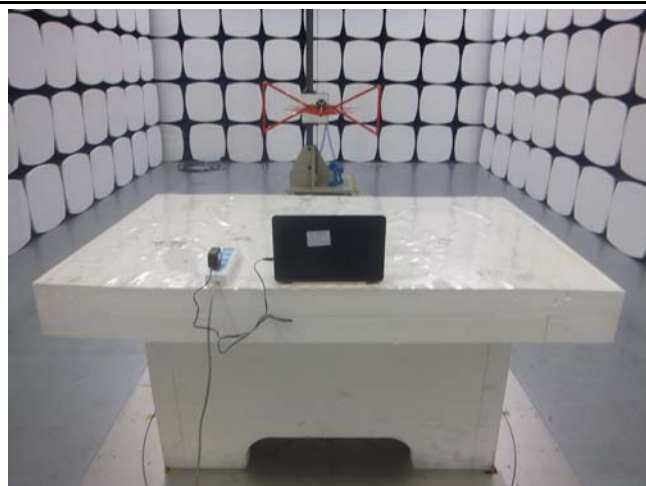
**Annex B.iii. Photograph: Test Setup Photo**



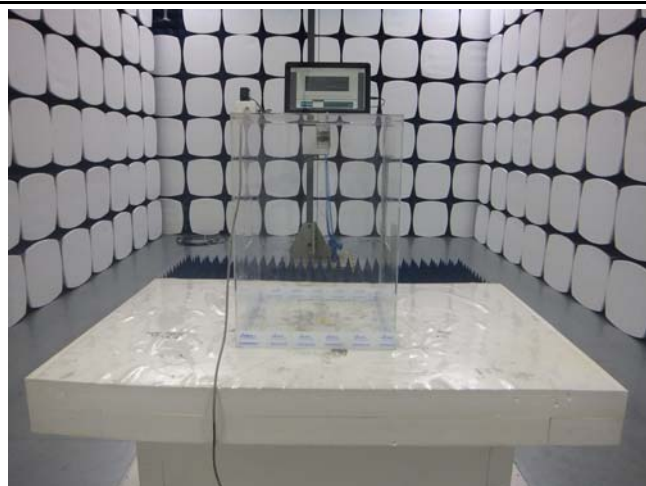
Conducted Emissions Test Setup Front View



Conducted Emissions Test Setup Side View



Radiated Spurious Emissions Test Setup Below 1GHz

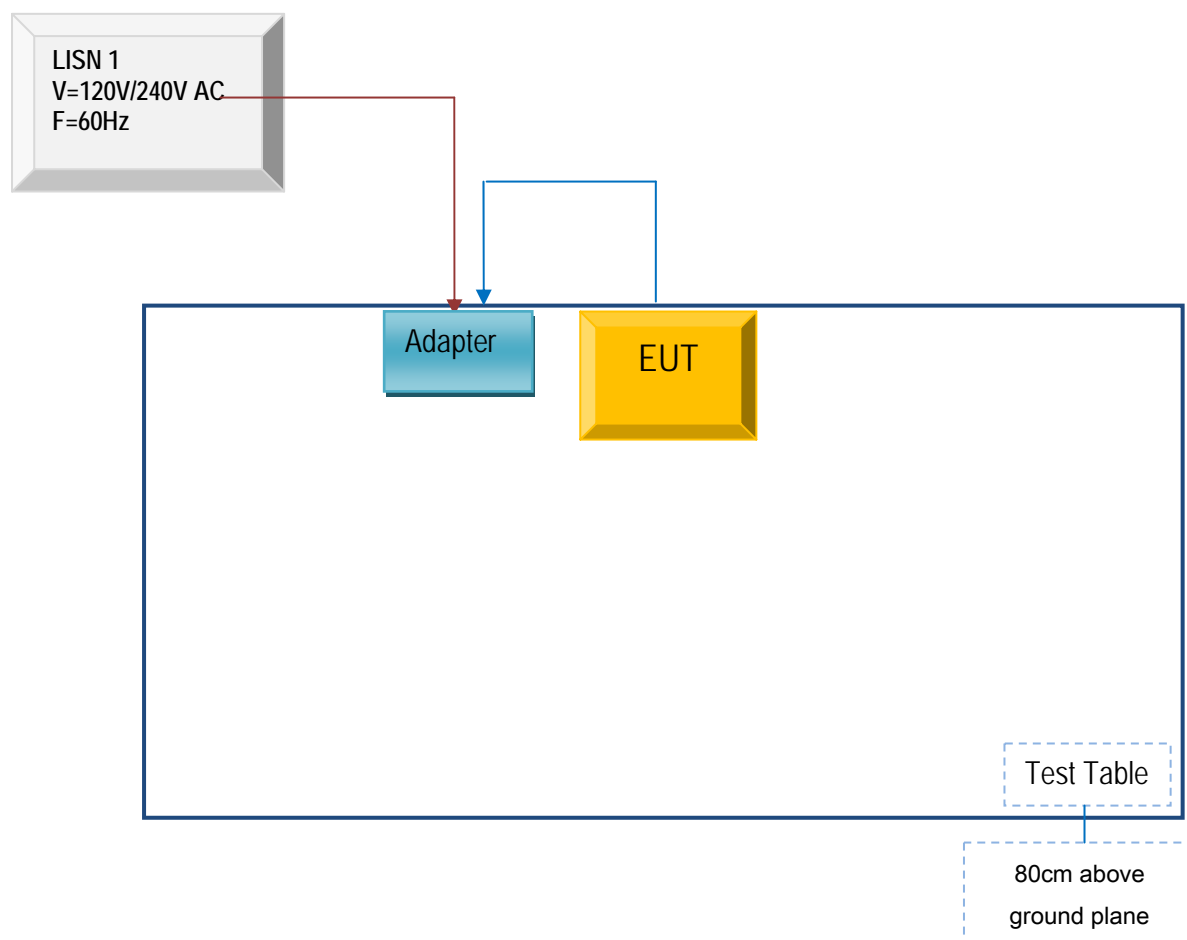


Radiated Spurious Emissions Test Setup Above  
1GHz

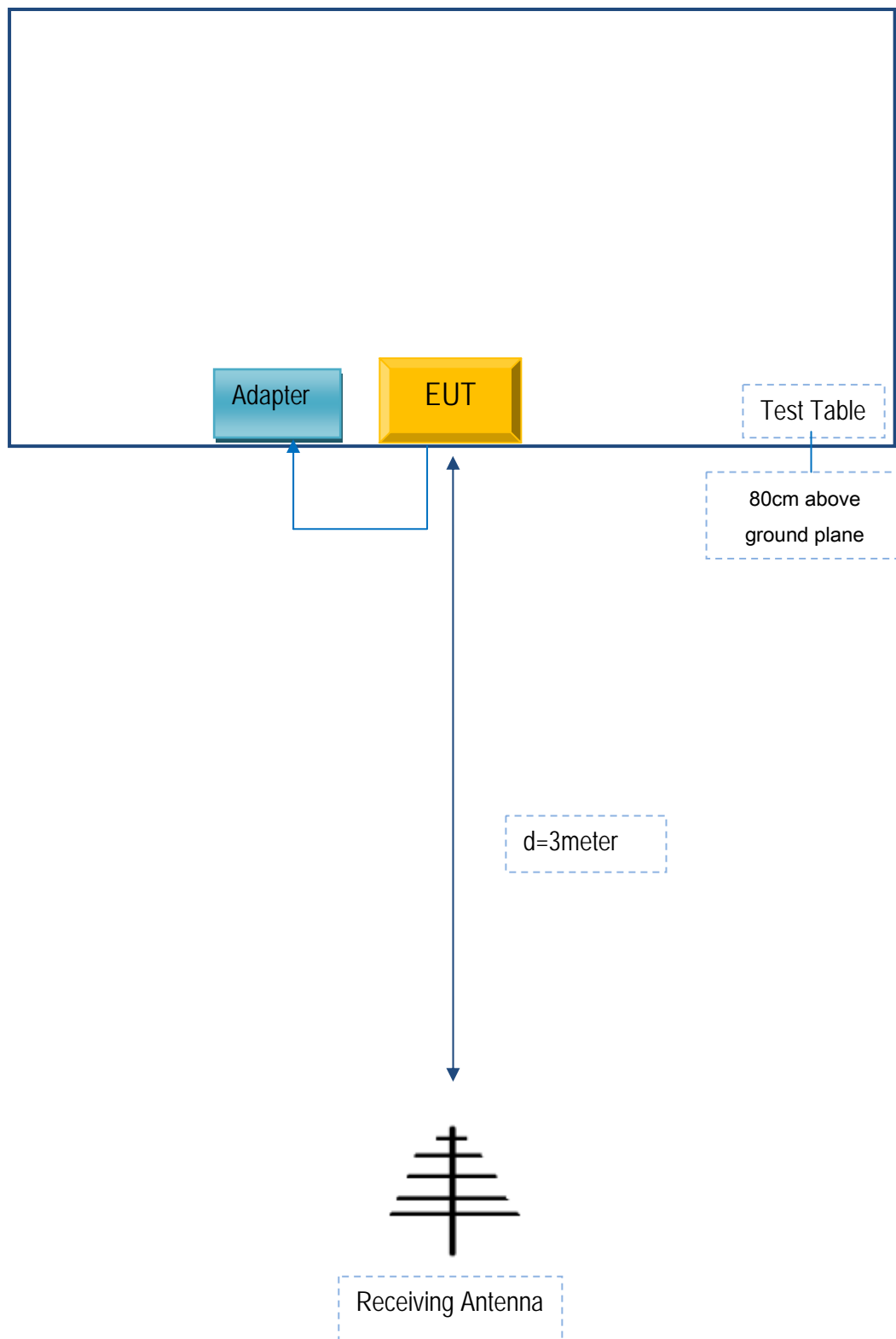
## Annex C. TEST SETUP AND SUPPORTING EQUIPMENT

### Annex C.ii. TEST SET UP BLOCK

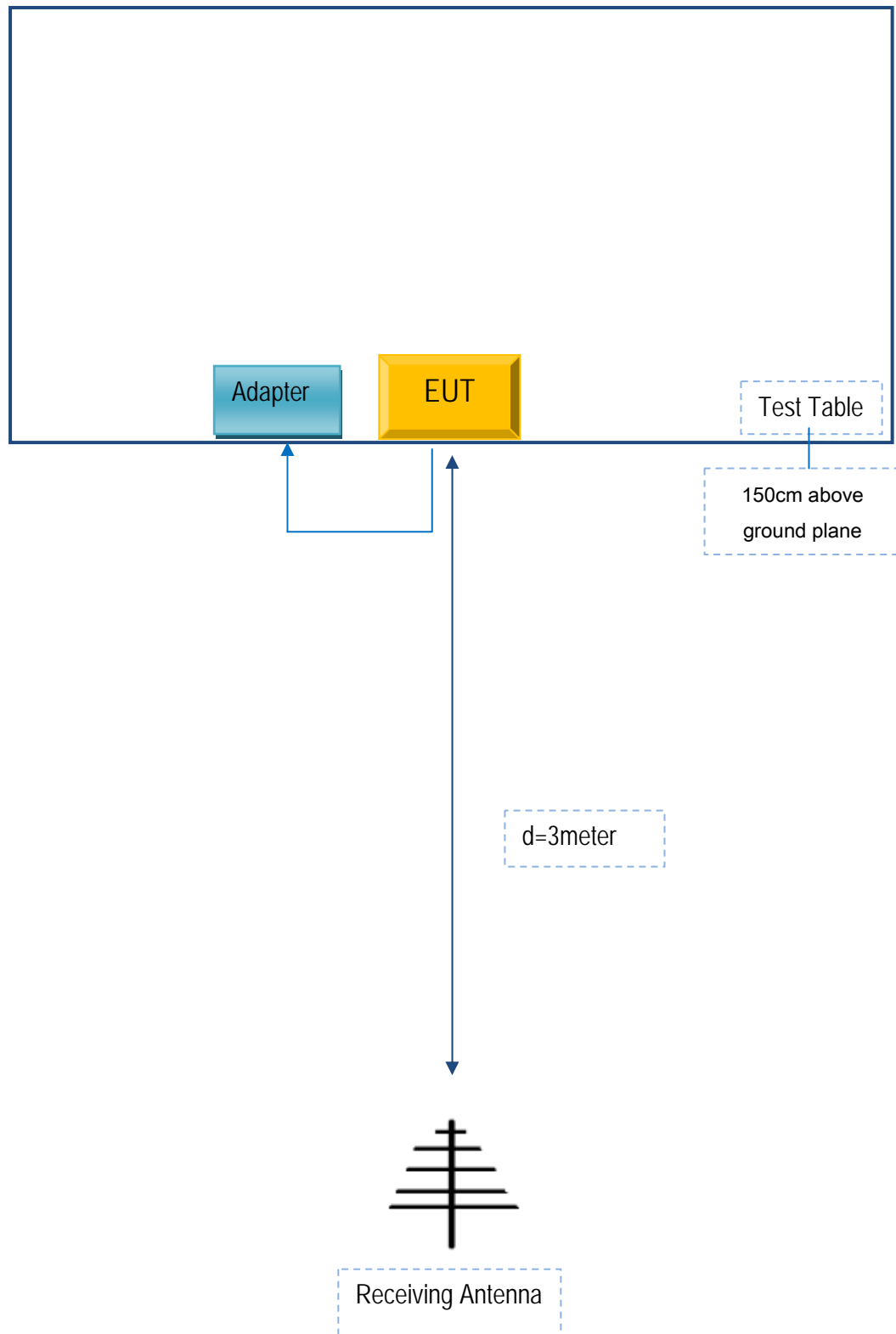
#### Block Configuration Diagram for AC Line Conducted Emissions



**Block Configuration Diagram for Radiated Emissions ( Below 1GHz ) .**



**Block Configuration Diagram for Radiated Emissions ( Above 1GHz ) .**



## **Annex C. ii. SUPPORTING EQUIPMENT DESCRIPTION**

The following is a description of supporting equipment and details of cables used with the EUT.

### **Supporting Equipment:**

Manufacturer	Equipment Description	Model	Serial No
Bean Information Technology Co., Ltd	Adapter	PS12F050K2000UD	P2016073

### **Supporting Cable:**

Cable type	Shield Type	Ferrite Core	Length	Serial No
USB Cable	Un-shielding	No	0.8m	P2016073



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## Annex D. User Manual / Block Diagram / Schematics / Partlist

Please see the attachment

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## Annex E. DECLARATION OF SIMILARITY

### Differences Declaration

To whom concern, We company **Bean Information Technology Co.,Ltd** hereby declares: The product models W1001 is identical in the same PCB layout, interior structure and electrical circuits with the model W1102 which tested in SIEMIC (Shenzhen-China) Laboratories, the only differences are the model name and appearance color for commercial purpose.

Authorized signature: 2/3at

Position: PM

Company stamp: 

Date: 20160902