

## TEST REPORT

**Product** : WisePad 2 Plus  
**Trade mark** : BBPOS  
**Model/Type reference** : WisePad 2 Plus  
**Serial Number** : N/A  
**Report Number** : EED32J00012505  
**FCC ID** : 2AB7X-WISEPAD2PLUS  
**Date of Issue** : Mar. 20, 2017  
**Test Standards** : 47 CFR Part 15Subpart C (2015)  
**Test result** : PASS

Prepared for:

**BBPOS International Limited**  
**Suite 1602, 16/F, Tower 2, Nina Tower, No. 8 Yeung Uk Road,**  
**Tsuen Wan, N.T. HK, Hong Kong**

Prepared by:

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Mar. 20, 2017

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## 2 Version

Version No.	Date	Description
00	Mar. 20, 2017	Original

### 3 Test Summary

Test Item	Test Requirement	Test method	Result
<b>AC Power Line Conducted Emission</b>	47 CFR Part 15 Subpart C Section 15.207	ANSI C63.10-2013	PASS
<b>Conducted Peak Output Power</b>	47 CFR Part 15 Subpart C Section 15.247 (b)(3)	ANSI C63.10-2013/ KDB 558074 D01v03r05	PASS
<b>Radiated Spurious Emissions</b>	47 CFR Part 15 Subpart C Section 15.205/15.209	ANSI C63.10-2013	PASS

Remark:

Test according to ANSI C63.4-2014 & ANSI C63.10-2013.

The tested sample and the sample information are provided by the client.

Model No.: WisePad 2 Plus, WisePad 2

This test report (Ref. No.: EED32J00012505) is only valid with the original test report (Ref. No.: EED32I00208215).

According to the declaration from the applicant, their RF part, main board, electrical circuit design, layout, components used and internal wiring are identical, only the WisePad 2 Plus is consisted by printer function part, but WisePad 2 is not included.

Therefore in this report AC Power Line Conducted Emission, Conducted Peak Output Power and Radiated Spurious emissions were fully retested on model WisePad 2 Plus and shown the data in this report, other tests please refer to original report EED32I00208215.

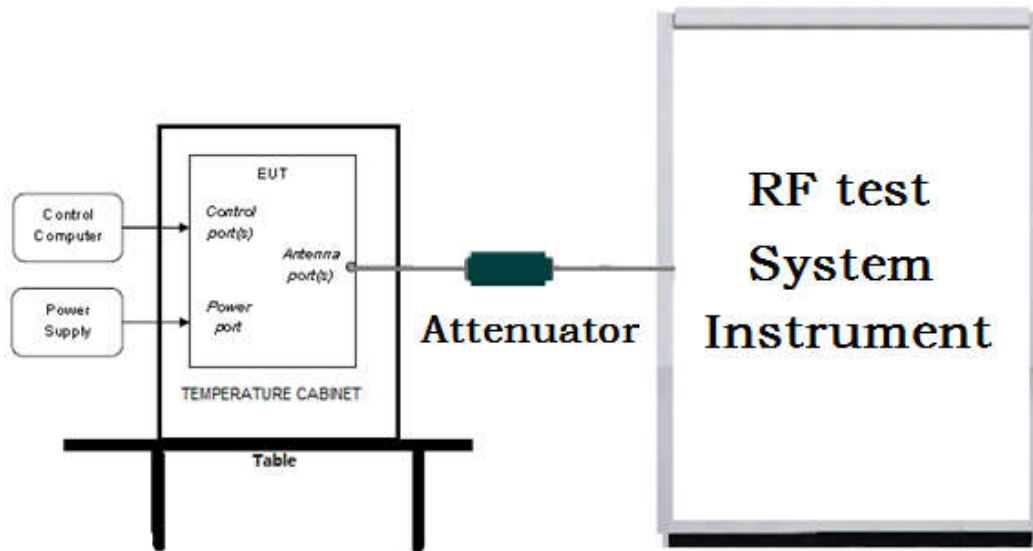
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## 5 Test Requirement

### 5.1 Test setup

#### 5.1.1 For Conducted test setup



#### 5.1.2 For Radiated Emissions test setup

Radiated Emissions setup:

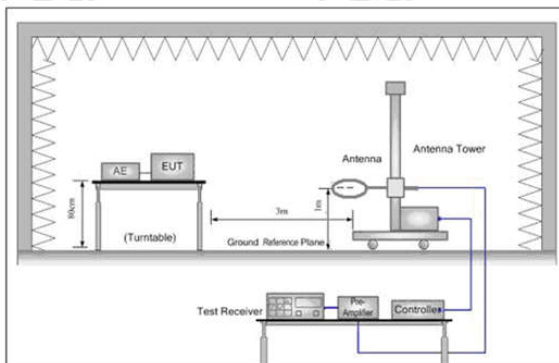


Figure 1. Below 30MHz

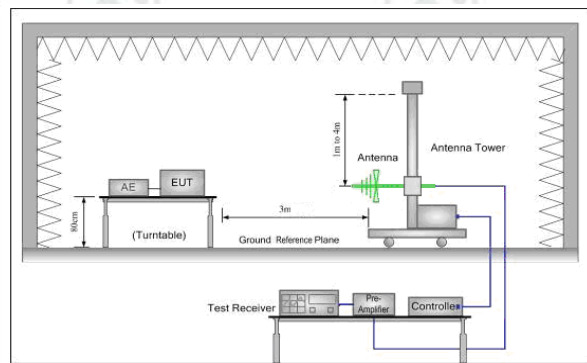


Figure 2. 30MHz to 1GHz

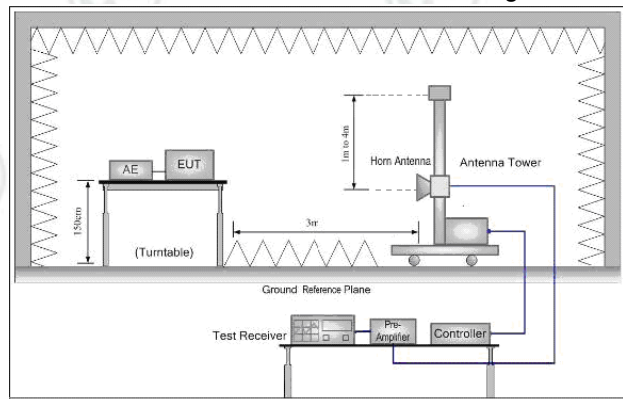
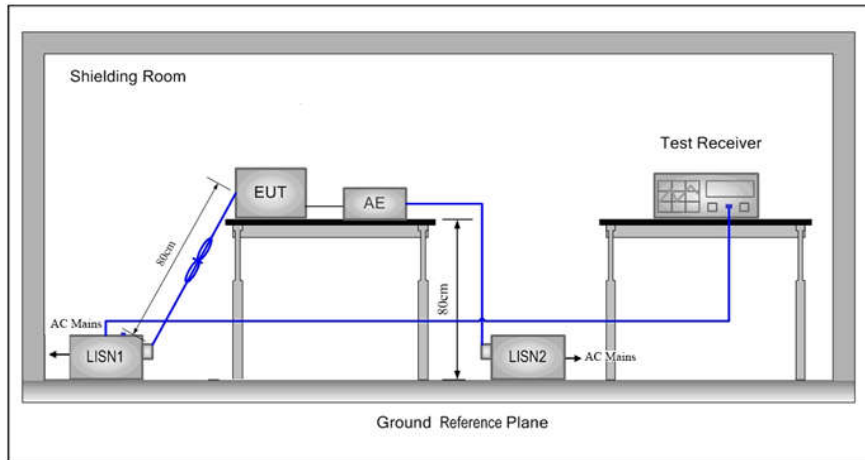


Figure 3. Above 1GHz

### 5.1.3 For Conducted Emissions test setup

#### Conducted Emissions setup



## 5.2 Test Environment

<b>Operating Environment:</b>	
Temperature:	22°C
Humidity:	53% RH
Atmospheric Pressure:	1010 mbar

## 5.3 Test Condition

### Test channel:

Test Mode	Tx	RF Channel		
		Low(L)	Middle(M)	High(H)
802.11b/g/n(HT20)	2412MHz ~2462 MHz	Channel 1	Channel 6	Channel11
		2412MHz	2437MHz	2462MHz
Transmitting mode:	Keep the EUT in transmitting mode with all kind of modulation and all kind of data rate.			

Test mode:

### Pre-scan under all rate at lowest channel

Mode	802.11b				X				
Data Rate	1Mbps	2Mbps	5.5Mbps	11Mbps					
Power(dBm)	17.77	17.81	17.88	17.92					
Mode	802.11g								
Data Rate	6Mbps	9Mbps	12Mbps	18Mbps	24Mbps	36Mbps	48Mbps	54Mbps	
Power(dBm)	16.79	16.74	16.71	16.68	16.52	16.47	16.44	16.31	
Mode	802.11n (HT20)								
Data Rate	6.5Mbps	13Mbps	19.5Mbps	26Mbps	39Mbps	52Mbps	58.5Mbps	65Mbps	
Power(dBm)	15.21	15.20	15.17	15.15	15.10	15.03	15.01	15.00	

Through Pre-scan, 11Mbps of rate is the worst case of 802.11b; 6Mbps of rate is the worst case of 802.11g; 6.5Mbps of rate is the worst case of 802.11n(HT20).

## 6 General Information

### 6.1 Client Information

Applicant:	BBPOS International Limited
Address of Applicant:	Suite 1602, 16/F, Tower 2, Nina Tower, No. 8 Yeung Uk Road, Tsuen Wan, N.T. HK, Hong Kong
Manufacturer:	BBPOS International Limited
Address of Manufacturer:	Suite 1602, 16/F, Tower 2, Nina Tower, No. 8 Yeung Uk Road, Tsuen Wan, N.T. HK, Hong Kong

### 6.2 General Description of EUT

Product Name:	WisePad 2 Plus
Model No.(EUT):	WisePad 2 Plus
Trade Mark:	BBPOS
EUT Supports Radios application	BT 2.1(2402MHz-2480MHz), BT 4.0(2402MHz-2480MHz), NFC(13.56MHz), WIFib/g/n(HT20)(2412MHz-2472MHz), 2G(850MHz/1900MHz)GPRS
Power Supply:	DC 3.7V by Battery DC 5V by USB port
Battery:	Li-polymer 3.7V, 1300mAh
Sample Received Date:	Jan. 23, 2017
Sample tested Date:	Jan. 23, 2017 to Mar. 20, 2017

### 6.3 Product Specification subjective to this standard

Operation Frequency:	IEEE 802.11b/g/n(HT20): 2412MHz to 2462MHz
Channel Numbers:	IEEE 802.11b/g, IEEE 802.11n HT20: 11 Channels
Channel Separation:	5MHz
Type of Modulation:	IEEE for 802.11b: DSSS(CCK,DQPSK,DBPSK) IEEE for 802.11g :OFDM(64QAM, 16QAM, QPSK, BPSK) IEEE for 802.11n(HT20) : OFDM (64QAM, 16QAM, QPSK,BPSK)
Sample Type:	Portable production
Antenna Type:	Integral
Test Power Grade:	N/A
Test Software of EUT:	BBPOS_FCC_0713 (Version: 20160713)
Antenna Gain:	1dBi
Test Voltage:	AC 120V/60Hz, DC 3.7V

Operation Frequency each of channel(802.11b/g/n HT20)							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
1	2412MHz	4	2427MHz	7	2442MHz	10	2457MHz
2	2417MHz	5	2432MHz	8	2447MHz	11	2462MHz
3	2422MHz	6	2437MHz	9	2452MHz		

### 6.4 Description of Support Units

The EUT has been tested with associated equipment below.

Description	Manufacturer	Model No.	Certification	Supplied by
laptop	LENOVO	T3900	FCC DOC	CTI
Mouse	L.Selectron	GL-204	FCC DOC	CTI

## 6.5 Test Location

All tests were performed at:

Centre Testing International Group Co., Ltd.

Hongwei Industrial Zone, Bao'an 70 District, Shenzhen, Guangdong, China 518101

Telephone: +86 (0) 755 3368 3668 Fax:+86 (0) 755 3368 3385

No tests were sub-contracted.

## 6.6 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

### **CNAS-Lab Code: L1910**

Centre Testing International Group Co., Ltd. has been assessed and proved to be in compliance with CNAS-CL01 Accreditation Criteria for Testing and Calibration Laboratories (identical to ISO/IEC 17025: 2005 General Requirements) for the Competence of Testing and Calibration Laboratories..

### **A2LA-Lab Cert. No. 3061.01**

Centre Testing International Group Co., Ltd. EMC Laboratory has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025: 2005 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.

### **FCC-Registration No.: 886427**

Centre Testing International Group Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the FCC (Federal Communications Commission). The acceptance letter from the FCC is maintained in our files. Registration 886427.

### **IC-Registration No.: 7408A-2**

The 3m Alternate Test Site of Centre Testing International Group Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for the performance of radiated measurements with Registration No. 7408A-2 .

### **IC-Registration No.: 7408B-1**

The 10m Alternate Test Site of Centre Testing International Group Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for the performance of radiated measurements with Registration No. 7408B-1.

### **NEMKO-Aut. No.: ELA503**

Centre Testing International Group Co., Ltd. has been assessed the quality assurance system, the testing facilities, qualifications and testing practices of the relevant parts of the organization. The quality assurance system of the Laboratory has been validated against ISO/IEC 17025 or equivalent. The laboratory also fulfils the conditions described in Nemko Document NLA-10.

### **VCCI**

The Radiation 3 &10 meters site of Centre Testing International Group Co., Ltd. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-4096.



Main Ports Conducted Interference Measurement of Centre Testing International Group Co., Ltd. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: C-4563.

Telecommunication Ports Conducted Disturbance Measurement of Centre Testing International Group Co., Ltd. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: T-2146.

The Radiation 3 meters site of Centre Testing International Group Co., Ltd. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: G-758

## 6.7 Deviation from Standards

None.

## 6.8 Abnormalities from Standard Conditions

None.

## 6.9 Other Information Requested by the Customer

None.

## 6.10 Measurement Uncertainty (95% confidence levels, k=2)

No.	Item	Measurement Uncertainty
1	Radio Frequency	$7.9 \times 10^{-8}$
2	RF power, conducted	0.31dB (30MHz-1GHz)
		0.57dB (1GHz-18GHz)
3	Radiated Spurious emission test	4.5dB (30MHz-1GHz)
		4.8dB (1GHz-12.75GHz)
4	Conduction emission	3.6dB (9kHz to 150kHz)
		3.2dB (150kHz to 30MHz)
5	Temperature test	0.64°C
6	Humidity test	2.8%
7	DC power voltages	0.025%

## 7 Equipment List

RF test system					
Equipment	Manufacturer	Model No.	Serial Number	Cal. Date (mm-dd-yyyy)	Cal. Due date (mm-dd-yyyy)
Signal Generator	Keysight	E8257D	MY53401106	04-01-2016	03-31-2017
Communication test set test set	Agilent	N4010A	MY51400230	04-01-2016	03-31-2017
Spectrum Analyzer	Keysight	N9010A	MY54510339	04-01-2016	03-31-2017
Signal Generator	Keysight	N5182B	MY53051549	04-01-2016	03-31-2017
High-pass filter	Sinoscite	FL3CX03WG18 NM12-0398-002	---	01-11-2017	01-10-2018
High-pass filter	MICRO-TRONICS	SPA-F-63029-4	---	01-11-2017	01-10-2018
DC Power	Keysight	E3642A	MY54436035	04-01-2016	03-31-2017
PC-1	Lenovo	R4960d	---	04-01-2016	03-31-2017
power meter & power sensor	R&S	OSP120	101374	04-01-2016	03-31-2017
RF control unit	JS Tonscend	JS0806-2	158060006	04-01-2016	03-31-2017
BT&WI-FI Automatic test software	JS Tonscend	JS1120-2	---	04-01-2016	03-31-2017

Conducted disturbance Test					
Equipment	Manufacturer	Model No.	Serial Number	Cal. date (mm-dd-yyyy)	Cal. Due date (mm-dd-yyyy)
Receiver	R&S	ESCI	100009	06-16-2016	06-15-2017
Temperature/ Humidity Indicator	TAYLOR	1451	1905	04-27-2016	04-26-2017
Communication test set	Agilent	E5515C	GB47050534	04-01-2016	03-31-2017
Communication test set	R&S	CMW500	152394	04-01-2016	03-31-2017
LISN	R&S	ENV216	100098	06-16-2016	06-15-2017
LISN	schwarzbeck	NNLK8121	8121-529	06-16-2016	06-15-2017
Voltage Probe	R&S	ESH2-Z3	--	07-09-2014	07-07-2017
Current Probe	R&S	EZ17	100106	06-16-2016	06-15-2017
ISN	TESEQ GmbH	ISN T800	30297	02-23-2017	02-22-2018

3M Semi/full-anechoic Chamber					
Equipment	Manufacturer	Model No.	Serial Number	Cal. date (mm-dd-yyyy)	Cal. Due date (mm-dd-yyyy)
3M Chamber & Accessory Equipment	TDK	SAC-3	---	06-05-2016	06-05-2019
TRILOG Broadband Antenna	SCHWARZBECK	VULB9163	9163-484	05-23-2016	05-22-2017
Microwave Preampfier	Agilent	8449B	3008A02425	02-16-2017	02-15-2018
Horn Antenna	ETS-LINDGREN	3117	00057407	07-20-2015	07-18-2018
Loop Antenna	ETS	6502	00071730	07-30-2015	07-28-2017
Spectrum Analyzer	R&S	FSP40	100416	06-16-2016	06-15-2017
Receiver	R&S	ESCI	100435	06-16-2016	06-15-2017
Multi device Controller	maturo	NCD/070/10711 112	---	01-11-2017	01-10-2018
LISN	schwarzbeck	NNBM8125	81251547	06-16-2016	06-15-2017
LISN	schwarzbeck	NNBM8125	81251548	06-16-2016	06-15-2017
Signal Generator	Agilent	E4438C	MY45095744	04-01-2016	03-31-2017
Signal Generator	Keysight	E8257D	MY53401106	04-01-2016	03-31-2017
Temperature/ Humidity Indicator	TAYLOR	1451	1905	04-27-2016	04-26-2017
Communication test set	Agilent	E5515C	GB47050534	04-01-2016	03-31-2017
Cable line	Fulai(7M)	SF106	5219/6A	01-11-2017	01-10-2018
Cable line	Fulai(6M)	SF106	5220/6A	01-11-2017	01-10-2018
Cable line	Fulai(3M)	SF106	5216/6A	01-11-2017	01-10-2018
Cable line	Fulai(3M)	SF106	5217/6A	01-11-2017	01-10-2018
Communication test set	R&S	CMW500	152394	04-01-2016	03-31-2017
High-pass filter	Sinoscite	FL3CX03WG18 NM12-0398-002	---	01-11-2017	01-10-2018
High-pass filter	MICRO-TRONICS	SPA-F-63029-4	---	01-11-2017	01-10-2018
band rejection filter	Sinoscite	FL5CX01CA09C L12-0395-001	---	01-11-2017	01-10-2018
band rejection filter	Sinoscite	FL5CX01CA08C L12-0393-001	---	01-11-2017	01-10-2018
band rejection filter	Sinoscite	FL5CX02CA04C L12-0396-002	---	01-11-2017	01-10-2018
band rejection filter	Sinoscite	FL5CX02CA03C L12-0394-001	---	01-11-2017	01-10-2018

## 8 Radio Technical Requirements Specification

### Reference documents for testing:

No.	Identity	Document Title
1	FCC Part15C (2015)	Subpart C-Intentional Radiators
2	ANSI C63.10-2013	American National Standard for Testing Unlicensed Wireless Devices

### Test Results List:

Test Requirement	Test method	Test item	Verdict	Note
Part15C Section 15.247 (b)(3)	ANSI C63.10/ KDB 558074	Conducted Peak Output Power	PASS	Appendix A)
Part15C Section 15.207	ANSI C63.10	AC Power Line Conducted Emission	PASS	Appendix B)
Part15C Section 15.205/15.209	ANSI C63.10	Radiated Spurious Emissions	PASS	Appendix C)

## Appendix A): Conducted Peak Output Power

### Test Procedure

1. The RF output of EUT was connected to the power meter by RF cable and attenuator. The path loss was compensated to the results for each measurement.
2. Set to the maximum power setting and enable the EUT transmit continuously.
3. Measure the conducted output power and record the results in the test report.

### Result Table

Mode	Channel	Conducted Peak Output Power [dBm]	Verdict
11B	LCH	17.92	PASS
11B	MCH	17.78	PASS
11B	HCH	17.79	PASS
11G	LCH	16.79	PASS
11G	MCH	16.98	PASS
11G	HCH	17.18	PASS
11N20SISO	LCH	15.21	PASS
11N20SISO	MCH	15.06	PASS
11N20SISO	HCH	15.27	PASS

## Appendix B): AC Power Line Conducted Emission

<p>Test Procedure:</p>	<p>Test frequency range :150KHz-30MHz</p> <ol style="list-style-type: none"> <li>1)The mains terminal disturbance voltage test was conducted in a shielded room.</li> <li>2) The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a 50Ω/50μH + 5Ω linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the ground reference plane in the same way as the LISN 1 for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was not exceeded.</li> <li>3)The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane,</li> <li>4) The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0.4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal ground reference plane. The LISN 1 was placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane for LISNs mounted on top of the ground reference plane. This distance was between the closest points of the LISN 1 and the EUT. All other units of the EUT and associated equipment was at least 0.8 m from the LISN 2.</li> <li>5) In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10 on conducted measurement.</li> </ol>														
<p>Limit:</p>	<table border="1" data-bbox="464 1111 1334 1330"> <thead> <tr> <th rowspan="2">Frequency range (MHz)</th> <th colspan="2">Limit (dBμV)</th> </tr> <tr> <th>Quasi-peak</th> <th>Average</th> </tr> </thead> <tbody> <tr> <td>0.15-0.5</td> <td>66 to 56*</td> <td>56 to 46*</td> </tr> <tr> <td>0.5-5</td> <td>56</td> <td>46</td> </tr> <tr> <td>5-30</td> <td>60</td> <td>50</td> </tr> </tbody> </table> <p>* The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz. NOTE : The lower limit is applicable at the transition frequency</p>	Frequency range (MHz)	Limit (dBμV)		Quasi-peak	Average	0.15-0.5	66 to 56*	56 to 46*	0.5-5	56	46	5-30	60	50
Frequency range (MHz)	Limit (dBμV)														
	Quasi-peak	Average													
0.15-0.5	66 to 56*	56 to 46*													
0.5-5	56	46													
5-30	60	50													

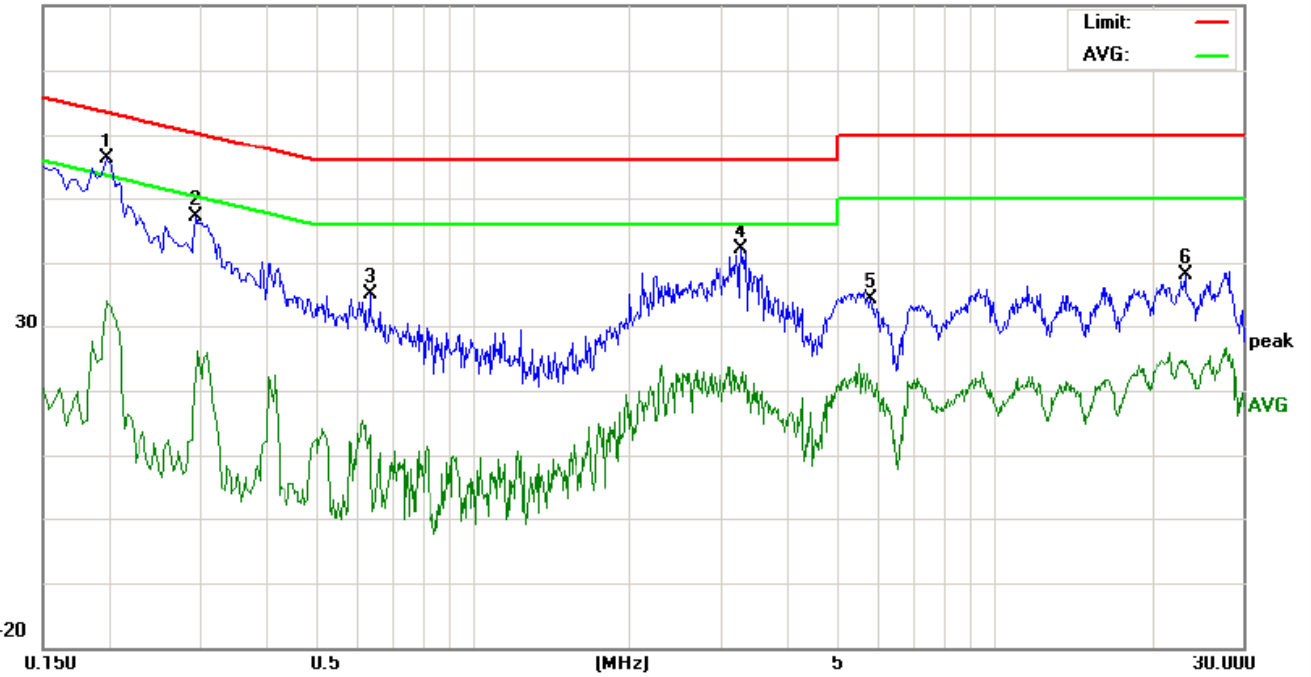
### Measurement Data

An initial pre-scan was performed on the live and neutral lines with peak detector.

Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission were detected.

Live line:

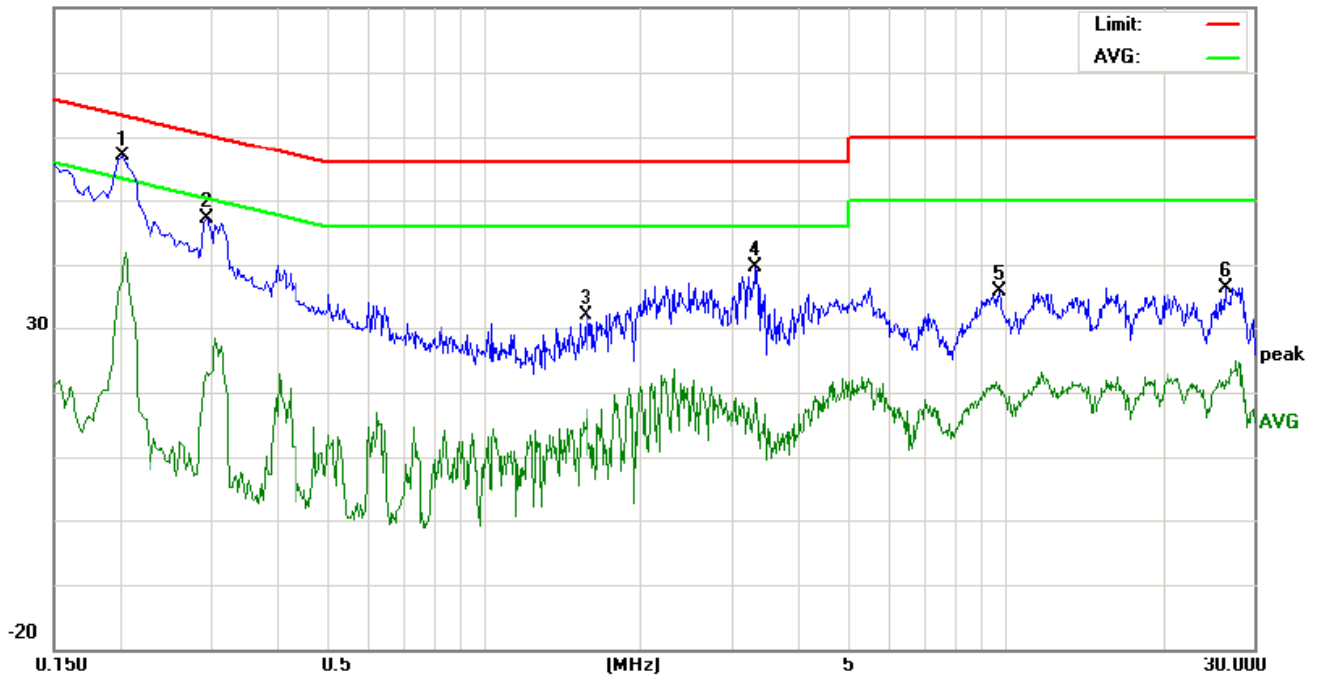
80.0 dBuV



No.	Freq. MHz	Reading_Level (dBuV)			Correct Factor dB	Measurement (dBuV)			Limit (dBuV)		Margin (dB)		P/F	Comment
		Peak	QP	AVG		peak	QP	AVG	QP	AVG	QP	AVG		
1	0.1980	46.41		24.39	9.80	56.21	34.19	63.69	53.69	-7.48	-19.50	P		
2	0.2940	37.22		13.08	9.80	47.02	22.88	60.41	50.41	-13.39	-27.53	P		
3	0.6340	25.20		3.20	9.90	35.10	13.10	56.00	46.00	-20.90	-32.90	P		
4	3.2860	32.12		11.26	10.00	42.12	21.26	56.00	46.00	-13.88	-24.74	P		
5	5.8220	45.00		10.47	10.00	55.00	20.47	60.00	50.00	-5.00	-29.53	P		
6	23.3140	28.34		14.78	9.80	38.14	24.58	60.00	50.00	-21.86	-25.42	P		

Neutral line:

80.0 dBuV



No.	Freq. MHz	Reading_Level (dBuV)			Correct Factor dB	Measurement (dBuV)			Limit (dBuV)		Margin (dB)		P/F	Comment
		Peak	QP	AVG		peak	QP	AVG	QP	AVG	QP	AVG		
1	0.2020	47.16		27.81	9.80	56.96	37.61	63.52	53.52	-6.56	-15.91	P		
2	0.2940	37.23		13.32	9.80	47.03	23.12	60.41	50.41	-13.38	-27.29	P		
3	1.5740	22.36		4.58	9.87	32.23	14.45	56.00	46.00	-23.77	-31.55	P		
4	3.3300	29.60		9.12	10.00	39.60	19.12	56.00	46.00	-16.40	-26.88	P		
5	9.7420	25.85		11.19	10.00	35.85	21.19	60.00	50.00	-24.15	-28.81	P		
6	26.5020	26.66		12.00	9.80	36.46	21.80	60.00	50.00	-23.54	-28.20	P		

Notes:

1. The following Quasi-Peak and Average measurements were performed on the EUT:
2. Final Test Level = Receiver Reading + LISN Factor + Cable Loss.



## Appendix C): Radiated Spurious Emissions

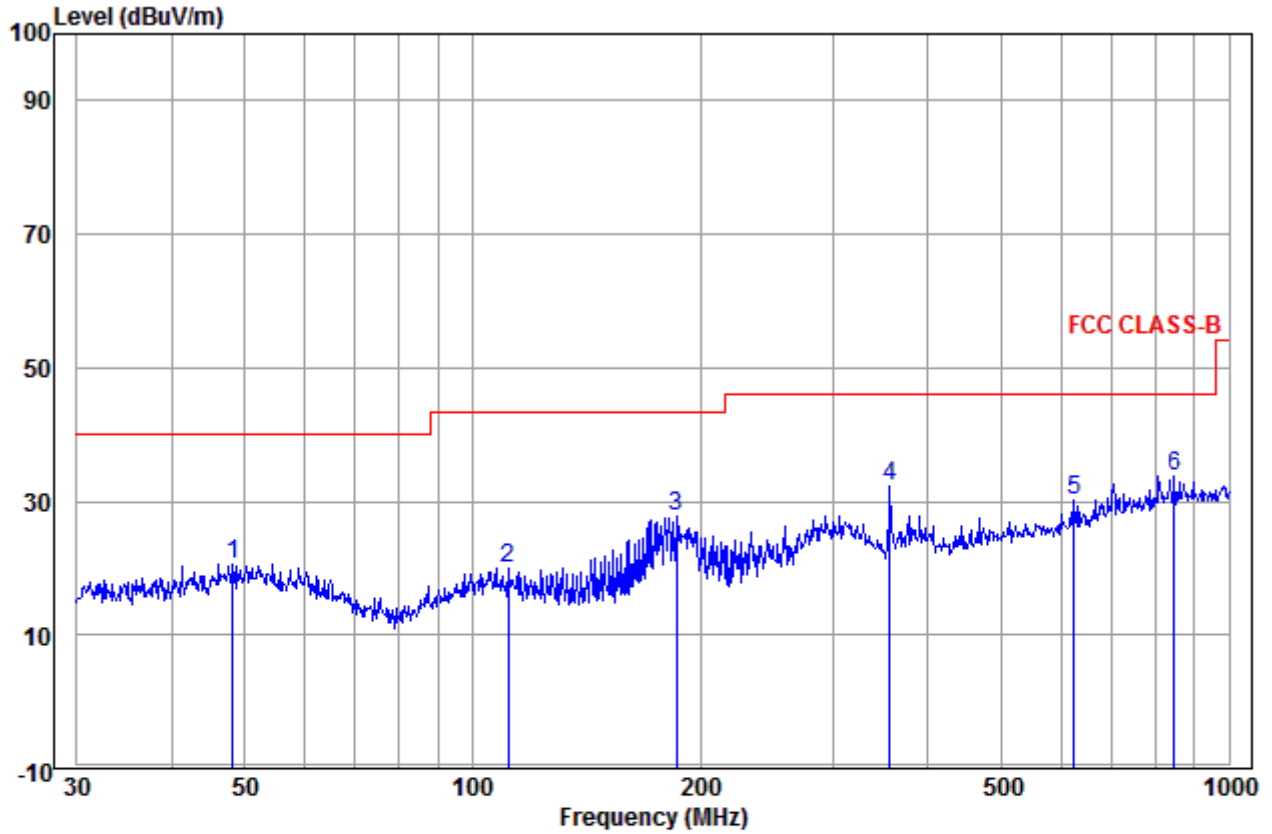
Receiver Setup:					
Frequency	Detector	RBW	VBW	Remark	
0.009MHz-0.090MHz	Peak	10kHz	30kHz	Peak	
0.009MHz-0.090MHz	Average	10kHz	30kHz	Average	
0.090MHz-0.110MHz	Quasi-peak	10kHz	30kHz	Quasi-peak	
0.110MHz-0.490MHz	Peak	10kHz	30kHz	Peak	
0.110MHz-0.490MHz	Average	10kHz	30kHz	Average	
0.490MHz -30MHz	Quasi-peak	10kHz	30kHz	Quasi-peak	
30MHz-1GHz	Quasi-peak	120kHz	300kHz	Quasi-peak	
Above 1GHz	Peak	1MHz	3MHz	Peak	
	Peak	1MHz	10Hz	Average	

Test Procedure:					
<b>Below 1GHz test procedure as below:</b>					
a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.					
b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.					
c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.					
d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable was turned from 0 degrees to 360 degrees to find the maximum reading.					
e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.					
f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.					
<b>Above 1GHz test procedure as below:</b>					
g. Different between above is the test site, change from Semi- Anechoic Chamber to fully Anechoic Chamber and change form table 0.8 meter to 1.5 meter( Above 18GHz the distance is 1 meter and table is 1.5 meter)..					
h. Test the EUT in the lowest channel ,the middle channel ,the Highest channel					
i. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is worse case.					
j. Repeat above procedures until all frequencies measured was complete.					
Limit:	Frequency	Field strength (microvolt/meter)	Limit (dB $\mu$ V/m)	Remark	Measurement distance (m)
	0.009MHz-0.490MHz	2400/F(kHz)	-	-	300
	0.490MHz-1.705MHz	24000/F(kHz)	-	-	30
	1.705MHz-30MHz	30	-	-	30
	30MHz-88MHz	100	40.0	Quasi-peak	3
	88MHz-216MHz	150	43.5	Quasi-peak	3
	216MHz-960MHz	200	46.0	Quasi-peak	3
	960MHz-1GHz	500	54.0	Quasi-peak	3
	Above 1GHz	500	54.0	Average	3
Note: 15.35(b), Unless otherwise specified, the limit on peak radio frequency emissions is 20dB above the maximum permitted average emission limit applicable to the equipment under test. This peak limit applies to the total peak emission level radiated by the device.					

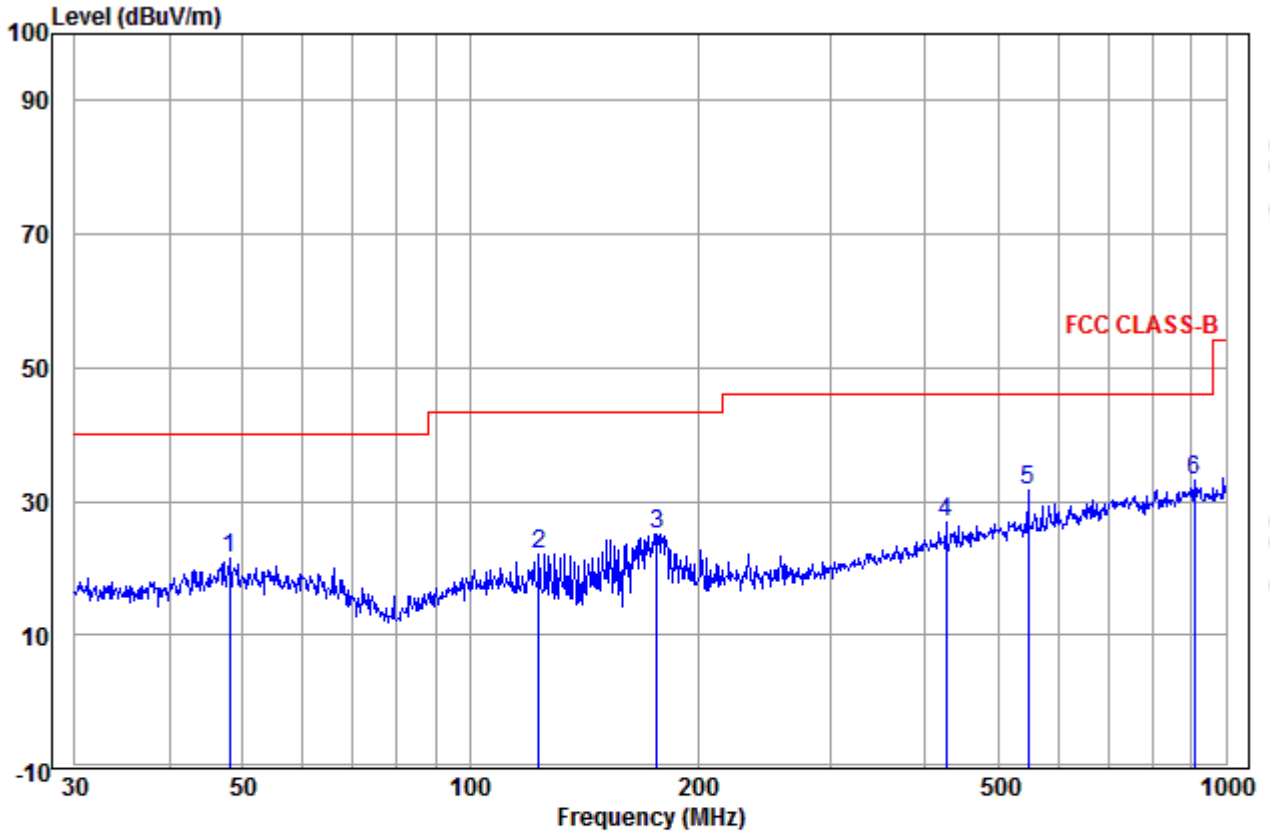
**Radiated Spurious Emissions test Data:  
Radiated Emission below 1GHz**

30MHz~1GHz (QP)		
Test mode:	Transmitting	Horizontal



	Ant Freq	Ant Factor	Cable Loss	Read Level	Limit Level	Over Limit	Remark
	MHz	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	48.163	14.95	1.25	4.36	20.56	40.00	-19.44
2	111.347	13.13	1.57	5.21	19.91	43.50	-23.59
3	185.788	11.11	2.05	14.50	27.66	43.50	-15.84
4	356.676	15.18	2.72	14.40	32.30	46.00	-13.70
5	625.078	19.30	3.54	7.46	30.30	46.00	-15.70
6 pp	848.056	22.00	4.17	7.68	33.85	46.00	-12.15

Test mode:	Transmitting	Vertical
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	Ant Freq	Ant Factor	Cable Loss	Read Level	Limit Level	Over Line	Over Limit	Remark
	MHz	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	47.994	14.93	1.24	5.31	21.48	40.00	-18.52	
2	123.266	11.06	1.58	9.53	22.17	43.50	-21.33	
3	176.888	10.46	1.94	12.76	25.16	43.50	-18.34	
4	426.521	16.90	2.90	7.21	27.01	46.00	-18.99	
5	547.098	18.60	3.21	9.82	31.63	46.00	-14.37	
6 pp	909.667	22.40	4.34	6.38	33.12	46.00	-12.88	

**Transmitter Emission above 1GHz**

Test mode: 802.11b(11Mbps)			Test Frequency: 2412MHz			Remark: Peak			
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Read Level (dB $\mu$ V)	Level (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Over Limit (dB)	Result	Antenna Polaxis
1468.696	30.81	2.80	44.03	47.21	36.79	74.00	-37.21	Pass	Horizontal
2092.175	31.91	3.50	43.63	47.19	38.97	74.00	-35.03	Pass	Horizontal
3176.155	33.44	5.58	44.68	49.59	43.93	74.00	-30.07	Pass	Horizontal
4824.000	34.73	5.10	44.60	45.31	40.54	74.00	-33.46	Pass	Horizontal
7236.000	36.42	6.69	44.80	45.94	44.25	74.00	-29.75	Pass	Horizontal
9648.000	37.93	7.70	45.57	44.88	44.94	74.00	-29.06	Pass	Horizontal
1270.334	30.39	2.59	44.29	48.70	37.39	74.00	-36.61	Pass	Vertical
1782.177	31.37	3.07	43.70	48.53	39.27	74.00	-34.73	Pass	Vertical
3283.018	33.35	5.56	44.67	49.74	43.98	74.00	-30.02	Pass	Vertical
4824.000	34.73	5.10	44.60	45.43	40.66	74.00	-33.34	Pass	Vertical
7236.000	36.42	6.69	44.80	45.89	44.20	74.00	-29.80	Pass	Vertical
9648.000	37.93	7.70	45.57	44.92	44.98	74.00	-29.02	Pass	Vertical

Test mode: 802.11b(11Mbps)			Test Frequency: 2437MHz			Remark: Peak			
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Read Level (dB $\mu$ V)	Level (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Over Limit (dB)	Result	Antenna Polaxis
1506.563	30.88	2.83	43.99	47.63	37.35	74.00	-36.65	Pass	Horizontal
2140.659	32.02	3.63	43.70	47.35	39.30	74.00	-34.70	Pass	Horizontal
3299.775	33.34	5.56	44.67	49.26	43.49	74.00	-30.51	Pass	Horizontal
4874.000	34.84	5.09	44.60	46.01	41.34	74.00	-32.66	Pass	Horizontal
7311.000	36.43	6.76	44.86	46.43	44.76	74.00	-29.24	Pass	Horizontal
9748.000	38.03	7.61	45.55	43.08	43.17	74.00	-30.83	Pass	Horizontal
1510.402	30.89	2.84	43.99	47.99	37.73	74.00	-36.27	Pass	Vertical
2108.213	31.95	3.54	43.66	47.65	39.48	74.00	-34.52	Pass	Vertical
3192.366	33.43	5.58	44.68	49.10	43.43	74.00	-30.57	Pass	Vertical
4874.000	34.84	5.09	44.60	45.22	40.55	74.00	-33.45	Pass	Vertical
7311.000	36.43	6.76	44.86	46.10	44.43	74.00	-29.57	Pass	Vertical
9748.000	38.03	7.61	45.55	42.89	42.98	74.00	-31.02	Pass	Vertical

Test mode: 802.11b(11Mbps)			Test Frequency: 2462MHz			Remark: Peak			
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Read Level (dB $\mu$ V)	Level (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Over Limit (dB)	Result	Antenna Polaxis
1565.200	30.99	2.89	43.92	47.75	37.71	74.00	-36.29	Pass	Horizontal
2108.213	31.95	3.54	43.66	47.33	39.16	74.00	-34.84	Pass	Horizontal
3728.625	33.00	5.48	44.62	48.99	42.85	74.00	-31.15	Pass	Horizontal
4924.000	34.94	5.07	44.60	45.17	40.58	74.00	-33.42	Pass	Horizontal
7386.000	36.44	6.83	44.92	44.87	43.22	74.00	-30.78	Pass	Horizontal
9848.000	38.14	7.53	45.53	44.99	45.13	74.00	-28.87	Pass	Horizontal
1581.218	31.02	2.90	43.91	47.92	37.93	74.00	-36.07	Pass	Vertical
2018.928	31.74	3.29	43.53	48.53	40.03	74.00	-33.97	Pass	Vertical
3266.346	33.36	5.57	44.67	48.61	42.87	74.00	-31.13	Pass	Vertical
4924.000	34.94	5.07	44.60	45.20	40.61	74.00	-33.39	Pass	Vertical
7386.000	36.44	6.83	44.92	44.01	42.36	74.00	-31.64	Pass	Vertical
9848.000	38.14	7.53	45.53	43.92	44.06	74.00	-29.94	Pass	Vertical

Test mode: 802.11g(6Mbps)			Test Frequency: 2412MHz			Remark: Peak			
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Read Level (dB $\mu$ V)	Level (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Over Limit (dB)	Result	Antenna Polaxis
1585.248	31.03	2.90	43.90	47.97	38.00	74.00	-36.00	Pass	Horizontal
2157.069	32.05	3.68	43.72	47.70	39.71	74.00	-34.29	Pass	Horizontal
3200.502	33.42	5.58	44.68	49.72	44.04	74.00	-29.96	Pass	Horizontal
4824.000	34.73	5.10	44.60	45.40	40.63	74.00	-33.37	Pass	Horizontal
7236.000	36.42	6.69	44.80	44.85	43.16	74.00	-30.84	Pass	Horizontal
9648.000	37.93	7.70	45.57	43.14	43.20	74.00	-30.80	Pass	Horizontal
1565.200	30.99	2.89	43.92	48.22	38.18	74.00	-35.82	Pass	Vertical
2108.213	31.95	3.54	43.66	47.71	39.54	74.00	-34.46	Pass	Vertical
3241.498	33.38	5.57	44.67	48.85	43.13	74.00	-30.87	Pass	Vertical
4824.000	34.73	5.10	44.60	44.53	39.76	74.00	-34.24	Pass	Vertical
7236.000	36.42	6.69	44.80	44.90	43.21	74.00	-30.79	Pass	Vertical
9648.000	37.93	7.70	45.57	42.78	42.84	74.00	-31.16	Pass	Vertical

Test mode: 802.11g(6Mbps)			Test Frequency: 2437MHz			Remark: Peak			
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Read Level (dB $\mu$ V)	Level (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Over Limit (dB)	Result	Antenna Polaxis
1468.696	30.81	2.80	44.03	47.37	36.95	74.00	-37.05	Pass	Horizontal
2151.585	32.04	3.66	43.72	47.50	39.48	74.00	-34.52	Pass	Horizontal
3815.033	32.93	5.47	44.62	50.30	44.08	74.00	-29.92	Pass	Horizontal
4924.000	34.94	5.07	44.60	44.79	40.20	74.00	-33.80	Pass	Horizontal
7386.000	36.44	6.83	44.92	44.12	42.47	74.00	-31.53	Pass	Horizontal
9848.000	38.14	7.53	45.53	44.36	44.50	74.00	-29.50	Pass	Horizontal
1514.252	30.90	2.84	43.98	47.55	37.31	74.00	-36.69	Pass	Vertical
2113.586	31.96	3.56	43.66	48.00	39.86	74.00	-34.14	Pass	Vertical
3241.498	33.38	5.57	44.67	48.77	43.05	74.00	-30.95	Pass	Vertical
4924.000	34.94	5.07	44.60	45.23	40.64	74.00	-33.36	Pass	Vertical
7386.000	36.44	6.83	44.92	43.85	42.20	74.00	-31.80	Pass	Vertical
9848.000	38.14	7.53	45.53	44.06	44.20	74.00	-29.80	Pass	Vertical

Test mode: 802.11g(6Mbps)			Test Frequency: 2462MHz			Remark: Peak			
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Read Level (dB $\mu$ V)	Level (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Over Limit (dB)	Result	Antenna Polaxis
1495.101	30.86	2.82	44.00	47.72	37.40	74.00	-36.60	Pass	Horizontal
2092.175	31.91	3.50	43.63	47.12	38.90	74.00	-35.10	Pass	Horizontal
3200.502	33.42	5.58	44.68	50.02	44.34	74.00	-29.66	Pass	Horizontal
4924.000	34.94	5.07	44.60	44.99	40.40	74.00	-33.60	Pass	Horizontal
7386.000	36.44	6.83	44.92	44.63	42.98	74.00	-31.02	Pass	Horizontal
9848.000	38.14	7.53	45.53	43.86	44.00	74.00	-30.00	Pass	Horizontal
1732.967	31.29	3.03	43.75	47.43	38.00	74.00	-36.00	Pass	Vertical
2118.973	31.97	3.57	43.67	47.57	39.44	74.00	-34.56	Pass	Vertical
3200.502	33.42	5.58	44.68	50.50	44.82	74.00	-29.18	Pass	Vertical
4924.000	34.94	5.07	44.60	45.10	40.51	74.00	-33.49	Pass	Vertical
7386.000	36.44	6.83	44.92	44.00	42.35	74.00	-31.65	Pass	Vertical
9848.000	38.14	7.53	45.53	43.90	44.04	74.00	-29.96	Pass	Vertical

Test mode: 802.11n(HT20)(6.5Mbps)			Test Frequency: 2412MHz			Remark: Peak			
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Read Level (dB $\mu$ V)	Level (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Over Limit (dB)	Result	Antenna Polaxis
1865.735	31.50	3.13	43.62	47.24	38.25	74.00	-35.75	Pass	Horizontal
3049.394	33.55	5.61	44.69	48.08	42.55	74.00	-31.45	Pass	Horizontal
3662.775	33.04	5.50	44.63	48.24	42.15	74.00	-31.85	Pass	Horizontal
4824.000	34.73	5.10	44.60	44.58	39.81	74.00	-34.19	Pass	Horizontal
7236.000	36.42	6.69	44.80	41.00	39.31	74.00	-34.69	Pass	Horizontal
9648.000	37.93	7.70	45.57	39.05	39.11	74.00	-34.89	Pass	Horizontal
1417.277	30.71	2.75	44.10	47.18	36.54	74.00	-37.46	Pass	Vertical
2070.980	31.86	3.44	43.60	47.31	39.01	74.00	-34.99	Pass	Vertical
3258.042	33.37	5.57	44.67	48.76	43.03	74.00	-30.97	Pass	Vertical
4824.000	34.73	5.10	44.60	44.18	39.41	74.00	-34.59	Pass	Vertical
7236.000	36.42	6.69	44.80	40.47	38.78	74.00	-35.22	Pass	Vertical
9648.000	37.93	7.70	45.57	38.35	38.41	74.00	-35.59	Pass	Vertical

Test mode: 802.11n(HT20)(6.5Mbps)			Test Frequency: 2437MHz			Remark: Peak			
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Read Level (dB $\mu$ V)	Level (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Over Limit (dB)	Result	Antenna Polaxis
1846.834	31.47	3.12	43.64	47.43	38.38	74.00	-35.62	Pass	Horizontal
2190.267	32.13	3.77	43.77	46.64	38.77	74.00	-35.23	Pass	Horizontal
3225.037	33.40	5.57	44.67	47.92	42.22	74.00	-31.78	Pass	Horizontal
4874.000	34.84	5.09	44.60	44.43	39.76	74.00	-34.24	Pass	Horizontal
7311.000	36.43	6.76	44.86	41.59	39.92	74.00	-34.08	Pass	Horizontal
9748.000	38.03	7.61	45.55	38.92	39.01	74.00	-34.99	Pass	Horizontal
1581.218	31.02	2.90	43.91	47.03	37.04	74.00	-36.96	Pass	Vertical
2135.217	32.01	3.62	43.69	47.33	39.27	74.00	-34.73	Pass	Vertical
3128.013	33.48	5.59	44.69	47.61	41.99	74.00	-32.01	Pass	Vertical
4874.000	34.84	5.09	44.60	44.15	39.48	74.00	-34.52	Pass	Vertical
7311.000	36.43	6.76	44.86	41.64	39.97	74.00	-34.03	Pass	Vertical
9748.000	38.03	7.61	45.55	39.17	39.26	74.00	-34.74	Pass	Vertical

Test mode: 802.11n(HT20)(6.5Mbps)			Test Frequency: 2462MHz			Remark: Peak			
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Read Level (dBμV)	Level (dBμV/m)	Limit (dBμV/m)	Over Limit (dB)	Result	Antenna Polaxis
1638.585	31.12	2.95	43.85	47.41	37.63	74.00	-36.37	Pass	Horizontal
2113.586	31.96	3.56	43.66	47.18	39.04	74.00	-34.96	Pass	Horizontal
3233.257	33.39	5.57	44.67	47.72	42.01	74.00	-31.99	Pass	Horizontal
4924.000	34.94	5.07	44.60	45.73	41.14	74.00	-32.86	Pass	Horizontal
7386.000	36.44	6.83	44.92	41.94	40.29	74.00	-33.71	Pass	Horizontal
9848.000	38.14	7.53	45.53	40.33	40.47	74.00	-33.53	Pass	Horizontal
1609.646	31.07	2.93	43.88	46.87	36.99	74.00	-37.01	Pass	Vertical
2081.550	31.89	3.47	43.62	46.22	37.96	74.00	-36.04	Pass	Vertical
3057.166	33.55	5.61	44.69	47.86	42.33	74.00	-31.67	Pass	Vertical
4924.000	34.94	5.07	44.60	43.78	39.19	74.00	-34.81	Pass	Vertical
7386.000	36.44	6.83	44.92	39.46	37.81	74.00	-36.19	Pass	Vertical
9848.000	38.14	7.53	45.53	39.22	39.36	74.00	-34.64	Pass	Vertical

**Remark:**

1) Through Pre-scan transmitting mode with all kind of modulation and data rate, find the 11Mbps of rate is the worst case of 802.11b; 6Mbps of rate is the worst case of 802.11g; 6.5Mbps of rate is the worst case of 802.11n(HT20), and then Only the worst case is recorded in the report.

2) The field strength is calculated by adding the Antenna Factor, Cable Factor & Pre-amplifier. The basic equation with a sample calculation is as follows:

Final Test Level = Receiver Reading - Correct Factor

Correct Factor = Pre-amplifier Factor - Antenna Factor - Cable Factor

3) Scan from 9kHz to 25GHz, the disturbance above 13GHz and below 30MHz was very low, and the above harmonics were the highest point could be found when testing, so only the above harmonics had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.

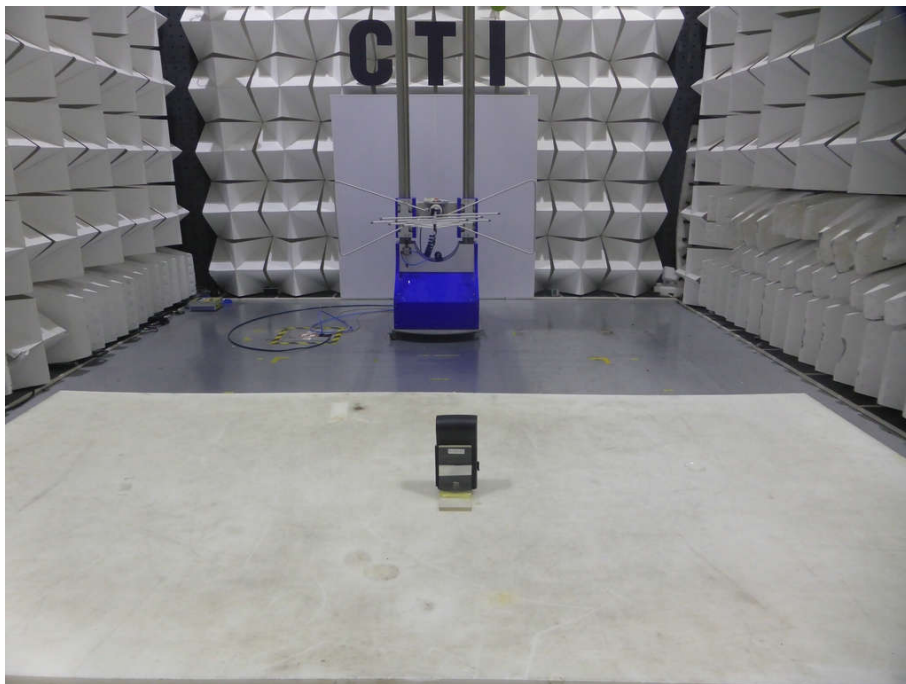


## PHOTOGRAPHS OF TEST SETUP

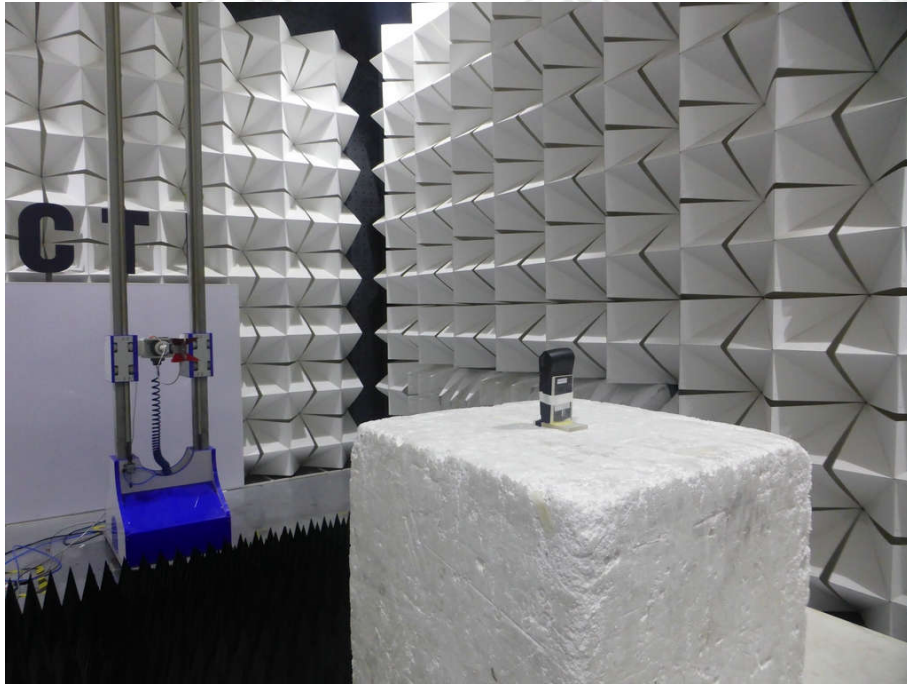
Test model No.: WisePad 2 Plus



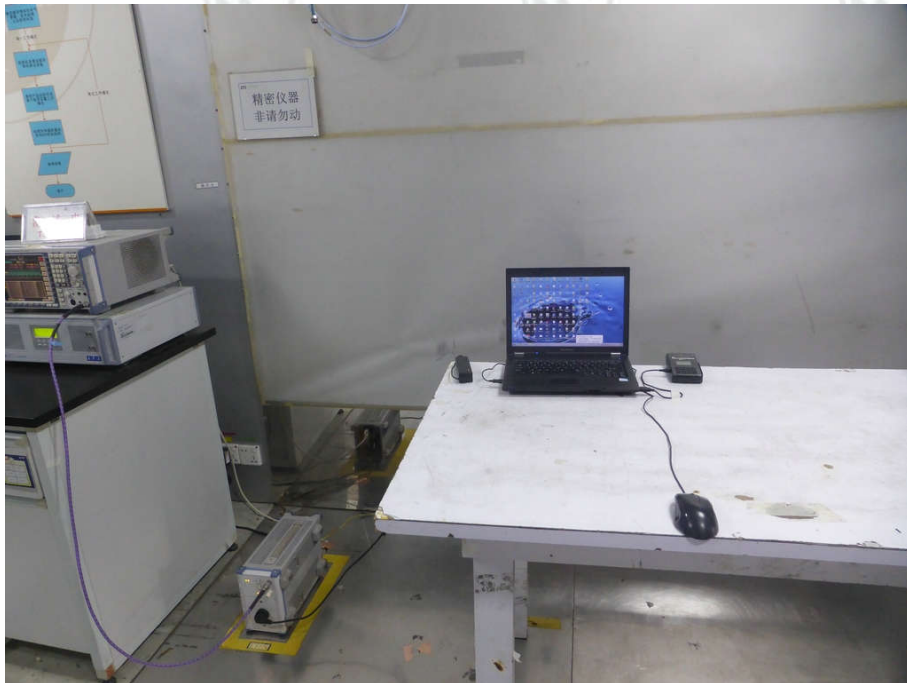
**Radiated spurious emission Test Setup-1(Below 30MHz)**



**Radiated spurious emission Test Setup-2(30MHz-1GHz)**



**Radiated spurious emission Test Setup-3(Above 1GHz)**



**Conducted Emissions Test Setup**

## PHOTOGRAPHS OF EUT Constructional Details

Refer to Report No.EED32J00012502 for EUT external and internal photos.

\*\*\* End of Report \*\*\*

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