

FCC REPORT

Applicant: Five Technology Co., Ltd.

Address of Applicant: 502,North 5/F,2# Vision Business Park,Tech.South Rd.,
High-tech Park,Shenzhen, P.R.C. 518057.

Equipment Under Test (EUT)

Product Name: 8 Inch MID with WiFi/BT/GPS/3G

Model No.: F208

FCC ID: RDX-FNFIFIVEMX

Applicable standards: FCC CFR Title 47 Part 15 Subpart B: 2011

Date of sample receipt: 30 Nov., 2012

Date of Test: 04-13 Dec.,2012

Date of report issued: 17 Dec.,2012

Test Result : Pass *

* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:



Bruce Zhang
Laboratory Manager

This report details the results of the testing carried out on one sample. The results contained in this test report do not relate to other samples of the same product and does not permit the use of the CCIS product certification mark. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

This report may only be reproduced and distributed in full. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards.

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2 Version

Version No.	Date	Description
00	17 Dec.,2012	Original

Prepared By:



Report Clerk

Date:

17 Dec.,2012

Check By:



Project Engineer

Date:

17 Dec.,2012

3 Contents

	Page
1 COVER PAGE	1
2 VERSION	2
3 CONTENTS	3
4 TEST SUMMARY	4
5 GENERAL INFORMATION	5
5.1 CLIENT INFORMATION	5
5.2 GENERAL DESCRIPTION OF E.U.T.	5
5.3 OPERATING MODES	5
5.4 DESCRIPTION OF SUPPORT UNITS	6
5.5 DEVIATION FROM STANDARDS.....	6
5.6 ABNORMALITIES FROM STANDARD CONDITIONS	6
5.7 OTHER INFORMATION REQUESTED BY THE CUSTOMER	6
5.8 TEST FACILITY.....	6
5.9 TEST LOCATION	6
6 TEST INSTRUMENTS LIST	7
7 TEST RESULTS AND MEASUREMENT DATA	8
7.1 CONDUCTED EMISSIONS.....	8
7.2 RADIATED EMISSION	11
8 TEST SETUP PHOTO	17
9 EUT CONSTRUCTIONAL DETAILS	18

4 Test Summary

Test Item	Section in CFR 47	Result
Conducted Emission	Part15.107	Pass
Radiated Emissions	Part15.109	Pass

Pass: The EUT complies with the essential requirements in the standard.

5 General Information

5.1 Client Information

Applicant:	Five Technology Co., Ltd.
Address of Applicant:	502,North 5/F,2# Vision Business Park,Tech.South Rd., High-tech Park,Shenzhen, P.R.C. 518057.
Manufacturer:	Five Technology Co., Ltd.
Address of Manufacturer:	502,North 5/F,2# Vision Business Park,Tech.South Rd., High-tech Park,Shenzhen, P.R.C. 518057.

5.2 General Description of E.U.T.

Product Name:	8 Inch MID with WiFi/BT/GPS/3G
Model No.:	F208
AC adapter:	Input:100-240V AC,50/60Hz 0.5A Output:5V DC MAX2000mA
Power supply:	Rechargeable Li-ion Battery DC3.7V/4200mAh

5.3 Operating Modes

Operating mode	Detail description
PC mode	Keep the EUT in downloading whith PC mode(Worst case)
Camera mode	Keep the EUT in Camera mode
Play mode	Keep the EUT in Play mode
Recording mode	Keep the EUT in Recording mode
USB play mode :	Keep the EUT in USB play mode
GPS mode	Keep the EUT in GPS receiever mode
FM mode	Keep the EUT in FM receiever mode
All modes have been tested, But the worst case mode data has been shown in this report.	

5.4 Description of Support Units

Manufacturer	Description	Model	Serial Number	FCC ID/DoC
HP	Printer	P1007	VNFP409729	DoC
HP	PC	Pro 2000MT	N/A	DoC
HP	MONITOR	CompaqLE1851WL	515682-070	DoC
HP	KEYBOARD	SK-2880	434820-AA2	DoC
HP	MOUSE	MOC5UO	N/A	DoC
Kingston	Micro SD	SDC4/4GBSP	136361	DoC

5.5 Deviation from Standards

None

5.6 Abnormalities from Standard Conditions

None.

5.7 Other Information Requested by the Customer

None.

5.8 Test Facility

The test facility is recognized, certified, or accredited by the following organizations: ● FCC —Registration No.: 817957 China Certification & Inspection Services Co., Ltd., Shenzhen 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 817957, February 27, 2012 ● Industry Canada (IC) The 3m Semi-anechoic chamber of China Certification & Inspection Services Co., Ltd. Has been Registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 10106A-1.
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5.9 Test Location

All tests were performed at:
China Certification & Inspection Services Co., Ltd. Address: 1st Floor, Block No.2, Laodong Industrial Zone, Xixiang Road Baoan District, Shenzhen, China Tel: 0755-23118282 Fax: 0755-23116366

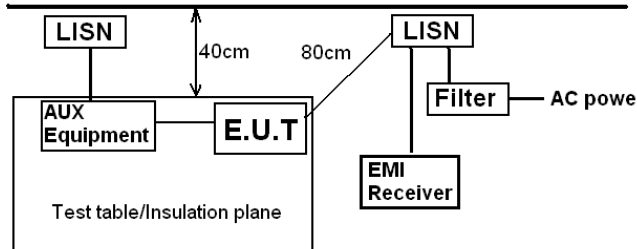
6 Test Instruments list

Radiated Emission:						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (dd-mm-yy)	Cal.Due date (dd-mm-yy)
1	3m Semi- Anechoic Chamber	SAEMC	9(L)*6(W)* 6(H)	CCIS0001	June 09 2012	June 08 2013
2	BiConiLog Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB9163	CCIS0005	June 04 2012	June 03 2013
3	Double -ridged waveguide horn	SCHWARZBECK MESS-ELEKTRONIK	BBHA9120D	CCIS0006	May 30 2012	May 30 2013
4	EMI Test Software	AUDIX	E3	N/A	N/A	N/A
5	Coaxial Cable	CCIS	N/A	CCIS0016	Apr. 01 2012	Mar. 31 2013
6	Coaxial Cable	CCIS	N/A	CCIS0017	Apr. 01 2012	Mar. 31 2013
7	Coaxial cable	CCIS	N/A	CCIS0018	Apr. 01 2012	Mar. 31 2013
8	Coaxial Cable	CCIS	N/A	CCIS0019	Apr. 01 2012	Mar. 31 2013
9	Coaxial Cable	CCIS	N/A	CCIS0087	Apr. 01 2012	Mar. 31 2013
10	Amplifier(10kHz-1.3GHz)	HP	8447D	CCIS0003	Apr. 01 2012	Mar. 31 2013
11	Amplifier(1GHz-18GHz)	Compliance Direction Systems Inc.	PAP-1G18	CCIS0011	June 09 2012	June 08 2013
12	Pre-amplifier (18-26GHz)	Rohde & Schwarz	AFS33-18002 650-30-8P-44	GTS218	Apr. 01 2012	Mar. 31 2013
13	Horn Antenna	ETS-LINDGREN	3160	GTS217	Mar. 30 2012	Mar. 29 2013
14	Printer	HP	HP LaserJet P1007	N/A	N/A	N/A
15	Positioning Controller	UC	UC3000	CCIS0015	N/A	N/A
16	Spectrum analyzer 9k-30GHz	Rohde & Schwarz	FSP	CCIS0023	May. 29 2012	May. 28 2013
17	EMI Test Receiver	Rohde & Schwarz	ESPI	CCIS0022	Apr 01 2012	Mar. 31 2013
18	Loop antenna	Laplace instrument	RF300	EMC0701	Aug. 12 2012	Aug. 11 2013

Conducted Emission:						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (dd-mm-yy)	Cal. Due date (dd-mm-yy)
1	Shielding Room	ZhongShuo Electron	11.0(L)x4.0(W)x3.0(H)	CCIS0061	June 09 2012	June 08 2013
2	EMI Test Receiver	Rohde & Schwarz	ESCI	CCIS0002	May 25 2012	May 24 2013
3	LISN	CHASE	MN2050D	CCIS0074	Apr 01 2012	Mar. 31 2013
4	Coaxial Cable	CCIS	N/A	CCIS0086	Apr. 01 2012	Mar. 31 2013
5	EMI Test Software	AUDIX	E3	N/A	N/A	N/A

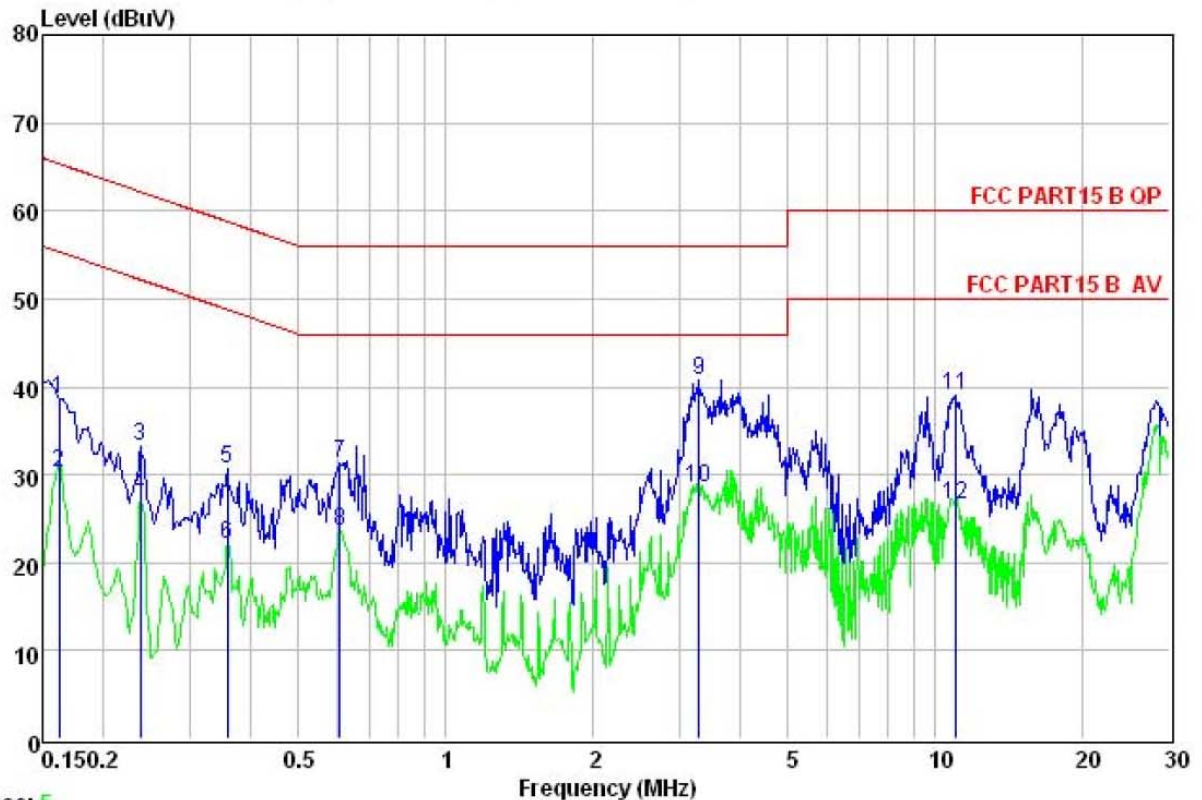
7 Test results and Measurement Data

7.1 Conducted Emissions

Test Requirement:	FCC Part15 B Section 15.107														
Test Method:	ANSI C63.4:2003														
Test Frequency Range:	150kHz to 30MHz														
Class / Severity:	Class B														
Receiver setup:	RBW=9kHz, VBW=30kHz														
Limit:	<table><tr><th rowspan="2">Frequency range (MHz)</th><th colspan="2">Limit (dBμV)</th></tr><tr><th>Quasi-peak</th><th>Average</th></tr><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>0.5-30</td><td>60</td><td>50</td></tr></table>	Frequency range (MHz)	Limit (dBμV)		Quasi-peak	Average	0.15-0.5	66 to 56*	56 to 46*	0.5-5	56	46	0.5-30	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													
0.5-30	60	50													
Test setup:	Reference Plane  Remark: E.U.T: Equipment Under Test LISN: Line Impedance Stabilization Network Test table height=0.8m														
Test procedure	1. The E.U.T and simulators are connected to the main power through a line impedance stabilization network(L.I.S.N.). The provide a 50ohm/50uH coupling impedance for the measuring equipment. 2. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refers to the block diagram of the test setup and photographs). 3. Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.4: 2003 on conducted measurement.														
Test environment:	Temp.: 23 °C Humid.: 56% Press.: 1 01kPa														
Measurement Record:	Uncertainty: 3.28dB														
Test Instruments:	Refer to section 6 for details														
Test mode:	Pre-scan all test mode in the section 5.3, and found the bleow mode which it is worse case mode.														
Test results:	Pass														

Measurement data:

Line:

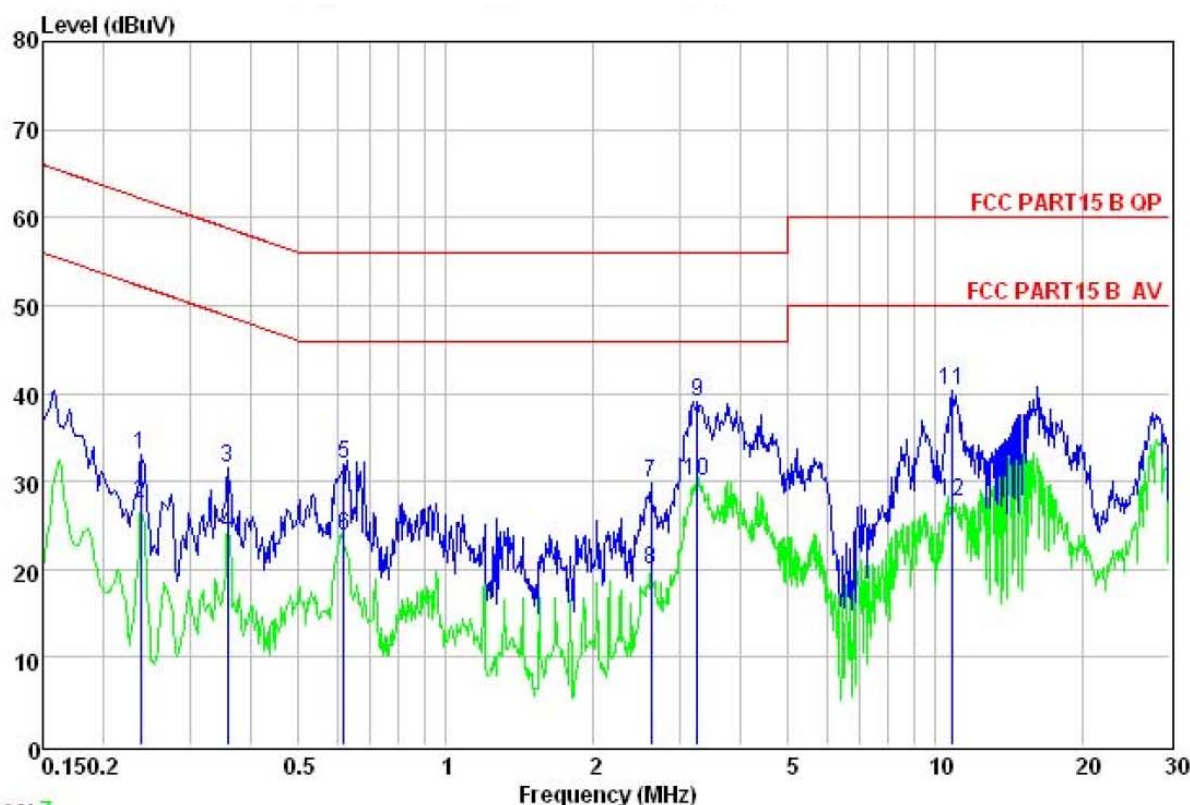


Trace: 5

Site :
 Condition : FCC PART15 B QP LISN LINE
 Job No. : 281RF
 EUT : MID
 Test Mode : PC mode
 Power Rating : AC 120V/60Hz
 Environment : Temp: 23 °C Humi:56% Atmos:101KPa
 Test Engineer: Jon

	Freq	LISN	Read	Cable	Limit	Over	
	Factor	Level	Loss	Level	Line	Limit	Remark
	MHz	dB	dBuV	dB	dBuV	dB	
1	0.162	10.24	27.58	0.78	38.60	65.34	-26.74 QP
2	0.162	10.24	19.25	0.78	30.27	55.34	-25.07 Average
3	0.238	10.23	22.22	0.75	33.20	62.17	-28.97 QP
4	0.238	10.23	16.75	0.75	27.73	52.17	-24.44 Average
5	0.358	10.27	19.63	0.73	30.63	58.78	-28.15 QP
6	0.358	10.27	11.15	0.73	22.15	48.78	-26.63 Average
7	0.608	10.22	20.39	0.77	31.38	56.00	-24.62 QP
8	0.608	10.22	12.65	0.77	23.64	46.00	-22.36 Average
9	3.293	10.29	29.61	0.90	40.80	56.00	-15.20 QP
10	3.293	10.29	17.27	0.90	28.46	46.00	-17.54 Average
11	10.963	10.25	27.83	0.93	39.01	60.00	-20.99 QP
12	10.963	10.25	15.49	0.93	26.67	50.00	-23.33 Average

Neutral:



Trace: 7

Site :
Condition : FCC PART15 B QP LISN NEUTRAL
Job No. : 281RF
EUT : MID
Test Mode : PC mode
Power Rating : AC 120V/60Hz
Environment : Temp: 23 °C Humi:56% Atmos:101KPa
Test Engineer: Jon

	LISN	Read	Cable	Limit	Over	
Freq	Factor	Level	Loss	Line	Limit	Remark
MHz	dB	dBuV	dB	dBuV	dBuV	dB
1	0.238	10.23	22.06	0.75	33.04	62.17 -29.13 QP
2	0.238	10.23	16.38	0.75	27.36	52.17 -24.81 Average
3	0.358	10.25	20.45	0.73	31.43	58.78 -27.35 QP
4	0.358	10.25	13.09	0.73	24.07	48.78 -24.71 Average
5	0.617	10.21	21.03	0.77	32.01	56.00 -23.99 QP
6	0.617	10.21	12.84	0.77	23.82	46.00 -22.18 Average
7	2.622	10.27	18.50	0.94	29.71	56.00 -26.29 QP
8	2.622	10.27	8.75	0.94	19.96	46.00 -26.04 Average
9	3.258	10.28	27.77	0.90	38.95	56.00 -17.05 QP
10	3.258	10.28	18.95	0.90	30.13	46.00 -15.87 Average
11	10.790	10.22	29.17	0.94	40.33	60.00 -19.67 QP
12	10.790	10.22	16.55	0.94	27.71	50.00 -22.29 Average

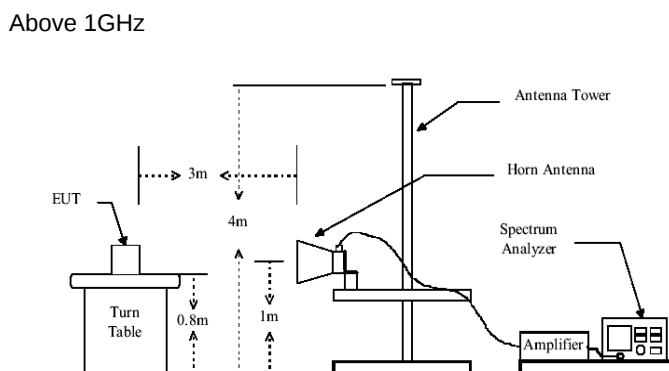
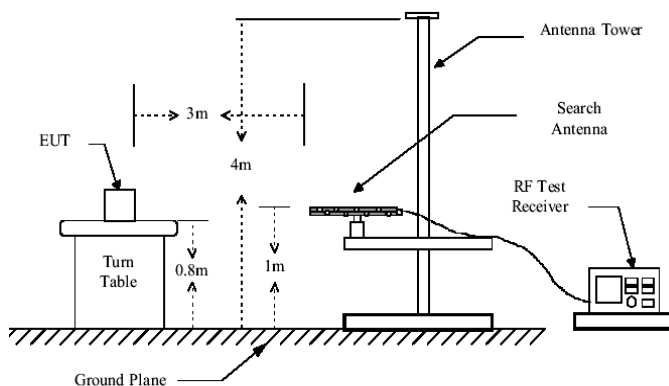
Notes:

1. The following Quasi-Peak and Average measurements were performed on the EUT

2. Final Test Level =Receiver Reading + LISN Factor + Cable Loss.

7.2 Radiated Emission

Test Requirement:	FCC Part15 B Section 15.109			
Test Method:	ANSI C63.4:2003			
Test Frequency Range:	30MHz to 6000MHz			
Test site:	Measurement Distance: 3m (Semi-Anechoic Chamber)			
Receiver setup:	Frequency	Detector	RBW	VBW
	30MHz-1GHz	Quasi-peak	100KHz	300KHz
	Above 1GHz	Peak	1MHz	3MHz
		Peak	1MHz	10Hz
Limit:	Frequency			Remark
	30MHz-88MHz			Quasi-peak Value
	88MHz-216MHz			Quasi-peak Value
	216MHz-960MHz			Quasi-peak Value
	960MHz-1GHz			Quasi-peak Value
	Above 1GHz			Average Value
Test setup:	Below 1GHz			Peak Value
	Above 1GHz			Peak Value

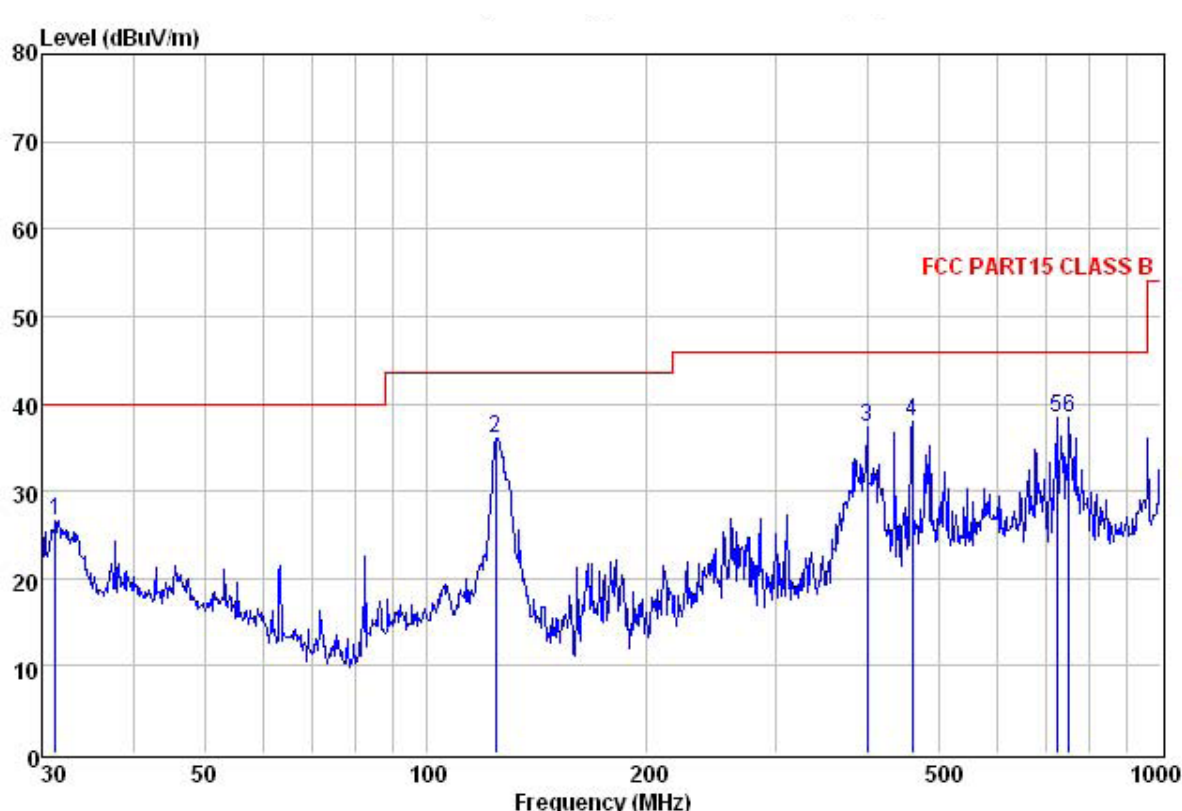


Test Procedure:	1. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation. 2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. 3. 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. 4. 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 and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading. 5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. 6. 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.
Test environment:	Temp.: 25 °C Humid.: 52% Press.: 1 012mbar
Measurement Record:	Uncertainty: 4.88dB
Test Instruments:	Refer to section 6 for details
Test mode:	Pre-scan all test mode in the section 5.3, and found the blew mode which it is worse case mode.
Test results:	Passed

Measurement Data

Below 1GHz

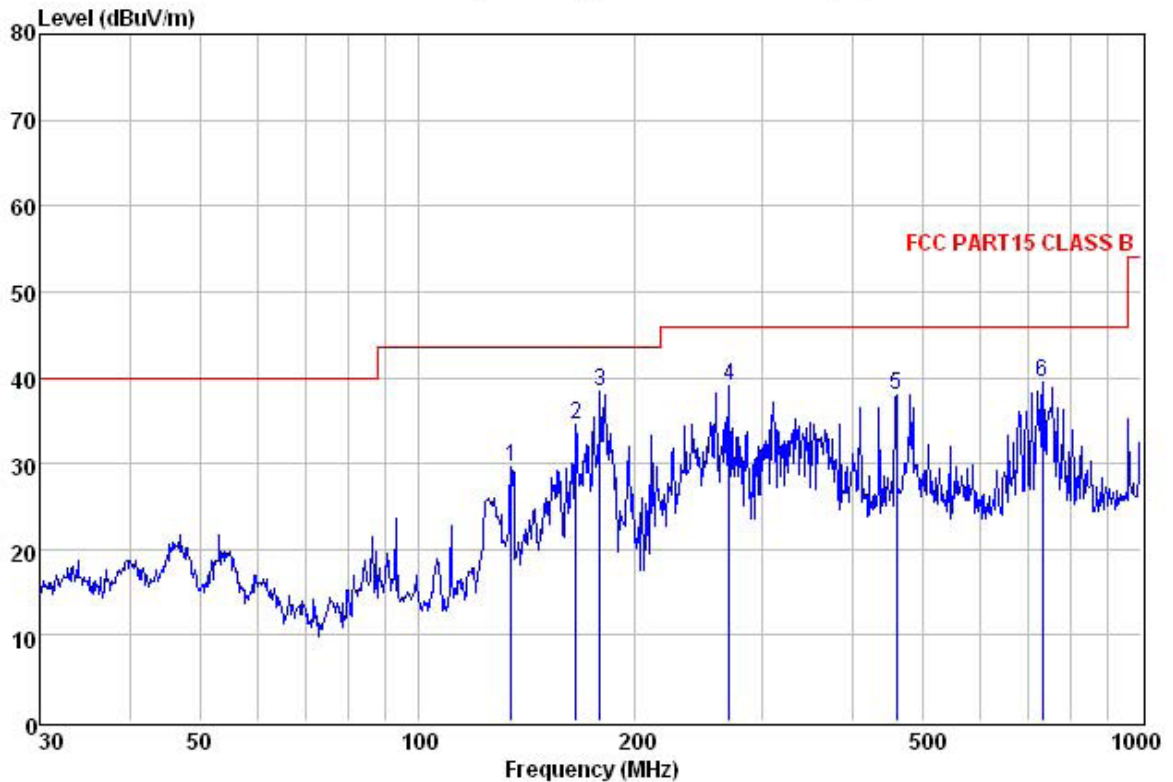
Vertical:



Site : 3m chamber
 Condition : FCC PART15 CLASS B 3m VULB9163(2012.4.1) VERTICAL
 Job NO. : 281RF
 EUT : MID
 Test mode : PC mode
 Power Rating: AC 120V/60Hz
 Environment : Temp:24°C Humi:65% Atmos:101Kpa

	Read	Antenna	Cable	Preamp	Limit	Over	
Freq	Level	Factor	Loss	Factor	Line	Limit	Remark
-----	-----	-----	-----	-----	-----	-----	-----
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB
1	31.289	39.79	12.32	0.85	26.40	26.56	40.00 -13.44 QP
2	124.569	53.67	9.80	2.22	29.62	36.07	43.50 -7.43 QP
3	399.030	49.12	15.06	3.08	29.89	37.37	46.00 -8.63 QP
4	459.114	49.70	15.59	3.27	30.52	38.04	46.00 -7.96 QP
5	721.726	45.53	19.10	4.26	30.55	38.34	46.00 -7.66 QP
6	750.108	45.13	19.43	4.36	30.50	38.42	46.00 -7.58 QP

Horizontal:

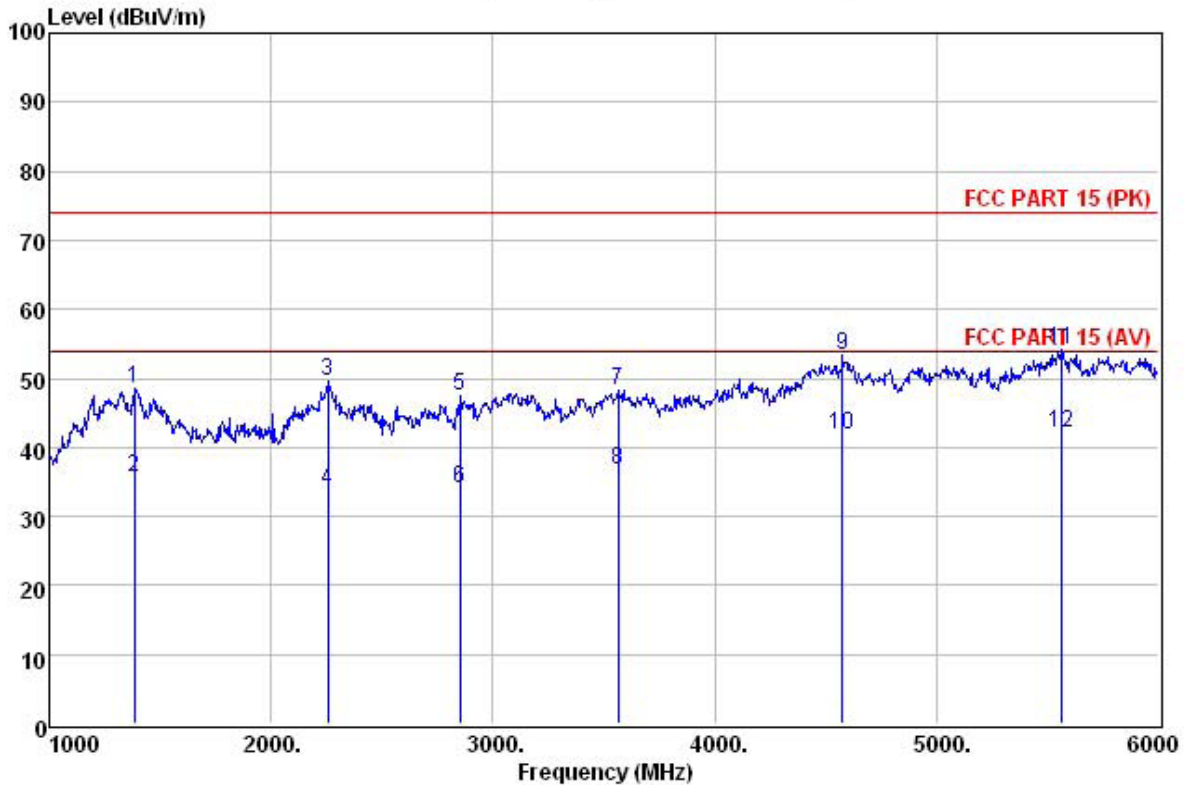


Site : 3m chamber
 Condition : FCC PART15 CLASS B 3m VULB9163(2012.4.1) HORIZONTAL
 Job NO. : 281RF
 EUT : MID
 Test mode : PC mode
 Power Rating: AC 120V/60Hz
 Environment : Temp:24°C Humi:65% Atmos:101Kpa

		ReadAntenna	Cable	Preamp		Limit	Over	
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Remark
-----	-----	-----	-----	-----	-----	-----	-----	-----
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	134.559	48.12	8.56	2.34	29.46	29.56	43.50	-13.94 QP
2	165.487	52.38	8.82	2.62	29.33	34.49	43.50	-9.01 QP
3	178.758	52.88	9.62	2.72	26.81	38.41	43.50	-5.09 QP
4	269.428	53.33	12.34	2.86	29.53	39.00	46.00	-7.00 QP
5	459.114	49.71	15.59	3.27	30.52	38.05	46.00	-7.95 QP
6	731.920	46.48	19.19	4.29	30.54	39.42	46.00	-6.58 QP

Above 1GHz

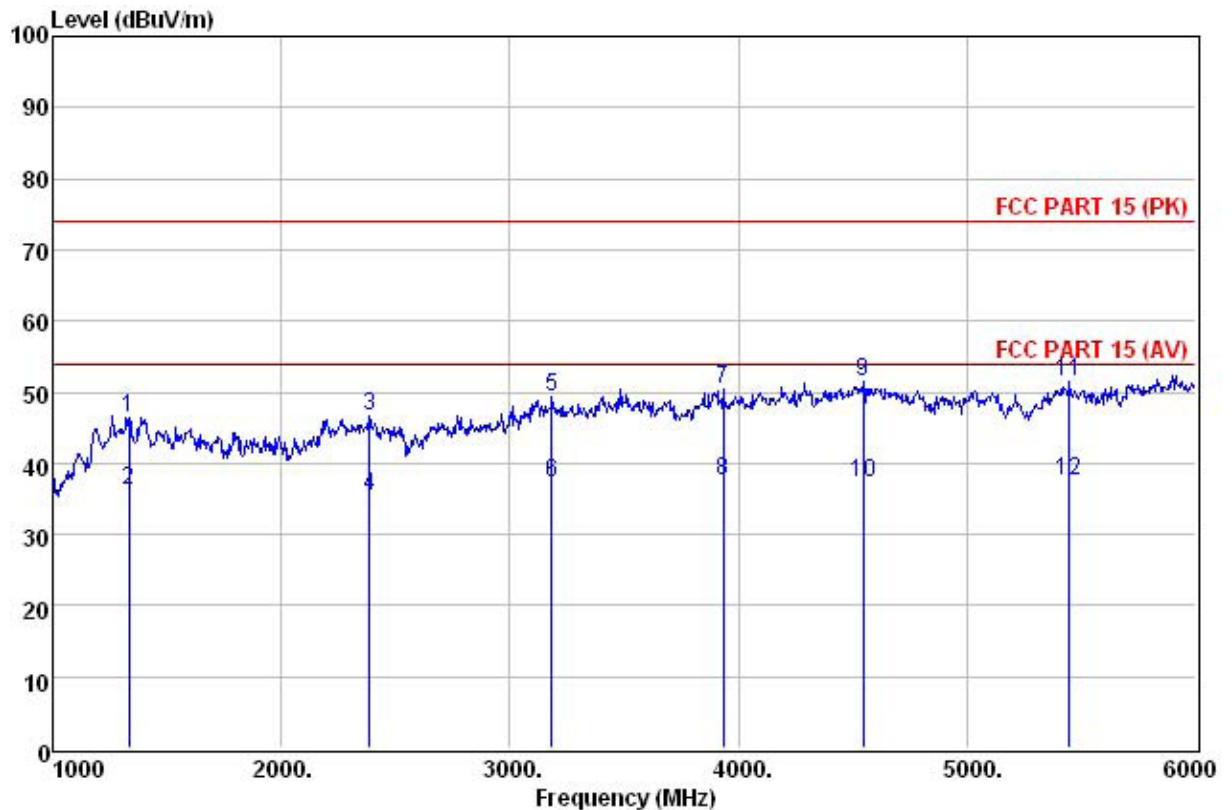
Horizontal:



Site : 3m chamber
 Condition : FCC PART 15 (PK) 3m BBHA9120(>1GHZ) HORIZONTAL
 Job No. : 281RF
 Test mode : PC mode
 Test Engineer: Joe
 Power Rating : AC 120V/60Hz
 Environment : Temp:24°C Humi:65% Atmos:101Kpa

	Freq	Read	Antenna	Cable	Preamp	Level	Limit	Over	Remark
	MHz	Level	Factor	Loss	Factor	dBuV/m	Line	Limit	
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1385.000	41.68	25.50	2.86	21.39	48.65	74.00	-25.35	Peak
2	1385.000	28.60	25.50	2.86	21.39	35.57	54.00	-18.43	Average
3	2255.000	48.32	28.02	3.72	30.50	49.56	74.00	-24.44	Peak
4	2255.000	32.65	28.02	3.72	30.50	33.89	54.00	-20.11	Average
5	2850.000	44.98	28.38	4.20	30.10	47.46	74.00	-26.54	Peak
6	2850.000	31.50	28.38	4.20	30.10	33.98	54.00	-20.02	Average
7	3565.000	41.91	29.11	4.92	27.78	48.16	74.00	-25.84	Peak
8	3565.000	30.50	29.11	4.92	27.78	36.75	54.00	-17.25	Average
9	4575.000	41.14	30.92	5.72	24.43	53.35	74.00	-20.65	Peak
10	4575.000	29.60	30.92	5.72	24.43	41.81	54.00	-12.19	Average
11	5560.000	39.55	32.09	6.31	23.81	54.14	74.00	-19.86	Peak
12	5560.000	27.59	32.09	6.31	23.81	42.18	54.00	-11.82	Average

Vertical:



```

Site       : 3m chamber
Condition  : FCC PART 15 (PK) 3m BBHA9120(>1GHZ) VERTICAL
Job No.    : 281RF
Test mode  : PC mode
Test Engineer: Joe
Power Rating : AC 120V/60Hz
Environment : Temp:24°C Humi:65% Atmos:101Kpa

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	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Postamp Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1335.000	38.55	25.65	2.80	20.58	46.42	74.00	-27.58	Peak
2	1335.000	28.19	25.65	2.80	20.58	36.06	54.00	-17.94	Average
3	2385.000	45.41	27.58	3.81	30.15	46.65	74.00	-27.35	Peak
4	2385.000	34.16	27.58	3.81	30.15	35.40	54.00	-18.60	Average
5	3185.000	45.12	28.76	4.55	29.20	49.23	74.00	-24.77	Peak
6	3185.000	33.16	28.76	4.55	29.20	37.27	54.00	-16.73	Average
7	3935.000	42.23	29.78	5.23	26.80	50.44	74.00	-23.56	Peak
8	3935.000	29.36	29.78	5.23	26.80	37.57	54.00	-16.43	Average
9	4545.000	39.35	30.86	5.70	24.45	51.46	74.00	-22.54	Peak
10	4545.000	25.10	30.86	5.70	24.45	37.21	54.00	-16.79	Average
11	5450.000	36.94	31.99	6.25	23.81	51.37	74.00	-22.63	Peak
12	5450.000	23.14	31.99	6.25	23.81	37.57	54.00	-16.43	Average