

TEST REPORT

Applicant: H.K. Youngs Watch Co., Ltd.

Address of Applicant: Units 1-12, 10/F, Hope Sea Industrial Centre, No.26, Lam Hing St., Kowloon Bay, Kowloon, Hong Kong

Equipment Under Test (EUT)

Product Name: GPS WATCH

Model No.: YP11545, YC11006, YC11005

Trade Mark: Youngs

FCC ID: JJ8-11545

Applicable standards: FCC CFR Title 47 Part 15 Subpart B:2010

Date of sample receipt: May 10, 2012

Date of Test: May 14-28, 2012

Date of report issued: May 28, 2012

Test Result : **PASS ***

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

Authorized Signature:



Robinson Lo
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 GTS product certification mark. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

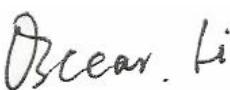
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Approvals in writing.
This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."

2 Version

Version No.	Date	Description
00	May 28, 2012	Original

Prepared by:



Date:

May 28, 2012

Project Engineer

Reviewed by:



Date:

May 28, 2012

Reviewer

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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:	H.K. Youngs Watch Co., Ltd.
Address of Applicant:	Units 1-12, 10/F, Hope Sea Industrial Centre, No.26, Lam Hing St., Kowloon Bay, Kowloon, Hong Kong
Manufacturer:	Dallas Timepiece (ShenZhen) Co., Ltd.
Address of Manufacturer:	No.11, YunFeng Rd., QueShan Industrial District, Dalang St., ShenZhen , China
Factory:	Dallas Timepiece (ShenZhen) Co., Ltd.
Address of Factory:	No.11, YunFeng Rd., QueShan Industrial District, Dalang St., ShenZhen , China

5.2 General Description of E.U.T.

Product Name:	GPS WATCH
Model No.:	YP11545, YC11006, YC11005
Power supply:	DC 3.7V Li-ion Battery
Remark:	Only the model YP11545 was tested. YC11006, YC11005 and YP11545 are identical in the same PCB layout, interior structure and electrical circuits. The only differences are the model name and appearance color for commercial purpose.

5.3 Test mode and voltage

Test mode:	
PC mode	Read the EUT data information by USB port.
GPS mode	Keep the EUT in GPS receive mode.
Receive mode	Keep the EUT in receive the heart rate data.

5.4 Test Facility

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

● **FCC —Registration No.: 600491**

Global United Technology 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 files. Registration 600491, July 20, 2010.

● **Industry Canada (IC)**

The 3m Semi-anechoic chamber of Global United Technology Services Co., Ltd. has been Registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 9079A-1.

5.5 Test Location

All tests were performed at:

Global United Technology Services Co., Ltd.

Address: 2nd Floor, Block No.2, Laodong Industrial Zone, Xixiang Road Baoan District, Shenzhen, China

Tel: 0755-27798480

Fax: 0755-27798960

5.6 Description of Support Units

Manufacturer	Description	Model	Serial Number	FCC approval
IBM	Notebook	T42	GTS209	DoC
IBM	AC Adapter	92P1024	N/A	VoC

5.7 Deviation from Standards

Biconical, log.per. antenna and horn antenna were used instead of dipole antenna.

Semi-anechoic Chamber was used as alternation of open air test sites, and all test suites were performed with radiated method in it.

5.8 Abnormalities from Standard Conditions

None.

5.9 Other Information Requested by the Customer

None.

6 Test Instruments list

Radiated Emission:						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	3m Semi- Anechoic Chamber	ZhongYu Electron	9.2(L)*6.2(W)* 6.4(H)	GTS250	Mar. 30 2011	Mar. 29 2013
2	Control Room	ZhongYu Electron	6.2(L)*2.5(W)* 2.4(H)	GTS251	N/A	N/A
3	EMI Test Receiver	Rohde & Schwarz	ESU26	GTS203	Jul. 04 2011	Jul. 03 2012
4	BiConiLog Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB9163	GTS214	Feb. 26 2012	Feb. 25 2013
5	Double -ridged waveguide horn	SCHWARZBECK MESS-ELEKTRONIK	9120D-829	GTS208	Mar. 10 2012	Mar. 09 2013
6	Amplifier(100kHz-3GHz)	HP	8347A	GTS204	Jul. 04 2011	Jul. 03 2012
7	Amplifier(2GHz-20GHz)	HP	8349B	GTS206	Jul. 04 2011	Jul. 03 2012
8	EMI Test Software	AUDIX	E3	N/A	N/A	N/A
9	Coaxial cable	GTS	N/A	GTS210	Jul. 04 2011	Jul. 03 2012
10	Coaxial Cable	GTS	N/A	GTS211	Jul. 04 2011	Jul. 03 2012

Conducted Emission:						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	Shielding Room	ZhongYu Electron	7.0(L)x3.0(W)x3.0(H)	GTS264	Sep. 08 2011	Sep. 07 2013
2	EMI Test Receiver	Rohde & Schwarz	ESCS30	GTS223	Jul. 04 2011	Jul. 03 2012
3	10dB Pulse Limita	Rohde & Schwarz	N/A	GTS224	Jul. 04 2011	Jul. 03 2012
4	Coaxial Switch	ANRITSU CORP	MP59B	GTS225	Jul. 04 2011	Jul. 03 2012
5	LISN	SCHWARZBECK MESS-ELEKTRONIK	NSLK 8127	GTS226	Jul. 04 2011	Jul. 03 2012
6	Coaxial Cable	GTS	N/A	GTS227	Jul. 04 2011	Jul. 03 2012
7	EMI Test Software	AUDIX	E3	N/A	N/A	N/A

7 Test results and Measurement Data

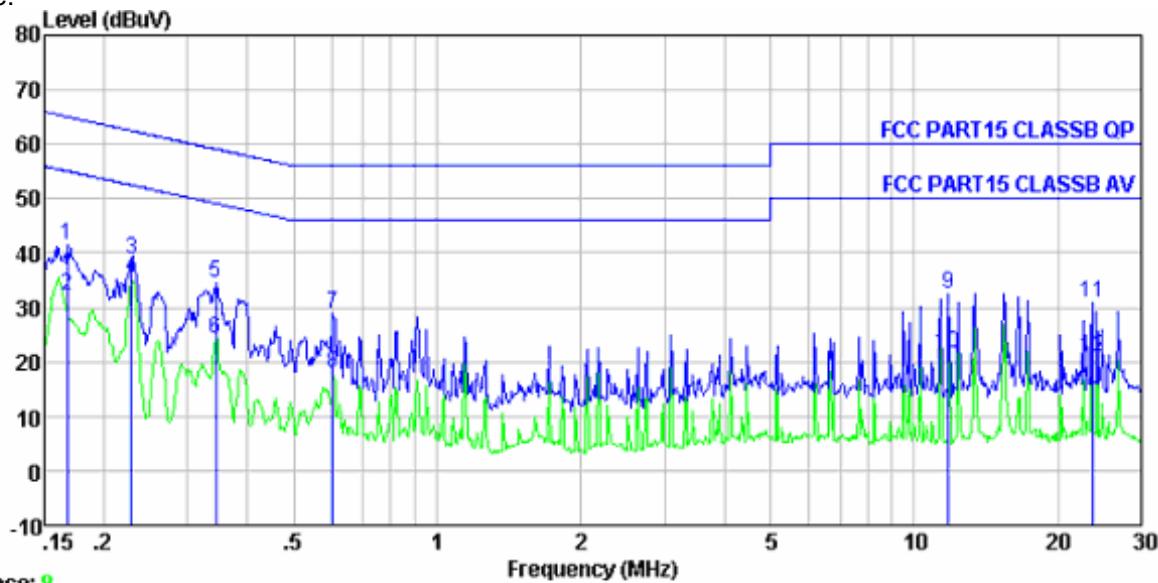
7.1 Conducted Emissions

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 border="1"> <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>0.5-30</td> <td>60</td> <td>50</td> </tr> </tbody> </table>			Frequency range (MHz)	Limit (dB μ V)		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 (dB μ V)																
	Quasi-peak	Average															
0.15-0.5	66 to 56*	56 to 46*															
0.5-5	56	46															
0.5-30	60	50															
Test procedure	<p>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. 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). 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.</p>																
Test setup:	<p>Reference Plane</p> <p>LISN</p> <p>AUX Equipment</p> <p>E.U.T</p> <p>Test table/Insulation plane</p> <p>EMI Receiver</p> <p>Filter</p> <p>AC power</p> <p>40cm</p> <p>80cm</p> <p>Remark: E.U.T: Equipment Under Test LISN: Line Impedance Stabilization Network Test table height=0.8m</p>																
Test environment:	Temp.:	25 °C	Humid.:	52%	Press.:	1 012mbar											
Measurement Record:	Uncertainty: ± 3.45 dB																
Test Instruments:	Refer to section 6 for details																
Test mode:	Refer to section 5.3 for details. found the PC mode which it is worst case mode, so only show the test data of the worst case mode.																

Test results:	Pass
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Measurement Data

Line:



Condition : FCC PART15 CLASSB QP LISN(2011) LINE

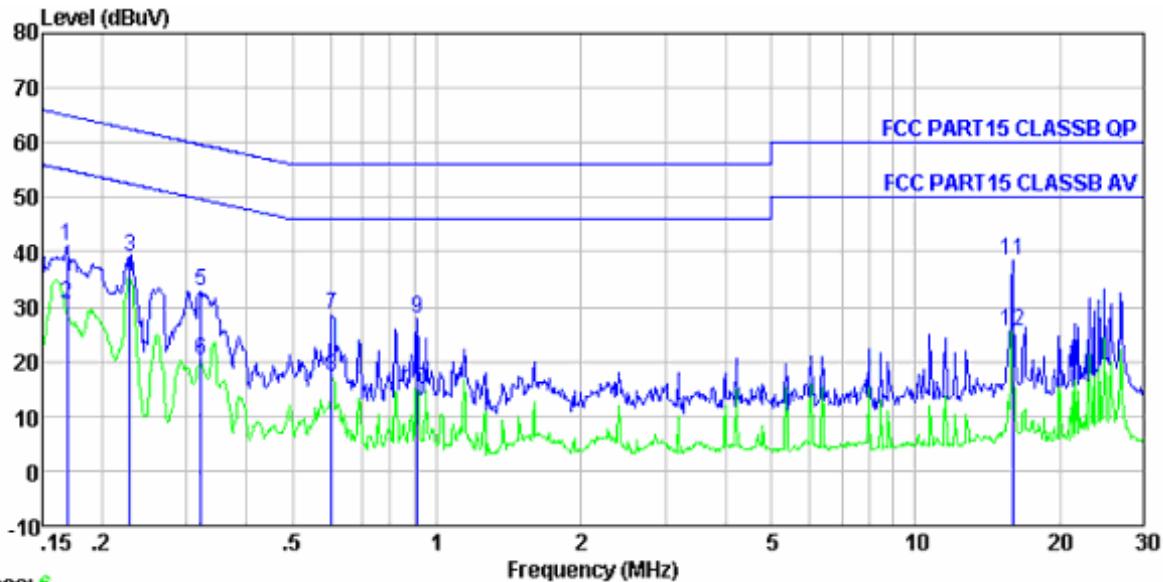
Job No. : 406RF

Test Mode : PC Mode

Test Engineer: Habby

	Read Freq	LISN Level	Cable Factor	Limit Loss	Line Level	Over Limit	Remark
	MHz	dBuV	dB	dB	dBuV	dBuV	dB
1	0.168	40.68	0.68	0.10	41.46	65.08	-23.62 QP
2	0.168	31.35	0.68	0.10	32.13	55.08	-22.95 Average
3	0.229	38.12	0.64	0.10	38.86	62.48	-23.62 QP
4	0.229	34.81	0.64	0.10	35.55	52.48	-16.93 Average
5	0.343	33.93	0.60	0.10	34.63	59.13	-24.50 QP
6	0.343	23.56	0.60	0.10	24.26	49.13	-24.87 Average
7	0.604	28.06	0.53	0.10	28.69	56.00	-27.31 QP
8	0.604	17.23	0.53	0.10	17.86	46.00	-28.14 Average
9	11.807	32.13	0.20	0.20	32.53	60.00	-27.47 QP
10	11.807	21.29	0.20	0.20	21.69	50.00	-28.31 Average
11	23.636	30.51	0.13	0.21	30.85	60.00	-29.15 QP
12	23.636	20.67	0.13	0.21	21.01	50.00	-28.99 Average

Neutral:



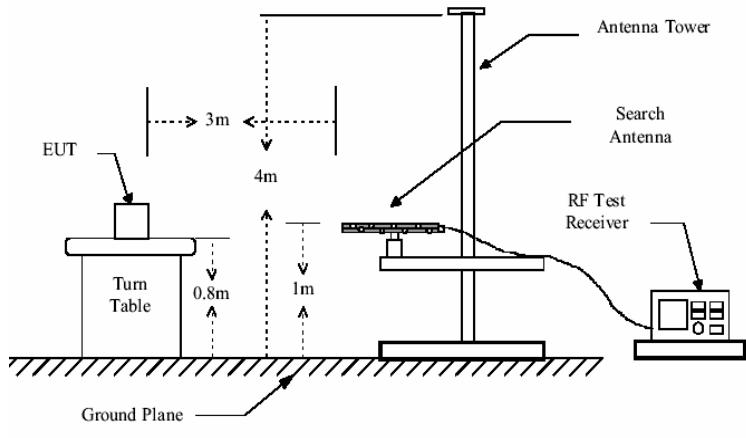
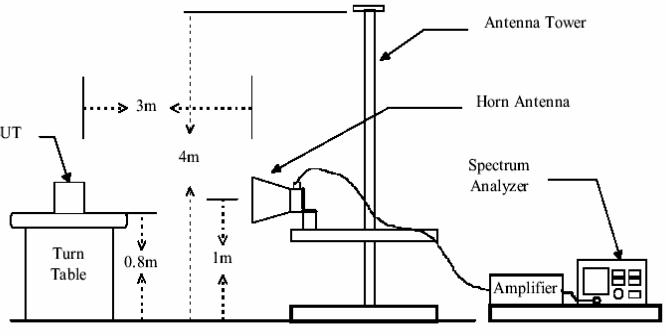
Freq	Read	LISN	Cable	Limit	Over	Remark	
	MHz	Level	Factor	Loss	Level	Line	Limit
1	0.169	40.28	0.67	0.10	41.05	64.99	-23.94 QP
2	0.169	29.64	0.67	0.10	30.41	54.99	-24.58 Average
3	0.229	38.47	0.64	0.10	39.21	62.48	-23.27 QP
4	0.229	34.87	0.64	0.10	35.61	52.48	-16.87 Average
5	0.322	32.25	0.60	0.10	32.95	59.66	-26.71 QP
6	0.322	19.64	0.60	0.10	20.34	49.66	-29.32 Average
7	0.604	27.86	0.53	0.10	28.49	56.00	-27.51 QP
8	0.604	16.71	0.53	0.10	17.34	46.00	-28.66 Average
9	0.909	27.27	0.49	0.10	27.86	56.00	-28.14 QP
10	0.909	14.39	0.49	0.10	14.98	46.00	-31.02 Average
11	15.970	38.04	0.17	0.20	38.41	60.00	-21.59 QP
12	15.970	25.27	0.17	0.20	25.64	50.00	-24.36 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 2000MHz																								
Test site:	Measurement Distance: 3m (Semi-Anechoic Chamber)																								
Receiver setup:	<table border="1"> <thead> <tr> <th>Frequency</th><th>Detector</th><th>RBW</th><th>VBW</th><th>Remark</th></tr> </thead> <tbody> <tr> <td>30MHz-1GHz</td><td>Quasi-peak</td><td>120kHz</td><td>300kHz</td><td>Quasi-peak Value</td></tr> <tr> <td rowspan="2">Above 1GHz</td><td>Peak</td><td>1MHz</td><td>3MHz</td><td>Peak Value</td></tr> <tr> <td>Peak</td><td>1MHz</td><td>10Hz</td><td>Average Value</td></tr> </tbody> </table>					Frequency	Detector	RBW	VBW	Remark	30MHz-1GHz	Quasi-peak	120kHz	300kHz	Quasi-peak Value	Above 1GHz	Peak	1MHz	3MHz	Peak Value	Peak	1MHz	10Hz	Average Value	
Frequency	Detector	RBW	VBW	Remark																					
30MHz-1GHz	Quasi-peak	120kHz	300kHz	Quasi-peak Value																					
Above 1GHz	Peak	1MHz	3MHz	Peak Value																					
	Peak	1MHz	10Hz	Average Value																					
Limit:	<table border="1"> <thead> <tr> <th>Frequency</th><th>Limit (dBuV/m @3m)</th><th>Remark</th></tr> </thead> <tbody> <tr> <td>30MHz-88MHz</td><td>40.00</td><td>Quasi-peak Value</td></tr> <tr> <td>88MHz-216MHz</td><td>43.50</td><td>Quasi-peak Value</td></tr> <tr> <td>216MHz-960MHz</td><td>46.00</td><td>Quasi-peak Value</td></tr> <tr> <td>960MHz-1GHz</td><td>54.00</td><td>Quasi-peak Value</td></tr> <tr> <td rowspan="2">Above 1GHz</td><td>54.00</td><td>Average Value</td></tr> <tr> <td>74.00</td><td>Peak Value</td></tr> </tbody> </table>					Frequency	Limit (dBuV/m @3m)	Remark	30MHz-88MHz	40.00	Quasi-peak Value	88MHz-216MHz	43.50	Quasi-peak Value	216MHz-960MHz	46.00	Quasi-peak Value	960MHz-1GHz	54.00	Quasi-peak Value	Above 1GHz	54.00	Average Value	74.00	Peak Value
Frequency	Limit (dBuV/m @3m)	Remark																							
30MHz-88MHz	40.00	Quasi-peak Value																							
88MHz-216MHz	43.50	Quasi-peak Value																							
216MHz-960MHz	46.00	Quasi-peak Value																							
960MHz-1GHz	54.00	Quasi-peak Value																							
Above 1GHz	54.00	Average Value																							
	74.00	Peak Value																							
Test Procedure:	<ol style="list-style-type: none"> 1. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter camber. 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 rota 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 setup:	Below 1GHz																								

	 <p>Above 1GHz</p> 
Test environment:	Temp.: 25 °C Humid.: 52% Press.: 1 012mbar
Measurement Record:	Uncertainty: $\pm 4.5\text{dB}$
Test Instruments:	Refer to section 6 for details
Test mode:	Refer to section 5.3 for details.
Test results:	Pass

Note:

The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

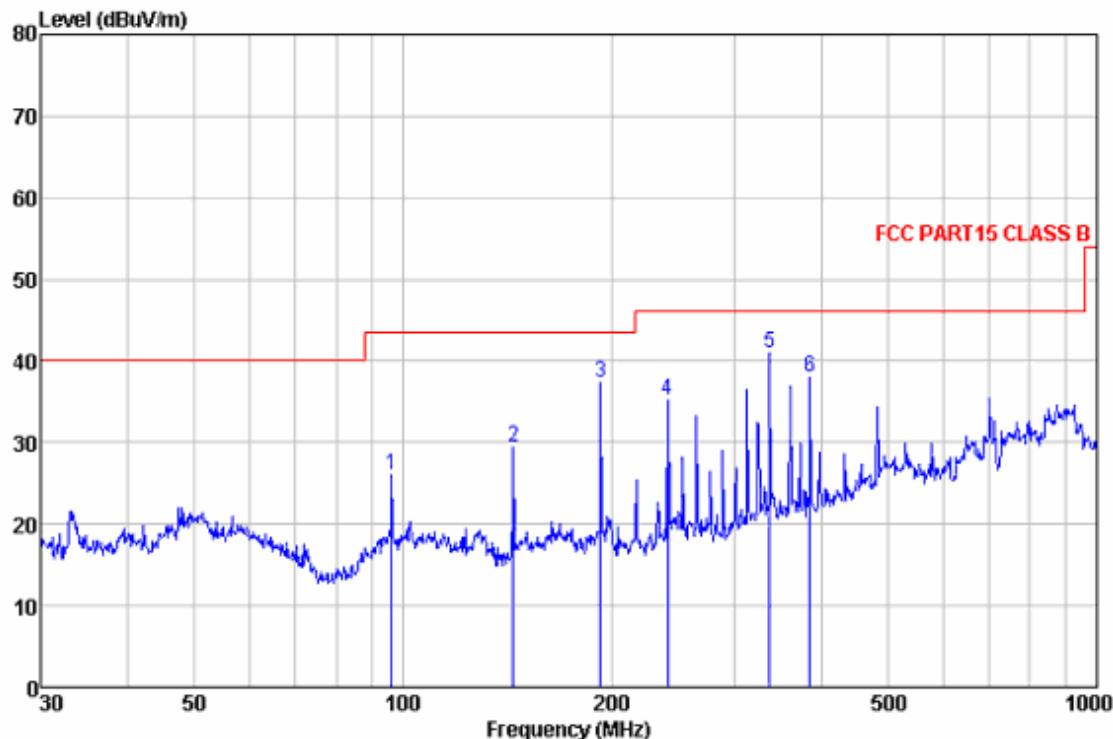
Final Test Level = Receiver Reading + Antenna Factor + Cable Factor – Preamplifier Factor

Measurement Data

Below 1GHz

PC Mode

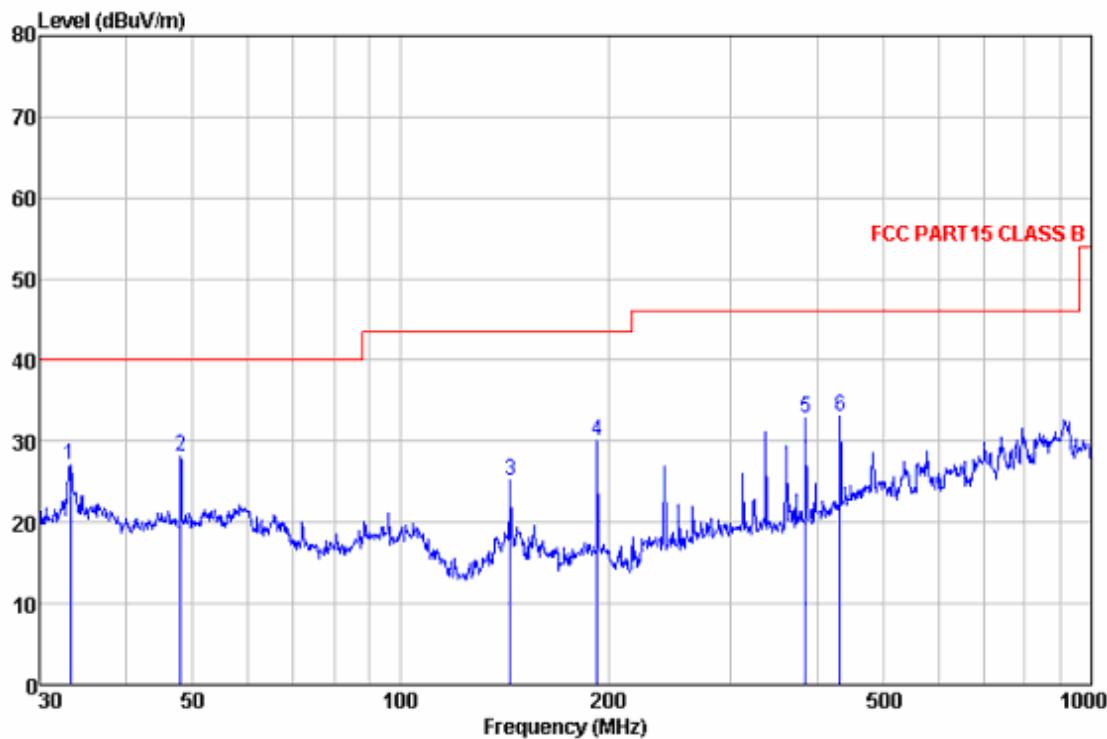
Horizontal:



Site : 3m chamber
Condition : FCC PART15 CLASS B 3m VULB9163-2012 HORIZONTAL
Job No. : 406RF
Test Mode : PC mode
Test Engineer: Habby

Freq	Read		Antenna		Cable		Preamp	Limit	Over	Line	Limit	Remark
	Level	Factor	Loss	Factor	Level	dBm/m	dBm/m					
MHz	dBm	dB/m	dB	dB	dBm/m	dBm/m	dB	dB	dB	dB	dB	dB
1	96.099	45.56	12.04	0.22	31.71	26.11	43.50	-17.39	QP			
2	144.335	51.34	9.67	0.31	31.95	29.37	43.50	-14.13	QP			
3	192.419	57.88	11.22	0.41	32.22	37.29	43.50	-6.21	QP			
4	240.830	55.69	11.29	0.51	32.28	35.21	46.00	-10.79	QP			
5	337.216	58.86	13.76	0.68	32.31	40.99	46.00	-5.01	QP			
6	385.281	55.22	14.36	0.77	32.32	38.03	46.00	-7.97	QP			

Vertical:



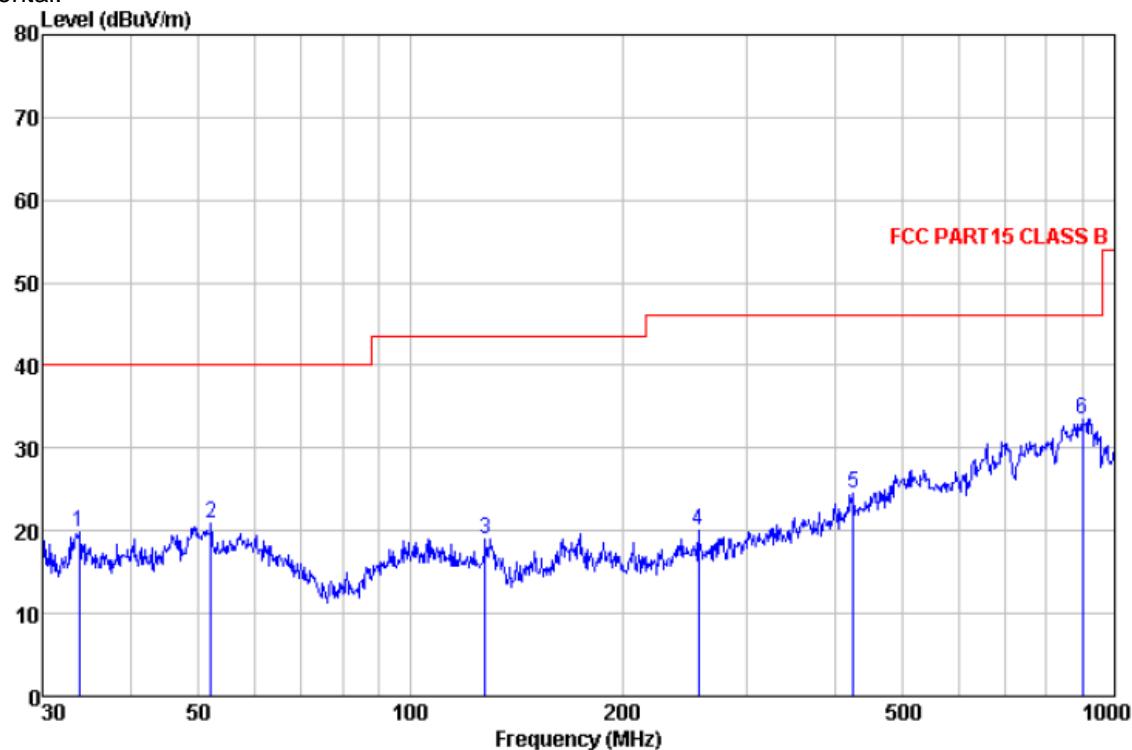
Site : 3m chamber
 Condition : FCC PART15 CLASS B 3m VULB9163-2012 VERTICAL
 Job No. : 406RF
 Test Mode : PC mode

Test Engineer: Habby

Freq	Read		Antenna	Cable	Preamp	Limit	Over	Line	Over	Remark
	MHz	dBm	dB/m	dB	dB					
1	33.211	44.27	14.81	0.14	32.23	26.99	40.00	-13.01	QP	
2	47.994	45.77	14.16	0.18	32.05	28.06	40.00	-11.94	QP	
3	144.335	45.16	11.61	0.31	31.95	25.13	43.50	-18.37	QP	
4	192.419	51.49	10.47	0.41	32.22	30.15	43.50	-13.35	QP	
5	385.281	50.38	14.05	0.77	32.32	32.88	46.00	-13.12	QP	
6	432.546	48.78	15.53	0.85	32.09	33.07	46.00	-12.93	QP	

GPS Mode

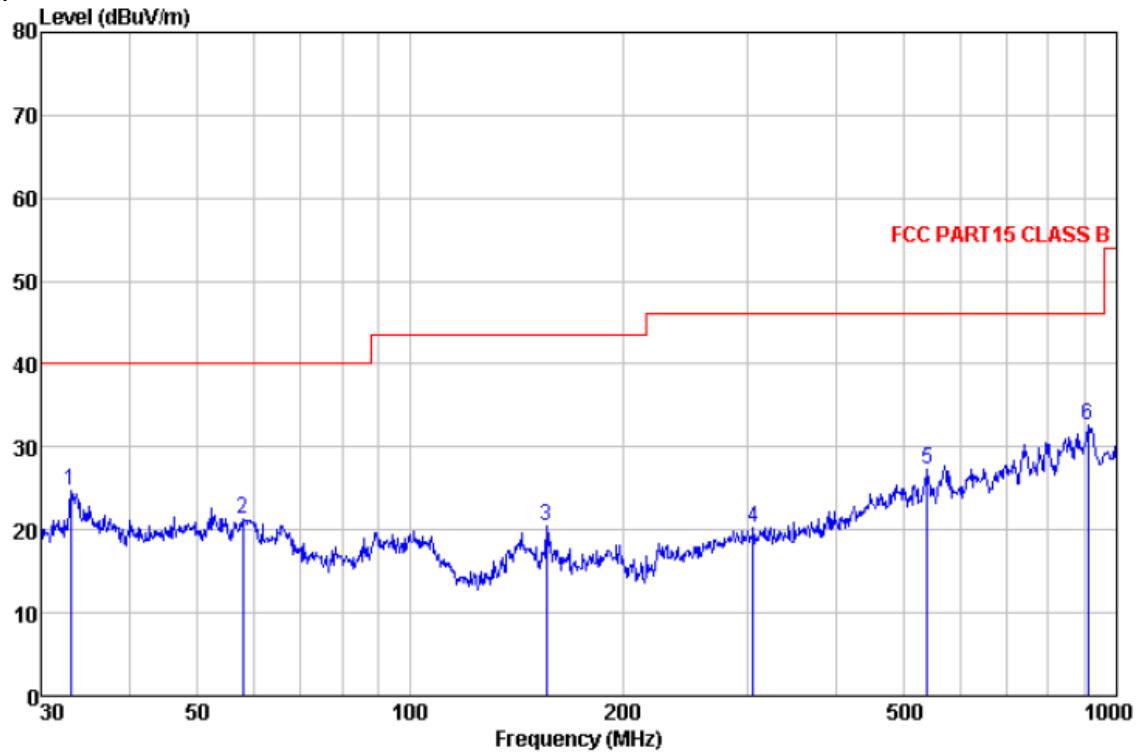
Horizontal:



Site : 3m chamber
 Condition : FCC PART15 CLASS B 3m VULB9163-2012 HORIZONTAL
 Job No. : 406RF
 Test Mode : GPS mode
 Test Engineer: Habby

	Read	Antenna	Cable	Preamp	Limit	Over	
Freq	Level	Factor	Loss	Level	Line	Line	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB
1	33.799	40.24	11.64	0.14	32.23	19.79	40.00 -20.21 QP
2	52.025	38.45	14.38	0.18	32.01	21.00	40.00 -19.00 QP
3	127.665	37.93	12.57	0.31	31.86	18.95	43.50 -24.55 QP
4	256.521	40.11	11.60	0.56	32.29	19.98	46.00 -26.02 QP
5	425.028	39.13	16.68	0.85	32.13	24.53	46.00 -21.47 QP
6	900.147	37.80	25.48	1.74	31.46	33.56	46.00 -12.44 QP

Vertical:



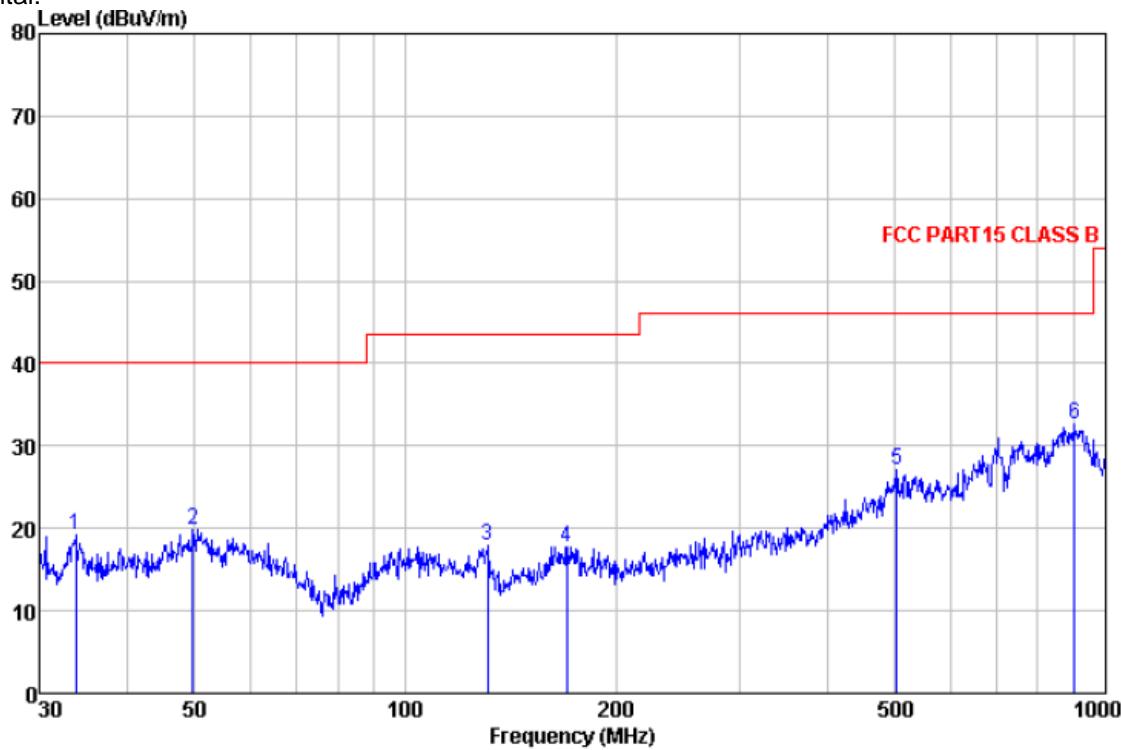
Site : 3m chamber
 Condition : FCC PART15 CLASS B 3m VULB9163-2012 VERTICAL
 Job No. : 406RF
 Test Mode : GPS mode

Test Engineer: Habby

Freq	Read	Antenna	Cable	Preamp	Limit	Over	Remark
	MHz	dBuV	dB	dB	dBuV/m	dBuV/m	
1	33.095	42.01	14.78	0.14	32.23	24.70	40.00 -15.30 QP
2	57.999	37.66	15.41	0.18	31.97	21.28	40.00 -18.72 QP
3	155.910	40.42	11.70	0.36	32.01	20.47	43.50 -23.03 QP
4	305.680	39.20	12.62	0.64	32.16	20.30	46.00 -25.70 QP
5	539.478	39.25	18.51	1.05	31.48	27.33	46.00 -18.67 QP
6	909.667	37.99	24.35	1.74	31.47	32.61	46.00 -13.39 QP

Receive Mode

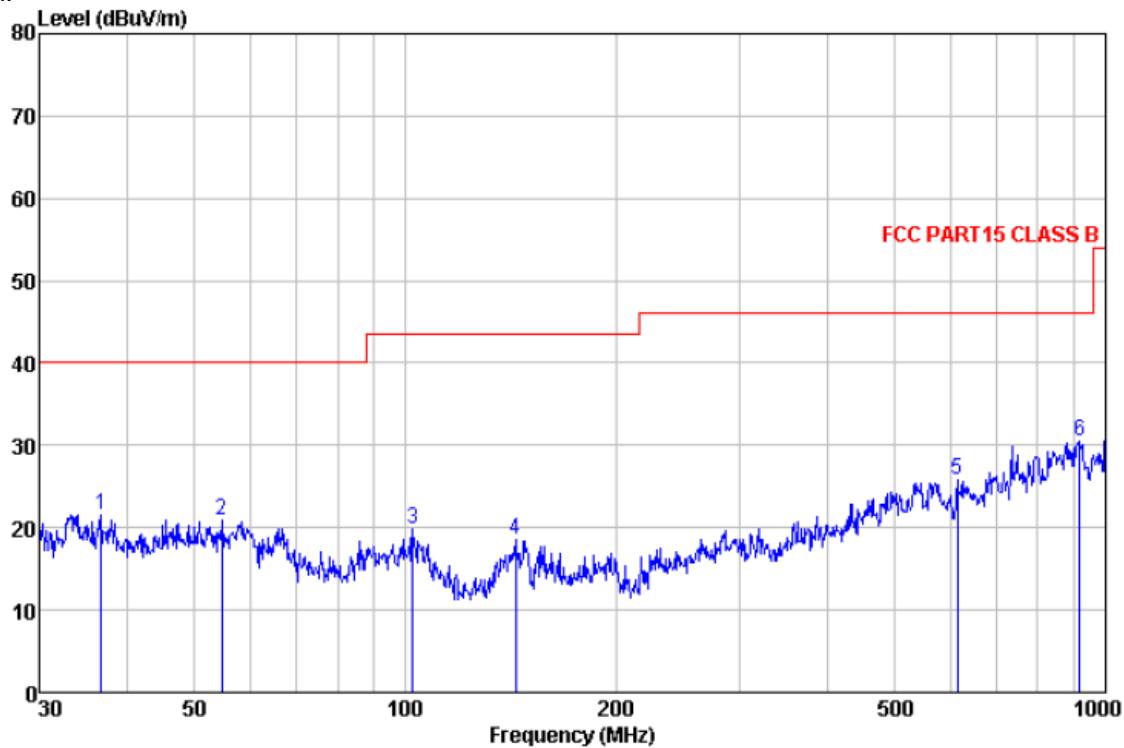
Horizontal:



Site : 3m chamber
 Condition : FCC PART15 CLASS B 3m VULB9163-2012 HORIZONTAL
 Job No. : 406RF
 Test Mode : Receive mode
 Test Engineer: Habby

Freq	Read	Antenna	Cable	Preamp	Limit		Over	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB
1	33.799	39.62	11.64	0.14	32.23	19.17	40.00	-20.83 QP
2	49.707	36.83	14.82	0.18	32.01	19.82	40.00	-20.18 QP
3	130.837	37.15	12.33	0.31	31.88	17.91	43.50	-25.59 QP
4	170.195	37.03	12.48	0.36	32.10	17.77	43.50	-25.73 QP
5	502.940	38.24	19.46	1.00	31.59	27.11	46.00	-18.89 QP
6	903.309	37.25	25.12	1.74	31.46	32.65	46.00	-13.35 QP

Vertical:



Site : 3m chamber
 Condition : FCC PART15 CLASS B 3m VULB9163-2012 VERTICAL
 Job No. : 406RF
 Test Mode : Receive mode

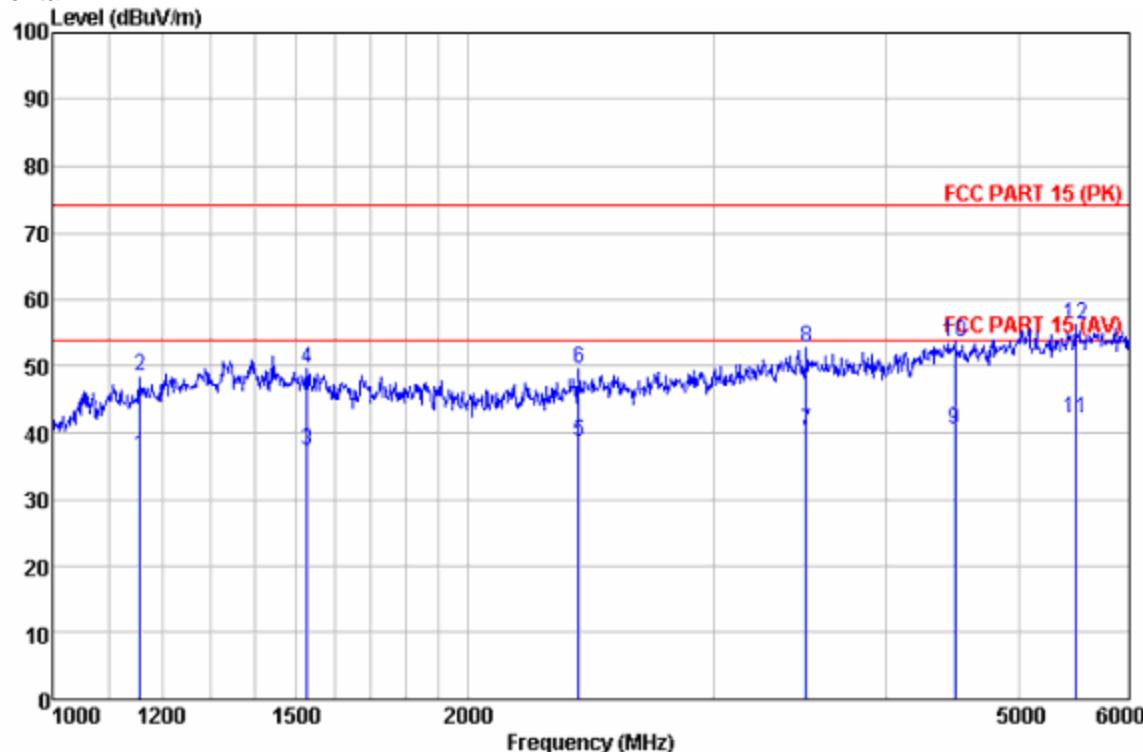
Test Engineer: Haby

Freq	Read		Antenna		Cable	Preamp	Limit	Line	Over	Remark
	Level	Factor	Loss	Factor	Level	dBuV/m				
MHz	dBuV	dB/m			dB	dB	dBuV/m	dBuV/m		
1 36.766	36.766	38.26	15.36	0.14	32.20	21.56	40.00	-18.44	QP	
2 54.643	54.643	38.01	14.72	0.18	31.99	20.92	40.00	-19.08	QP	
3 102.360	102.360	38.51	12.78	0.26	31.71	19.84	43.50	-23.66	QP	
4 143.830	143.830	37.32	12.86	0.31	31.95	18.54	43.50	-24.96	QP	
5 614.214	614.214	36.29	19.69	1.19	31.35	25.82	46.00	-20.18	QP	
6 919.287	919.287	35.71	24.49	1.74	31.47	30.47	46.00	-15.53	QP	

Above 1GHz

PC Mode

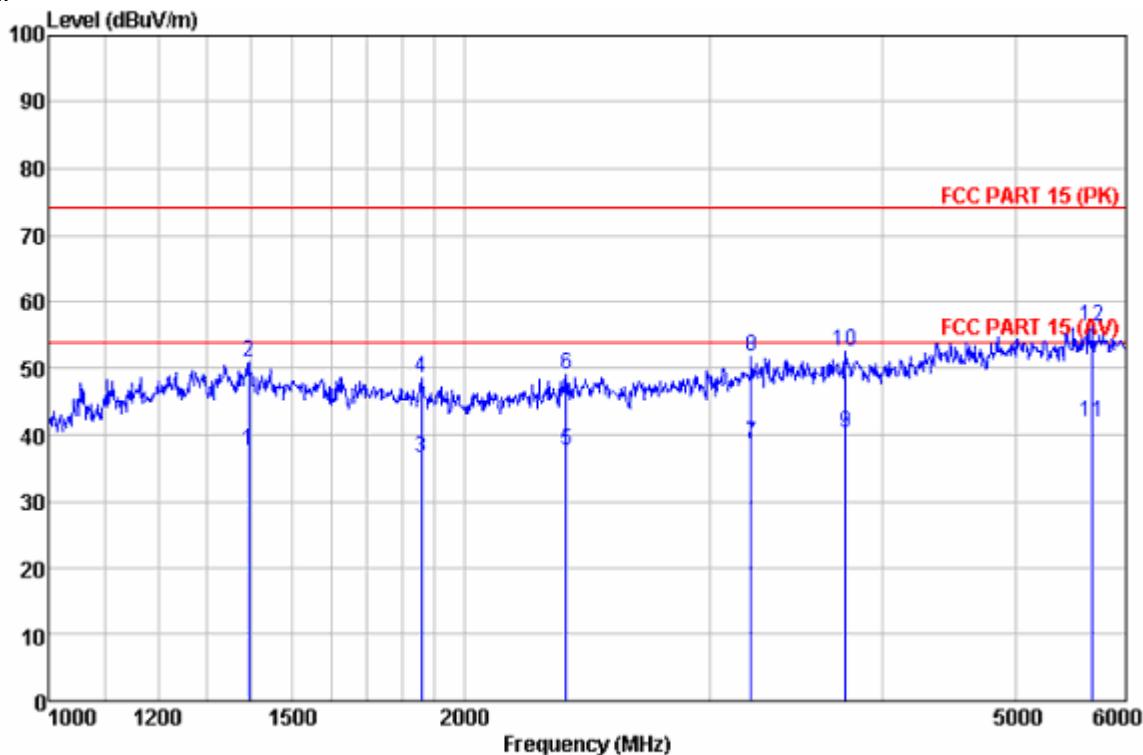
Horizontal:



Site : 3m chamber
 Condition : FCC PART 15 (PK) 3m BBHA9120D ANT(>1GHZ) HORIZONTAL
 Job No. : 406RF
 Test Mode : PC mode
 Test Engineer: Habby

Freq	Read		Antenna		Cable		Preamp		Limit	Over	Limit	Remark
	Level	Factor	Level	Factor	Loss	dB	dB	dB				
MHz	dBm	dB/m	dB	dB	dB/m	dB/m	dB	dB	Line	Line	dB	
1	1156.193	28.28	25.06	2.00	18.81	36.53	54.00	-17.47	Average			
2	1156.193	40.17	25.06	2.00	18.81	48.42	74.00	-25.58	Peak			
3	1526.313	34.51	25.17	2.25	24.55	37.38	54.00	-16.62	Average			
4	1526.313	46.76	25.17	2.25	24.55	49.63	74.00	-24.37	Peak			
5	2401.685	38.39	27.58	2.84	30.18	38.63	54.00	-15.37	Average			
6	2401.685	49.27	27.58	2.84	30.18	49.51	74.00	-24.49	Peak			
7	3505.144	35.87	28.99	3.58	28.09	40.35	54.00	-13.65	Average			
8	3505.144	48.40	28.99	3.58	28.09	52.88	74.00	-21.12	Peak			
9	4488.392	29.60	31.32	4.22	24.64	40.50	54.00	-13.50	Average			
10	4488.392	42.78	31.32	4.22	24.64	53.68	74.00	-20.32	Peak			
11	5485.847	29.09	31.95	4.89	23.82	42.11	54.00	-11.89	Average			
12	5485.847	43.21	31.95	4.89	23.82	56.23	74.00	-17.77	Peak			

Vertical:

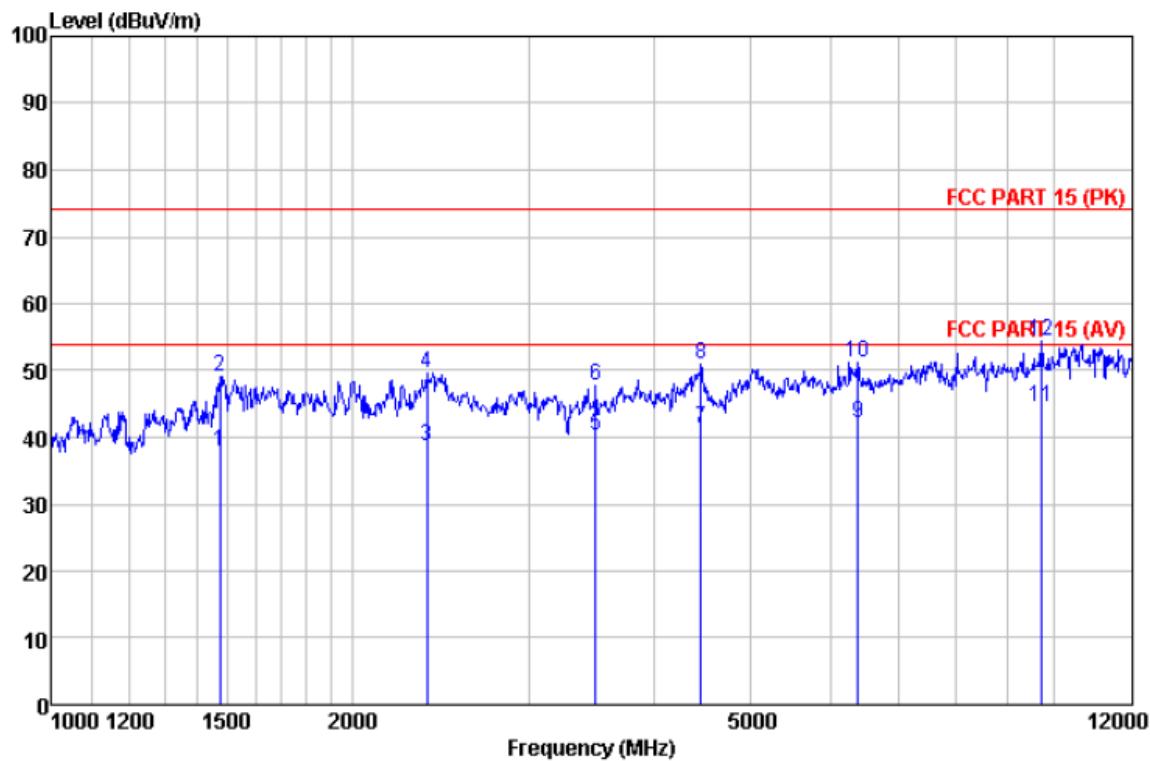


Site : 3m chamber
 Condition : FCC PART 15 (PK) 3m BBHA9120D ANT(>1GHZ) VERTICAL
 Job No. : 406RF
 Test Mode : PC mode
 Test Engineer: Habby

Freq	Read	Antenna	Cable	Preamp	Limit Level	Over Line	Over Limit	Remark
	MHz	dBm	dB/m	dB				
1	1395.520	31.15	25.59	2.15	21.35	37.54	54.00	-16.46 Average
2	1395.520	44.47	25.59	2.15	21.35	50.86	74.00	-23.14 Peak
3	1858.833	37.82	25.54	2.47	29.34	36.49	54.00	-17.51 Average
4	1858.833	49.96	25.54	2.47	29.34	48.63	74.00	-25.37 Peak
5	2367.504	37.42	27.67	2.81	30.25	37.65	54.00	-16.35 Average
6	2367.504	48.87	27.67	2.81	30.25	49.10	74.00	-24.90 Peak
7	3216.286	35.75	28.68	3.38	29.03	38.78	54.00	-15.22 Average
8	3216.286	48.68	28.68	3.38	29.03	51.71	74.00	-22.29 Peak
9	3765.580	34.63	29.32	3.74	27.34	40.35	54.00	-13.65 Average
10	3765.580	46.76	29.32	3.74	27.34	52.48	74.00	-21.52 Peak
11	5675.819	28.37	32.44	5.02	23.83	42.00	54.00	-12.00 Average
12	5675.819	42.53	32.44	5.02	23.83	56.16	74.00	-17.84 Peak

GPS Mode

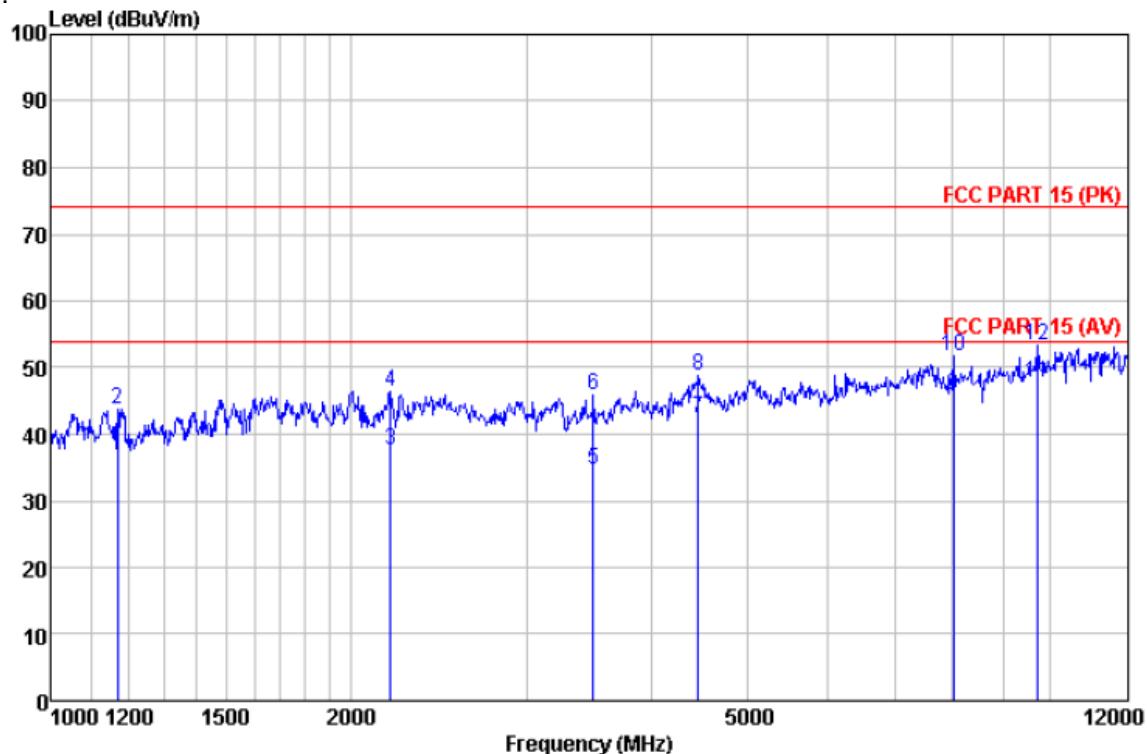
Horizontal:



Site : 3m chamber
 Condition : FCC PART 15 (PK) 3m BBHA9120D ANT(>1GHZ) HORIZONTAL
 Job No. : 406RF
 Test Mode : GPS mode
 Test Engineer: Habby

	Read	Antenna	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	1473.507	33.94	25.28	2.22	23.48	37.96	54.00	-16.04	Average
2	1473.507	45.05	25.28	2.22	23.48	49.07	74.00	-24.93	Peak
3	2374.406	38.57	27.65	2.82	30.25	38.79	54.00	-15.21	Average
4	2374.406	49.34	27.65	2.82	30.25	49.56	74.00	-24.44	Peak
5	3498.705	35.86	28.96	3.58	28.09	40.31	54.00	-13.69	Average
6	3498.705	43.32	28.96	3.58	28.09	47.77	74.00	-26.23	Peak
7	4452.336	30.69	31.23	4.21	24.69	41.44	54.00	-12.56	Average
8	4452.336	40.17	31.23	4.21	24.69	50.92	74.00	-23.08	Peak
9	6383.652	27.94	33.43	5.49	24.69	42.17	54.00	-11.83	Average
10	6383.652	37.01	33.43	5.49	24.69	51.24	74.00	-22.76	Peak
11	9739.352	23.95	38.27	7.70	25.38	44.54	54.00	-9.46	Average
12	9739.352	33.73	38.27	7.70	25.38	54.32	74.00	-19.68	Peak

Vertical:

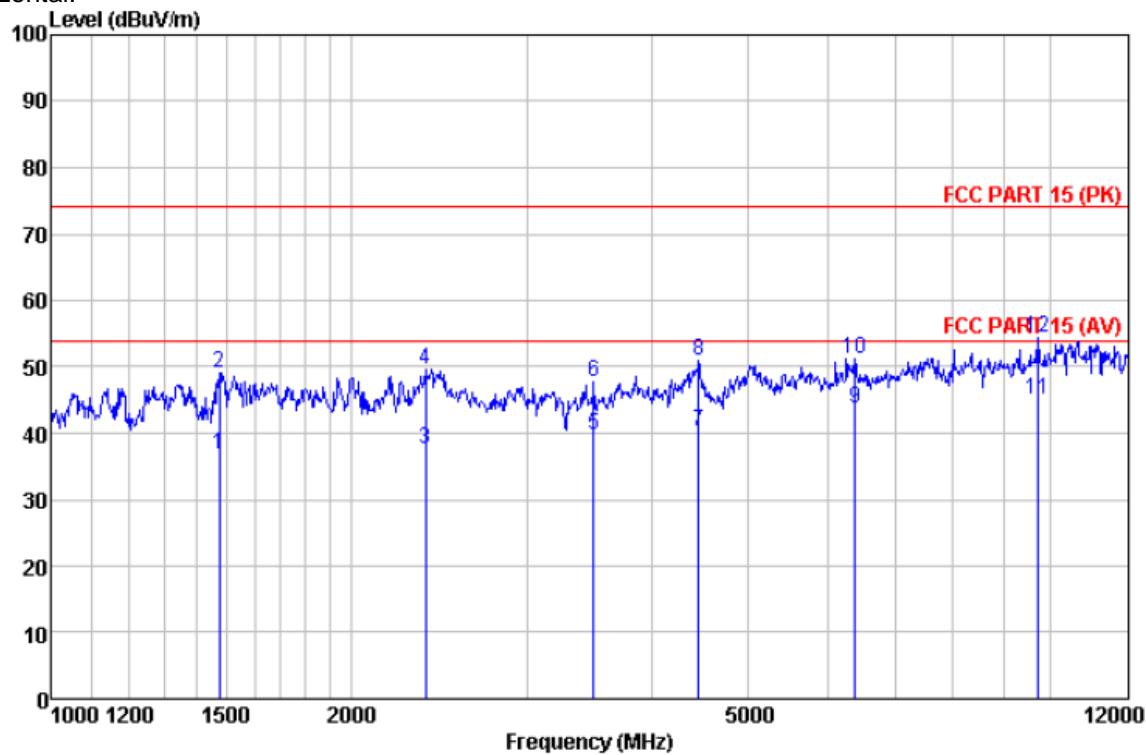


Site : 3m chamber
 Condition : FCC PART 15 (PK) 3m BBHA9120D ANT(>1GHZ) VERTICAL
 Job No. : 406RF
 Test Mode : GPS mode
 Test Engineer: Habby

Freq	Read	Antenna	Cable	Preamp	Limit Level	Over Line	Over Limit	Remark
	Freq	Level	Factor	Loss				
1	1166.566	28.49	25.15	2.00	18.81	36.83	54.00	-17.17 Average
2	1166.566	35.28	25.15	2.00	18.81	43.62	74.00	-30.38 Peak
3	2192.912	37.75	27.90	2.69	30.66	37.68	54.00	-16.32 Average
4	2192.912	46.59	27.90	2.69	30.66	46.52	74.00	-27.48 Peak
5	3498.705	30.24	28.96	3.58	28.09	34.69	54.00	-19.31 Average
6	3498.705	41.32	28.96	3.58	28.09	45.77	74.00	-28.23 Peak
7	4452.336	31.59	31.23	4.21	24.69	42.34	54.00	-11.66 Average
8	4452.336	38.17	31.23	4.21	24.69	48.92	74.00	-25.08 Peak
9	8023.316	29.86	37.26	6.59	27.96	45.75	54.00	-8.25 Average
10	8023.316	35.77	37.26	6.59	27.96	51.66	74.00	-22.34 Peak
11	9739.352	27.18	38.27	7.70	25.38	47.77	54.00	-6.23 Average
12	9739.352	32.73	38.27	7.70	25.38	53.32	74.00	-20.68 Peak

Receive Mode

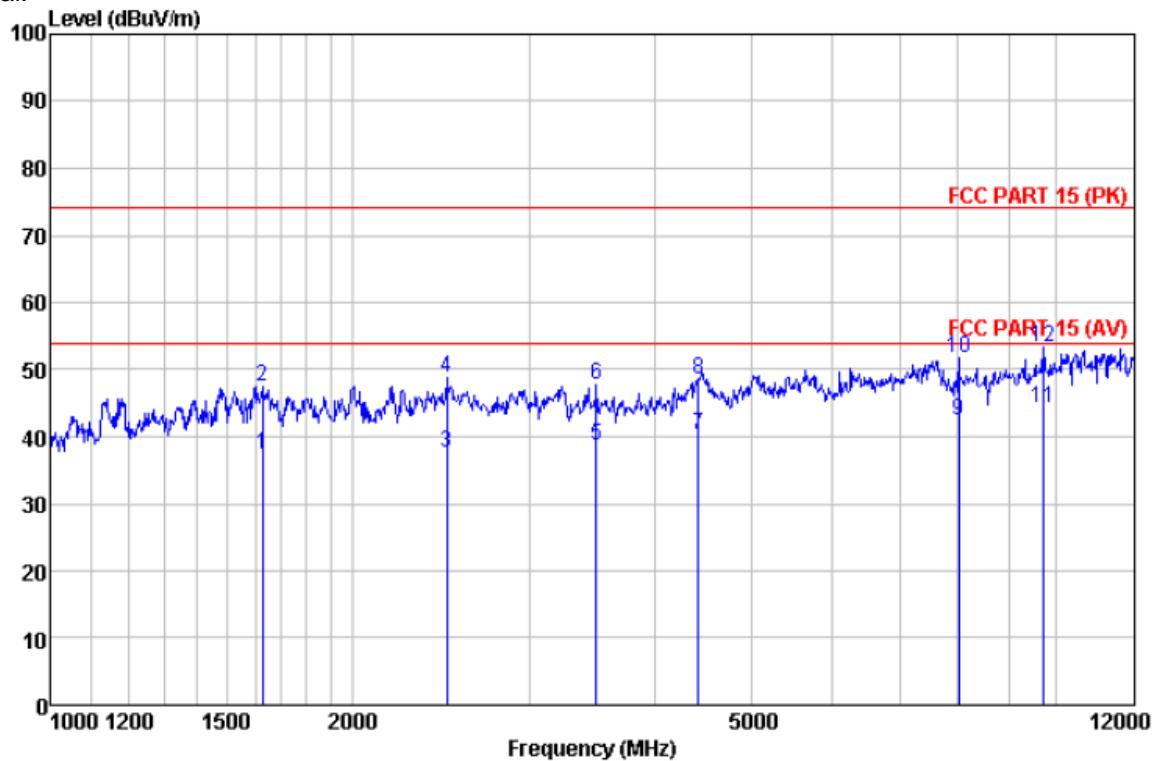
Horizontal:



Site : 3m chamber
 Condition : FCC PART 15 (PK) 3m BBHA9120D ANT(>1GHZ) HORIZONTAL
 Job No. : 406RF
 Test Mode : Receive mode
 Test Engineer: Habby

	Read	Antenna	Cable	Preamp	Limit	Over		
	Freq	Level	Factor	Loss	Level	Line	Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB
1	1473.507	32.84	25.28	2.22	23.48	36.86	54.00	-17.14 Average
2	1473.507	45.05	25.28	2.22	23.48	49.07	74.00	-24.93 Peak
3	2374.406	37.29	27.65	2.82	30.25	37.51	54.00	-16.49 Average
4	2374.406	49.34	27.65	2.82	30.25	49.56	74.00	-24.44 Peak
5	3498.705	35.18	28.96	3.58	28.09	39.63	54.00	-14.37 Average
6	3498.705	43.32	28.96	3.58	28.09	47.77	74.00	-26.23 Peak
7	4452.336	29.58	31.23	4.21	24.69	40.33	54.00	-13.67 Average
8	4452.336	40.17	31.23	4.21	24.69	50.92	74.00	-23.08 Peak
9	6383.652	29.57	33.43	5.49	24.69	43.80	54.00	-10.20 Average
10	6383.652	37.01	33.43	5.49	24.69	51.24	74.00	-22.76 Peak
11	9739.352	24.48	38.27	7.70	25.38	45.07	54.00	-8.93 Average
12	9739.352	33.73	38.27	7.70	25.38	54.32	74.00	-19.68 Peak

Vertical:



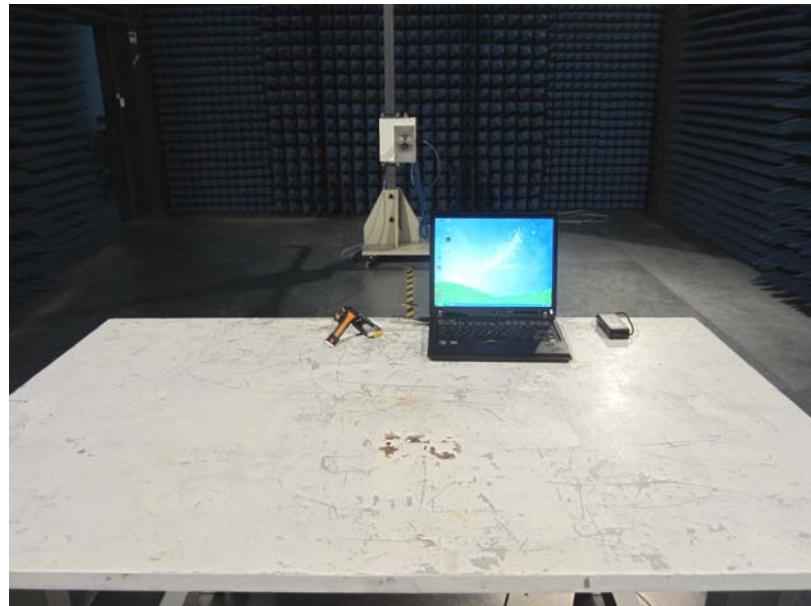
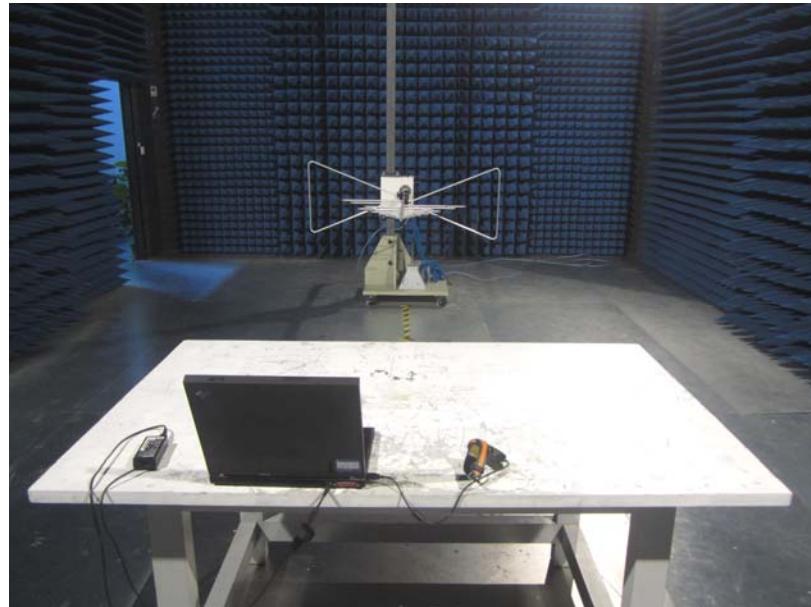
Site : 3m chamber
 Condition : FCC PART 15 (PK) 3m BBHA9120D ANT (>1GHZ) VERTICAL
 Job No. : 406RF
 Test Mode : Receive mode

Test Engineer: Habby

Freq	Read	Antenna	Cable	Preamp	Limit	Over	Line	Limit	Remark
	Freq	Level	Factor	Loss					
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	dB	
1	1627.495	36.59	24.91	2.32	26.44	37.38	54.00	-16.62	Average
2	1627.495	46.60	24.91	2.32	26.44	47.39	74.00	-26.61	Peak
3	2483.021	37.18	27.53	2.89	29.93	37.67	54.00	-16.33	Average
4	2483.021	48.36	27.53	2.89	29.93	48.85	74.00	-25.15	Peak
5	3498.705	34.29	28.96	3.58	28.09	38.74	54.00	-15.26	Average
6	3498.705	43.32	28.96	3.58	28.09	47.77	74.00	-26.23	Peak
7	4419.269	29.85	31.13	4.17	24.77	40.38	54.00	-13.62	Average
8	4419.269	37.89	31.13	4.17	24.77	48.42	74.00	-25.58	Peak
9	8023.316	26.64	37.26	6.59	27.96	42.53	54.00	-11.47	Average
10	8023.316	35.77	37.26	6.59	27.96	51.66	74.00	-22.34	Peak
11	9739.352	23.59	38.27	7.70	25.38	44.18	54.00	-9.82	Average
12	9739.352	32.73	38.27	7.70	25.38	53.32	74.00	-20.68	Peak

8 Test Setup Photo

Radiated Emission



Conducted Emission



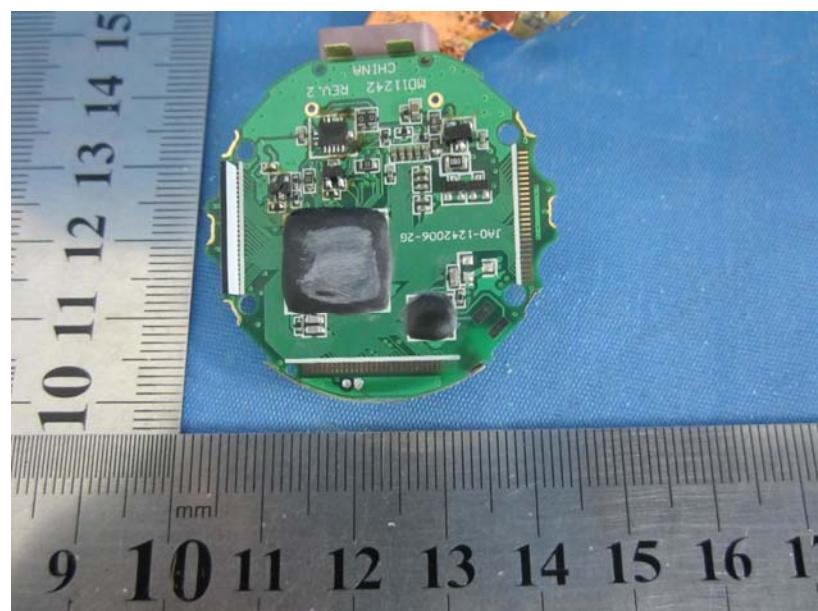
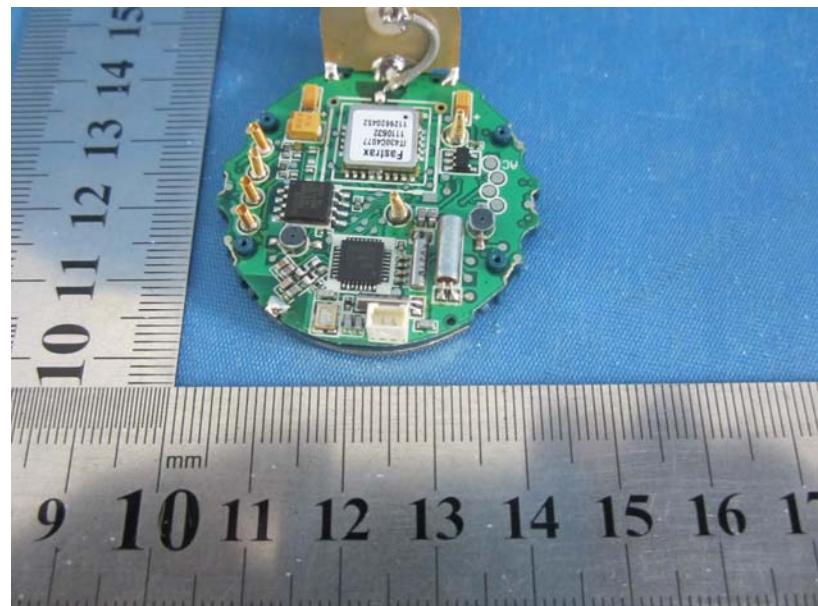
9 EUT Constructional Details

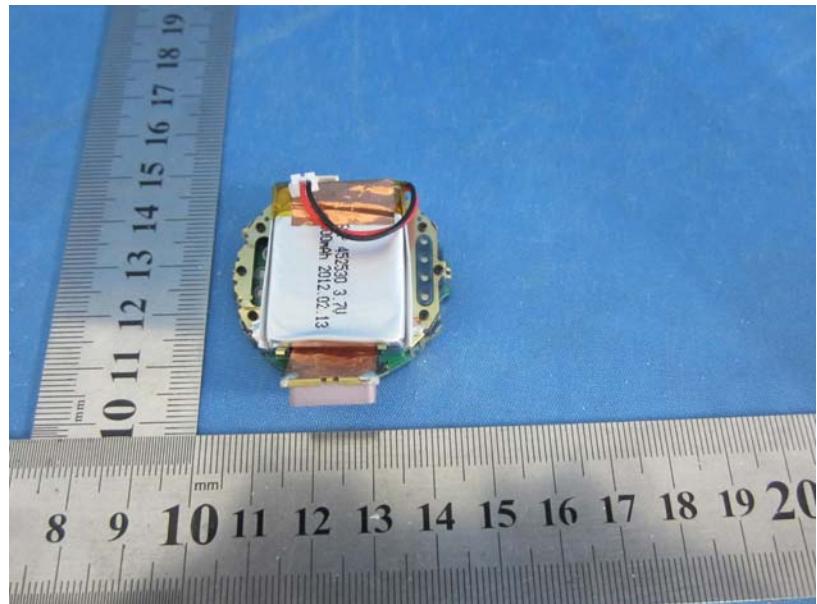












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