Shenzhen EBO Technology Co., Ltd.

North 710, Yihua Building, Shennan Road, Futian District,
Shenzhen, P. R. China
Telephone：+86-755-29451282,
Fax: +86-755-22639141

TEST REPORT

Applicant:	Archos SA
Address of Applicant:	12 Rue Ampere Igny 91430 France
Equipment Under Test (EUT)	
Product Name:	Home Tablet
Model No.:	AN10BG2
Trade Name	ARNOVA
FCC ID:	SOVAN10BG2
Applicable standards:	FCC CFR Title 47 Part 15 Subpart B: 2010
Date of sample receipt:	Oct. 24, 2011
Date of Test:	Oct. 24-Nov.09, 2011
Date of report issued:	Nov.11, 2011
Test Result :	PASS *

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

Authorized Signature:

Kavin Yu
Laboratory Manager

2 Version

Version No.	Date	Description
00	*Nov.11, 2011*	*Original*

Prepared by: Collin.He ***Date:*** Nov.11, 2011

Project Engineer

Reviewed by: Hans.Hu ***Date:*** Nov.11, 2011

Reviewer

3 Contents

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:	Archos SA
Address of Applicant:	12 Rue Ampere Igny 91430 France
Manufacturer:	Archos SA
Address of Manufacturer:	12 Rue Ampere Igny 91430 France
Factory:	Shenzhen Shenchuang Electronics Co.,Ltd
Address of Factory:	7th floor,West Tower,Hengfanglaobing Industrial Park, Xingye Road,Xixiang Town,Bao'an District,Shenzhen

5.2 General Description of E.U.T.

Product Name:	Home Tablet
Model No.:	AN10BG2
Trade mark:	ARNOVA
AC adapter:	Trade mark: Model :HNC050200X Input:100-240V-0.35A(MAX)50/60Hz Output:5.0V-2A
Power supply:	DC 3.7V (Lithium battery)

5.3 Test mode and voltage

Test mode:	
PC mode	Keep the EUT exchange data with PC
Test voltage:	AC 120V/60Hz

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 fuly 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 ID/DoC
HP	Printer	CB495A	05257893	DoC
DELL	PC	OPTIPLEX745	GTS312	DoC
DELL	MONITOR	E178FPC	N/A	DoC
DELL	KEYBOARD	SK-8115	N/A	DoC
DELL	MOUSE	MOC5UO	N/A	DoC
Sony	Earphone	N/A	N/A	DoC

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.

5.10 Test Instruments list

Radiated Emission:

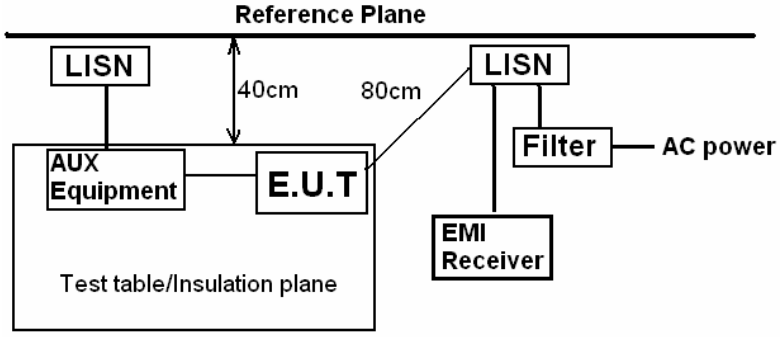
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	3m Semi- Anechoic Chamber	ZhongYu Electron	9.2(L)*6.2(W)* 6.4(H)	GTS250	Mar. 30 2011	Mar. 29 2012
2	Control Room	ZhongYu Electron	6.2(L)*2.5(W)* 2.4(H)	GTS251	N/A	N/A
3	EMI Test Receiver	Rohde & Schwarz	ESU26	GTS203	Jul. 04 2011	Jul. 03 2012
4	BiConiLog Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB9163	GTS214	Feb. 26 2011	Feb. 25 2012
5	Double -ridged waveguide horn	SCHWARZBECK MESS-ELEKTRONIK	9120D-829	GTS208	June 30 2011	June 29 2012
6	Horn Antenna	ETS-LINDGREN	3160	GTS217	Mar. 30 2011	Mar. 29 2012
7	EMI Test Software	AUDIX	E3	N/A	N/A	N/A
8	Coaxial Cable	GTS	N/A	GTS213	Apr. 01 2011	Mar. 31 2012
9	Coaxial Cable	GTS	N/A	GTS211	Apr. 01 2011	Mar. 31 2012
9	Coaxial cable	GTS	N/A	GTS210	Apr. 01 2011	Mar. 31 2012
11	Coaxial Cable	GTS	N/A	GTS212	Apr. 01 2011	Mar. 31 2012
12	Amplifier(100kHz-3GHz)	HP	8347A	GTS204	Jul. 04 2011	Jul. 03 2012
13	Amplifier(2GHz-20GHz)	HP	8349B	GTS206	Jul. 04 2011	Jul. 03 2012
14	Pre-amplifier (18-26GHz)	Rohde & Schwarz	AFS33-18002 650-30-8P-44	GTS218	June 30 2011	June 29 2012
15	Band filter	Amindeon	82346	GTS219	June 30 2011	June 29 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)	GTS252	Jul. 04 2011	Jul. 03 2012
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	LISN	SCHWARZBECK MESS-ELEKTRONIK	NSLK 8127	GTS226	Jul. 04 2011	Jul. 03 2012
5	LISN	ETS-LINDGREN	3816/2	GTS230	Jul. 04 2011	Jul. 03 2012
6	Coaxial Cable	GTS	N/A	GTS227	Apr. 01 2011	Mar. 31 2012
7	EMI Test Software	AUDIX	E3	N/A	N/A	N/A

6 Test results and Measurement Data

6.1 Conducted Emissions

Test Requirement:	FCC Part15 B Section 15.107
Test Method:	ANSI C63.4:2009
Test Frequency Range:	150kHz to 30MHz
Class / Severity:	Class B
Receiver setup:	RBW=9kHz, VBW=30kHz
Limit:	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 * Decreases with the logarithm of the frequency.
Test procedure	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: 2009 on conducted measurement.
Test setup:	 *Remark:* *E.U.T: Equipment Under Test* *LISN: Line Impedence Stabilization Network* *Test table height=0.8m*
Test environment:	Temp.: 25 °C Humid.: 52% Press.: 1 012mbar
Measurement Record:	Uncertainty: ± 3.45dB
Test Instruments:	Refer to section 6 for details

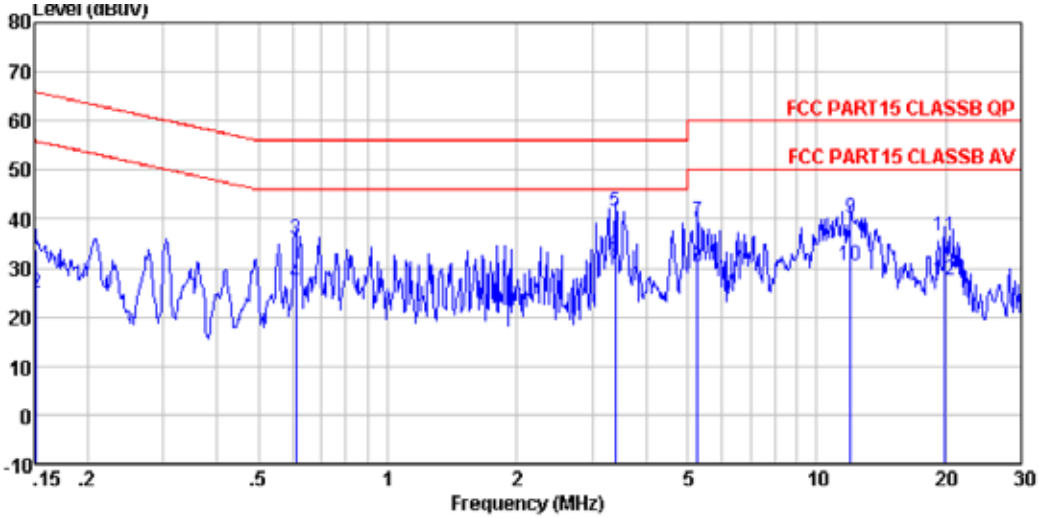
Test mode:	Refer to section 5.3 for details
Test results:	Passed

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.

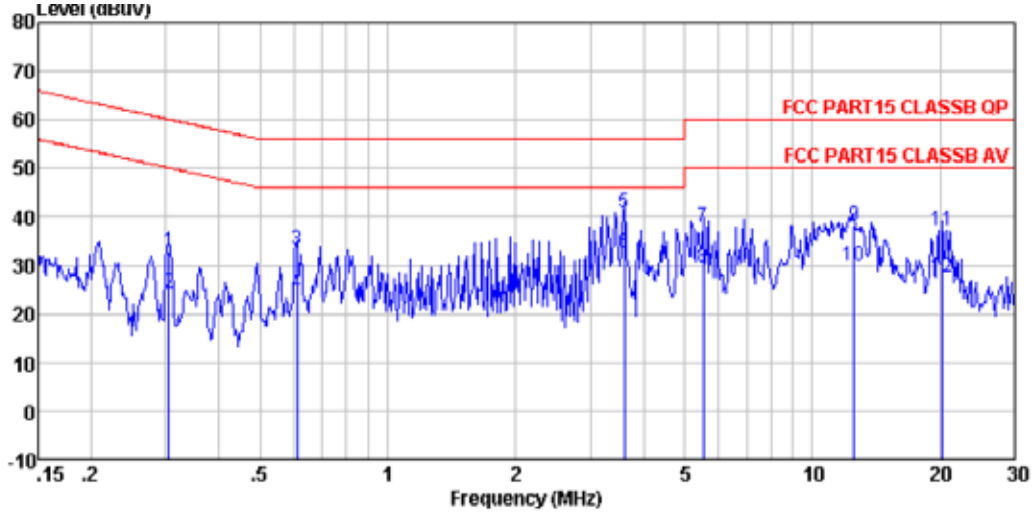
Line:



Condition : FCC PART15 CLASSB QP LISN(2011) LINE
Job No. : 861RF
Test Mode : Exchange mode(internal memory)
Test Engineer: Osccar

	Freq	Read Level	LISN Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB	dBuV	dBuV	dB	
1	0.152	33.21	0.69	0.10	34.00	65.91	-31.91	QP
2	0.152	24.18	0.69	0.10	24.97	55.91	-30.94	Average
3	0.611	35.32	0.53	0.10	35.95	56.00	-20.05	QP
4	0.611	26.37	0.53	0.10	27.00	46.00	-19.00	Average
5	3.399	41.07	0.34	0.10	41.51	56.00	-14.49	QP
6	3.399	32.18	0.34	0.10	32.62	46.00	-13.38	Average
7	5.277	39.00	0.29	0.10	39.39	60.00	-20.61	QP
8	5.277	29.65	0.29	0.10	30.04	50.00	-19.96	Average
9	11.996	39.84	0.20	0.20	40.24	60.00	-19.76	QP
10	11.996	30.19	0.20	0.20	30.59	50.00	-19.41	Average
11	19.845	36.19	0.15	0.21	36.55	60.00	-23.45	QP
12	19.845	27.16	0.15	0.21	27.52	50.00	-22.48	Average

Neutral:



Condition : FCC PART15 CLASSB QP LISN(2011) NEUTRAL
Job No. : 861RF
Test Mode : Exchange mode(internal memory)
Test Engineer: Osccar

	Freq	Read Level	LISN Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB	dBuV	dBuV	dB	
1	0.305	32.29	0.61	0.10	33.00	60.10	-27.10	QP
2	0.305	23.56	0.61	0.10	24.27	50.10	-25.83	Average
3	0.611	32.49	0.53	0.10	33.12	56.00	-22.88	QP
4	0.611	23.51	0.53	0.10	24.14	46.00	-21.86	Average
5	3.603	40.54	0.33	0.10	40.97	56.00	-15.03	QP
6	3.603	32.19	0.33	0.10	32.62	46.00	-13.38	Average
7	5.535	37.47	0.29	0.11	37.87	60.00	-22.13	QP
8	5.535	29.16	0.29	0.11	29.56	50.00	-20.44	Average
9	12.516	37.88	0.20	0.20	38.28	60.00	-21.72	QP
10	12.516	29.62	0.20	0.20	30.02	50.00	-19.98	Average
11	20.270	36.94	0.14	0.21	37.29	60.00	-22.71	QP
12	20.270	27.19	0.14	0.21	27.54	50.00	-22.46	Average

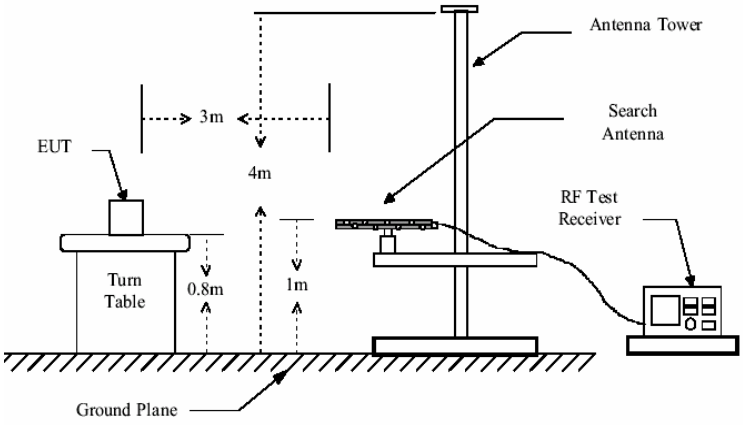
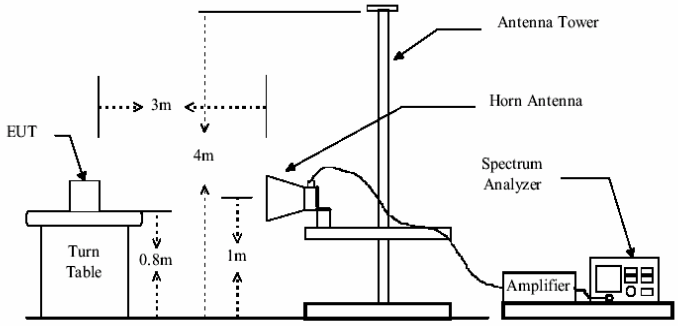
Notes:

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

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

6.2 Radiated Emission

<table>
<tr><td>Test Requirement:</td><td>FCC Part15 B Section 15.109</td></tr>
<tr><td>Test Method:</td><td>ANSI C63.4:2009</td></tr>
<tr><td>Test Frequency Range:</td><td>30MHz to 6000MHz</td></tr>
<tr><td>Test site:</td><td>Measurement Distance: 3m (Semi-Anechoic Chamber)</td></tr>
<tr><td>Receiver setup:</td><td>
<table>
<tr><td>Frequency</td><td>Detector</td><td>RBW</td><td>VBW</td><td>Remark</td></tr>
<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>Average</td><td>1MHz</td><td>3MHz</td><td>Average Value</td></tr>
</table>
</td></tr>
<tr><td>Limit:</td><td>
<table>
<tr><td>Frequency</td><td>Limit (dBuV/m @3m)</td><td>Remark</td></tr>
<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>
</table>
</td></tr>
<tr><td>Test Procedure:</td><td>
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.
</td></tr>
</table>

Test setup:	Below 1GHz  Above 1GHz 
Test environment:	Temp.: 25 °C Humid.: 52% Press.: 1 012mbar
Measurement Record:	Uncertainty: ± 4.5dB
Test Instruments:	Refer to section 6 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed

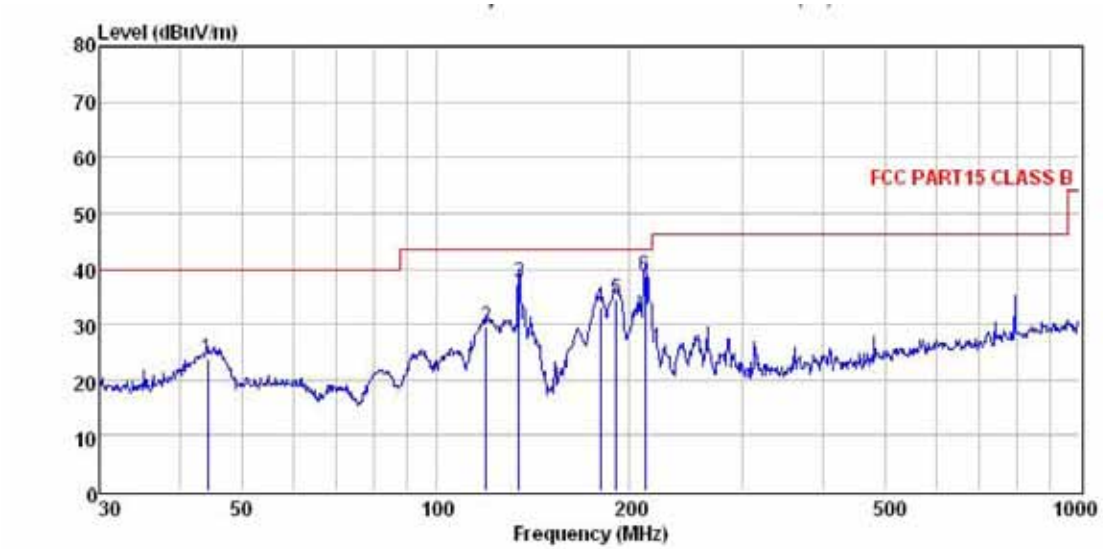
Note:
The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

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

Measurement Data

Below 1GHz

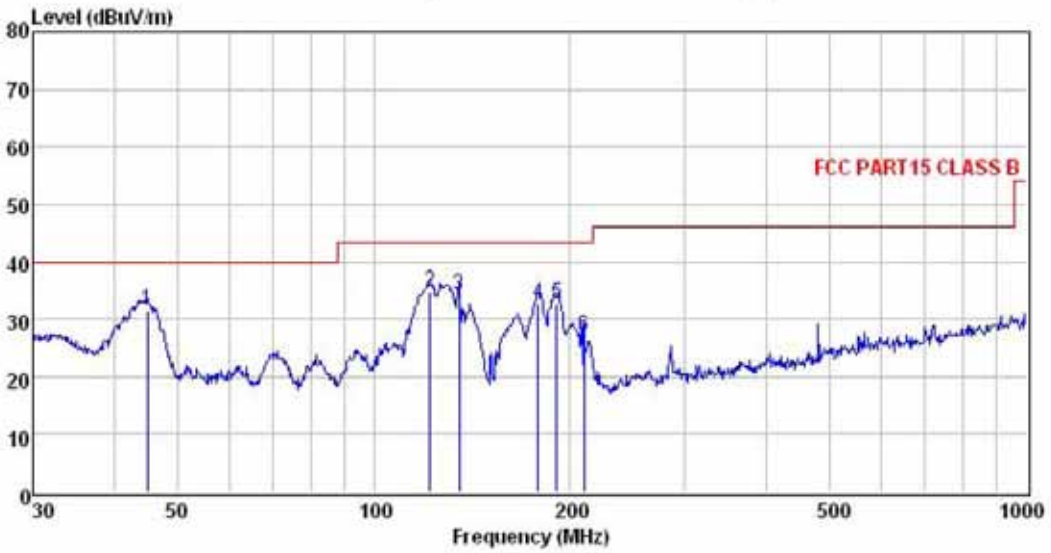
Horizontal:



Site : 3m chamber
Condition : FCC PART15 CLASS B 3m VULB9163 (2011-11) HORIZONTAL
Job No. : 861RF
Test mode : PC mode
Test Engineer: Aarons

	Freq	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	44.12	40.05	15.64	0.29	32.08	23.90	40.00	-16.10	QP
2	119.86	50.19	10.49	0.54	31.81	29.41	43.50	-14.09	QP
3	134.56	60.28	8.56	0.57	31.89	37.52	43.50	-5.98	QP
4	180.02	54.91	9.69	0.67	32.15	33.12	43.50	-10.38	QP
5	190.41	55.68	10.43	0.68	32.20	34.59	43.50	-8.91	QP
6	211.53	59.26	10.94	0.76	32.27	38.69	43.50	-4.81	QP

Vertical:

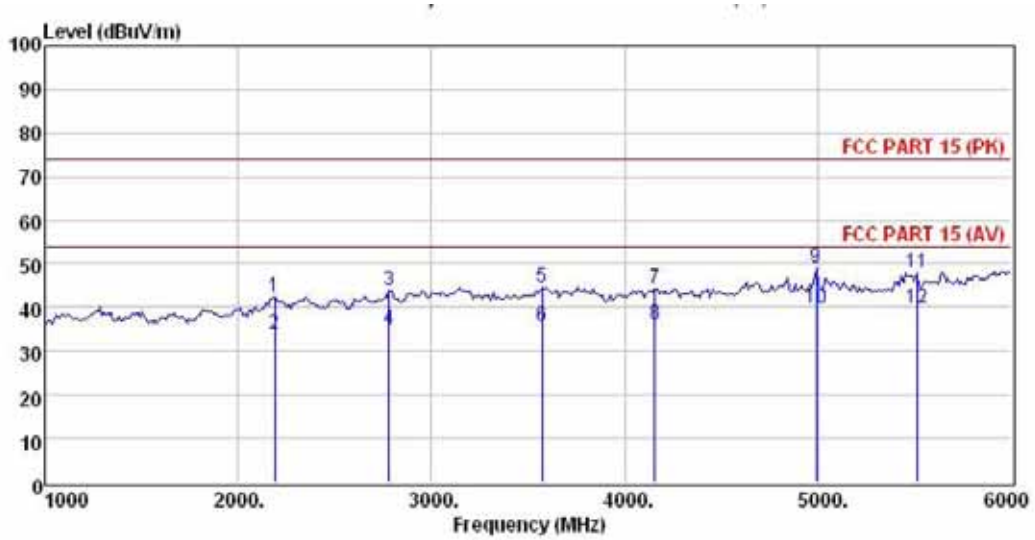


Site : 3m chamber
Condition : FCC PART15 CLASS B 3m VULB9163 (2011-11) VERTICAL
Job No. : 861RF
Test mode : PC mode
Test Engineer: Aarons

	Freq	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	44.90	47.56	15.76	0.29	32.08	31.53	40.00	-8.47	QP
2	121.98	56.03	10.20	0.54	31.83	34.94	43.50	-8.56	QP
3	135.03	56.89	8.56	0.58	31.89	34.14	43.50	-9.36	QP
4	178.76	54.60	9.63	0.67	32.15	32.75	43.50	-10.75	QP
5	190.41	53.86	10.43	0.68	32.20	32.77	43.50	-10.73	QP
6	210.05	47.84	10.88	0.75	32.27	27.20	43.50	-16.30	QP

Above 1GHz

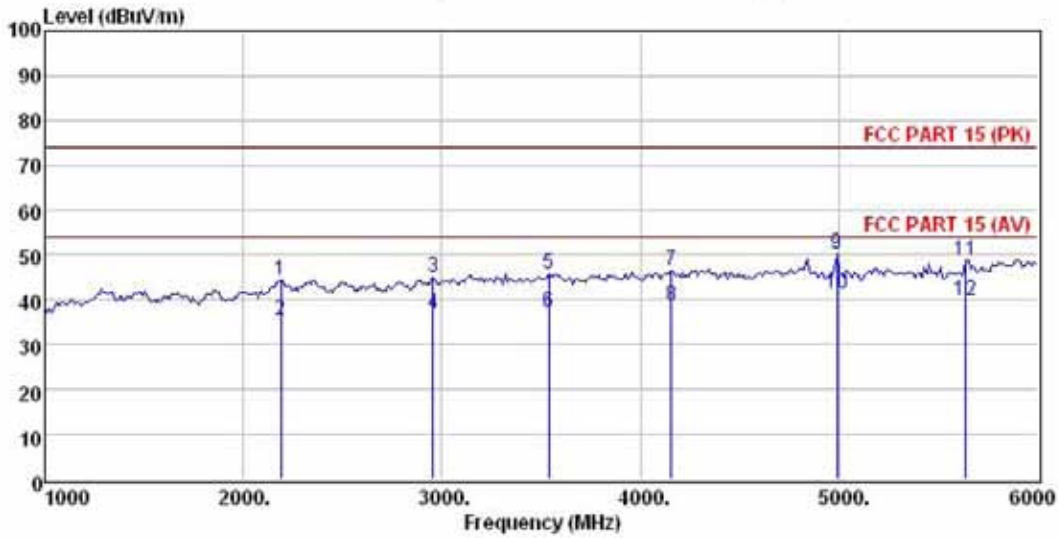
Horizontal:



Site : 3m chamber
Condition : FCC PART 15 (PK) 3m BBHA9120(>1GHZ) HORIZONTAL
Job No. : 861RF
Test mode : PC mode
Test Engineer: Aarons

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	2188.00	45.62	27.81	3.66	34.77	42.32	74.00	-31.68	Peak
2	2188.00	37.13	27.81	3.66	34.77	33.83	54.00	-20.17	Average
3	2782.00	46.38	28.37	4.14	34.94	43.95	74.00	-30.05	Peak
4	2782.00	37.38	28.37	4.14	34.94	34.95	54.00	-19.05	Average
5	3574.00	45.76	29.13	4.92	35.18	44.63	74.00	-29.37	Peak
6	3574.00	36.97	29.13	4.92	35.18	35.84	54.00	-18.16	Average
7	4157.00	44.13	30.15	5.43	35.33	44.38	74.00	-29.62	Peak
8	4157.00	35.68	30.15	5.43	35.33	35.93	54.00	-18.07	Average
9	4993.00	46.91	31.79	5.97	35.50	49.17	74.00	-24.83	Peak
10	4993.00	37.69	31.79	5.97	35.50	39.95	54.00	-14.05	Average
11	5510.00	45.14	32.04	6.29	35.40	48.07	74.00	-25.93	Peak
12	5510.00	36.78	32.04	6.29	35.40	39.71	54.00	-14.29	Average

Vertical:



Site : 3m chamber
Condition : FCC PART 15 (PK) 3m BBHA9120(>1GHZ) VERTICAL
Job No. : 861RF
Test mode : PC mode
Test Engineer: Aarons

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	2188.00	47.62	27.81	3.66	34.77	44.32	74.00	-29.68	Peak
2	2188.00	38.69	27.81	3.66	34.77	35.39	54.00	-18.61	Average
3	2958.00	47.01	28.44	4.34	34.99	44.80	74.00	-29.20	Peak
4	2958.00	38.91	28.44	4.34	34.99	36.70	54.00	-17.30	Average
5	3541.00	46.92	29.08	4.90	35.17	45.73	74.00	-28.27	Peak
6	3541.00	38.34	29.08	4.90	35.17	37.15	54.00	-16.85	Average
7	4157.00	46.13	30.15	5.43	35.33	46.38	74.00	-27.62	Peak
8	4157.00	38.46	30.15	5.43	35.33	38.71	54.00	-15.29	Average
9	4993.00	47.91	31.79	5.97	35.50	50.17	74.00	-23.83	Peak
10	4993.00	38.95	31.79	5.97	35.50	41.21	54.00	-12.79	Average
11	5642.00	45.88	32.13	6.35	35.49	48.87	74.00	-25.13	Peak
12	5642.00	36.97	32.13	6.35	35.49	39.96	54.00	-14.04	Average