

# FCC REPORT

**Applicant:** Azumi S.A

**Address of Applicant:** Avenida Aquilino de la Guardia con Calle 47, PH Ocean Plaza,  
Piso 16 of. 16-01, Marbella, Ciudad de Panama City, Rep.  
Panama

## Equipment Under Test (EUT)

**Product Name:** Mobile Phone

**Model No.:** L2

**FCC ID:** QRP-AZUMIL2

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

**Date of sample receipt:** 29 Nov., 2012

**Date of Test:** 01 Dec., to 06 Dec., 2012

**Date of report issued:** 07 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.

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	07 Dec., 2012	<i>Original</i>

Prepared By:



Date:

07 Dec., 2012

Report Clerk

Check By:



Date:

07 Dec., 2012

Project Engineer

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## 4 Test Summary

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

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

## 5 General Information

### 5.1 Client Information

Applicant:	Azumi S.A
Address of Applicant:	Avenida Aquilino de la Guardia con Calle 47, PH Ocean Plaza, Piso 16 of. 16-01, Marbella, Ciudad de Panama City, Rep. Panama
Manufacturer:	Azumi S.A
Address of Manufacturer:	Avenida Aquilino de la Guardia con Calle 47, PH Ocean Plaza, Piso 16 of. 16-01, Marbella, Ciudad de Panama City, Rep. Panama
Factory:	SHENZHEN CHINO-E ELECTRONIC INDUSTRY CO.,LTD.
Address of Factory:	chino-E Industrial Park, longhua , Baoan Area, shenzhen

### 5.2 General Description of E.U.T.

Product Name:	Mobile Phone
Model No.:	L2
AC adapter:	Input:100-240V AC,50/60Hz 0.1A Output:5V DC MAX 400mA
Power supply:	Rechargeable Li-ion Battery DC3.7V/500mAh

### 5.3 Operating Modes

Operating mode	Detail description
Downloading mode	Keep the EUT in Downloading 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
FM mode	Keep the EUT in FM receiver 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
DELL	PC	OPTIPLEX745	N/A	DoC
DELL	MONITOR	E178FPC	N/A	DoC
DELL	KEYBOARD	SK-8115	N/A	DoC
DELL	MOUSE	MOC5UO	N/A	DoC
HP	Printer	CB495A	05257893	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 out 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.

**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	EMI Test Receiver	Rohde & Schwarz	ESCI	CCIS0002	May 25 2012	May. 24 2013
3	BiConiLog Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB9163	CCIS0005	June 04 2012	June 03 2013
4	Double -ridged waveguide horn	SCHWARZBECK MESS-ELEKTRONIK	BBHA9120D	CCIS0006	May 30 2012	May. 29 2013
5	EMI Test Software	AUDIX	E3	N/A	N/A	N/A
6	Coaxial Cable	CCIS	N/A	CCIS0016	Apr. 01 2012	Mar. 31 2013
7	Coaxial Cable	CCIS	N/A	CCIS0017	Apr. 01 2012	Mar. 31 2013
8	Coaxial cable	CCIS	N/A	CCIS0018	Apr. 01 2012	Mar. 31 2013
9	Coaxial Cable	CCIS	N/A	CCIS0019	Apr. 01 2012	Mar. 31 2013
10	Coaxial Cable	CCIS	N/A	CCIS0087	Apr. 01 2012	Mar. 31 2013
11	Amplifier(10KHz-1.3GHz)	HP	8447D	CCIS0003	Apr. 01 2012	Mar. 31 2013
12	Amplifier(1GHz-18GHz)	Compliance Direction Systems Inc.	PAP-1G18	CCIS0011	June 09 2012	June 08 2013
13	Spectrum analyzer	Rohde & Schwarz	FSP	CCIS0023	May 29 2012	May 28 2013
14	Printer	Hp	HP LaserJet P1007	N/A	N/A	N/A
15	Positioning Controller	UC	UC3000	CCIS0015	N/A	N/A

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	ESPI	CCIS0022	Apr.01 2012	Mar. 31 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

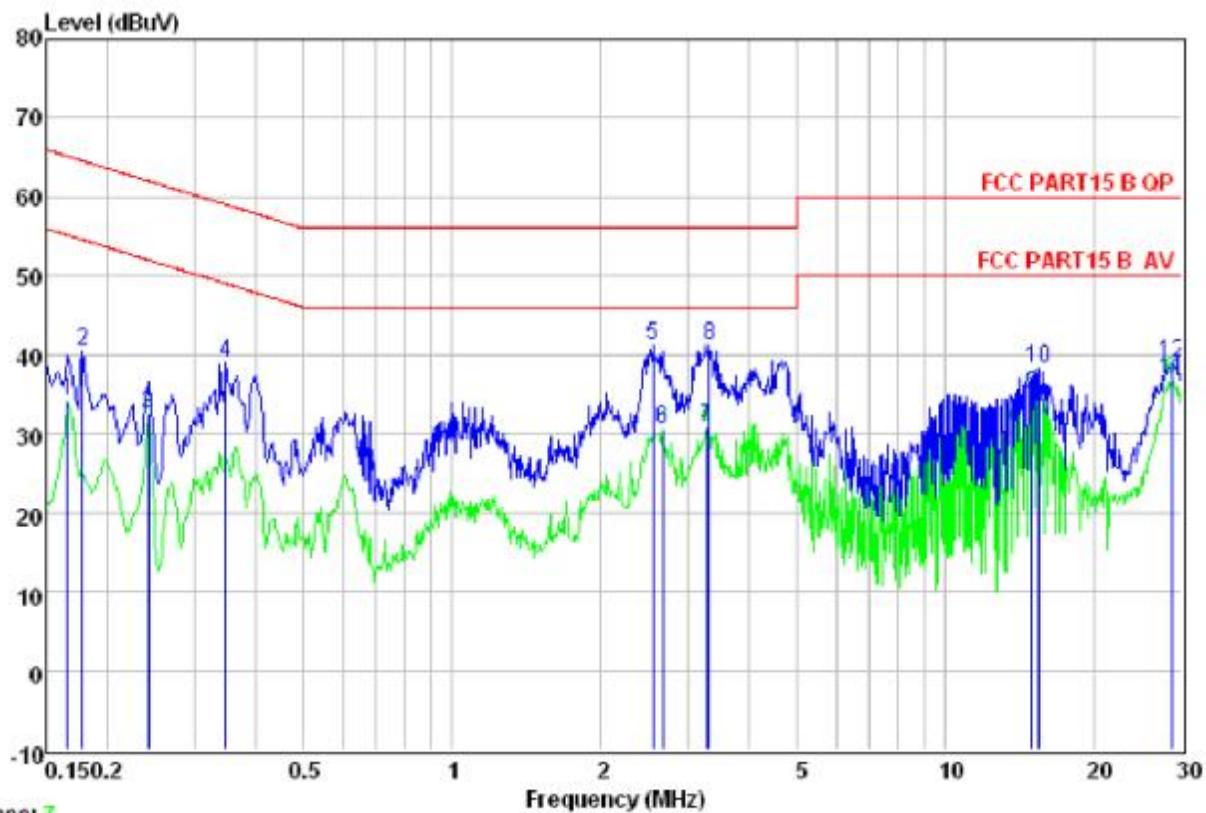
## 7 Test results and Measurement Data

### 7.1 Conducted Emissions

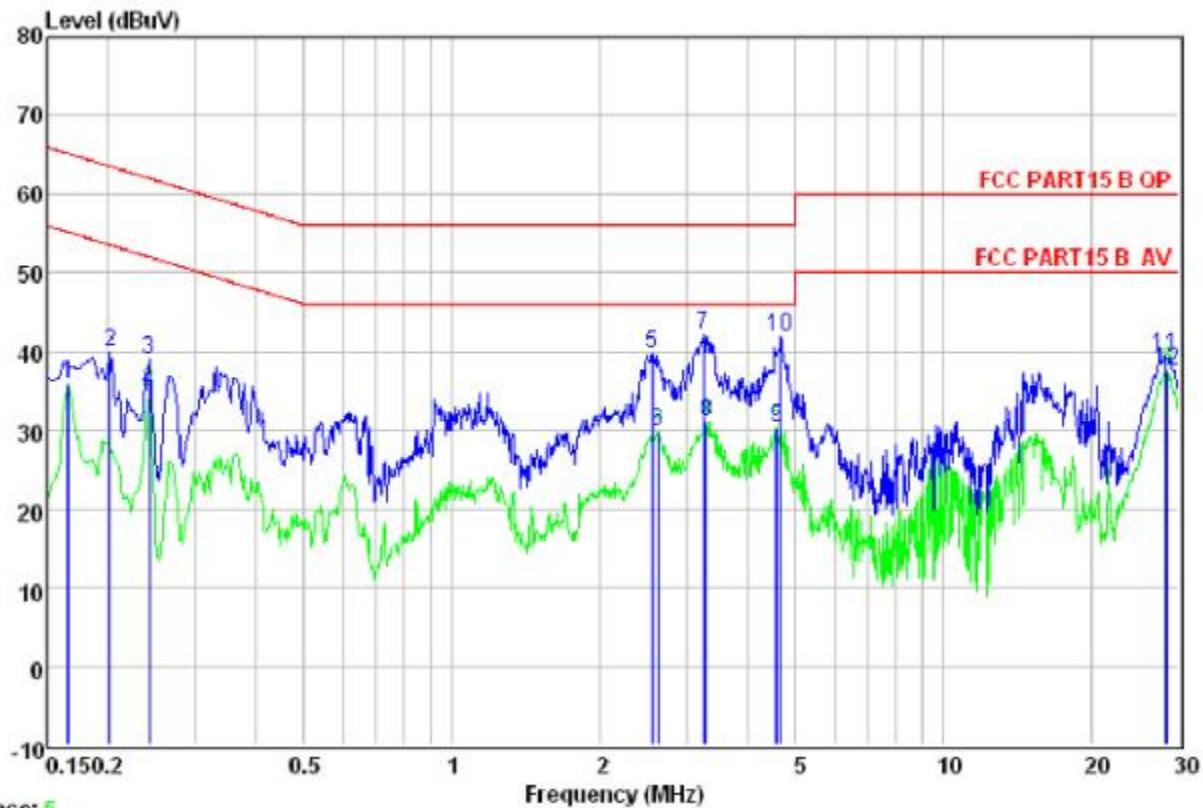
Test Requirement:	FCC Part15 B Section 15.107																
Test Method:	ANSI C63.4:2003																
Test Frequency Range:	150kHz to 30MHz																
Class / Severity:	Class B																
Receiver setup:	RBW=9kHz, VBW=30kHz																
Limit:	<table border="1"> <thead> <tr> <th rowspan="2">Frequency range (MHz)</th> <th colspan="2">Limit (dB<math>\mu</math>V)</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 $\mu$ 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 $\mu$ 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 setup:	<p>General: E.U.T: Equipment Under Test LISN: Line Impedance Stabilization Network Test table height: 0.8m</p>																
Test procedure	<ol style="list-style-type: none"> <li>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.</li> <li>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).</li> <li>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.</li> </ol>																
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:



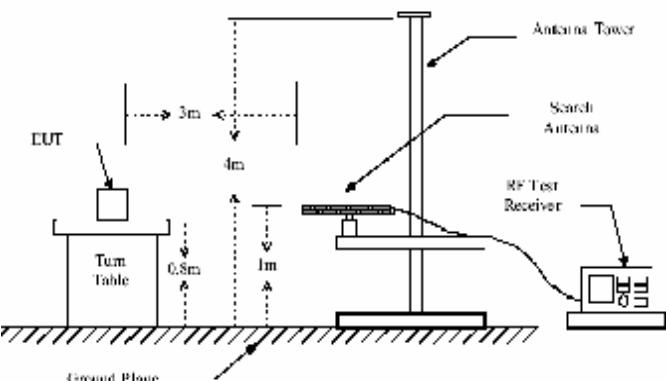
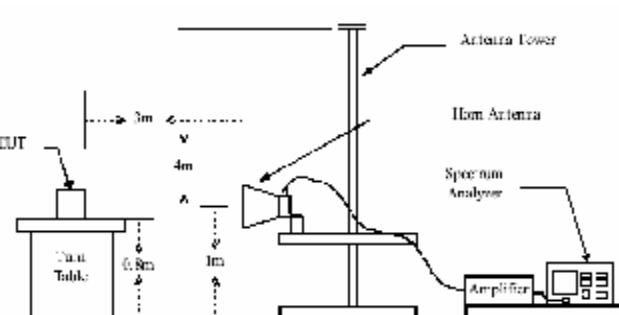
Neutral:



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

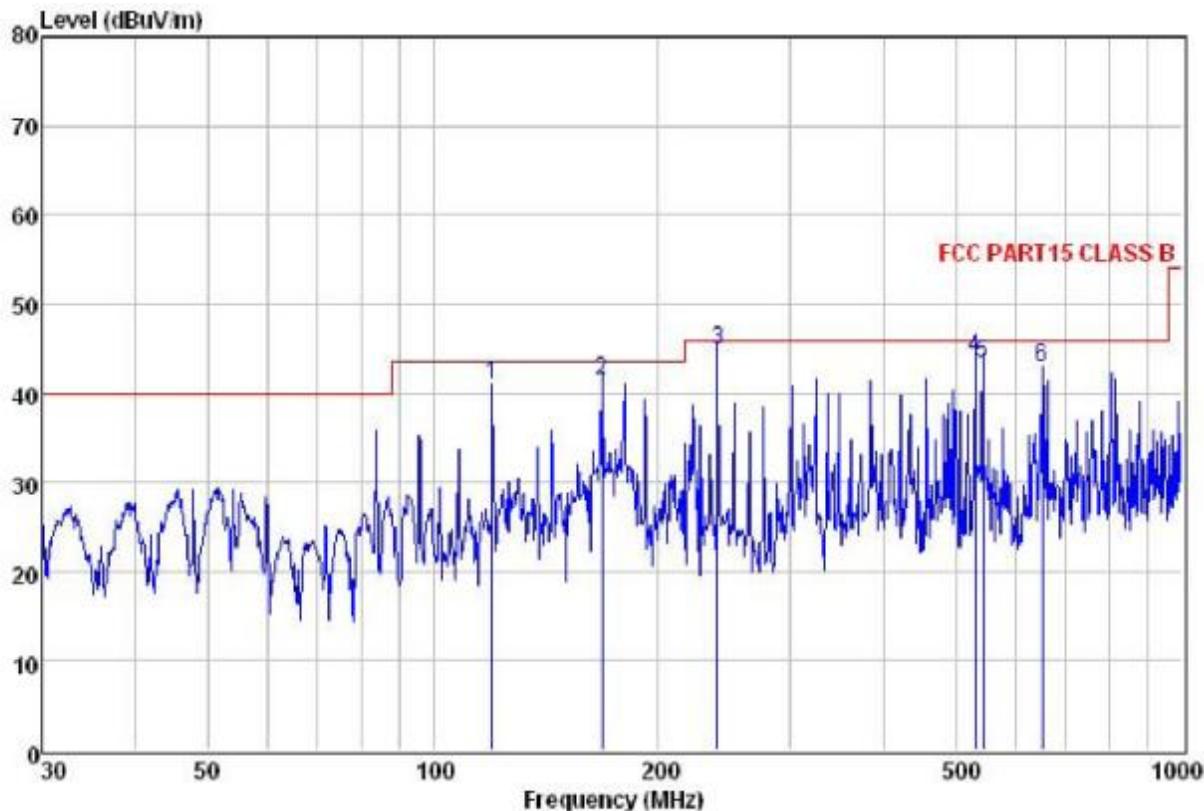
Test Requirement:	FCC Part15 B Section 15.109				
Test Method:	ANSI C63.4:2003				
Test Frequency Range:	30MHz to 6000MHz				
Test site:	Measurement Distance: 3m (Semi-Anechoic Chamber)				
Receiver setup:	Frequency	Detector	RBW	VBW	Remark
	30MHz-1GHz	Quasi-peak	100KHz	300KHz	Quasi-peak Value
	Above 1GHz	Peak	1MHz	3MHz	Peak Value
		Peak	1MHz	10Hz	Average Value
Limit:	Frequency	Limit (dBuV/m @3m)		Remark	
	30MHz-88MHz	40.0		Quasi-peak Value	
	88MHz-216MHz	43.5		Quasi-peak Value	
	216MHz-960MHz	46.0		Quasi-peak Value	
	960MHz-1GHz	54.0		Quasi-peak Value	
	Above 1GHz	54.0		Average Value	
		74.0		Peak Value	
Test setup:	<p>Below 1GHz</p>  <p>Above 1GHz</p> 				

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.:	55%	Press.:	1 01Kpa
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 below mode which it is worse case mode.					
Test results:	Passed					

## Measurement Data

Below 1GHz

Horizontal:



Site : 3m chamber  
Condition : FCC PART15 CLASS B 3m VULB9163(2012.4.1) HORIZONTAL

Job No. : 279RF

EUT : Mobile phone

Model : L2

Test mode : Downloading mode

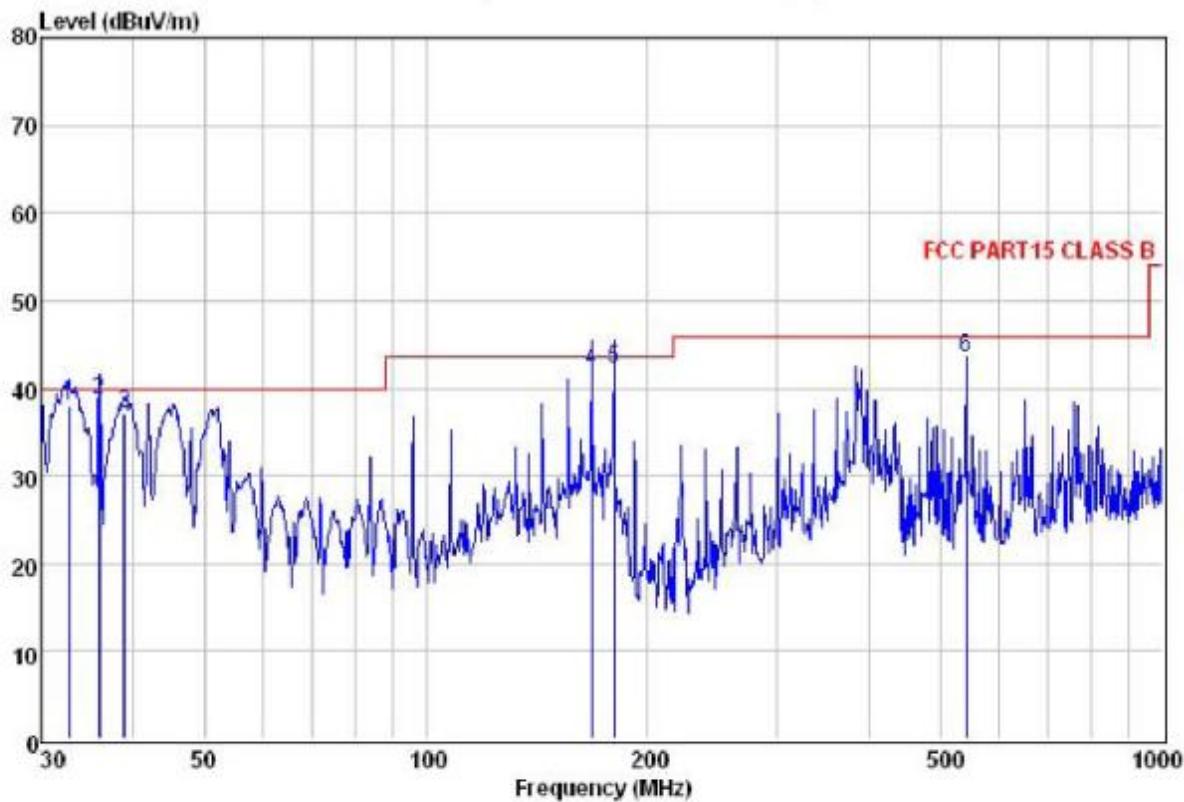
Power Rating : AC 120V/60Hz

Environment : Temp:25°C Huni:55% Atmos:101Kpa

Test Engineer: Winner

	Freq	ReadAntenna Level	Cable Factor	Preamp Factor	Limit Level	Line Limit	Over Remark
	MHz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB
1	119.856	58.01	10.48	2.17	29.70	40.96	43.50 -2.54 QP
2	167.824	58.91	8.90	2.64	29.01	41.44	43.50 -2.06 QP
3	239.987	59.46	12.09	2.82	29.64	44.73	46.00 -1.27 QP
4	528.246	53.55	17.15	3.77	30.53	43.94	46.00 -2.06 QP
5	541.373	52.67	17.41	3.84	30.54	43.38	46.00 -2.62 QP
6	649.660	51.08	18.64	3.86	30.58	43.00	46.00 -3.00 QP

Vertical:

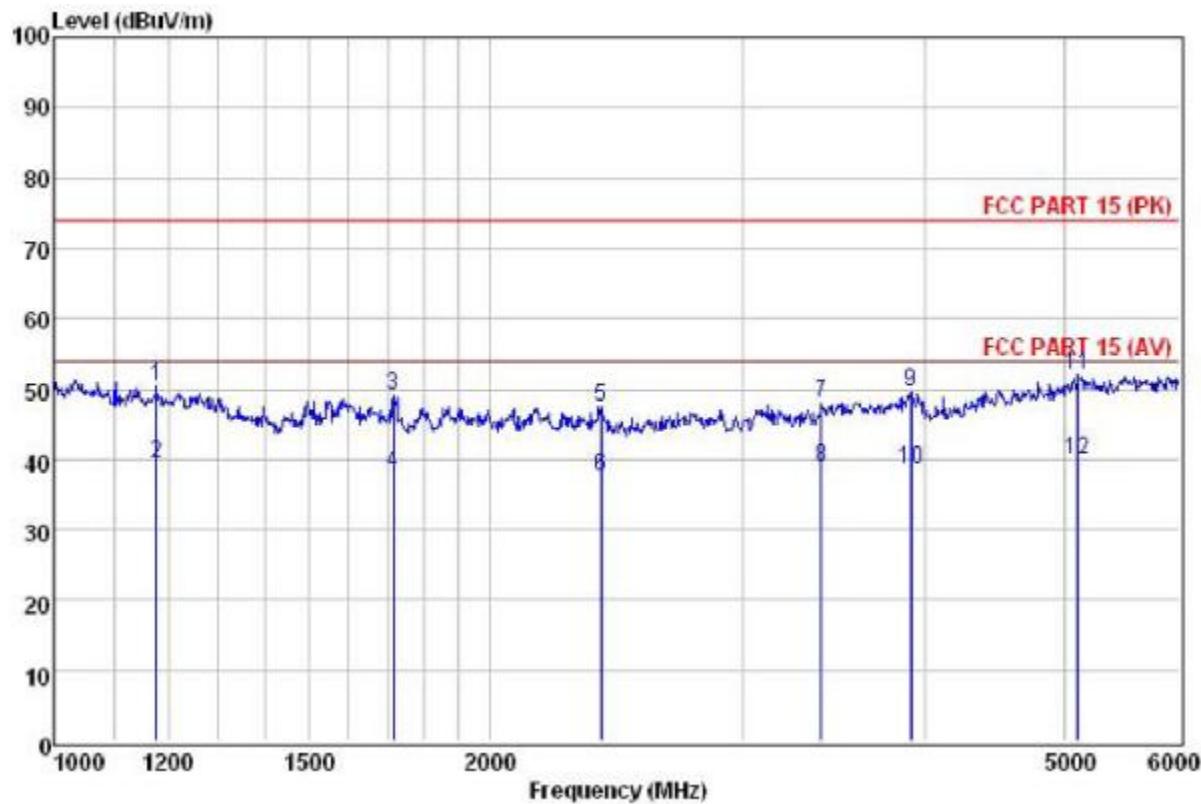


Site : 3m chamber  
Condition : FCC PART15 CLASS B 3m VULB9163(2012.4.1) VERTICAL  
Job No. : 279RF  
EUT : Mobile phone  
Model : L2  
Test mode : Downloading mode  
Power Rating : AC 120V/60Hz  
Environment : Temp:25°C Huni:55% Atmos:101Kpa  
Test Engineer: Winner

	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	32.749	51.29	12.31	0.91	26.57	37.94	40.00	-2.06 QP
2	36.001	51.90	12.58	1.07	26.89	38.66	40.00	-1.34 QP
3	38.888	49.80	13.30	1.18	27.16	37.12	40.00	-2.88 QP
4	167.824	59.59	8.90	2.64	29.01	42.12	43.50	-1.38 QP
5	180.017	56.40	9.68	2.73	26.51	42.30	43.50	-1.20 QP
6	541.373	52.73	17.41	3.84	30.54	43.44	46.00	-2.56 QP

Above 1GHz

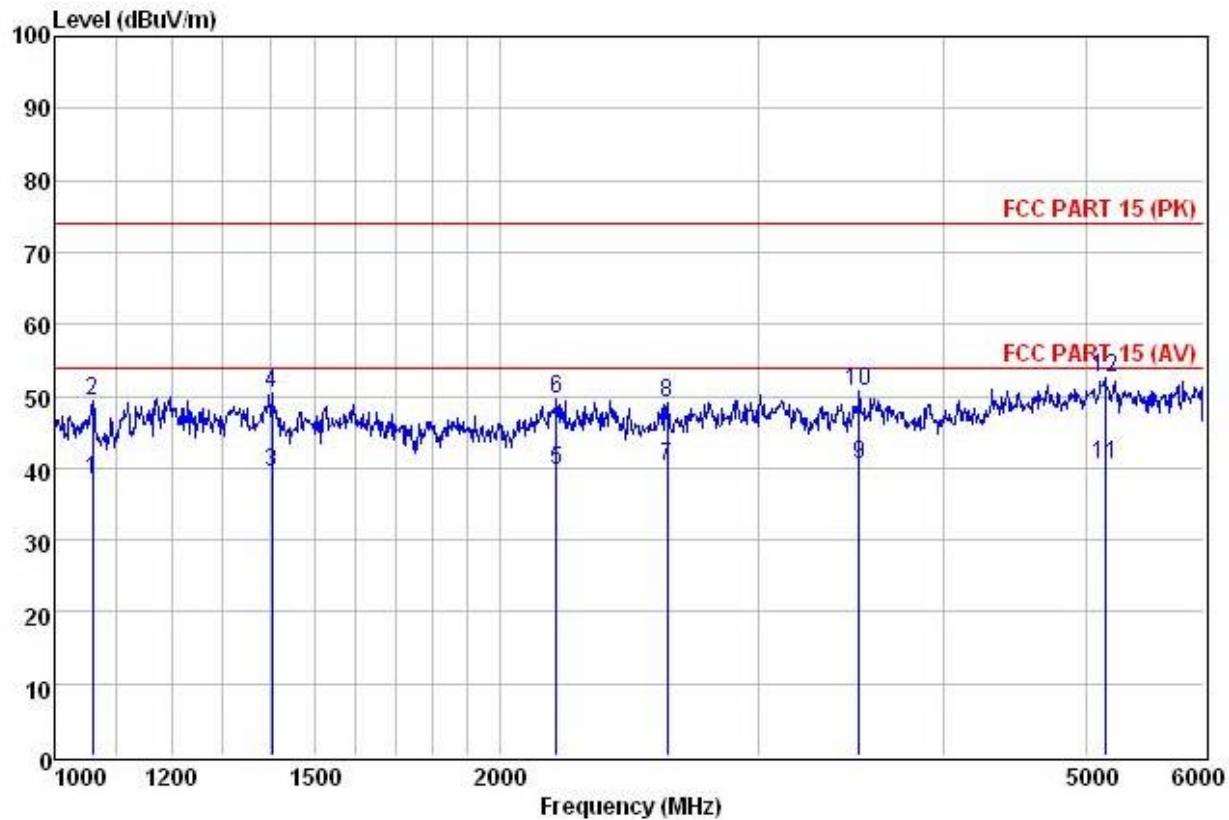
Horizontal:



Site : 3m chamber  
 Condition : FCC PART 15 (PK) 3m BBHA9120 (>1GHZ) HORIZONTAL  
 Job No. : 279RF  
 EUT : Mobile phone  
 Model : L2  
 Test mode : Downloading mode  
 Power Rating : AC 120V/60Hz  
 Environment : Temp:25°C Huni:55% Atmos:101Kpa  
 Test Engineer: Winner

Freq	ReadAntenna		Cable		Preamp	Limit	Over	Remark
	Level	Factor	Loss	Factor				
MHz	dBm	dB/m	dB	dB	dBm/m	dB/m	dB	
1	1177.096	41.46	24.75	2.57	18.48	50.30	74.00	-23.70 Peak
2	1177.096	30.46	24.75	2.57	18.48	39.30	54.00	-14.70 Average
3	1717.915	48.87	25.01	3.24	28.11	49.01	74.00	-24.99 Peak
4	1717.915	37.87	25.01	3.24	28.11	38.01	54.00	-15.99 Average
5	2388.809	46.25	27.58	3.81	30.10	47.54	74.00	-26.46 Peak
6	2388.809	36.25	27.58	3.81	30.10	37.54	54.00	-16.46 Average
7	3393.901	42.89	28.46	4.77	28.20	47.92	74.00	-26.08 Peak
8	3393.901	33.89	28.46	4.77	28.20	38.92	54.00	-15.08 Average
9	3909.967	41.56	29.77	5.23	26.86	49.70	74.00	-24.30 Peak
10	3909.967	30.56	29.77	5.23	26.86	38.70	54.00	-15.30 Average
11	5106.433	37.74	32.11	6.06	23.88	52.03	74.00	-21.97 Peak
12	5106.433	25.74	32.11	6.06	23.88	40.03	54.00	-13.97 Average

Vertical:



Site : 3m chamber  
 Condition : FCC PART 15 (PK) 3m BBHA9120 (>1GHZ) VERTICAL  
 Job No. : 279RF  
 EUT : Mobile phone  
 Model : L2  
 Test mode : Downloading mode  
 Power Rating : AC 120V/60Hz  
 Environment : Temp:25'C Humi:55% Atmos:101Kpa  
 Test Engineer: Winner

Freq	ReadAntenna		Cable		Preamp	Limit	Over	Remark	
	Freq	Level	Antenna	Factor	Loss	Factor	Level	Line	Limit
	MHz	dBm	dB	dB	dB	dBm/m	dBm/m	dB	
1	1060.911	29.18	24.33	2.39	17.55	38.35	54.00	-15.65	Average
2	1060.911	40.18	24.33	2.39	17.55	49.35	74.00	-24.65	Peak
3	1403.042	32.71	25.40	2.88	21.66	39.33	54.00	-14.67	Average
4	1403.042	43.71	25.40	2.88	21.66	50.33	74.00	-23.67	Peak
5	2188.024	38.84	27.81	3.66	30.71	39.60	54.00	-14.40	Average
6	2188.024	48.84	27.81	3.66	30.71	49.60	74.00	-24.40	Peak
7	2598.691	38.91	27.80	3.96	30.58	40.09	54.00	-13.91	Average
8	2598.691	47.91	27.80	3.96	30.58	49.09	74.00	-24.91	Peak
9	3505.144	34.64	28.95	4.86	27.90	40.55	54.00	-13.45	Average
10	3505.144	44.64	28.95	4.86	27.90	50.55	74.00	-23.45	Peak
11	5143.163	26.27	32.08	6.08	23.87	40.56	54.00	-13.44	Average
12	5143.163	38.27	32.08	6.08	23.87	52.56	74.00	-21.44	Peak