

FCC REPORT

Applicant: ABBA INNOVATIONS.A.S

Address of Applicant: Calle 76 No. 52-40 Local 1 Alto Prado Barranquilla Colombia

Equipment Under Test (EUT)

Product Name: Mobile Phone

Trade Mark: Taxcel, yaddas, airus, tellme

Model No.: i8S, i8, i5S, T5, Q7, Q10, Z4, Q3, Q5, W100, C9, S999

FCC ID: Z87ABBAI8S

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

Date of sample receipt: 17 Jan., 2013

Date of Test: 22-30 Jan., 2013

Date of report issued: 30 Jan., 2013

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	30 Jan., 2013	<i>Original</i>

Prepared by:

Lisa Chen

Date:

30 Jan., 2013

Report Clerk

Reviewed by:

Wimer Zhang

Date:

30 Jan., 2013

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:	ABBA INNOVATIONS.A.S
Address of Applicant:	Calle 76 No. 52-40 Local 1 Alto Prado Barranquilla Colombia
Manufacturer/ Factory:	MOVICOM TECHNOLOGY CO.,LIMITED.
Address of Manufacturer/ Factory:	B, Xingheshiji Bldg. 3069, Caitian Rd., Futian District, Shenzhen, China

5.2 General Description of E.U.T.

Product Name:	Mobile Phone
Trade Mark:	Taxcel, yaddas, airus, tellme
Model No.:	i8S, i8, i5S, T5, Q7, Q10, Z4, Q3, Q5, W100, C9, S999
AC adapter:	Input:100-240V AC,50/60Hz 0.2A Output:5V DC MAX500mA
Power supply:	Rechargeable Li-ion Battery DC3.7V/800mAh
Remarks:	Only test the Model No.: i8S, The Model : i8, i5S, T5, Q7, Q10, Z4, Q3, Q5, W100, C9, S999 and i8S identical inside, electrical circuit design, PCB layout, components used and internal wiring ,the difference being the Color of appearance.

5.3 Operating Modes

Operating mode	Detail description
Downloading mode	Keep the EUT in Downloading mode(Worst case)
FM mode	Keep the EUT in FM receiving mode
Camera mode	Keep the EUT in Camera mode
Play mode	Keep the EUT in Play mode
Recording mode	Keep the EUT in Recording mode
TV mode	Keep the EUT in TV 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

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	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 29 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
19	CMU200	Rhode & Schwarz	1100.0008.02	CCIS0069	May. 29 2012	May. 28 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

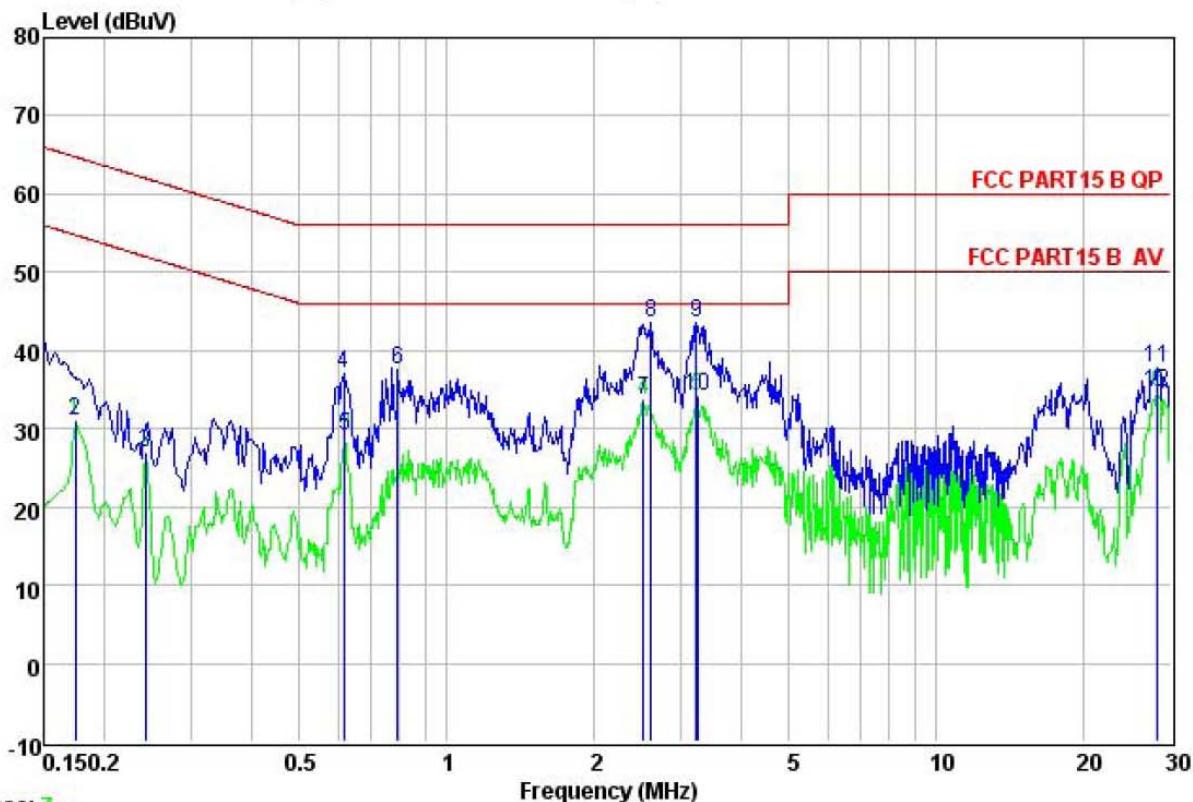
7 Test results and Measurement Data

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 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 setup:	<p>Reference Plane</p> <p>Remark 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"> 1. The E.U.T and simulators are connected to the main power through a line impedance stabilization network(L.I.S.N.). They 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 refer 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 below mode which it is worse case mode.																
Test results:	Pass																

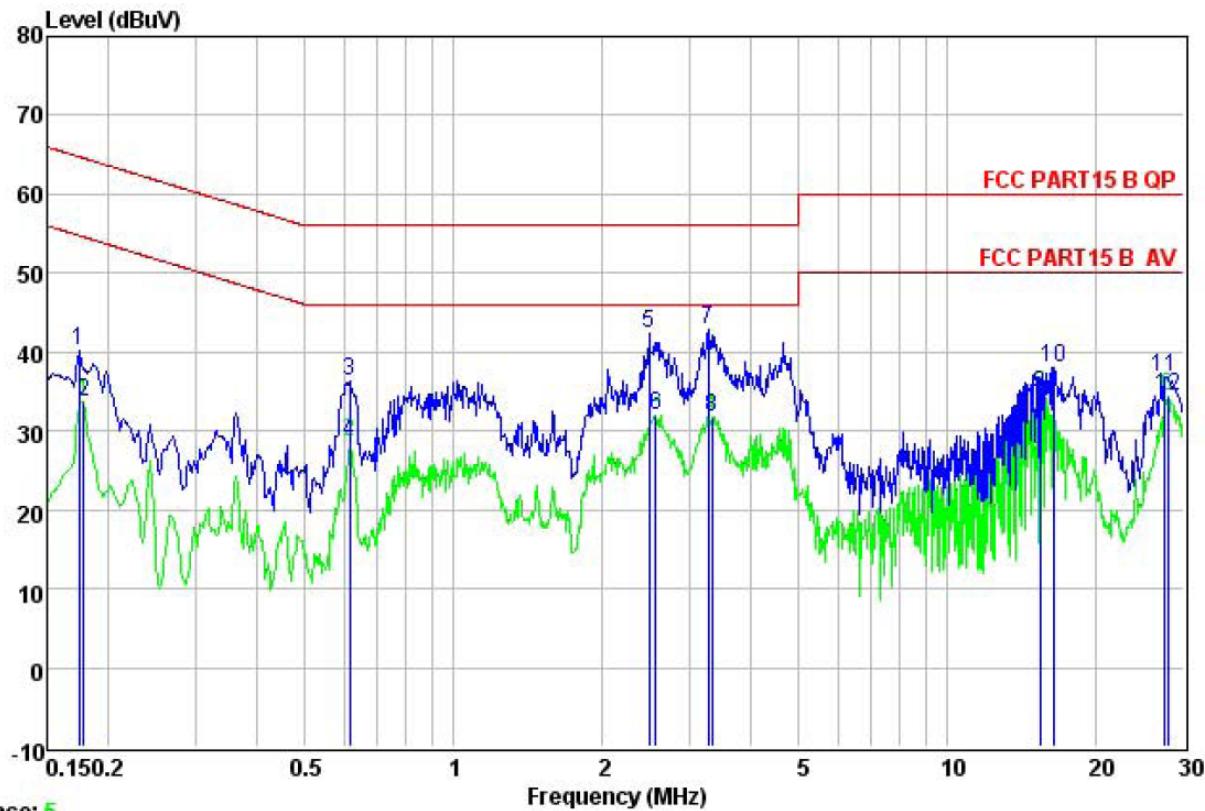
Measurement data:

Line:



	Read Freq	LISN Level	Cable Factor	Limit Loss	Line Level	Over Line Limit	Remark
	MHz	dBuV	dB	dB	dBuV	dBuV	dB
1	0.150	30.32	10.25	0.79	41.36	66.00	-24.64 QP
2	0.174	20.03	10.23	0.77	31.03	54.77	-23.74 Average
3	0.242	16.05	10.23	0.75	27.03	52.04	-25.01 Average
4	0.614	26.00	10.21	0.77	36.98	56.00	-19.02 QP
5	0.617	18.22	10.21	0.77	29.20	46.00	-16.80 Average
6	0.792	26.44	10.19	0.80	37.43	56.00	-18.57 QP
7	2.513	22.57	10.28	0.94	33.79	46.00	-12.21 Average
8	2.608	32.28	10.28	0.94	43.50	56.00	-12.50 QP
9	3.224	32.32	10.29	0.90	43.51	56.00	-12.49 QP
10	3.241	23.01	10.29	0.90	34.20	46.00	-11.80 Average
11	28.152	26.05	10.76	0.87	37.68	60.00	-22.32 QP
12	28.302	22.92	10.78	0.87	34.57	50.00	-15.43 Average

Neutral:



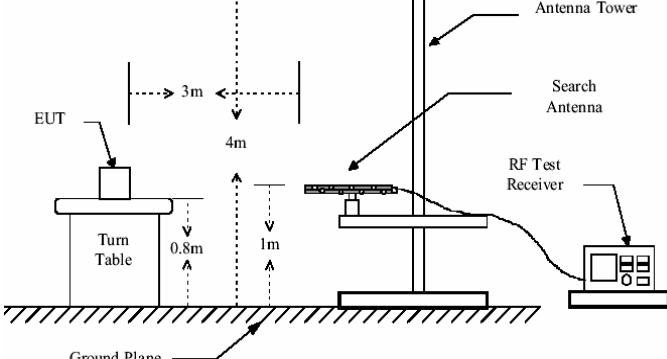
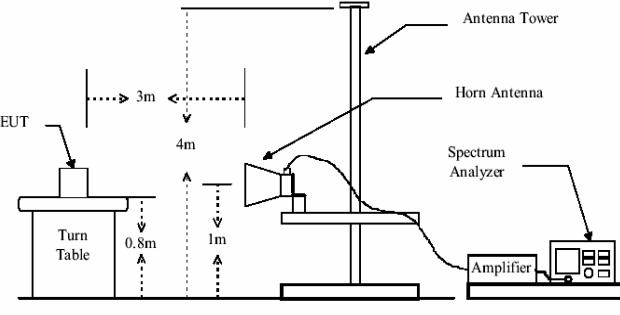
Site : CCIS Conducted Test Site
 Condition : FCC PART15 B QP LISN NEUTRAL
 Job. no : 011RF
 EUT : Mobile phone
 Model : I8S
 Test Mode : Downloading mode
 Power Rating : AC 120V/60Hz
 Environment : Temp: 23 °C Humi:56% Atmos:101KPa
 Test Engineer: Winner

	Read	LISN	Cable	Limit	Over		
Freq	Level	Factor	Loss	Level	Line	Limit	Remark
MHz	dBuV		dB	dBuV	dBuV	dB	
1	0.174	29.17	10.25	0.77	40.19	64.77	-24.58 QP
2	0.178	22.69	10.25	0.77	33.71	54.59	-20.88 Average
3	0.614	25.36	10.21	0.77	36.34	56.00	-19.66 QP
4	0.614	17.53	10.21	0.77	28.51	46.00	-17.49 Average
5	2.487	31.17	10.27	0.95	42.39	56.00	-13.61 QP
6	2.567	20.88	10.27	0.94	32.09	46.00	-13.91 Average
7	3.276	31.68	10.28	0.90	42.86	56.00	-13.14 QP
8	3.328	20.66	10.28	0.90	31.84	46.00	-14.16 Average
9	15.388	23.44	10.24	0.90	34.58	50.00	-15.42 Average
10	16.398	26.93	10.26	0.91	38.10	60.00	-21.90 QP
11	27.562	25.32	10.72	0.87	36.91	60.00	-23.09 QP
12	27.855	22.71	10.74	0.87	34.32	50.00	-15.68 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

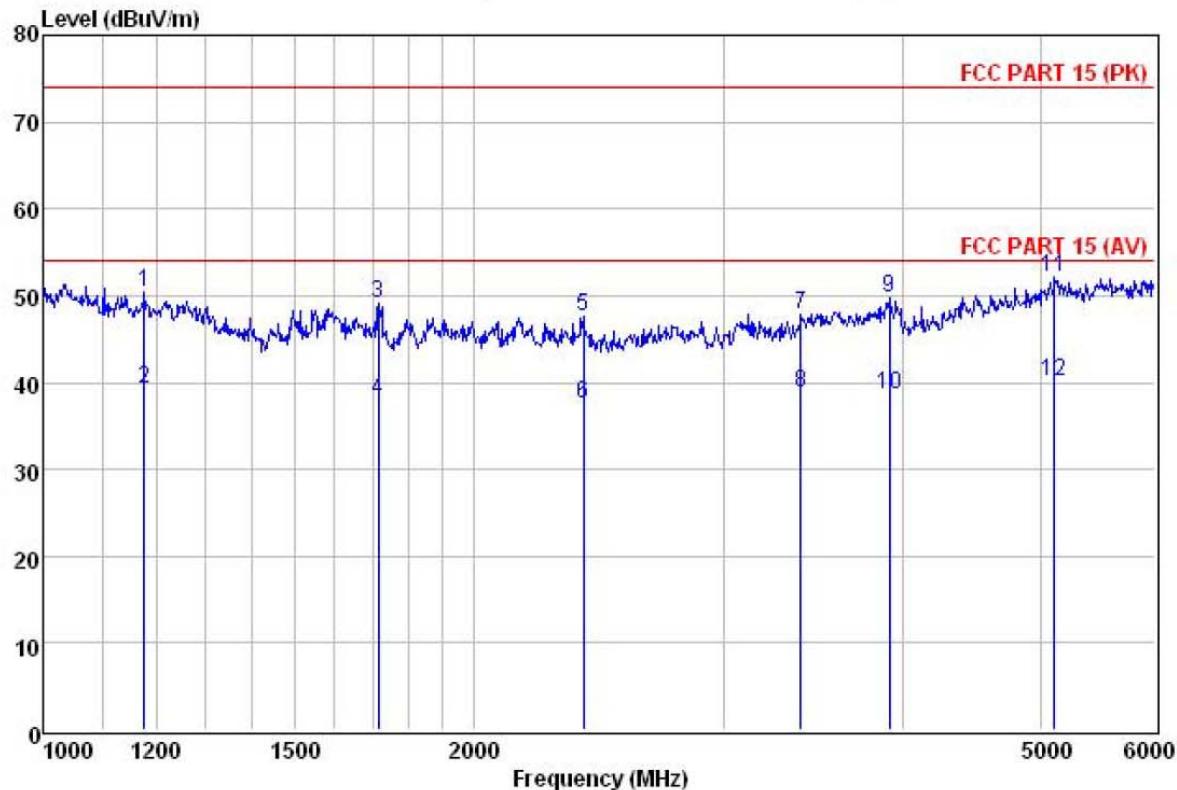
Test Requirement:	FCC Part15 B Section 15.109				
Test Method:	ANSI C63.4:2003				
Test Frequency Range:	30MHz to 6000MHz				
Test site:	Measurement Distance: 3m (Semi-Anechoic Chamber)				
Receiver setup:	Frequency	Detector	RBW	VBW	Remark
	30MHz-1GHz	Quasi-peak	100KHz	300KHz	Quasi-peak Value
	Above 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 bleow mode which it is worse case mode.
Test results:	Passed

Measurement Data

Above 1GHz

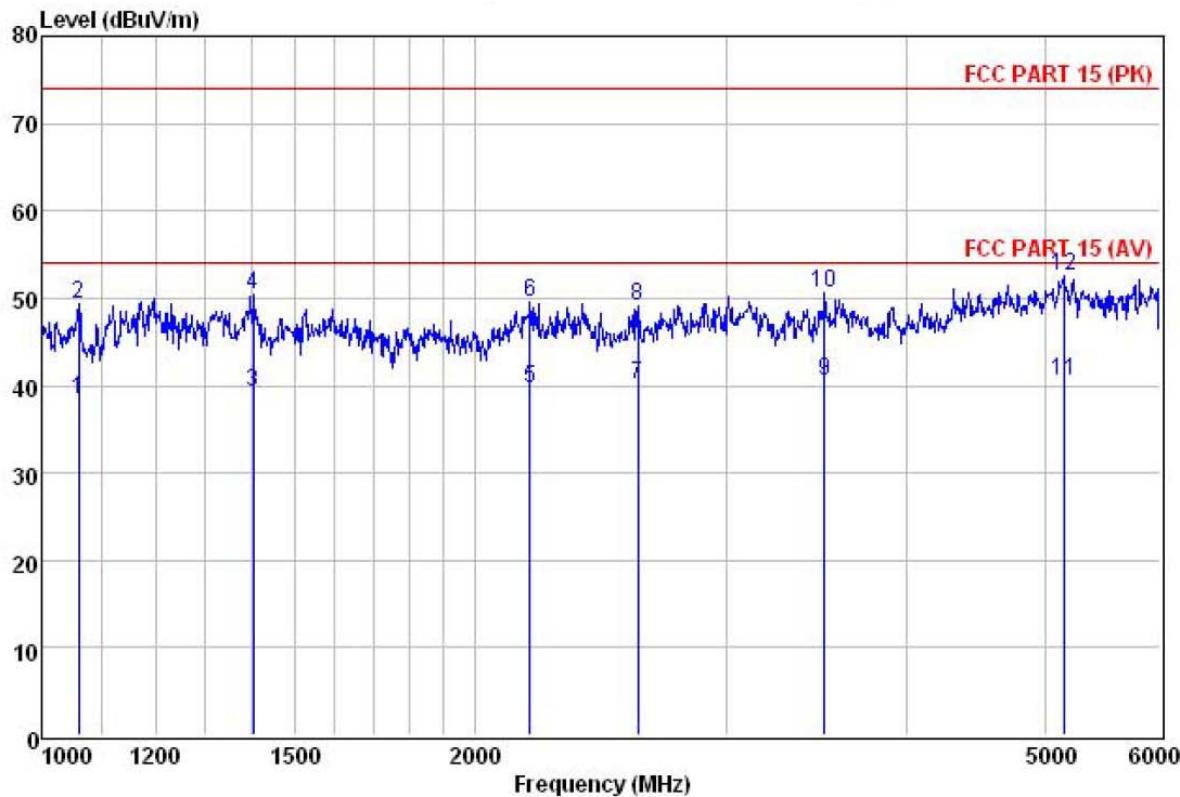
Horizontal:



Site : 3m chamber
 Condition : FCC PART 15 (PK) 3m BBHA9120 (>1GHZ) HORIZONTAL
 Job No. : 011RF
 EUT : Mobile phone
 Model : I8S
 Test mode : Downloading mode
 Power Rating : AC 120V/60Hz
 Environment : Temp:25°C Huni:55% Atmos:101Kpa
 Test Engineer: Winer

Freq	Read		Antenna	Cable	Preamp	Limit	Over	Line	Limit	Remark
	Level	Factor			Level					
MHz	dBuV	dB/m		dB	dBuV/m	dBuV/m				
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:

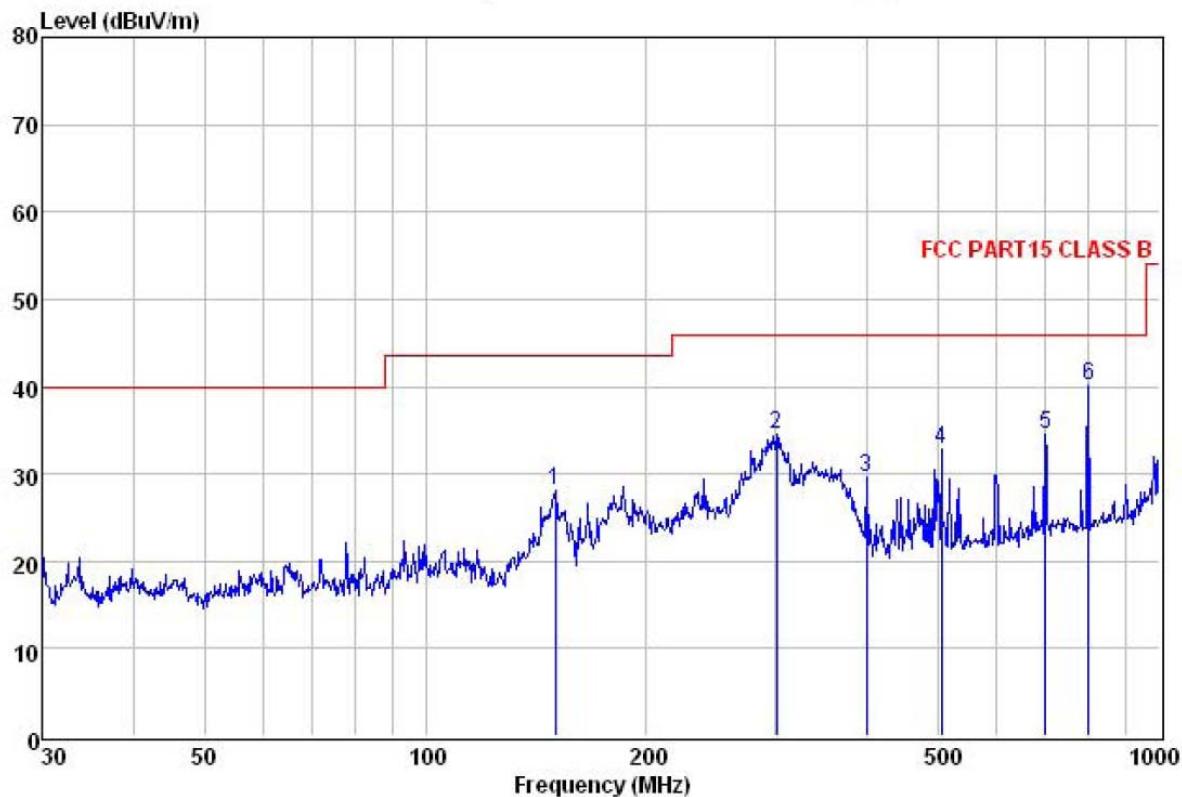


Site : 3m chamber
 Condition : FCC PART 15 (PK) 3m BBHA9120 (>1GHZ) VERTICAL
 Job No. : 011RF
 EUT : Mobile phone
 Model : I8S
 Test mode : Downloading mode
 Power Rating : AC 120V/60Hz
 Environment : Temp:25°C Huni:55% Atmos:101Kpa
 Test Engineer: Winer

Freq	ReadAntenna		Cable	Preamp	Limit	Over	Remark
	Level	Factor	Loss	Factor			
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/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
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
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
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
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
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

Below 1GHz

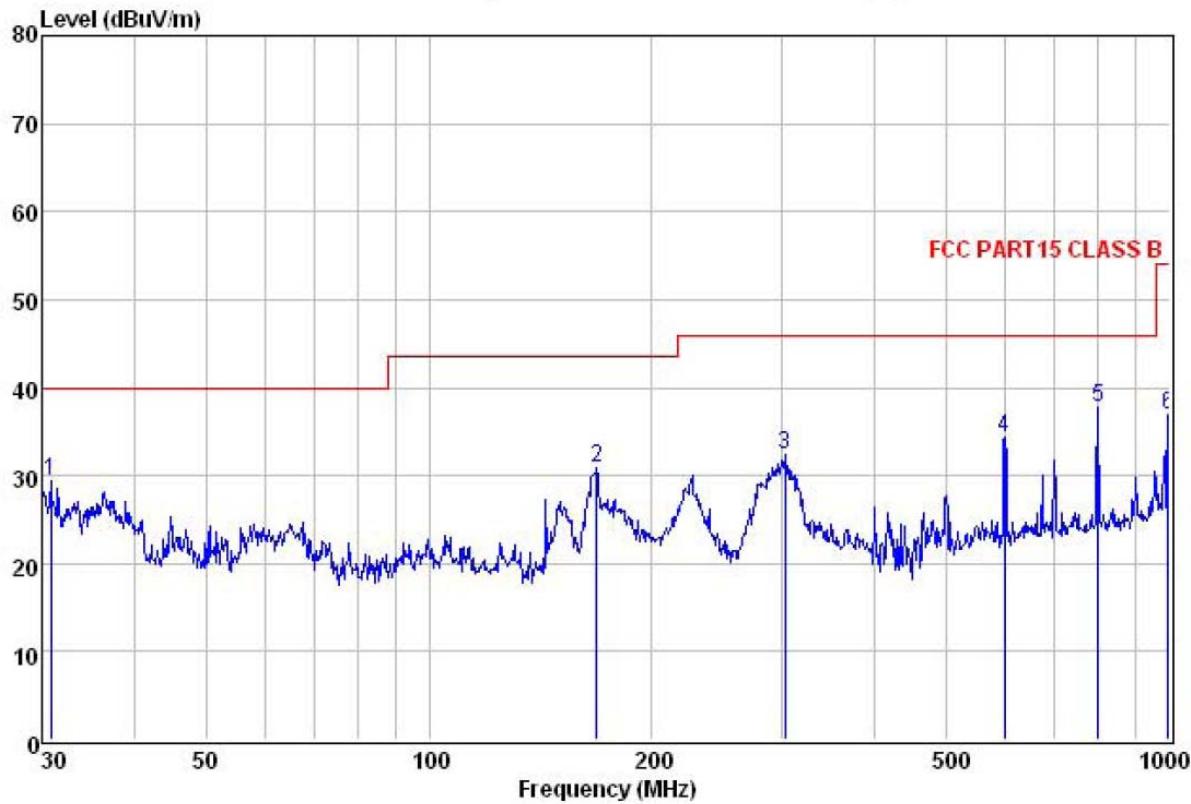
Horizontal:



Site : 3m chamber
 Condition : FCC PART15 CLASS B 3m VULB9163(2012.4.1) HORIZONTAL
 Job No. : 011RF
 EUT : Mobile phone
 Model : I8S
 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	Level			
MHz	dBm	dB/m	dB	dB	dBm/m	dBm/m	dB	
1	150.011	46.52	8.26	2.52	29.23	28.07	43.50	-15.43 QP
2	300.367	47.90	13.06	2.94	29.44	34.46	46.00	-11.54 QP
3	399.030	41.44	15.06	3.08	29.89	29.69	46.00	-16.31 QP
4	504.706	43.06	16.68	3.65	30.52	32.87	46.00	-13.13 QP
5	699.305	42.17	18.80	4.17	30.60	34.54	46.00	-11.46 QP
6	801.786	46.04	20.06	4.34	30.40	40.04	46.00	-5.96 QP

Vertical:



Site : 3m chamber
 Condition : FCC PART15 CLASS B 3m VULB9163(2012.4.1) VERTICAL
 Job No. : 011RF
 EUT : Mobile phone
 Model : I8S
 Test mode : Downloading mode
 Power Rating : AC 120W/60Hz
 Environment : Temp:25°C Huni:55% Atmos:101Kpa
 Test Engineer: Wimmer

Freq	ReadAntenna		Cable Preamp		Limit Level	Over Line	Over Limit	Remark
	MHz	dBm	dB/m	dB				
1	30.853	42.73	12.32	0.78	26.36	29.47	40.00	-10.53 QP
2	168.414	48.20	8.92	2.64	28.94	30.82	43.50	-12.68 QP
3	302.481	45.88	13.08	2.95	29.44	32.47	46.00	-13.53 QP
4	599.321	42.47	18.45	3.94	30.55	34.31	46.00	-11.69 QP
5	801.786	43.74	20.06	4.34	30.40	37.74	46.00	-8.26 QP
6	996.500	40.56	21.71	4.45	29.77	36.95	54.00	-17.05 QP