



TEST REPORT

Applicant: MAXCOM MOBILE

Address of Applicant: Room 2202 International Science and Technology Building, Futian District, 3007 Shennan Road, Shenzhen, China

Equipment Under Test (EUT)

Product Name: GSM Mobile Phone

Model No.: GOODS-5130S, GOOD-5130, 5130,5130S, COOL-5130, G5130, XTV-5130, LIKE-5130, SKIES-5130S

Trade mark : F.CELL, XTREME, MAXCOM, P.MOVIL, SKYNEW, PLAY, NEW, LIKE, HISKY

FCC ID: FWO5130S

Applicable standards: FCC CFR Title 47 Part 15 Subpart B

Date of sample receipt: Mar. 31, 2012

Date of Test: Apr. 05-25, 2012

Date of report issued: Apr. 25, 2012

Test Result : PASS *

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

Authorized Signature:

Stephen Guo
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. Any mention of CCIS International Electrical Approvals or testing done by CCIS International Electrical Approvals in connection with, distribution or use of the product described in this report must be approved by CCIS International Electrical Approvals in writing.

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2 Version

Version No.	Date	Description
00	Apr. 25, 2012	Original

Prepared By:

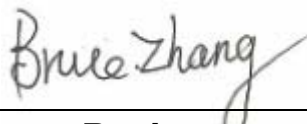


Project Engineer

Date:

Apr. 25, 2012

Check By:



Reviewer

Date:

Apr. 25, 2012

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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:	MAXCOM MOBILE
Address of Applicant:	Room 2202 International Science and Technology Building, Futian District, 3007 Shennan Road, Shenzhen, China
Manufacturer:	MAXCOM MOBILE
Address of Manufacturer	Room 2202 International Science and Technology Building, Futian District, 3007 Shennan Road, Shenzhen, China

5.2 General Description of E.U.T.

Product Name:	GSM Mobile Phone
Model No.:	GOODS-5130S,GOOD-5130,5130, 5130S, COOL-5130, G5130, XTV-5130, LIKE-5130, SKIES-5130S
Trade mark:	F.CELL, XTREME, MAXCOM, P.MOVIL, SKYNEW, PLAY, NEW, LIKE, HISKY
AC adapter:	Trade Mark: jmc Input:100-240V AC,50/60Hz 80mA Output:4.5V-9.5V DC MAX 500mA
Power supply:	Rechargeable Li-ion Battery DC3.7V
Remark:	Just test the mode No. GOODS-5130S GOODS-5130S, GOOD-5130, 5130, 5130S, COOL-5130, G5130, XTV-5130, LIKE-5130 and SKIES-5130S are identical in the same PCB layout, interior structure and electrical circuits. The only differences are the model name, Trade mark and the color of the appearance.

5.3 Test mode and voltage

Test mode:	
Exchange mode	Keep the EUT in exchanging data between the EUT and 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.: 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.

5.5 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

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

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 (dd-mm-yy)	Cal.Due date (dd-mm-yy)
1	3m Semi- Anechoic Chamber	SAEMC	9(L)*6(W)* 6(H)	CCIS0001	Aug. 09 2011	Aug. 09 2012
2	EMI Test Receiver	Rohde & Schwarz	ESCI	CCIS0002	June 16 2011	June 16 2012
3	BiConiLog Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB9163	CCIS0005	June 09 2011	June 09 2012
4	Double -ridged waveguide horn	SCHWARZBECK MESS-ELEKTRONIK	BBHA9120D	CCIS0006	June 09 2011	June 09 2012
5	EMI Test Software	AUDIX	E3	N/A	N/A	N/A
6	Coaxial Cable	CCIS	N/A	CCIS0016	Mar. 01 2012	Mar. 01 2013
7	Coaxial Cable	CCIS	N/A	CCIS0017	Mar. 01 2012	Mar. 01 2013
8	Coaxial cable	CCIS	N/A	CCIS0018	Mar. 01 2012	Mar. 01 2013
9	Coaxial Cable	CCIS	N/A	CCIS0019	Mar. 01 2012	Mar. 01 2013
10	Coaxial Cable	CCIS	N/A	CCIS0087	Mar. 01 2012	Mar. 01 2013
11	Amplifier(10KHz-1.3GHz)	HP	8447D	CCIS0003	Aug. 03 2011	Aug. 03 2012
12	Amplifier(1GHz-18GHz)	Compliance Direction Systems Inc.	PAP-1G18	CCIS0011	Aug. 05 2011	Aug. 05 2012
13	Spectrum analyzer	Rohde & Schwarz	FSP	CCIS0023	June 22 2011	June 22 2012
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	Oct. 10 2011	Oct. 10 2012
2	EMI Test Receiver	Rohde & Schwarz	ESPI	CCIS0022	Mar. 16 2012	Mar. 16 2013
4	LISN	CHASE	MN2050D	CCIS0074	Apr. 14 2012	Apr. 14 2013
5	Coaxial Cable	CCIS	N/A	CCIS0086	Mar. 01 2012	Mar. 01 2013

7 Test results and Measurement Data

7.1 Conducted Emissions

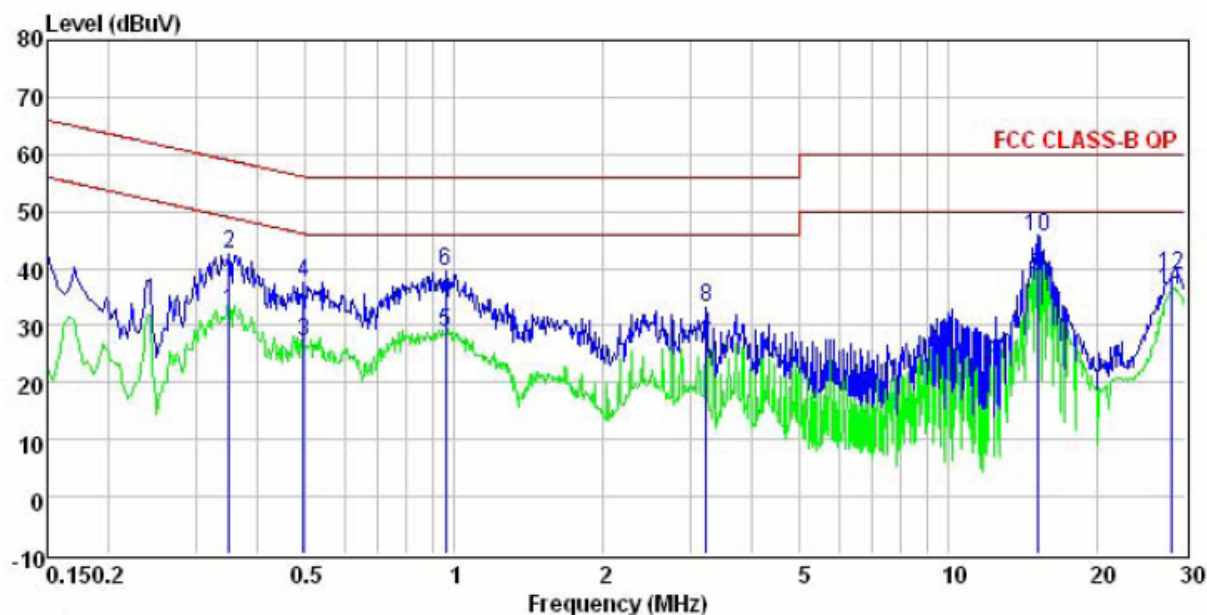
Test Requirement:	FCC Part15 B Section 15.107																		
Test Method:	ANSI C63.4:2003																		
Test Frequency Range:	150kHz to 30MHz																		
Class / Severity:	Class B																		
Receiver setup:	RBW=9kHz, VBW=30kHz																		
Limit:	<table><tr><th rowspan="2">Frequency 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 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: 2003 on conducted measurement.																		
Test setup:	<div><p style="text-align: center;">Reference Plane</p><p style="text-align: center;">Test table/Insulation plane</p><p><i>Remark: E.U.T: Equipment Under Test LISN: Line Impedance Stabilization Network Test table height=0.8m</i></p></div>																		
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:	Pass																		

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.

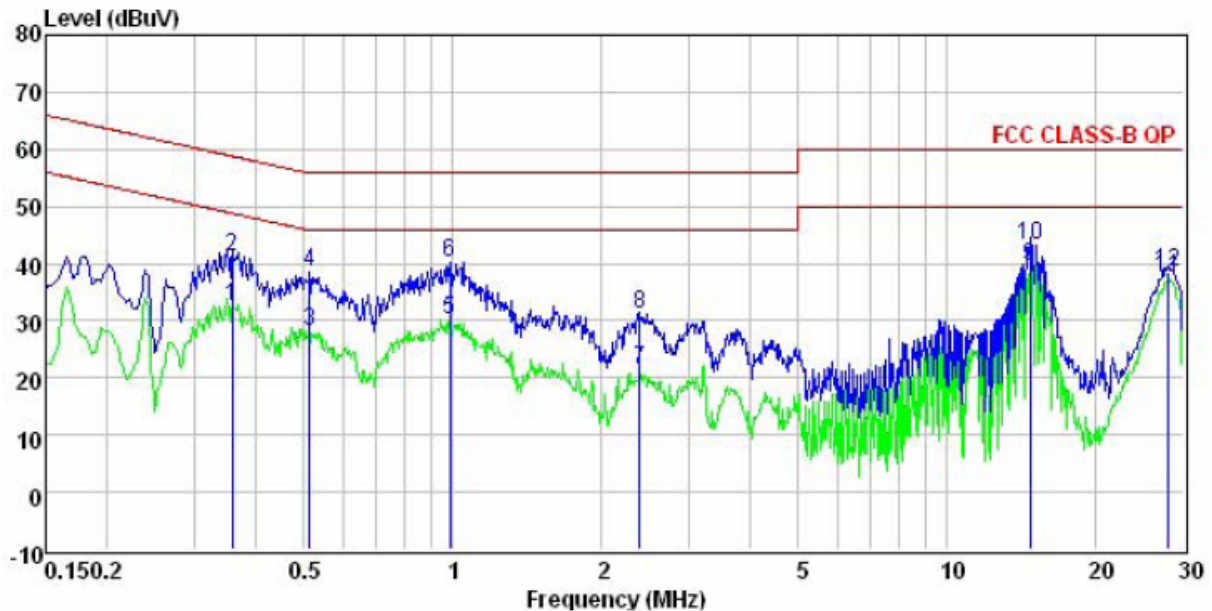
Line:



Read LISN Cable Limit Over
Freq Level Factor Loss Level Line Limit Remark

	MHz	dBuV	dB	dB	dBuV	dBuV	dB	
1	0.35	21.58	10.27	0.73	32.58	48.96	-16.38	Average
2	0.35	31.61	10.27	0.73	42.61	58.96	-16.35	QP
3	0.49	16.23	10.27	0.76	27.26	46.10	-18.84	Average
4	0.49	26.59	10.27	0.76	37.62	56.10	-18.48	QP
5	0.96	17.88	10.21	0.86	28.95	46.00	-17.05	Average
6	0.96	28.43	10.21	0.86	39.50	56.00	-16.50	QP
7	3.22	15.23	10.29	0.91	26.43	46.00	-19.57	Average
8	3.22	21.94	10.29	0.91	33.14	56.00	-22.86	QP
9	15.07	27.50	10.23	0.90	38.63	50.00	-11.37	Average
10	15.07	34.25	10.23	0.90	45.38	60.00	-14.62	QP
11	28.30	24.39	10.78	0.87	36.04	50.00	-13.96	Average
12	28.30	27.16	10.78	0.87	38.81	60.00	-21.19	QP

Neutral:



Read LSN Cable Limit Over
Freq Level Factor Loss Level Line Limit Remark

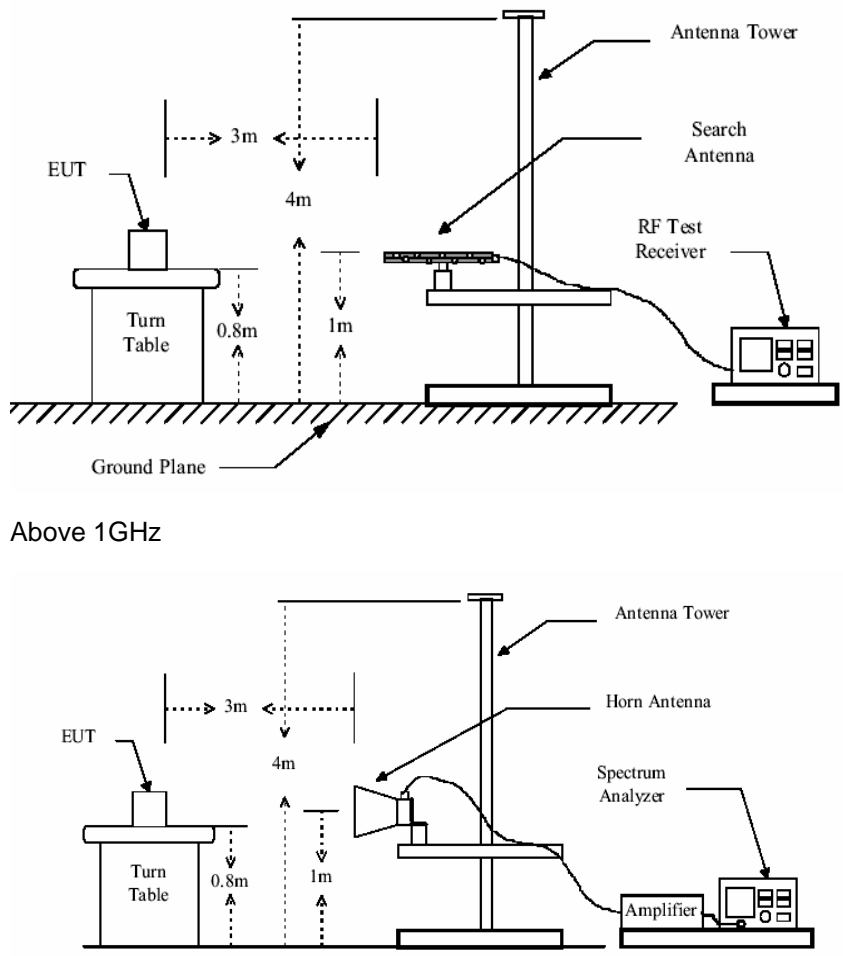
	MHz	dBuV	dB	dB	dBuV	dBuV	dB	
1	0.36	21.44	10.25	0.73	32.42	48.78	-16.36	Average
2	0.36	30.26	10.25	0.73	41.24	58.78	-17.54	QP
3	0.51	16.95	10.27	0.76	27.98	46.00	-18.02	Average
4	0.51	27.41	10.27	0.76	38.44	56.00	-17.56	QP
5	0.98	18.97	10.20	0.87	30.04	46.00	-15.96	Average
6	0.98	29.09	10.20	0.87	40.16	56.00	-15.84	QP
7	2.38	10.27	10.27	0.94	21.48	46.00	-24.52	Average
8	2.38	19.86	10.27	0.94	31.07	56.00	-24.93	QP
9	14.67	28.34	10.23	0.90	39.47	50.00	-10.53	Average
10	14.67	32.02	10.23	0.90	43.15	60.00	-16.85	QP
11	27.86	25.90	10.74	0.87	37.51	50.00	-12.49	Average
12	27.86	26.85	10.74	0.87	38.46	60.00	-21.54	QP

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

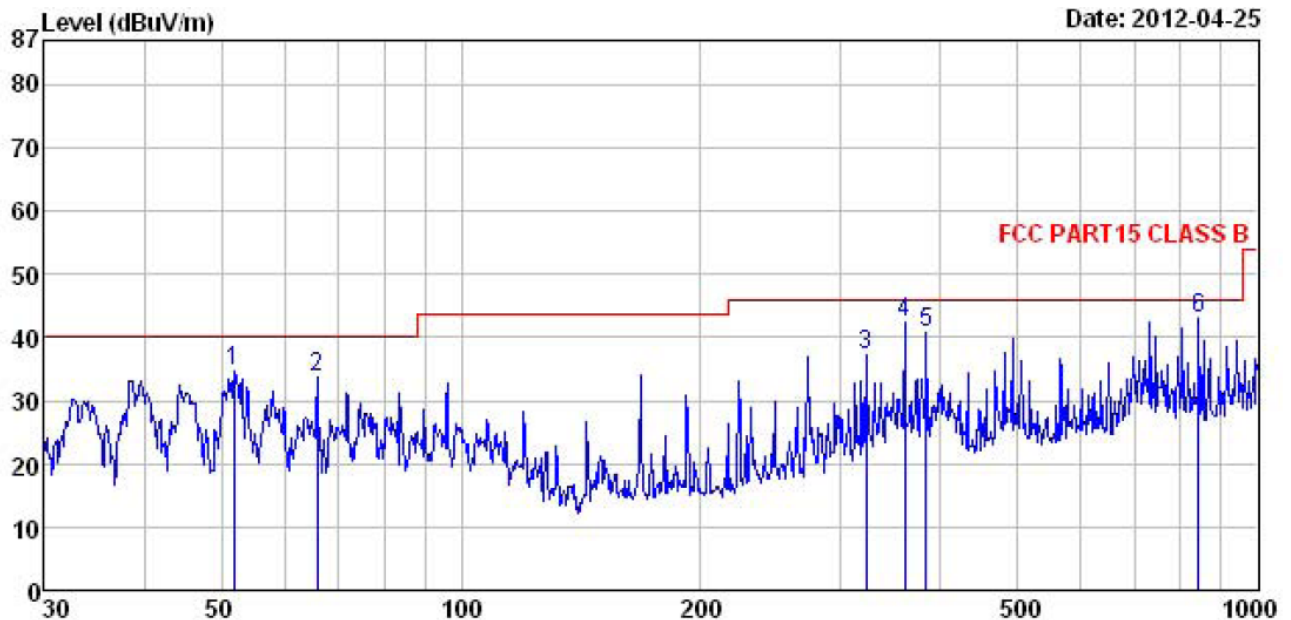
Test Requirement:	FCC Part15 B Section 15.109																								
Test Method:	ANSI C63.4:2003																								
Test Frequency Range:	30MHz to 6000MHz																								
Test site:	Measurement Distance: 3m (Semi-Anechoic Chamber)																								
Receiver setup:	<table><tr><td>Frequency</td><td>Detector</td><td>RBW</td><td>VBW</td><td>Remark</td></tr><tr><td>30MHz-1GHz</td><td>Quasi-peak</td><td>100KHz</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></table>					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	
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:	<table><tr><td>Frequency</td><td>Limit (dBuV/m @3m)</td><td>Remark</td></tr><tr><td>30MHz-88MHz</td><td>40.0</td><td>Quasi-peak Value</td></tr><tr><td>88MHz-216MHz</td><td>43.5</td><td>Quasi-peak Value</td></tr><tr><td>216MHz-960MHz</td><td>46.0</td><td>Quasi-peak Value</td></tr><tr><td>960MHz-1GHz</td><td>54.0</td><td>Quasi-peak Value</td></tr><tr><td rowspan="2">Above 1GHz</td><td>54.0</td><td>Average Value</td></tr><tr><td>74.0</td><td>Peak Value</td></tr></table>					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
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 Procedure:	<p>a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic camber. The table was rotated 360 degrees to determine the position of the highest radiation.</p> <p>b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.</p> <p>c. 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.</p> <p>d. 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.</p> <p>e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.</p> <p>f. 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.</p>																								
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

Measurement Data

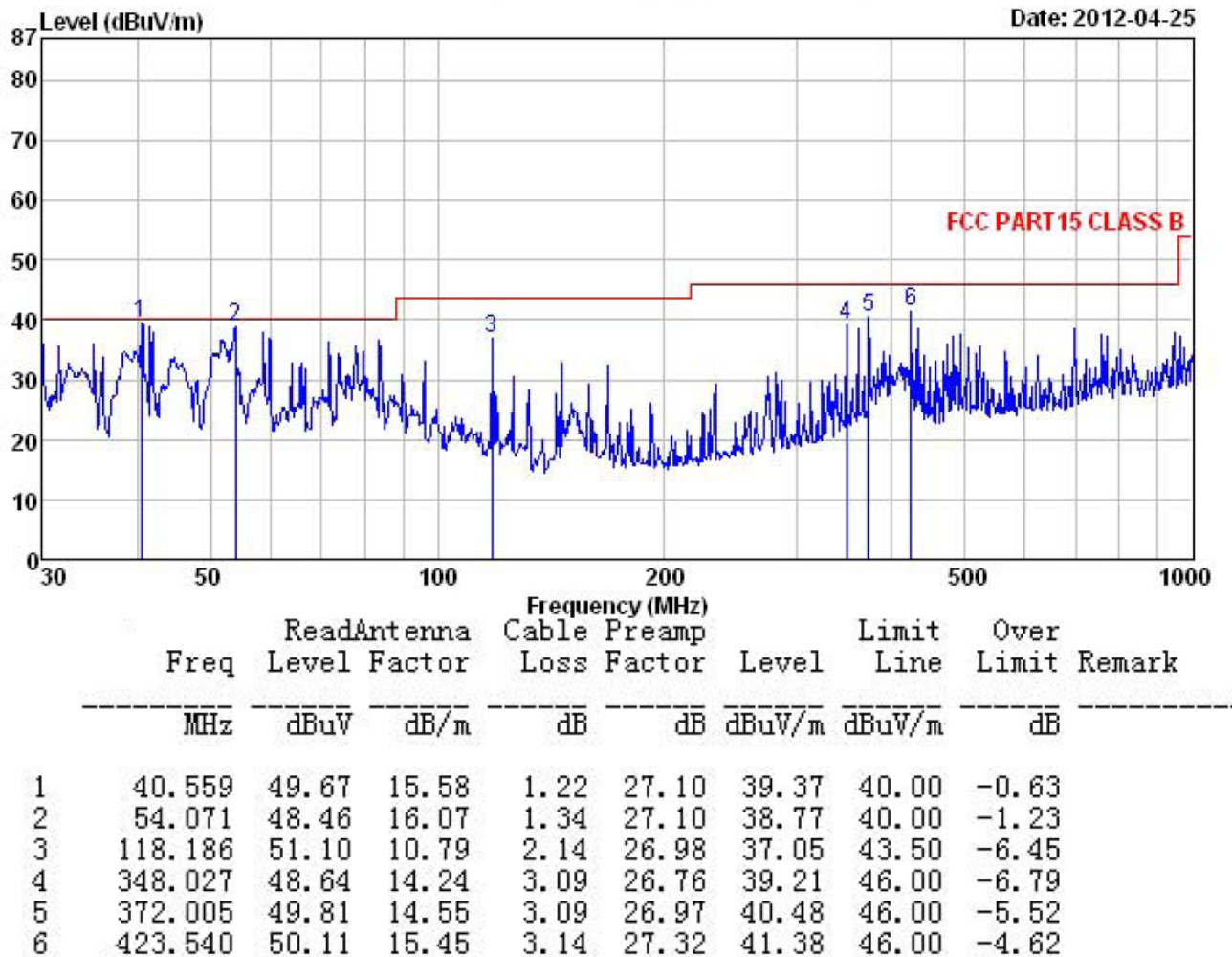
Below 1G

Horizontal:



	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	51.843	44.40	16.17	1.27	27.10	34.74	40.00	-5.26	
2	66.034	45.89	13.29	1.41	27.04	33.55	40.00	-6.45	
3	322.189	47.10	13.54	3.01	26.52	37.13	46.00	-8.87	
4	360.448	51.83	14.41	3.10	26.87	42.47	46.00	-3.53	
5	383.932	49.99	14.68	3.09	27.07	40.69	46.00	-5.31	
6	842.130	45.90	20.51	4.22	27.46	43.17	46.00	-2.83	

Vertical:



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

Above 1G

Peak Value :

Frequency (MHz)	Reading level (dBm)	Antenna factor (dB /m)	Cable loss (dB)	Preamp factor (dB)	Level (dBuV/m)	Limit line (dBuV/m)	Over limit dB	Polarization
1112.25	44.25	23.05	3.82	24.38	46.74	74.00	-27.26	Vertical
1358.66	46.38	25.76	3.85	24.62	51.37	74.00	-22.63	Vertical
2252.48	45.12	30.04	3.96	25.12	54.00	74.00	-20.00	Horizontal
3589.66	43.38	32.35	4.52	25.09	55.16	74.00	-18.84	Horizontal

Average Value:

Frequency (MHz)	Reading level (dBm)	Antenna factor dB /m	Cable loss dB	Preamp factor dB	Level dBuV/m	Limit line (dBuV/m)	Over limit dB	Polarization
1112.25	36.38	23.05	3.82	24.38	38.87	54.00	-15.13	Vertical
1358.66	38.42	25.76	3.85	24.62	43.41	54.00	-10.59	Vertical
2252.48	37.18	30.04	3.96	25.12	46.06	54.00	-7.94	Horizontal
3589.66	32.95	32.35	4.52	25.09	44.73	54.00	-9.27	Horizontal