

FCC REPORT

Applicant: COBY COMMUNICATIONS LTD.

Address of Applicant: Unit C-E, 8/F , PO Shau Centre, 115 How Ming Street, Kowloon, Hong Kong

Equipment Under Test (EUT)

Product Name: NETBOOK

Model No.: NBPC1165

FCC ID: S7INBPC1165-1025B

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

Date of sample receipt: 19 Jun., 2012

Date of Test: 20 Jun., to 20 Aug., 2012

Date of report issued: 23 Aug., 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	23 Aug., 2012	Original

Prepared By:

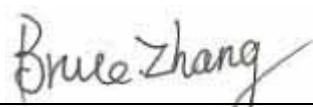


Date:

23 Aug., 2012

Project Engineer

Check By:



Date:

23 Aug., 2012

Reviewer

3 Contents

	Page
1 COVER PAGE	1
2 VERSION	2
3 CONTENTS	3
4 TEST SUMMARY	4
5 GENERAL INFORMATION	5
5.1 CLIENT INFORMATION	5
5.2 GENERAL DESCRIPTION OF E.U.T.	5
5.3 OPERATING MODES	5
5.4 DESCRIPTION OF SUPPORT UNITS	6
5.5 DEVIATION FROM STANDARDS.....	6
5.6 ABNORMALITIES FROM STANDARD CONDITIONS.....	6
5.7 OTHER INFORMATION REQUESTED BY THE CUSTOMER	6
5.8 TEST FACILITY.....	6
5.9 TEST LOCATION	6
6 TEST INSTRUMENTS LIST	7
7 TEST RESULTS AND MEASUREMENT DATA.....	8
7.1 CONDUCTED EMISSIONS.....	8
7.2 RADIATED EMISSION	11
8 TEST SETUP PHOTO	16
9 EUT CONSTRUCTIONAL DETAILS	17

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:	COBY COMMUNICATIONS LTD.
Address of Applicant:	Unit C-E, 8/F , PO Shau Centre, 115 How Ming Street, Kowloon, Hong Kong
Manufacturer/ Factory:	SHENZHEN COBY COMMUNICATIONS CO., LTD
Address of Manufacturer/ Factory:	Block 2-3, 2nd Industrial Zone, Taoxia Residents' Committee, DaLang Sub-district, Bao An District, Shenzhen city, China

5.2 General Description of E.U.T.

Product Name:	NETBOOK
Model No.:	NBPC1165
AC adapter 1:	Model: PS36IBFAK2400U Input: AC100-240V~50/60Hz 1.0A Output: DC15.0V/2400mA
AC adapter 2:	Model: PS36IBFAY2400S Input: AC100-240V~50/60Hz 1.0A Output: DC15.0V/2400mA

5.3 Operating Modes

Operating mode	Detail description
HDMI output mode	Keep the EUT in HDMI output mode
Downloading with SD and USB mode	Keep the EUT in exchange data with PC by USB and SD port.
Ping mode :	Keep the EUT in Ping mode.
VGA Output Mode :	Keep the EUT in VGA Output mode.
Remark:	Based on pre-scan, the Downloading with SD and USB mode with adapter 1 was the worst case, so all test items were performed under this mode.

5.4 Description of Support Units

Manufacturer	Description	Model	Serial Number	FCC ID/DoC
HP	MONITOR	CompaqLE1851WL	515682-070	DoC
PNY	Udisk	HOOK	N/A	DoC
Kinston	SD Card	N/A	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 09 2013
2	Control Room	ZhongYu Electron	6.2(L)*2.5(W)* 2.4(H)	GTS202	N/A	N/A
3	BiConiLog Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB9163	CCIS0005	June 04 2012	June 04 2013
4	Double -ridged waveguide horn	SCHWARZBECK MESS-ELEKTRONIK	BBHA9120D	CCIS0006	May 30 2012	May 30 2013
5	EMI Test Software	AUDIX	E3	N/A	N/A	N/A
6	Coaxial Cable	CCIS	N/A	CCIS0016	Apr. 01 2012	Apr. 01 2013
7	Coaxial Cable	CCIS	N/A	CCIS0017	Apr. 01 2012	Apr. 01 2013
8	Coaxial cable	CCIS	N/A	CCIS0018	Apr. 01 2012	Apr. 01 2013
9	Coaxial Cable	CCIS	N/A	CCIS0019	Apr. 01 2012	Apr. 01 2013
10	Coaxial Cable	CCIS	N/A	CCIS0087	Apr. 01 2012	Apr. 01 2013
11	Amplifier(10KHz- 1.3GHz)	HP	8447D	CCIS0003	Apr. 01 2012	Apr. 01 2013
12	Amplifier(1GHz- 18GHz)	Compliance Direction Systems Inc.	PAP-1G18	CCIS0011	June 09 2012	June 09 2013
13	Printer	Hp	HP LaserJet P1007	N/A	N/A	N/A
14	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 09 2013
2	EMI Test Receiver	Rohde & Schwarz	ESPI	CCIS0022	Apr 01 2012	Apr 01 2013
3	LISN	CHASE	MN2050D	CCIS0074	Apr 01 2012	Apr 01 2013
4	Coaxial Cable	CCIS	N/A	CCIS0086	Apr. 01 2012	Apr. 01 2013
5	Shielding Room	ZhongShuo Electron	11.0(L)x4.0(W)x3.0(H)	CCIS0061	June 09 2012	June 09 2013
6	EMI Test Software	AUDIX	E3	N/A	N/A	N/A

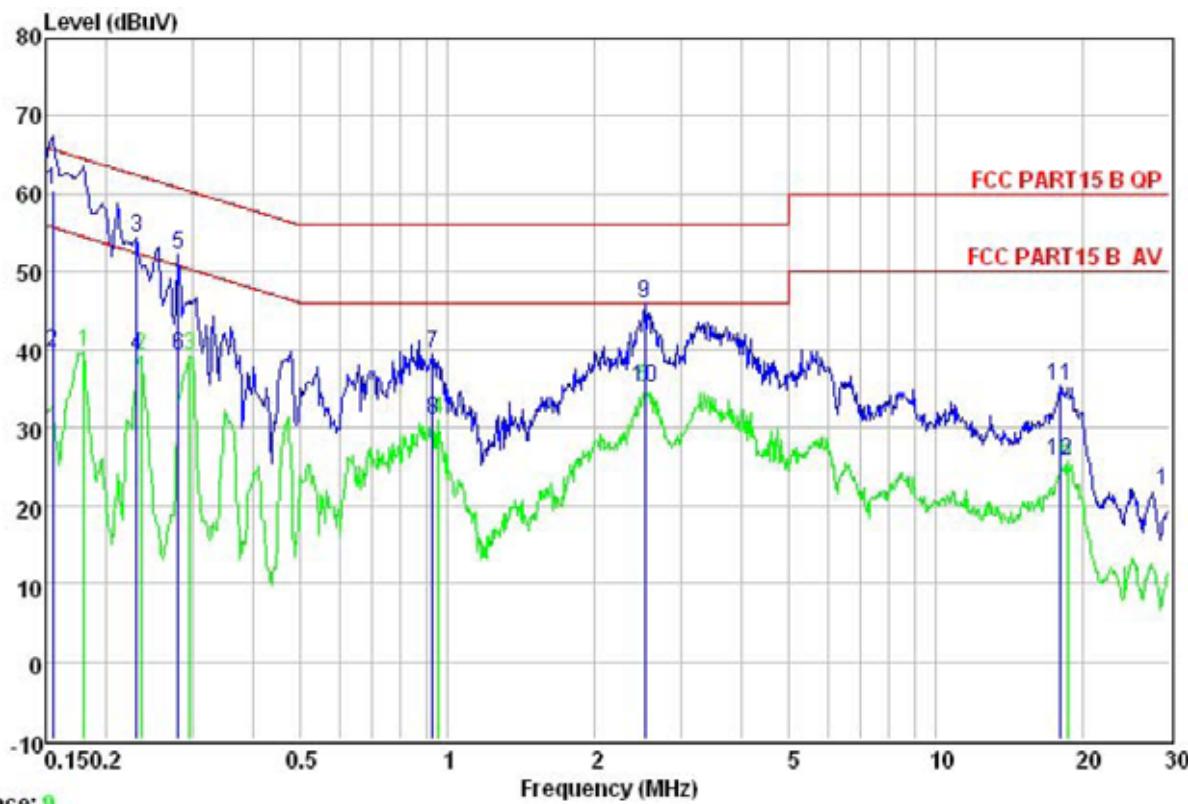
7 Test results and Measurement Data

7.1 Conducted Emissions

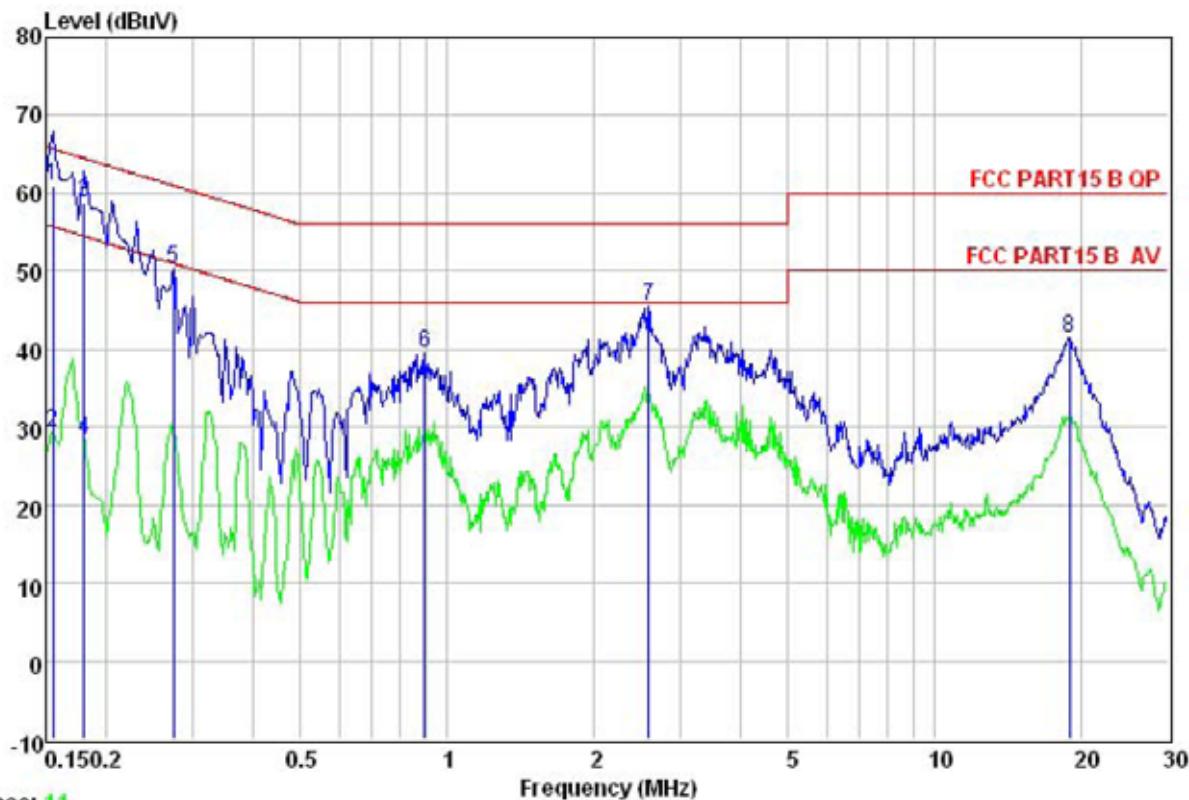
Test Requirement:	FCC Part15 B Section 15.107																
Test Method:	ANSI C63.4:2003																
Test Frequency Range:	150kHz to 30MHz																
Class / Severity:	Class B																
Receiver setup:	RBW=9kHz, VBW=30kHz																
Limit:	<table border="1"> <thead> <tr> <th rowspan="2">Frequency 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 style="text-align: center;">Reference Plane</p> <p style="text-align: center;"><i>Remark: E.U.T: Equipment Under Test LISN: Line Impedance Stabilization Network Test table height=0.8m</i></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.:	25 °C	Humid.:	52%	Press.:	1 012mbar											
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:



Neutral:



Site : CCIS Conducted Test Site
 Condition : FCC PART15 B QP LISN NEUTRAL

Job NO. : 093RF
 Test Mode : downloading with SD and USB mode
 Test engineer: Joe

Freq	Read	LISN	Cable	Limit	Over	Remark
	MHz	Level	Factor	Loss	Level	
1	0.155	49.84	10.27	0.79	60.90	65.74 -4.84 QP
2	0.155	18.33	10.27	0.79	29.39	55.74 -26.35 Average
3	0.180	47.78	10.24	0.77	58.79	64.50 -5.71 QP
4	0.180	17.34	10.24	0.77	28.35	54.50 -26.15 Average
5	0.274	39.42	10.24	0.74	50.40	60.98 -10.58 Peak
6	0.899	28.40	10.19	0.85	39.44	56.00 -16.56 Peak
7	2.581	34.27	10.27	0.94	45.48	56.00 -10.52 Peak
8	18.820	30.23	10.32	0.93	41.48	60.00 -18.52 Peak

Notes:

1. The following Quasi-Peak and Average measurements were performed on the EUT
2. Final Test Level =Receiver Reading + LISN Factor + Cable Loss.

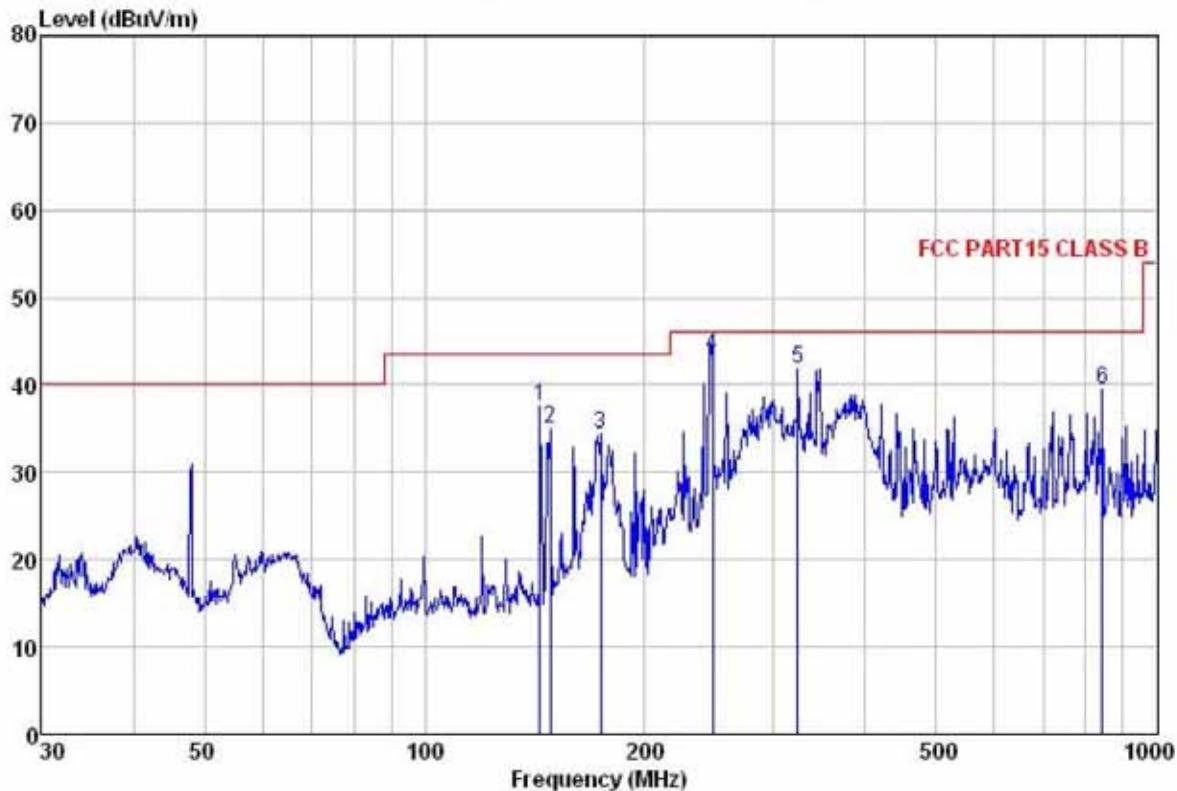
7.2 Radiated Emission

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.: 52% Press.: 1 012mbar
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

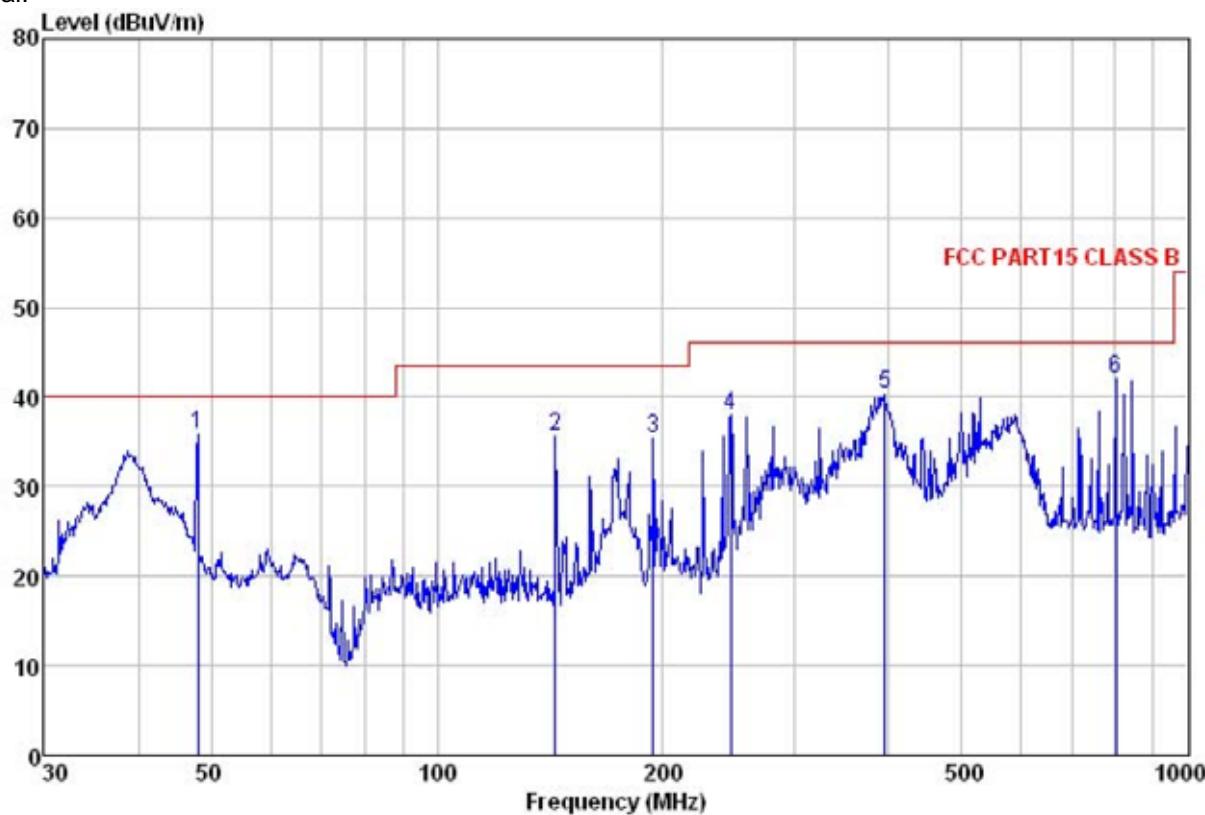
Horizontal:



Site : 3m chamber
Condition : FCC PART15 CLASS B 3m VULB9163(2012.4.1) HORIZONTAL
Test mode : downloading with USB and SD
Test Engineer: Joe

Freq	Read	Antenna	Cable	Preamp	Limit	Over	Limit	Remark
	MHz	dBuV	dB/m	dB				
1	143.830	56.13	8.22	2.44	29.32	37.47	43.50	-6.03 QP
2	148.441	53.45	8.25	2.50	29.25	34.95	43.50	-8.55 QP
3	173.814	50.22	9.23	2.68	27.87	34.26	43.50	-9.24 QP
4	247.682	58.10	12.07	2.81	29.61	43.37	46.00	-2.63 QP
5	323.320	54.79	13.46	3.02	29.55	41.72	46.00	-4.28 QP
6	842.130	44.98	20.51	4.22	30.29	39.42	46.00	-6.58 QP

Vertical:



Site : 3m chamber
 Condition : FCC PART15 CLASS B 3m VULB9163(2012.4.1) VERTICAL
 Test mode : downloading with USB and SD
 Test Engineer: Joe

Freq	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Line	Over Limit	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	dB	
1	47.994	49.33	13.36	1.27	28.10	35.86	40.00	-4.14	QP
2	143.830	54.32	8.22	2.44	29.32	35.66	43.50	-7.84	QP
3	193.773	51.89	10.56	2.82	29.82	35.45	43.50	-8.05	QP
4	245.951	52.66	12.08	2.81	29.62	37.93	46.00	-8.07	QP
5	394.855	52.20	14.97	3.08	29.87	40.38	46.00	-5.62	QP
6	801.786	48.07	20.06	4.34	30.40	42.07	46.00	-3.93	QP

Above 1GHz

Peak measurement

Frequency (MHz)	Read Level (dB μ V)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dB μ V/m)	Limit Line (dB μ V/m)	Over Limit (dB)	polarization
1305.00	45.23	25.58	2.75	34.58	38.98	74.00	-35.02	Vertical
2190.00	43.55	27.95	3.66	34.77	40.39	74.00	-33.61	Vertical
3055.00	44.88	28.65	4.42	35.02	42.93	74.00	-31.07	Vertical
4010.00	44.35	29.86	5.29	35.30	44.20	74.00	-29.8	Vertical
4880.00	44.92	31.58	5.91	35.48	46.93	74.00	-27.07	Vertical
1525.00	43.61	25.17	3.02	34.62	37.18	74.00	-36.82	Horizontal
2465.00	43.80	27.49	3.87	34.85	40.31	74.00	-33.69	Horizontal
3095.00	44.59	28.70	4.47	35.03	42.73	74.00	-31.27	Horizontal
3790.00	44.40	29.52	5.12	35.24	43.80	74.00	-30.20	Horizontal
4660.00	45.10	31.17	5.77	35.44	46.60	74.00	-27.4	Horizontal

Average measurement

Frequency (MHz)	Read Level (dB μ V)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dB μ V/m)	Limit Line (dB μ V/m)	Over Limit (dB)	polarization
1305.00	36.39	25.58	2.75	34.58	30.14	54.00	-23.86	Vertical
2190.00	34.67	27.95	3.66	34.77	31.51	54.00	-22.49	Vertical
3055.00	35.67	28.65	4.42	35.02	33.72	54.00	-20.28	Vertical
4010.00	36.13	29.86	5.29	35.30	35.98	54.00	-18.02	Vertical
4880.00	35.68	31.58	5.91	35.48	37.69	54.00	-16.31	Vertical
1525.00	34.67	25.17	3.02	34.62	28.24	54.00	-25.76	Horizontal
2465.00	34.67	27.49	3.87	34.85	31.18	54.00	-22.82	Horizontal
3095.00	35.66	28.70	4.47	35.03	33.80	54.00	-20.2	Horizontal
3790.00	35.67	29.52	5.12	35.24	35.07	54.00	-18.93	Horizontal
4660.00	36.97	31.17	5.77	35.44	38.47	54.00	-15.53	Horizontal

Remark:

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