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Report No.: GLEMR070200418RF-2
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Test Report

Application No.: GLEMR070200418RF
Applicant: Phoenix International Co., Ltd
Equipment Under Test (EUT):
EUT Name: Bluetooth USB Dongle
Item No.: BUD-100,PNX-BTA-6090,H49225,SKM-BD100,PTM-UBT3♣
Serial No.: Not supplied by client
Standards: FCC PART 15 SUBPART B: 2006.
Date of Receipt: 14 February 2007
Date of Test: 14 February to 25 June 2007
Date of Issue: 07 July 2007

Test Result :	PASS*
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* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:

Stephen Guo
Manager

This report refers to the General Conditions for Inspection and Testing Services, printed overleaf
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. 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 SGS International Electrical Approvals or testing done by SGS International Electrical Approvals in connection with, distribution or use of the product described in this report must be approved by SGS International Electrical Approvals in writing.
The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government.
All test results in this report can be traceable to National or International Standards.



2 Test Summary

The customer requested FCC tests for a usb dongle with bluetooth function.

Test	Test Requirement	Test Method	Class / Severity	Result
Radiated Emission (30MHz to 1GHz)	FCC PART 15, SUBPART B: 2006 15.109	ANSI C63.4:2003	Class B	PASS
Conducted Emission (150KHz to 30MHz)	FCC PART 15, SUBPART B: 2006 15.107	ANSI C63.4:2003	Class B	PASS

Remark: ♣

Model: BUD-100,PNX-BTA-6090,H49225,SKM-BD100,PTM-UBT3

For only one model was tested, according to the confirmation from the applicant.

Since the applicant declared electrical circuit design, layout, components used and internal wiring were identical for the above items, with only difference being the model no.



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4 General Information

4.1 Client Information

Applicant: Phoenix International Co., Ltd
Address of Applicant: 11F, No.42-1, Sec.1, Zhong-Yang N. Rd. Peitou, Taipei 112, Taiwan, R.O.C.

4.2 General Description of E.U.T.

EUT Name: Bluetooth USB Dongle
Item No.: BUD-100, PNX-BTA-6090, H49225, SKM-BD100, PTM-UBT3
Serial No.: Not supplied by client

4.3 Details of E.U.T.

Power Supply: Supplied by PC usb socket

4.4 Description of Support Units

The EUT has been tested with a personal computer system for on mode.

Description	Manufacturer	Model No.	Common
Personal Computer	IBM	P7314A	EMC0035
15" Monitor	DELL	E551C	LO206HIOIA1
Mouse	IBM	MU29J	
Keyboard	IBM	SK-8820	
ROM Programmer	DASI Electronics	EMP-100A	
Printer	Hewlett-Packard	C5884A	DeskJet 670C
NoteBook	IBM	T40	EMC0034
NoteBook	IBM	X22	

4.5 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd., Guangzhou EMC Laboratory, No.198 Kezhu Road, Science Town Economic & Technology Development District Guangzhou, China 510663

Tel: +86 20 82155555 Fax: +86 20 82075059

No tests were sub-contracted.

4.6 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

- **NVLAP – Lab Code: 200611-0**
SGS-CSTC Standards Technical Services Co., Ltd., Guangzhou EMC Laboratory is recognized under the National Voluntary Laboratory Accreditation Program (NVLAP/NIST). NVLAP Code: 200611-0.
- **ACA**
SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory can also perform testing for the Australian C-Tick mark as a result of our NVLAP accreditation.
- **SGS UK(Certificate No.: 32), SGS-TUV SAARLAND and SGS-FIMKO**
Have approved SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory as a supplier of EMC TESTING SERVICES and SAFETY TESTING SERVICES.
- **CNAS L0167**
SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory has been assessed and in compliance with CNAS-CL01:2006 accreditation criteria for testing laboratories (identical to ISO/IEC 17025:2005 General Requirements) for the Competence of Testing Laboratories.
- **FCC – Registration No.: 282399**
SGS-CSTC Standards Technical Services Co., Ltd., 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 282399, May 31, 2002. With the above and NVLAP's accreditation, SGS-CSTC is an authorized test laboratory for the DoC process.
- **Industry Canada (IC)**
The 3m/10m Alternate Semi-anechoic chamber of SGS-CSTC Standards Technical Services Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 4620B-1.
Date of Registration: Jan 15, 2007. Valid until Jan 15, 2009
- **VCCI**
The 10m Semi-anechoic chamber and Shielded Room of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-2460 and C-2584 respectively.
This certificate is valid until September 14.2009

4.7 Deviation from Standards

None.

4.8 Abnormalities from Standard Conditions

None.



5 Equipments Used during Test

Conducted Emission						
No:	Test Equipment	Manufacturer	Model No.	Serial No.	Cal. Date (dd-mm-yy)	Cal.Due date (dd-mm-yy)
EMC0306	Shielding Room	Zhong Yu	8 x 3 x 3.8 m ³	N/A	N/A	N/A
EMC0102	LISN	Schaffner Chase	MNZ050D/1	1421	05-12-2006	05-12-2007
EMC0506	EMI Test Receiver	Rohde & Schwarz	ESCS30	100085	05-12-2006	05-12-2007
EMC0107	Coaxial Cable	SGS	2m	N/A	25-11-2006	25-11-2007
EMC0106	Voltage Probe	SGS	N/A	N/A	N/A	N/A

RE in Chamber/OATS						
No:	Test Equipment	Manufacturer	Model No.	Serial No.	Cal. Date (dd-mm-yy)	Cal.Due date (dd-mm-yy)
EMC0525	Compact Semi-Anechoic Chamber	ChangZhou ZhongYu	N/A	N/A	06-03-2007	06-03-2008
EMC0522	EMI Test Receiver	Rohde & Schwarz	ESIB26	100249	05-12-2006	05-12-2007
N/A	EMI Test Software	Audix	E3	N/A	N/A	N/A
EMC0514	Coaxial cable	SGS	N/A	N/A	04-12-2006	04-12-2007
EMC0524	Bi-log Type Antenna	Schaffner -Chase	CBL6112B	2966	31-10-2006	31-10-2007
EMC0519	Bilog Type Antenna	Schaffner -Chase	CBL6143	5070	31-07-2006	31-07-2007
EMC0517	Horn Antenna	Rohde & Schwarz	HF906	100095	29-07-2006	29-07-2007
EMC0040	Spectrum Analyzer	Rohde & Schwarz	FSP30	100324	05-12-2006	05-12-2007
EMC0520	0.1-1300 MHz Pre-Amplifier	HP	8447D OPT 010	2944A06252	28-03-2007	28-03-2008
EMC0521	1-26.5 GHz Pre-Amplifier	Agilent	8449B	3008A01649	28-03-2007	28-03-2008
EMC0523	Active Loop Antenna	EMCO	6502	00042963	09-08-2006	09-08-2008
EMC0530	10m Semi- Anechoic Chamber	ETS	N/A	N/A	22-08-2006	22-08-2007

General used equipment						
No:	Test Equipment	Manufacturer	Model No.	Serial No.	Cal. Date (dd-mm-yy)	Cal.Due date (dd-mm-yy)
EMC0050- EMC0053	Temperature, & Humidity	ZHENGZHOU BO YANG	WSB	N/A	05-12-2006	05-12-2007
EMC0054	Temperature, & Humidity	Shenzhen Tai Kong	THG-1	N/A	04-01-2007	04-01-2008
EMC0006	DMM	Fluke	73	70681569	27-09-2006	27-09-2007
EMC0007	DMM	Fluke	73	70671122	27-09-2006	27-09-2007

6 Test Results

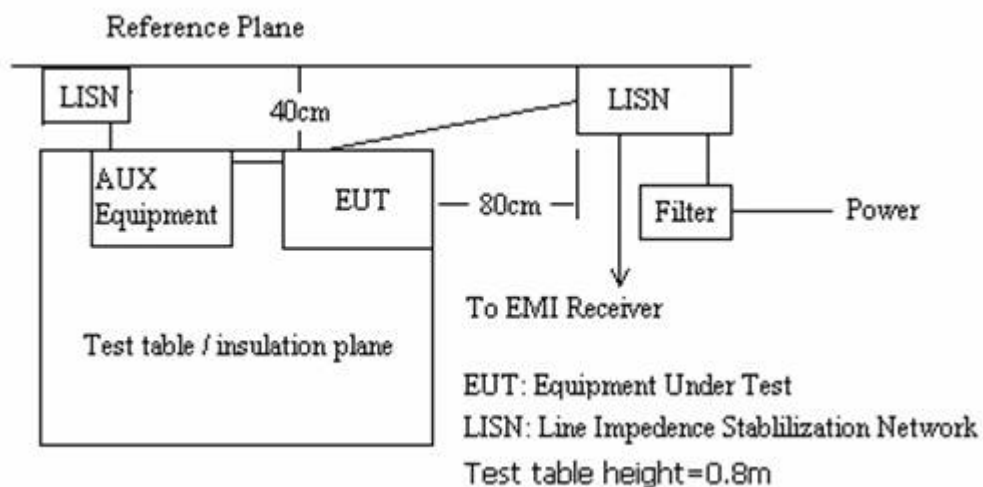
6.1 Conducted Emissions Mains Terminals, 150kHz to 30MHz

Test Requirement: FCC Part15 B 15.107
Test Method: ANSI C63.4
Test Date: 25 June 2007
Frequency Range: 150KHz to 30MHz
Class / Severity: Class B
Detector: Peak for pre-scan (9kHz Resolution Bandwidth)
Quasi-Peak if maximised peak within 6dB of Quasi-Peak limit

6.1.1 E.U.T. Operation

Operating Environment:
Temperature: 24.0 °C Humidity: 52 % RH Atmospheric Pressure: 1012 mbar
EUT Operation: Test in on mode connected with PC system.

6.1.2 Plan View of Test Setup



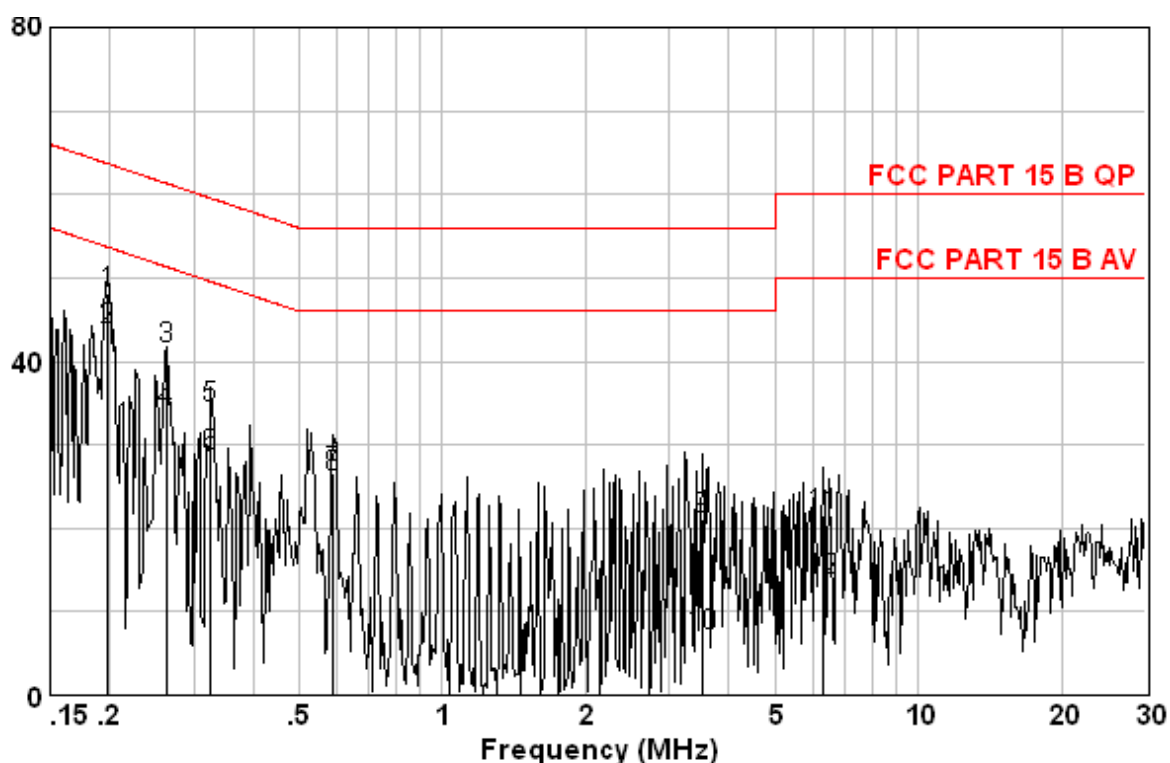
6.1.3 Measurement Data

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

Live Line:

Peak Scan:

Level (dBμV)



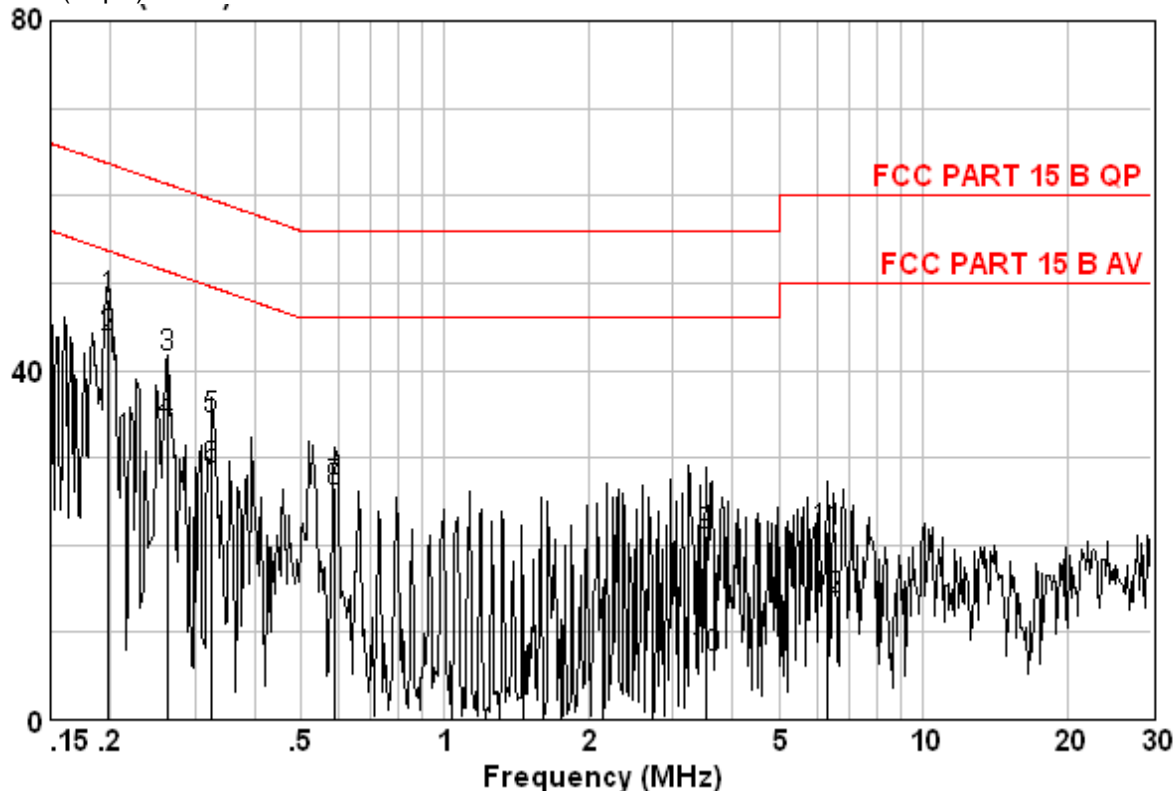
Quasi-peak and Average measurement:

Freq	Read Level	Cable Loss	LISN Factor	Level	Limit Line	Over Limit	Remark
MHz	dBμV	dB	dB	dBμV	dBμV	dB	
0.198	48.24	0.00	0.00	48.24	63.71	-15.47	QP
0.198	43.88	0.00	0.00	43.88	53.71	-9.83	AVERAGE
0.264	41.54	0.00	0.00	41.54	61.29	-19.75	QP
0.264	33.97	0.00	0.00	33.97	51.29	-17.32	AVERAGE
0.327	34.28	0.00	0.00	34.28	59.53	-25.25	QP
0.327	28.77	0.00	0.00	28.77	49.53	-20.76	AVERAGE
0.589	26.56	0.00	0.00	26.56	46.00	-19.44	AVERAGE
0.589	26.04	0.00	0.00	26.04	56.00	-29.96	QP
3.509	21.04	0.06	0.00	21.10	56.00	-34.90	QP
3.509	7.05	0.06	0.00	7.11	46.00	-38.89	AVERAGE
6.285	21.52	0.08	0.00	21.60	60.00	-38.40	QP
6.285	13.60	0.08	0.00	13.68	50.00	-36.32	AVERAGE

Neutral Line

Peak Scan:

Level (dBμV)



Quasi-peak and Average measurement:

Freq	Read Level	Cable Loss	LISN Factor	Level	Limit Line	Over Limit	Remark
MHz	dBμV	dB	dB	dBμV	dBμV	dB	
0.198	48.74	0.00	0.10	48.84	63.71	-14.87	QP
0.198	40.47	0.00	0.10	40.57	53.71	-13.14	AVERAGE
0.266	43.20	0.00	0.10	43.30	61.25	-17.95	QP
0.266	36.66	0.00	0.10	36.76	51.25	-14.49	AVERAGE
0.327	36.12	0.00	0.10	36.22	59.53	-23.31	QP
0.327	28.66	0.00	0.10	28.76	49.53	-20.77	AVERAGE
0.524	28.51	0.00	0.09	28.59	56.00	-27.41	QP
0.524	23.58	0.00	0.09	23.66	46.00	-22.34	AVERAGE
3.123	27.18	0.05	0.00	27.23	56.00	-28.77	QP
3.123	10.86	0.05	0.00	10.91	46.00	-35.09	AVERAGE
6.121	19.52	0.08	0.32	19.92	60.00	-40.08	QP
6.121	2.39	0.08	0.32	2.79	50.00	-47.21	AVERAGE

6.2 Radiated Emissions, 30MHz to 1GHz

Test Requirement:	FCC Part15 B 15.109
Test Method:	ANSI C63.4
Test Date:	25 June 2007
Frequency Range:	30MHz to 1GHz
Measurement Distance:	3m
Class:	Class B
Limit:	40.0 dB μ V/m between 30MHz & 88MHz 43.5 dB μ V/m between 88MHz & 216MHz 46.0 dB μ V/m between 216MHz & 960MHz 54.0 dB μ V/m above 960MHz
Detector:	Peak for pre-scan Quasi-Peak if maximised peak within 6dB of limit

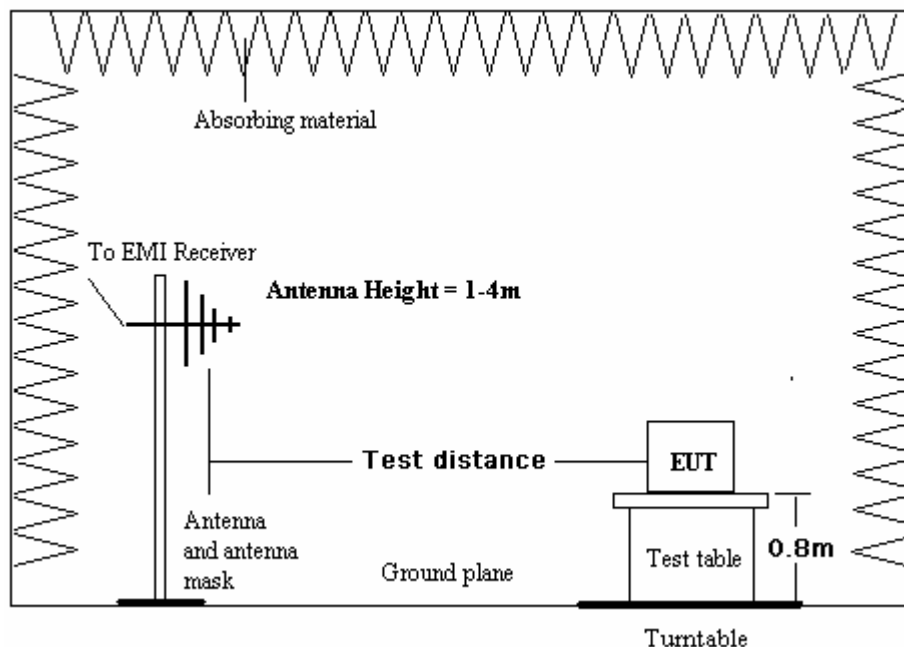
6.2.1 E.U.T. Operation

Operating Environment:

Temperature: 24.0 °C Humidity: 52 % RH Atmospheric Pressure: 1012 mbar

EUT Operation: Test in on mode connected with PC system.

6.2.2 Test Setup



6.2.3 Measurement Data

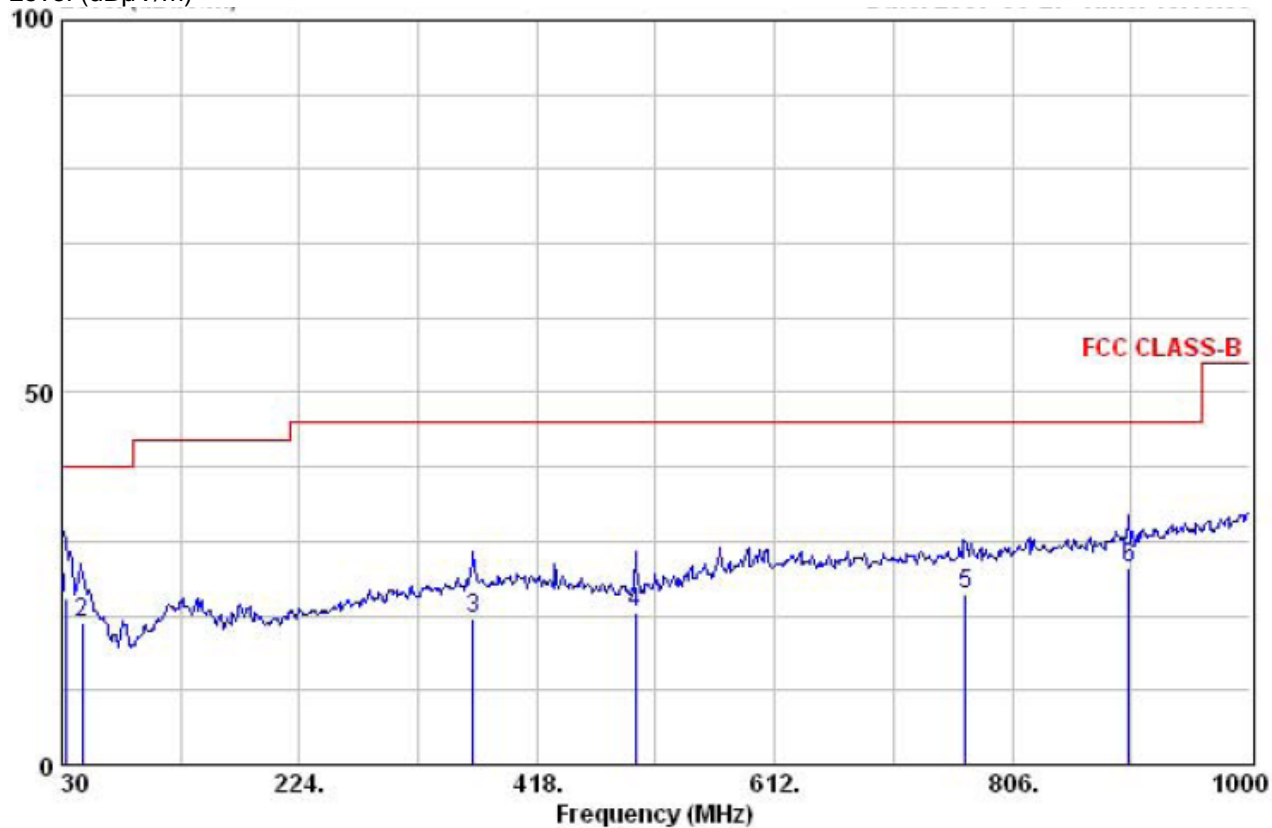
An initial pre-scan was performed in the 3m chamber using the spectrum analyser in peak detection mode. Quasi-peak measurements were conducted based on the peak sweep graph. The EUT was measured by Bilog antenna with 2 orthogonal polarities

The following quasi-peak measurements were performed on the EUT on 19 May 2003:

Vertical:

Peak scan

Level (dB μ V/m)



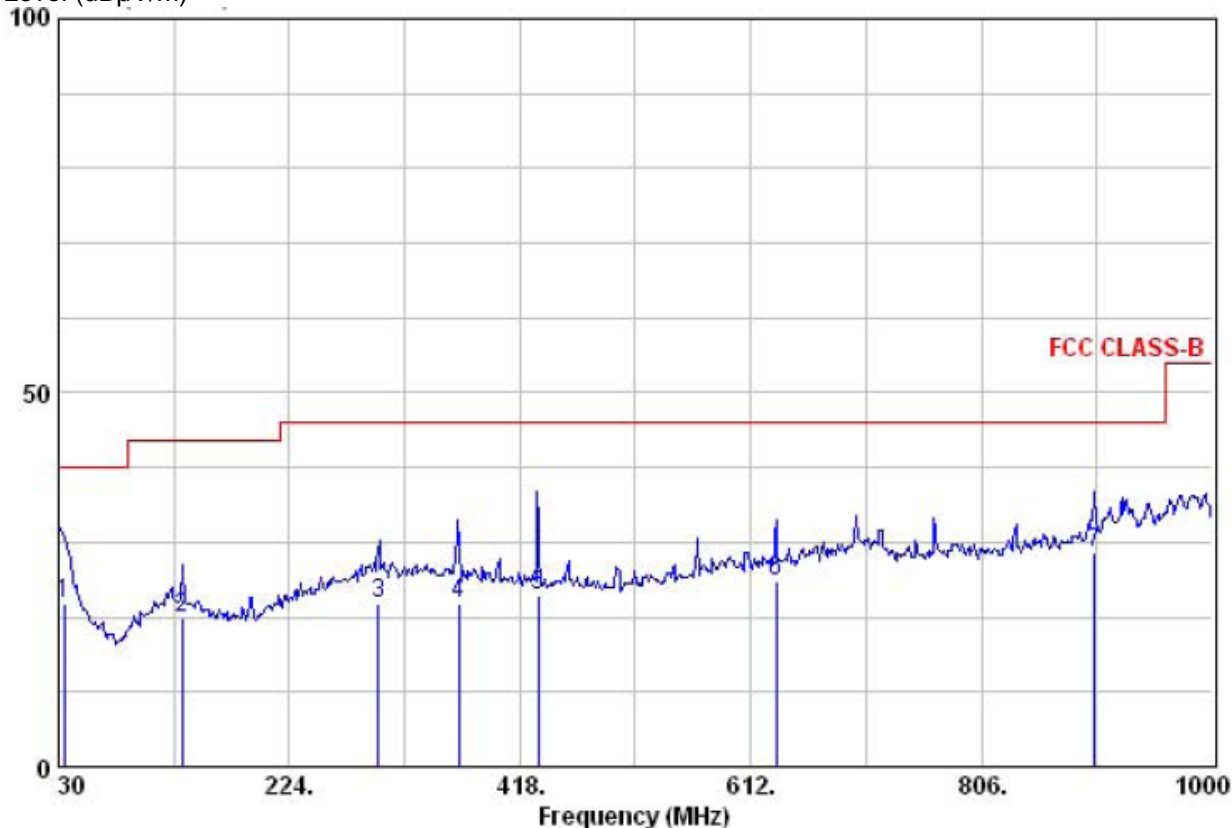
Quasi-peak measurement

Freq	Read	Antenna	Cable	Preamp	Level	Limit	Over	Remark
MHz	Level	Factor	Loss	Factor	dB μ V/m	Line	Limit	
	dB μ V	dB/m	dB	dB	dB μ V/m	dB μ V/m	dB	
32.910	26.10	21.24	0.40	25.38	22.36	40.00	-17.64	QP
46.490	30.50	13.22	0.46	25.23	18.95	40.00	-21.05	QP
365.620	26.97	16.13	1.45	24.81	19.74	46.00	-26.26	QP
498.510	29.12	15.62	1.68	25.89	20.53	46.00	-25.47	QP
768.170	26.04	20.21	2.26	25.63	22.88	46.00	-23.12	QP
901.060	27.53	21.19	2.67	25.00	26.39	46.00	-19.61	QP

Horizontal:

Peak scan

Level (dB μ V/m)



Quasi-peak measurement

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
MHz	dB μ V	dB/m	dB	dB	dB μ V/m	dB μ V/m	dB	
34.850	24.13	22.64	0.40	25.30	21.86	40.00	-18.14	QP
133.790	30.32	13.87	0.80	25.10	19.89	43.50	-23.61	QP
298.690	27.35	17.60	1.29	24.40	21.84	46.00	-24.16	QP
366.590	28.30	16.94	1.44	24.82	21.86	46.00	-24.14	QP
433.520	30.12	16.46	1.50	25.33	22.75	46.00	-23.25	QP
633.340	29.39	19.31	1.97	25.76	24.91	46.00	-21.09	QP
901.060	30.15	20.86	2.67	25.00	28.67	46.00	-17.33	QP

Level = Read Level + Antenna Factor + Cable Loss – Preamp Factor.