SGS-CSTC StandardsTechnical Services Co., Ltd.

No.198 Kezhu Road, Science Town Economic& Technology Development District Guangzhou, China 510663

Telephone: +86 (0) 20 82155555
Fax: +86 (0) 20 82075059
Email: sgs_internet_operations@sgs.com

Test Report

Application No.: GLEMR070100204RF

Applicant: Phoenix International Co., Ltd

Equipment Under Test (EUT):

Name: Bluetooth USB Dongle

Model No.: BUD-210,BUD-200*****

Trade Mark: PHOENIX

Standards: FCC PART 15 SUBPART B: 2006.

Date of Receipt: 25 January 2007

Date of Test: 29 January to 2 February 2007

Date of Issue: 6 January 2007

Test Result :	**PASS***

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

Authorized Signature:

Jerry Chen
Manager

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:
Remark: According to the confirmation from the applicant, model BUD-210,BUD-200 are same as in the circuit, PCB layout, electrical parts without the appearance. Only one model need to test.

3 Contents

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.

Name: Bluetooth USB Dongle

Model No.: BUD-210,BUD-200

Trade Mark: PHOENIX

4.3 Details of E.U.T.

Power Supply: By host 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.

- **CNAS (Lab Code: 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 (Registration No.: 4620B-1)**

  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

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:	1 February 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

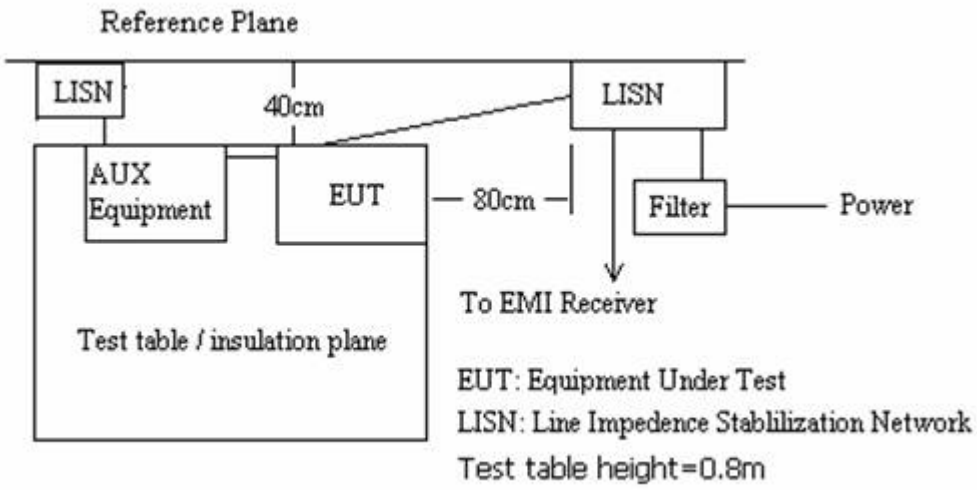
6.1.1 E.U.T. Operation

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



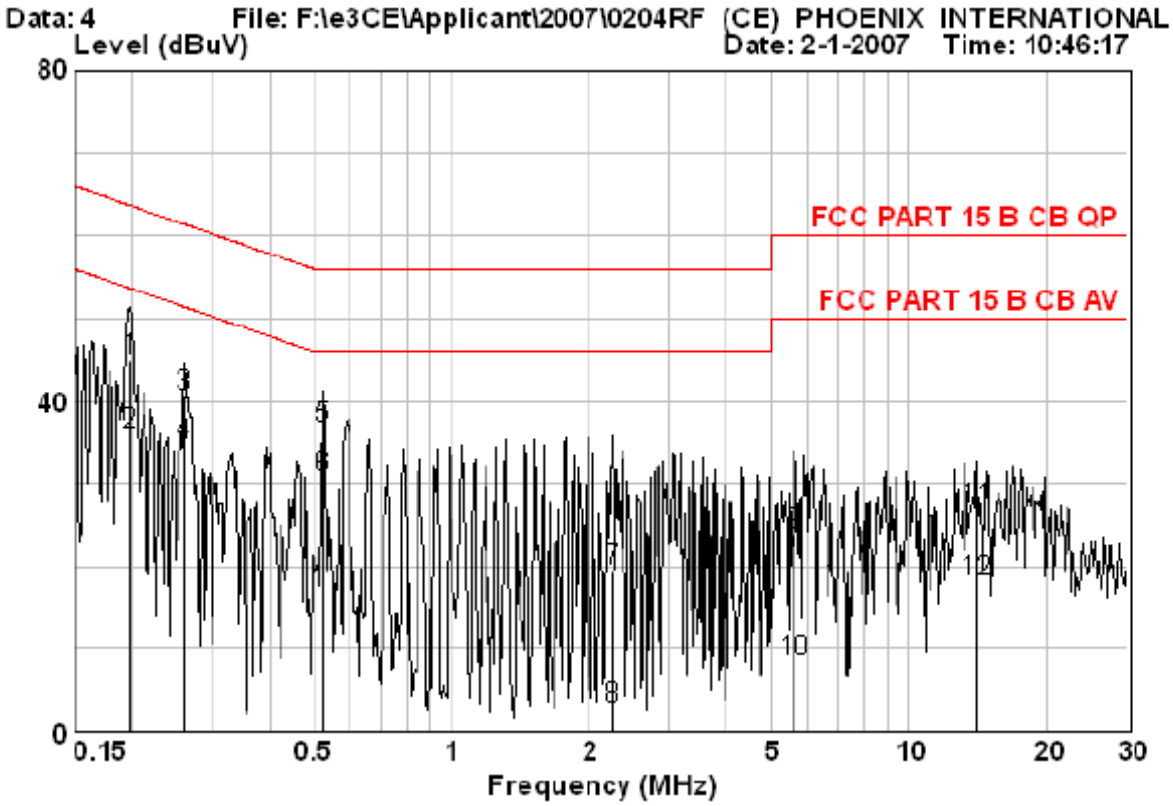
6.1.3 Measurement Data

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.

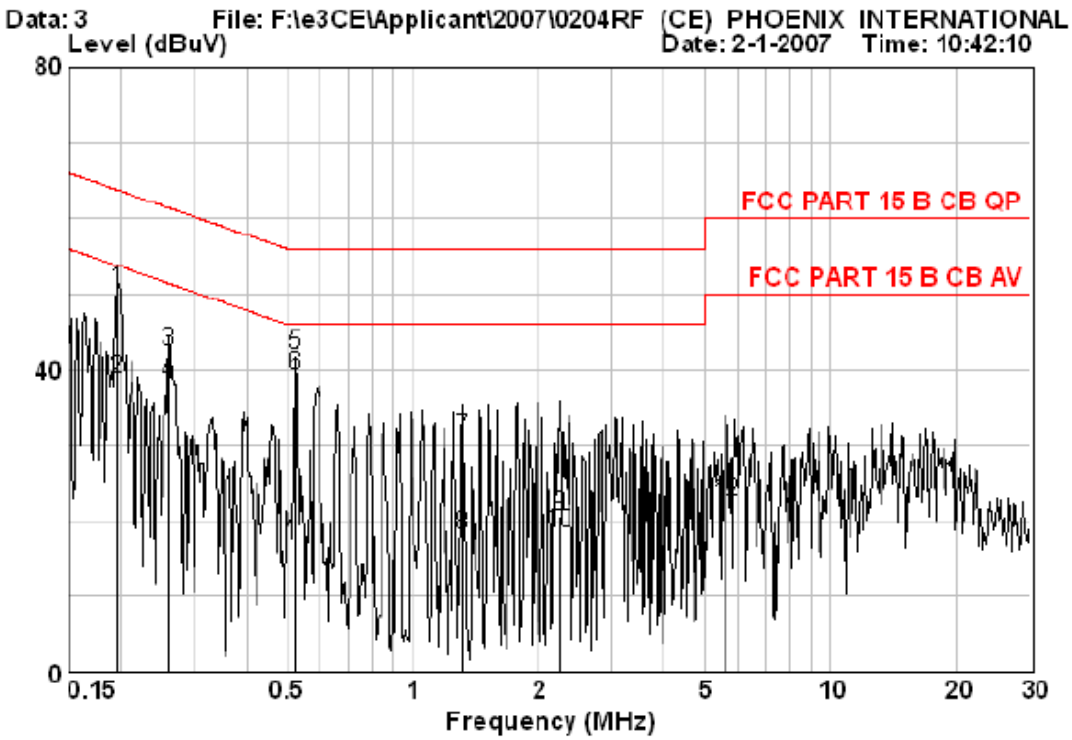
The following Quasi-Peak and Average measurements were performed on the EUT:

Live Line:



		Freq	Read Level	Cable Loss	LISN Factor	Level	Limit Line	Over Limit	Remark
		MHz	dBuV	dB	dB	dBuV	dBuV	dB	
1		0.198	45.04	0.00	0.00	45.04	63.71	-18.67	QP
2		0.198	35.94	0.00	0.00	35.94	53.71	-17.77	AVERAGE
3		0.262	40.68	0.00	0.00	40.68	61.38	-20.70	QP
4		0.262	34.64	0.00	0.00	34.64	51.38	-16.74	AVERAGE
5		0.527	36.76	0.00	0.00	36.76	56.00	-19.24	QP
6	MAX	0.527	30.70	0.00	0.00	30.70	46.00	-15.30	AVERAGE
7		2.249	19.38	0.04	0.00	19.42	56.00	-36.58	QP
8		2.249	2.66	0.04	0.00	2.70	46.00	-43.30	AVERAGE
9		5.623	23.80	0.08	0.00	23.88	60.00	-36.12	QP
10		5.623	8.43	0.08	0.00	8.51	50.00	-41.49	AVERAGE
11		14.063	26.56	0.16	0.00	26.72	60.00	-33.28	QP
12		14.063	17.86	0.16	0.00	18.02	50.00	-31.98	AVERAGE

Neutral Line



	Freq	Read Level	Cable Loss	LISN Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB	dBuV	dBuV	dB	
1 MAX	0.197	50.48	0.00	0.00	50.48	63.76	-13.28	QP
2 MAX	0.197	38.67	0.00	0.00	38.67	53.76	-15.09	AVERAGE
3	0.262	42.50	0.00	0.00	42.50	61.38	-18.88	QP
4 MAX	0.262	38.14	0.00	0.00	38.14	51.38	-13.24	AVERAGE
5 MAX	0.523	41.90	0.00	0.00	41.90	56.00	-14.10	QP
6 MAX	0.523	39.14	0.00	0.00	39.14	46.00	-6.86	AVERAGE
7	1.310	30.94	0.01	0.00	30.95	56.00	-25.05	QP
8	1.310	18.09	0.01	0.00	18.10	46.00	-27.90	AVERAGE
9	2.249	20.66	0.04	0.00	20.70	56.00	-35.30	QP
10	2.249	18.26	0.04	0.00	18.30	46.00	-27.70	AVERAGE
11	5.623	21.86	0.08	0.00	21.94	60.00	-38.06	QP
12	5.623	22.33	0.08	0.00	22.41	50.00	-27.59	AVERAGE

6.2 Radiated Emissions, 30MHz to 1GHz

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

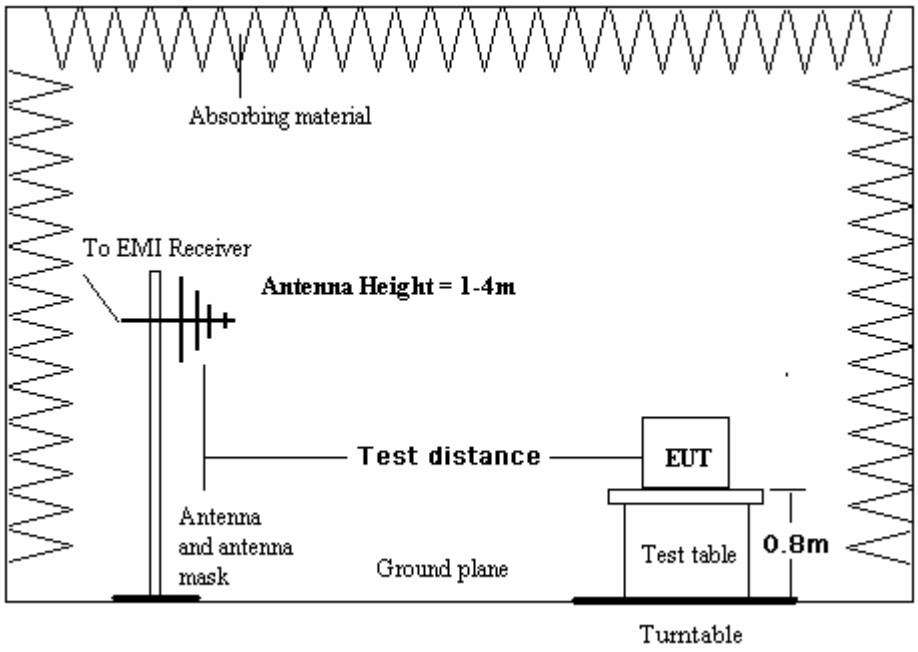
6.2.1 E.U.T. Operation

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

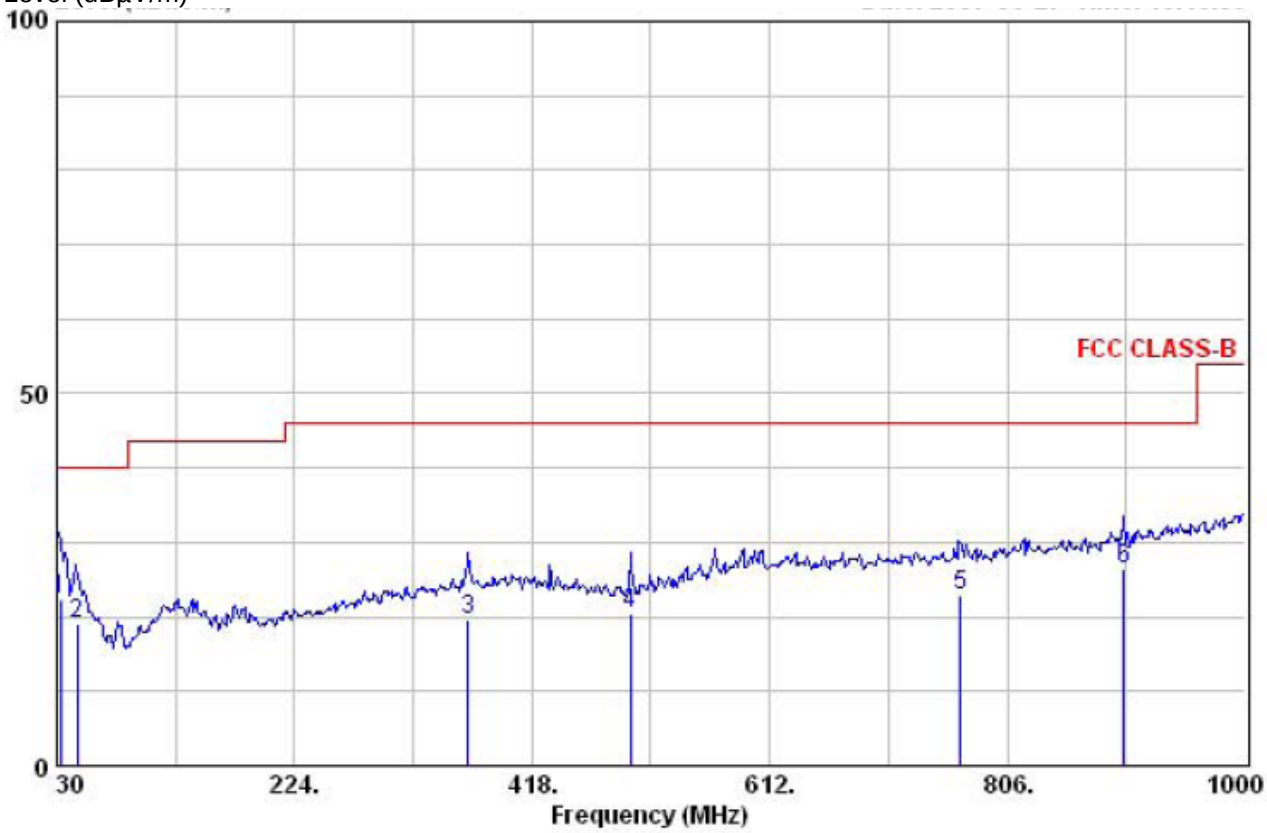
An initial pre-scan was performed in the 3m chamber using the spectrum analyser in peak detection mode. Quasi-peak measurements were conducted based on the peak sweep graph. The EUT was measured by Bilog antenna with 2 orthogonal polarities

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

Vertical:

Peak scan

Level (dBµV/m)



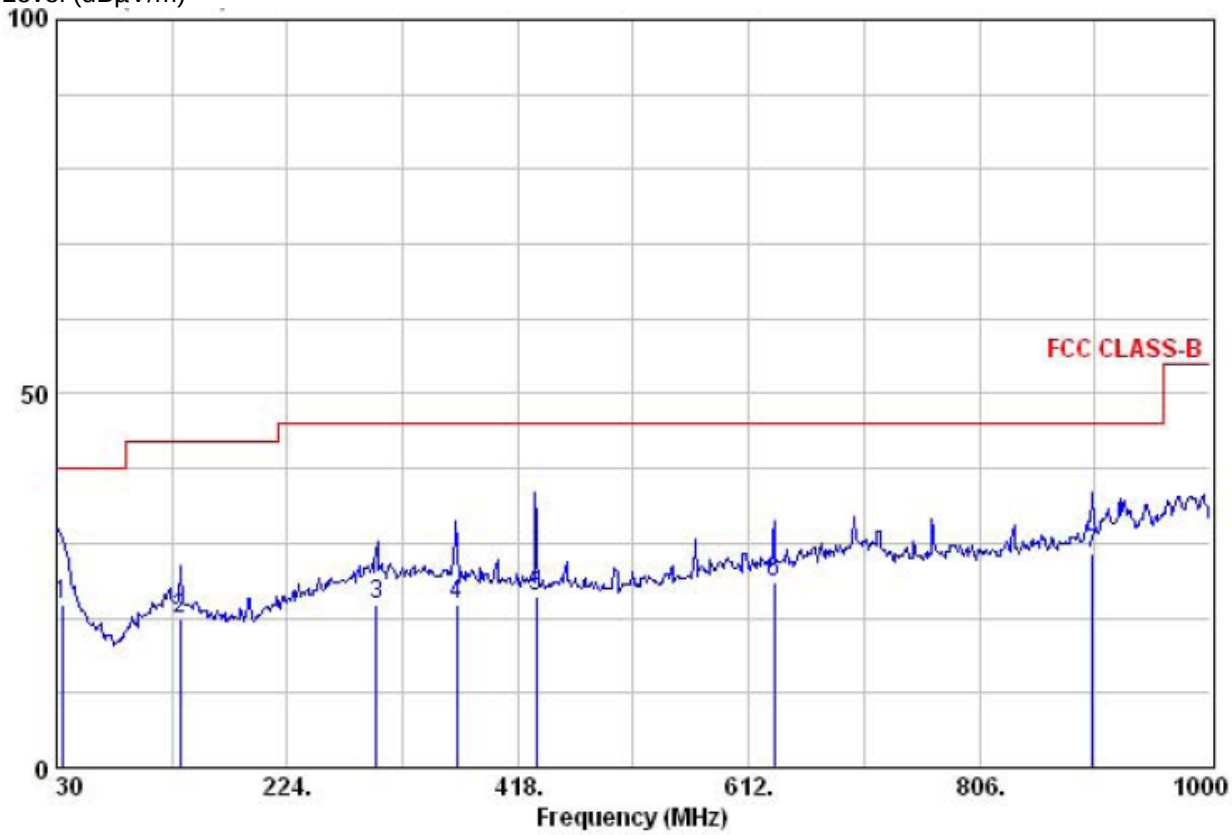
Quasi-peak measurement

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/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 (dBµV/m)



Quasi-peak measurement

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	
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.