FCC 47 CFR PART 15 SUBPART B

Product Type	:	VIP4G
Applicant	:	Microhard Systems Inc.
Address	:	150 Country Hills Landing NW Calgary, Alberta, Canada T3K 5P3
Trade Name	:	Microhard
Model Number	:	VIP4G
Test Specification	:	FCC 47 CFR PART 15 SUBPART B: Oct., 2012 ANSI C63.4: 2009 CISPR 22: 1997 ICES-003: Issue 5
Receive Date	:	Nov. 28, 2012
Test Period	:	Jan. 21, ~ Feb. 27, 2013
Issue Date	:	Mar. 05, 2013

Issue by

A Test Lab Techno Corp.
No. 140-1, Changan Street, Bade City,
Taoyuan County 334, Taiwan R.O.C.
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Taiwan Accreditation Foundation accreditation number: 1330

Revision History

Rev.	Issue Date	Revisions	Revised By
00	Jan. 24, 2013	Initial Issue	
01	Mar. 05, 2013	Add test data	Joyce Liao

Verification of Compliance

Issued Date: 03/05/2013

Product Type	:	VIP4G
Applicant	:	Microhard Systems Inc.
Address	:	150 Country Hills Landing NW Calgary, Alberta, Canada T3K 5P3
Trade Name	:	Microhard
Model Number	:	VIP4G
FCC ID	:	NS9VIP4GABGN20
IC	:	3143A-VIP4GABGN20
EUT Rated Voltage	:	DC 12.0V, 1.25V
Test Voltage	:	120 Vac / 60 Hz
Applicable Standard	:	FCC 47 CFR PART 15 SUBPART B: Oct., 2012 ANSI C63.4: 2009 CISPR 22: 1997 ICES-003: Issue 5
Test Result	:	Complied
Performing Lab.	:	A Test Lab Techno Corp. No. 140-1, Changan Street, Bade City, Taoyuan County 334, Taiwan R.O.C. Tel：+886-3-2710188 / Fax：+886-3-2710190 Taiwan Accreditation Foundation accreditation number: 1330 http://www.atl-lab.com.tw/e-index.htm

The above equipment has been tested by A Test Lab Techno Corp., and found compliance with the requirements set forth in the technical standards mentioned above. The results of testing in this report apply only to the product/system, which was tested. Other similar equipment will not necessarily produce the same results due to production tolerance and measurement uncertainties.

Approved By	:		Reviewed By	:	
(Manager)		(Murphy Wang)	(Testing Engineer)		(Frank Lin)

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1 General Information

1.1 Summary of Test Result

Emission			
Standard	Item	Result	Remark
FCC 47 CFR PART 15 SUBPART B ANSI C63.4 ICES-003	Conducted Emission	PASS	Meet Class B limit
FCC 47 CFR PART 15 SUBPART B ANSI C63.4 ICES-003	Radiated Emission	PASS	Meet Class B limit

The test results of this report relate only to the tested sample(s) identified in this report. Manufacturer or whom it may concern should recognize the pass or fail of the test result.

1.2 Measurement Uncertainty

Conducted Emission

The measurement uncertainty is evaluated as ± 2.24 dB.

Conducted Emissions (Telecommunication Ports)

The measurement uncertainty is evaluated as ± 2.24 dB.

Radiated Emission

The measurement uncertainty of 30 MHz - 1GHz is evaluated as ± 3.072dB.

The measurement uncertainty of 1GHz - 40GHz is evaluated as ± 3.072dB.

2 EUT Description

Product	VIP4G
Trade Name	Microhard
Model Number	VIP4G
FCC ID	NS9VIP4GABGN20
IC	3143A-VIP4GABGN20
Applicant	Microhard Systems Inc. 150 Country Hills Landing NW Calgary, Alberta, Canada T3K 5P3
Manufacturer	Microhard Systems Inc. 150 Country Hills Landing NW Calgary, Alberta, Canada T3K 5P3
Component	
Power Adapter	BI, BI30-120200-AdU Input:100-240Vac, 50/60Hz, 1.2A Output: 12Vdc, 2A Cable out: Non-Shielded, 1.5m Non-Detachable at Power adapter with a core

I/O Port Description：

I/O Port Types	Q'TY	Test Description
1). RS-232 Port	1	Connected to Notebook
2). LAN Port	3	Connected to Notebook / Terminal
3). Antenna Port	2	Connected to 2G/3G Antenna
4). Antenna Port	2	Connected to Wi-Fi Antenna
5). SIM Card Port	1	Connected to SIM Card
6). DC Power Port	1	Connected to AC Adapter
7). WAN Port	1	Connected to Notebook

3 Test Methodology

3.1. Decision of Test Mode

3.1.1. The following test mode(s) were scanned during the preliminary test:

Pre-Test Mode
Mode 1: GSM 850 + Wi-Fi Link Mode
Mode 2: GSM 1900 + Wi-Fi Link Mode
Mode 3: WCDMA Band II + Wi-Fi Link Mode
Mode 4: WCDMA Band V + Wi-Fi Link Mode
Mode 5: WCDMA Band IV + Wi-Fi Link Mode
Mode 6: LTE Band 4 + Wi-Fi Link Mode
Mode 7: LTE Band 17 + Wi-Fi Link Mode

3.1.2. After the preliminary scan, the following test mode was found to produce the highest emission level.

Final Test Mode			
Emission	Conducted Emission		Mode 1 / Mode 2 / Mode 3 / Mode 4 / Mode 5 / Mode 6 / Mode 7
	Radiated Emission	Below 1GHz	Mode 1 / Mode 2 / Mode 3 / Mode 4 / Mode 5 / Mode 6 / Mode 7
		Above 1GHz	Mode 1 / Mode 2 / Mode 3 / Mode 4 / Mode 5 / Mode 6 / Mode 7

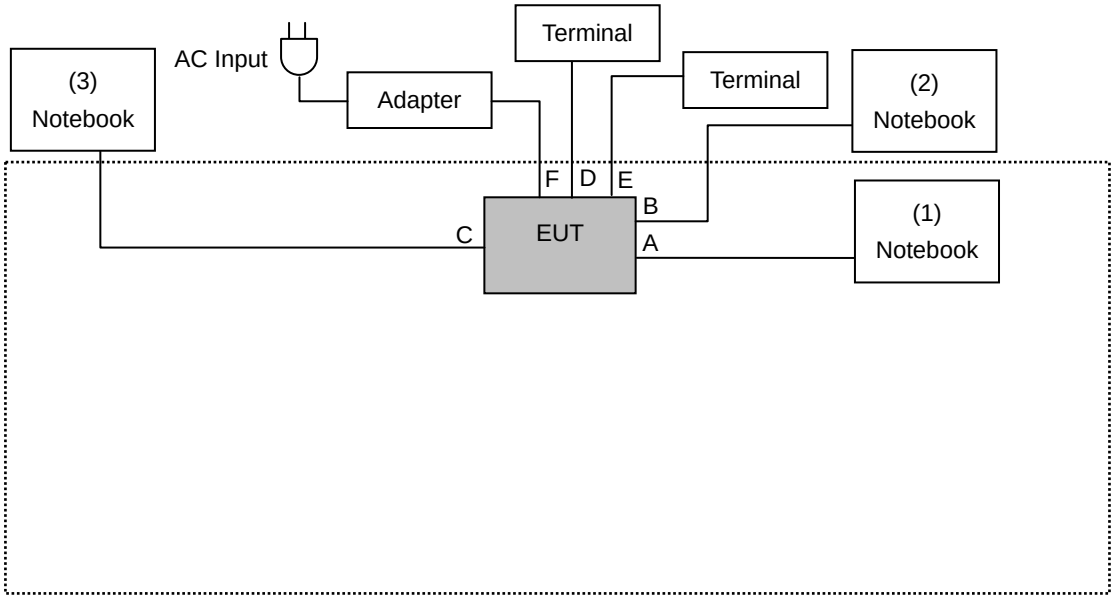
Then, the above highest emission mode of the configuration of the EUT and cable was chosen for all final test items.

3.2. EUT Exercise Software

1.	Setup the EUT and simulators as shown on 3.3.
2.	Turn on the power of all equipment.
3.	EUT link to CMU200.
4.	The EUT LAN port connects to the Notebook and data will communicate between Notebook through EUT.
5.	The EUT will start to operate function.

3.3. Configuration of Test System Details

Mode 1 / Mode 2 / Mode 3 / Mode 4 / Mode 5 / Mode 6 / Mode 7



Signal Cable Type		Signal Cable Description
A	RS-232 Cable	Shielded, 1.8m
B	WAN Cable	Non-Shielded, 3.0m
C	LAN Cable	Non-Shielded, 3.0m
D	LAN Cable	Non-Shielded, 3.0m
E	LAN Cable	Non-Shielded, 3.0m
F	DC Power Cable	Non-Shielded, 1.5m with one core

Devices Description					
Product		Manufacturer	Model Number	Serial Number	Power Cord
(1)	Notebook	DELL	D531	GCDCD-T6HYQ-3MQ8 R-JCPD3-3G8G2	Non-Shielded, 2.0m
(2)	Notebook	DELL	D830	CN-OHN341-48643-88 Q-1221	Non-Shielded, 2.0m
(3)	Notebook	DELL	D531	CN-OXM006-48643-87 A-3398	Non-Shielded, 2.0m

3.4. Test Site Environment

Items	Test Item	Required (IEC 68-1)	Actual
Temperature (°C)	FCC part 15: 15.107 Conducted Emission	15-35	26
Humidity (%RH)		25-75	60
Barometric pressure (mbar)		860-1060	950
Temperature (°C)	FCC part 15: 15.109 Radiated Emission	15-35	26
Humidity (%RH)		25-75	60
Barometric pressure (mbar)		860-1060	950

4 Emission Test

4.1. Conducted Emission Measurement

4.1.1. Limit

A.C. Mains Conducted Interference Limit

Frequency (MHz)	Class A (dBuV)		Class B (dBuV)	
	Quasi-peak	Average	Quasi-peak	Average
0.15 - 0.5	79	66	66 - 56	56 - 46
0.50 - 5.0	73	60	56	46
5.0 - 30.0	73	60	60	50

Note: (1) The lower limit shall apply at the transition frequencies.
(2) The limit decreases in line with the logarithm of the frequency in the range 0.15 to 0.50 MHz.

4.1.2. Test Instruments

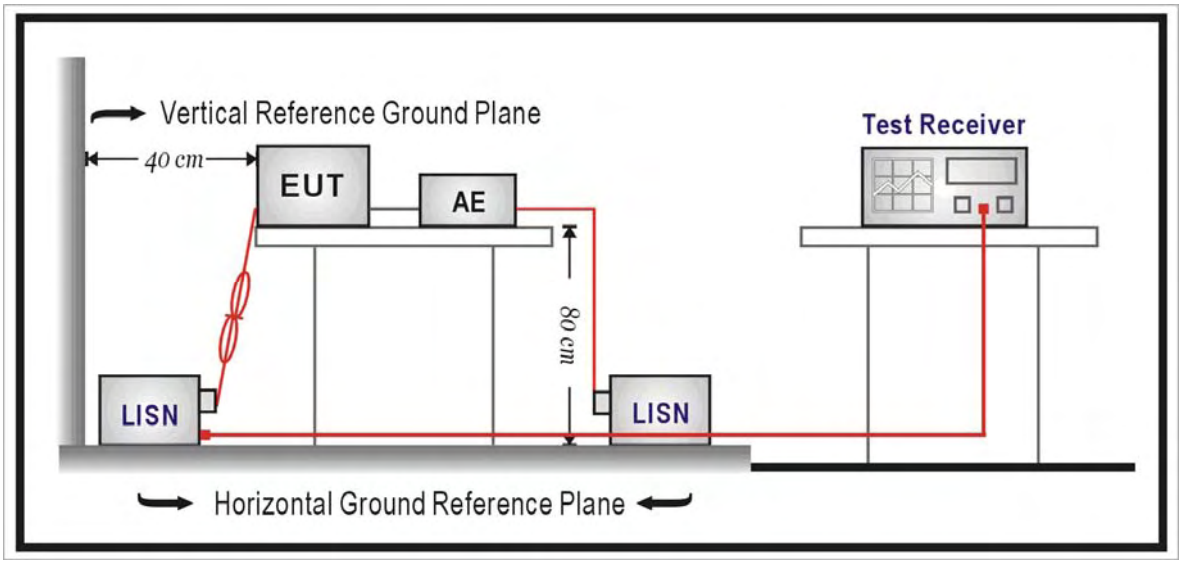
Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
Test Receiver	R&S	ESCI	100367	06/18/2012	(1)
LISN	R&S	ENV216	101040	03/07/2012	(1)
LISN	R&S	ENV216	101041	03/07/2012	(1)
Universal Radio Communication Tester	R&S	CMU200	109369	08/07/2012	(2)
Test Site	ATL	TE02	TE02	N.C.R.	-----

Remark: (1) Calibration period 1 year. (2) Calibration period 2 years.

Note: N.C.R. = No Calibration Request.

4.1.3. Test Setup

A.C. mains setup



4.1.4. Test Procedure

The EUT and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50 ohm /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.

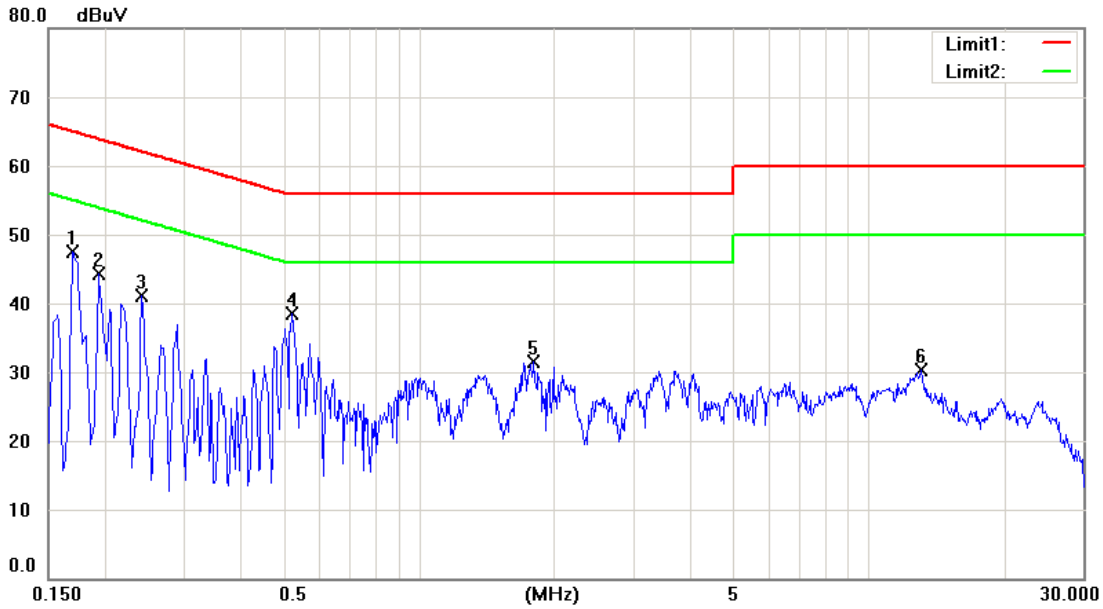
For A.C. mains conducted interference, measured both sides of A.C. lines and carried out using quasi-peak and average detector receivers of maximum conducted interference.

Conducted emissions were invested over the frequency range from 0.15 MHz to 30 MHz using a receiver bandwidth of 9 kHz. The equipment under test (EUT) shall be meet the limits in section 4.1.1, as applicable, including the average limit and the quasi-peak limit when using respectively, an average detector and quasi-peak detector measured in accordance with the methods described of related standard. The voltage limits shall be met. If the average limit is met when using a quasi-peak detector receiver, the EUT shall be deemed to meet both limits and measurement with the average detector receiver is unnecessary.

If the reading of the measuring receiver shows fluctuations close to the limit, the reading shall be observed for at least 15 s at each measurement frequency; the higher reading shall be recorded with the exception of any brief isolated high reading which shall be ignored.

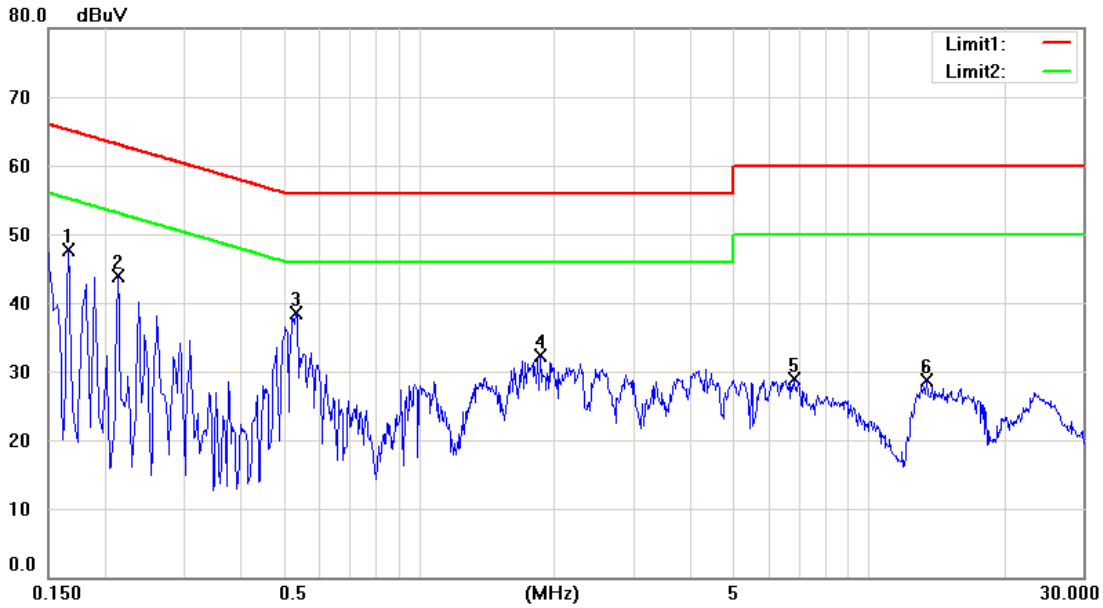
4.1.5. Test Result

Standard:	FCC Part 15B Class B	Line:	L1
Test item:	Conducted Emission	Power:	AC 120V/60Hz
Model Number:	VIP4G	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	1	Date:	01/21/2013
		Test By:	Frank Lin
Description:			



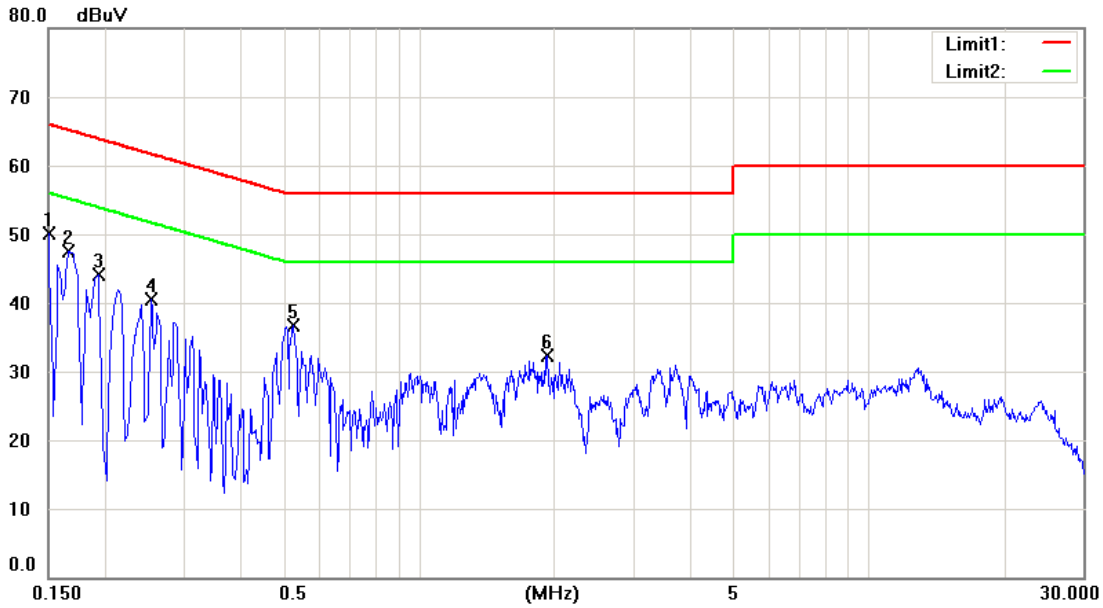
No.	Frequency (MHz)	QP reading (dBuV)	AVG reading (dBuV)	Correction factor (dB)	QP result (dBuV)	AVG result (dBuV)	QP limit (dBuV)	AVG limit (dBuV)	QP margin (dB)	AVG margin (dB)	Remark
1	0.1700	36.44	19.67	9.72	46.16	29.39	64.96	54.96	-18.80	-25.57	Pass
2	0.1940	33.33	17.64	9.72	43.05	27.36	63.86	53.86	-20.81	-26.50	Pass
3	0.2420	28.50	15.81	9.72	38.22	25.53	62.03	52.03	-23.81	-26.50	Pass
4	0.5220	27.23	21.13	9.72	36.95	30.85	56.00	46.00	-19.05	-15.15	Pass
5	1.8020	18.00	11.96	9.78	27.78	21.74	56.00	46.00	-28.22	-24.26	Pass
6	13.1260	16.09	9.70	9.78	25.87	19.48	60.00	50.00	-34.13	-30.52	Pass

Standard:	FCC Part 15B Class B	Line:	N
Test item:	Conducted Emission	Power:	AC 120V/60Hz
Model Number:	VIP4G	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	1	Date:	01/21/2013
		Test By:	Frank Lin
Description:			



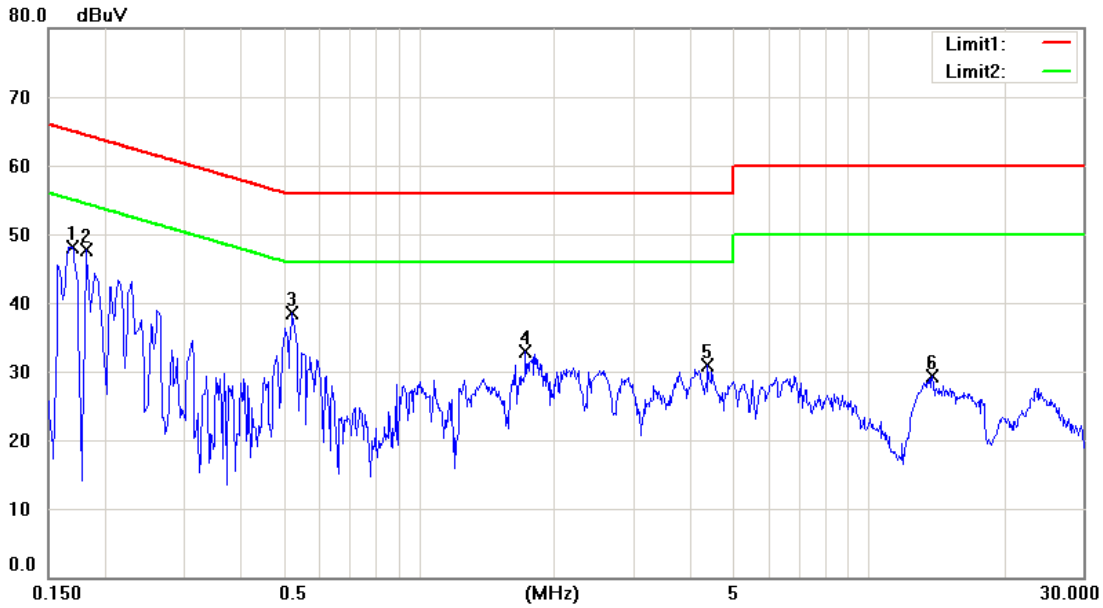
No.	Frequency (MHz)	QP reading (dBuV)	AVG reading (dBuV)	Correction factor (dB)	QP result (dBuV)	AVG result (dBuV)	QP limit (dBuV)	AVG limit (dBuV)	QP margin (dB)	AVG margin (dB)	Remark
1	0.1660	36.83	20.97	9.65	46.48	30.62	65.16	55.16	-18.68	-24.54	Pass
2	0.2140	31.54	17.92	9.64	41.18	27.56	63.05	53.05	-21.87	-25.49	Pass
3	0.5340	25.66	17.79	9.64	35.30	27.43	56.00	46.00	-20.70	-18.57	Pass
4	1.8660	18.53	12.95	9.71	28.24	22.66	56.00	46.00	-27.76	-23.34	Pass
5	6.8300	14.91	9.50	9.94	24.85	19.44	60.00	50.00	-35.15	-30.56	Pass
6	13.5020	14.08	8.42	9.82	23.90	18.24	60.00	50.00	-36.10	-31.76	Pass

Standard:	FCC Part 15B Class B	Line:	L1
Test item:	Conducted Emission	Power:	AC 120V/60Hz
Model Number:	VIP4G	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	2	Date:	01/21/2013
		Test By:	Frank Lin
Description:			



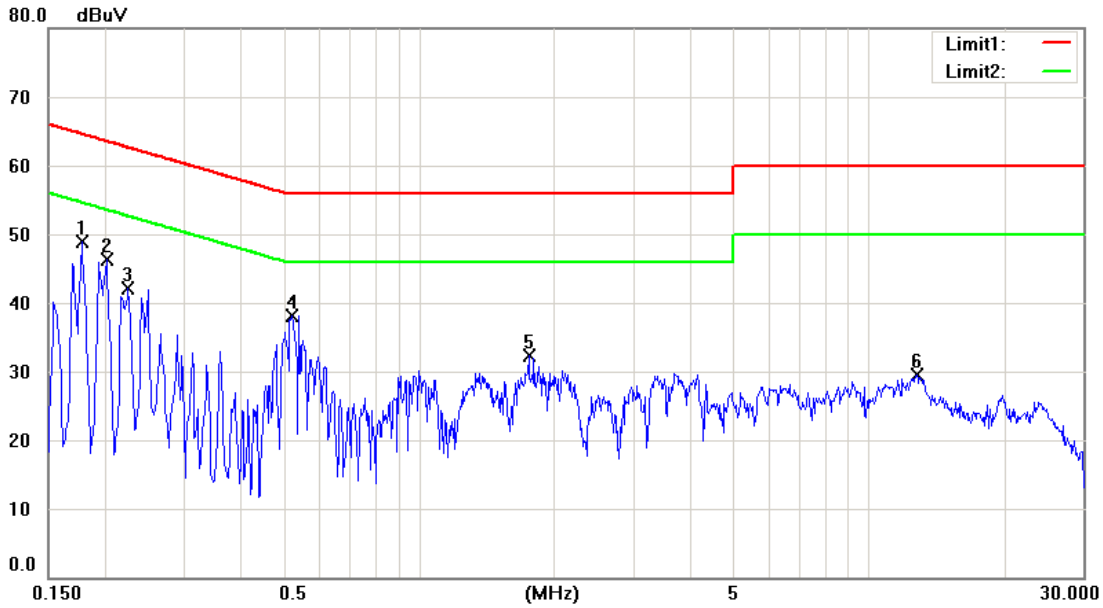
No.	Frequency (MHz)	QP reading (dBuV)	AVG reading (dBuV)	Correction factor (dB)	QP result (dBuV)	AVG result (dBuV)	QP limit (dBuV)	AVG limit (dBuV)	QP margin (dB)	AVG margin (dB)	Remark
1	0.1500	35.56	15.72	9.72	45.28	25.44	66.00	56.00	-20.72	-30.56	Pass
2	0.1660	36.67	20.28	9.72	46.39	30.00	65.16	55.16	-18.77	-25.16	Pass
3	0.1940	33.31	17.64	9.72	43.03	27.36	63.86	53.86	-20.83	-26.50	Pass
4	0.2540	23.52	4.91	9.72	33.24	14.63	61.63	51.63	-28.39	-37.00	Pass
5	0.5260	26.20	24.46	9.72	35.92	34.18	56.00	46.00	-20.08	-11.82	Pass
6	1.9380	14.47	6.11	9.80	24.27	15.91	56.00	46.00	-31.73	-30.09	Pass

Standard:	FCC Part 15B Class B	Line:	N
Test item:	Conducted Emission	Power:	AC 120V/60Hz
Model Number:	VIP4G	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	2	Date:	01/21/2013
		Test By:	Frank Lin
Description:			



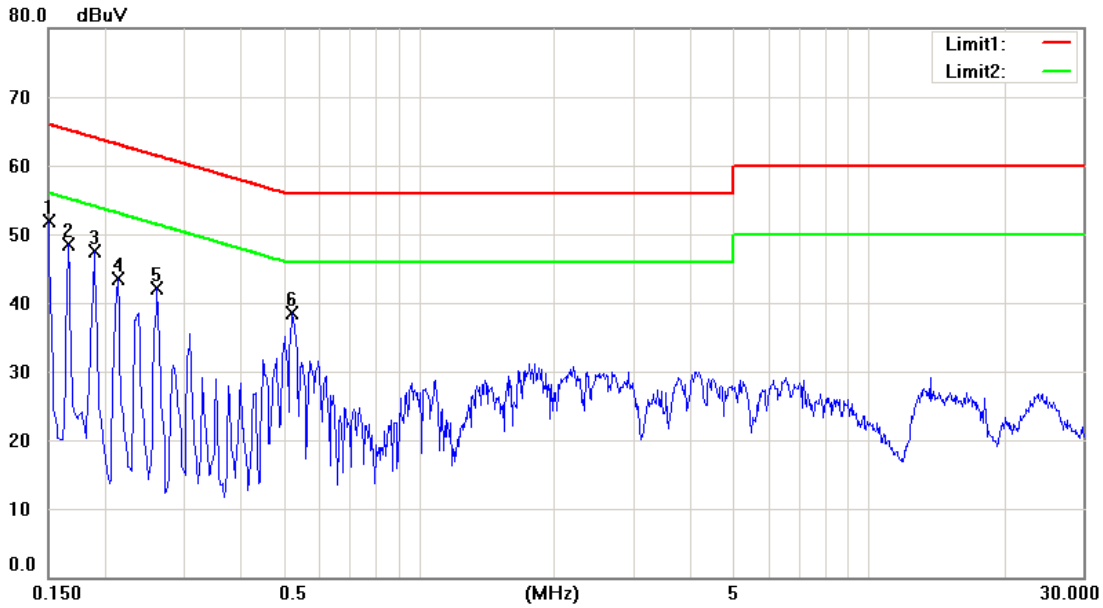
No.	Frequency (MHz)	QP reading (dBuV)	AVG reading (dBuV)	Correction factor (dB)	QP result (dBuV)	AVG result (dBuV)	QP limit (dBuV)	AVG limit (dBuV)	QP margin (dB)	AVG margin (dB)	Remark
1	0.1700	36.36	20.66	9.65	46.01	30.31	64.96	54.96	-18.95	-24.65	Pass
2	0.1820	28.14	5.80	9.64	37.78	15.44	64.39	54.39	-26.61	-38.95	Pass
3	0.5220	27.84	21.45	9.64	37.48	31.09	56.00	46.00	-18.52	-14.91	Pass
4	1.7260	17.76	12.16	9.71	27.47	21.87	56.00	46.00	-28.53	-24.13	Pass
5	4.3980	16.08	8.92	9.71	25.79	18.63	56.00	46.00	-30.21	-27.37	Pass
6	13.8660	13.49	8.02	9.85	23.34	17.87	60.00	50.00	-36.66	-32.13	Pass

Standard:	FCC Part 15B Class B	Line:	L1
Test item:	Conducted Emission	Power:	AC 120V/60Hz
Model Number:	VIP4G	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	3	Date:	01/21/2013
		Test By:	Frank Lin
Description:			



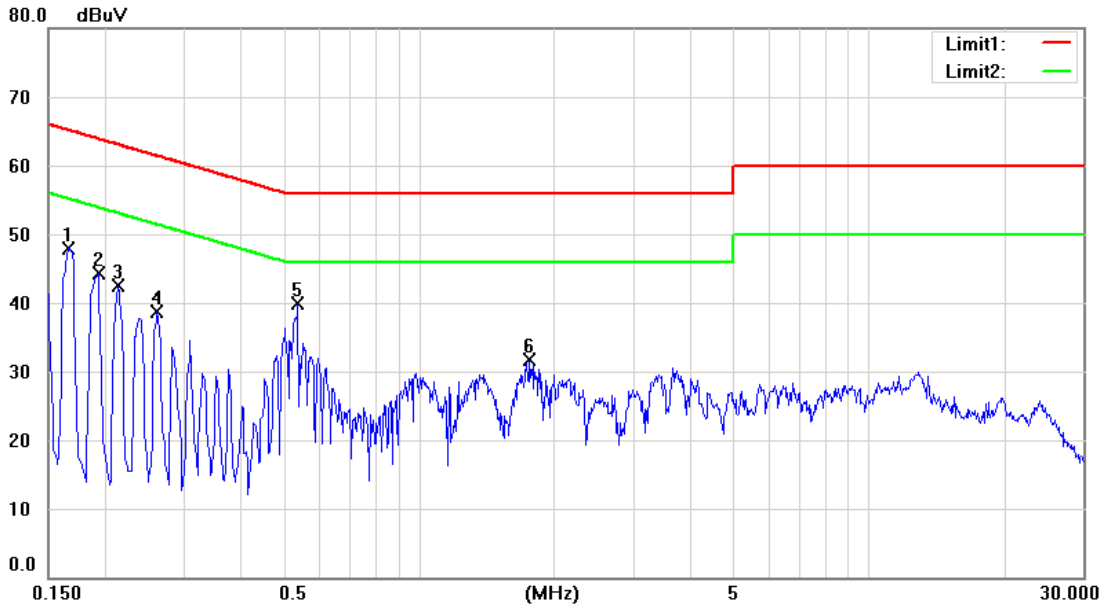
No.	Frequency (MHz)	QP reading (dBuV)	AVG reading (dBuV)	Correction factor (dB)	QP result (dBuV)	AVG result (dBuV)	QP limit (dBuV)	AVG limit (dBuV)	QP margin (dB)	AVG margin (dB)	Remark
1	0.1780	33.62	7.73	9.72	43.34	17.45	64.58	54.58	-21.24	-37.13	Pass
2	0.2020	30.11	6.47	9.72	39.83	16.19	63.53	53.53	-23.70	-37.34	Pass
3	0.2260	26.65	5.41	9.72	36.37	15.13	62.60	52.60	-26.23	-37.47	Pass
4	0.5220	27.22	20.85	9.72	36.94	30.57	56.00	46.00	-19.06	-15.43	Pass
5	1.7580	18.00	11.52	9.78	27.78	21.30	56.00	46.00	-28.22	-24.70	Pass
6	12.7900	16.71	10.98	9.81	26.52	20.79	60.00	50.00	-33.48	-29.21	Pass

Standard:	FCC Part 15B Class B	Line:	N
Test item:	Conducted Emission	Power:	AC 120V/60Hz
Model Number:	VIP4G	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	3	Date:	01/21/2013
		Test By:	Frank Lin
Description:			



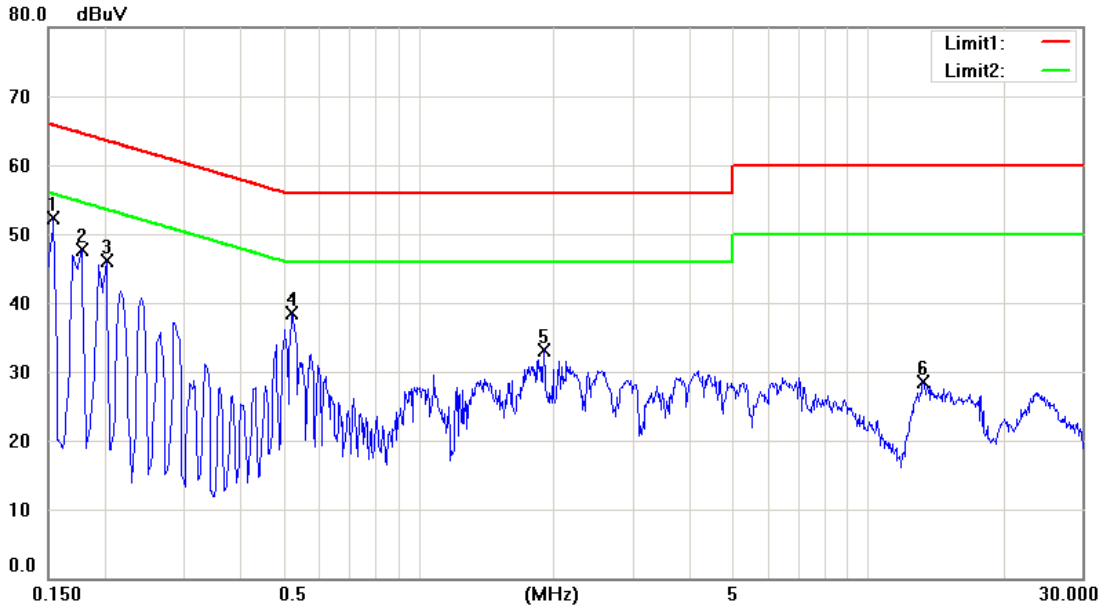
No.	Frequency (MHz)	QP reading (dBuV)	AVG reading (dBuV)	Correction factor (dB)	QP result (dBuV)	AVG result (dBuV)	QP limit (dBuV)	AVG limit (dBuV)	QP margin (dB)	AVG margin (dB)	Remark
1	0.1500	37.21	16.66	9.65	46.86	26.31	66.00	56.00	-19.14	-29.69	Pass
2	0.1660	37.49	21.64	9.65	47.14	31.29	65.16	55.16	-18.02	-23.87	Pass
3	0.1900	34.48	19.16	9.64	44.12	28.80	64.04	54.04	-19.92	-25.24	Pass
4	0.2140	31.92	18.05	9.64	41.56	27.69	63.05	53.05	-21.49	-25.36	Pass
5	0.2620	28.15	17.92	9.64	37.79	27.56	61.37	51.37	-23.58	-23.81	Pass
6	0.5220	27.77	20.98	9.64	37.41	30.62	56.00	46.00	-18.59	-15.38	Pass

Standard:	FCC Part 15B Class B	Line:	L1
Test item:	Conducted Emission	Power:	AC 120V/60Hz
Model Number:	VIP4G	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	4	Date:	01/21/2013
		Test By:	Frank Lin
Description:			



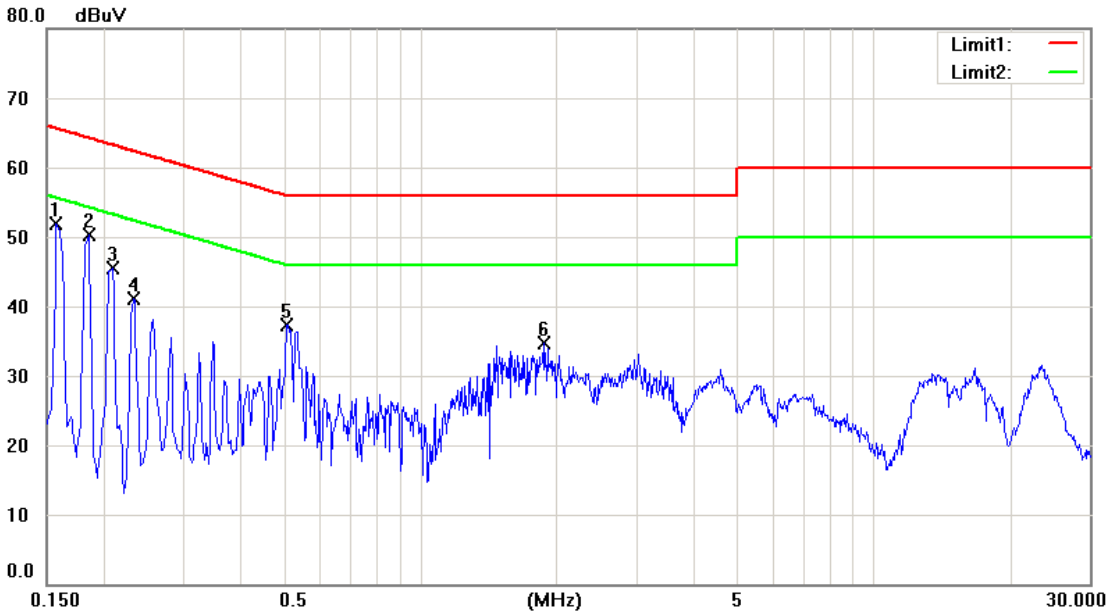
No.	Frequency (MHz)	QP reading (dBuV)	AVG reading (dBuV)	Correction factor (dB)	QP result (dBuV)	AVG result (dBuV)	QP limit (dBuV)	AVG limit (dBuV)	QP margin (dB)	AVG margin (dB)	Remark
1	0.1660	37.03	20.64	9.72	46.75	30.36	65.16	55.16	-18.41	-24.80	Pass
2	0.1940	33.06	17.79	9.72	42.78	27.51	63.86	53.86	-21.08	-26.35	Pass
3	0.2140	31.32	16.92	9.72	41.04	26.64	63.05	53.05	-22.01	-26.41	Pass
4	0.2630	27.71	16.85	9.72	37.43	26.57	61.34	51.34	-23.91	-24.77	Pass
5	0.5380	20.75	6.91	9.72	30.47	16.63	56.00	46.00	-25.53	-29.37	Pass
6	1.7700	18.74	12.35	9.78	28.52	22.13	56.00	46.00	-27.48	-23.87	Pass

Standard:	FCC Part 15B Class B	Line:	N
Test item:	Conducted Emission	Power:	AC 120V/60Hz
Model Number:	VIP4G	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	4	Date:	01/21/2013
		Test By:	Frank Lin
Description:			



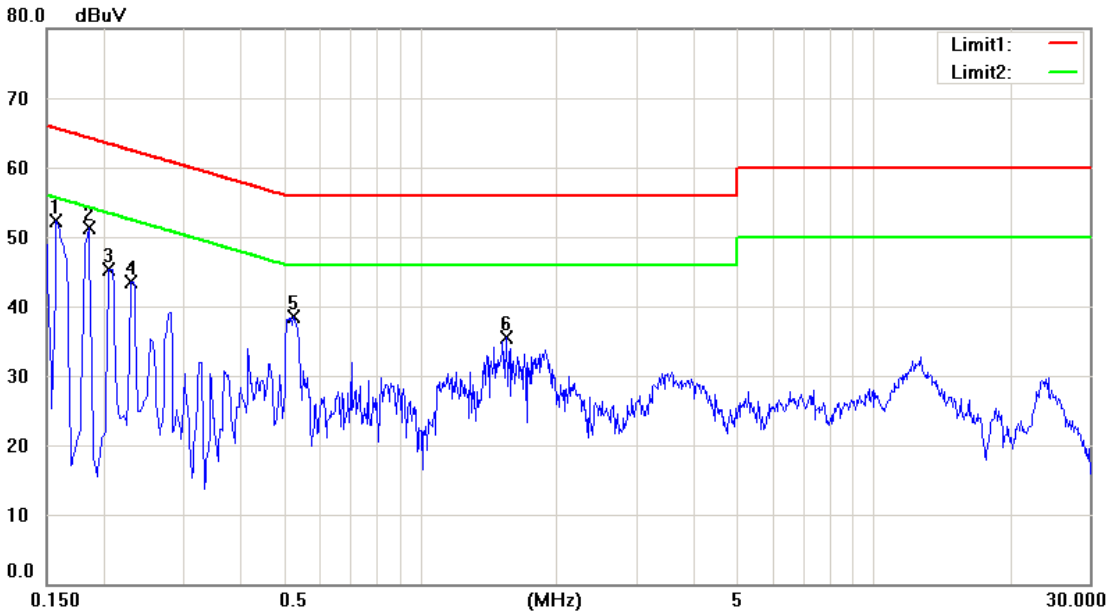
No.	Frequency (MHz)	QP reading (dBuV)	AVG reading (dBuV)	Correction factor (dB)	QP result (dBuV)	AVG result (dBuV)	QP limit (dBuV)	AVG limit (dBuV)	QP margin (dB)	AVG margin (dB)	Remark
1	0.1540	34.79	10.81	9.65	44.44	20.46	65.78	55.78	-21.34	-35.32	Pass
2	0.1780	33.86	7.89	9.64	43.50	17.53	64.58	54.58	-21.08	-37.05	Pass
3	0.2020	29.79	6.81	9.64	39.43	16.45	63.53	53.53	-24.10	-37.08	Pass
4	0.5220	27.94	22.26	9.64	37.58	31.90	56.00	46.00	-18.42	-14.10	Pass
5	1.9060	15.38	9.34	9.72	25.10	19.06	56.00	46.00	-30.90	-26.94	Pass
6	13.2780	14.43	9.23	9.81	24.24	19.04	60.00	50.00	-35.76	-30.96	Pass

Standard:	FCC Part 15B Class B	Line:	L1
Test item:	Conducted Emission	Power:	AC 120V/60Hz
Model Number:	VIP4G	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	5	Date:	02/27/2013
		Test By:	Frank Lin
Description:			



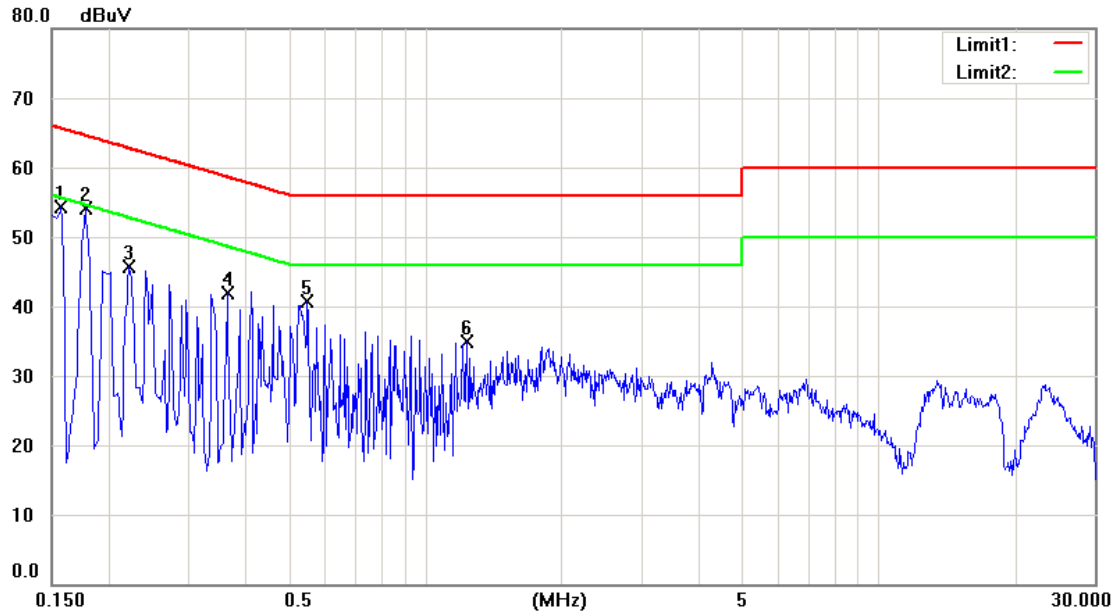
No.	Frequency (MHz)	QP reading (dBuV)	AVG reading (dBuV)	Correction factor (dB)	QP result (dBuV)	AVG result (dBuV)	QP limit (dBuV)	AVG limit (dBuV)	QP margin (dB)	AVG margin (dB)	Remark
1	0.1580	41.36	24.35	9.72	51.08	34.07	65.57	55.57	-14.49	-21.50	Pass
2	0.1860	37.07	21.39	9.72	46.79	31.11	64.21	54.21	-17.42	-23.10	Pass
3	0.2100	34.28	19.40	9.72	44.00	29.12	63.21	53.21	-19.21	-24.09	Pass
4	0.2340	31.73	18.05	9.72	41.45	27.77	62.31	52.31	-20.86	-24.54	Pass
5	0.5100	24.51	16.67	9.72	34.23	26.39	56.00	46.00	-21.77	-19.61	Pass
6	1.8740	17.41	13.72	9.78	27.19	23.50	56.00	46.00	-28.81	-22.50	Pass

Standard:	FCC Part 15B Class B	Line:	N
Test item:	Conducted Emission	Power:	AC 120V/60Hz
Model Number:	VIP4G	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	5	Date:	02/27/2013
		Test By:	Frank Lin
Description:			



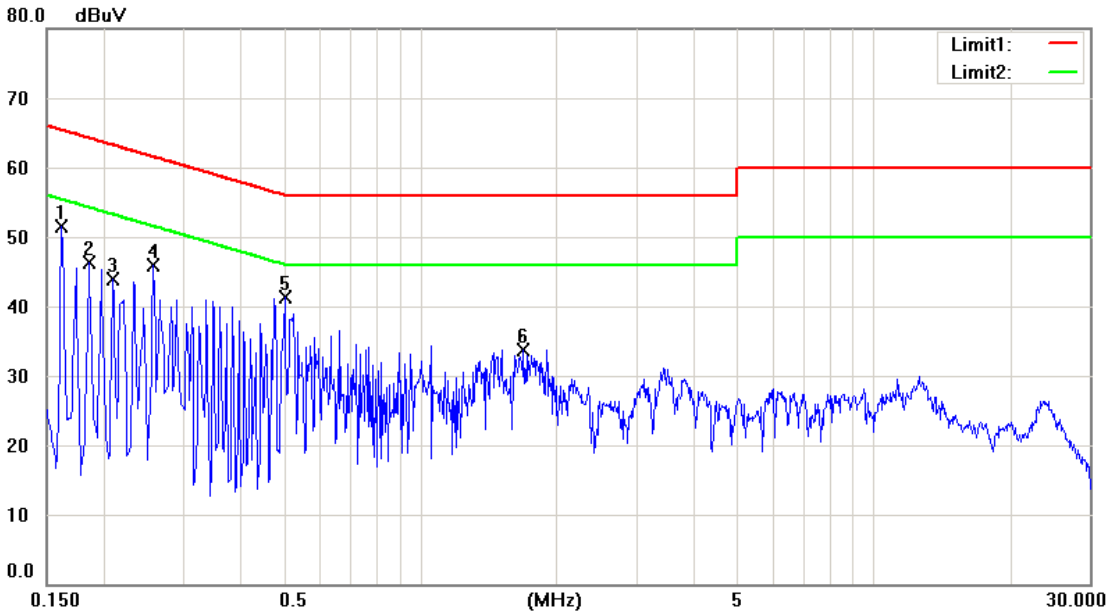
No.	Frequency (MHz)	QP reading (dBuV)	AVG reading (dBuV)	Correction factor (dB)	QP result (dBuV)	AVG result (dBuV)	QP limit (dBuV)	AVG limit (dBuV)	QP margin (dB)	AVG margin (dB)	Remark
1	0.1580	41.67	23.98	9.65	51.32	33.63	65.57	55.57	-14.25	-21.94	Pass
2	0.1860	37.26	21.51	9.64	46.90	31.15	64.21	54.21	-17.31	-23.06	Pass
3	0.2060	34.86	18.02	9.64	44.50	27.66	63.37	53.37	-18.87	-25.71	Pass
4	0.2300	31.73	16.46	9.64	41.37	26.10	62.45	52.45	-21.08	-26.35	Pass
5	0.5260	28.05	20.15	9.64	37.69	29.79	56.00	46.00	-18.31	-16.21	Pass
6	1.5540	21.28	14.74	9.70	30.98	24.44	56.00	46.00	-25.02	-21.56	Pass

Standard:	FCC Part 15B Class B	Line:	L1
Test item:	Conducted Emission	Power:	AC 120V/60Hz
Model Number:	VIP4G	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	6	Date:	01/21/2013
		Test By:	Frank Lin
Description:			



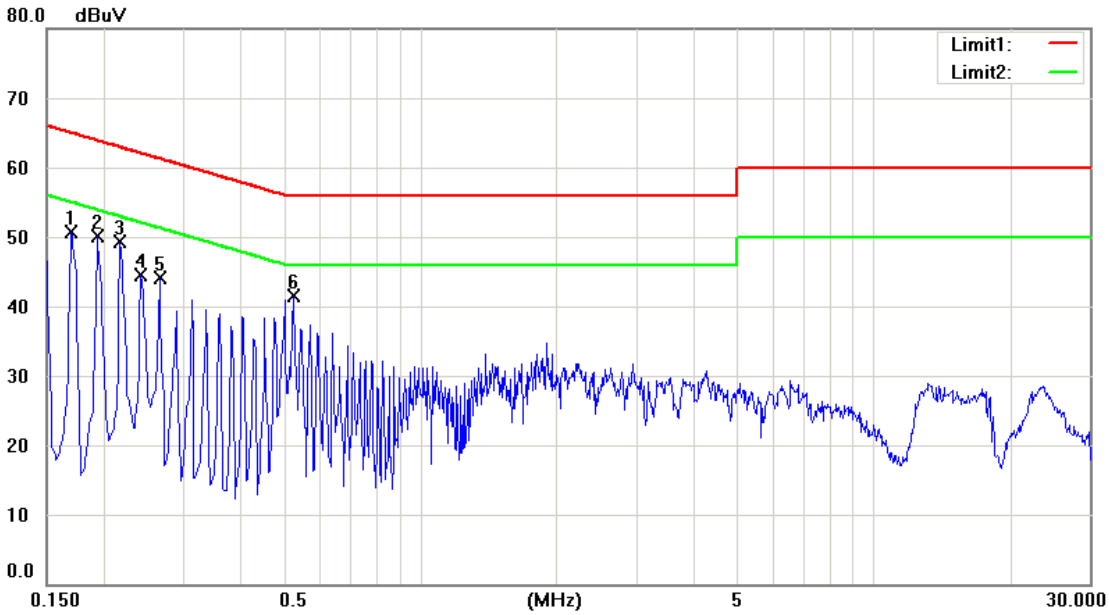
No.	Frequency (MHz)	QP reading (dBuV)	AVG reading (dBuV)	Correction factor (dB)	QP result (dBuV)	AVG result (dBuV)	QP limit (dBuV)	AVG limit (dBuV)	QP margin (dB)	AVG margin (dB)	Remark
1	0.1580	30.78	11.84	9.72	40.50	21.56	65.57	55.57	-25.07	-34.01	Pass
2	0.1780	32.76	10.22	9.72	42.48	19.94	64.58	54.58	-22.10	-34.64	Pass
3	0.2220	28.33	10.00	9.72	38.05	19.72	62.74	52.74	-24.69	-33.02	Pass
4	0.3660	22.31	4.07	9.72	32.03	13.79	58.59	48.59	-26.56	-34.80	Pass
5	0.5500	22.60	18.02	9.71	32.31	27.73	56.00	46.00	-23.69	-18.27	Pass
6	1.2380	13.70	4.50	9.74	23.44	14.24	56.00	46.00	-32.56	-31.76	Pass

Standard:	FCC Part 15B Class B	Line:	N
Test item:	Conducted Emission	Power:	AC 120V/60Hz
Model Number:	VIP4G	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	6	Date:	01/21/2013
		Test By:	Frank Lin
Description:			



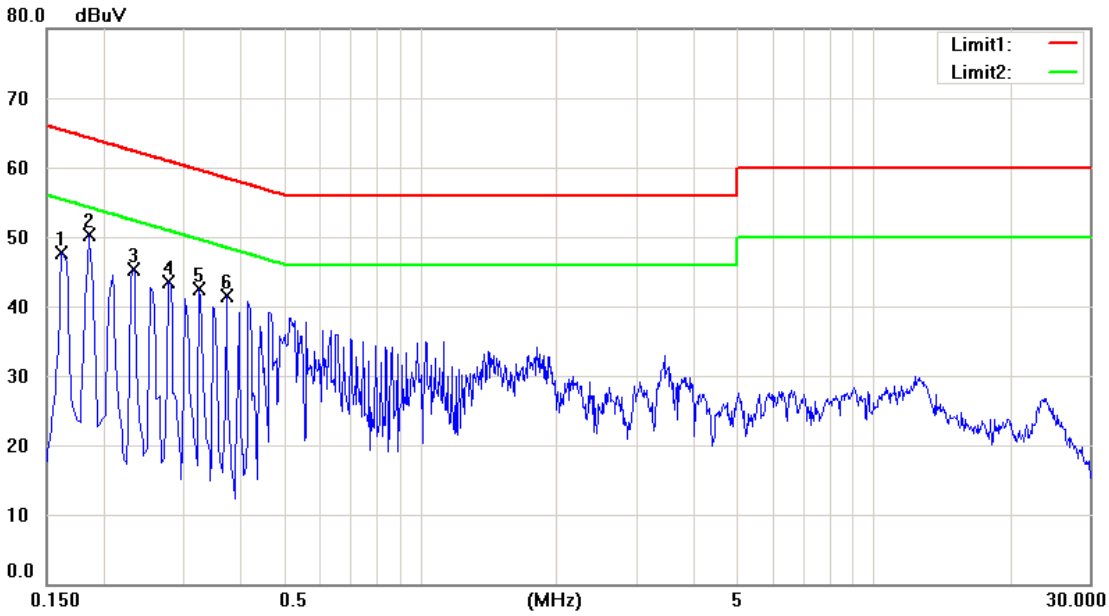
No.	Frequency (MHz)	QP reading (dBuV)	AVG reading (dBuV)	Correction factor (dB)	QP result (dBuV)	AVG result (dBuV)	QP limit (dBuV)	AVG limit (dBuV)	QP margin (dB)	AVG margin (dB)	Remark
1	0.1620	35.81	17.76	9.65	45.46	27.41	65.36	55.36	-19.90	-27.95	Pass
2	0.1860	33.38	15.85	9.64	43.02	25.49	64.21	54.21	-21.19	-28.72	Pass
3	0.2100	31.50	15.43	9.64	41.14	25.07	63.21	53.21	-22.07	-28.14	Pass
4	0.2580	28.75	14.67	9.64	38.39	24.31	61.50	51.50	-23.11	-27.19	Pass
5	0.5020	25.82	23.35	9.64	35.46	32.99	56.00	46.00	-20.54	-13.01	Pass
6	1.6940	18.73	12.94	9.71	28.44	22.65	56.00	46.00	-27.56	-23.35	Pass

Standard:	FCC Part 15B Class B	Line:	L1
Test item:	Conducted Emission	Power:	AC 120V/60Hz
Model Number:	VIP4G	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	7	Date:	01/21/2013
		Test By:	Frank Lin
Description:			



No.	Frequency (MHz)	QP reading (dBuV)	AVG reading (dBuV)	Correction factor (dB)	QP result (dBuV)	AVG result (dBuV)	QP limit (dBuV)	AVG limit (dBuV)	QP margin (dB)	AVG margin (dB)	Remark
1	0.1700	37.17	20.26	9.72	46.89	29.98	64.96	54.96	-18.07	-24.98	Pass
2	0.1940	34.17	17.52	9.72	43.89	27.24	63.86	53.86	-19.97	-26.62	Pass
3	0.2180	32.15	16.42	9.72	41.87	26.14	62.89	52.89	-21.02	-26.75	Pass
4	0.2420	29.07	14.94	9.72	38.79	24.66	62.03	52.03	-23.24	-27.37	Pass
5	0.2660	28.73	15.20	9.72	38.45	24.92	61.24	51.24	-22.79	-26.32	Pass
6	0.5260	27.11	25.18	9.72	36.83	34.90	56.00	46.00	-19.17	-11.10	Pass

Standard:	FCC Part 15B Class B	Line:	N
Test item:	Conducted Emission	Power:	AC 120V/60Hz
Model Number:	VIP4G	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	7	Date:	01/21/2013
		Test By:	Frank Lin
Description:			



No.	Frequency (MHz)	QP reading (dBuV)	AVG reading (dBuV)	Correction factor (dB)	QP result (dBuV)	AVG result (dBuV)	QP limit (dBuV)	AVG limit (dBuV)	QP margin (dB)	AVG margin (dB)	Remark
1	0.1620	35.20	17.55	9.65	44.85	27.20	65.36	55.36	-20.51	-28.16	Pass
2	0.1860	33.36	15.68	9.64	43.00	25.32	64.21	54.21	-21.21	-28.89	Pass
3	0.2340	30.12	14.37	9.64	39.76	24.01	62.31	52.31	-22.55	-28.30	Pass
4	0.2780	26.14	9.59	9.64	35.78	19.23	60.88	50.88	-25.10	-31.65	Pass
5	0.3260	23.87	6.39	9.64	33.51	16.03	59.55	49.55	-26.04	-33.52	Pass
6	0.3740	22.46	3.23	9.64	32.10	12.87	58.41	48.41	-26.31	-35.54	Pass

4.2. Radiated Interference Measurement

4.2.1. Limit

Under 1GHz test shall not exceed following value

CISPR 22				
Frequency range (MHz)	Class A		Class B	
	Distance (m)	dBuV/m	Distance (m)	dBuV/m
30 to 230	10	40	10	30
230 to 1000	10	47	10	37

Above 1GHz test shall not exceed following value

Frequency (MHz)	dBuV/m (Distance 3m)			
	Class A		Class B	
	Average	Peak	Average	Peak
1000 ~ 40000	60	80	54	74

Remark: 1. The tighter limit shall apply at the edge between two frequency bands.
2. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.
3. RF Voltage (dBuV/m) = 20 log RF Voltage (uV/m)
4. Peak detector limit is corresponding to 20 dB above the maximum permitted average limit.

4.2.2. Test Instruments

10 Meter Chamber					
Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
Pre Amplifier	Agilent	8447D	2944A11120	04/10/2012	(1)
Pre Amplifier	Agilent	8447D	2944A11119	04/10/2012	(1)
Test Receiver	R&S	ESCI	100722	10/18/2012	(1)
Test Receiver	R&S	ESCI	101000	12/18/2012	(1)
Broadband Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB 9160	9160-3268	06/06/2012	(1)
Broadband Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB 9160	9160-3273	12/16/2012	(1)
Universal Radio Communication Tester	R&S	CMU200	109369	08/07/2012	(2)
Test Site	ATL	TE06	TE06	08/13/2012	(1)

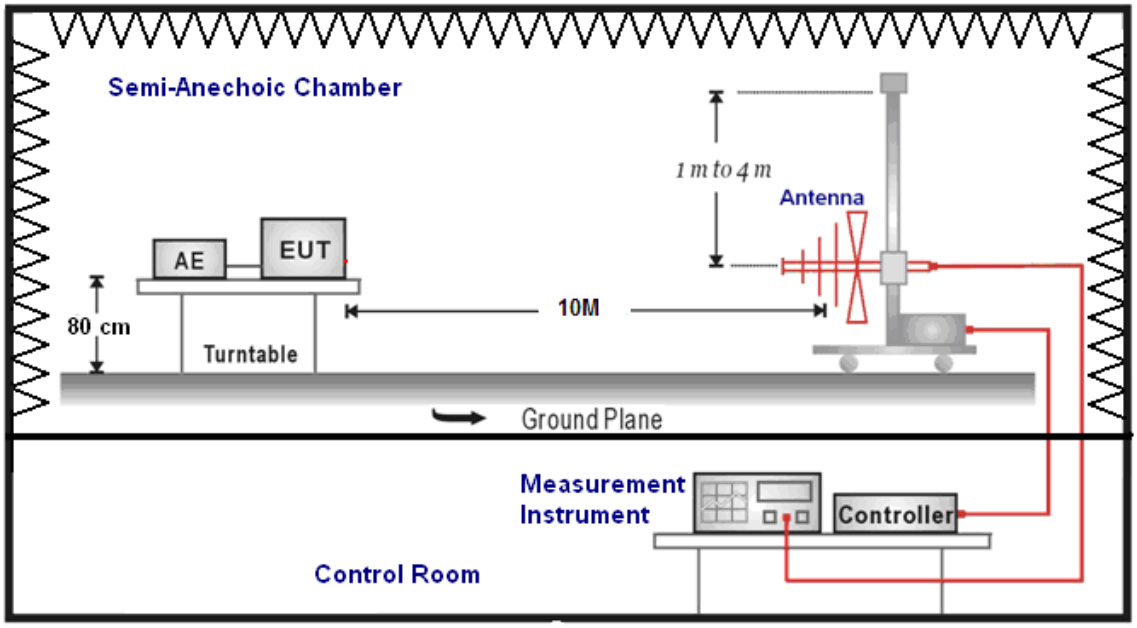
3 Meter Chamber					
Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
Spectrum Analyzer	Agilent	E4445A	MY46181986	05/10/2012	(1)
Amplifier	Mini-Circuits	ZKL-1R5+	072010	05/29/2012	(1)
Amplifier	Mini-Circuits	ZVA-213-S+	467900926	05/29/2012	(1)
RF Pre-selector	Agilent	N9039A	MY46520255	05/10/2012	(1)
Horn Antenna (1~18GHz)	ETS-Lindgren	3117	00128055	08/09/2012	(1)
Horn Antenna (18~40GHz)	SCHWARZBECK MESS-ELEKTRONIK	BBHA9170	9170-320	06/21/2012	(1)
Universal Radio Communication Tester	R&S	CMU200	109369	08/07/2012	(2)
Test Site	ATL	TE09	TE09	05/11/2012	(1)

Remark: (1) Calibration period 1 year. (2) Calibration period 2 years.

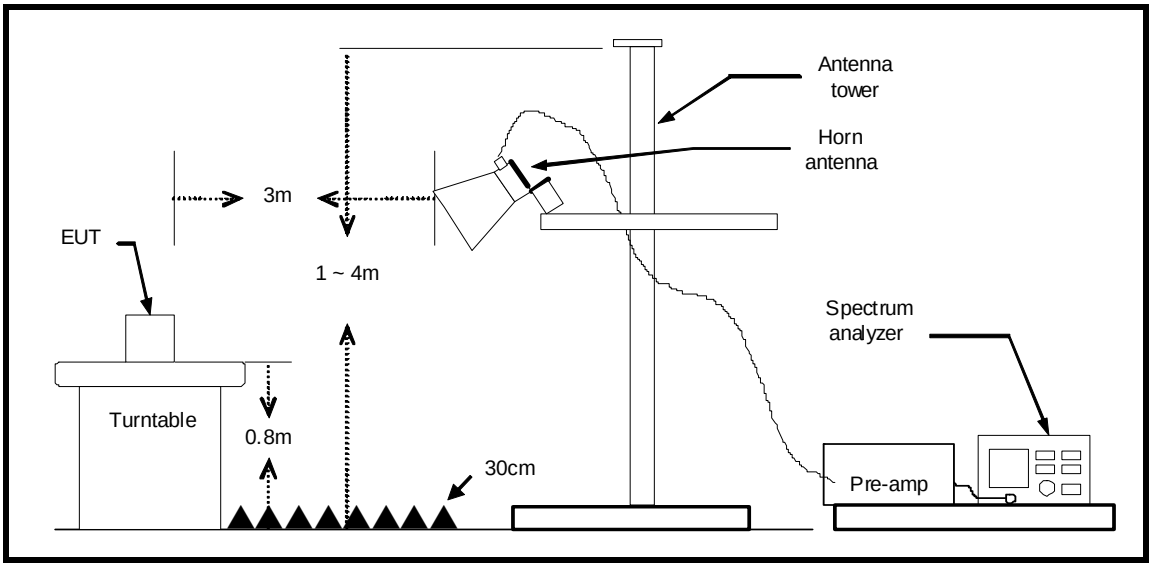
Note: N.C.R. = No Calibration Request.

4.2.3. Setup

Below 1GHz



Above 1GHz



4.2.4. Test Procedure

The EUT and its simulators are placed on a turn table which is 0.8 meter above ground. When the EUT is floor-standing equipment, it is placed on the ground plane which has a 3-12 mm non-conductive covering to insulate the EUT from the ground plane.

The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 10 meters for under 1GHz, and 3 meter for above 1GHz, the highest frequency performed according to internal source frequency of the EUT, the specification was below:

Highest frequency generated or used in the device or on which the device operates or tunes (MHz)	Upper frequency of measurement range (MHz)
Below 1.705	30
1.705 - 108	1000
108 - 500	2000
500 - 1000	5000
Above 1000	5th harmonic of the highest frequency or 40 GHz, whichever is lower

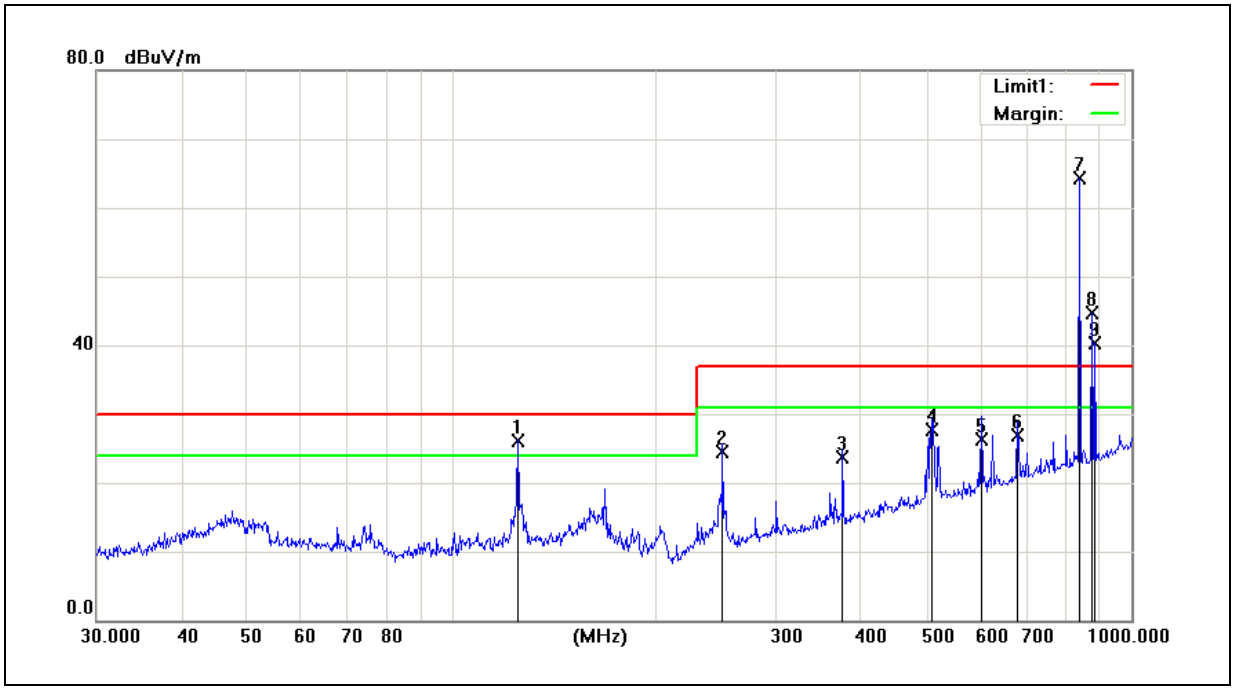
According to this standard paragraph 15.109, as an alternative to the radiated emission limits, digital devices may be shown to comply with the standards contained in Third Edition of the International Special Committee on Radio Interference (CISPR), Pub. 22, “Information Technology Equipment - Radio Disturbance Characteristics - Limits and Methods of Measurement”.

The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level. Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated on radiated measurement.

Radiated emissions were invested over the frequency range from 30MHz to1GHz using a receiver bandwidth of 120 kHz. Radiated was performed at an antenna to EUT distance of 10 meters.

4.2.5. Test Result

Standard:	CISPR 22 Class B	Test Distance:	10m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	VIP4G	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	1	Date:	01/21/2013
Ant.Polar.:	Horizontal	Test By:	Frank Lin



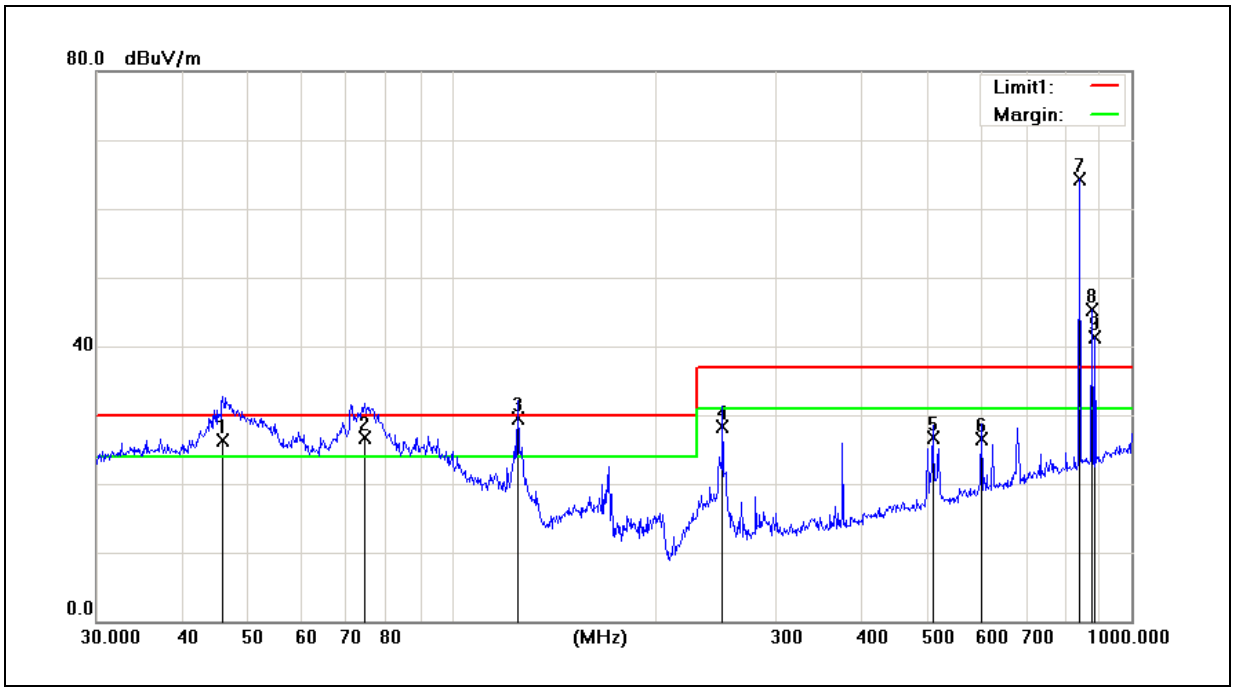
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
1	125.0066	40.30	-14.20	26.10	30.00	-3.90	300	41	QP
2	250.3012	37.89	-13.29	24.60	37.00	-12.40	400	72	QP
3	375.9385	34.00	-10.30	23.70	37.00	-13.30	300	78	QP
4	508.2582	35.45	-7.65	27.80	37.00	-9.20	200	329	QP
5	601.4265	31.95	-5.55	26.40	37.00	-10.60	100	106	QP
6	679.9600	31.22	-4.32	26.90	37.00	-10.10	100	279	QP
7	839.1817	65.79	-1.53	64.26	N/A	N/A	300	241	TX
8	875.2470	45.57	-0.88	44.69	N/A	N/A	300	288	BS
9	884.5028	41.13	-0.73	40.40	N/A	N/A	400	317	RX

Note: TX: the transmitting signal of Universal Radio Communication Tester.

RX: the receiving signal of Universal Radio Communication Tester.

BS: the signal of Universal Radio Communication Tester.

Standard:	CISPR 22 Class B	Test Distance:	10m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	VIP4G	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	1	Date:	01/21/2013
Ant.Polar.:	Vertical	Test By:	Frank Lin



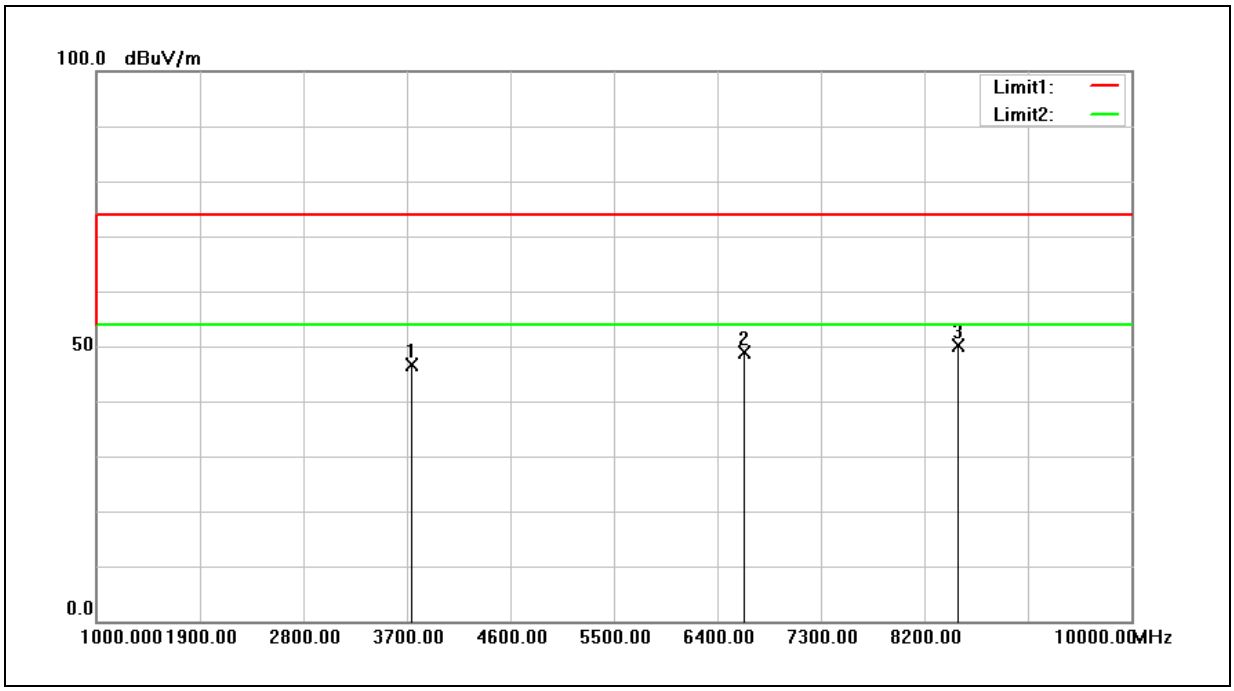
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
1	46.0164	40.66	-14.36	26.30	30.00	-3.70	101	360	QP
2	74.3955	43.79	-16.99	26.80	30.00	-3.20	100	97	QP
3	125.0066	43.45	-13.85	27.60	30.00	-2.40	100	255	QP
4	250.3012	41.00	-12.60	28.40	37.00	-8.60	100	140	QP
5	510.0436	33.12	-6.42	26.70	37.00	-10.30	100	42	QP
6	601.4265	30.91	-4.41	26.50	37.00	-10.50	400	163	QP
7	839.1818	64.13	0.21	64.34	N/A	N/A	200	57	TX
8	875.2470	44.49	0.87	45.36	N/A	N/A	200	216	BS
9	884.5030	40.30	1.00	41.30	N/A	N/A	100	173	RX

Note: TX: the transmitting signal of Universal Radio Communication Tester.

RX: the receiving signal of Universal Radio Communication Tester.

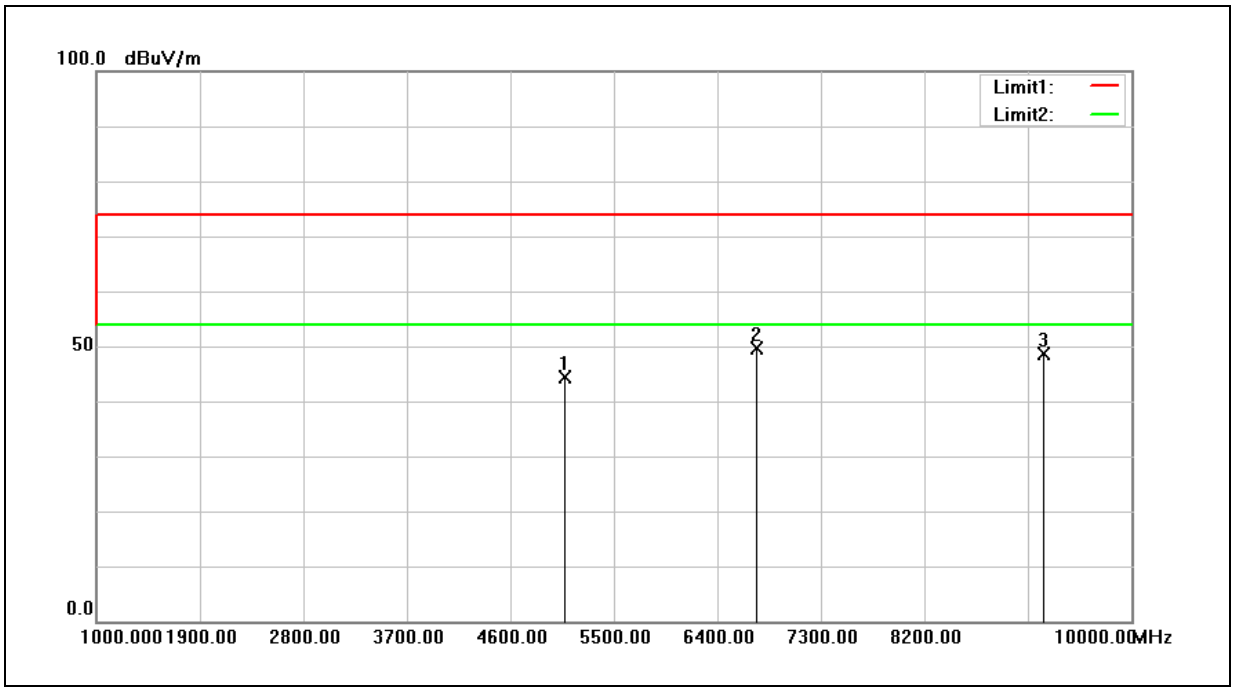
BS: the signal of Universal Radio Communication Tester.

Standard:	FCC Part 15B Class B	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	VIP4G	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	1 (1GHz~10GHz)	Date:	01/21/2013
Ant.Polar.:	Horizontal	Test By:	Frank Lin



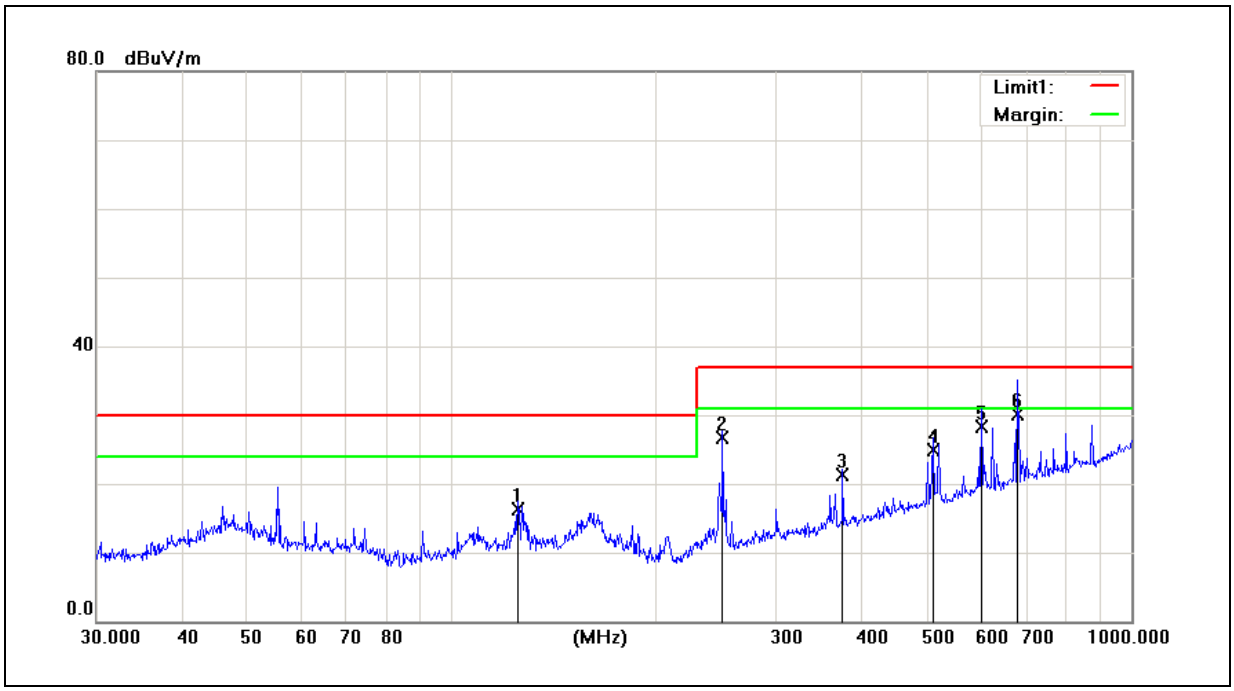
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3745.000	62.06	-15.34	46.72	74.00	-27.28	peak
2	6634.000	58.09	-9.19	48.90	74.00	-25.10	peak
3	8497.000	57.09	-6.86	50.23	74.00	-23.77	peak

Standard:	FCC Part 15B Class B	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	VIP4G	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	1 (1GHz~10GHz)	Date:	01/21/2013
Ant.Polar.:	Vertical	Test By:	Frank Lin



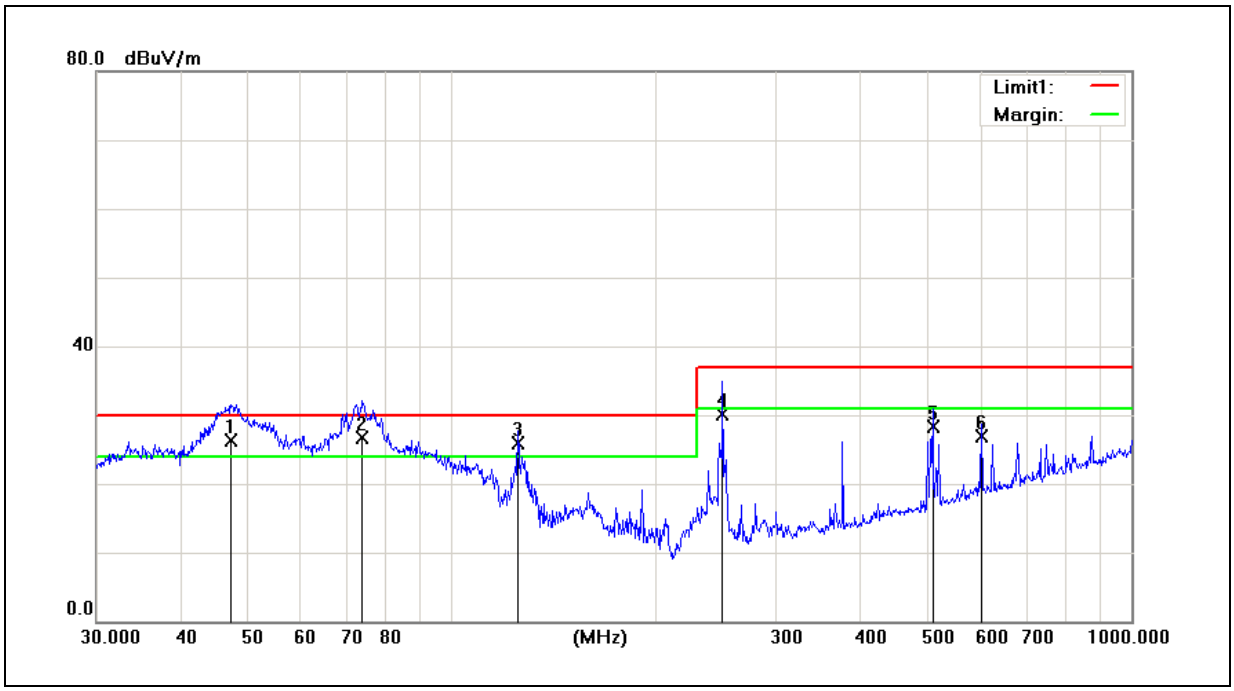
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5077.000	56.97	-12.49	44.48	74.00	-29.52	peak
2	6742.000	58.55	-9.04	49.51	74.00	-24.49	peak
3	9235.000	54.48	-5.74	48.74	74.00	-25.26	peak

Standard:	CISPR 22 Class B	Test Distance:	10m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	VIP4G	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	2	Date:	01/21/2013
Ant.Polar.:	Horizontal	Test By:	Frank Lin



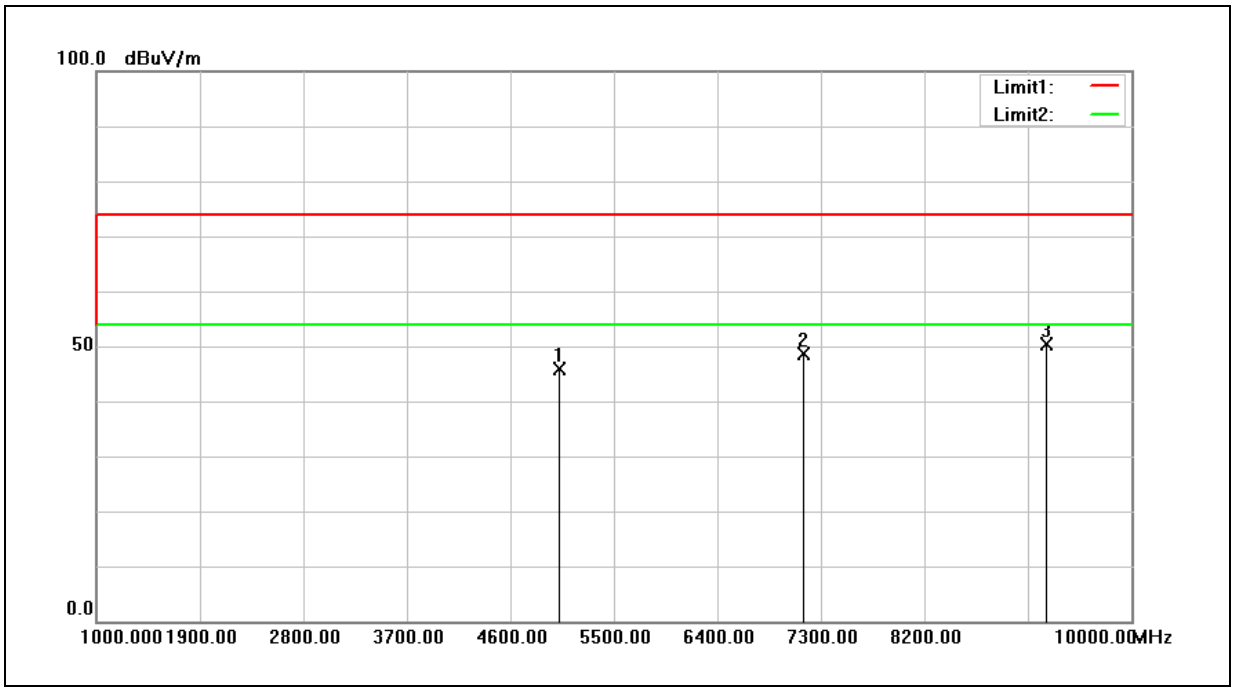
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
1	125.0066	30.60	-14.20	16.40	30.00	-13.60	400	64	QP
2	250.3012	40.09	-13.29	26.80	37.00	-10.20	300	69	QP
3	375.9385	31.70	-10.30	21.40	37.00	-15.60	300	217	QP
4	510.0436	32.53	-7.63	24.90	37.00	-12.10	232	360	QP
5	601.4265	33.85	-5.55	28.30	37.00	-8.70	200	122	QP
6	679.9600	34.52	-4.32	30.20	37.00	-6.80	100	112	QP

Standard:	CISPR 22 Class B	Test Distance:	10m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	VIP4G	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	2	Date:	01/21/2013
Ant.Polar.:	Vertical	Test By:	Frank Lin



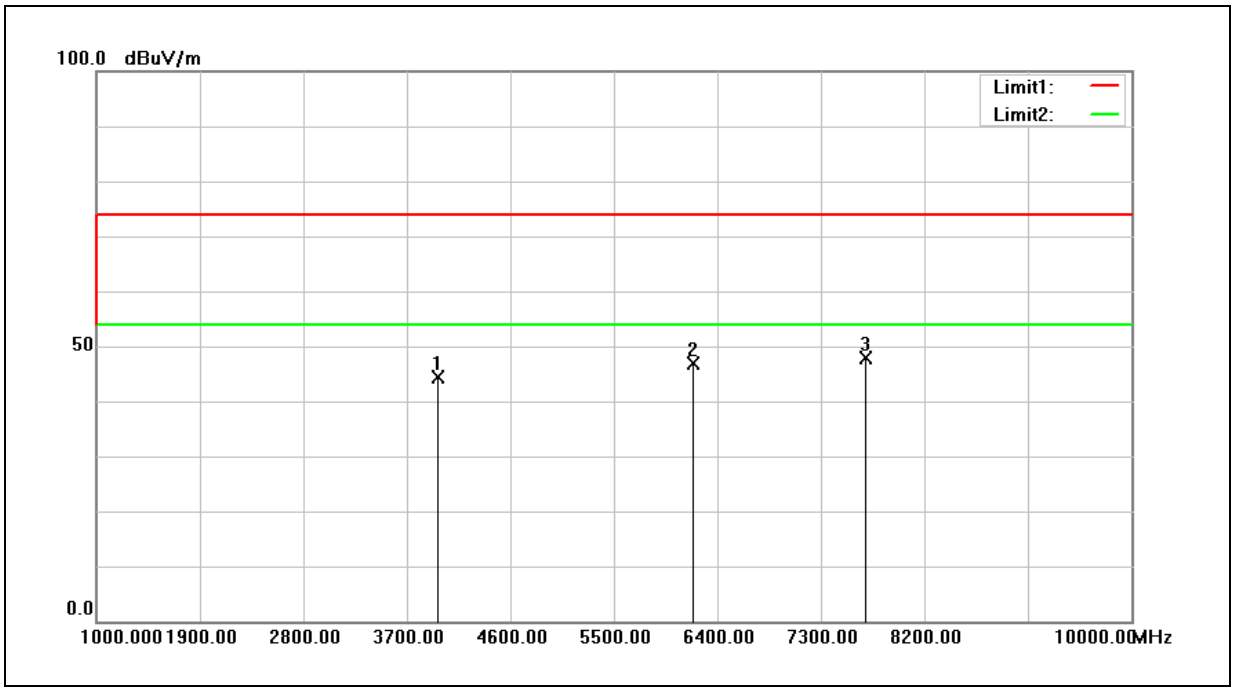
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
1	47.3255	40.75	-14.35	26.40	30.00	-3.60	101	0	QP
2	73.8756	43.59	-16.89	26.70	30.00	-3.30	200	156	QP
3	125.0066	39.75	-13.85	25.90	30.00	-4.10	100	270	QP
4	250.3012	42.80	-12.60	30.20	37.00	-6.80	100	203	QP
5	510.0436	34.82	-6.42	28.40	37.00	-8.60	101	0	QP
6	601.4265	31.31	-4.41	26.90	37.00	-10.10	300	198	QP

Standard:	FCC Part 15B Class B	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	VIP4G	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	2 (1GHz~10GHz)	Date:	01/21/2013
Ant.Polar.:	Horizontal	Test By:	Frank Lin



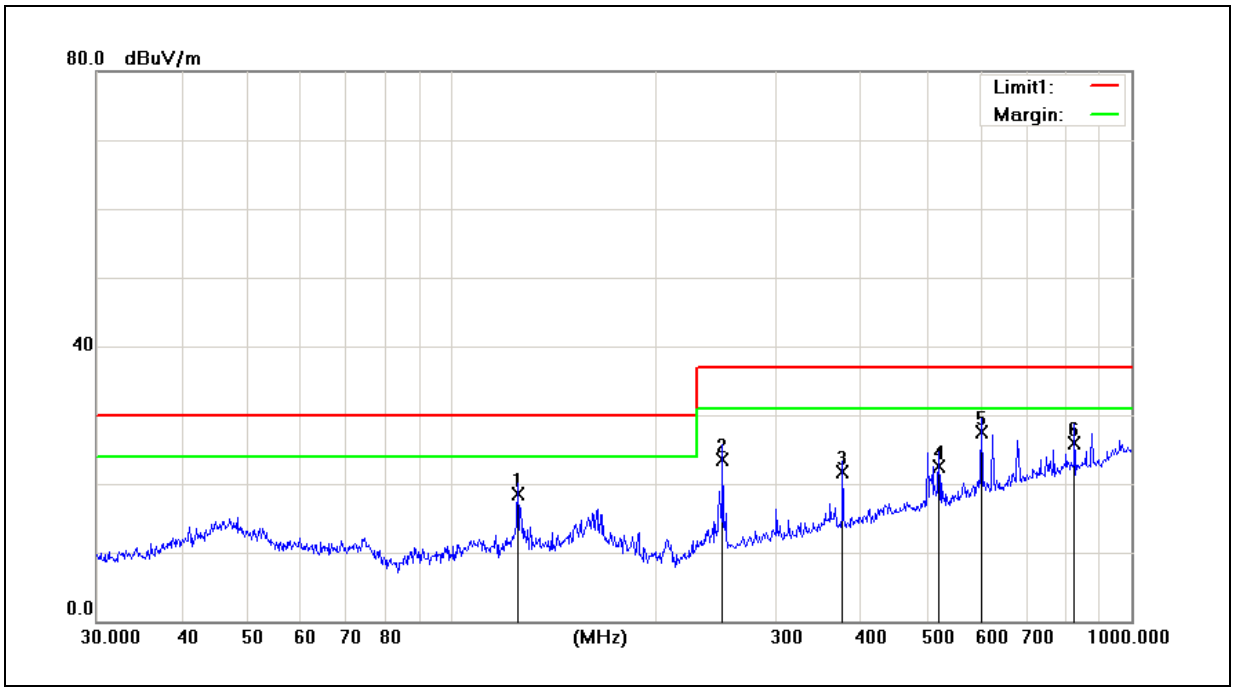
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5023.000	58.58	-12.58	46.00	74.00	-28.00	peak
2	7147.000	57.17	-8.55	48.62	74.00	-25.38	peak
3	9262.000	56.09	-5.70	50.39	74.00	-23.61	peak

Standard:	FCC Part 15B Class B	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	VIP4G	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	2 (1GHz~10GHz)	Date:	01/21/2013
Ant.Polar.:	Vertical	Test By:	Frank Lin



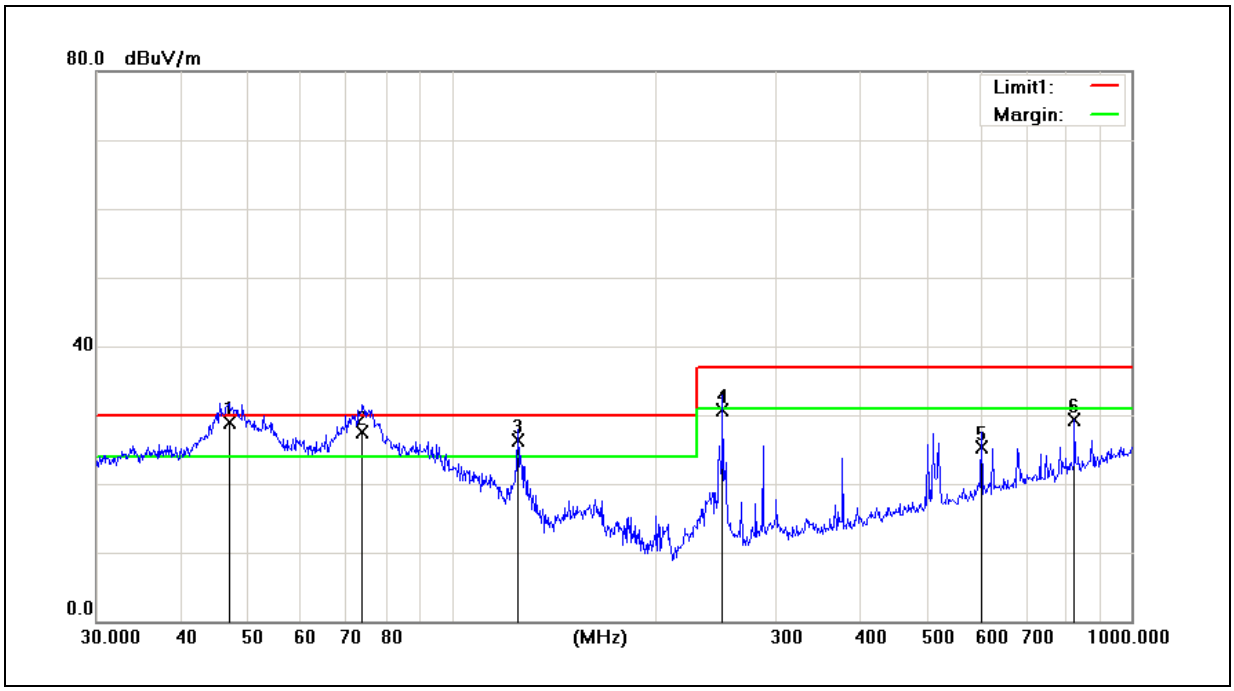
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3970.000	58.87	-14.59	44.28	74.00	-29.72	peak
2	6193.000	56.52	-9.75	46.77	74.00	-27.23	peak
3	7687.000	55.74	-7.98	47.76	74.00	-26.24	peak

Standard:	CISPR 22 Class B	Test Distance:	10m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	VIP4G	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	3	Date:	01/21/2013
Ant.Polar.:	Horizontal	Test By:	Frank Lin



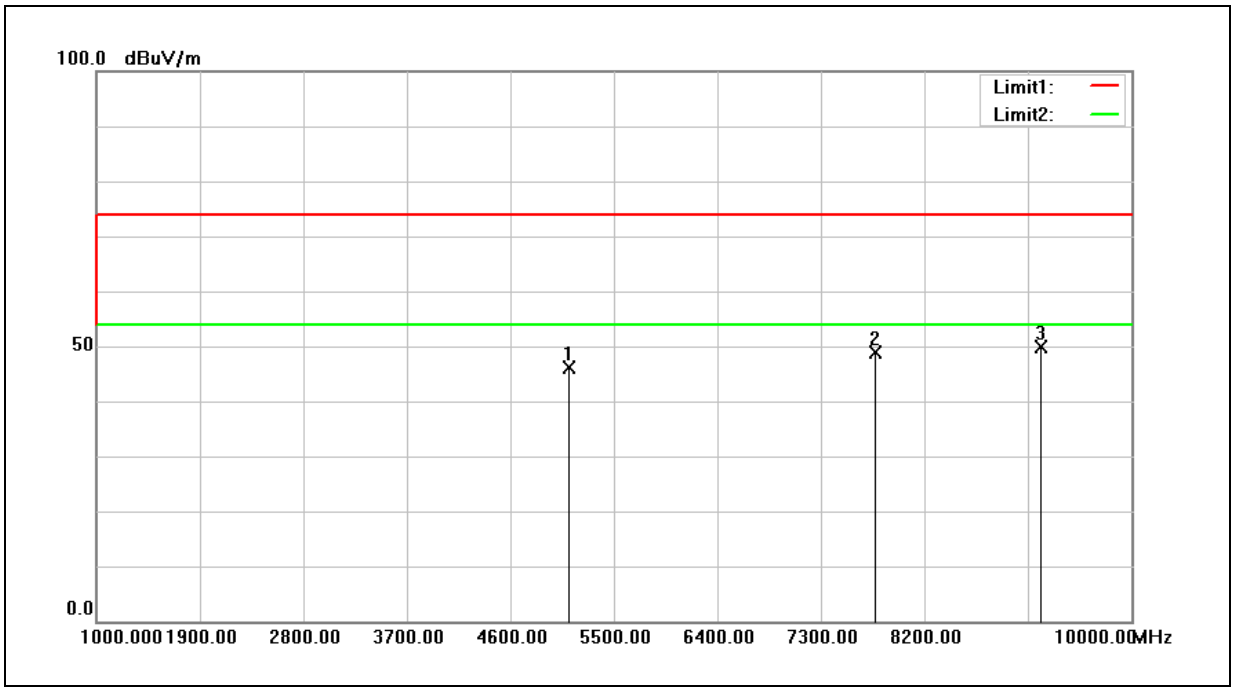
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
1	125.0066	32.80	-14.20	18.60	30.00	-11.40	400	30	QP
2	250.3012	36.79	-13.29	23.50	37.00	-13.50	400	65	QP
3	375.9385	32.10	-10.30	21.80	37.00	-15.20	300	224	QP
4	520.8882	30.06	-7.46	22.60	37.00	-14.40	200	337	QP
5	601.4265	33.05	-5.55	27.50	37.00	-9.50	200	102	QP
6	824.5968	27.69	-1.79	25.90	37.00	-11.10	400	359	QP

Standard:	CISPR 22 Class B	Test Distance:	10m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	VIP4G	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	3	Date:	01/21/2013
Ant.Polar.:	Vertical	Test By:	Frank Lin



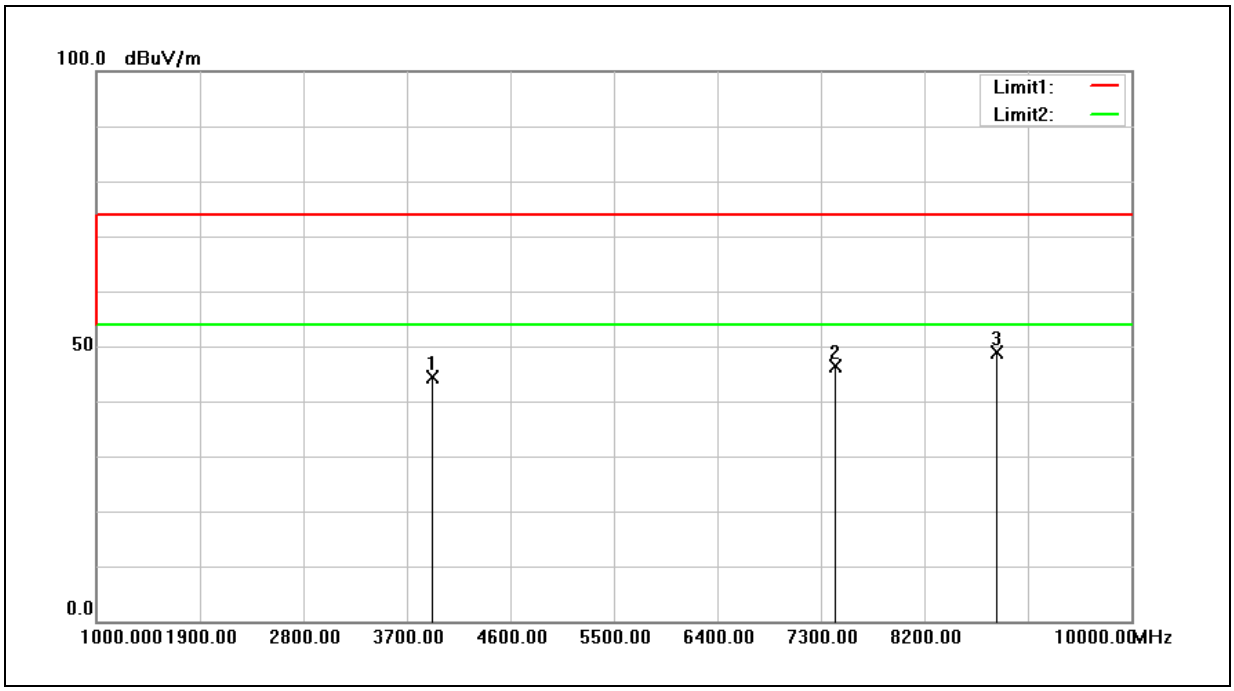
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
1	46.9948	43.25	-14.35	28.90	30.00	-1.10	201	360	QP
2	73.8756	44.49	-16.89	27.60	30.00	-2.40	100	7	QP
3	125.0066	40.25	-13.85	26.40	30.00	-3.60	100	304	QP
4	250.3012	43.40	-12.60	30.80	37.00	-6.20	100	106	QP
5	601.4265	29.81	-4.41	25.40	37.00	-11.60	300	160	QP
6	824.5968	29.34	-0.06	29.28	37.00	-7.72	100	359	QP

Standard:	FCC Part 15B Class B	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	VIP4G	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	3 (1GHz~10GHz)	Date:	01/21/2013
Ant.Polar.:	Horizontal	Test By:	Frank Lin



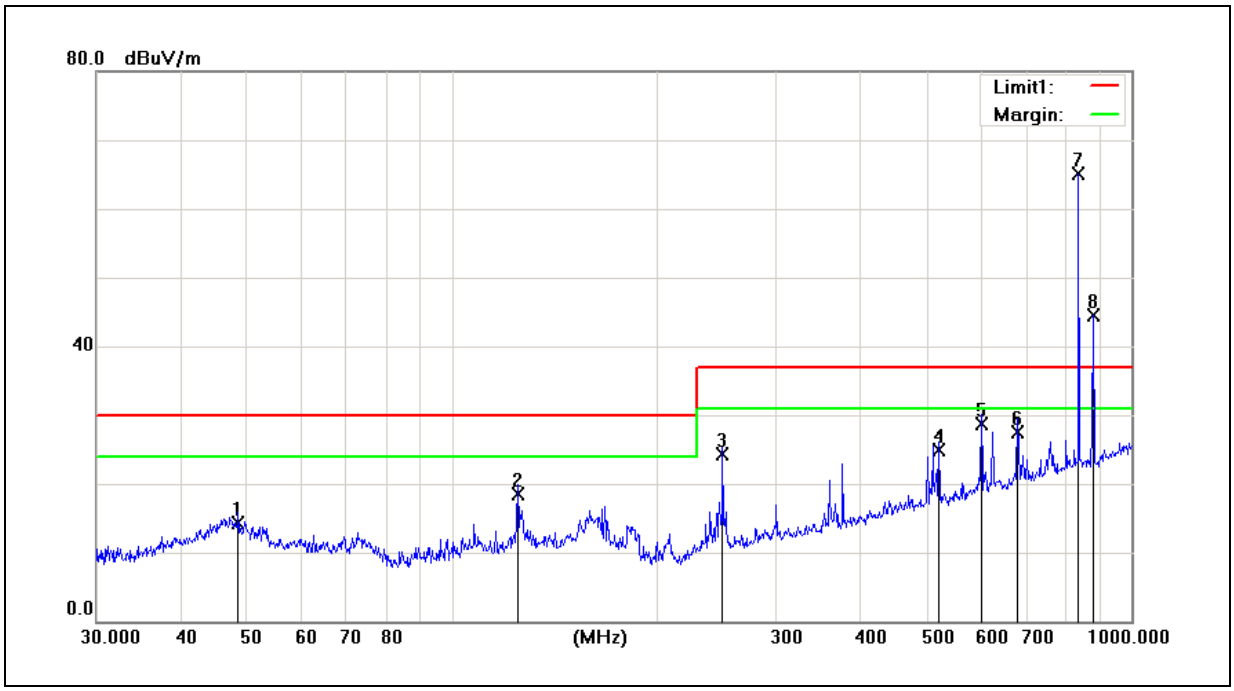
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5113.000	58.50	-12.42	46.08	74.00	-27.92	peak
2	7777.000	56.75	-7.87	48.88	74.00	-25.12	peak
3	9217.000	55.59	-5.77	49.82	74.00	-24.18	peak

Standard:	FCC Part 15B Class B	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	VIP4G	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	3 (1GHz~10GHz)	Date:	01/21/2013
Ant.Polar.:	Vertical	Test By:	Frank Lin



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3925.000	59.01	-14.75	44.26	74.00	-29.74	peak
2	7426.000	54.68	-8.25	46.43	74.00	-27.57	peak
3	8830.000	55.34	-6.35	48.99	74.00	-25.01	peak

Standard:	CISPR 22 Class B	Test Distance:	10m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	VIP4G	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	4	Date:	01/21/2013
Ant.Polar.:	Horizontal	Test By:	Frank Lin

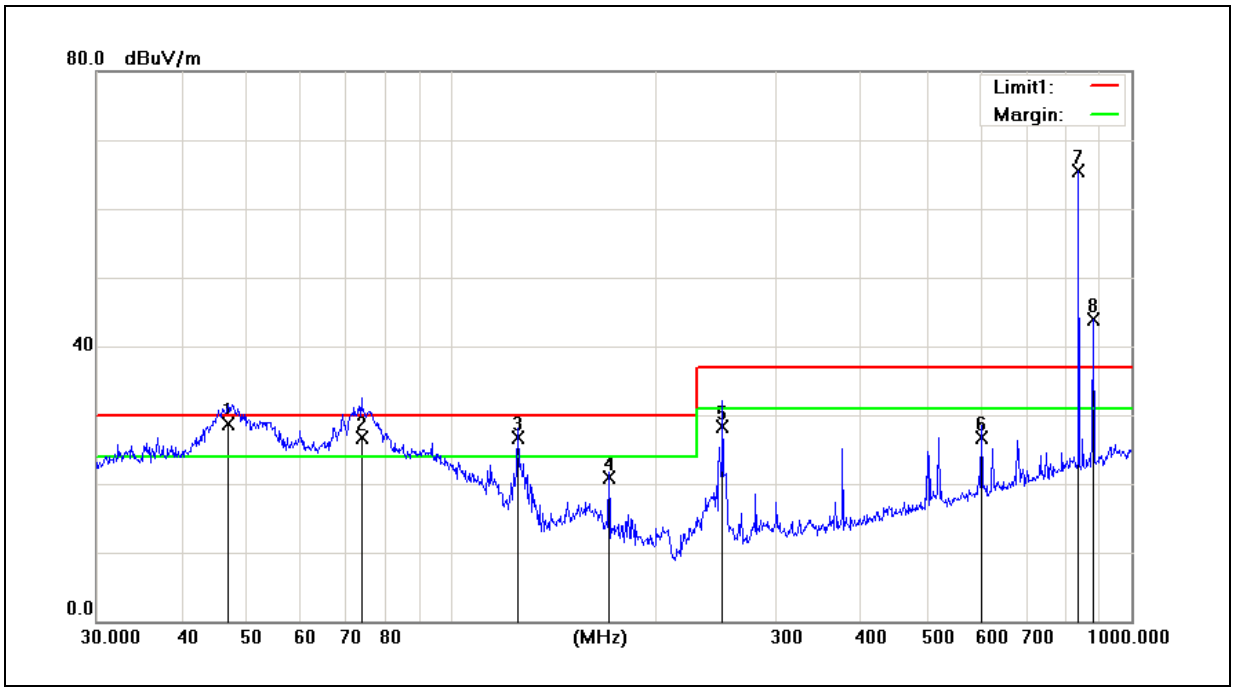


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
1	48.5016	28.61	-14.31	14.30	30.00	-15.70	300	261	QP
2	125.0066	32.80	-14.20	18.60	30.00	-11.40	400	54	QP
3	250.3012	37.59	-13.29	24.30	37.00	-12.70	400	68	QP
4	520.8882	32.36	-7.46	24.90	37.00	-12.10	200	333	QP
5	601.4265	34.25	-5.55	28.70	37.00	-8.30	200	115	QP
6	679.9600	31.82	-4.32	27.50	37.00	-9.50	100	282	QP
7	836.2443	66.75	-1.59	65.16	N/A	N/A	300	291	TX
8	878.3214	45.37	-0.84	44.53	N/A	N/A	200	202	RX

Note: TX: the transmitting signal of Universal Radio Communication Tester.

RX: the receiving signal of Universal Radio Communication Tester.

Standard:	CISPR 22 Class B	Test Distance:	10m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	VIP4G	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	4	Date:	01/21/2013
Ant.Polar.:	Vertical	Test By:	Frank Lin

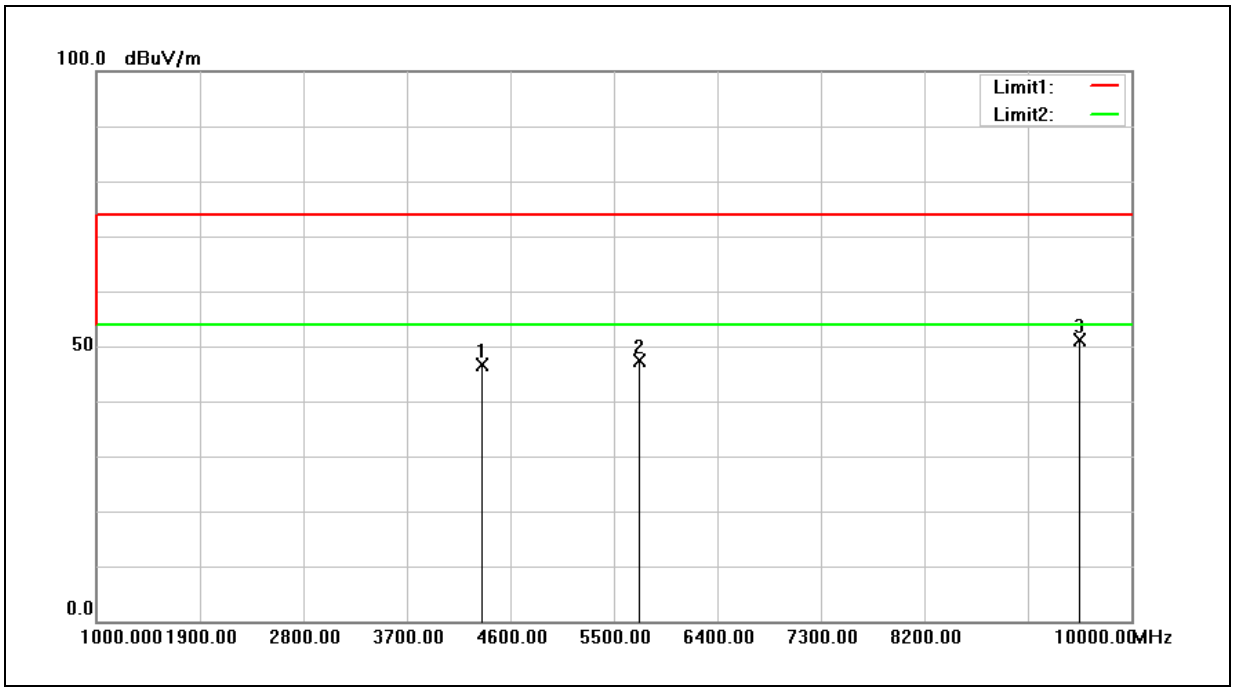


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
1	46.8303	43.06	-14.36	28.70	30.00	-1.30	200	343	QP
2	73.6170	43.53	-16.83	26.70	30.00	-3.30	200	241	QP
3	125.0066	40.65	-13.85	26.80	30.00	-3.20	100	263	QP
4	170.1948	33.63	-12.73	20.90	30.00	-9.10	200	276	QP
5	250.3012	41.00	-12.60	28.40	37.00	-8.60	100	272	QP
6	601.4265	31.11	-4.41	26.70	37.00	-10.30	300	199	QP
7	836.2443	65.36	0.11	65.47	N/A	N/A	300	34	TX
8	878.3214	43.02	0.91	43.93	N/A	N/A	300	304	RX

Note: TX: the transmitting signal of Universal Radio Communication Tester.

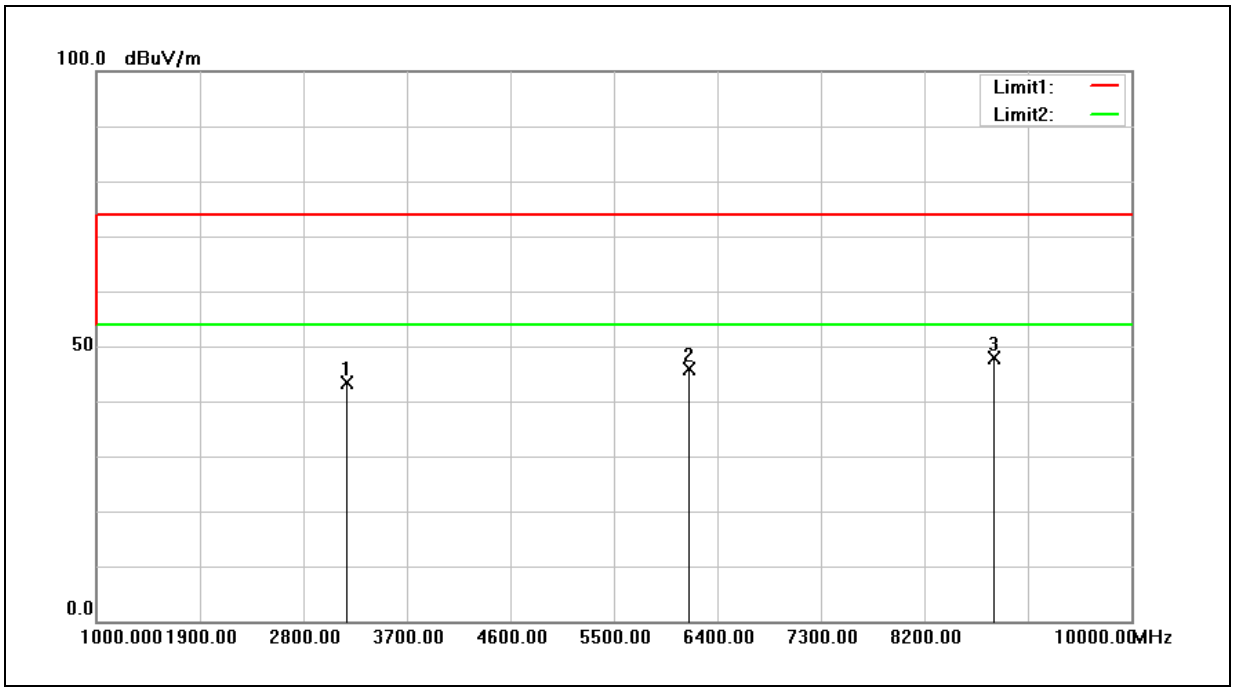
RX: the receiving signal of Universal Radio Communication Tester.

Standard:	FCC Part 15B Class B	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	VIP4G	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	4 (1GHz~10GHz)	Date:	01/21/2013
Ant.Polar.:	Horizontal	Test By:	Frank Lin



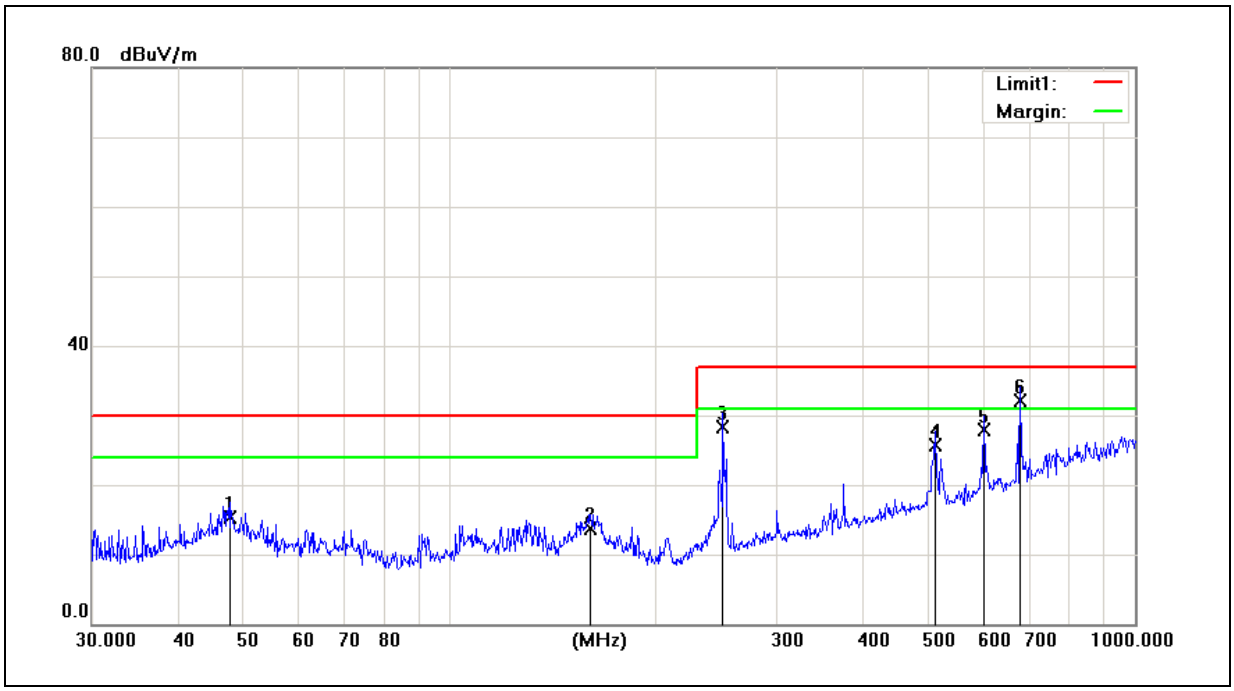
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4357.000	60.12	-13.53	46.59	74.00	-27.41	peak
2	5725.000	58.31	-10.95	47.36	74.00	-26.64	peak
3	9550.000	56.40	-5.20	51.20	74.00	-22.80	peak

Standard:	FCC Part 15B Class B	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	VIP4G	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	4 (1GHz~10GHz)	Date:	01/21/2013
Ant.Polar.:	Vertical	Test By:	Frank Lin



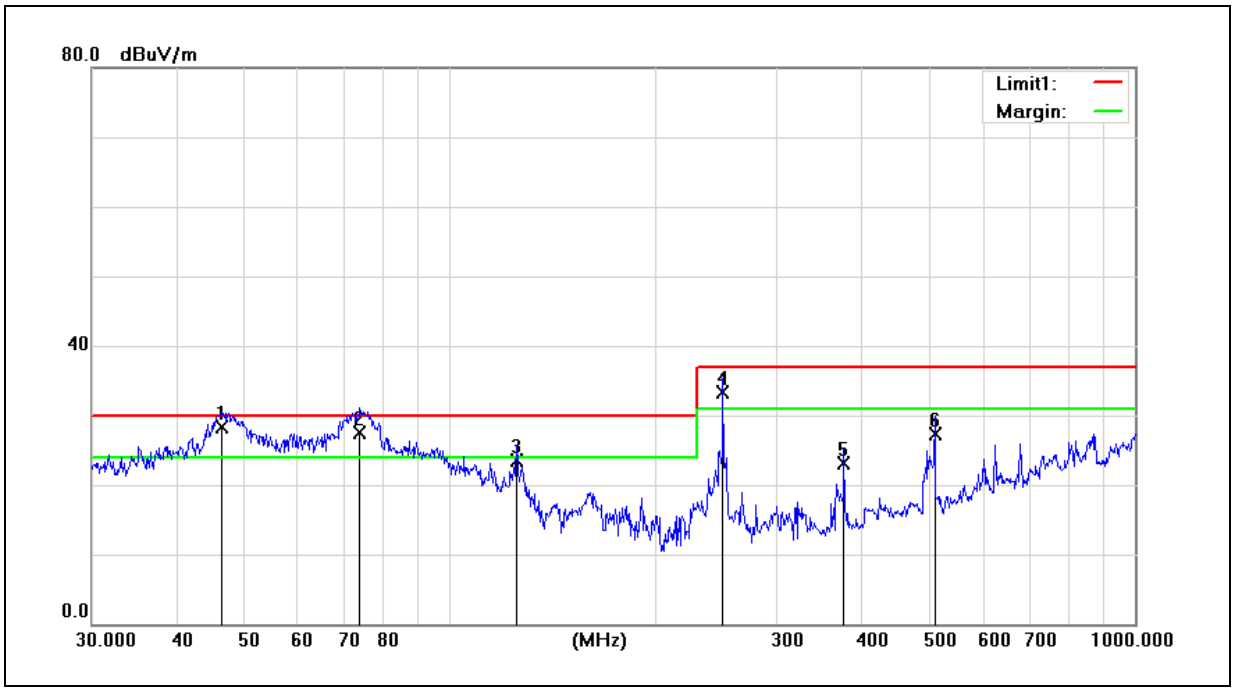
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3178.000	59.96	-16.49	43.47	74.00	-30.53	peak
2	6157.000	55.68	-9.78	45.90	74.00	-28.10	peak
3	8803.000	54.23	-6.40	47.83	74.00	-26.17	peak

Standard:	CISPR 22 Class B	Test Distance:	10m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	VIP4G	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	5	Date:	02/27/2013
Ant.Polar.:	Horizontal	Test By:	Frank Lin



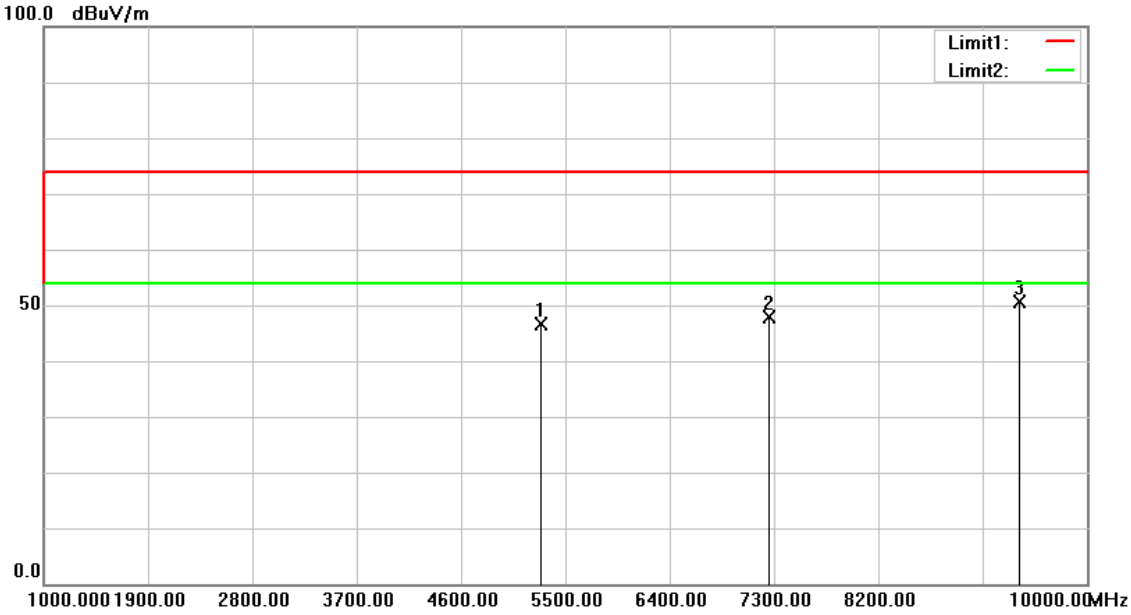
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
1	47.8260	29.72	-14.32	15.40	30.00	-14.60	300	57	QP
2	160.3456	26.45	-12.75	13.70	30.00	-16.30	200	159	QP
3	250.3011	41.59	-13.29	28.30	37.00	-8.70	400	27	QP
4	510.0436	33.33	-7.63	25.70	37.00	-11.30	400	254	QP
5	601.4265	33.45	-5.55	27.90	37.00	-9.10	300	180	QP
6	679.9600	36.52	-4.32	32.20	37.00	-4.80	300	18	QP

Standard:	CISPR 22 Class B	Test Distance:	10m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	VIP4G	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	5	Date:	02/27/2013
Ant.Polar.:	Vertical	Test By:	Frank Lin



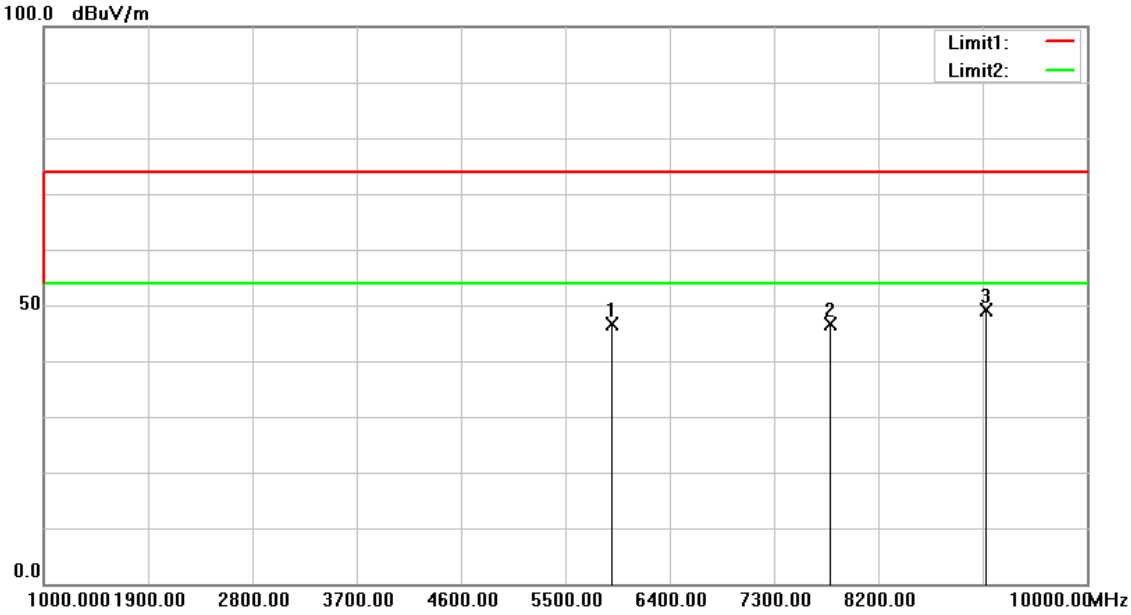
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
1	46.5030	42.76	-14.36	28.40	30.00	-1.60	200	128	QP
2	73.8756	44.39	-16.89	27.50	30.00	-2.50	100	250	QP
3	125.0066	37.45	-13.85	23.60	30.00	-6.40	200	360	QP
4	250.3011	46.00	-12.60	33.40	37.00	-3.60	300	114	QP
5	375.9384	32.54	-9.34	23.20	37.00	-13.80	200	159	QP
6	510.0436	33.71	-6.42	27.29	37.00	-9.71	300	312	QP

Standard:	FCC Part 15B Class B	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	VIP4G	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	5 (1GHz~10GHz)	Date:	02/27/2013
Ant.Polar.:	Horizontal	Test By:	Frank Lin



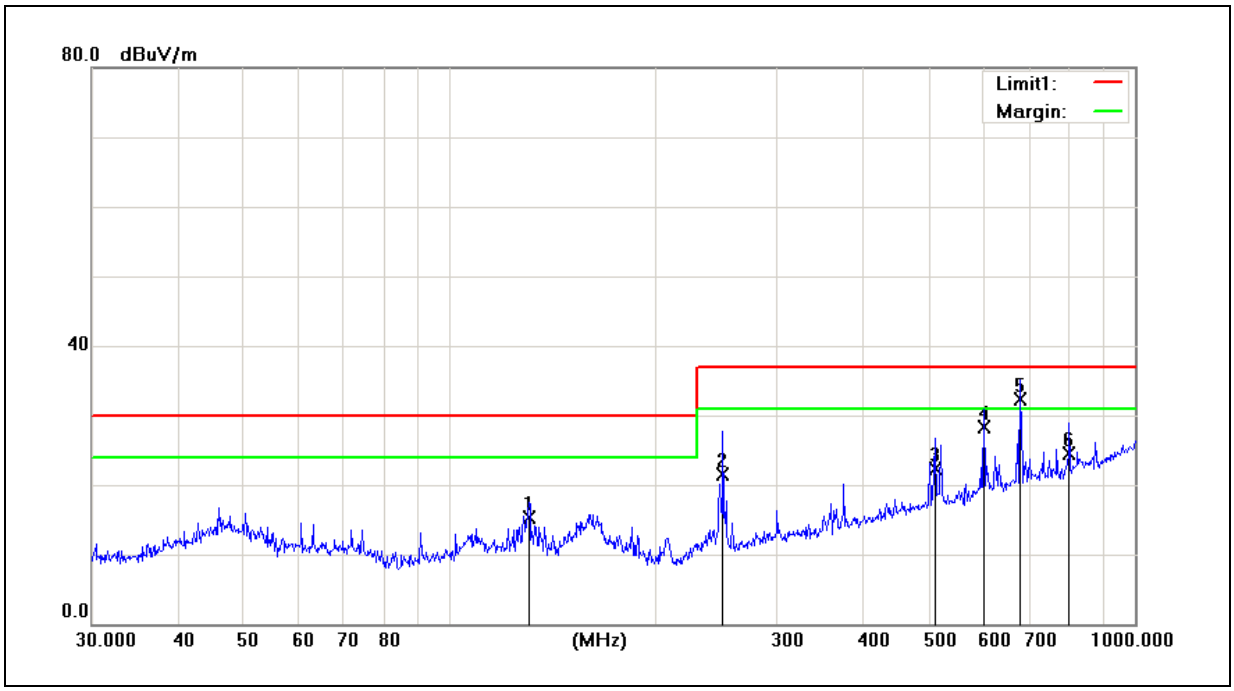
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5293.000	58.67	-12.10	46.57	74.00	-27.43	peak
2	7255.000	56.29	-8.43	47.86	74.00	-26.14	peak
3	9415.000	56.08	-5.47	50.61	74.00	-23.39	peak

Standard:	FCC Part 15B Class B	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	VIP4G	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	5 (1GHz~10GHz)	Date:	02/27/2013
Ant.Polar.:	Vertical	Test By:	Frank Lin



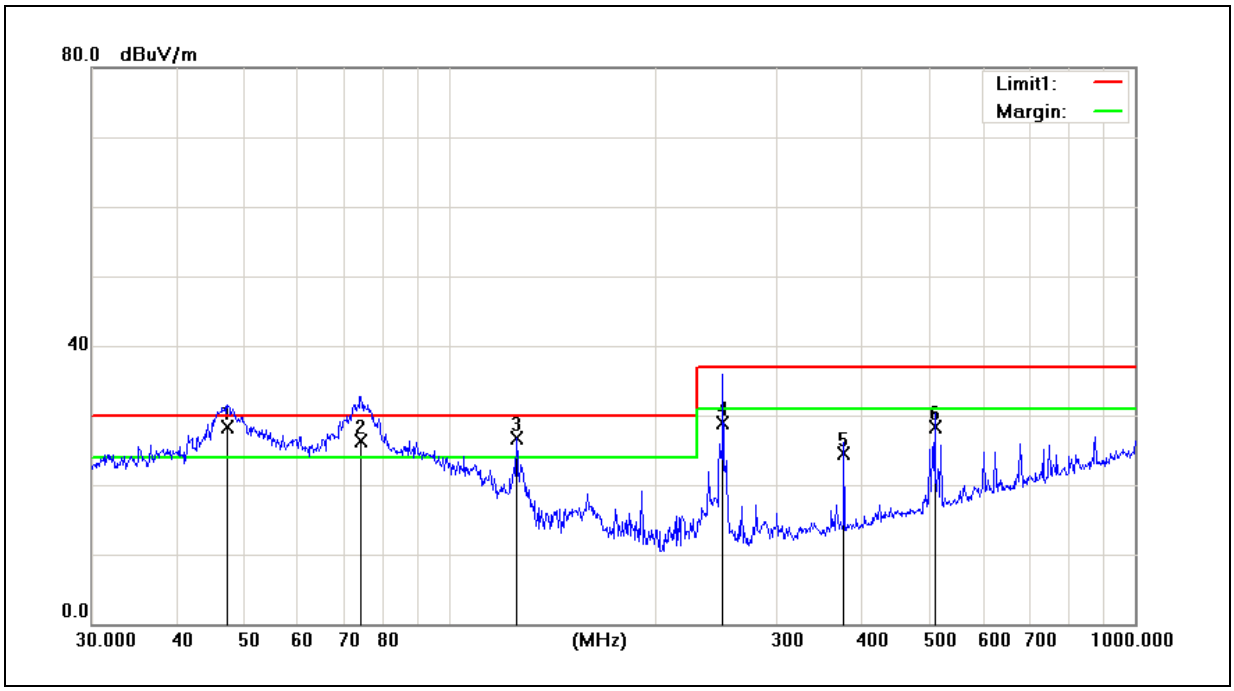
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5905.000	56.82	-10.31	46.51	74.00	-27.49	peak
2	7786.000	54.59	-7.86	46.73	74.00	-27.27	peak
3	9127.000	55.02	-5.90	49.12	74.00	-24.88	peak

Standard:	CISPR 22 Class B	Test Distance:	10m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	VIP4G	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	6	Date:	01/21/2013
Ant.Polar.:	Horizontal	Test By:	Frank Lin



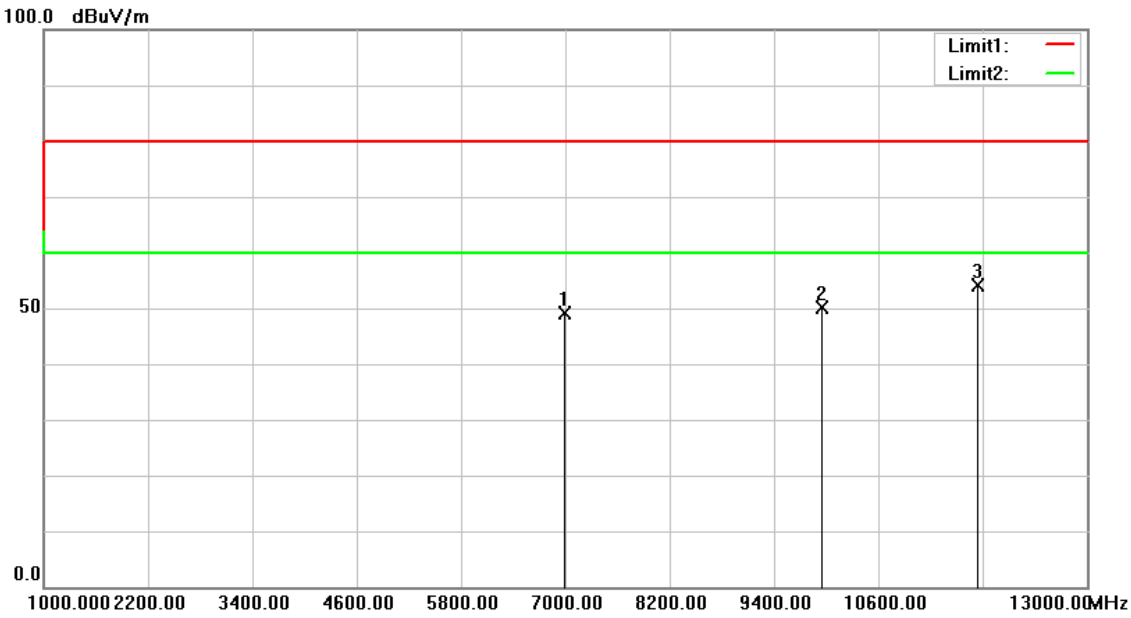
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
1	130.3788	29.35	-13.95	15.40	30.00	-14.60	200	65	QP
2	250.3011	34.89	-13.29	21.60	37.00	-15.40	100	184	QP
3	510.0436	30.03	-7.63	22.40	37.00	-14.60	300	64	QP
4	601.4265	33.85	-5.55	28.30	37.00	-8.70	100	270	QP
5	679.9600	36.72	-4.32	32.40	37.00	-4.60	140	279	QP
6	801.7862	26.53	-2.03	24.50	37.00	-12.50	355	227	QP

Standard:	CISPR 22 Class B	Test Distance:	10m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	VIP4G	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	6	Date:	01/21/2013
Ant.Polar.:	Vertical	Test By:	Frank Lin



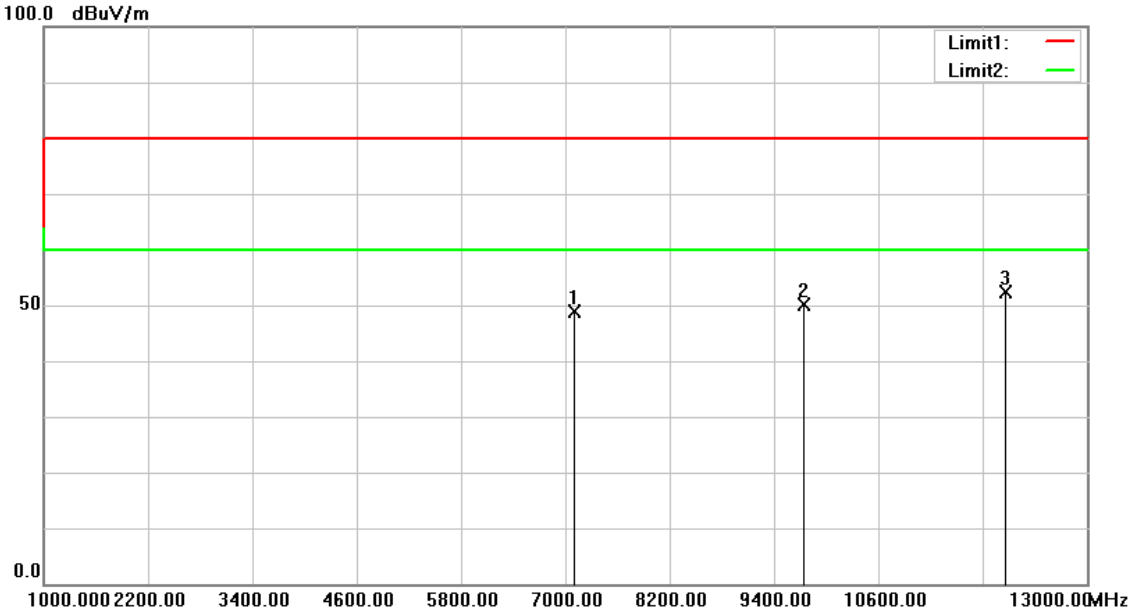
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
1	47.3253	42.75	-14.35	28.40	30.00	-1.60	100	43	QP
2	74.1350	43.25	-16.95	26.30	30.00	-3.70	300	40	QP
3	125.0066	40.65	-13.85	26.80	30.00	-3.20	200	122	QP
4	250.3011	41.50	-12.60	28.90	37.00	-8.10	200	240	QP
5	375.9384	33.94	-9.34	24.60	37.00	-12.40	300	158	QP
6	510.0436	34.72	-6.42	28.30	37.00	-8.70	400	107	QP

Standard:	FCC Part 15B Class B	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	VIP4G	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	6 (1GHz~13GHz)	Date:	01/21/2013
Ant.Polar.:	Horizontal	Test By:	Frank Lin



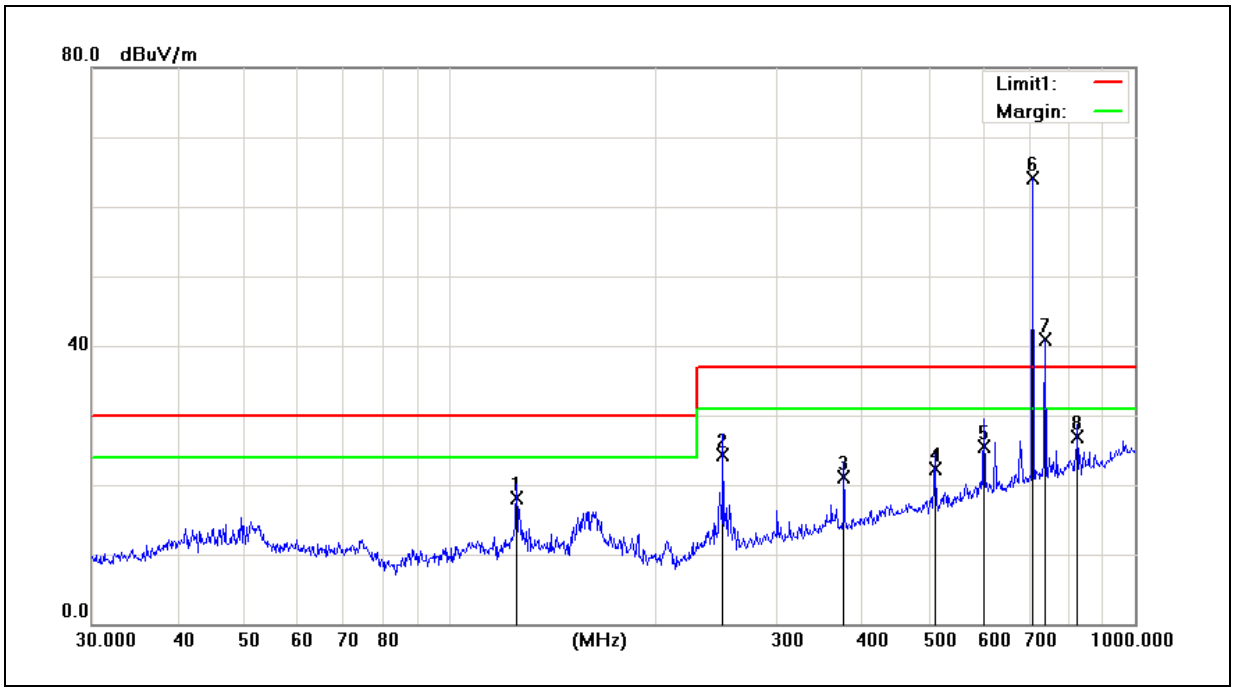
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	6988.000	57.83	-8.72	49.11	80.00	-30.89	peak
2	9952.000	54.10	-4.04	50.06	80.00	-29.94	peak
3	11740.000	55.14	-1.09	54.05	80.00	-25.95	peak

Standard:	FCC Part 15B Class B	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	VIP4G	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	6 (1GHz~13GHz)	Date:	01/21/2013
Ant.Polar.:	Vertical	Test By:	Frank Lin



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	7096.000	57.61	-8.61	49.00	80.00	-31.00	peak
2	9748.000	54.79	-4.63	50.16	80.00	-29.84	peak
3	12064.000	52.84	-0.34	52.50	80.00	-27.50	peak

Standard:	CISPR 22 Class B	Test Distance:	10m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	VIP4G	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	7	Date:	01/21/2013
Ant.Polar.:	Horizontal	Test By:	Frank Lin

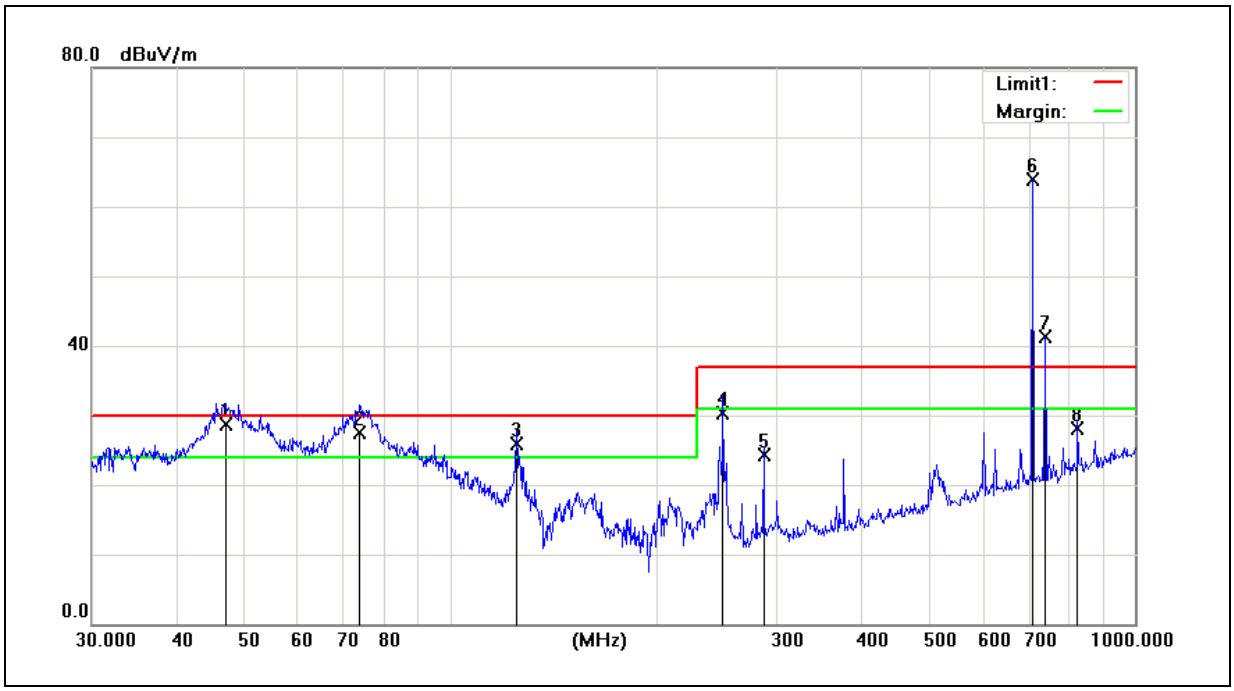


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
1	125.0066	32.30	-14.20	18.10	30.00	-11.90	100	253	QP
2	250.3011	37.59	-13.29	24.30	37.00	-12.70	400	46	QP
3	375.9384	31.40	-10.30	21.10	37.00	-15.90	400	179	QP
4	510.0436	30.03	-7.63	22.40	37.00	-14.60	300	303	QP
5	601.4265	31.15	-5.55	25.60	37.00	-11.40	200	45	QP
6	709.1823	67.76	-3.70	64.06	37.00	27.06	400	358	TX
7	739.6603	44.04	-3.08	40.96	37.00	3.96	400	11	RX
8	824.5968	28.69	-1.79	26.90	37.00	-10.10	200	319	QP

Note: TX: the transmitting signal of Universal Radio Communication Tester.

RX: the receiving signal of Universal Radio Communication Tester.

Standard:	CISPR 22 Class B	Test Distance:	10m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	VIP4G	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	7	Date:	01/21/2013
Ant.Polar.:	Vertical	Test By:	Frank Lin

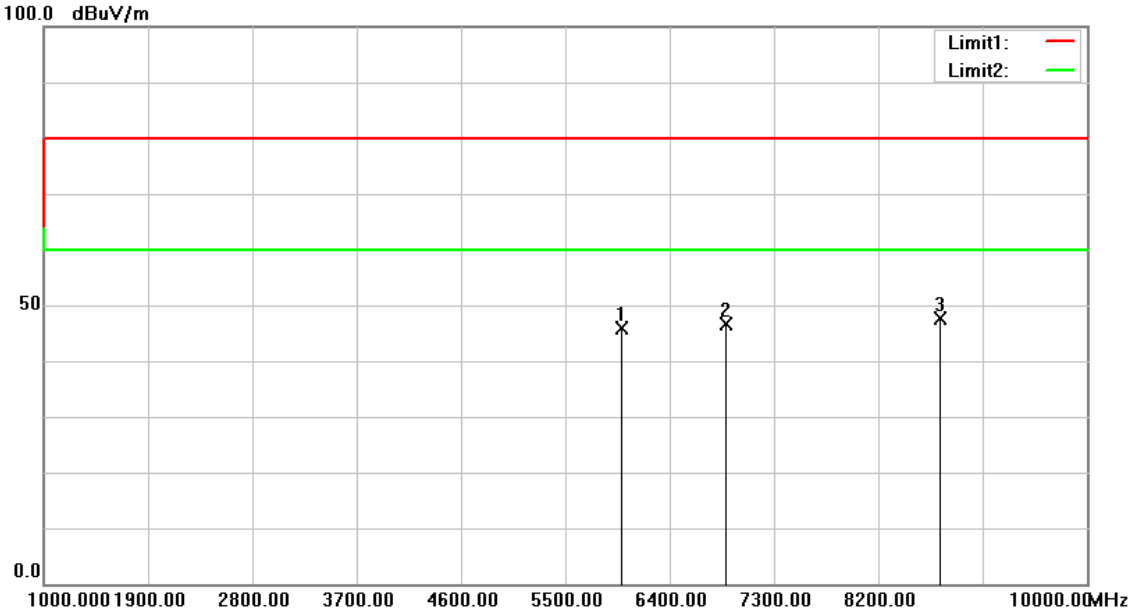


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
1	46.9947	43.05	-14.35	28.70	30.00	-1.30	101	247	QP
2	73.8756	44.39	-16.89	27.50	30.00	-2.50	300	295	QP
3	125.0066	39.75	-13.85	25.90	30.00	-4.10	100	342	QP
4	250.3011	42.90	-12.60	30.30	37.00	-6.70	200	229	QP
5	286.9823	35.32	-11.02	24.30	37.00	-12.70	400	234	QP
6	709.1823	66.12	-2.24	63.88	37.00	26.88	100	360	TX
7	739.6603	42.91	-1.58	41.33	37.00	4.33	100	10	RX
8	824.5968	28.16	-0.06	28.10	37.00	-8.90	200	295	QP

Note: TX: the transmitting signal of Universal Radio Communication Tester.

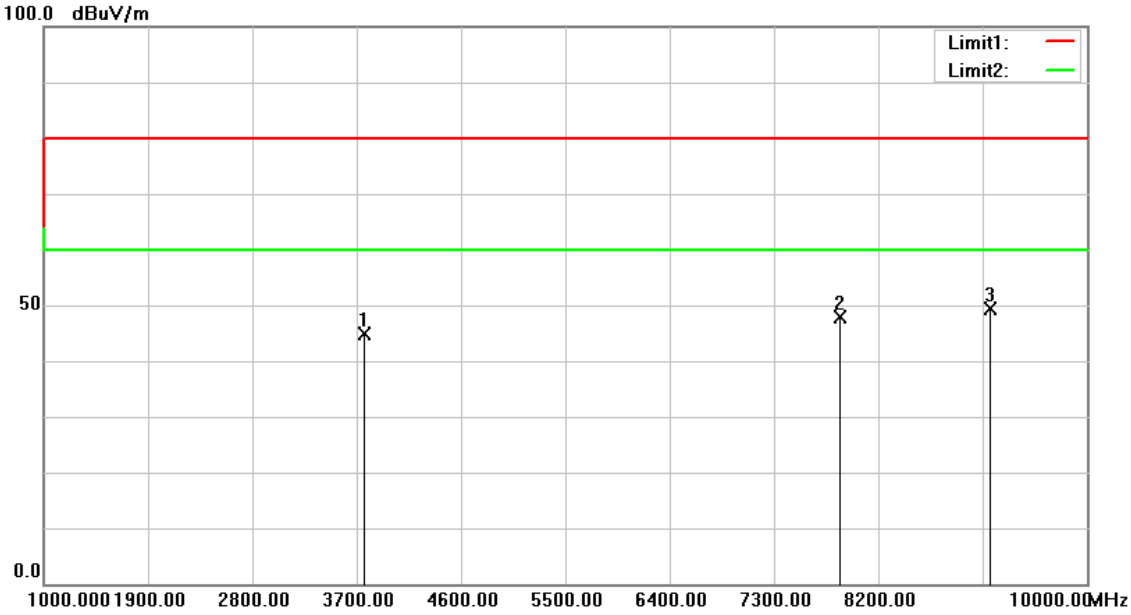
RX: the receiving signal of Universal Radio Communication Tester.

Standard:	FCC Part 15B Class B	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	VIP4G	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	7 (1GHz~10GHz)	Date:	01/21/2013
Ant.Polar.:	Horizontal	Test By:	Frank Lin



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5986.000	55.92	-10.04	45.88	80.00	-34.12	peak
2	6886.000	55.61	-8.86	46.75	80.00	-33.25	peak
3	8731.000	54.13	-6.51	47.62	80.00	-32.38	peak

Standard:	FCC Part 15B Class B	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	VIP4G	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Mode:	7 (1GHz~10GHz)	Date:	01/21/2013
Ant.Polar.:	Vertical	Test By:	Frank Lin



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3763.000	60.20	-15.27	44.93	80.00	-35.07	peak
2	7867.000	55.79	-7.79	48.00	80.00	-32.00	peak
3	9163.000	55.35	-5.85	49.50	80.00	-30.50	peak