FCC Test Report

FCC ID: 2AFK7-VP4501I

Product：	Smartphone
Trade Name：	VULCAN
Model Number：	VP4501I
Serial Model：	N/A
Report No.：	NTEK-2015NT07202310F1

Prepared for

Bluebank Communication Technology Co.Ltd.

No. 13-2, Jiang Ying Road, Nan An District, Chongqing, P.R. China

Prepared by

Shenzhen NTEK Testing Technology Co., Ltd.

1/F, Building E, Fenda Science Park, Sanwei Community, Xixiang Street,
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Tel.: +86-0755-61156588 Fax.: +86-0755-61156599

Website: www.ntek.org.cn

TEST RESULT CERTIFICATION

Applicant's name	:	Bluebank Communication Technology Co.Ltd.
Address	:	No. 13-2, Jiang Ying Road, Nan An District, Chongqing, P.R. China
Manufacturer's Name	:	Bluebank Communication Technology Co.Ltd.
Address	:	No. 13-2, Jiang Ying Road, Nan An District, Chongqing, P.R. China

Product description

Product name	:	Smartphone
Model and/or type reference	:	VP4501I
Standards	:	FCC Part15B:01 Oct.2014 ANSI C63.4:2014

This device described above has been tested by NTEK, and the test results show that the equipment under test (EUT) is in compliance with Part 15 of FCC Rules. And it is applicable only to the tested sample identified in the report.

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Date of Test	:	
Date (s) of performance of tests	:	20 Jul. 2015 ~12 Aug. 2015
Date of Issue	:	12 Aug. 2015
Test Result	:	**Pass**

Testing Engineer : Eileen Liu.

(Eileen Liu)

Technical Manager : Brown Lu

(Brown Lu)

Authorized Signatory : Sam. Chen

(Sam Chen)

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1. TEST SUMMARY

Test procedures according to the technical standards:

EMC Emission				
Standard	Test Item	Limit	Judgment	Remark
FCC Part15B:2014 ANSI C63.4: 2014	Conducted Emission	Class B	PASS	
	Radiated Emission	Class B	PASS	

NOTE:

(1) 'N/A' denotes test is not applicable in this Test Report

(2) For client's request and manual description, the test will not be executed.

1.1 TEST FACILITY

NTEK Testing Technology Co., Ltd
Add. : 1/F, Building E, Fenda Science Park, Sanwei Community, Xixiang Street, Bao'an District, Shenzhen P.R. China.
FCC Registration Number:238937; IC Registration Number:9270A-1
CNAS Registration Number:L5516

1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement **y ± U**，where expended uncertainty **U** is based on a standard uncertainty multiplied by a coverage factor of **k=2**，providing a level of confidence of approximately **95** %.

A. Conducted Measurement :

Test Site	Method	Measurement Frequency Range	U，(dB)	NOTE
NTEKC01	ANSI	150 KHz ~ 30MHz	3.2	

B. Radiated Measurement :

Test Site	Method	Measurement Frequency Range	U，(dB)	NOTE
NTEKA01	ANSI	30MHz ~ 1000MHz	4.7	
		1GHz ~12.4GHz	5.0	

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

<table>
<tr><td>Equipment</td><td>Smartphone</td></tr>
<tr><td>Model Name</td><td>VP4501I</td></tr>
<tr><td>Additional Model Number(s)</td><td>N/A</td></tr>
<tr><td>Model Difference</td><td>N/A</td></tr>
<tr><td>Product Description</td><td>The EUT is a Smartphone.

<table><tr><td>Connecting I/O port:</td><td>USB, DC in</td></tr><tr><td>Operation Frequency:</td><td>BT:2402~2480 MHz
WIFI:
802.11b/g/n(20MHz): 2412~2462MHz
GSM: 824.2-848.8MHz/1850.2-1909.8MHz
WCDMA: 826.4-846.6MHz/
1852.4-1907.6MHz</td></tr><tr><td>Modulation Type:</td><td>BT(1Mbps): GFSK
BT EDR(2Mbps): π/4-DQPSK
BT EDR(3Mbps): 8-DPSK
IEEE 802.11b :
DSSS (CCK, QPSK, DBPSK)
IEEE 802.11g/n (HT20) : OFDM
(64QAM, 16QAM, QPSK, BPSK)
GSM / DCS: GMSK
WCDMA:QPSK</td></tr></table></td></tr>
<tr><td>Power Source</td><td>DC Voltage</td></tr>
<tr><td>Adapter</td><td>Mode: WTA0501000USA1
Input: 100-240V~, 50/60Hz, 0.3A
Output: 5.0V ⎓, 1000mA</td></tr>
<tr><td>Battery</td><td>DC 3.7V,1800mAh</td></tr>
</table>

2.1.1 DESCRIPTION OF TEST MODES

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Pretest Mode	Description
Mode 1	Data Exchange Mode
Mode 2	REC Mode
Mode 3	TF Card Playing Mode+Charging
Mode 4	GPS

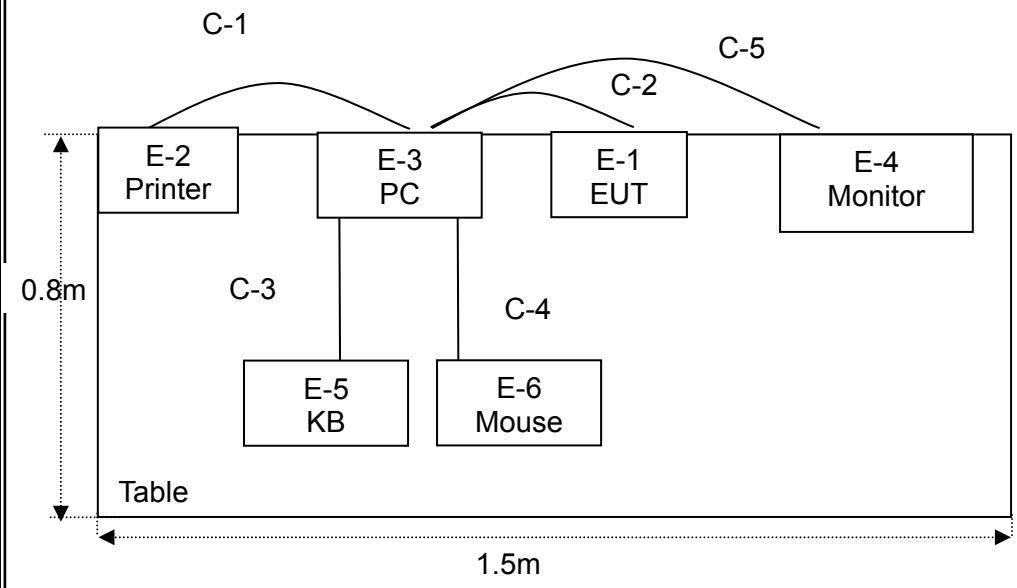
For Conducted Test	
Final Test Mode	Description
Mode 1	Data Exchange Mode

For Radiated Test	
Final Test Mode	Description
Mode 1	Data Exchange Mode

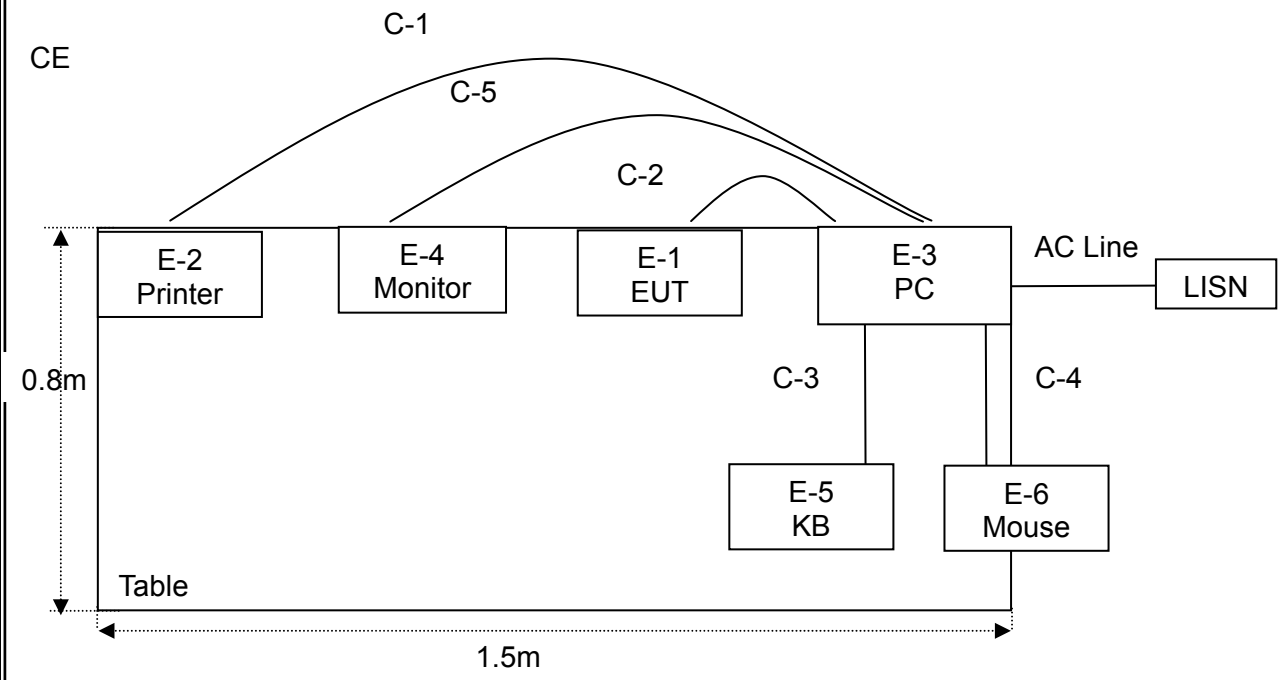
Note: Final Test Mode: Through Pre-scan, find the mode 1 is the worse case.
Only the worst case mode is recorded in the report.

2.2 DESCRIPTION OF TEST SETUP

RE



CE



2.3 DESCRIPTION TEST PERIPHERAL AND EUT PERIPHERAL

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Brand	Model/Type No.	Series No.	Note
E-1	Smartphone	VULCAN	VP4501I	N/A	EUT
E-2	Printer	Canon	L11121E	LBP2900	
E-3	Personal computer	DELL	FT4Y23X	34413561645	
E-4	Monitor	DELL	IN2020MB	cn-0y6mhx-74261-11f-67es	
E-5	Keyboard	DELL	SK-8185	OY526KUS	
E-6	Mouse	DELL	MS111-P	cn-011d3v-71581-11e-1th7	

Item	Shielded Type	Ferrite Core	Length	Note
C-1	NO	NO	1.2m	
C-2	NO	NO	1.0m	
C-3	NO	NO	1.0m	
C-4	NO	NO	1.0m	
C-5	NO	NO	1.0m	

Note:

(1) The support equipment was authorized by Declaration of Confirmation.
(2) For detachable type I/O cable should be specified the length in cm in『Length』column.
(3) “YES” means “shielded” “with core”; “NO” means “unshielded” “without core”.

2.4 MEASUREMENT INSTRUMENTS LIST

Radiation Test equipment

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until	Calibration period
1	Spectrum Analyzer	Agilent	E4407B	MY45108040	2015.07.06	2016.07.05	1 year
2	Test Receiver	R&S	ESPI	101318	2015.06.07	2016.06.06	1 year
3	Bilog Antenna	TESEQ	CBL6111D	31216	2015.07.06	2016.07.05	1 year
4	50Ω Coaxial Switch	Anritsu	MP59B	6200264416	2015.06.07	2016.06.06	1 year
5	Spectrum Analyzer	ADVANTEST	R3132	150900201	2015.06.07	2016.06.06	1 year
6	Horn Antenna	EM	EM-AH-10180	2011071402	2015.07.06	2016.07.05	1 year
7	Horn Ant	Schwarzbeck	BBHA 9170	9170-181	2015.07.06	2016.07.05	1 year
8	Amplifier	EM	EM-30180	060538	2014.12.22	2015.12.21	1 year
9	Loop Antenna	ARA	PLA-1030/B	1029	2015.06.08	2016.06.07	1 year
10	Power Meter	R&S	NRVS	100696	2015.07.06	2016.07.05	1 year
11	Power Sensor	R&S	URV5-Z4	0395.1619.05	2015.07.06	2016.07.05	1 year
12	Test Cable	N/A	R-01	N/A	2015.07.06	2016.07.05	1 year
13	Test Cable	N/A	R-02	N/A	2015.07.06	2016.07.05	1 year

Conduction Test equipment

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until	Calibration period
1	Test Receiver	R&S	ESCI	101160	2015.06.06	2016.06.05	1 year
2	LISN	R&S	ENV216	101313	2014.08.24	2015.08.23	1 year
3	LISN	EMCO	3816/2	00042990	2014.08.24	2015.08.23	1 year
4	50Ω Coaxial Switch	Anritsu	MP59B	6200264417	2015.06.07	2016.06.06	1 year
5	Passive Voltage Probe	R&S	ESH2-Z3	100196	2015.06.07	2016.06.06	1 year
6	Absorbing clamp	R&S	MOS-21	100423	2015.06.08	2016.06.07	1 year
7	Test Cable	N/A	C01	N/A	2015.06.08	2016.06.07	1 year
8	Test Cable	N/A	C02	N/A	2015.06.08	2016.06.07	1 year
9	Test Cable	N/A	C03	N/A	2015.06.08	2016.06.07	1 year

3. EMC EMISSION TEST

3.1 CONDUCTED EMISSION MEASUREMENT

3.1.1 POWER LINE CONDUCTED EMISSION (Frequency Range 150KHz-30MHz)

FREQUENCY (MHz)	Class A (dBuV)		Class B (dBuV)	
	Quasi-peak	Average	Quasi-peak	Average
0.15 -0.5	79.00	66.00	66 - 56 *	56 - 46 *
0.50 -5.0	73.00	60.00	56.00	46.00
5.0 -30.0	73.00	60.00	60.00	50.00

Note:

(1) The tighter limit applies at the band edges.

(2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

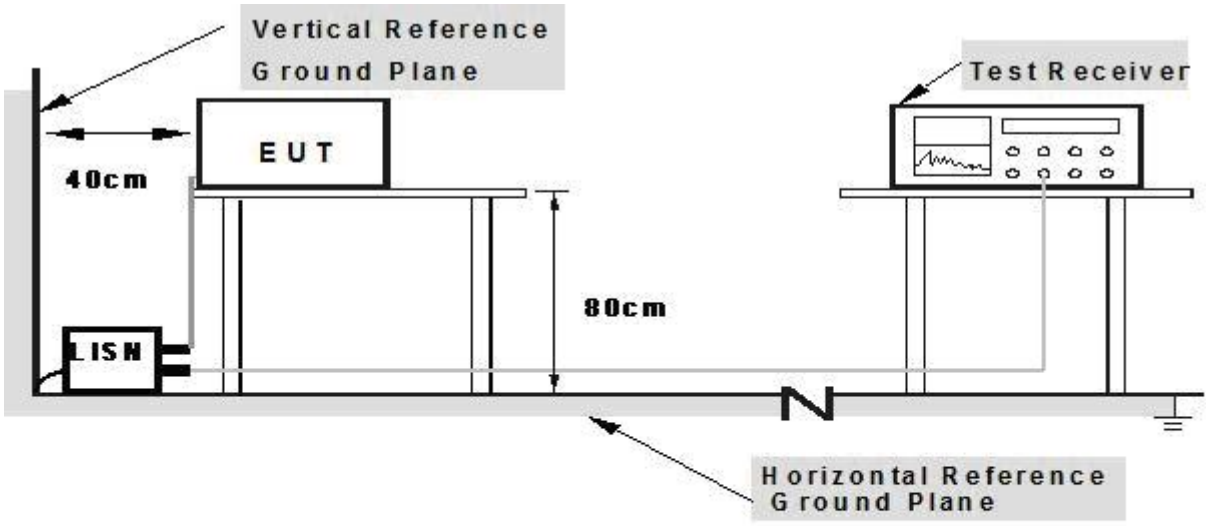
The following table is the setting of the receiver

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

3.1.2 TEST PROCEDURE

a. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
d. LISN at least 80 cm from nearest part of EUT chassis.
e. For the actual test configuration, please refer to the related Item –EUT Test Photos.

3.1.3 TEST SETUP



Note: 1.Support units were connected to second LISN.
2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

3.1.4 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of **2.3** Unless otherwise a special operating condition is specified in the follows during the testing.

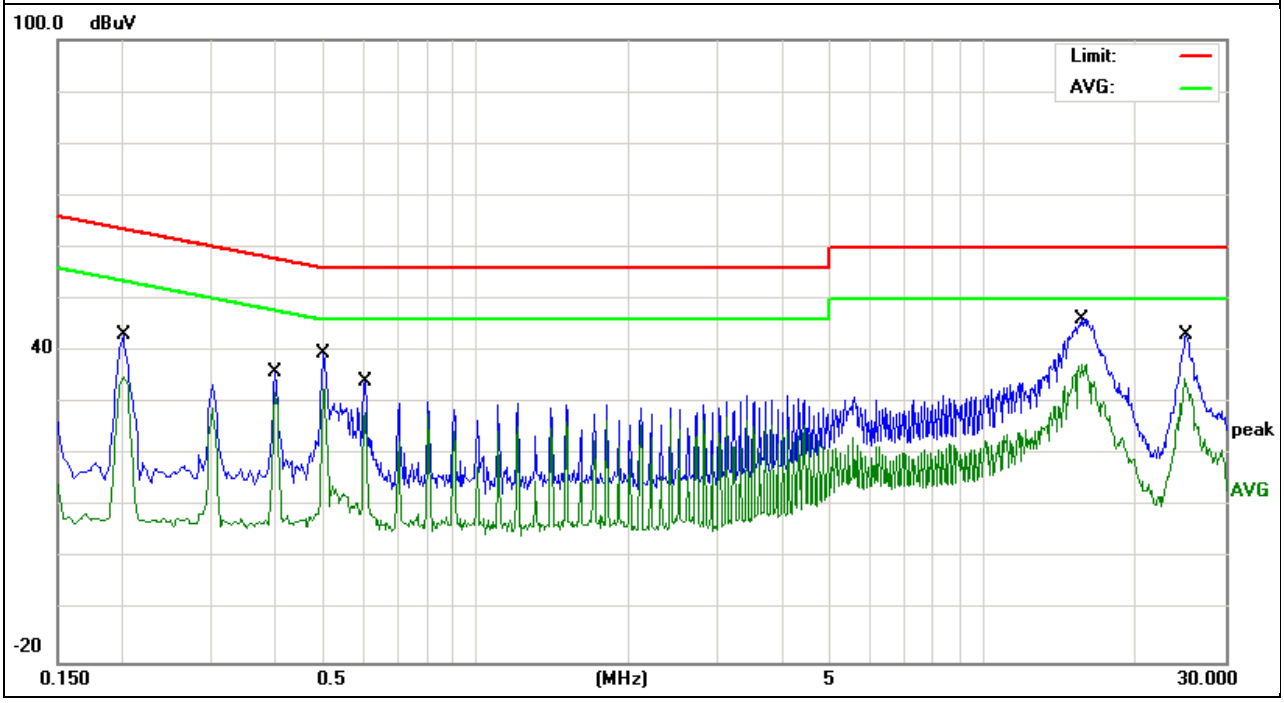
3.1.5 TEST RESULTS

EUT：	Smartphone	Model Name. ：	VP4501I
Temperature：	26 ℃	Relative Humidity：	54%
Pressure：	1010hPa	Test Date：	2015-08-06
Test Mode：	Mode 1	Phase：	L
Test Voltage ：	DC 5V From PC AC 120V/60Hz		

Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Margin	Remark
(MHz)	(dBμV)	(dB)	(dBμV)	(dBμV)	(dB)	
0.2020	33.43	9.60	43.03	63.52	-20.49	QP
0.2020	25.40	9.60	35.00	53.52	-18.52	AVG
0.4020	26.53	9.37	35.90	57.81	-21.91	QP
0.4020	22.73	9.37	32.10	47.81	-15.71	AVG
0.5020	29.80	9.77	39.57	56.00	-16.43	QP
0.5020	22.96	9.77	32.73	46.00	-13.27	AVG
0.6059	24.26	9.77	34.03	56.00	-21.97	QP
0.6059	18.39	9.77	28.16	46.00	-17.84	AVG
15.7139	36.34	9.82	46.16	60.00	-13.84	QP
15.7139	27.71	9.82	37.53	50.00	-12.47	AVG
24.8819	33.14	9.92	43.06	60.00	-16.94	QP
24.8819	24.72	9.92	34.64	50.00	-15.36	AVG

Remark:

1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.

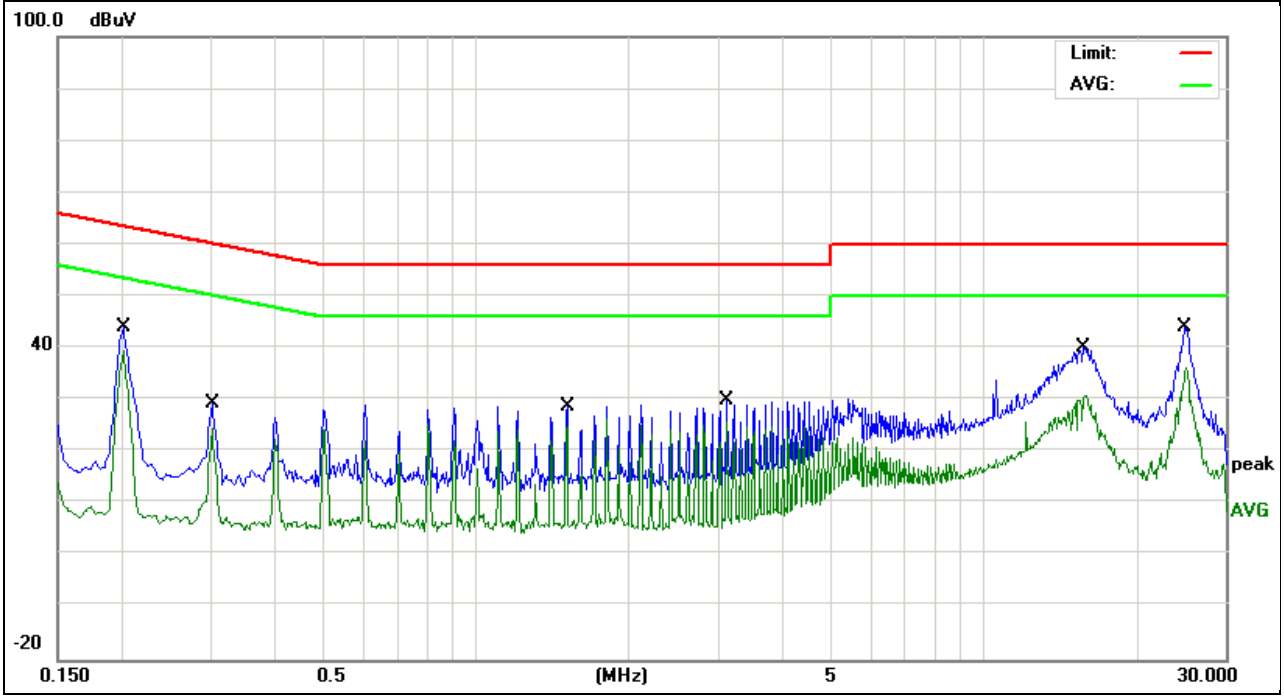


EUT：	Smartphone	Model Name. ：	VP4501I
Temperature：	26 ℃	Relative Humidity：	54%
Pressure：	1010hPa	Test Date：	2015-08-06
Test Mode：	Mode 1	Phase：	N
Test Voltage ：	DC 5V From PC AC 120V/60Hz		

Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Margin	Remark
(MHz)	(dBμV)	(dB)	(dBμV)	(dBμV)	(dB)	
0.2020	34.55	9.61	44.16	63.52	-19.36	QP
0.2020	29.98	9.61	39.59	53.52	-13.93	AVG
0.3019	19.65	9.62	29.27	60.19	-30.92	QP
0.3019	14.84	9.62	24.46	50.19	-25.73	AVG
1.5140	19.26	9.57	28.83	56.00	-27.17	QP
1.5140	15.35	9.57	24.92	46.00	-21.08	AVG
3.1259	20.30	9.52	29.82	56.00	-26.18	QP
3.1259	16.28	9.52	25.80	46.00	-20.20	AVG
15.8218	30.47	9.77	40.24	60.00	-19.76	QP
15.8218	20.97	9.77	30.74	50.00	-19.26	AVG
25.0940	34.00	9.95	43.95	60.00	-16.05	QP
25.0940	26.42	9.95	36.37	50.00	-13.63	AVG

Remark:

1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.

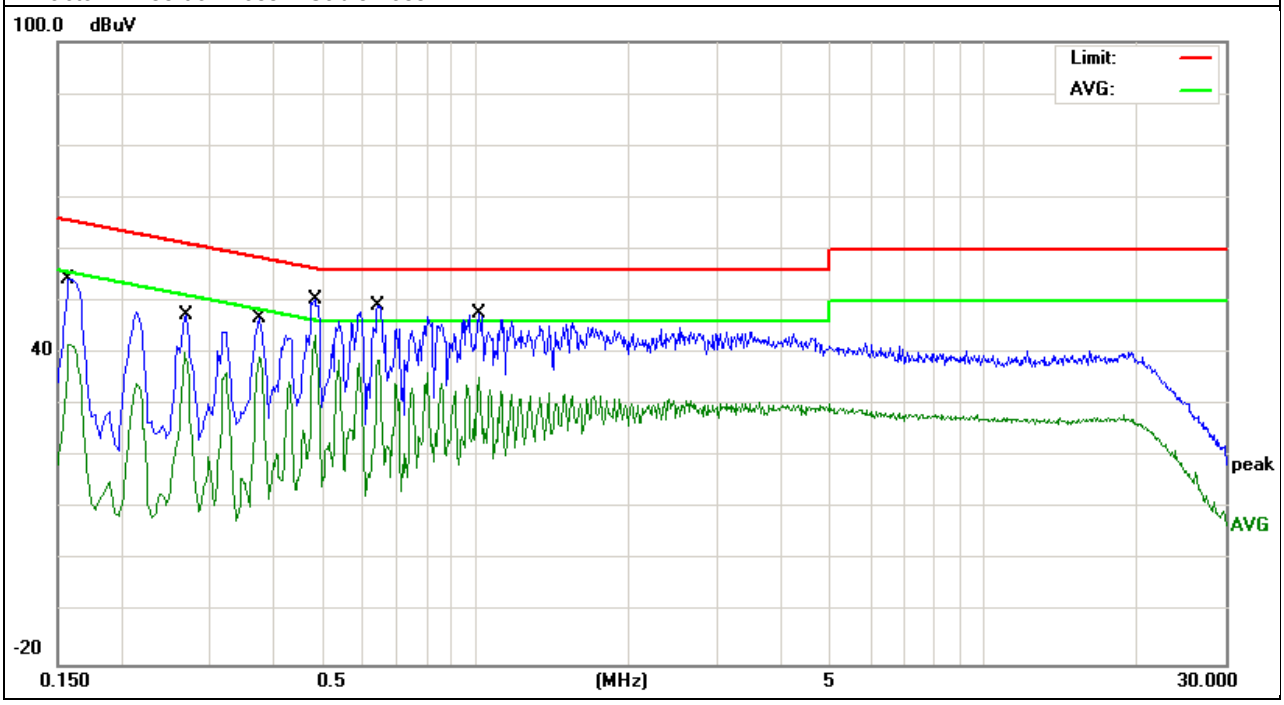


EUT：	Smartphone	Model Name. ：	VP4501I
Temperature：	26 ℃	Relative Humidity：	54%
Pressure：	1010hPa	Test Date：	2015-08-06
Test Mode：	Mode 1	Phase：	L
Test Voltage ：	DC 5V From PC AC 240V/60Hz		

Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Margin	Remark
(MHz)	(dBμV)	(dB)	(dBμV)	(dBμV)	(dB)	
0.1580	44.56	9.62	54.18	65.56	-11.38	QP
0.1580	32.02	9.62	41.64	55.56	-13.92	AVG
0.2660	37.69	9.70	47.39	61.24	-13.85	QP
0.2660	30.51	9.70	40.21	51.24	-11.03	AVG
0.3738	37.24	9.46	46.70	58.41	-11.71	QP
0.3738	29.72	9.46	39.18	48.41	-9.23	AVG
0.4820	40.79	9.70	50.49	56.30	-5.81	QP
0.4820	33.82	9.70	43.52	46.30	-2.78	AVG
0.6419	39.32	9.77	49.09	56.00	-6.91	QP
0.6419	28.95	9.77	38.72	46.00	-7.28	AVG
1.0180	38.04	9.73	47.77	56.00	-8.23	QP
1.0180	25.70	9.73	35.43	46.00	-10.57	AVG

Remark:

1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.

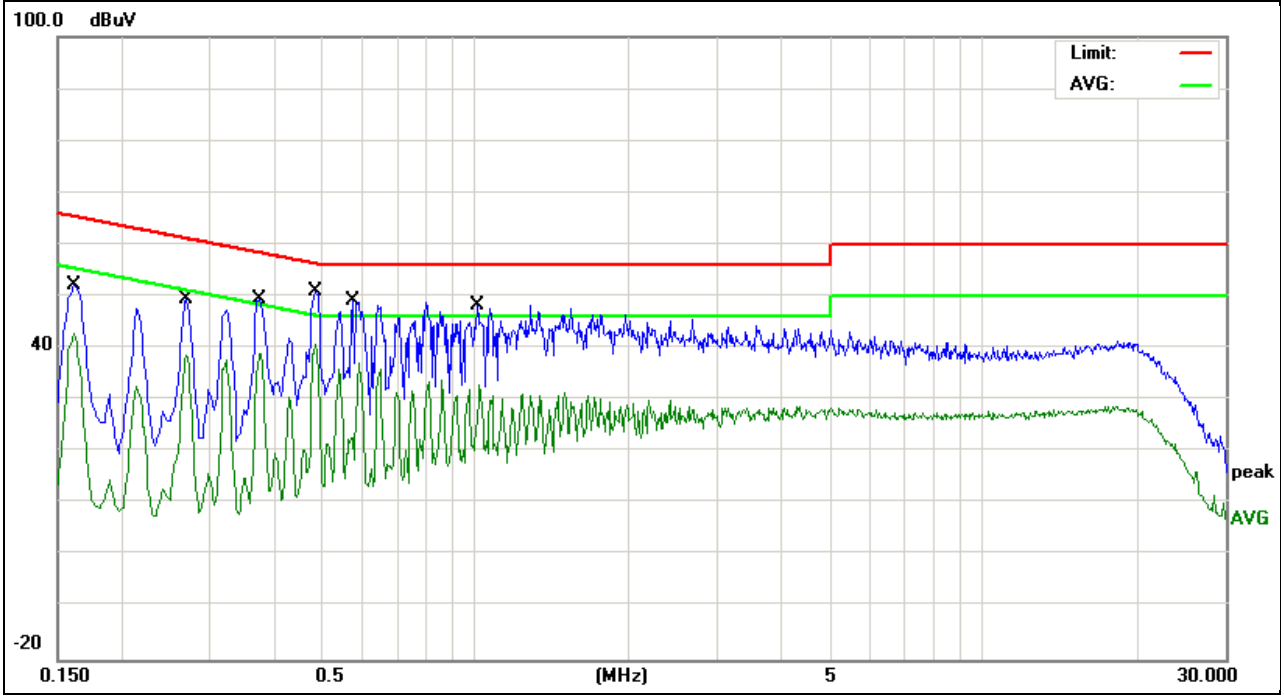


EUT：	Smartphone	Model Name. ：	VP4501I
Temperature：	26 ℃	Relative Humidity：	54%
Pressure：	1010hPa	Test Date：	2015-08-06
Test Mode：	Mode 1	Phase：	N
Test Voltage ：	DC 5V From PC AC 240V/60Hz		

Frequency (MHz)	Reading Level (dBμV)	Correct Factor (dB)	Measure-ment (dBμV)	Limits (dBμV)	Margin (dB)	Remark
0.1620	42.66	9.62	52.28	65.36	-13.08	QP
0.1620	33.34	9.62	42.96	55.36	-12.40	AVG
0.2700	39.73	9.70	49.43	61.12	-11.69	QP
0.2700	28.94	9.70	38.64	51.12	-12.48	AVG
0.3738	39.93	9.46	49.39	58.41	-9.02	QP
0.3738	29.48	9.46	38.94	48.41	-9.47	AVG
0.4820	41.16	9.70	50.86	56.30	-5.44	QP
0.4820	30.92	9.70	40.62	46.30	-5.68	AVG
0.5738	39.50	9.78	49.28	56.00	-6.72	QP
0.5738	27.23	9.78	37.01	46.00	-8.99	AVG
1.0100	38.63	9.73	48.36	56.00	-7.64	QP
1.0100	23.12	9.73	32.85	46.00	-13.15	AVG

Remark:

1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.

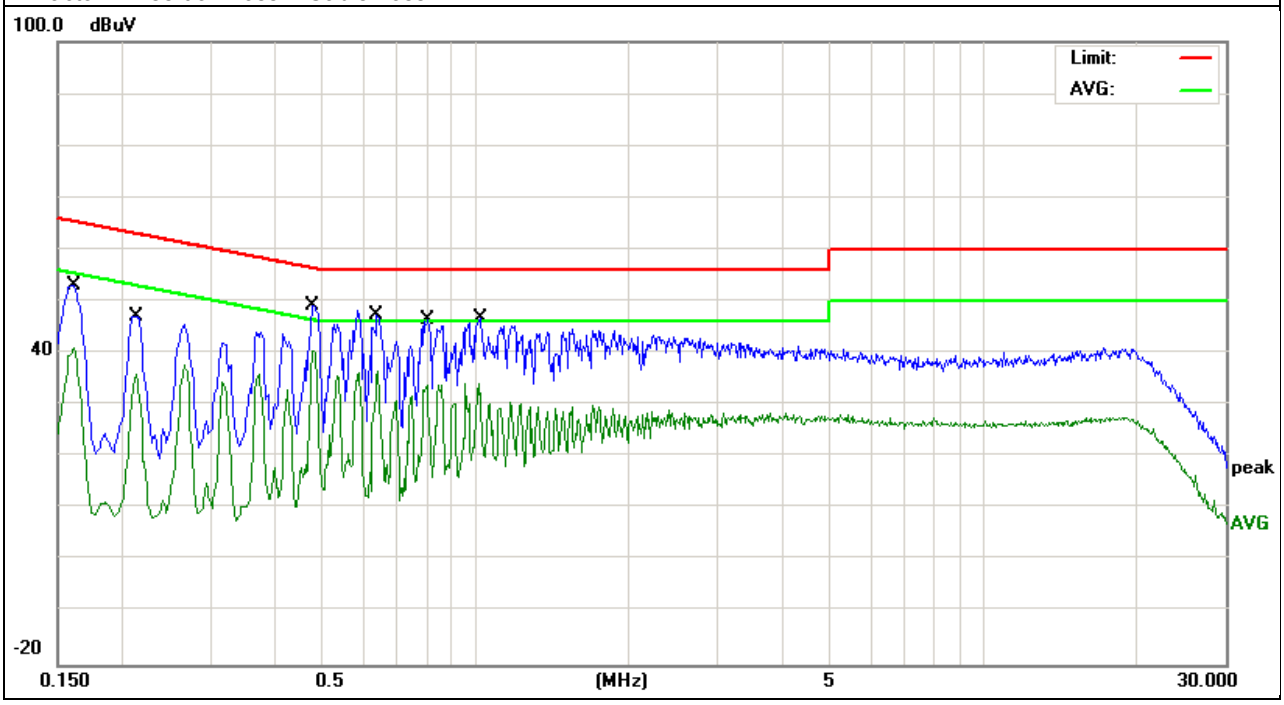


EUT：	Smartphone	Model Name. ：	VP4501I
Temperature：	26 ℃	Relative Humidity：	54%
Pressure：	1010hPa	Test Date：	2015-08-06
Test Mode：	Mode 1	Phase：	L
Test Voltage ：	DC 5V From Adapter AC 120V/60Hz		

Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Margin	Remark
(MHz)	(dBμV)	(dB)	(dBμV)	(dBμV)	(dB)	
0.1620	43.36	9.62	52.98	65.36	-12.38	QP
0.1620	31.46	9.62	41.08	55.36	-14.28	AVG
0.2139	37.44	9.63	47.07	63.05	-15.98	QP
0.2139	26.39	9.63	36.02	53.05	-17.03	AVG
0.4778	39.57	9.68	49.25	56.38	-7.13	QP
0.4778	30.86	9.68	40.54	46.38	-5.84	AVG
0.6380	37.71	9.77	47.48	56.00	-8.52	QP
0.6380	26.75	9.77	36.52	46.00	-9.48	AVG
0.8059	36.76	9.77	46.53	56.00	-9.47	QP
0.8059	24.06	9.77	33.83	46.00	-12.17	AVG
1.0220	37.17	9.73	46.90	56.00	-9.10	QP
1.0220	24.36	9.73	34.09	46.00	-11.91	AVG

Remark:

1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.

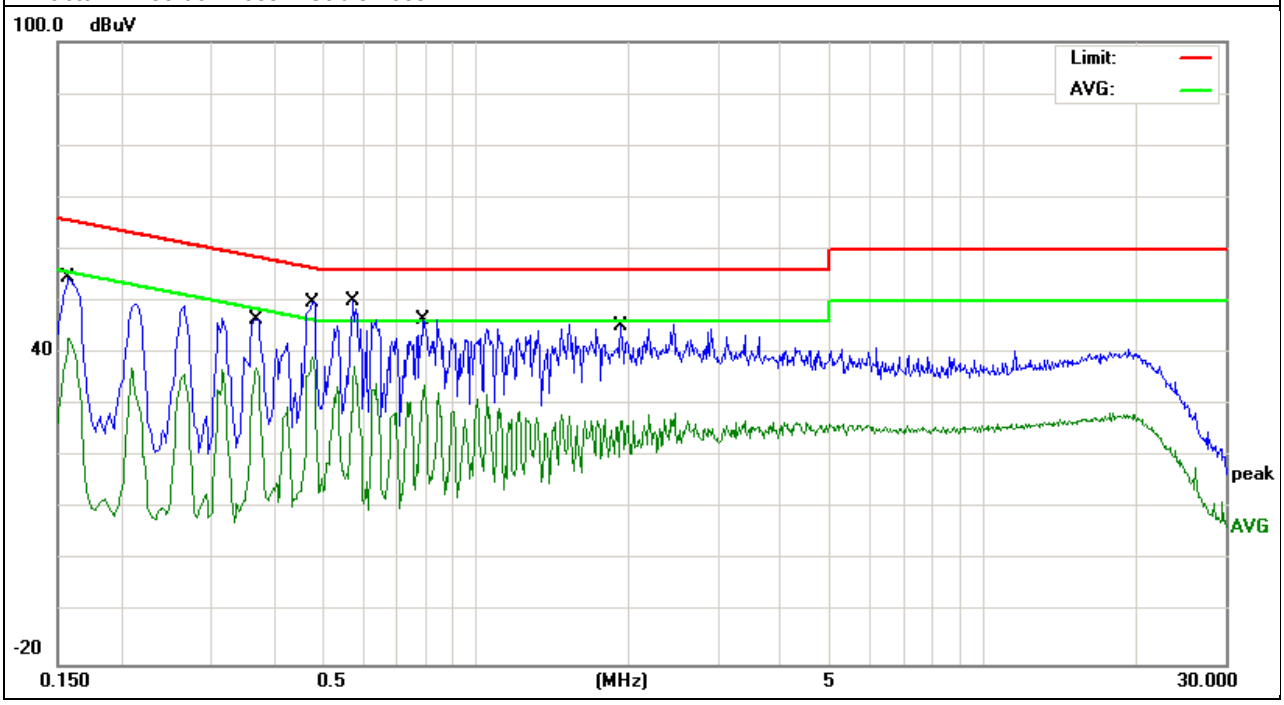


EUT：	Smartphone	Model Name. ：	VP4501I
Temperature：	26 ℃	Relative Humidity：	54%
Pressure：	1010hPa	Test Date：	2015-08-06
Test Mode：	Mode 1	Phase：	N
Test Voltage ：	DC 5V From Adapter AC 120V/60Hz		

Frequency (MHz)	Reading Level (dBμV)	Correct Factor (dB)	Measure-ment (dBμV)	Limits (dBμV)	Margin (dB)	Remark
0.1580	44.83	9.62	54.45	65.56	-11.11	QP
0.1580	31.65	9.62	41.27	55.56	-14.29	AVG
0.3699	37.01	9.47	46.48	58.50	-12.02	QP
0.3699	27.66	9.47	37.13	48.50	-11.37	AVG
0.4780	40.07	9.68	49.75	56.37	-6.62	QP
0.4780	29.64	9.68	39.32	46.37	-7.05	AVG
0.5740	40.27	9.78	50.05	56.00	-5.95	QP
0.5740	27.56	9.78	37.34	46.00	-8.66	AVG
0.7900	36.75	9.77	46.52	56.00	-9.48	QP
0.7900	23.94	9.77	33.71	46.00	-12.29	AVG
1.9378	35.46	9.65	45.11	56.00	-10.89	QP
1.9378	17.69	9.65	27.34	46.00	-18.66	AVG

Remark:

1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.

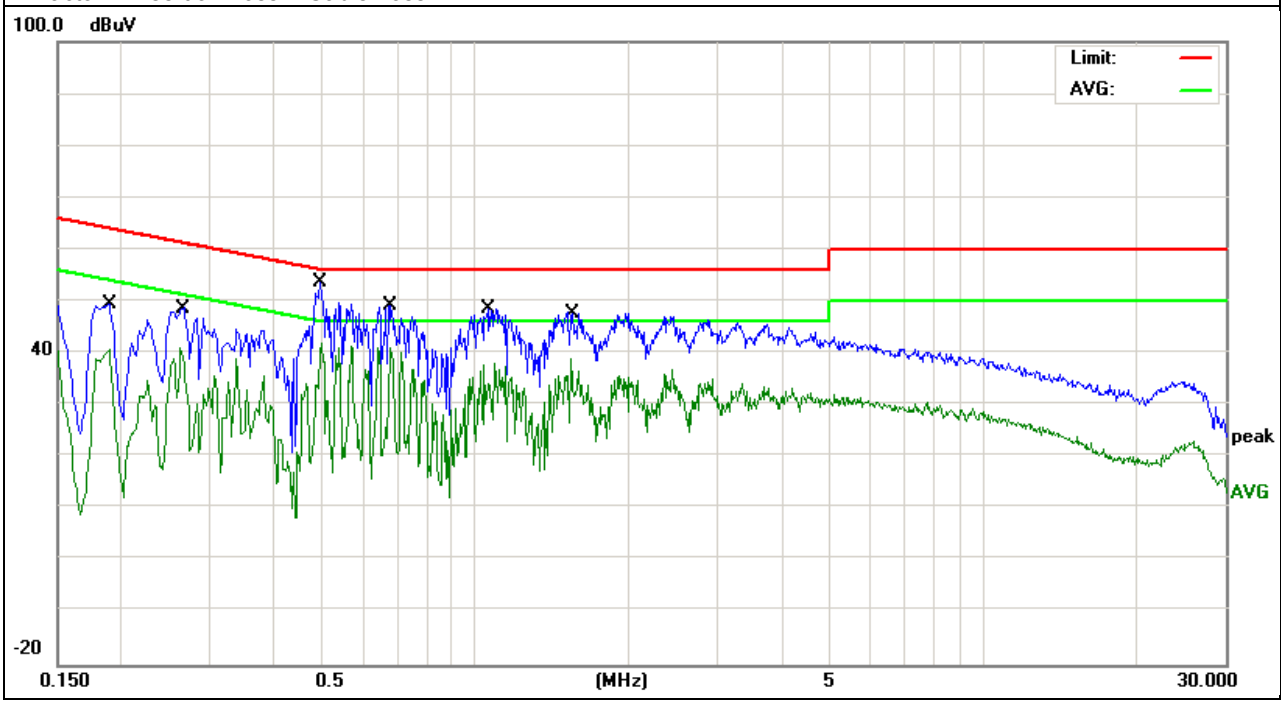


EUT：	Smartphone	Model Name. ：	VP4501I
Temperature：	26 ℃	Relative Humidity：	54%
Pressure：	1010hPa	Test Date：	2015-08-06
Test Mode：	Mode 1	Phase：	L
Test Voltage ：	DC 5V From Adapter AC 240V /60Hz		

Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Margin	Remark
(MHz)	(dBμV)	(dB)	(dBμV)	(dBμV)	(dB)	
0.1900	39.91	9.61	49.52	64.03	-14.51	QP
0.1900	31.21	9.61	40.82	54.03	-13.21	AVG
0.2620	39.26	9.69	48.95	61.36	-12.41	QP
0.2620	31.23	9.69	40.92	51.36	-10.44	AVG
0.4940	43.25	9.75	53.00	56.10	-3.10	QP
0.4940	32.10	9.75	41.85	46.10	-4.25	AVG
0.6820	39.33	9.78	49.11	56.00	-6.89	QP
0.6820	31.41	9.78	41.19	46.00	-4.81	AVG
1.0580	38.76	9.73	48.49	56.00	-7.51	QP
1.0580	28.27	9.73	38.00	46.00	-8.00	AVG
1.5380	38.14	9.68	47.82	56.00	-8.18	QP
1.5380	29.25	9.68	38.93	46.00	-7.07	AVG

Remark:

1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.

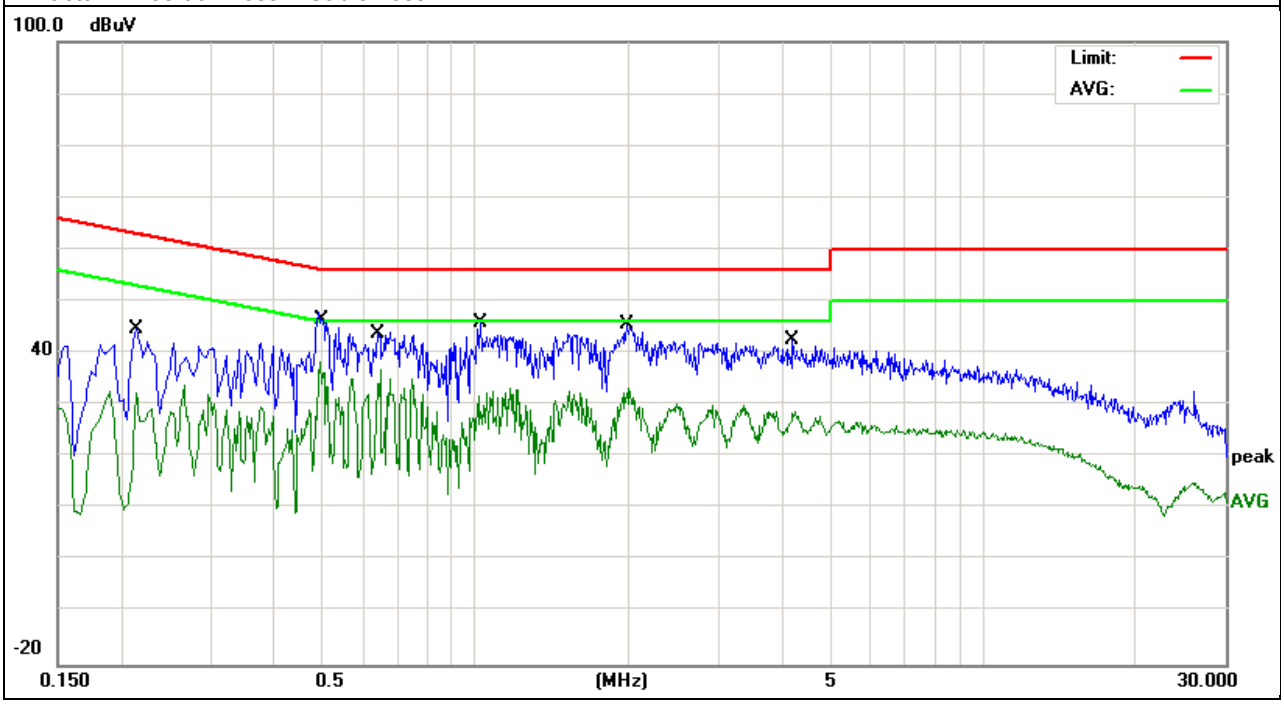


EUT：	Smartphone	Model Name. ：	VP4501I
Temperature：	26 ℃	Relative Humidity：	54%
Pressure：	1010hPa	Test Date：	2015-08-06
Test Mode：	Mode 1	Phase：	N
Test Voltage ：	DC 5V From Adapter AC 240V/60Hz		

Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Margin	Remark
(MHz)	(dBμV)	(dB)	(dBμV)	(dBμV)	(dB)	
0.2140	34.91	9.62	44.53	63.04	-18.51	QP
0.2140	22.64	9.62	32.26	53.04	-20.78	AVG
0.4940	38.25	9.68	47.93	56.10	-8.17	QP
0.4940	28.65	9.68	38.33	46.10	-7.77	AVG
0.6500	34.41	9.65	44.06	56.00	-11.94	QP
0.6500	27.27	9.65	36.92	46.00	-9.08	AVG
1.0220	36.35	9.61	45.96	56.00	-10.04	QP
1.0220	23.59	9.61	33.20	46.00	-12.80	AVG
1.9820	36.13	9.54	45.67	56.00	-10.33	QP
1.9820	23.82	9.54	33.36	46.00	-12.64	AVG
4.2219	33.09	9.51	42.60	56.00	-13.40	QP
4.2219	19.22	9.51	28.73	46.00	-17.27	AVG

Remark:

1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.



3.2 RADIATED EMISSION MEASUREMENT

3.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT

FREQUENCY (MHz)	Class A (at 10m)	Class B (at 3m)
	dBuV/m	dBuV/m
30 ~ 88	39.0	40.0
88 ~ 216	43.5	43.5
216 ~ 960	46.5	46.0
Above 960	49.5	54.0

Notes:

(1) The limit for radiated test was performed according to as following: FCC PART 15B /ICES-003.

(2) The tighter limit applies at the band edges.

(3) Emission level (dBuV/m)=20log Emission level (uV/m).

3.2.2 TEST PROCEDURE

Test Arrangement for Radiated Emissions up to 1 GHz

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at an accredited test facility. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. The antenna is a broadband antenna, and its 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.

d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

Note: The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for quasi-peak detection (QP) at frequency below 1GHz.

Test Arrangement for Radiated Emissions above 1 GHz.

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at an accredited chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. The height of antenna can be varied from one meter to four meters, the height of adjustment depends on the EUT height and the antenna 3dB beamwidth both, to detect the maximum value of the field strength.Both horizontal and vertical polarizations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

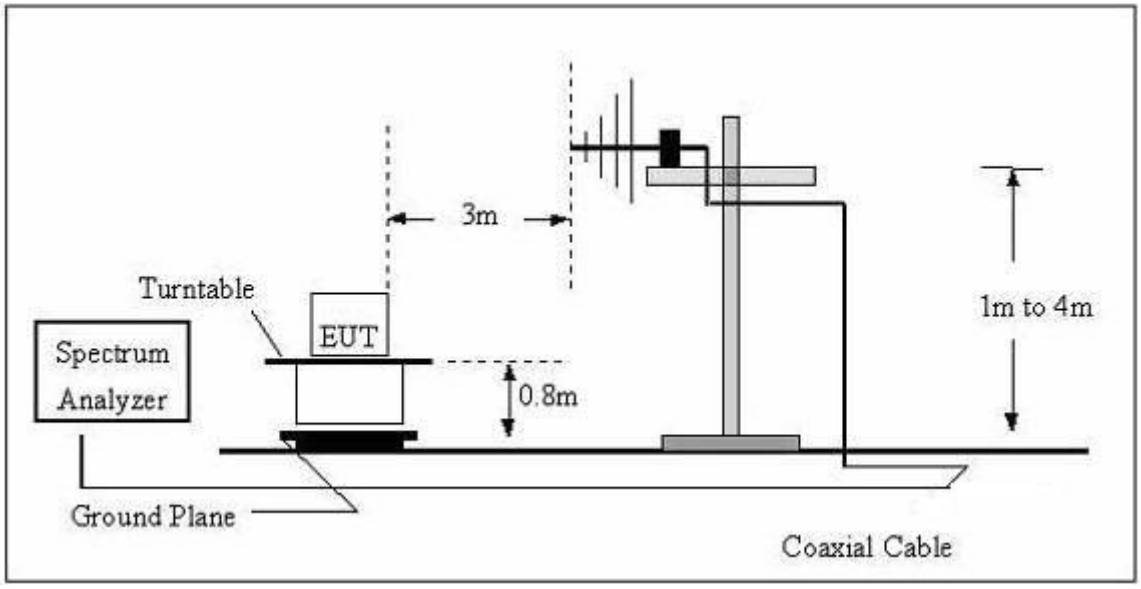
Note：For the hand-held device, the EUT should be measured for all 3 axes and only the worst case is recorded in the report

During the radiated emission test, the Spectrum Analyzer was set with the following configurations:

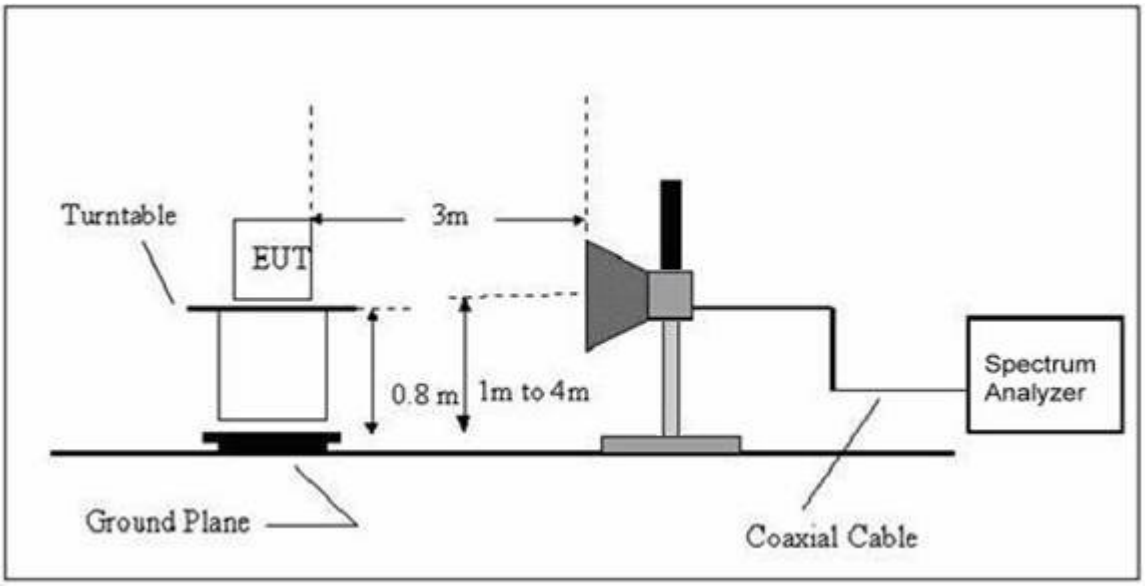
Frequency Band (MHz)	Function	Resolution bandwidth	Video Bandwidth
30 to 1000	QP	120 kHz	300 kHz
Above 1000	Peak	1 MHz	1 MHz
	Peak	1 MHz	10 Hz

3.2.3 TEST SETUP

For Radiated Emission 30~1000MHz



(B) Radiated Emission Test Set-Up Frequency Above 1GHz



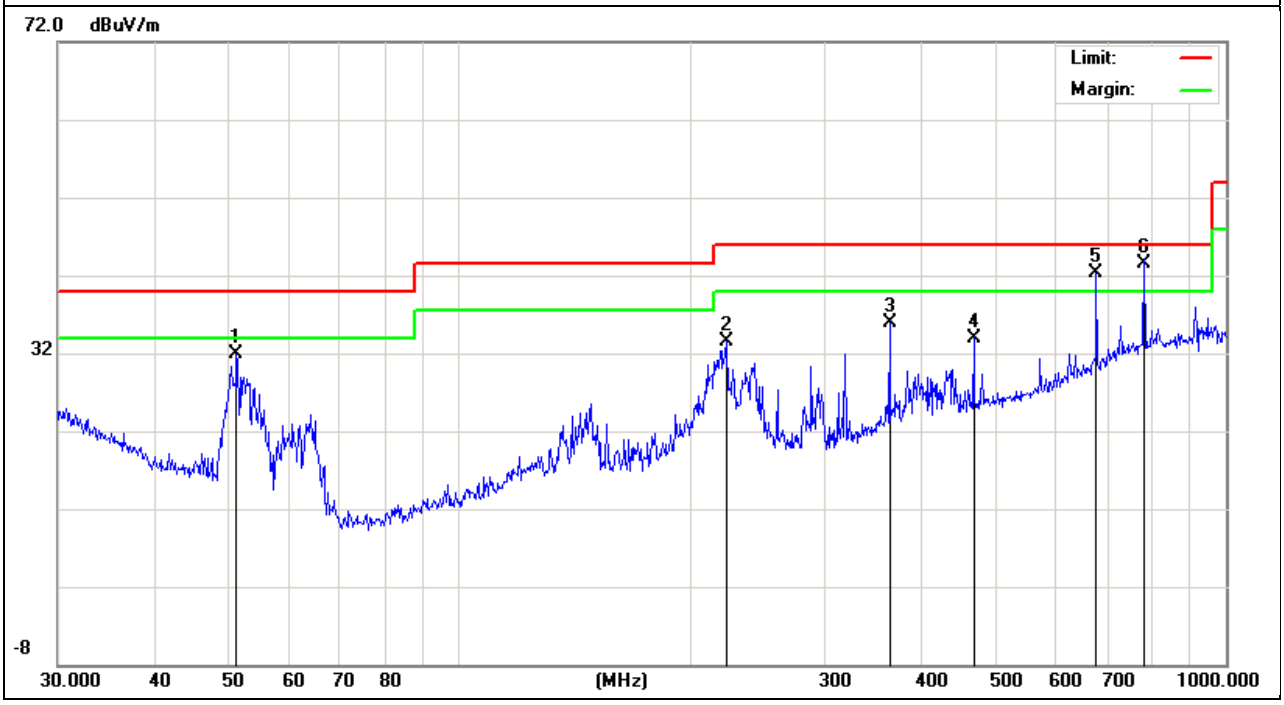
3.2.4 TEST RESULTS

TEST RESULTS (30~1000 MHz)

EUT：	Smartphone	Model Name ：	VP4501I
Temperature：	24 ℃	Relative Humidity：	54%
Pressure：	1010 hPa	Test Date：	2015-08-06
Test Mode ：	Mode 1	Polarization：	Horizontal
Test Power ：	DC 5V From PC AC 120V/60Hz		

Freq. (MHz)	Reading (dBuV)	Factor (dBuV)	Measurement (dBuV)	Limit (dBuV)	Over (dB)	Remark
51.3005	21.52	10.32	31.84	40.00	-8.16	QP
222.9502	21.15	12.33	33.48	46.00	-12.52	QP
364.2595	19.17	16.83	36.00	46.00	-10.00	QP
468.8761	14.22	19.68	33.90	46.00	-12.10	QP
677.5798	18.18	24.17	42.35	46.00	-3.65	QP
782.3453	16.65	26.95	43.60	46.00	-2.40	QP

Remark:
Factor = Antenna Factor + Cable Loss - Amplifier.

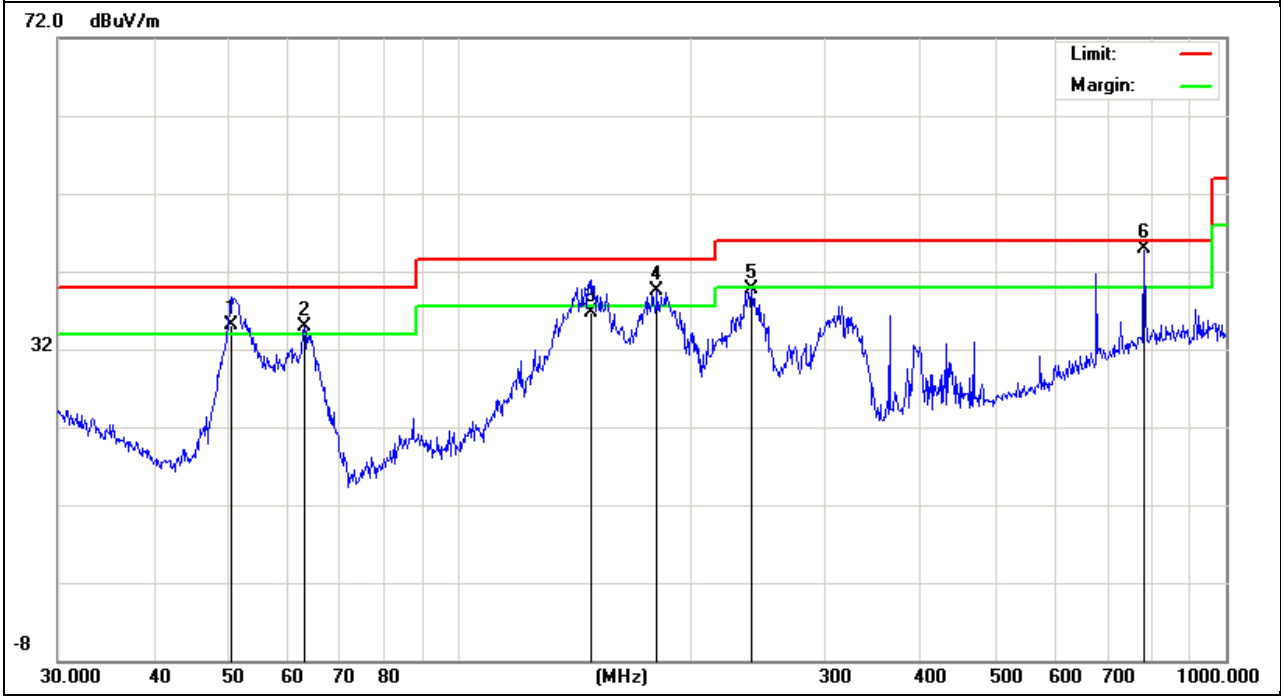


EUT：	Smartphone	Model Name ：	VP4501I
Temperature：	24 ℃	Relative Humidity：	54%
Pressure：	1010 hPa	Test Date：	2015-08-06
Test Mode ：	Mode 1	Polarization：	Vertical
Test Power ：	DC 5V From PC AC 120V/60Hz		

Freq. (MHz)	Reading (dBuV)	Factor (dBuV)	Measurement (dBuV)	Limit (dBuV)	Over (dB)	Remark
50.4089	24.63	10.57	35.20	40.00	-4.80	QP
62.8708	27.79	7.19	34.98	40.00	-5.02	QP
148.9625	26.18	10.52	36.70	43.50	-6.80	QP
181.2834	28.81	10.64	39.45	43.50	-4.05	QP
240.8303	26.26	13.49	39.75	46.00	-6.25	QP
782.3453	17.95	26.95	44.90	46.00	-1.10	QP

Remark:

Factor = Antenna Factor + Cable Loss - Amplifier.



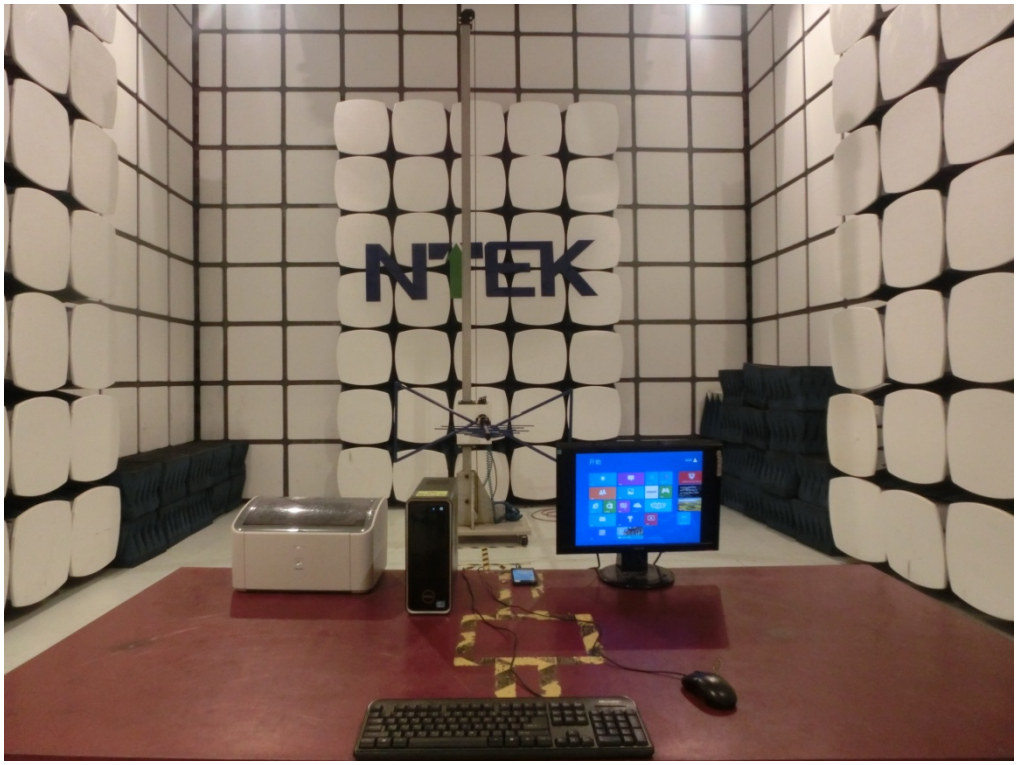
3.2.5 TEST RESULTS(1000~12400MHz)

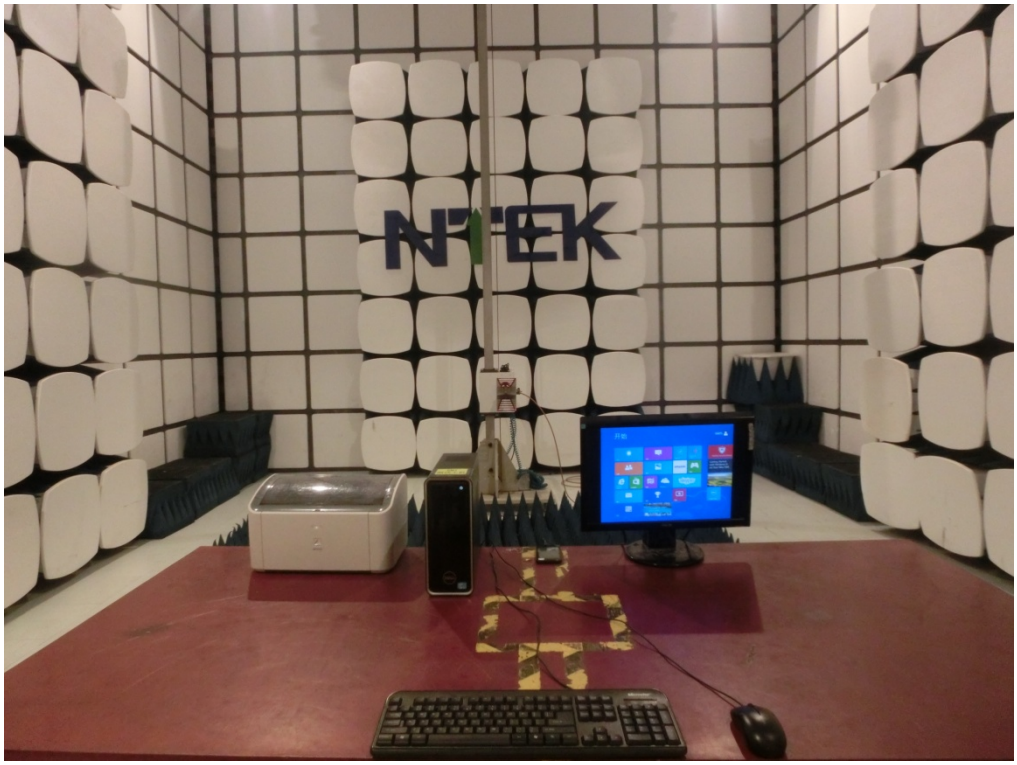
Polar (H/V)	Frequency (MHz)	Meter Reading (dBm)	Factor (dB)	Emission Level (dBm)	Limits (dBm)	Margin (dB)	Remark
V	1231.021	53.42	-10.97	42.45	74.00	-31.55	peak
V	1742.717	56.65	-10.08	46.57	74.00	-27.43	peak
V	2018.530	56.73	-8.11	48.62	74.00	-25.38	peak
V	2329.632	52.47	-7.93	44.54	74.00	-29.46	peak
V	2655.171	48.59	-6.72	41.87	74.00	-32.13	peak
V	4030.897	44.69	-1.15	43.54	74.00	-30.46	peak
H	1253.277	52.90	-10.80	42.10	74.00	-31.90	peak
H	1816.035	59.84	-9.73	50.11	74.00	-23.89	peak
H	1912.893	60.01	-9.26	50.75	74.00	-23.25	peak
H	1996.946	59.30	-8.53	50.77	74.00	-23.23	peak
H	2203.762	55.87	-7.53	48.34	74.00	-25.66	peak
H	4821.884	44.06	1.84	45.90	74.00	-28.10	peak

Remark:
Absolute Level= ReadingLevel+ Factor, Margin= Absolute Level - Limit

4. EUT TEST PHOTO

Radiated Measurement Photos





Conducted Measurement Photos