



FCC Test Report

FCC ID: 2AFK7-VP5001I

Product : Smartphone

Trade Name : VULCAN

Model Number : VP5001I

Serial Model : N/A

Report No. : NTEK-2015NT07202309F1

Prepared for

Bluebank Communication Technology Co.Ltd.

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

Prepared by

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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 : VP5001I
 : FCC Part15B:01 Oct.2014

Standards : 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 ~03 Aug. 2015

Date of Issue..... : 03 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	Radiated Emission	Class B	PASS	

Note : This C2PC testing , the changed is: Only change the camera and memory size,
Circuit and RF module are the same.

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 $y \pm U$, where expanded 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

Equipment	Smartphone						
Model Name	VP5001I						
Additional Model Number(s)	N/A						
Model Difference	N/A						
Product Description	<p>The EUT is a Smartphone.</p> <table border="1"> <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): $\pi/4$-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>	Connecting I/O port:	USB, DC in	Operation Frequency:	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	Modulation Type:	BT(1Mbps): GFSK BT EDR(2Mbps): $\pi/4$ -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
Connecting I/O port:	USB, DC in						
Operation Frequency:	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						
Modulation Type:	BT(1Mbps): GFSK BT EDR(2Mbps): $\pi/4$ -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						
Power Source	DC Voltage						
Adapter	Mode: WTA0501000USA1 Input: 100-240V~, 50/60Hz, 0.3A Output: 5.0V $\overline{\text{---}}$, 1000mA						
Battery	DC 3.7V,2000mAh						

2.1.1 DESCRIPTION OF TEST MODES

To investigate the maximum EMI emission characteristics generated from EUT, the test system was pre-scanning tested based on the consideration of following EUT operation mode or test configuration mode which possibly 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

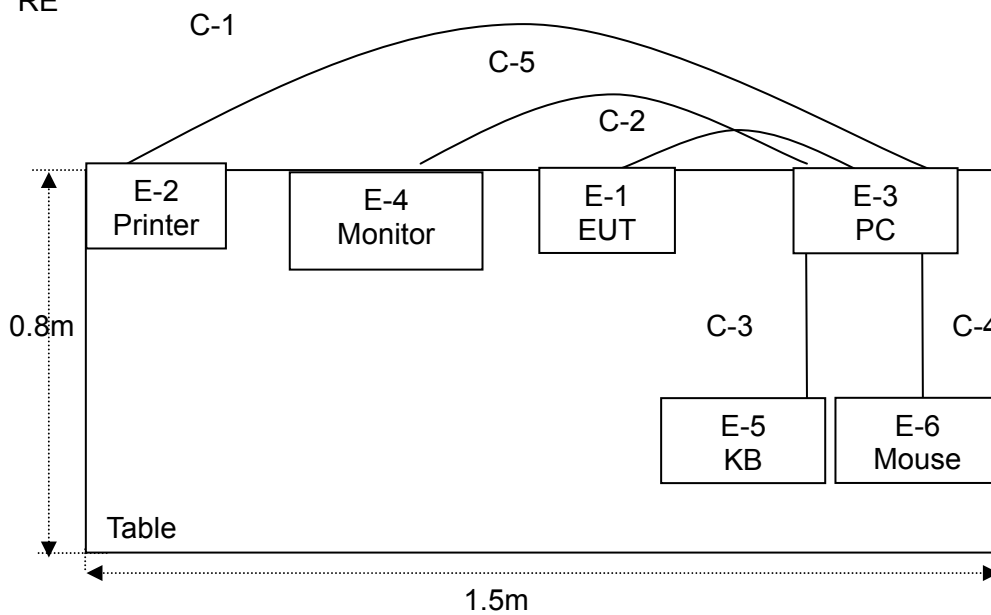
For Conducted Test	
Final Test Mode	Description
Mode 1	Data Exchange Mode

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

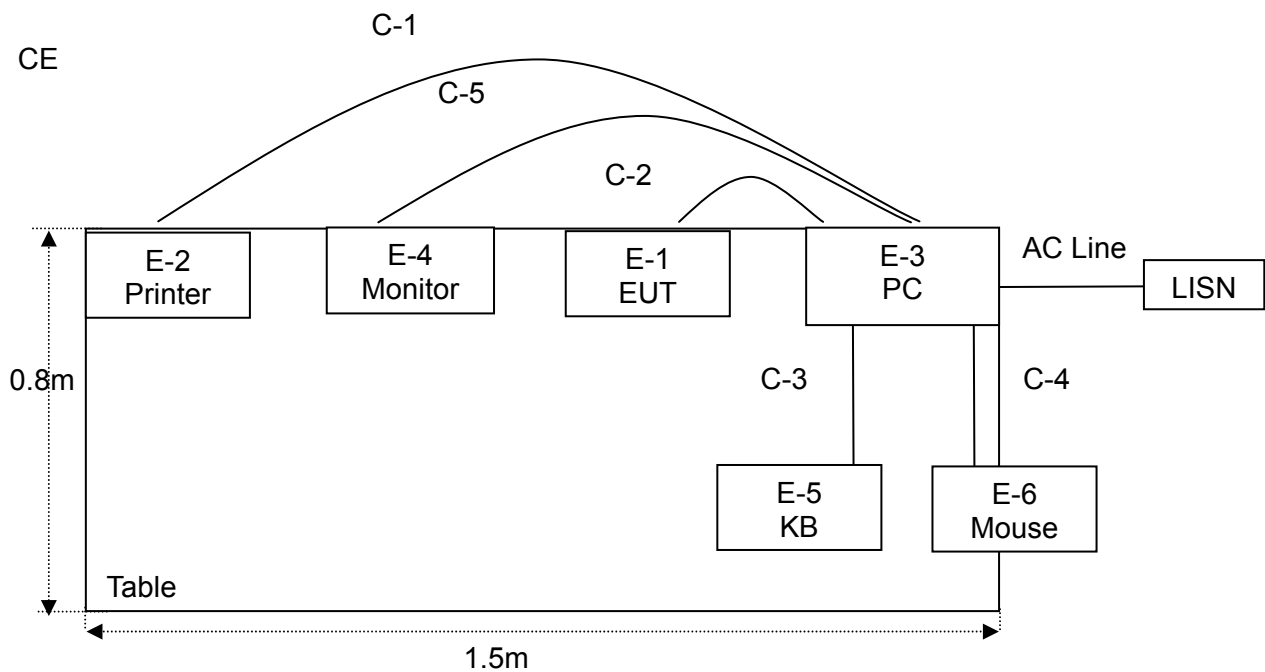
Note: Final Test Mode: Through Pre-scan, find the mode 1 is the worse case.
Only the worst case mode is recorded in the report.

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	VP5001I	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	YES	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

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.

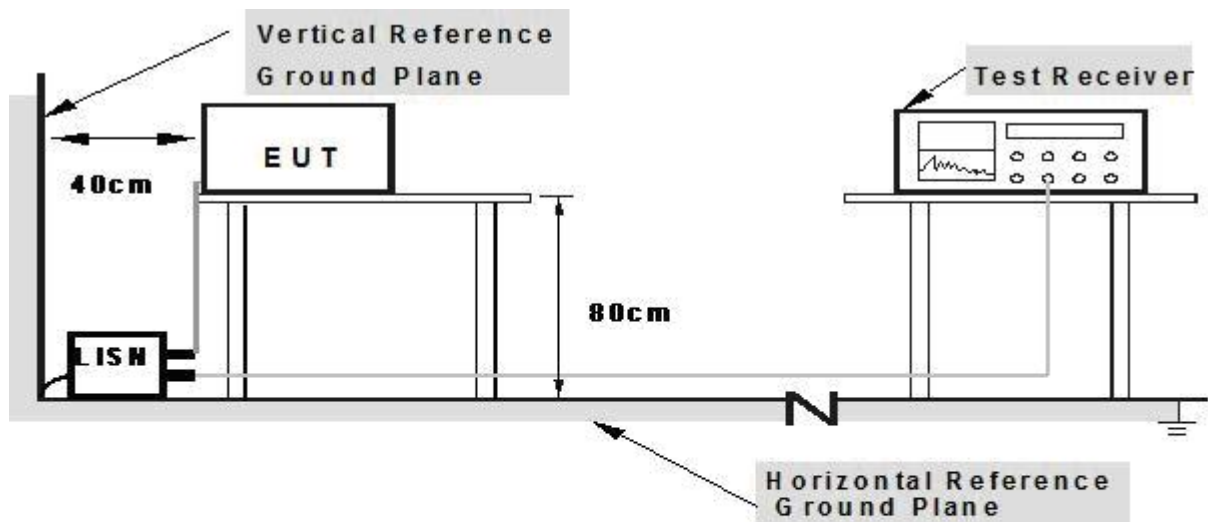
The following table is the setting of the receiver

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

3.1.2 TEST PROCEDURE

- 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.
- 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.
- 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.
- LISN at least 80 cm from nearest part of EUT chassis.
- 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 cm 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.

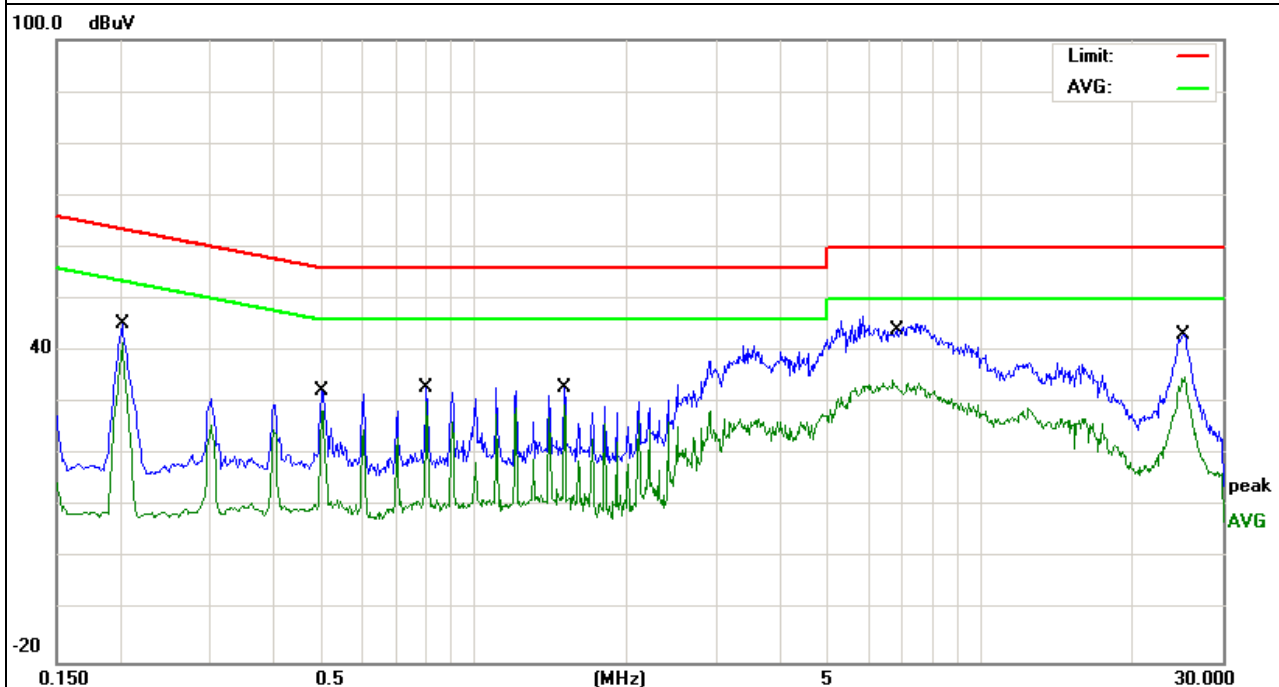
3.1.5 TEST RESULTS

EUT :	Smartphone	Model Name :	VP5001I
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2015-07-29
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	35.77	9.60	45.37	63.52	-18.15	QP
0.2020	32.04	9.60	41.64	53.52	-11.88	AVG
0.5020	22.53	9.77	32.30	56.00	-23.70	QP
0.5020	18.56	9.77	28.33	46.00	-17.67	AVG
0.8059	23.21	9.77	32.98	56.00	-23.02	QP
0.8059	20.47	9.77	30.24	46.00	-15.76	AVG
1.5100	23.22	9.68	32.90	56.00	-23.10	QP
1.5100	20.09	9.68	29.77	46.00	-16.23	AVG
6.8338	24.63	9.70	34.33	50.00	-15.67	QP
6.8338	34.43	9.70	44.13	60.00	-15.87	AVG
25.2578	33.25	9.92	43.17	60.00	-16.83	QP
25.2578	25.03	9.92	34.95	50.00	-15.05	AVG

Remark:

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

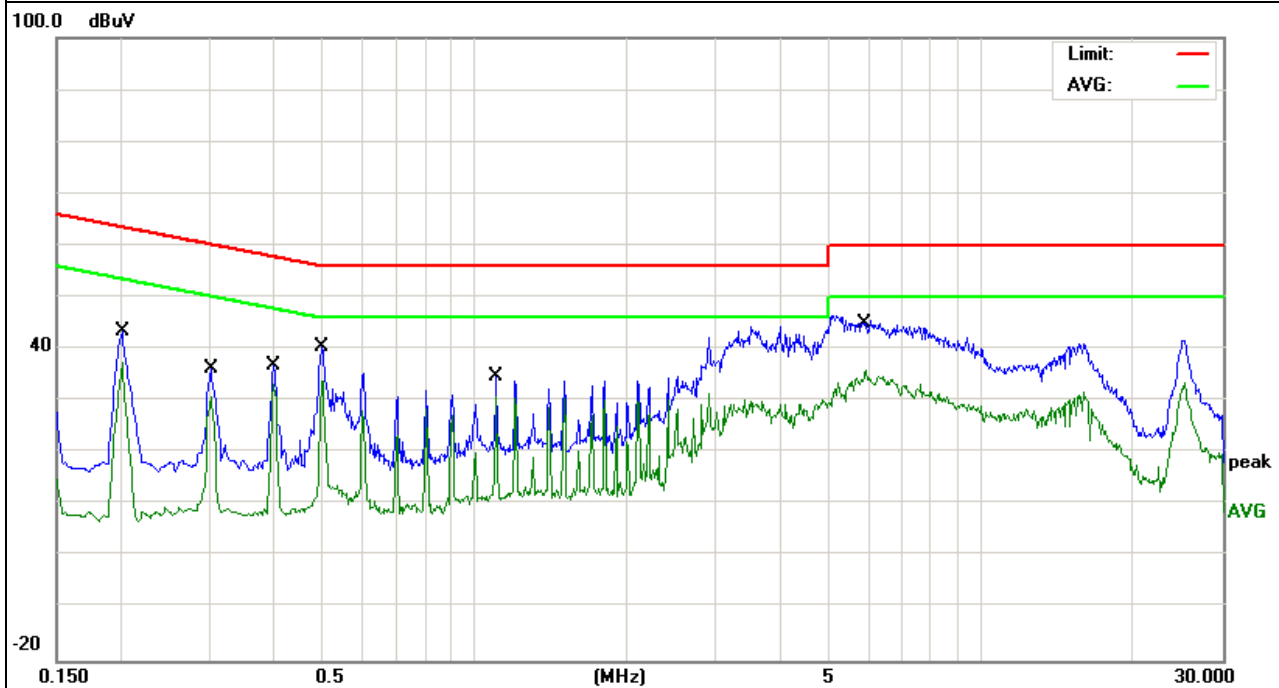


EUT :	Smartphone	Model Name :	VP5001I
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2015-07-29
Test Mode :	Mode 1	Phase :	N
Test Voltage :	DC 5V From PC AC 120V/60Hz		

Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Margin	Remark
(MHz)	(dBμV)	(dB)	(dBμV)	(dBμV)	(dB)	
0.2020	33.80	9.61	43.41	63.52	-20.11	QP
0.2020	27.89	9.61	37.50	53.52	-16.02	AVG
0.3019	26.60	9.62	36.22	60.19	-23.97	QP
0.3019	21.36	9.62	30.98	50.19	-19.21	AVG
0.4020	27.12	9.64	36.76	57.81	-21.05	QP
0.4020	23.63	9.64	33.27	47.81	-14.54	AVG
0.5020	30.84	9.68	40.52	56.00	-15.48	QP
0.5020	24.29	9.68	33.97	46.00	-12.03	AVG
1.1060	25.02	9.60	34.62	56.00	-21.38	QP
1.1060	21.21	9.60	30.81	46.00	-15.19	AVG
5.9298	35.81	9.51	45.32	60.00	-14.68	QP
5.9298	26.36	9.51	35.87	50.00	-14.13	AVG

Remark:

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

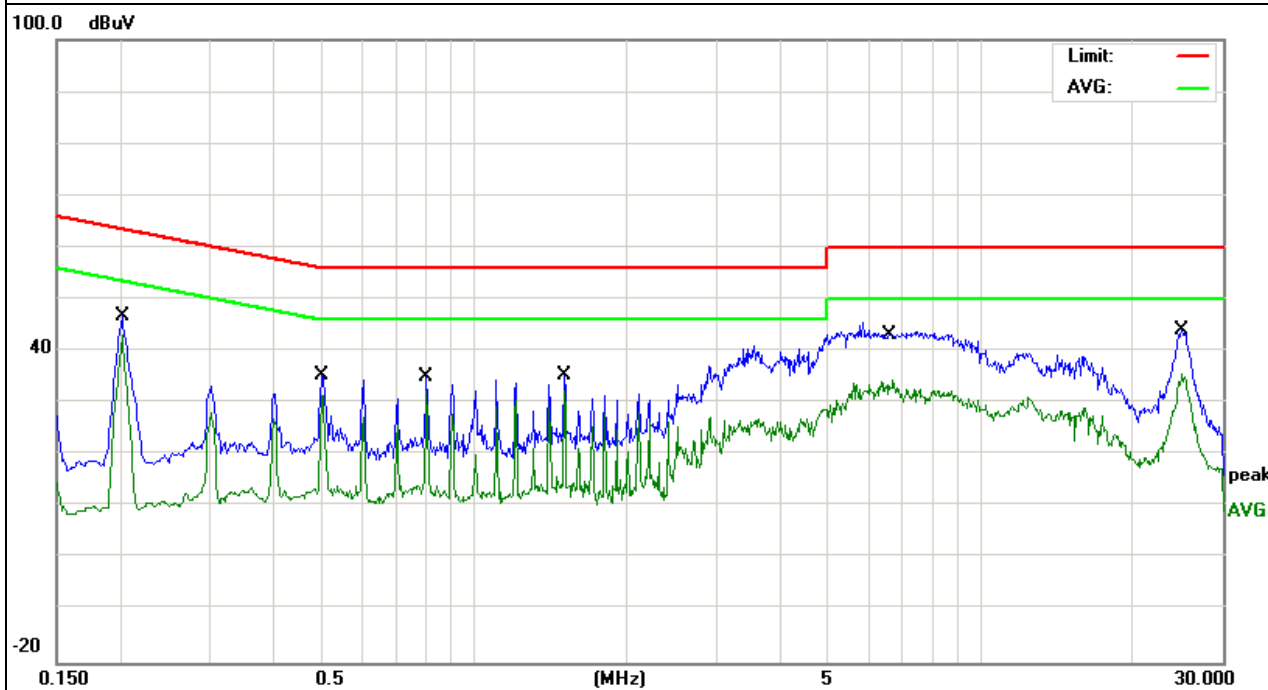


EUT :	Smartphone	Model Name :	VP5001I
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2015-07-29
Test Mode :	Mode 1	Phase :	L
Test Voltage :	DC 5V From PC AC 240V/60Hz		

Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Margin	Remark
(MHz)	(dBμV)	(dB)	(dBμV)	(dBμV)	(dB)	
0.2020	37.27	9.60	46.87	63.52	-16.65	QP
0.2020	33.54	9.60	43.14	53.52	-10.38	AVG
0.5020	25.53	9.77	35.30	56.00	-20.70	QP
0.5020	21.56	9.77	31.33	46.00	-14.67	AVG
0.8059	25.21	9.77	34.98	56.00	-21.02	QP
0.8059	22.47	9.77	32.24	46.00	-13.76	AVG
1.5100	25.72	9.68	35.40	56.00	-20.60	QP
1.5100	22.59	9.68	32.27	46.00	-13.73	AVG
6.7137	33.79	9.70	43.49	60.00	-16.51	QP
6.7137	24.63	9.70	34.33	50.00	-15.67	AVG
24.9576	34.07	9.92	43.99	60.00	-16.01	QP
24.9576	25.74	9.92	35.66	50.00	-14.34	AVG

Remark:

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

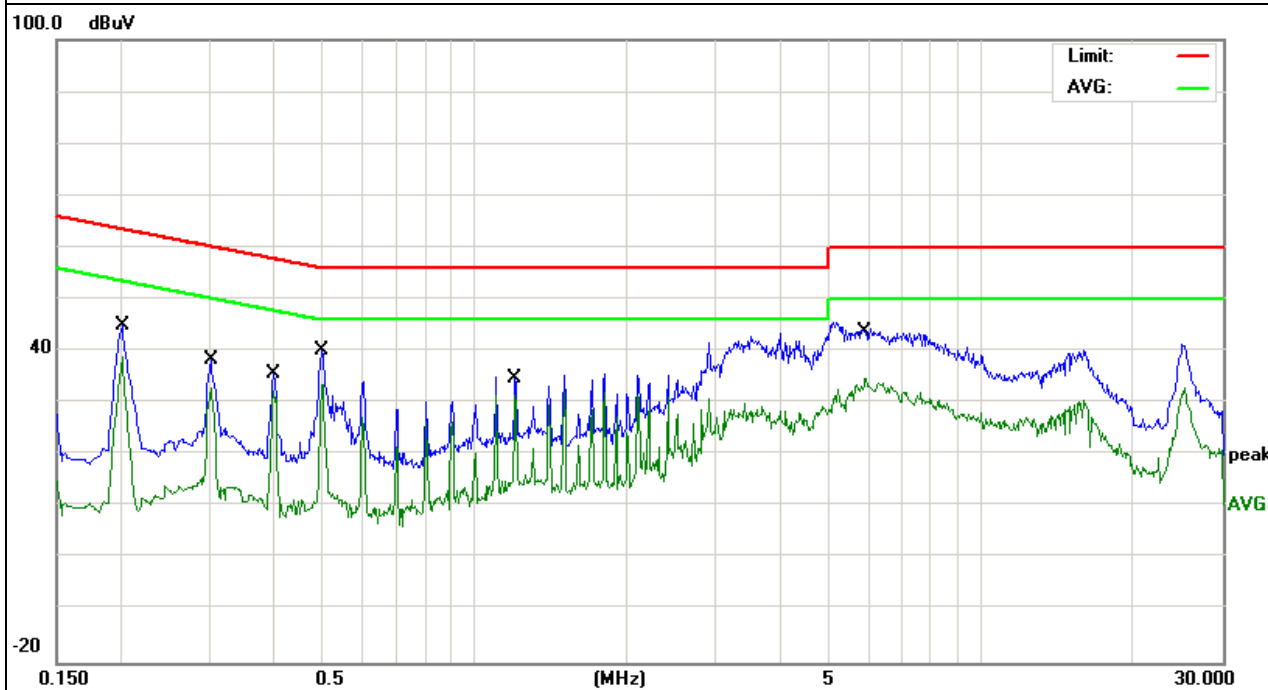


EUT :	Smartphone	Model Name :	VP5001I
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2015-07-29
Test Mode :	Mode 1	Phase :	N
Test Voltage :	DC 5V From PC AC 240V/60Hz		

Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Margin	Remark
(MHz)	(dBμV)	(dB)	(dBμV)	(dBμV)	(dB)	
0.2020	35.30	9.61	44.91	63.52	-18.61	QP
0.2020	29.39	9.61	39.00	53.52	-14.52	AVG
0.3019	28.60	9.62	38.22	60.19	-21.97	QP
0.3019	23.36	9.62	32.98	50.19	-17.21	AVG
0.4020	26.12	9.64	35.76	57.81	-22.05	QP
0.4020	22.63	9.64	32.27	47.81	-15.54	AVG
0.5020	30.34	9.68	40.02	56.00	-15.98	QP
0.5020	23.79	9.68	33.47	46.00	-12.53	AVG
1.2057	25.52	9.60	35.12	56.00	-20.88	QP
1.2057	22.00	9.60	31.60	46.00	-14.40	AVG
5.9298	34.47	9.51	43.98	60.00	-16.02	QP
5.9298	25.36	9.51	34.87	50.00	-15.13	AVG

Remark:

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

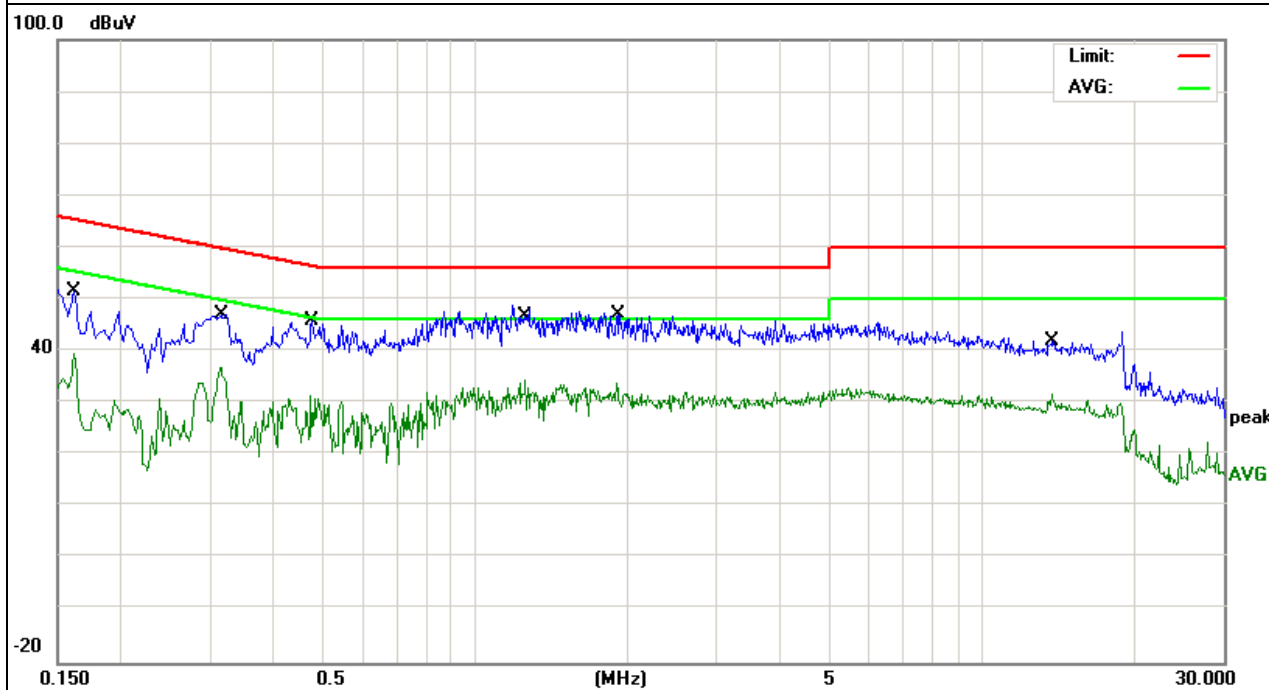


EUT :	Smartphone	Model Name :	VP5001I
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2015-07-29
Test Mode :	Mode 1	Phase :	L
Test Voltage :	DC 5V From Adapter AC 120V/60Hz		

Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Margin	Remark
(MHz)	(dBμV)	(dB)	(dBμV)	(dBμV)	(dB)	
0.1620	42.04	9.62	51.66	65.36	-13.70	QP
0.1620	29.79	9.62	39.41	55.36	-15.95	AVG
0.3140	37.18	9.69	46.87	59.86	-12.99	QP
0.3140	27.31	9.69	37.00	49.86	-12.86	AVG
0.4778	36.15	9.68	45.83	56.38	-10.55	QP
0.4778	21.69	9.68	31.37	46.38	-15.01	AVG
1.2579	36.81	9.71	46.52	56.00	-9.48	QP
1.2579	24.73	9.71	34.44	46.00	-11.56	AVG
1.8977	37.00	9.66	46.66	56.00	-9.34	QP
1.8977	24.13	9.66	33.79	46.00	-12.21	AVG
13.7499	31.45	9.77	41.22	60.00	-18.78	QP
13.7499	22.08	9.77	31.85	50.00	-18.15	AVG

Remark:

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

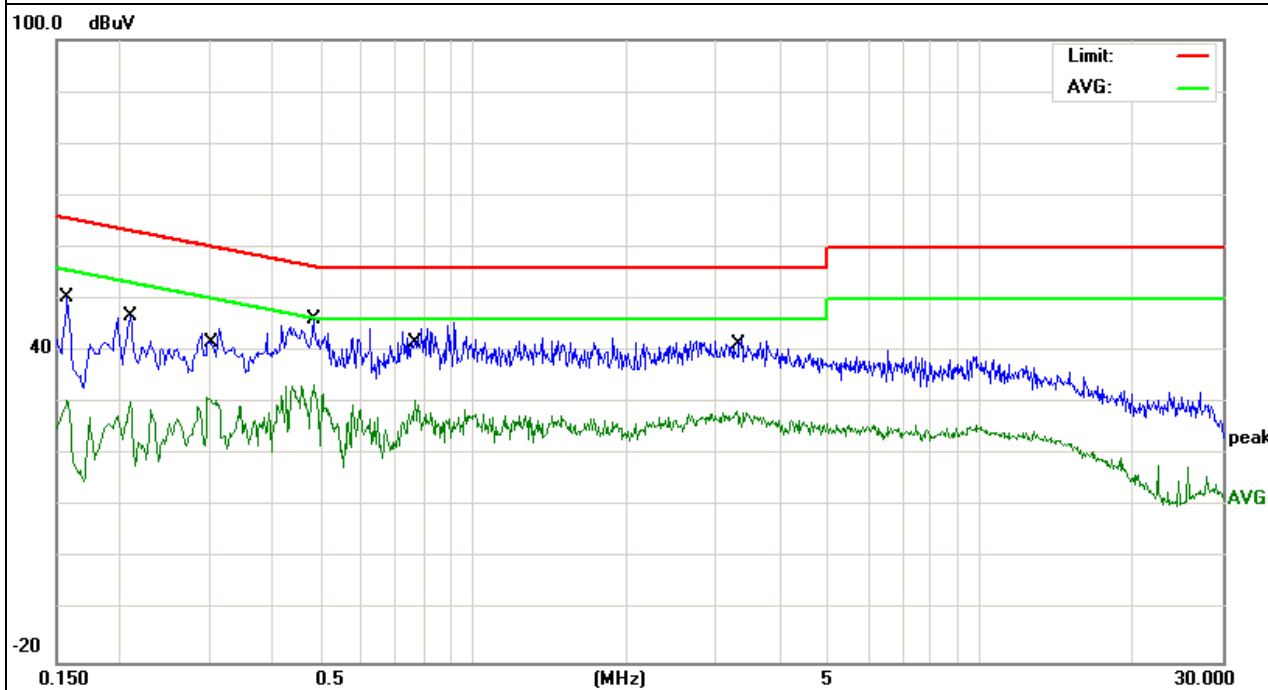


EUT :	Smartphone	Model Name :	VP5001I
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2015-07-29
Test Mode :	Mode 1	Phase :	N
Test Voltage :	DC 5V From Adapter AC 120V/60Hz		

Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Margin	Remark
(MHz)	(dBμV)	(dB)	(dBμV)	(dBμV)	(dB)	
0.1580	40.69	9.62	50.31	65.56	-15.25	QP
0.1580	20.98	9.62	30.60	55.56	-24.96	AVG
0.2099	37.03	9.61	46.64	63.21	-16.57	QP
0.2099	20.60	9.61	30.21	53.21	-23.00	AVG
0.2977	33.64	9.74	43.38	60.30	-16.92	QP
0.2977	21.31	9.74	31.05	50.30	-19.25	AVG
0.4818	36.55	9.70	46.25	56.31	-10.06	QP
0.4818	23.89	9.70	33.59	46.31	-12.72	AVG
0.7660	34.05	9.77	43.82	56.00	-12.18	QP
0.7660	20.79	9.77	30.56	46.00	-15.44	AVG
3.2980	32.15	9.68	41.83	56.00	-14.17	QP
3.2980	18.69	9.68	28.37	46.00	-17.63	AVG

Remark:

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

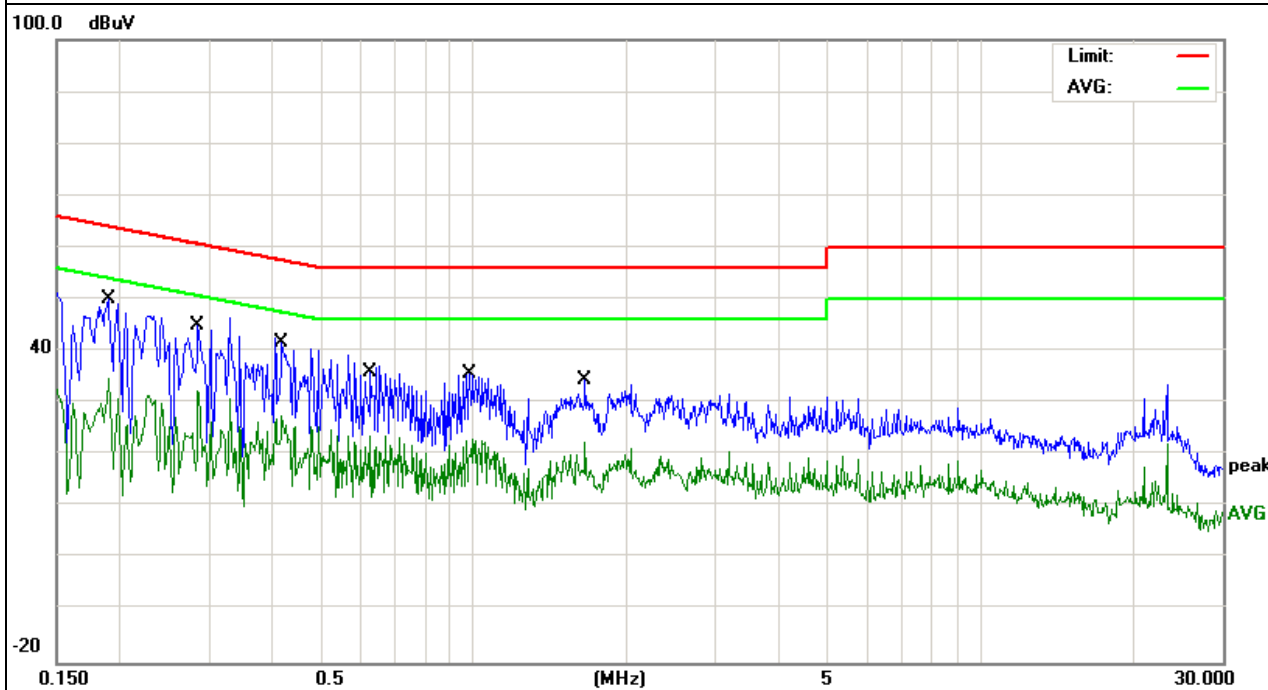


EUT :	Smartphone	Model Name :	VP5001I
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2015-07-29
Test Mode :	Mode 1	Phase :	L
Test Voltage :	DC 5V From Adapter AC 240V /60Hz		

Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Margin	Remark
(MHz)	(dBμV)	(dB)	(dBμV)	(dBμV)	(dB)	
0.1901	40.39	9.61	50.00	64.03	-14.03	QP
0.1901	25.11	9.61	34.72	54.03	-19.31	AVG
0.2857	35.32	9.72	45.04	60.65	-15.61	QP
0.2857	22.77	9.72	32.49	50.65	-18.16	AVG
0.4178	33.07	9.43	42.50	57.49	-14.99	QP
0.4178	18.01	9.43	27.44	47.49	-20.05	AVG
0.6260	26.28	9.77	36.05	56.00	-19.95	QP
0.6260	13.76	9.77	23.53	46.00	-22.47	AVG
0.9939	25.93	9.73	35.66	56.00	-20.34	QP
0.9939	13.26	9.73	22.99	46.00	-23.01	AVG
1.6535	24.76	9.67	34.43	56.00	-21.57	QP
1.6535	12.84	9.67	22.51	46.00	-23.49	AVG

Remark:

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

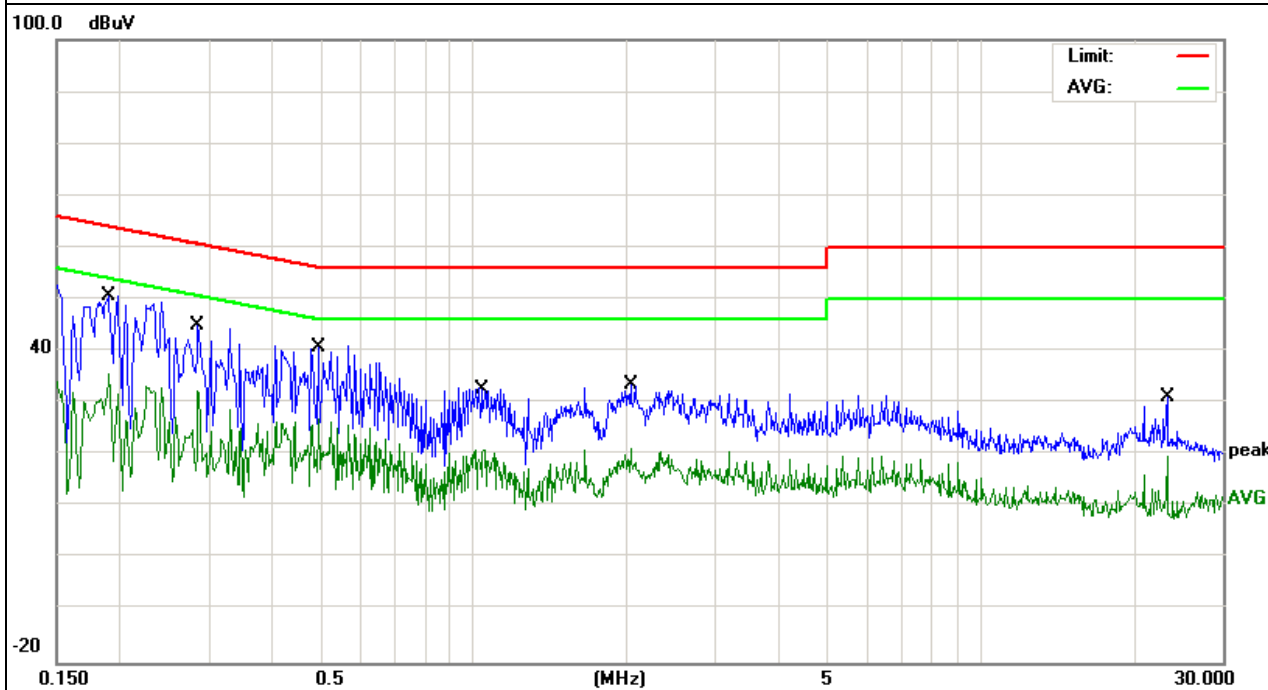


EUT :	Smartphone	Model Name :	VP5001I
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2015-07-29
Test Mode :	Mode 1	Phase :	N
Test Voltage :	DC 5V From Adapter AC 240V/60Hz		

Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Margin	Remark
(MHz)	(dBμV)	(dB)	(dBμV)	(dBμV)	(dB)	
0.1901	40.89	9.61	50.50	64.03	-13.53	QP
0.1901	26.11	9.61	35.72	54.03	-18.31	AVG
0.2857	35.32	9.72	45.04	60.65	-15.61	QP
0.2857	22.77	9.72	32.49	50.65	-18.16	AVG
0.4939	30.90	9.75	40.65	56.10	-15.45	QP
0.4939	17.31	9.75	27.06	46.10	-19.04	AVG
1.0460	23.33	9.73	33.06	56.00	-22.94	QP
1.0460	11.30	9.73	21.03	46.00	-24.97	AVG
2.0379	23.92	9.65	33.57	56.00	-22.43	QP
2.0379	11.64	9.65	21.29	46.00	-24.71	AVG
23.3338	21.08	9.94	31.02	60.00	-28.98	QP
23.3338	9.82	9.94	19.76	50.00	-30.24	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.

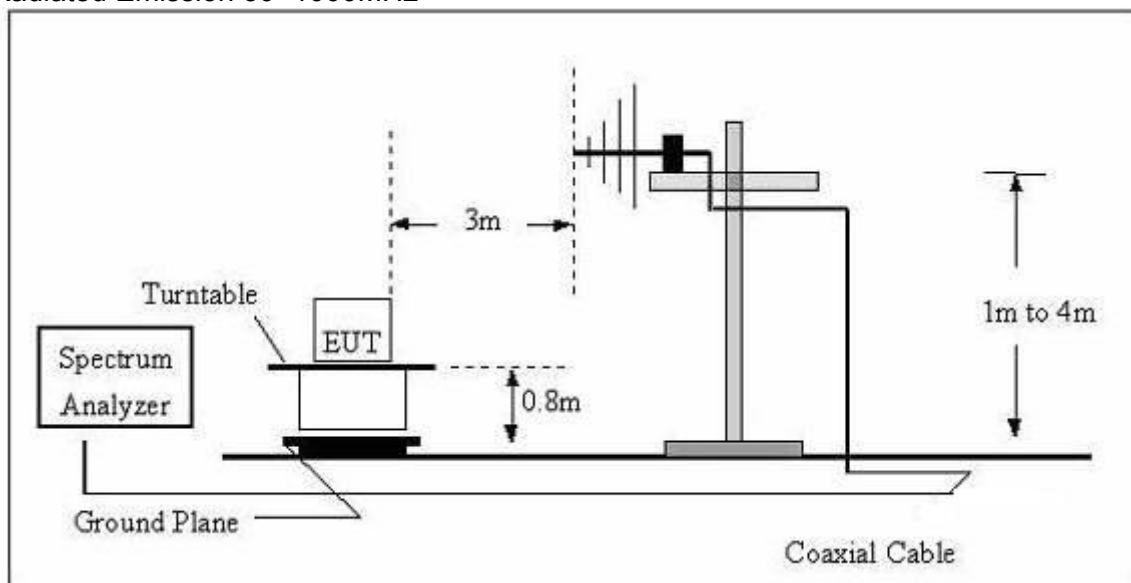
Note: For the hand-held device, the EUT should be measured for all 3 axes and only the worst

case is recorded in the report
During the radiated emission test, the Spectrum Analyzer was set with the following configurations:

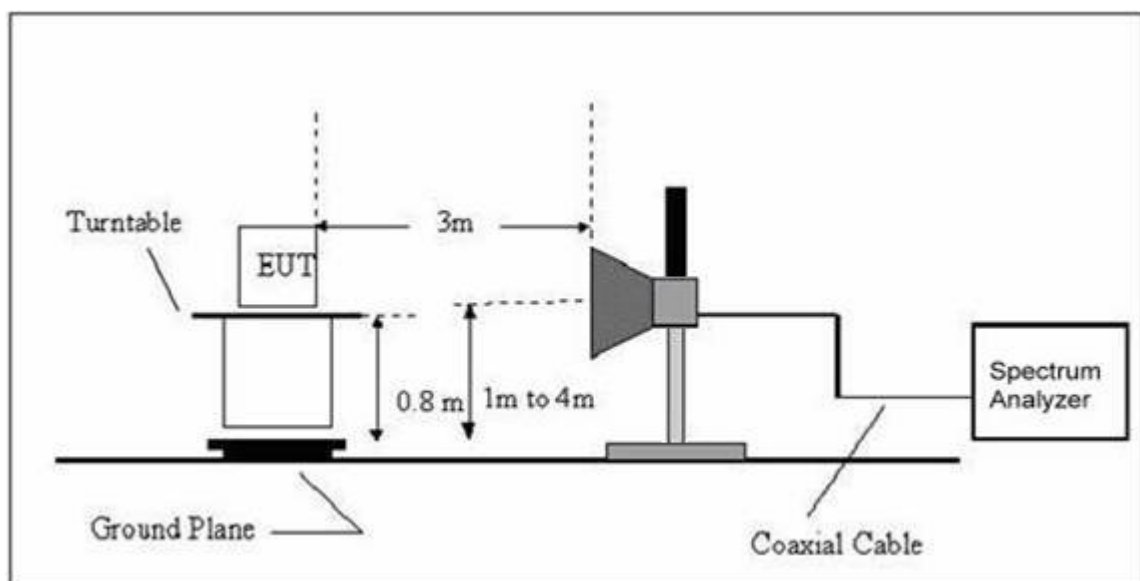
Frequency Band (MHz)	Function	Resolution bandwidth	Video Bandwidth
30 to 1000	QP	120 kHz	300 kHz
Above 1000	Peak	1 MHz	1 MHz
	Peak	1 MHz	10 Hz

3.2.3 TEST SETUP

For Radiated Emission 30~1000MHz



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



3.2.4 TEST RESULTS

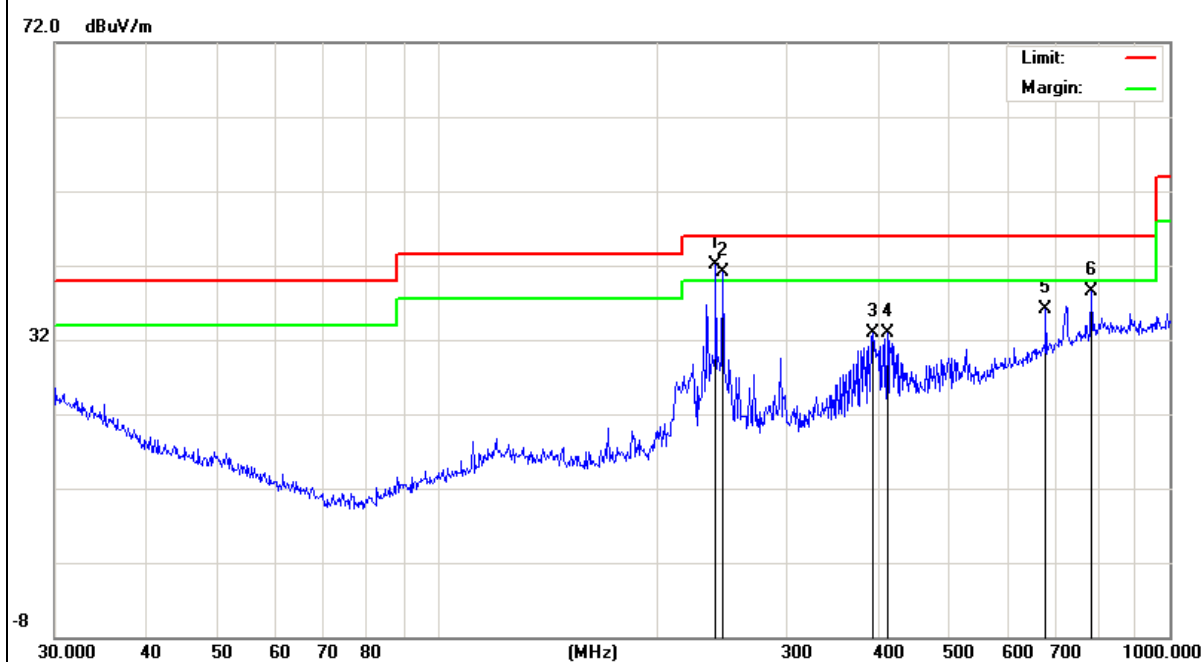
TEST RESULTS (30~1000 MHz)

EUT :	Smartphone	Model Name :	VP5001I
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2015-07-29
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
239.9874	28.61	13.49	42.10	46.00	-3.90	QP
245.09	27.59	13.54	41.13	46.00	-4.87	QP
393.4723	14.80	18.04	32.84	46.00	-13.16	QP
411.824	14.31	18.55	32.86	46.00	-13.14	QP
677.5798	11.92	24.17	36.09	46.00	-9.91	QP
782.3453	11.54	26.95	38.49	46.00	-7.51	QP

Remark:

Factor = Antenna Factor + Cable Loss - Amplifier.

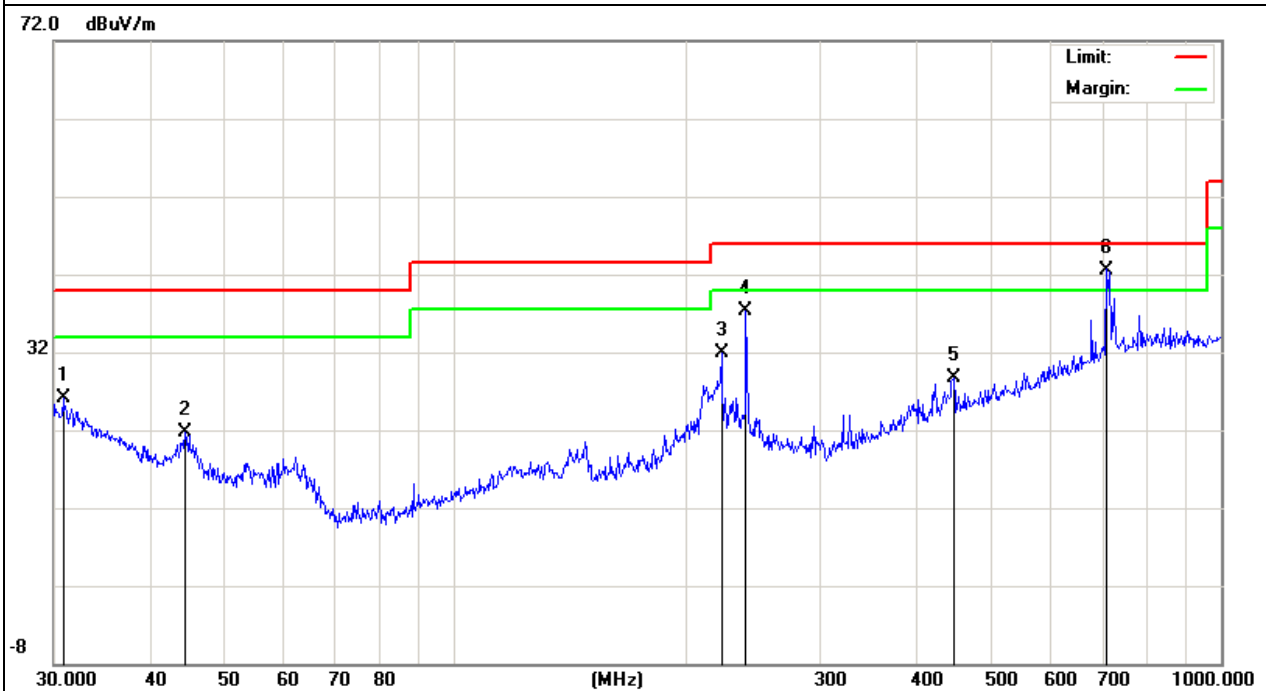


EUT :	Smartphone	Model Name :	VP5001I
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2015-07-29
Test Mode :	Mode 1	Polarization :	Vertical
Test Power :	DC 5V From PC AC 120V/60Hz		

Freq. (MHz)	Reading (dBuV)	Factor (dBuV)	Measurement (dBuV)	Limit (dBuV)	Over (dB)	Remark
30.8535	7.15	18.97	26.12	40.00	-13.88	QP
44.5867	9.61	12.06	21.67	40.00	-18.33	QP
222.9501	19.56	12.33	31.89	46.00	-14.11	QP
239.9874	23.80	13.49	37.29	46.00	-8.71	QP
447.9821	9.52	19.26	28.78	46.00	-17.22	QP
709.1823	17.56	25.04	42.60	46.00	-3.40	QP

Remark:

Factor = Antenna Factor + Cable Loss - Amplifier.



3.2.5 TEST RESULTS(1000~12400MHz)

Polar (H/V)	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Remark
	(MHz)	(dBm)	(dB)	(dBm)	(dBm)	(dB)	
V	1313.043	58.78	-10.78	48.00	74.00	-26.00	peak
V	1619.283	62.12	-10.62	51.50	74.00	-22.50	peak
V	1832.378	58.87	-9.67	49.20	74.00	-24.80	peak
V	2033.049	58.23	-7.82	50.41	74.00	-23.59	peak
V	2180.197	59.55	-7.35	52.20	74.00	-21.80	peak
V	3119.795	55.70	-5.90	49.80	74.00	-24.20	peak
H	1076.227	57.65	-12.85	44.80	74.00	-29.20	peak
H	1282.812	57.56	-10.86	46.70	74.00	-27.30	peak
H	1523.581	59.76	-11.06	48.70	74.00	-25.30	peak
H	1961.485	58.32	-9.12	49.20	74.00	-24.80	peak
H	2184.107	52.78	-7.38	45.40	74.00	-28.60	peak
H	3945.153	53.28	-1.58	51.70	74.00	-22.30	peak

Remark:

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

4. EUT TEST PHOTO

Radiated Measurement Photos



Conducted Measurement Photos

