



FCC Test Report

FCC ID:2AC27-NEX1

Product : Mobile phone

Trade Name : N/A

Model Number : Nex1

Serial Model : N/A

Report No. : NTEK-2014DC0822081F5

Prepared for

Nexxtworks Inc.

30798 US HWY19 N Palm Harbor FL34684, United States

Prepared by

Shenzhen NTEK Testing Technology Co., Ltd.

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TEST RESULT CERTIFICATION

Applicant's name : Nexxtworks Inc.

Address : 30798 US HWY19 N Palm Harbor FL34684, United States

Manufacturer's Name : Shenzhen Huihua Exploit Technology Co.,Ltd.

Address : Room 2809,Floor 28 Block A,Electronic & Technology Buliding,
Shennan Road, Shenzhen, P.R.China

Product description

Product name : Mobile phone

Model and/or type reference : Nex1

FCC Part15B:01 Oct.2013

Standards : ANSI C63.4:2009

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 : 25 Aug. 2014 ~05 Sep. 2014

Date of Issue : 05 Sep. 2014

Test Result : **Pass**

Testing Engineer : Kyle Xu
(Kyle Xu)

Technical Manager : Brown Lu
(Brown Lu)

Authorized Signatory : Bill Yao
(Bill Yao)

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1. TEST SUMMARY

Test procedures according to the technical standards:

EMC Emission				
Standard	Test Item	Limit	Judgment	Remark
FCC Part15B:2013 ANSI C63.4: 2009	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 $y \pm U$, 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 ~6GHz	5.0	

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Equipment	Mobile phone	
Model Name	Nex1	
Additional Model Number(s)	N/A	
Model Difference	N/A	
Product Description	The EUT is a Mobile phone.	
	Connecting I/O port:	USB
	Based on the application, features, or specification exhibited in User's Manual, the EUT is considered as an ITE/Computing Device. More details of EUT technical specification, please refer to the User's Manual.	
Power Source	DC Voltage	
Adapter	Model:ODL-13810 Input: 100-240V~,50/60Hz Output: 5.0V $\overline{\text{---}}$, 1000mA	
Battery	DC 3.7V,4400mAh	

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	TF Card Playing+charging
Mode 2	REC
Mode 3	Data Exchange

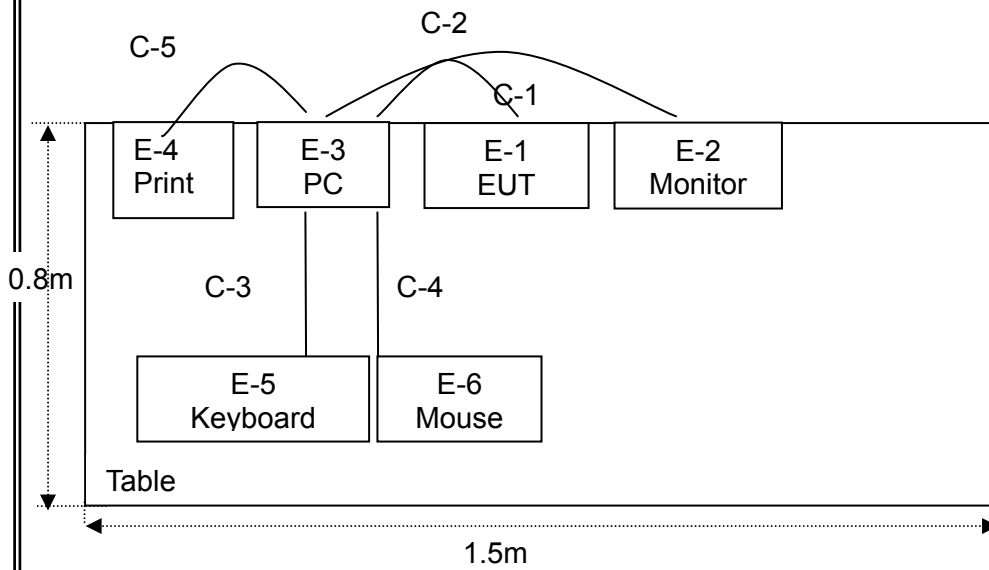
For Conducted Test	
Final Test Mode	Description
Mode 1	TF Card Playing+charging
Mode 2	REC
Mode 3	Data Exchange
Mode 4	GPS

For Radiated Test	
Final Test Mode	Description
Mode 1	TF Card Playing+charging
Mode 2	REC
Mode 3	Data Exchange
Mode 4	GPS

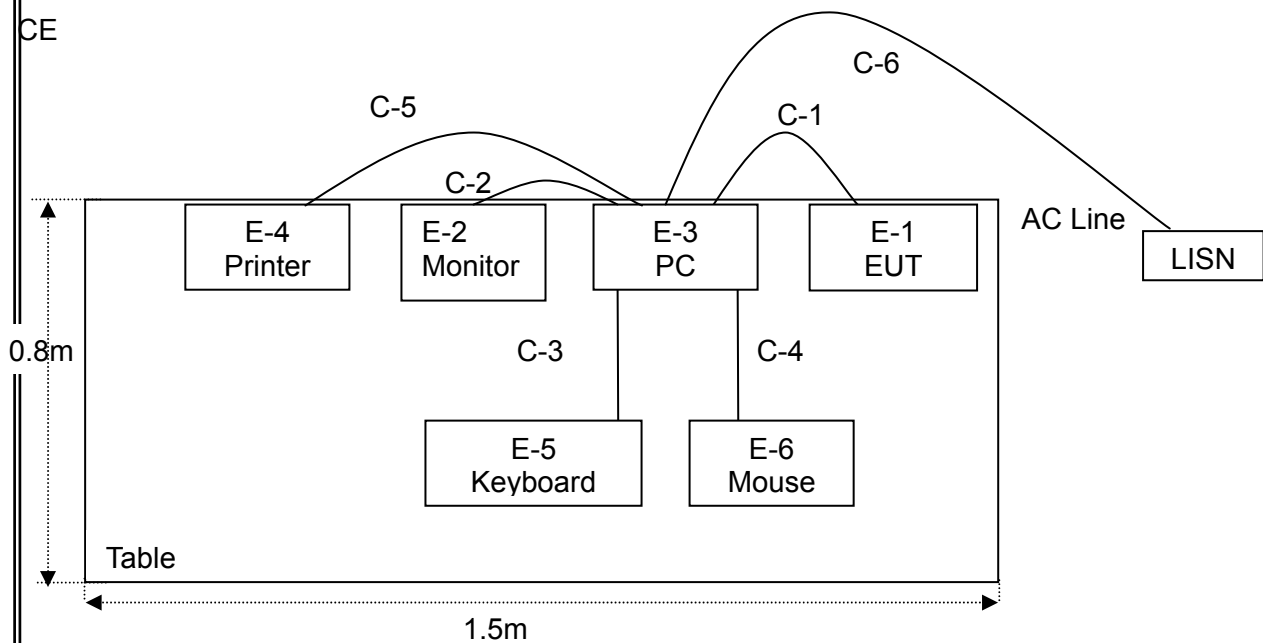
Note: Final Test Mode: Through Pre-scan, find the mode 3 is the worse case.
Only the worst case mode is recorded in the report.

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	Mobile phone	N/A	Nex1	N/A	EUT
E-2	Monitor	DELL	IN2020MB	N/A	
E-3	Personal computer	DELL	FT4Y23X	34413561645	
E-4	Printer	Canon	L11121E	LBP2900	
E-5	Keyboard	DELL	SK-8185	OY526KUS	
E-6	Mouse	DELL	MS111-P	cn-011d3v-71581-1 1e-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	
C-6	NO	NO	1.2	

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

2.4.1 CONDUCTED TEST SITE

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until	Calibration period
1	Test Receiver	R&S	ESCI	101160	2014.06.06	2015.06.05	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	2014.06.07	2015.06.06	1 year
5	Passive Voltage Probe	R&S	ESH2-Z3	100196	2014.06.07	2015.06.06	1 year
6	Absorbing clamp	R&S	MOS-21	100423	2014.06.08	2015.06.07	1 year

2.4.2 RADIATED TEST SITE

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until	Calibration period
1	Spectrum Analyzer	Agilent	E4407B	MY45108040	2014.07.06	2015.07.05	1 year
2	Test Receiver	R&S	ESPI	101318	2014.06.07	2015.06.06	1 year
3	Bilog Antenna	TESEQ	CBL6111D	31216	2014.07.06	2015.07.05	1 year
4	50Ω Coaxial Switch	Anritsu	MP59B	6200264416	2014.06.07	2015.06.06	1 year
5	Spectrum Analyzer	ADVANTEST	R3132	150900201	2014.06.07	2015.06.06	1 year
6	Horn Antenna	EM	EM-AH-10180	2011071402	2014.07.06	2015.07.05	1 year
7	Horn Ant	Schwarzbeck	BBHA 9170	9170-181	2014.07.06	2015.07.05	1 year
8	Amplifier	EM	EM-30180	060538	2013.12.22	2014.12.21	1 year
9	Loop Antenna	ARA	PLA-1030/B	1029	2014.06.08	2015.06.07	1 year
10	Power Meter	R&S	NRVS	100696	2014.07.06	2015.07.05	1 year
11	Power Sensor	HP Agilent	U2001H	U2000-60002	2014.07.06	2015.07.05	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.

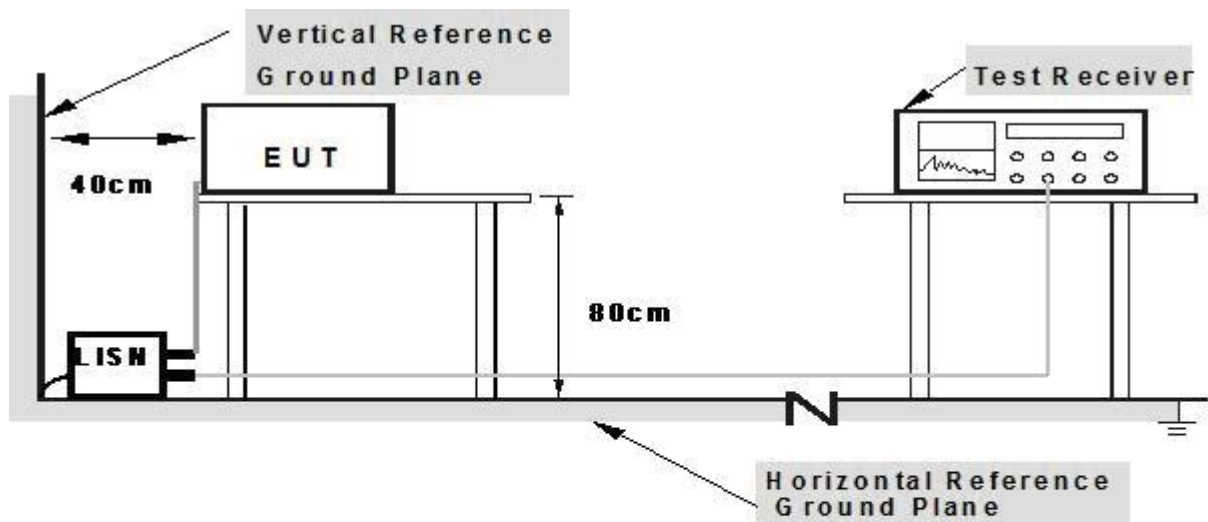
The following table is the setting of the receiver

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.

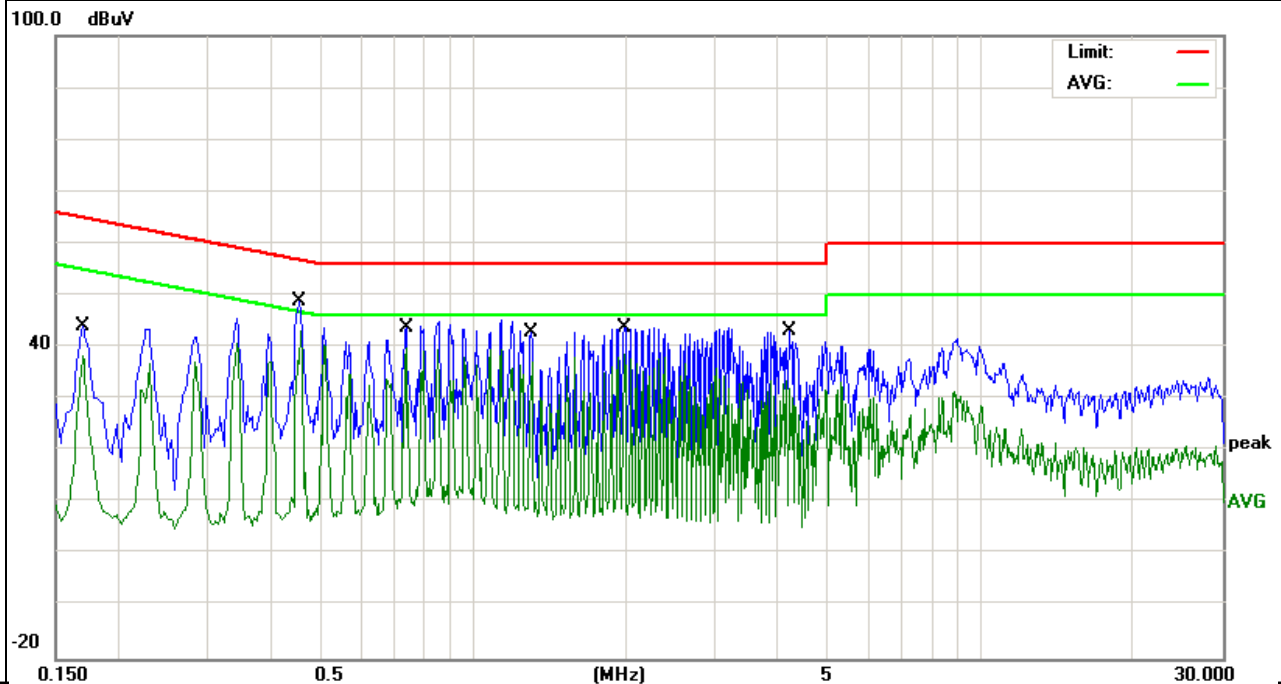
3.1.5 TEST RESULTS

EUT :	Mobile phone	Model Name. :	Nex1
Temperature :	26 °C	Relative Humidity :	54%
Pressure :	1010hPa	Test Date :	2014-09-03
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)	
0.1700	34.60	9.57	44.17	64.96	-20.79	QP
0.1700	28.85	9.57	38.42	54.96	-16.54	AVG
0.4580	37.62	9.51	47.13	56.73	-9.60	QP
0.4580	33.60	9.51	43.11	46.73	-3.62	AVG
0.7380	34.35	9.53	43.88	56.00	-12.12	QP
0.7380	30.36	9.53	39.89	46.00	-6.11	AVG
1.3060	31.59	9.54	41.13	56.00	-14.87	QP
1.3060	29.12	9.54	38.66	46.00	-7.34	AVG
1.9860	34.35	9.55	43.90	56.00	-12.10	QP
1.9860	29.24	9.55	38.79	46.00	-7.21	AVG
4.1459	30.18	9.59	39.77	56.00	-16.23	QP
4.1459	24.03	9.59	33.62	46.00	-12.38	AVG

Remark:

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

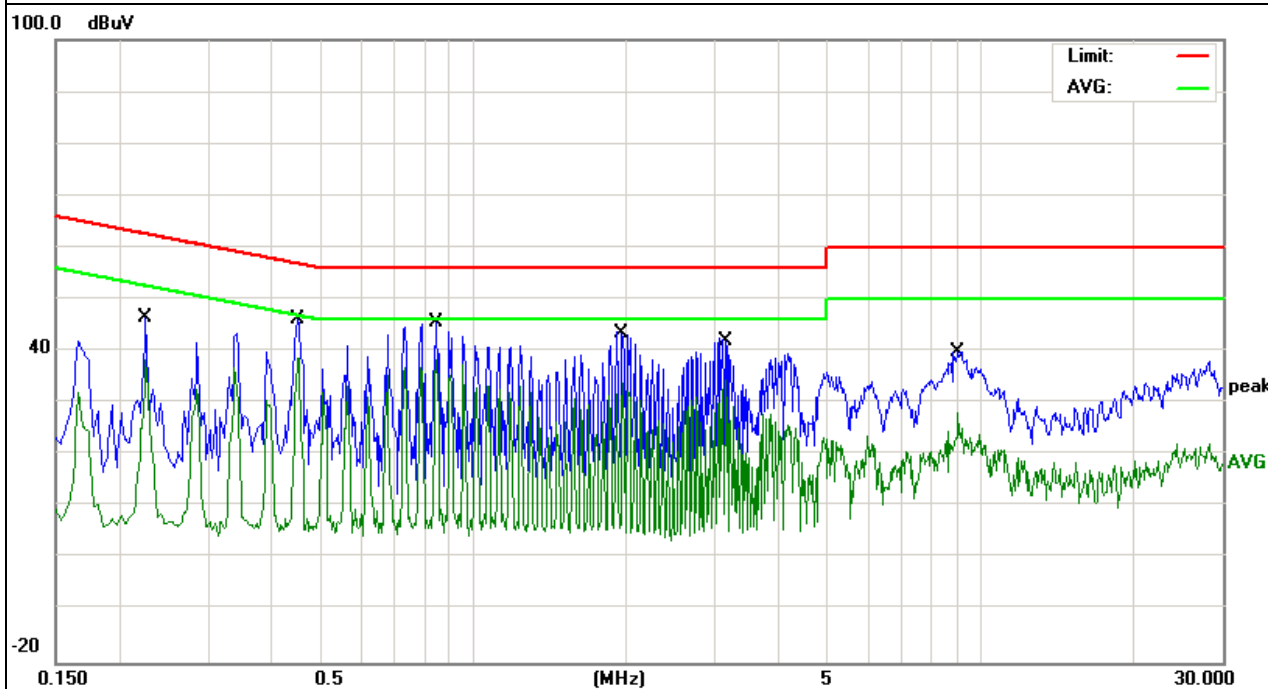


EUT :	Mobile phone	Model Name. :	Nex1
Temperature :	26 °C	Relative Humidity :	54%
Pressure :	1010hPa	Test Date :	2014-09-03
Test Mode :	Mode 1	Phase :	N
Test Voltage :	DC 5V From PC AC 120V/60Hz		

Frequency (MHz)	Reading Level (dBμV)	Correct Factor (dB)	Measure-ment (dBμV)	Limits (dBμV)	Margin (dB)	Remark
0.2260	36.91	9.49	46.40	62.59	-16.19	QP
0.2260	28.76	9.49	38.25	52.59	-14.34	AVG
0.4500	36.66	9.51	46.17	56.87	-10.70	QP
0.4500	29.07	9.51	38.58	46.87	-8.29	AVG
0.8460	35.90	9.53	45.43	56.00	-10.57	QP
0.8460	28.67	9.53	38.20	46.00	-7.80	AVG
1.9700	33.37	9.55	42.92	56.00	-13.08	QP
1.9700	24.41	9.55	33.96	46.00	-12.04	AVG
3.1500	32.48	9.58	42.06	56.00	-13.94	QP
3.1500	24.86	9.58	34.44	46.00	-11.56	AVG
9.0459	30.12	9.72	39.84	60.00	-20.16	QP
9.0459	18.39	9.72	28.11	50.00	-21.89	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.

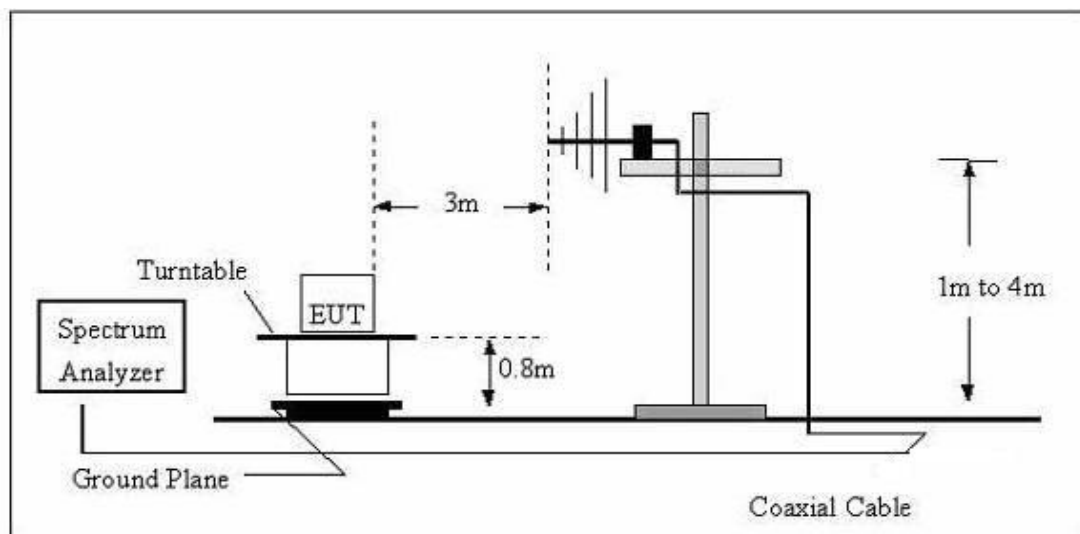
- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at an accredited chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the 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.

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

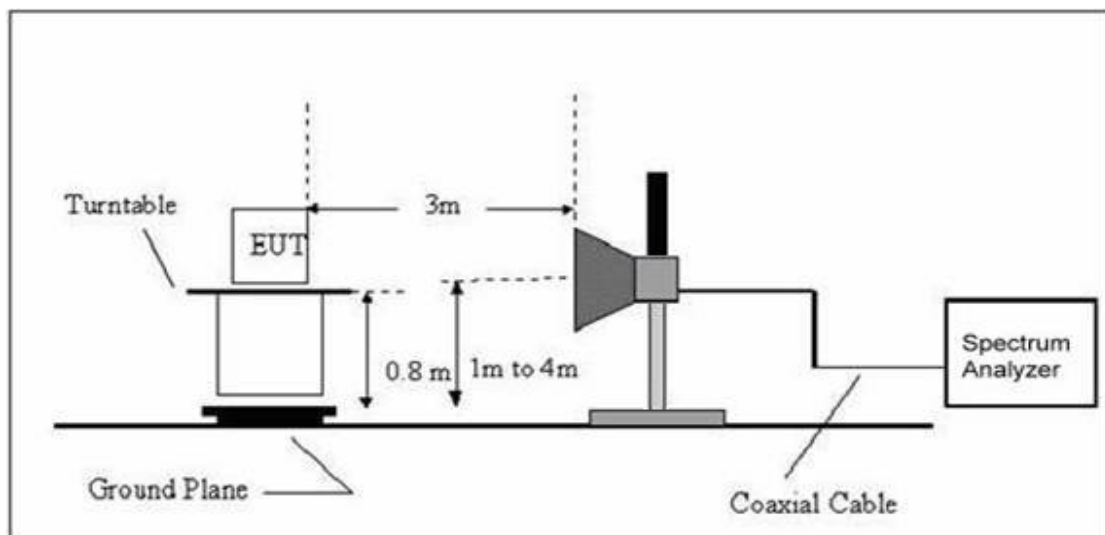
Frequency Band (MHz)	Function	Resolution bandwidth	Video Bandwidth
30 to 1000	QP	120 kHz	300 kHz
Above 1000	Peak	1 MHz	1 MHz
	Peak	1 MHz	10 Hz

3.2.3 TEST SETUP

(A) Radiated Emission Test Set-Up Frequency Below 1 GHz



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



3.2.4 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.

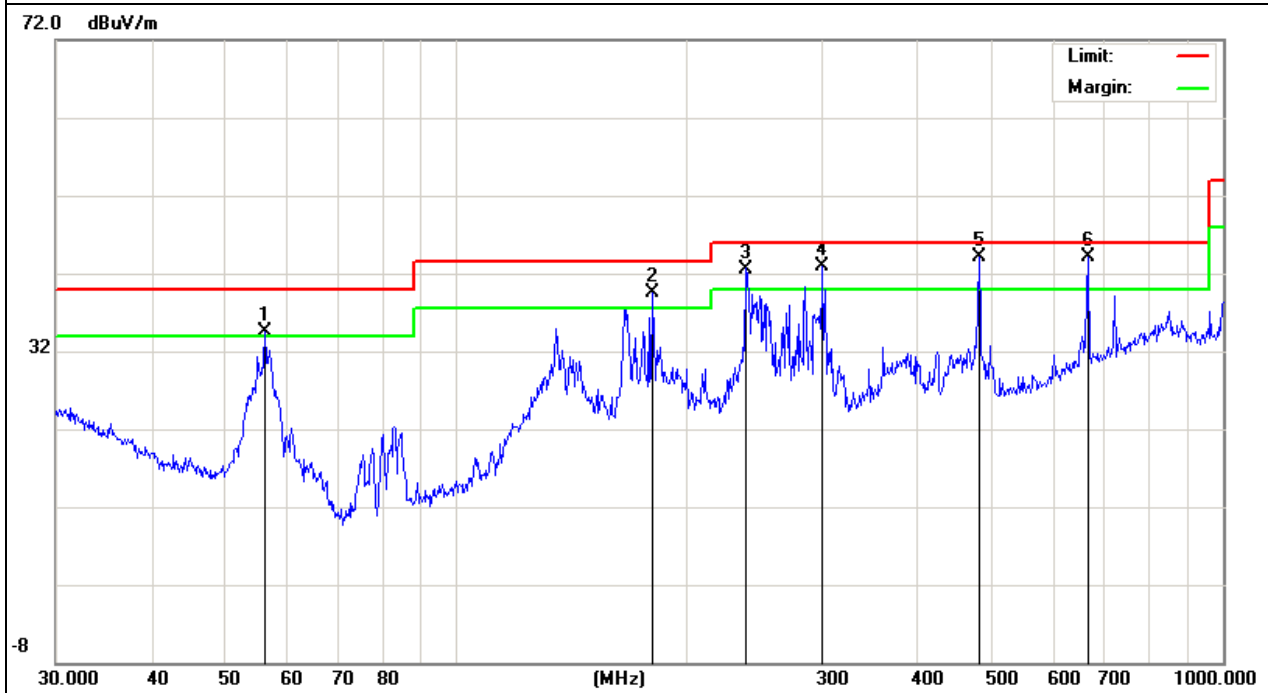
3.2.5 TEST RESULTS

EUT :	Mobile phone	Model Name :	Nex1
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2014-09-03
Test Mode :	Mode 3	Polarization :	Horizontal
Test Power :	DC 5V From PC AC 120V/60Hz		

Freq. (MHz)	Reading (dBuV)	Factor (dBuV)	Measurement (dBuV)	Limit (dBuV)	Over (dB)	Remark
56.1974	25.68	8.92	34.60	40.00	-5.40	QP
180.0165	28.78	10.63	39.41	43.50	-4.09	QP
238.3102	29.23	13.37	42.60	46.00	-3.40	QP
300.3672	28.82	14.16	42.98	46.00	-3.02	QP
480.5276	24.19	19.91	44.10	46.00	-1.90	QP
665.8035	20.28	23.85	44.13	46.00	-1.87	QP

Remark:

1. Factor = Antenna Factor + Cable Loss - Amplifier.

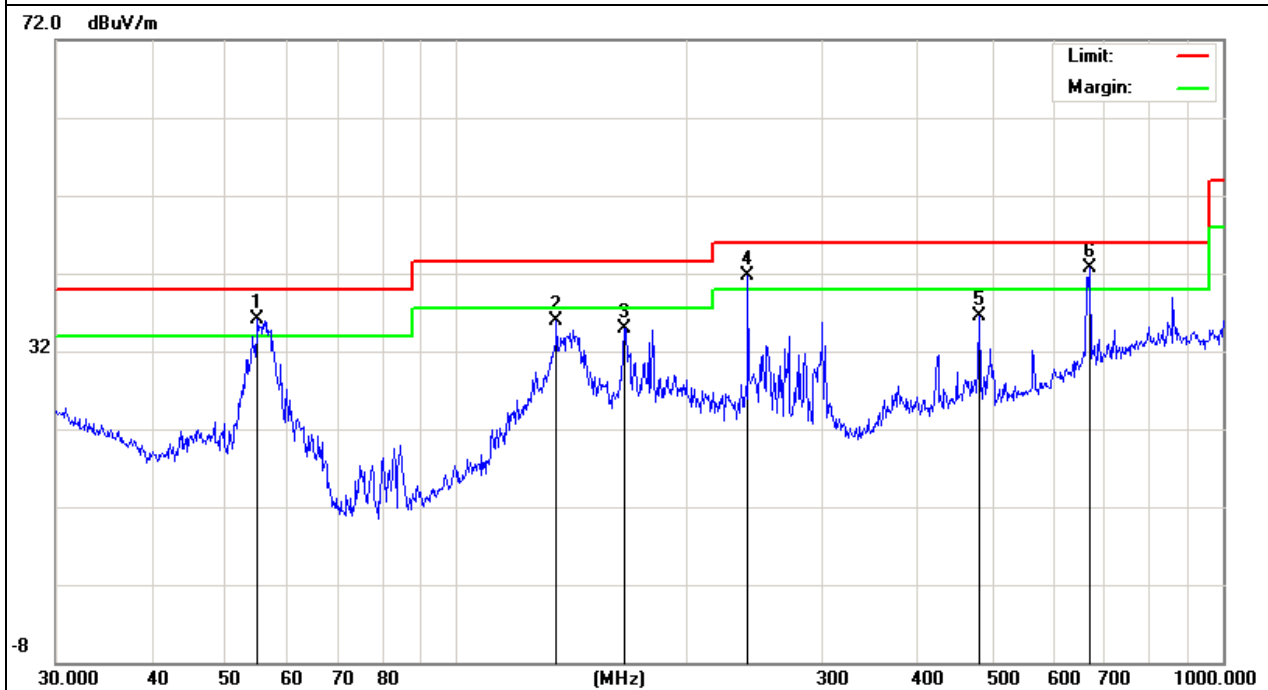


EUT :	Mobile phone	Model Name :	Nex1
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2014-09-03
Test Mode :	Mode 3	Polarization :	Vertical
Test Power :	DC 5V From PC AC 120V/60Hz		

Freq. (MHz)	Reading (dBuV)	Factor (dBuV)	Measurement (dBuV)	Limit (dBuV)	Over (dB)	Remark
55.0274	26.93	9.26	36.19	40.00	-3.81	QP
135.0319	24.23	11.65	35.88	43.50	-7.62	QP
165.4866	24.47	10.52	34.99	43.50	-8.51	QP
239.9874	28.22	13.49	41.71	46.00	-4.29	QP
480.5276	16.57	19.91	36.48	46.00	-9.52	QP
670.4893	18.82	23.98	42.80	46.00	-3.20	QP

Remark:

1. Factor = Antenna Factor + Cable Loss - Amplifier.



3.2.6 TEST RESULTS(Above 1GHz)

EUT :	Mobile phone	Model Name :	Nex1
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2014-09-03
Test Mode :	Mode 3	Test Power :	DC 5V From PC AC 120V/60Hz

Polar (H/V)	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Remark
	(MHz)	(dBm)	(dB)	(dBm)	(dBm)	(dB)	
V	1894.621	85.96	-17.15	68.81	74.00	-5.19	peak
V	1894.621	60.82	-17.15	43.67	54.00	-10.33	AVG
V	2657.389	82.37	-15.76	66.61	74.00	-7.39	peak
V	2657.389	59.34	-15.76	43.58	54.00	-10.42	AVG
V	4013.629	76.71	-11.22	65.49	74.00	-8.51	peak
V	4013.629	53.98	-11.22	42.76	54.00	-11.24	AVG
H	1896.351	81.81	-17.14	64.67	74.00	-9.33	peak
H	1896.351	58.40	-17.14	41.26	54.00	-12.74	AVG
H	3116.378	82.03	-15.54	66.49	74.00	-7.51	peak
H	3116.378	58.51	-15.54	42.97	54.00	-11.03	AVG
H	4361.254	75.44	-10.13	65.31	74.00	-8.69	peak
H	4361.254	51.49	-10.13	41.36	54.00	-12.64	AVG

Remark:

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

4. EUT TEST PHOTO

Radiated Measurement Photos



Conducted Measurement Photos