



FCC Test Report

FCC ID: 2ACDFMAGIC

Product : Mobile phone

Trade Name : Superinworld

Model Number : MAGIC

Serial Model : L26

Report No. : NTEK-2015NT09012607F1

Prepared for

SUPERDIGITAL TECHNOLOGY CO., LIMITED
F19,Block B,Nanxian Building,Longhua New District,Shenzhen
518000,China

Prepared by

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Website: www.ntek.org.cn

TEST RESULT CERTIFICATION

Applicant's name : SUPERDIGITAL TECHNOLOGY CO., LIMITED
Address : F19,Block B,Nanxian Building,Longhua New District,Shenzhen
 518000,China
Manufacturer's Name : SUPERDIGITAL TECHNOLOGY CO., LIMITED
Address : F19,Block B,Nanxian Building,Longhua New District,Shenzhen
 518000,China

Product description

Product name : Mobile phone
Model and/or type reference : MAGIC
 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 : 01 Sep. 2015 ~17 Sep. 2015

Date of Issue..... : 17 Sep. 2015

Test Result..... : **Pass**

Testing Engineer : Eileen Liu.
 (Eileen Liu)

Technical Manager : Brown Lu
 (Brown Lu)

Authorized Signatory : Sam. Chen
 (Sam Chen)

Table of Contents	Page
1 . TEST SUMMARY	4
1.1 TEST FACILITY	5
1.2 MEASUREMENT UNCERTAINTY	5
2 . GENERAL INFORMATION	6
2.1 GENERAL DESCRIPTION OF EUT	6
2.2 DESCRIPTION OF TEST SETUP	8
2.3 DESCRIPTION TEST PERIPHERAL AND EUT PERIPHERAL	9
2.4 MEASUREMENT INSTRUMENTS LIST	10
3 . EMC EMISSION TEST	12
3.1 CONDUCTED EMISSION MEASUREMENT	12
3.1.1 POWER LINE CONDUCTED EMISSION	12
3.1.2 TEST PROCEDURE	13
3.1.3 TEST SETUP	13
3.1.4 EUT OPERATING CONDITIONS	13
3.1.5 TEST RESULTS	14
3.2 RADIATED EMISSION MEASUREMENT	22
3.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT	22
3.2.2 TEST PROCEDURE	22
3.2.3 TEST SETUP	23
3.2.4 TEST RESULTS	24
3.2.5 TEST RESULTS(1000~12400MHz)	26
4 . EUT TEST PHOTO	27

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 $y \pm U$, 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 ~12.4GHz	5.0	

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Equipment	Mobile phone	
Trade Name	Superinworld	
Model Name	MAGIC	
Serial Model	L26	
Model Difference	All the model are the same circuit and RF module, except the model name and colour.	
Product Description	The EUT is a Mobile phone.	
	Connecting I/O port:	USB, DC in
	Operation Frequency:	BT:2402~2480 MHz WIFI:802.11b/g/n(20MHz): 2412~2462MHz 802.11n(40MHz):2422~2452MHz 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/HT40) : OFDM (64QAM, 16QAM, QPSK, BPSK) GSM / DCS: GMSK WCDMA:QPSK
Power Source	DC Voltage	
Adapter	Mode:KA25-0501000US	
	Input: 100-240V~, 50/60Hz, 0.25A Max Output: 5.0V ---, 1000mA	
Battery	DC 3.7V,1800mAh	

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	Downloading Mode
Mode 2	REC Mode
Mode 3	TF Card Playing Mode+Charging

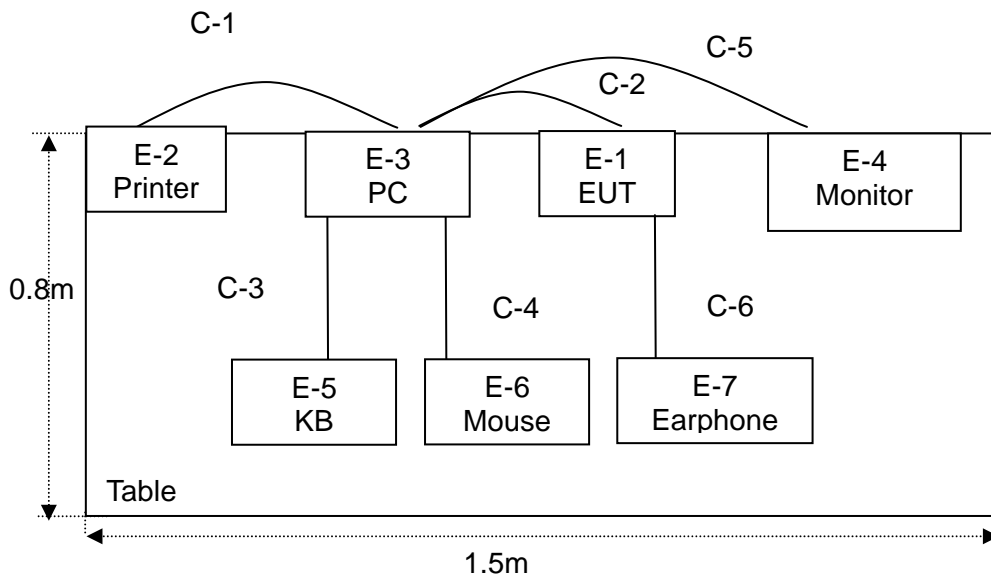
For Conducted Test	
Final Test Mode	Description
Mode 1	Downloading Mode

For Radiated Test	
Final Test Mode	Description
Mode 1	Downloading Mode

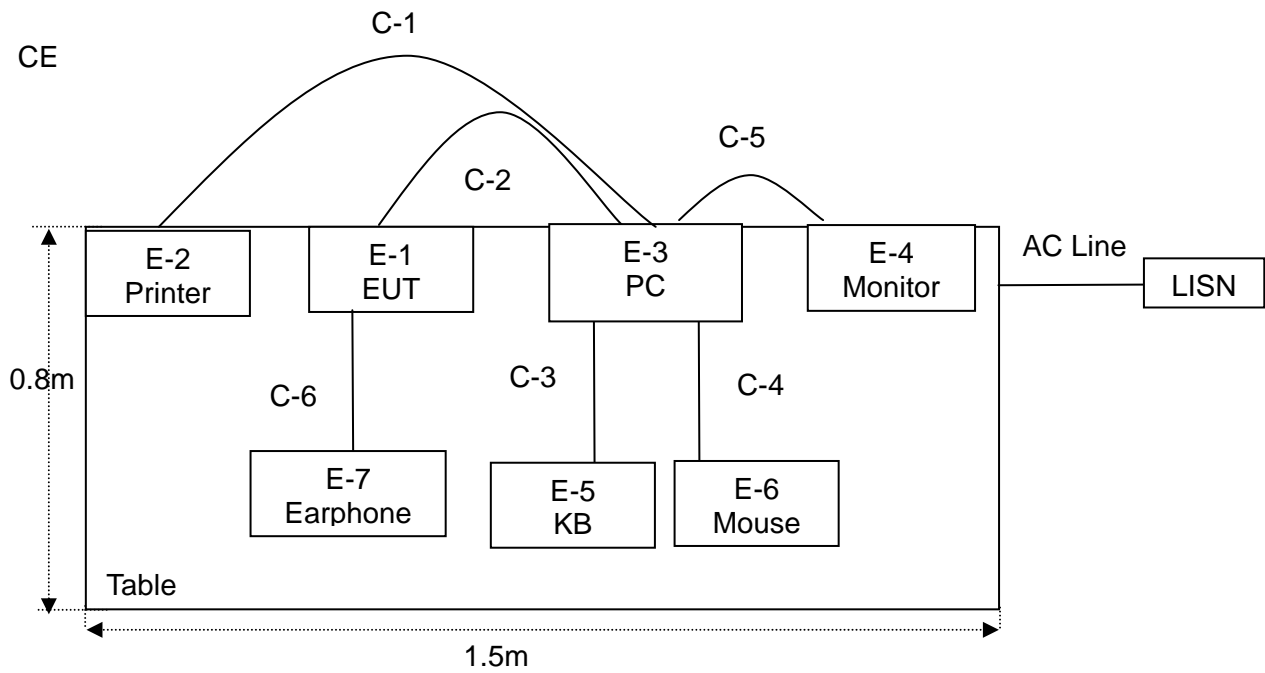
Note: Final Test Mode: Through Pre-scan, find the mode 1 is the worse case.
Only the worst case mode is recorded in the report.

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	Mobile phone	Superinworld	MAGIC	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	
E-7	Earphone	N/A	2688	N/A	

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	1.0m	

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”.

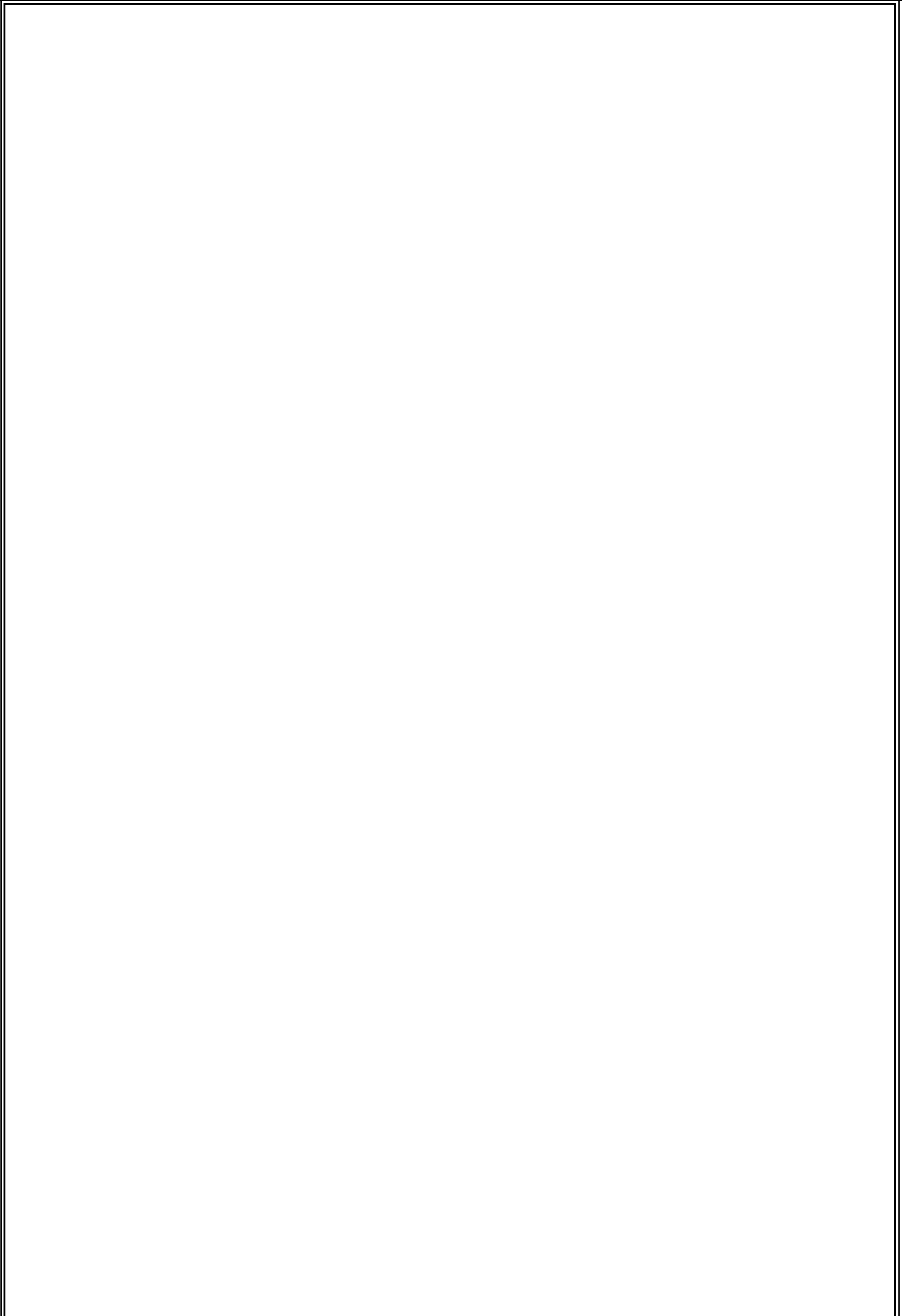
2.4 MEASUREMENT INSTRUMENTS LIST

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	2015.08.24	2016.08.23	1 year
3	LISN	EMCO	3816/2	00042990	2015.08.24	2016.08.23	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.

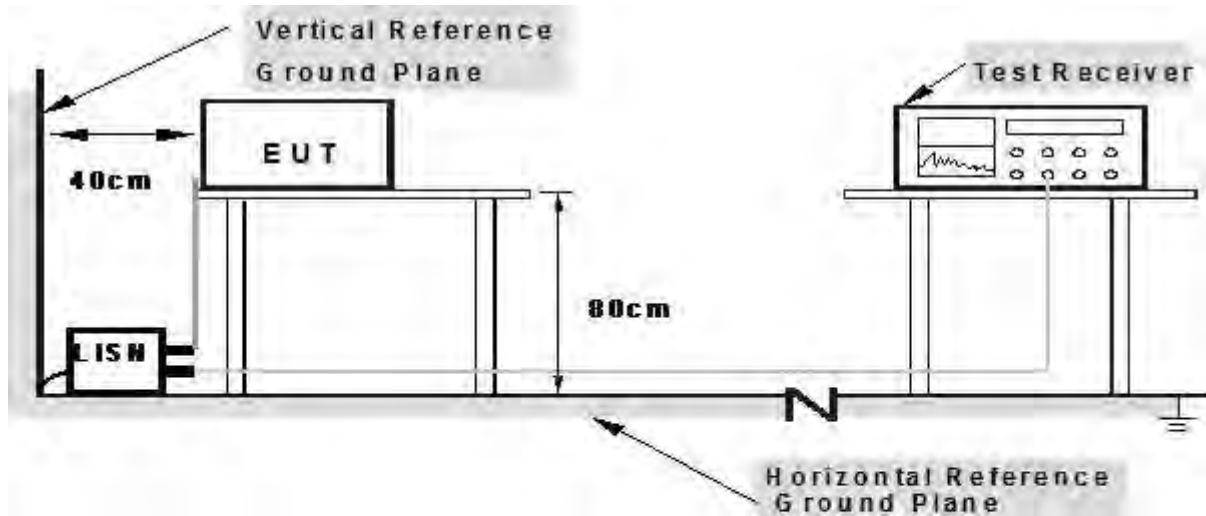
The following table is the setting of the receiver

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

3.1.2 TEST PROCEDURE

- 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 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.

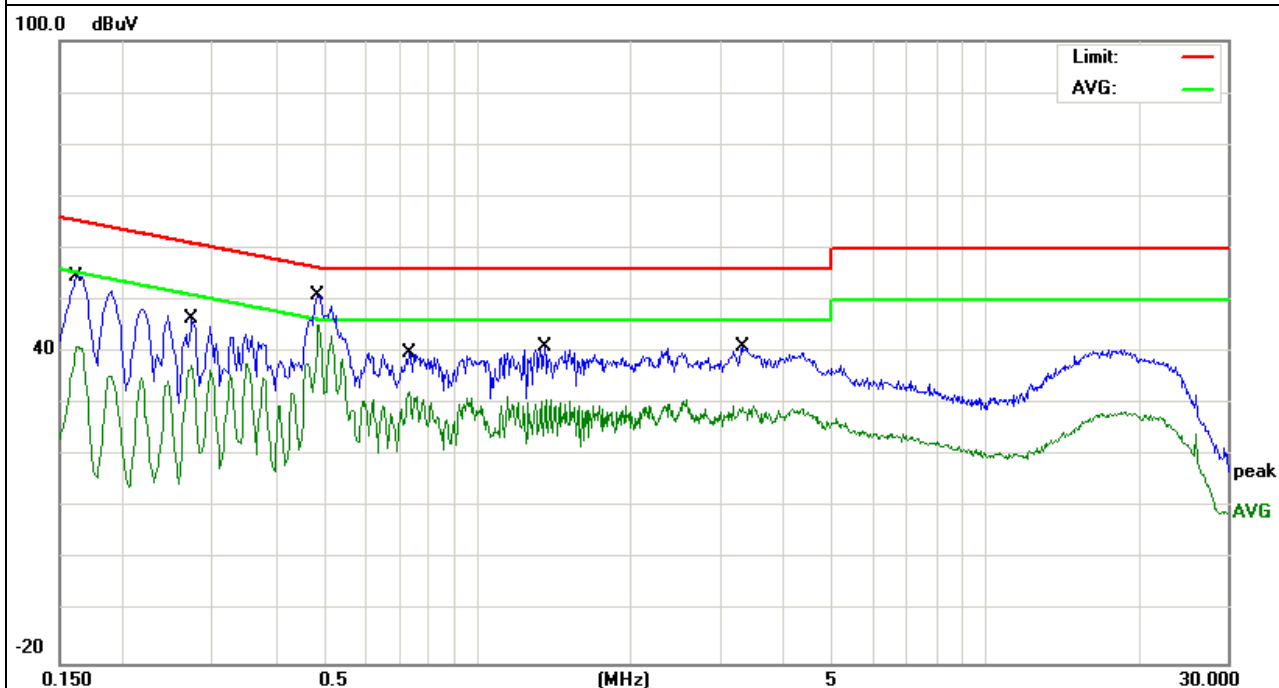
3.1.5 TEST RESULTS

EUT :	Mobile phone	Model Name. :	MAGIC
Temperature :	26 °C	Relative Humidity :	54%
Pressure :	1010hPa	Test Date :	2015-09-15
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)	
0.1620	44.94	9.62	54.56	65.36	-10.80	QP
0.1620	31.34	9.62	40.96	55.36	-14.40	AVG
0.2740	36.69	9.71	46.40	60.99	-14.59	QP
0.2740	27.73	9.71	37.44	50.99	-13.55	AVG
0.4860	41.16	9.72	50.88	56.24	-5.36	QP
0.4860	35.29	9.72	45.01	46.24	-1.23	AVG
0.7338	29.97	9.77	39.74	56.00	-16.26	QP
0.7338	22.63	9.77	32.40	46.00	-13.60	AVG
1.3580	31.37	9.70	41.07	56.00	-14.93	QP
1.3580	21.15	9.70	30.85	46.00	-15.15	AVG
3.3220	31.32	9.68	41.00	56.00	-15.00	QP
3.3220	19.86	9.68	29.54	46.00	-16.46	AVG

Remark:

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

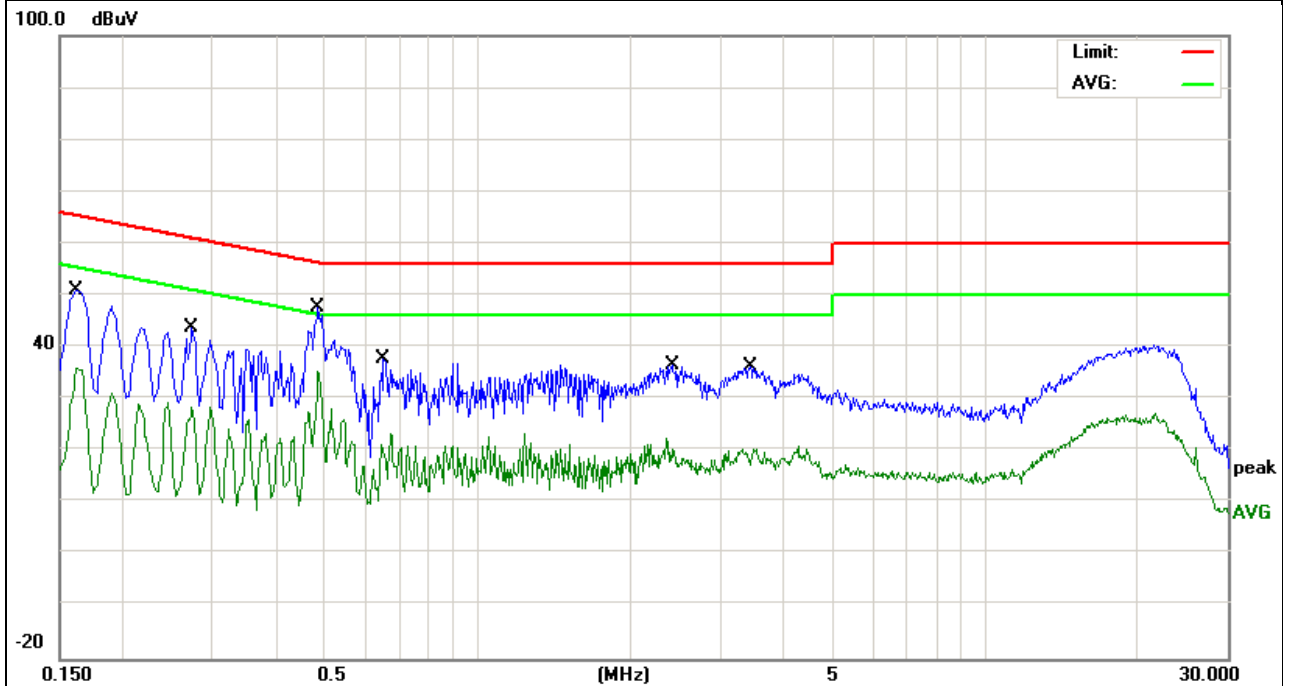


EUT :	Mobile phone	Model Name. :	MAGIC
Temperature :	26 °C	Relative Humidity :	54%
Pressure :	1010hPa	Test Date :	2015-09-15
Test Mode :	Mode 1	Phase :	N
Test Voltage :	DC 5V From PC AC 120V/60Hz		

Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Margin	Remark
(MHz)	(dBμV)	(dB)	(dBμV)	(dBμV)	(dB)	
0.1620	41.30	9.60	50.90	65.36	-14.46	QP
0.1620	26.21	9.60	35.81	55.36	-19.55	AVG
0.2740	34.24	9.61	43.85	60.99	-17.14	QP
0.2740	18.97	9.61	28.58	50.99	-22.41	AVG
0.4860	37.94	9.68	47.62	56.24	-8.62	QP
0.4860	25.54	9.68	35.22	46.24	-11.02	AVG
0.6540	28.19	9.65	37.84	56.00	-18.16	QP
0.6540	13.61	9.65	23.26	46.00	-22.74	AVG
2.4100	27.01	9.53	36.54	56.00	-19.46	QP
2.4100	13.01	9.53	22.54	46.00	-23.46	AVG
3.4500	26.62	9.51	36.13	56.00	-19.87	QP
3.4500	10.95	9.51	20.46	46.00	-25.54	AVG

Remark:

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

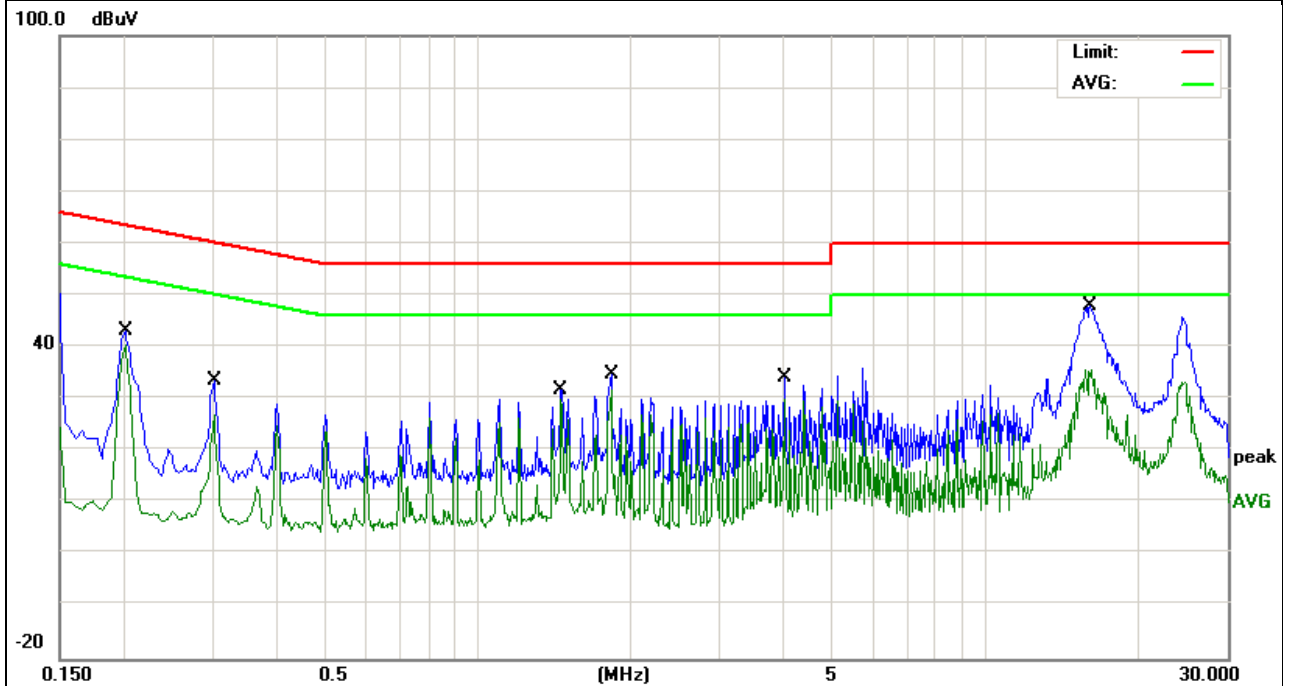


EUT :	Mobile phone	Model Name. :	MAGIC
Temperature :	26 °C	Relative Humidity :	54%
Pressure :	1010hPa	Test Date :	2015-09-15
Test Mode :	Mode 1	Phase :	L
Test Voltage :	DC 5V From PC AC 240V/60Hz		

Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Margin	Remark
(MHz)	(dBμV)	(dB)	(dBμV)	(dBμV)	(dB)	
0.2020	33.44	9.61	43.05	63.52	-20.47	QP
0.2020	30.90	9.61	40.51	53.52	-13.01	AVG
0.3020	23.83	9.62	33.45	60.19	-26.74	QP
0.3020	17.36	9.62	26.98	50.19	-23.21	AVG
1.4620	22.18	9.58	31.76	56.00	-24.24	QP
1.4620	20.49	9.58	30.07	46.00	-15.93	AVG
1.8340	25.21	9.55	34.76	56.00	-21.24	QP
1.8340	22.11	9.55	31.66	46.00	-14.34	AVG
4.0220	24.60	9.51	34.11	56.00	-21.89	QP
4.0220	20.46	9.51	29.97	46.00	-16.03	AVG
16.0699	38.16	9.77	47.93	60.00	-12.07	QP
16.0699	25.74	9.77	35.51	50.00	-14.49	AVG

Remark:

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

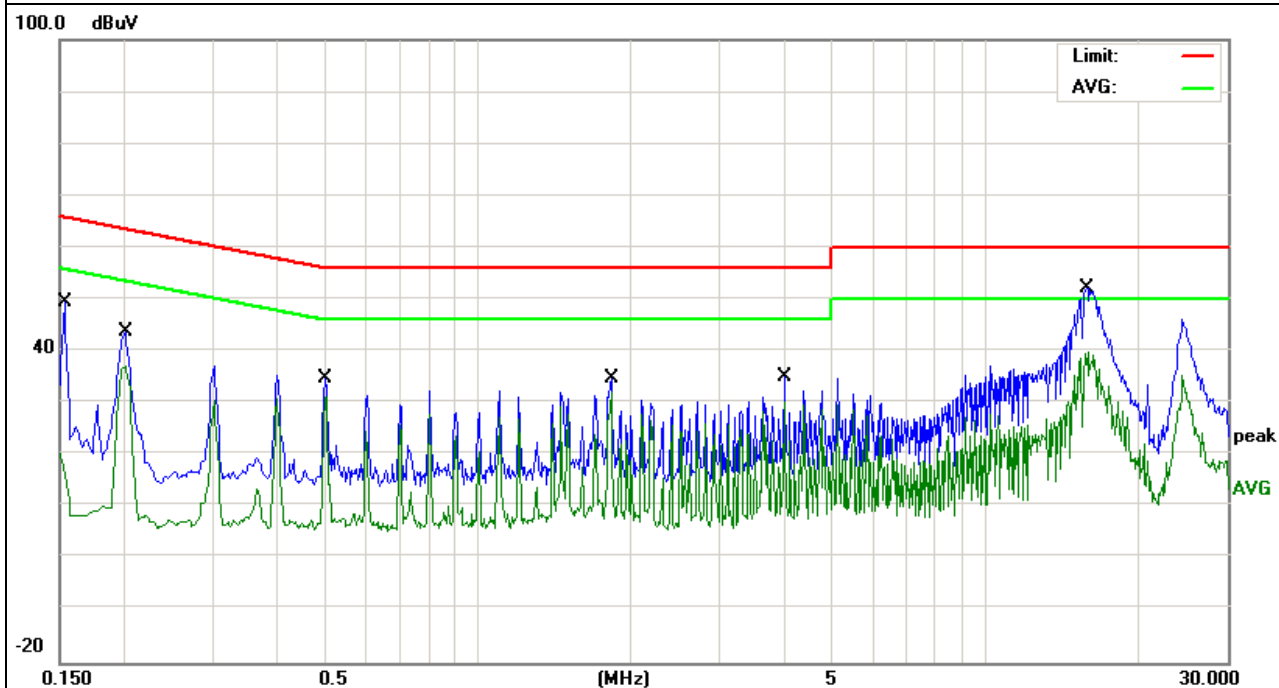


EUT :	Mobile phone	Model Name. :	MAGIC
Temperature :	26 °C	Relative Humidity :	54%
Pressure :	1010hPa	Test Date :	2015-09-15
Test Mode :	Mode 1	Phase :	N
Test Voltage :	DC 5V From PC AC 240V/60Hz		

Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Margin	Remark
(MHz)	(dBμV)	(dB)	(dBμV)	(dBμV)	(dB)	
0.1539	39.71	9.60	49.31	65.78	-16.47	QP
0.1539	10.83	9.60	20.43	55.78	-35.35	AVG
0.2020	34.29	9.61	43.90	63.52	-19.62	QP
0.2020	27.44	9.61	37.05	53.52	-16.47	AVG
0.5020	25.17	9.68	34.85	56.00	-21.15	QP
0.5020	21.45	9.68	31.13	46.00	-14.87	AVG
1.8300	25.06	9.55	34.61	56.00	-21.39	QP
1.8300	22.48	9.55	32.03	46.00	-13.97	AVG
4.0220	25.53	9.51	35.04	56.00	-20.96	QP
4.0220	20.74	9.51	30.25	46.00	-15.75	AVG
15.8620	42.44	9.77	52.21	60.00	-7.79	QP
15.8620	30.20	9.77	39.97	50.00	-10.03	AVG

Remark:

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

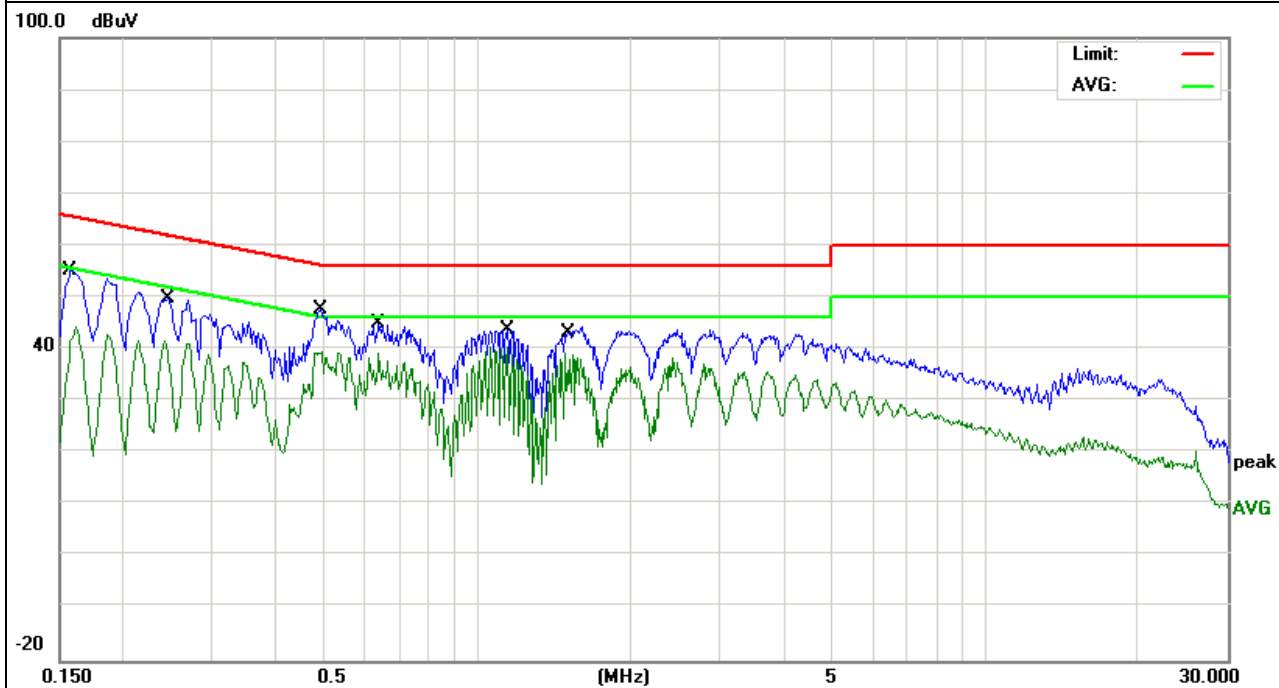


EUT :	Mobile phone	Model Name. :	MAGIC
Temperature :	26 °C	Relative Humidity :	54%
Pressure :	1010hPa	Test Date :	2015-09-15
Test Mode :	Mode 1	Phase :	L
Test Voltage :	DC 5V From Adapter AC 120V/60Hz		

Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Margin	Remark
(MHz)	(dBμV)	(dB)	(dBμV)	(dBμV)	(dB)	
0.1580	45.68	9.60	55.28	65.56	-10.28	QP
0.1580	34.65	9.60	44.25	55.56	-11.31	AVG
0.2419	40.33	9.61	49.94	62.03	-12.09	QP
0.2419	31.98	9.61	41.59	52.03	-10.44	AVG
0.4940	38.06	9.68	47.74	56.10	-8.36	QP
0.4940	29.88	9.68	39.56	46.10	-6.54	AVG
0.6380	35.40	9.65	45.05	56.00	-10.95	QP
0.6380	29.75	9.65	39.40	46.00	-6.60	AVG
1.1420	34.13	9.60	43.73	56.00	-12.27	QP
1.1420	30.79	9.60	40.39	46.00	-5.61	AVG
1.4899	34.79	9.58	44.37	56.00	-11.63	QP
1.4899	29.72	9.58	39.30	46.00	-6.70	AVG

Remark:

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

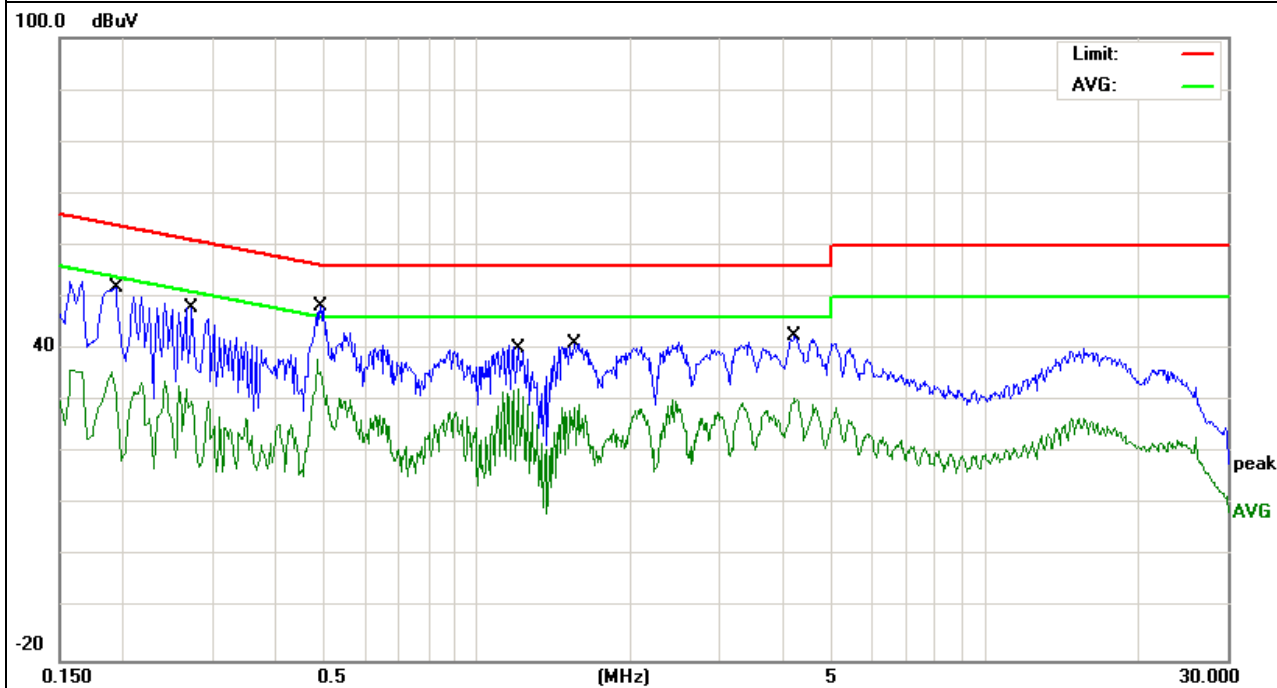


EUT :	Mobile phone	Model Name. :	MAGIC
Temperature :	26 °C	Relative Humidity :	54%
Pressure :	1010hPa	Test Date :	2015-09-15
Test Mode :	Mode 1	Phase :	N
Test Voltage :	DC 5V From Adapter AC 120V/60Hz		

Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Margin	Remark
(MHz)	(dBμV)	(dB)	(dBμV)	(dBμV)	(dB)	
0.1940	42.33	9.61	51.94	63.86	-11.92	QP
0.1940	26.13	9.61	35.74	53.86	-18.12	AVG
0.2740	38.36	9.61	47.97	60.99	-13.02	QP
0.2740	23.36	9.61	32.97	50.99	-18.02	AVG
0.4900	38.46	9.68	48.14	56.17	-8.03	QP
0.4900	28.31	9.68	37.99	46.17	-8.18	AVG
1.2019	31.27	9.60	40.87	56.00	-15.13	QP
1.2019	22.62	9.60	32.22	46.00	-13.78	AVG
1.5460	31.60	9.57	41.17	56.00	-14.83	QP
1.5460	19.87	9.57	29.44	46.00	-16.56	AVG
4.2138	32.97	9.51	42.48	56.00	-13.52	QP
4.2138	20.96	9.51	30.47	46.00	-15.53	AVG

Remark:

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

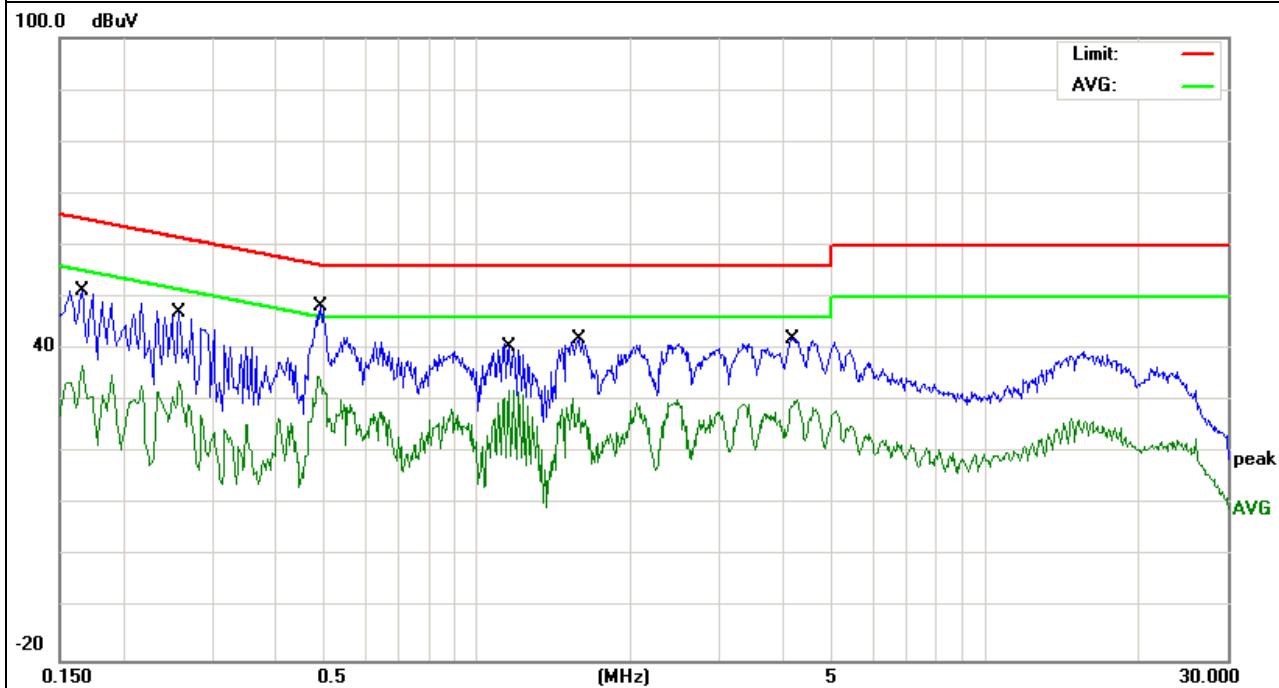


EUT :	Mobile phone	Model Name. :	MAGIC
Temperature :	26 °C	Relative Humidity :	54%
Pressure :	1010hPa	Test Date :	2015-09-15
Test Mode :	Mode 1	Phase :	L
Test Voltage :	DC 5V From Adapter AC 240V /60Hz		

Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Margin	Remark
(MHz)	(dBμV)	(dB)	(dBμV)	(dBμV)	(dB)	
0.1660	41.70	9.60	51.30	65.15	-13.85	QP
0.1660	27.26	9.60	36.86	55.15	-18.29	AVG
0.2580	37.37	9.62	46.99	61.49	-14.50	QP
0.2580	24.26	9.62	33.88	51.49	-17.61	AVG
0.4900	38.55	9.68	48.23	56.17	-7.94	QP
0.4900	25.02	9.68	34.70	46.17	-11.47	AVG
1.1499	31.31	9.60	40.91	56.00	-15.09	QP
1.1499	22.46	9.60	32.06	46.00	-13.94	AVG
1.5780	32.25	9.57	41.82	56.00	-14.18	QP
1.5780	20.90	9.57	30.47	46.00	-15.53	AVG
4.1779	32.45	9.51	41.96	56.00	-14.04	QP
4.1779	20.81	9.51	30.32	46.00	-15.68	AVG

Remark:

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

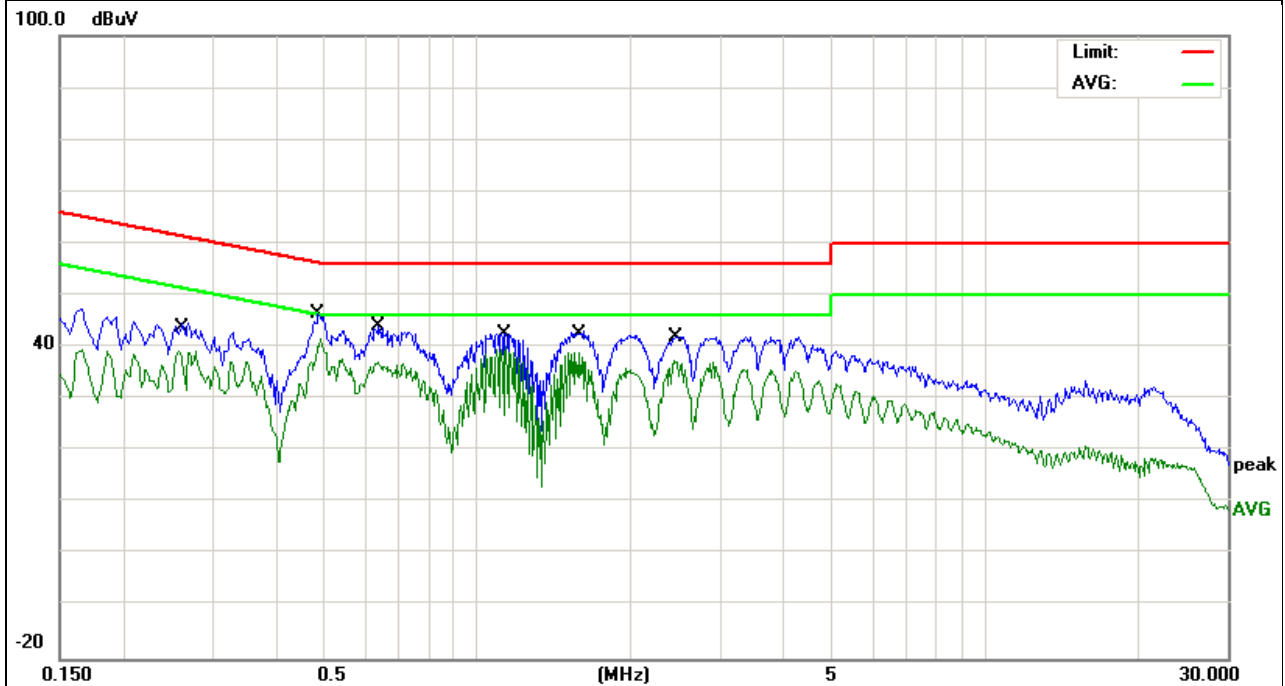


EUT :	Mobile phone	Model Name. :	MAGIC
Temperature :	26 °C	Relative Humidity :	54%
Pressure :	1010hPa	Test Date :	2015-09-15
Test Mode :	Mode 1	Phase :	N
Test Voltage :	DC 5V From Adapter AC 240V/60Hz		

Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Margin	Remark
(MHz)	(dBμV)	(dB)	(dBμV)	(dBμV)	(dB)	
0.2580	35.14	9.62	44.76	61.49	-16.73	QP
0.2580	29.68	9.62	39.30	51.49	-12.19	AVG
0.4900	36.75	9.68	46.43	56.17	-9.74	QP
0.4900	31.87	9.68	41.55	46.17	-4.62	AVG
0.6340	34.31	9.65	43.96	56.00	-12.04	QP
0.6340	27.65	9.65	37.30	46.00	-8.70	AVG
1.1380	33.07	9.60	42.67	56.00	-13.33	QP
1.1380	30.50	9.60	40.10	46.00	-5.90	AVG
1.5820	33.63	9.57	43.20	56.00	-12.80	QP
1.5820	29.46	9.57	39.03	46.00	-6.97	AVG
2.4580	32.52	9.53	42.05	56.00	-13.95	QP
2.4580	27.72	9.53	37.25	46.00	-8.75	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.

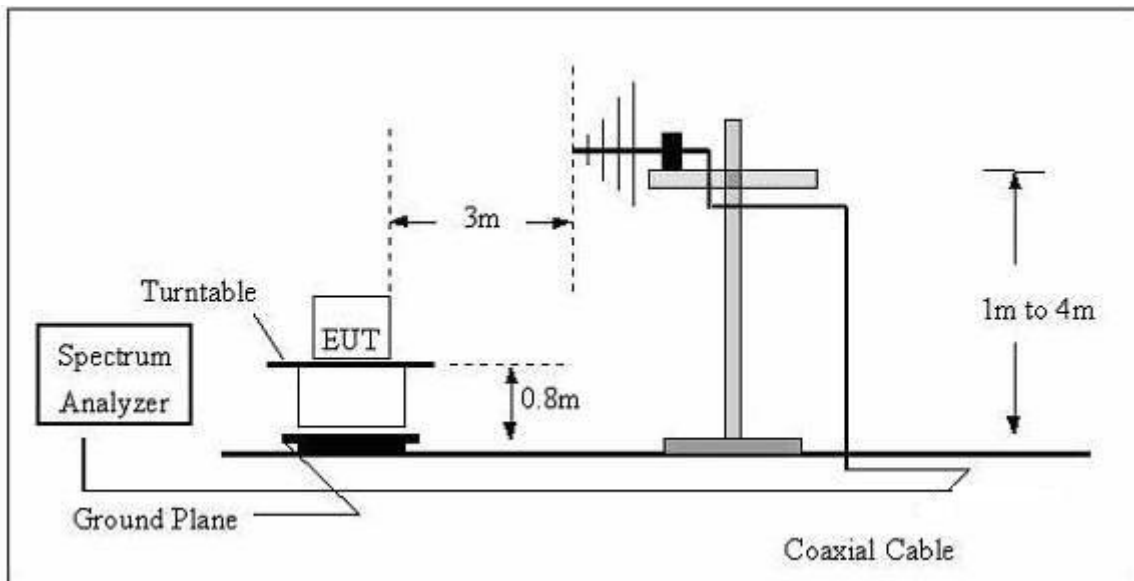
Note: For the hand-held device, the EUT should be measured for all 3 axes and only the worst case is recorded in the report

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

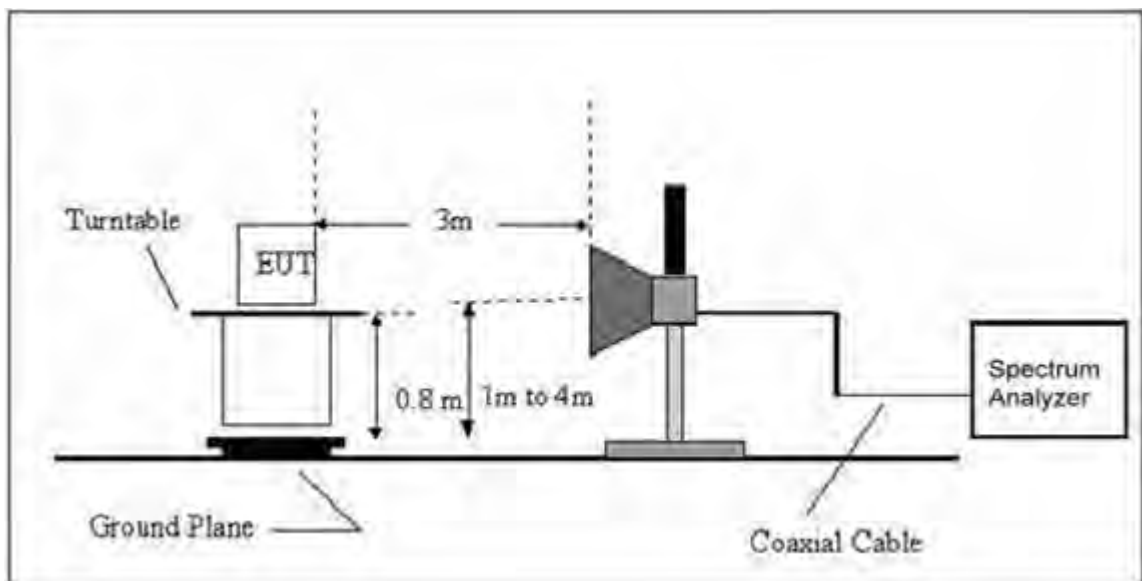
Frequency Band (MHz)	Function	Resolution bandwidth	Video Bandwidth
30 to 1000	QP	120 kHz	300 kHz
Above 1000	Peak	1 MHz	1 MHz
	Peak	1 MHz	10 Hz

3.2.3 TEST SETUP

For Radiated Emission 30~1000MHz



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



3.2.4 TEST RESULTS

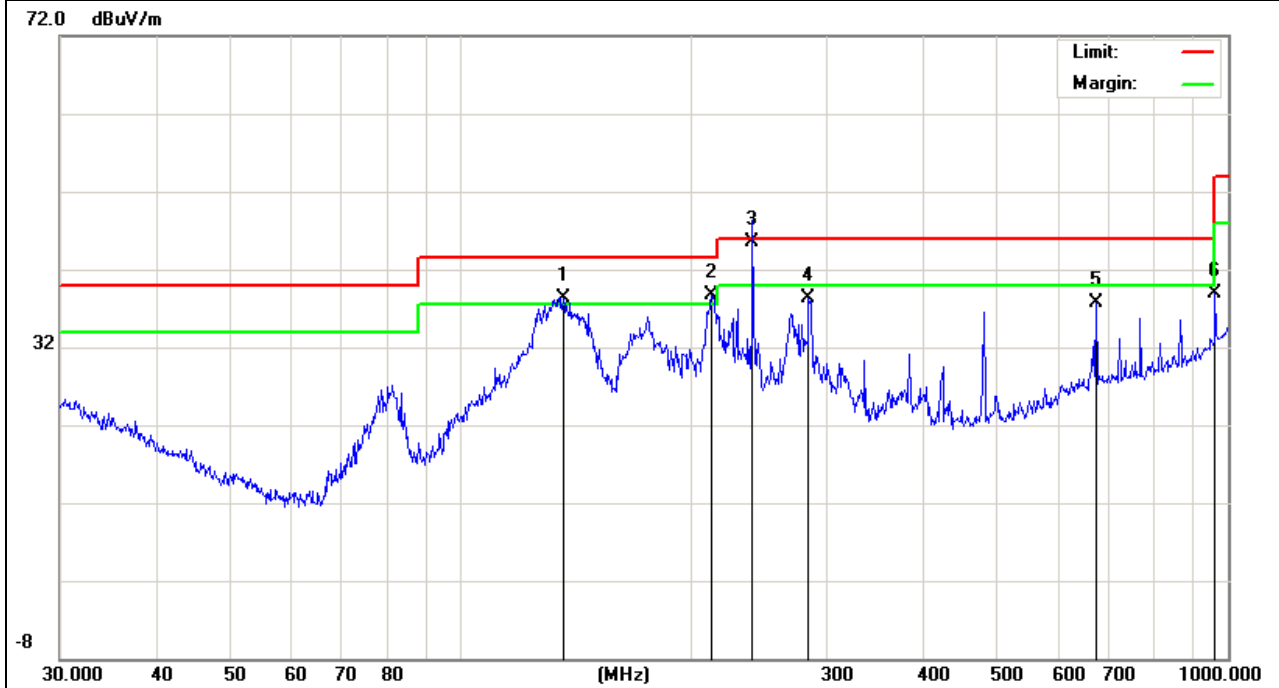
TEST RESULTS (30~1000 MHz)

EUT :	Mobile phone	Model Name :	MAGIC
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2015-09-15
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
135.9822	27.41	10.98	38.39	43.50	-5.11	QP
212.2692	27.59	11.03	38.62	43.50	-4.88	QP
239.9874	34.77	10.73	45.50	46.00	-0.50	QP
283.9791	26.39	11.84	38.23	46.00	-7.77	QP
672.8444	16.77	20.84	37.61	46.00	-8.39	QP
962.1621	12.27	26.67	38.94	54.00	-15.06	QP

Remark:

Factor = Antenna Factor + Cable Loss - Amplifier.

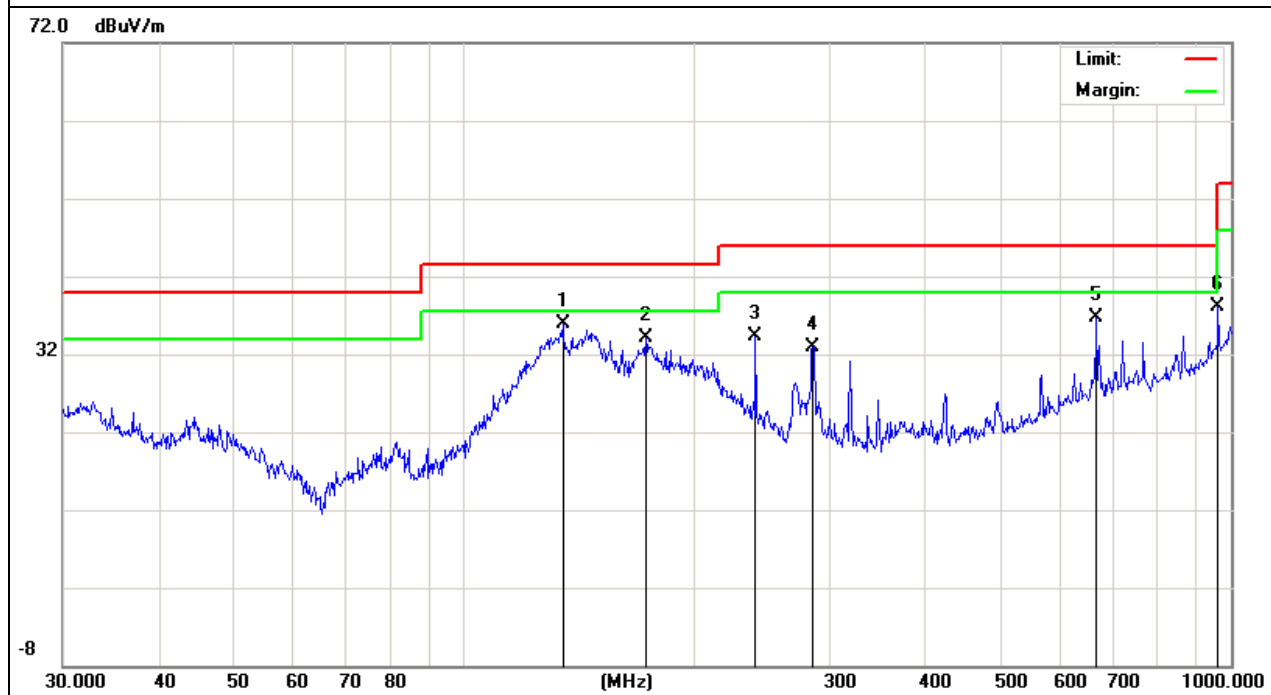


EUT :	Mobile phone	Model Name :	MAGIC
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2015-09-15
Test Mode :	Mode 1	Polarization :	Vertical
Test Power :	DC 5V From PC AC 120V/60Hz		

Freq. (MHz)	Reading (dBuV)	Factor (dBuV)	Measurement (dBuV)	Limit (dBuV)	Over (dB)	Remark
134.5592	24.88	10.97	35.85	43.50	-7.65	QP
172.5988	21.78	12.42	34.20	43.50	-9.30	QP
239.9874	23.57	10.73	34.30	46.00	-11.70	QP
284.9766	21.19	11.81	33.00	46.00	-13.00	QP
668.1423	15.89	20.83	36.72	46.00	-9.28	QP
962.1622	11.44	26.67	38.11	54.00	-15.89	QP

Remark:

Factor = Antenna Factor + Cable Loss - Amplifier.



3.2.5 TEST RESULTS(1000~12400MHz)

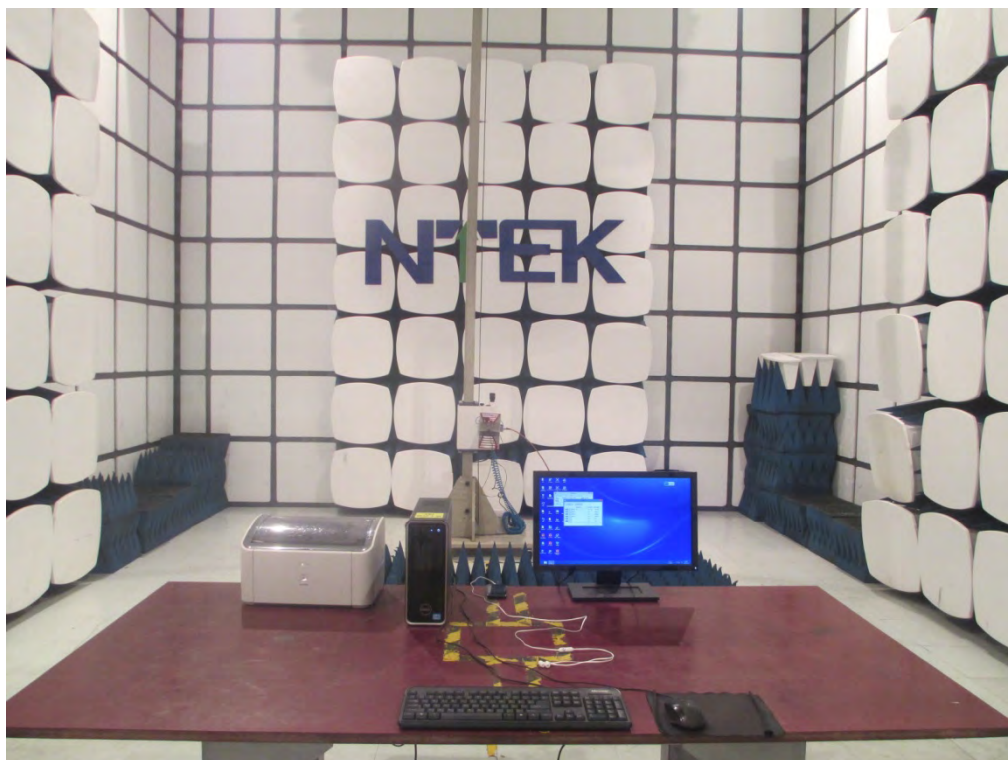
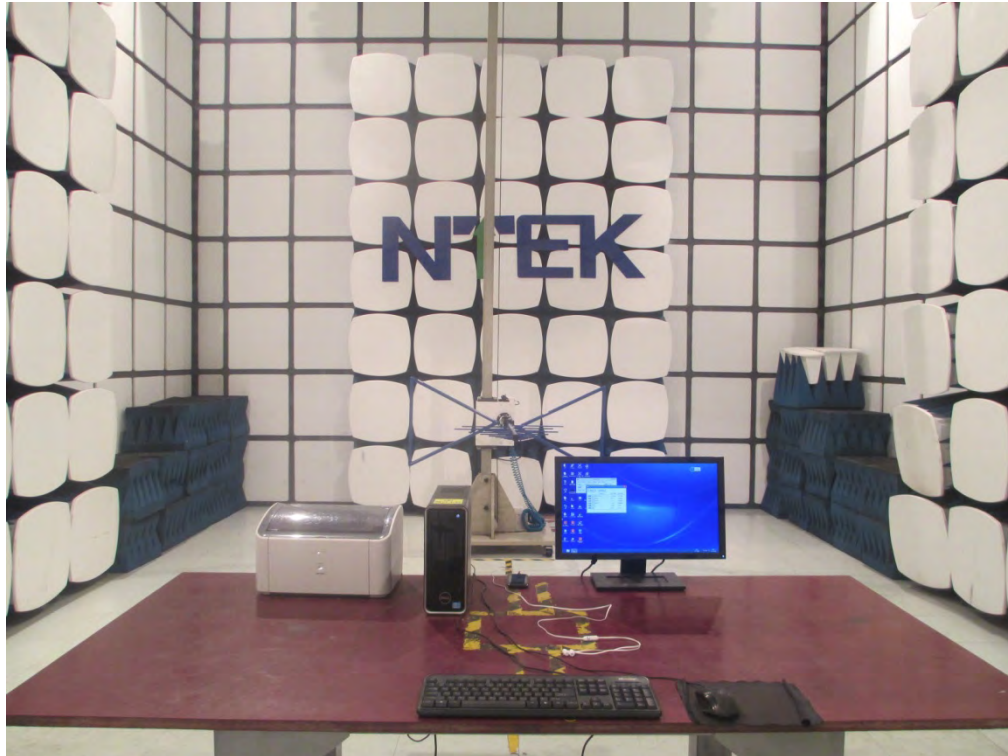
Polar (H/V)	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Remark
	(MHz)	(dBm)	(dB)	(dBm)	(dBm)	(dB)	
V	1430.969	58.58	-12.83	45.75	74.00	-28.25	peak
V	1916.323	63.15	-10.38	52.77	74.00	-21.23	peak
V	1996.946	65.12	-9.70	55.42	74.00	-18.58	peak
V	1996.946	44.70	-9.70	35.00	54.00	-19.00	AVG
V	2598.691	50.88	-8.42	42.46	74.00	-31.54	peak
V	3406.085	48.00	-5.89	42.11	74.00	-31.89	peak
H	1534.540	55.46	-12.50	42.96	74.00	-31.04	peak
H	1786.985	56.48	-10.92	45.56	74.00	-28.44	peak
H	1993.371	59.17	-9.76	49.41	74.00	-24.59	peak
H	2080.961	57.05	-8.36	48.69	74.00	-25.31	peak
H	2791.777	46.51	-7.49	39.02	74.00	-34.98	peak
H	4074.465	42.49	-2.23	40.26	74.00	-33.74	peak

Remark:

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

4. EUT TEST PHOTO

Radiated Measurement Photos



Conducted Measurement Photos

