

# FCC Test Report FCC ID:2AGR3-GLBMOB55

**Product**: Smartphone

Trade Name: GLOBE, MULTITECH

Model Number: GLB-MOB55

Serial Model: GCP-5050, MT-MOB5050, MT-CP55

Report No.: NTEK-2015NT11022996F1

#### **Prepared for**

SGM Representaciones S.A.S

Av Suba No 115-58 Centro Ilarco Oficina 703 Bogota Colombia

## Prepared by

Shenzhen NTEK Testing Technology Co., Ltd.

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Address ..... Av Suba No 115-58 Centro Ilarco Oficina 703 Bogota Colombia

Applicant's name .....: SGM Representaciones S.A.S



Report No.: NTEK-2015NT11022996F1

# **TEST RESULT CERTIFICATION**

Manufacturer's Name:	aier International(HK)Limited				
Δαατρές .	505,Block B2, KeXing Science Park, KeYuan Road, Nanshan, Shenzhen, China				
Product description					
Product name: S	martphone				
Model and/or type reference : G	LB-MOB55				
Standards F	CC Part15B:01 Oct.2015 NSI C63.4:2014				
	peen tested by NTEK, and the test results show that the ompliance with Part 15 of FCC Rules. And it is applicable only to report.				
·	d except in full, without the written approval of NTEK, this ed by NTEK, personnel only, and shall be noted in the revision of				
Date of Test	:				
Date (s) of performance of tests	: 02 Nov. 2015 ~24 Nov. 2015				
Date of Issue	: 24 Nov. 2015				
Test Result	: Pass				
Testing Engineer	: <u>Evleen Wu.</u> (Eileen Liu)				
Technical Manag	ger : Brown Lu)				
Authorized Signa					



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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  $\mathbf{y} \pm \mathbf{U}$ , where expended uncertainty  $\mathbf{U}$  is based on a standard uncertainty multiplied by a coverage factor of  $\mathbf{k=2}$ , 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			
Trade Name	GLOBE, MULTITECH			
Model Name	GLB-MOB55			
Serial Model	GCP-5050, MT-MOB5050	), MT-CP55		
Model Difference	All the model are the sam except the model name a	·		
	The EUT is a Smartphor			
	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/		
Product Description		1852.4-1907.6MHz		
	Modulation Type:  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/HT40): OFDM (64QAM, 16QAM, QPSK, BPSK) GSM / DCS: GMSK WCDMA:QPSK			
Power Source	DC Voltage			
Adapter	Model:JT105-050100 Input: AC100-240V~, 50/60Hz Output: 5.0V==-, 1A			
Battery	DC 3.8V,2500mAh			



#### 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.

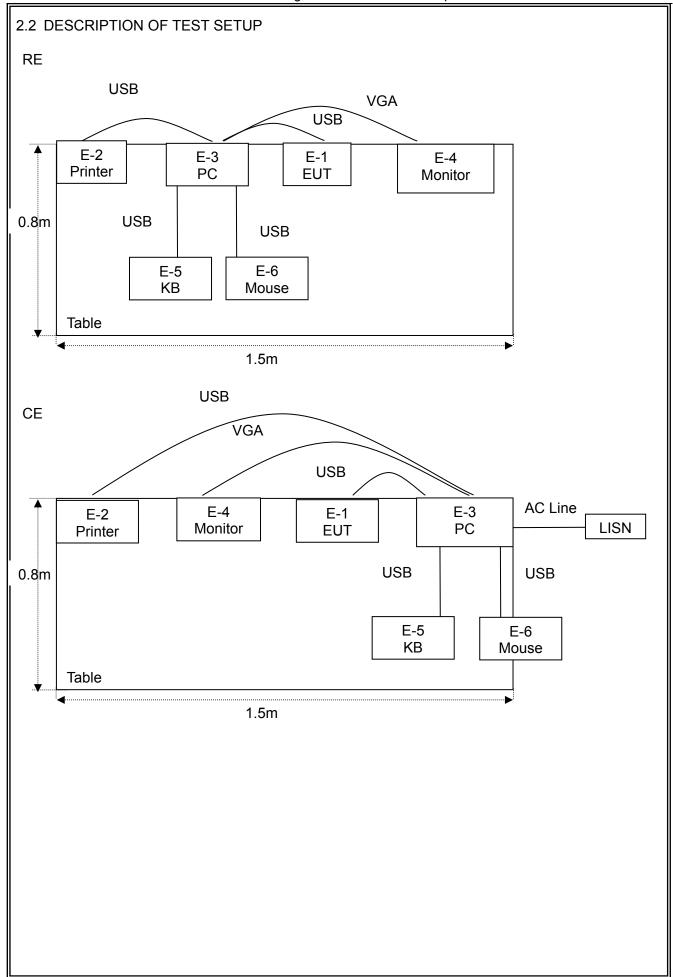
Pretest Mode	Description
Mode 1	Downloading Mode
Mode 2	GPS Mode
Mode 3	TF Card Playing Mode+Charging
Mode 4	Camera Mode

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 worst case. Only the worst case mode is recorded in the report.







## 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	GLOBE, MULTITECH	GLB-MOB55	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	Mouse DELL		cn-011d3v-71581-11e- 1th7	

Item	Shielded Type	Ferrite Core	Length	Note
USB	NO	NO	1.2m	
USB	NO	NO	1.0m	
USB	NO	NO	1.0m	
USB	NO	NO	1.0m	
VGA	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 <code>[Length]</code> column.
- (3) "YES" means "shielded" "with core"; "NO" means "unshielded" "without core".



## 2.4 MEASUREMENT INSTRUMENTS LIST

Radiation Test equipment

	ation rest equi						
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until	Calibratio n period
1	Spectrum Analyzer	Agilent	E4407B	MY4510804 0	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	620026441 6	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-101 80	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	Manufactu rer	Type No.	Serial No.	Last calibration	Calibrated until	Calibratio n 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	620026441 7	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)		
PREQUENCY (MHZ)	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



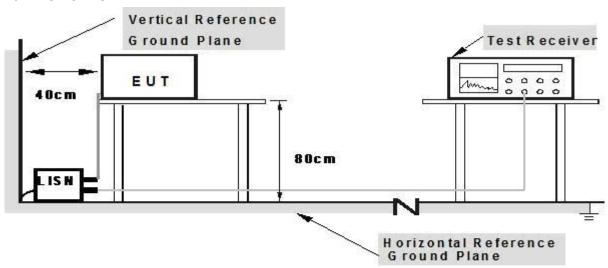
#### 3.1.2 TEST PROCEDURE

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.

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- 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 LISM.

2.Both of LISMs (AMM) 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.

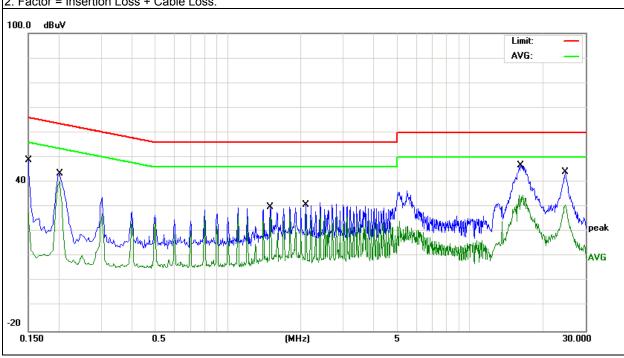


## 3.1.5 TEST RESULTS

EUT:	Smartphone	Model Name. :	GLB-MOB55		
Temperature :	26 ℃	Relative Humidity:	54%		
Pressure :	1010hPa	Test Date :	2015-11-09		
Test Mode:	Mode 1	L			
Test Voltage :	DC 5V From PC AC 120V/60Hz				

Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Margin	Demont
(MHz)	(dBµV)	(dB)	(dBµV)	(dBµV)	(dB)	Remark
0.1500	39.45	9.49	48.94	65.99	-17.05	QP
0.1500	17.96	9.49	27.45	55.99	-28.54	AVG
0.2020	34.03	9.45	43.48	63.52	-20.04	QP
0.2020	31.04	9.45	40.49	53.52	-13.03	AVG
1.5060	20.46	9.56	30.02	56.00	-25.98	QP
1.5060	16.46	9.56	26.02	46.00	-19.98	AVG
2.1060	22.22	9.57	31.79	56.00	-24.21	QP
2.1060	18.00	9.57	27.57	46.00	-18.43	AVG
16.1460	36.77	9.85	46.62	60.00	-13.38	QP
16.1460	25.03	9.85	34.88	50.00	-15.12	AVG
24.7540	34.24	9.92	44.16	60.00	-15.84	QP
24.7540	21.03	9.92	30.95	50.00	-19.05	AVG

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



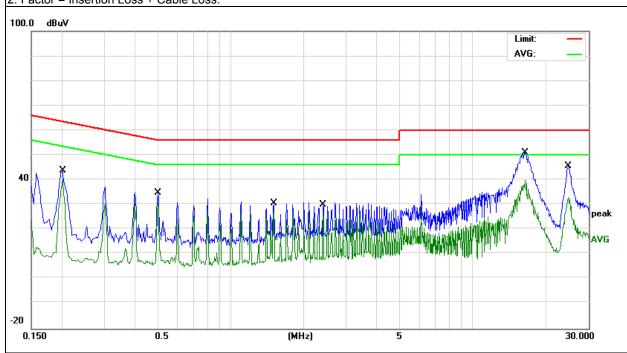


EUT: Model Name. : GLB-MOB55 Smartphone Relative Humidity: 54% Temperature: **26** ℃ Pressure: 1010hPa Test Date: 2015-11-09 Test Mode: Phase: Mode 1 Ν Test Voltage : DC 5V From PC AC 120V/60Hz

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Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Margin	Remark
(MHz)	(dBµV)	(dB)	(dBµV)	(dBµV)	(dB)	Remark
0.2020	34.18	9.45	43.63	63.52	-19.89	QP
0.2020	30.87	9.45	40.32	53.52	-13.20	AVG
0.5020	25.20	9.55	34.75	56.00	-21.25	QP
0.5020	20.84	9.55	30.39	46.00	-15.61	AVG
1.5060	20.93	9.56	30.49	56.00	-25.51	QP
1.5060	17.64	9.56	27.20	46.00	-18.80	AVG
2.4060	21.12	9.59	30.71	56.00	-25.29	QP
2.4060	17.51	9.59	27.10	46.00	-18.90	AVG
16.4420	41.04	9.87	50.91	60.00	-9.09	QP
16.4420	29.86	9.87	39.73	50.00	-10.27	AVG
24.7620	35.49	9.92	45.41	60.00	-14.59	QP
24.7620	23.11	9.92	33.03	50.00	-16.97	AVG

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

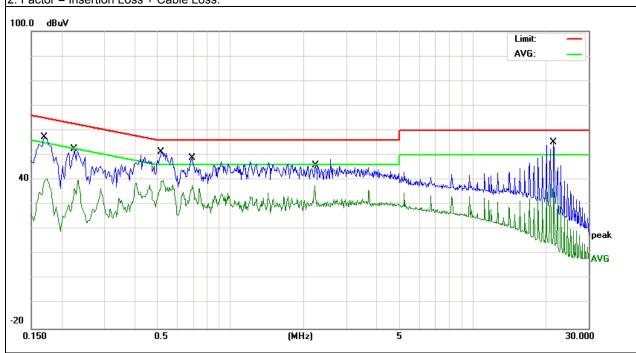




EUT:	Smartphone	Model Name. :	GLB-MOB55		
Temperature :	26 ℃	Relative Humidity:	54%		
Pressure:	1010hPa	Test Date :	2015-11-09		
Test Mode:	Mode 1	Phase :	L		
Test Voltage :	DC 5V From PC AC 240V/60Hz				

Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Margin	Remark
(MHz)	(dBµV)	(dB)	(dBµV)	(dBµV)	(dB)	Remark
0.1700	47.82	9.47	57.29	64.96	-7.67	QP
0.1700	31.02	9.47	40.49	54.96	-14.47	AVG
0.2260	43.04	9.48	52.52	62.59	-10.07	QP
0.2260	30.32	9.48	39.80	52.59	-12.79	AVG
0.5180	41.67	9.55	51.22	56.00	-4.78	QP
0.5180	30.31	9.55	39.86	46.00	-6.14	AVG
0.6898	39.42	9.57	48.99	56.00	-7.01	QP
0.6898	28.23	9.57	37.80	46.00	-8.20	AVG
2.2339	36.18	9.58	45.76	56.00	-10.24	QP
2.2339	28.27	9.58	37.85	46.00	-8.15	AVG
21.5700	45.18	9.97	55.15	60.00	-4.85	QP
21.5700	29.00	9.97	38.97	50.00	-11.03	AVG

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

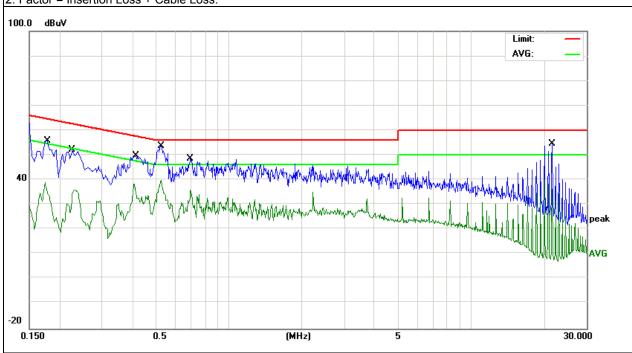




EUT:	Smartphone	Model Name. :	GLB-MOB55	
Temperature :	<b>26</b> ℃	Relative Humidity:	54%	
Pressure:	1010hPa	Test Date :	2015-11-09	
Test Mode:	Mode 1	N		
Test Voltage :	DC 5V From PC AC 240V/60Hz			

Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Margin	Domark
(MHz)	(dBµV)	(dB)	(dBµV)	(dBµV)	(dB)	Remark
0.1780	46.33	9.46	55.79	64.57	-8.78	QP
0.1780	29.57	9.46	39.03	54.57	-15.54	AVG
0.2260	42.61	9.45	52.06	62.59	-10.53	QP
0.2260	26.61	9.45	36.06	52.59	-16.53	AVG
0.4138	40.18	9.44	49.62	57.57	-7.95	QP
0.4138	28.84	9.44	38.28	47.57	-9.29	AVG
0.5260	41.74	9.46	51.20	56.00	-4.80	QP
0.5260	30.27	9.46	39.73	46.00	-6.27	AVG
0.6937	39.20	9.43	48.63	56.00	-7.37	QP
0.6937	26.55	9.43	35.98	46.00	-10.02	AVG
21.6220	44.66	9.89	54.55	60.00	-5.45	QP
21.6220	30.13	9.89	40.02	50.00	-9.98	AVG

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



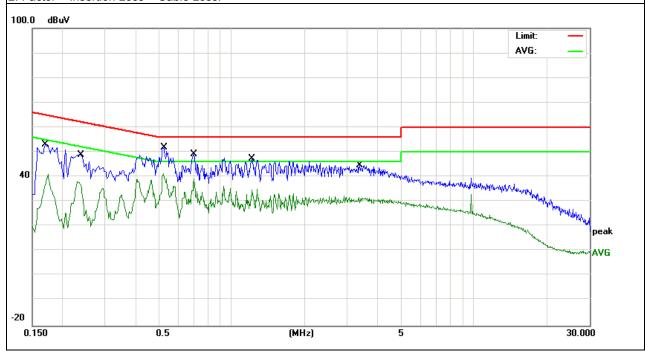


EUT: Model Name. : Smartphone GLB-MOB55 Relative Humidity: 54% Temperature: 26 ℃ Pressure: 1010hPa Test Date: 2015-11-09 Test Mode: Mode 1 Phase: Test Voltage : DC 5V From Adapter AC 120V/60Hz

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Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Margin	Domark
(MHz)	(dBµV)	(dB)	(dBµV)	(dBµV)	(dB)	Remark
0.1700	43.53	9.47	53.00	64.96	-11.96	QP
0.1700	31.52	9.47	40.99	54.96	-13.97	AVG
0.2379	39.30	9.50	48.80	62.17	-13.37	QP
0.2379	28.59	9.50	38.09	52.17	-14.08	AVG
0.5260	42.17	9.55	51.72	56.00	-4.28	QP
0.5260	31.82	9.55	41.37	46.00	-4.63	AVG
0.6980	39.71	9.57	49.28	56.00	-6.72	QP
0.6980	29.67	9.57	39.24	46.00	-6.76	AVG
1.2138	37.84	9.56	47.40	56.00	-8.60	QP
1.2138	25.62	9.56	35.18	46.00	-10.82	AVG
3.3740	35.08	9.64	44.72	56.00	-11.28	QP
3.3740	22.85	9.64	32.49	46.00	-13.51	AVG

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

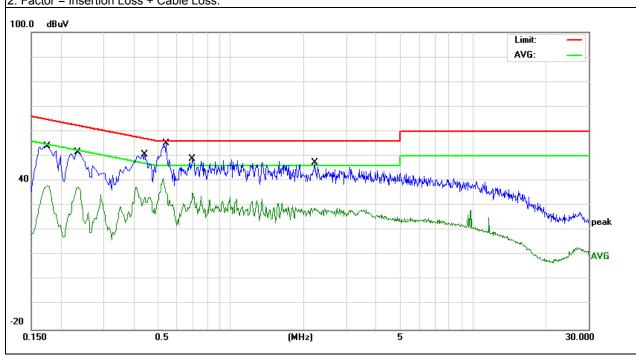




EUT:	Smartphone	Model Name. :	GLB-MOB55	
Temperature:	<b>26</b> ℃	Relative Humidity:	54%	
Pressure:	1010hPa	Test Date :	2015-11-09	
Test Mode:	Mode 1	N		
Test Voltage :	DC 5V From Adapter AC 120V/60Hz			

Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Margin	Remark
(MHz)	(dBµV)	(dB)	(dBµV)	(dBµV)	(dB)	Remark
0.1740	44.54	9.46	54.00	64.76	-10.76	QP
0.1740	28.50	9.46	37.96	54.76	-16.80	AVG
0.2340	42.21	9.45	51.66	62.30	-10.64	QP
0.2340	27.88	9.45	37.33	52.30	-14.97	AVG
0.4420	41.29	9.45	50.74	57.02	-6.28	QP
0.4420	28.12	9.45	37.57	47.02	-9.45	AVG
0.5420	38.35	9.45	47.80	56.00	-8.20	QP
0.5420	31.52	9.45	40.97	46.00	-5.03	AVG
0.6937	39.38	9.43	48.81	56.00	-7.19	QP
0.6937	25.73	9.43	35.16	46.00	-10.84	AVG
2.2219	37.88	9.47	47.35	56.00	-8.65	QP
2.2219	19.68	9.47	29.15	46.00	-16.85	AVG

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



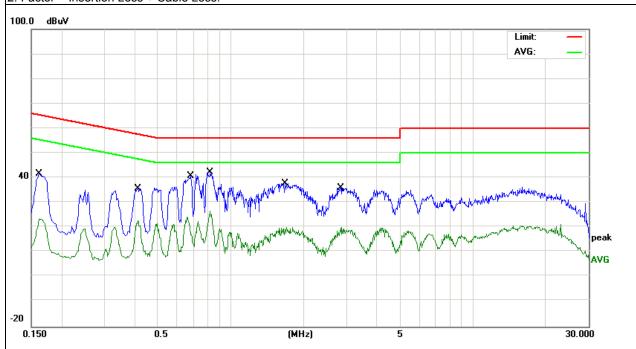


EUT: Model Name. : GLB-MOB55 Smartphone Relative Humidity: 54% Temperature: **26** ℃ Pressure: 1010hPa Test Date: 2015-11-09 Test Mode: Mode 1 Phase: Test Voltage : DC 5V From Adapter AC 240V /60Hz

Report No.: NTEK-2015NT11022996F1

Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Margin	Domark
(MHz)	(dBµV)	(dB)	(dBµV)	(dBµV)	(dB)	Remark
0.1620	32.00	9.60	41.60	65.36	-23.76	QP
0.1620	13.70	9.60	23.30	55.36	-32.06	AVG
0.4138	26.15	9.64	35.79	57.57	-21.78	QP
0.4138	13.20	9.64	22.84	47.57	-24.73	AVG
0.6860	31.16	9.64	40.80	56.00	-15.20	QP
0.6860	14.66	9.64	24.30	46.00	-21.70	AVG
0.8220	32.67	9.63	42.30	56.00	-13.70	QP
0.8220	16.87	9.63	26.50	46.00	-19.50	AVG
1.6778	28.28	9.56	37.84	56.00	-18.16	QP
1.6778	10.64	9.56	20.20	46.00	-25.80	AVG
2.8460	26.44	9.52	35.96	56.00	-20.04	QP
2.8460	10.52	9.52	20.04	46.00	-25.96	AVG

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

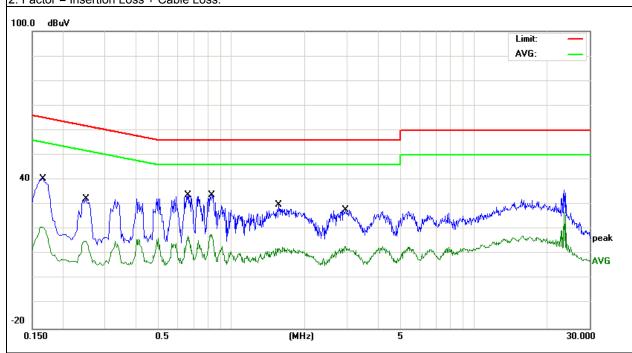




EUT:	Smartphone	Model Name. :	GLB-MOB55	
Temperature :	26 ℃	Relative Humidity:	54%	
Pressure :	1010hPa	Test Date :	2015-11-09	
Test Mode:	Mode 1	Phase :	N	
Test Voltage :	DC 5V From Adapter AC 240V/60Hz			

Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Margin	Domark
(MHz)	(dBµV)	(dB)	(dBµV)	(dBµV)	(dB)	Remark
0.1660	30.74	9.60	40.34	65.15	-24.81	QP
0.1660	11.45	9.60	21.05	55.15	-34.10	AVG
0.2500	22.64	9.61	32.25	61.75	-29.50	QP
0.2500	5.60	9.61	15.21	51.75	-36.54	AVG
0.6580	24.34	9.65	33.99	56.00	-22.01	QP
0.6580	7.69	9.65	17.34	46.00	-28.66	AVG
0.8299	24.26	9.63	33.89	56.00	-22.11	QP
0.8299	8.46	9.63	18.09	46.00	-27.91	AVG
1.5620	20.32	9.57	29.89	56.00	-26.11	QP
1.5620	3.20	9.57	12.77	46.00	-33.23	AVG
2.9580	18.46	9.52	27.98	56.00	-28.02	QP
2.9580	3.56	9.52	13.08	46.00	-32.92	AVG

- 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

	Class A (at 10m)	Class B (at 3m)	
FREQUENCY (MHz)	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



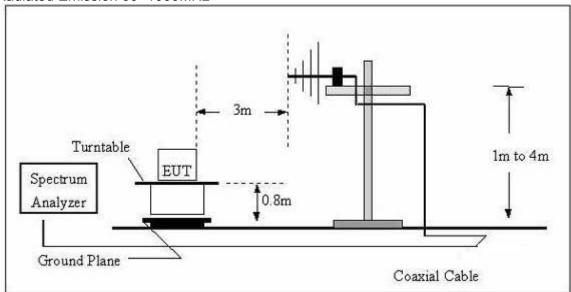
During the radiated emission test, the Spectrum Analyzer was set with the following configurations:

Report No.: NTEK-2015NT11022996F1

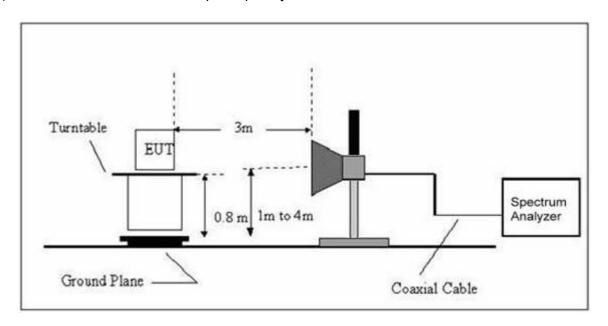
Frequency Band (MHz)	Function	Resolution bandwidth	Video Bandwidth
30 to 1000	QP	120 kHz	300 kHz
	Peak	1 MHz	1 MHz
Above 1000	Avg	1 MHz	10 Hz

## 3.2.3 TEST SETUP

For Radiated Emission 30~1000MHz



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





## 3.2.4 TEST RESULTS

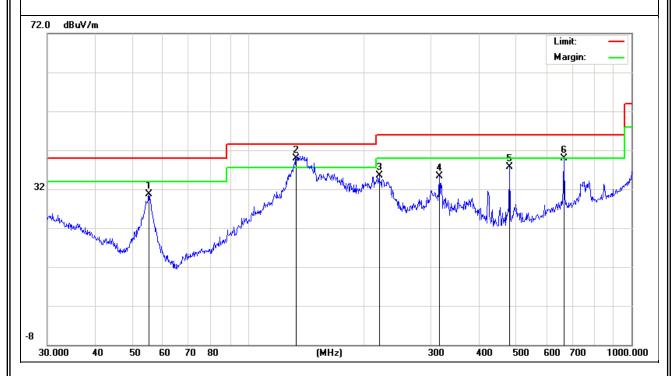
## TEST RESULTS (30~1000 MHz)

	,			
EUT:	Smartphone	Model Name :	GLB-MOB55	
Temperature:	<b>24</b> ℃	Relative Humidity:	54%	
Pressure :	1010 hPa	Test Date :	2015-11-09	
Test Mode :	Mode 1	Polarization :	Horizontal	
Test Power :	DC 5V From PC AC 120V/60Hz			

Freq.	Reading	Factor	Measurement	Limit	Over	Remark
(MHz)	(dBuV)	(dBuV)	(dBuV)	(dBuV)	(dB)	Remark
55.2207	23.5	7.2	30.7	40	-9.3	QP
133.6188	28.95	10.95	39.9	43.5	-3.6	QP
219.8448	24.72	10.85	35.57	46	-10.43	QP
315.4806	22.2	13.12	35.32	46	-10.68	QP
480.5276	21.16	16.56	37.72	46	-8.28	QP
665.8035	19.11	20.77	39.88	46	-6.12	QP

## Remark:

Factor = Antenna Factor + Cable Loss - Amplifier.







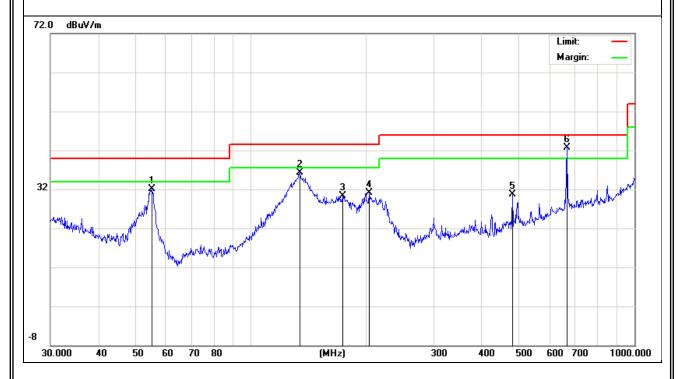
EUT: Model Name : Smartphone GLB-MOB55 Relative Humidity: 54% Temperature: **24** ℃ Pressure: 1010 hPa 2015-11-09 Test Date: Test Mode : Mode 1 Polarization: Vertical Test Power : DC 5V From PC AC 120V/60Hz

Report No.: NTEK-2015NT11022996F1

	Freq.	Reading	Factor	Measurement	Limit	Over	Remark
	(MHz)	(dBuV)	(dBuV)	(dBuV)	(dBuV)	(dB)	Nemark
	55.2207	24.96	7.2	32.16	40	-7.84	QP
Ī	134.0882	25.28	10.95	36.23	43.5	-7.27	QP
	173.205	17.87	12.4	30.27	43.5	-13.23	QP
	203.5226	19.5	11.54	31.04	43.5	-12.46	QP
	480.5276	14.24	16.56	30.8	46	-15.2	QP
	665.8035	22.03	20.77	42.8	46	-3.2	QP

#### Remark:

Factor = Antenna Factor + Cable Loss - Amplifier.





3.2.5 TEST RESULTS(1000~12400MHz)

(MHz)			Level		Margin	Remark
` '	(dBm)	(dB)	(dBm)	(dBm)	(dB)	
1916.324	64.57	-10.38	54.19	74.00	-19.81	peak
1916.324	47.88	-10.38	37.50	54.00	-16.50	AVG
1993.371	63.92	-9.76	54.16	74.00	-19.84	peak
1993.371	46.66	-9.76	36.90	54.00	-17.10	AVG
3406.085	51.19	-5.89	45.30	74.00	-28.70	peak
3406.085	34.59	-5.89	28.70	54.00	-25.30	AVG
1245.883	46.57	-1.84	44.73	74.00	-29.27	peak
1245.883	30.44	-1.84	28.60	54.00	-25.40	AVG
748.973	56.15	-11.09	45.06	74.00	-28.94	peak
1748.973	40.49	-11.09	29.40	54.00	-24.60	AVG
2000.527	60.31	-9.64	50.67	74.00	-23.33	peak
2000.527	43.54	-9.64	33.90	54.00	-20.10	AVG
2080.961	54.68	-8.36	46.32	74.00	-27.68	peak
2080.961	38.56	-8.36	30.20	54.00	-23.80	AVG
3725.315	46.01	-4.56	41.45	74.00	-32.55	peak
3725.315	33.26	-4.56	28.70	54.00	-25.30	AVG
	916.324 993.371 993.371 406.085 406.085 245.883 245.883 748.973 7000.527 000.527 080.961 080.961 725.315	916.324 64.57 916.324 47.88 993.371 63.92 993.371 46.66 406.085 51.19 406.085 34.59 245.883 46.57 245.883 30.44 748.973 56.15 748.973 40.49 000.527 60.31 000.527 43.54 080.961 54.68 080.961 38.56 725.315 46.01	916.324         64.57         -10.38           916.324         47.88         -10.38           993.371         63.92         -9.76           993.371         46.66         -9.76           406.085         51.19         -5.89           406.085         34.59         -5.89           245.883         46.57         -1.84           245.883         30.44         -1.84           748.973         56.15         -11.09           748.973         40.49         -11.09           000.527         60.31         -9.64           000.527         43.54         -9.64           080.961         54.68         -8.36           080.961         38.56         -8.36           725.315         46.01         -4.56	916.324         64.57         -10.38         54.19           916.324         47.88         -10.38         37.50           993.371         63.92         -9.76         54.16           993.371         46.66         -9.76         36.90           406.085         51.19         -5.89         45.30           406.085         34.59         -5.89         28.70           245.883         46.57         -1.84         44.73           245.883         30.44         -1.84         28.60           748.973         56.15         -11.09         45.06           748.973         40.49         -11.09         29.40           000.527         60.31         -9.64         50.67           000.527         43.54         -9.64         33.90           080.961         54.68         -8.36         46.32           080.961         38.56         -8.36         30.20           725.315         46.01         -4.56         41.45	916.324         64.57         -10.38         54.19         74.00           916.324         47.88         -10.38         37.50         54.00           993.371         63.92         -9.76         54.16         74.00           993.371         46.66         -9.76         36.90         54.00           406.085         51.19         -5.89         45.30         74.00           406.085         34.59         -5.89         28.70         54.00           245.883         46.57         -1.84         44.73         74.00           245.883         30.44         -1.84         28.60         54.00           748.973         56.15         -11.09         45.06         74.00           748.973         40.49         -11.09         29.40         54.00           000.527         60.31         -9.64         50.67         74.00           080.961         54.68         -8.36         46.32         74.00           080.961         38.56         -8.36         30.20         54.00           725.315         46.01         -4.56         41.45         74.00	916.324         64.57         -10.38         54.19         74.00         -19.81           916.324         47.88         -10.38         37.50         54.00         -16.50           993.371         63.92         -9.76         54.16         74.00         -19.84           993.371         46.66         -9.76         36.90         54.00         -17.10           406.085         51.19         -5.89         45.30         74.00         -28.70           406.085         34.59         -5.89         28.70         54.00         -25.30           245.883         46.57         -1.84         44.73         74.00         -29.27           245.883         30.44         -1.84         28.60         54.00         -25.40           748.973         56.15         -11.09         45.06         74.00         -28.94           748.973         40.49         -11.09         29.40         54.00         -24.60           000.527         60.31         -9.64         50.67         74.00         -23.33           000.527         43.54         -9.64         33.90         54.00         -27.68           080.961         54.68         -8.36         46.32         74.00

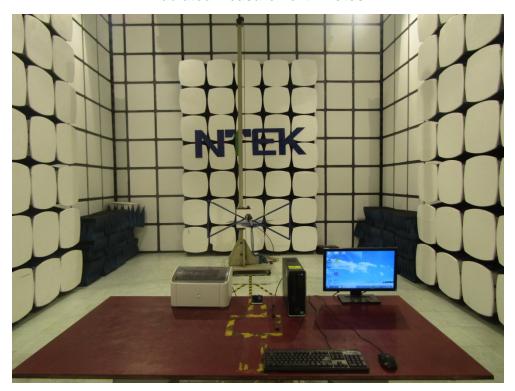
Remark:

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



# 4. EUT TEST PHOTO









# **Conducted Measurement Photos**

