



# EMC TEST REPORT

Product Name: 4G Smart phone

Model Name: L65A

Family Model: N65A

FCC ID: O55660124

Issued For : SWAGTEK

10205 NW 19th Street STE101, Miami FL33172 USA

Issued By : Shenzhen LGT Test Service Co., Ltd.

Room 205, Building 13, Zone B, Zhenxiong Industrial Park,  
No.177, Renmin West Road, Jinsha, Kengzi Street, Pingshan  
District, Shenzhen, Guangdong, China

Report Number: LGT24A025EM01

Sample Received Date: Mar. 22, 2024

Date of Test: Mar. 22, 2024 – Apr. 28, 2024

Date of Issue: Apr. 28, 2024

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## TEST REPORT CERTIFICATION

**Applicant:** SWAGTEK  
Address: 10205 NW 19th Street STE101, Miami FL33172 USA

**Manufacturer:** SWAGTEK  
Address: 10205 NW 19th Street STE101, Miami FL33172 USA

Product Name: 4G Smart phone

Trademark: LOGIC, UNONU, iSWAG

Model Name: L65A

Family Model: N65A

Sample Status: Normal

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
FCC 47 CFR Part 15 Subpart B ANSI C63.4-2014	PASS

Prepared by:

*Terry Zhao*

Terry Zhao  
Engineer

Approved by:

*Vita Li*

Vita Li  
Technical Director





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**Revision History**

Rev.	Issue Date	Revisions
00	Apr. 28, 2024	Initial Issue



## 1. TEST SUMMARY

EMC Emission				
Standard	Test Item	Limit	Judgement	Remark
FCC 47 CFR Part 15 Subpart B ANSI C63.4-2014	Conducted Emissions	Class B	PASS	
	Radiated Emissions Below 1GHz	Class B	PASS	
	Radiated Emissions Above 1GHz	Class B	PASS	Note 1 Note 2

Note:

- 1 "N/A" denotes test is not applicable in this Test Report
- 2 If the highest frequency of the internal sources of the EUT is less than 108 MHz, the measurement shall only be made up to 1 GHz. If the highest frequency of the internal sources of the EUT is between 108 MHz and 500 MHz, the measurement shall only be made up to 2 GHz. If the highest frequency of the internal sources of the EUT is between 500 MHz and 1 GHz, measurement shall only be made up to 5 GHz. If the highest frequency of the internal sources of the EUT is above 1 GHz, the measurement shall be made up to 5 times the highest frequency or 40 GHz, whichever is less.



## 1.1 TEST LABORATORY

Company Name:	Shenzhen LGT Test Service Co., Ltd.
Address:	Room 205, Building 13, Zone B, Zhenxiong Industrial Park, No.177, Renmin West Road, Jinsha, Kengzi Street, Pingshan District, Shenzhen, Guangdong, China
Accreditation Certificate	A2LA Certificate No.: 6727.01
	FCC Registration No.: 746540
	CAB ID: CN0136

## 1.2 MEASUREMENT UNCERTAINTY

Test Item	Measurement Frequency Range MHz	Uncertainty dB
Conducted Emissions at AC mains power port	0.009 ~ 30	2.80
Radiated Emissions	0.009 ~ 30	2.16
Radiated Emissions	30 ~ 1000	4.40
Radiated Emissions	1000 ~ 18000	5.49

Note: 1. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.  
2. The measurement uncertainty is not included in the test result.



## 2. GENERAL INFORMATION

### 2.1 GENERAL DESCRIPTION OF THE EUT

Product Name:	4G Smart phone
Trademark:	LOGIC, UNONU, iSWAG
Model Name:	L65A
Family Model:	N65A
Model Difference:	Only different in model name and Trademark.
Adapter:	Input: 100-240 V, 50/60Hz, 0.2A Output: 5V, 2A
Battery:	Capacity: 4000mAh Rated Voltage: 3.85V
Test Voltage:	AC 120V/60Hz Battery: 3.85V
Hardware Version:	A181-A1-V1.0
Software Version:	L_L65A_OM_V1.0

*Note: For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.*



## 2.2 DESCRIPTION OF THE 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 operating mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Test Mode	Description
Mode 1	Charging+GSM link+BT+Wi-Fi+GPS+Camera recording+Earphone
Mode 2	Charging+WCDMA link+BT+Wi-Fi+GPS+Camera recording+Earphone
Mode 3	Charging+LTE link+BT+Wi-Fi+GPS+Camera recording+Earphone
Mode 4	USB Data Transmission

Note: Only the data of worst-case mode 1 was recorded in this report.

## 2.3 DESCRIPTION OF THE SUPPORT UNITS

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.

### Accessories Equipment

Description	Manufacturer	Model	S/N	Rating
Adapter	SWAGTEK INC	ZFX-03U-0520-12	N/A	Input: 100-240V ~ 50/60Hz 0.2A Output: 5V, 2A
USB-A to USB-C Cable	SWAGTEK INC	N/A	N/A	1m

### Auxiliary Equipment

Description	Manufacturer	Model	S/N	Rating
Laptop	Lenovo	HKF-16	N/A	N/A
Earphone	VESAFE	39630078	N/A	N/A

Note:

- (1) For detachable type I/O cable should be specified the length in cm in 『Length』 column.





## 2.4 MEASUREMENT INSTRUMENTS LIST

<b>Conducted Emission</b>					
<b>Equipment</b>	<b>Manufacturer</b>	<b>Model No.</b>	<b>Serial No.</b>	<b>Cal. Date</b>	<b>Cal. Until</b>
EMI Test Receiver	R&S	ESU8	100372	2024.03.09	2025.03.08
LISN	COM-POWER	LI-115	02032	2024.03.09	2025.03.08
LISN	SCHWARZBECK	NNLK 8122	00160	2024.03.09	2025.03.08
Transient Limiter	CYBERTEK	EM5010A	E2250100049	2024.03.09	2025.03.08
Temperature & Humidity	KTJ	TA218B	N.A	2024.03.09	2025.03.08
Testing Software	EMC-I_V1.4.0.3_SKET				

<b>Radiated Test equipment</b>					
<b>Equipment</b>	<b>Manufacturer</b>	<b>Model No.</b>	<b>Serial No.</b>	<b>Cal. Date</b>	<b>Cal. Until</b>
EMI Test Receiver	R&S	ESU8	100372	2024.03.09	2025.03.08
Active loop Antenna	ETS	6502	00049544	2023.10.13	2025.10.12
Spectrum Analyzer	Keysight	N9010B	MY60242508	2023.08.14	2024.08.13
Bilog Antenna(30M-1G)	SCHWARZBECK	VULB 9168	2705	2022.12.12	2025.12.11
Horn Antenna(1-18G)	SCHWARZBECK	3115	10SL0060	2022.06.02	2025.06.01
Horn Antenna(18-40G)	A-INFO	LB-180400-KF	J211060273	2022.06.08	2025.06.07
Pre-amplifier(30M-1G)	EMtrace	RP01A	02019	2024.03.09	2025.03.08
Pre-amplifier(1-26.5G)	Agilent	8449B	3008A4722	2024.03.09	2025.03.08
Pre-amplifier(18-40G)	com-mw	LNPA_18-40-01	18050003	2024.03.09	2025.03.08
Wireless Communications Test Set	R&S	CMW 500	137737	2024.03.09	2025.03.08
Temperature & Humidity	JINGCHUANG	BT-3	N.A	2024.03.11	2025.03.10
Testing Software	EMC-I_V1.4.0.3_SKET				

<b>RF Conducted Test equipment</b>					
<b>Equipment</b>	<b>Manufacturer</b>	<b>Model No.</b>	<b>Serial No.</b>	<b>Cal. Date</b>	<b>Cal. Until</b>
Signal Analyzer	Keysight	N9010B	MY60242508	2023.08.14	2024.08.13
Signal Analyzer	Keysight	N9020A	MY50530994	2024.03.09	2025.03.08
RF Automatic Test system	MW	MW100-RFCB	MW220322LG-033	2024.03.09	2025.03.08
MXG Vector Signal Generator	Keysight	N5182B	MY59100717	2024.03.09	2025.03.08
Temperature & Humidity test chamber	AISRY	LX-1000L	171200018	2024.03.09	2025.03.08
Attenuator	eastsheep	90db	N.A	2024.03.09	2025.03.08
Temperature & Humidity	JINGCHUANG	BT-3	N.A	2024.03.11	2025.03.10
Digital multimeter	MASTECH	MS8261	MBGBC83053	2024.03.09	2025.03.08
Testing Software	MTS8310_V2.0.0.0_MW				



### 3. EMC EMISSION TEST

#### 3.1 CONDUCTED EMISSION MEASUREMENT

##### 3.1.1 LIMITS

FREQUENCY (MHz)	Conducted Emission Limits (dBuV)			
	Class A		Class B	
	Quasi-peak	Average	Quasi-peak	Average
0.15 ~ 0.5	79.00	66.00	66 - 56 *	56 - 46 *
0.5 ~ 5	73.00	60.00	56.00	46.00
5 ~ 30	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.
- (3) The test result calculated as following:  
 Measurement Value = Reading Level + Correct Factor  
 Correct Factor = Insertion Loss + Cable Loss + Attenuator Factor  
 Margin Level = Measurement Value - Limit Value

The following table is the setting of the receiver

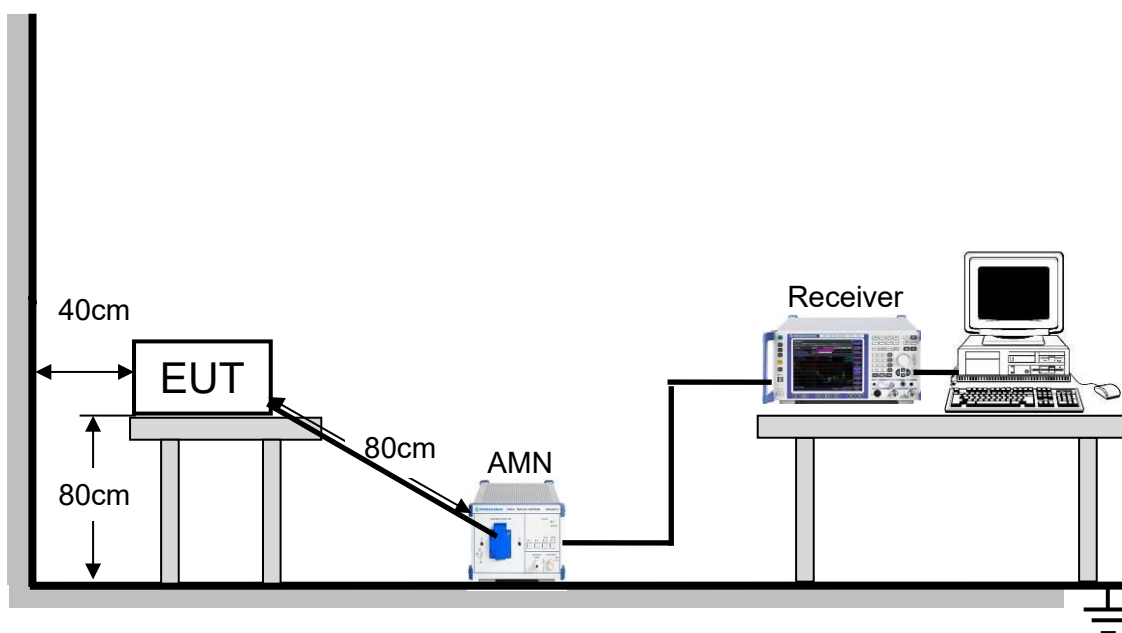
Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

##### 3.1.2 TEST PROCEDURE

- a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- d. LISN at least 80 cm from nearest part of EUT chassis.
- e. For the actual test configuration, please refer to the related Item - EUT Test Photos.



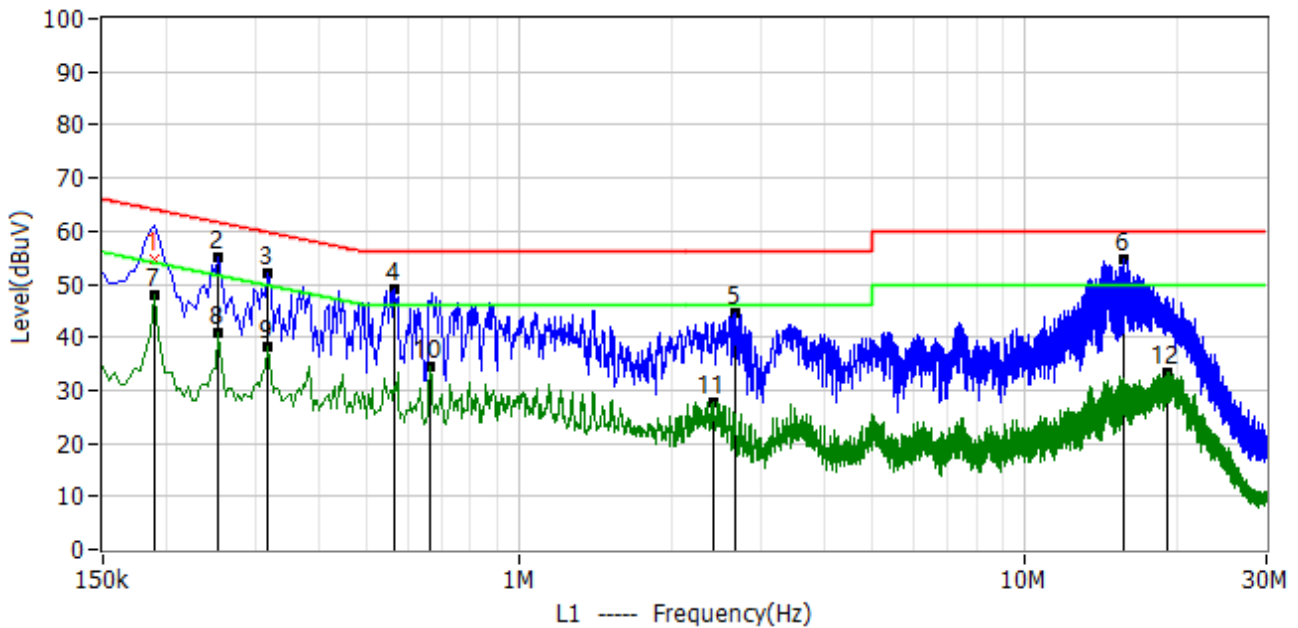
### 3.1.3 TEST SETUP





### 3.1.4 TEST RESULTS

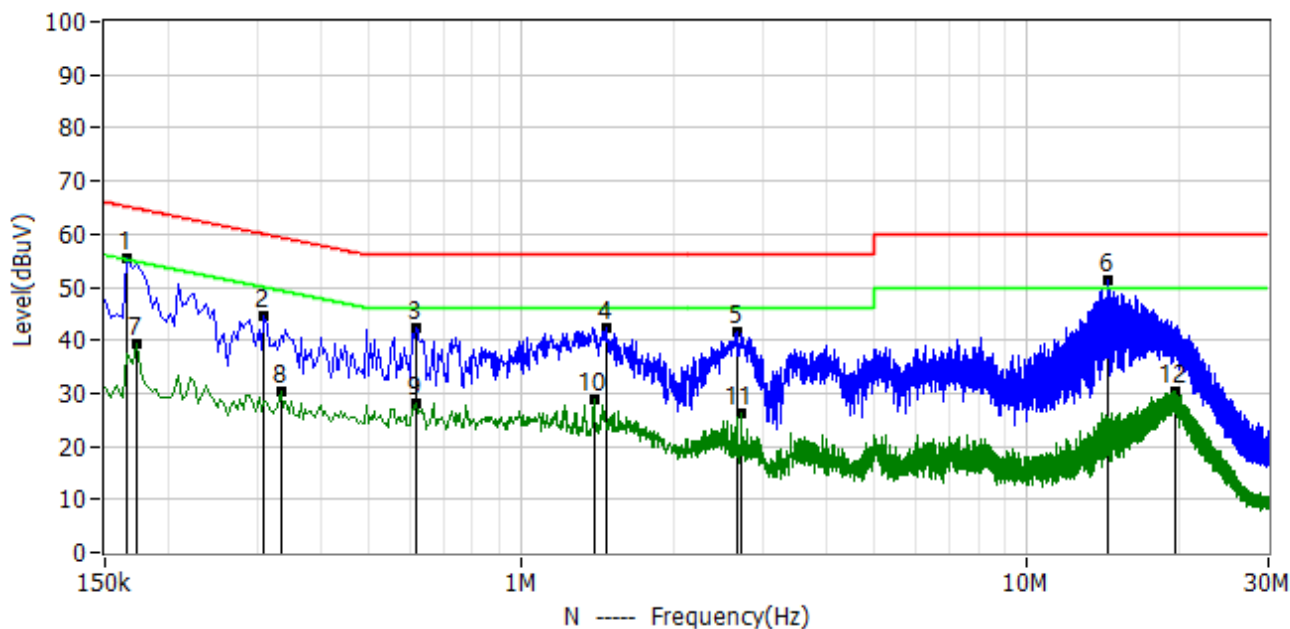
Project: LGT24A025	Test Engineer: LiuH
EUT: 4G Smart phone	Temperature: 25.5°C
M/N: L65A	Humidity: 60%RH
Test Voltage: AC 120V/60Hz	Test Data: 2024-03-27
Test Mode: Charging+GSM link+BT+Wi-Fi+GPS+Camera recording+Earphone	
Note:	



No.	Frequency MHz	Reading dBuV	Factor dB	Level dBuV	Limit dBuV	Margin dB	Detector	Polar
1	0.190	44.23	10.50	54.73	64.04	-9.30	QP	L1
2*	0.254	44.54	10.49	55.03	61.63	-6.60	QP	L1
3*	0.318	41.40	10.49	51.89	59.76	-7.87	QP	L1
4*	0.566	38.48	10.50	48.98	56.00	-7.02	QP	L1
5*	2.662	34.00	10.74	44.74	56.00	-11.26	QP	L1
6*	15.630	43.46	11.05	54.51	60.00	-5.49	QP	L1
7*	0.190	37.45	10.49	47.94	54.04	-6.10	AV	L1
8*	0.254	30.15	10.49	40.64	51.63	-10.98	AV	L1
9*	0.318	27.77	10.49	38.26	49.76	-11.50	AV	L1
10*	0.666	23.98	10.50	34.48	46.00	-11.52	AV	L1
11*	2.410	17.09	10.73	27.82	46.00	-18.18	AV	L1
12*	19.082	22.37	11.11	33.48	50.00	-16.52	AV	L1



Project: LGT24A025	Test Engineer: LiuH
EUT: 4G Smart phone	Temperature: 25.5°C
M/N: L65A	Humidity: 60%RH
Test Voltage: AC 120V/60Hz	Test Data: 2024-03-27
Test Mode: Charging+GSM link+BT+Wi-Fi+GPS+Camera recording+Earphone	
Note:	



No.	Frequency MHz	Reading dBuV	Factor dB	Level dBuV	Limit dBuV	Margin dB	Detector	Polar
1*	0.166	45.11	10.49	55.60	65.16	-9.56	QP	N
2*	0.310	34.18	10.49	44.67	59.97	-15.30	QP	N
3*	0.618	31.77	10.50	42.27	56.00	-13.73	QP	N
4*	1.474	31.78	10.61	42.39	56.00	-13.61	QP	N
5*	2.662	30.66	10.74	41.40	56.00	-14.60	QP	N
6*	14.506	40.24	11.06	51.30	60.00	-8.70	QP	N
7*	0.174	28.87	10.49	39.36	54.77	-15.40	AV	N
8*	0.334	19.67	10.49	30.16	49.35	-19.19	AV	N
9*	0.618	17.56	10.50	28.06	46.00	-17.94	AV	N
10*	1.390	18.25	10.60	28.85	46.00	-17.15	AV	N
11*	2.722	15.49	10.74	26.23	46.00	-19.77	AV	N
12*	19.650	18.98	11.19	30.17	50.00	-19.83	AV	N



## 3.2 RADIATED EMISSION MEASUREMENT

### 3.2.1 LIMITS

#### Below 1 GHz

Frequency (MHz)	Class A		Class B	
	Field strength (dBuV/m) (at 3m)		Field strength (dBuV/m) (at 3m)	
30 - 88	49.5		40	
88 - 216	53.9		43.5	
216 - 960	56.9		46	
Above 960	60		54	

#### Above 1 GHz

Frequency (MHz)	Class A		Class B	
	Field strength (dBuV/m) (at 3m)		Field strength (dBuV/m) (at 3m)	
	Peak	Average	Peak	Average
Above 1000	80	60	74	54

#### Frequency Range of Radiated Disturbance Measurement

Highest frequency generated or Upper frequency of measurement used in the device or on which the device operates or tunes (MHz)	Range (MHz)
Below 1.705	30
1.705 - 108	1000
108 - 500	2000
500 - 1000	5000
Above 1000	5th harmonic of the highest frequency or 40 GHz, whichever is lower

Note:

- (1) The limit for radiated test was performed according to FCC Part 15, Subpart B;
- (2) The tighter limit applies at the band edges;
- (3) The test result calculated as following:  
 Measurement Value = Reading Level + Correct Factor,  
 Correct Factor = Antenna Factor + Cable Loss - Amplifier Gain(if use),  
 Margin Level = Measurement Value - Limit Value.

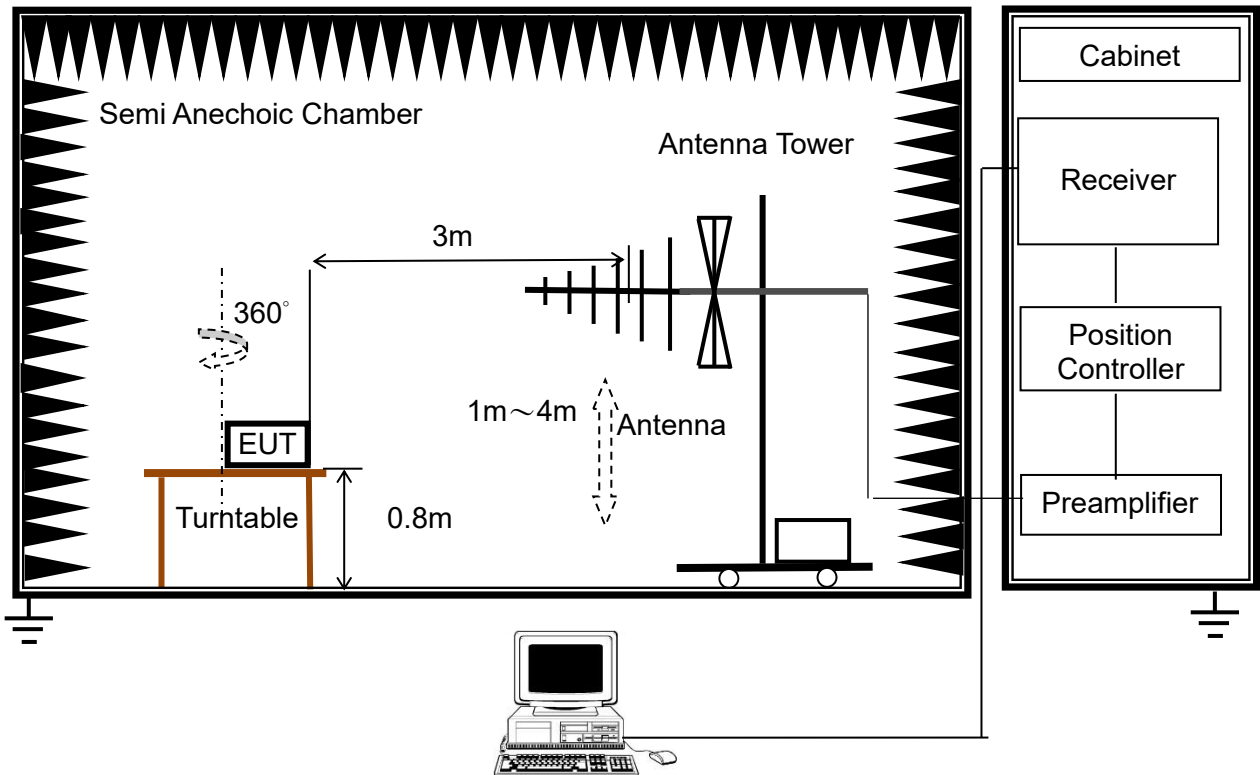
### 3.2.2 TEST PROCEDURE

- a. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. EUT as the center to the edge of the auxiliary device, the distance from the maximum edge to the center of the antenna is 3 meter.
- c. The height of antenna is varied from 1 meter to 4 meter 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 meter and the rotatable table was turned from 0 degrees to 360 degree to find the maximum reading.
- e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1GHz.
- f. For the actual test configuration, please refer to the related Item –EUT Test Photos.

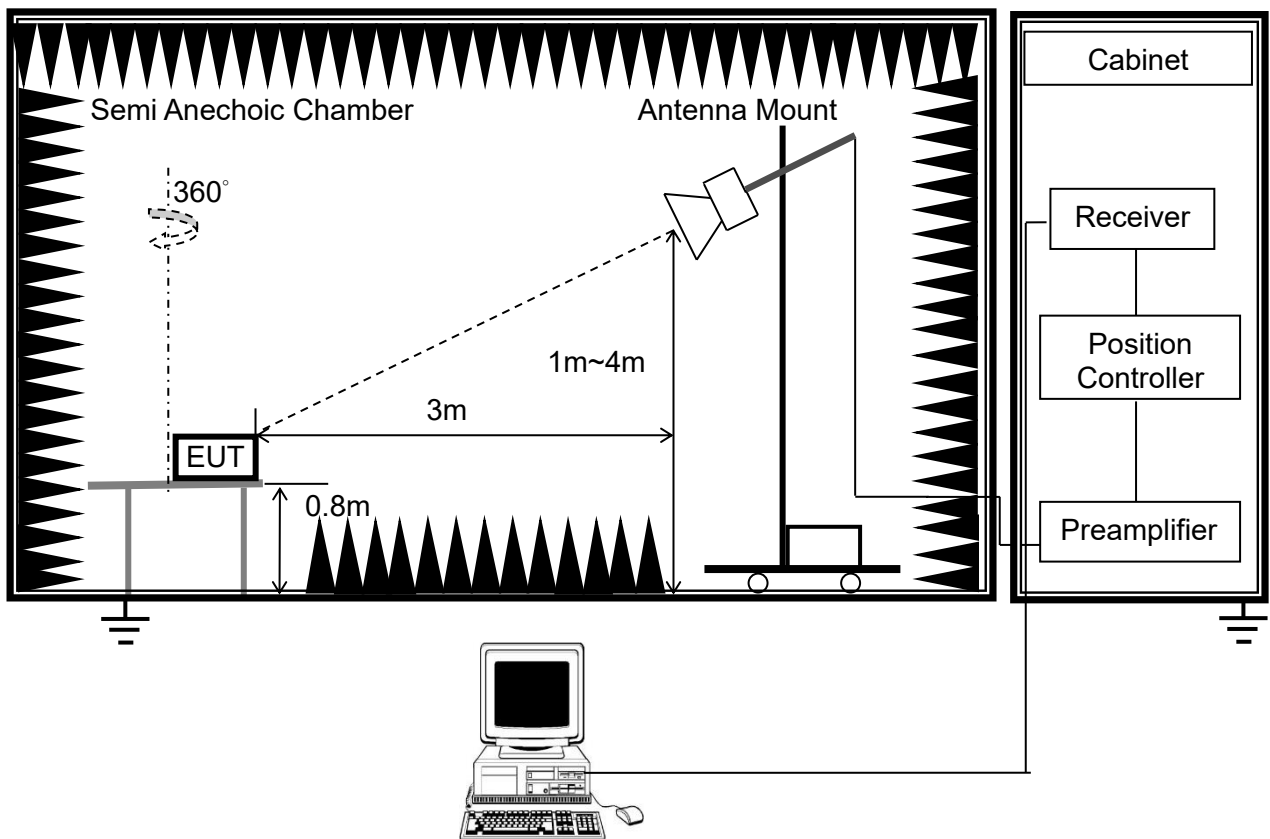


### 3.2.3 TEST SETUP

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



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

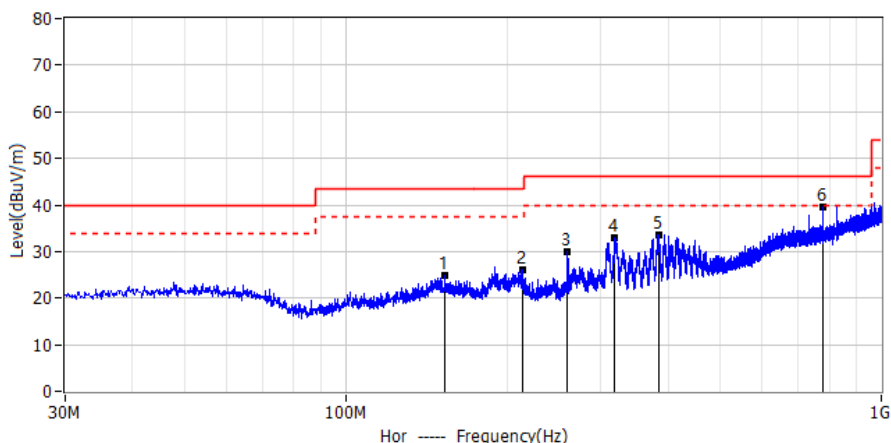




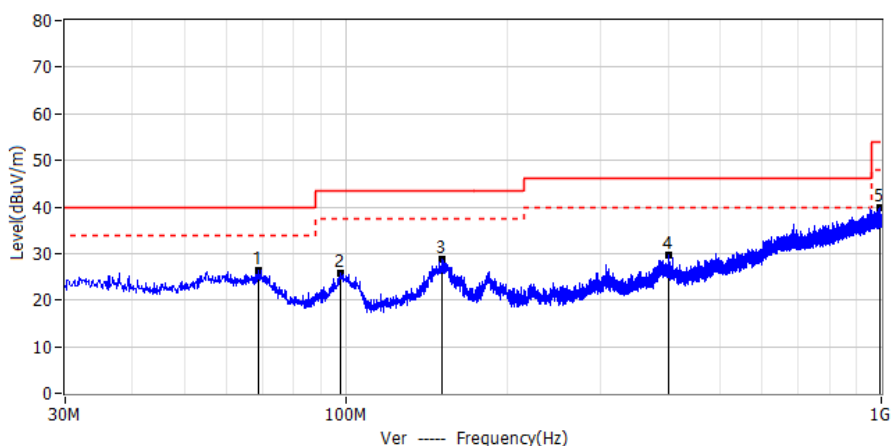
### 3.2.4 TEST RESULTS

#### BELOW 1GHZ

Project: LGT24A025	Test Engineer: Xiangdong Ma
EUT: 4G Smart phone	Temperature: 23.1°C
M/N: L65A	Humidity: 46%RH
Test Voltage: AC 120V/60Hz	Test Data: 2024-03-23
Test Mode: Charging+GSM link+BT+Wi-Fi+GPS+Camera recording+Earphone	
Note:	



No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	153.554	4.99	19.94	24.93	43.50	-18.60	QP	Hor
2*	213.694	9.18	16.97	26.15	43.50	-17.40	QP	Hor
3*	259.890	11.32	18.70	30.02	46.00	-16.00	QP	Hor
4*	318.454	12.48	20.50	32.98	46.00	-13.00	QP	Hor
5*	384.050	11.31	22.35	33.66	46.00	-12.30	QP	Hor
6*	779.810	8.79	30.90	39.69	46.00	-6.30	QP	Hor

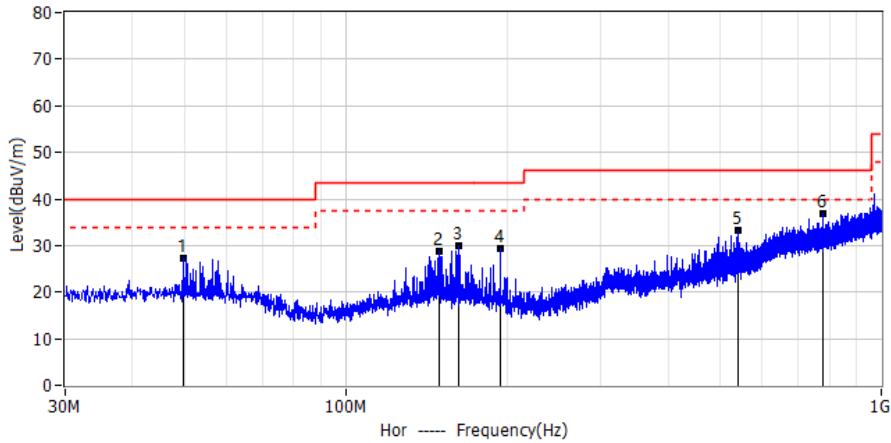


No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	68.679	8.33	18.10	26.43	40.00	-13.57	QP	Ver
2*	97.900	10.24	15.50	25.74	43.50	-17.76	QP	Ver
3*	151.371	8.77	19.97	28.74	43.50	-14.76	QP	Ver
4*	401.753	6.75	22.87	29.62	46.00	-16.38	QP	Ver
5*	995.756	5.29	34.55	39.84	54.00	-14.16	QP	Ver

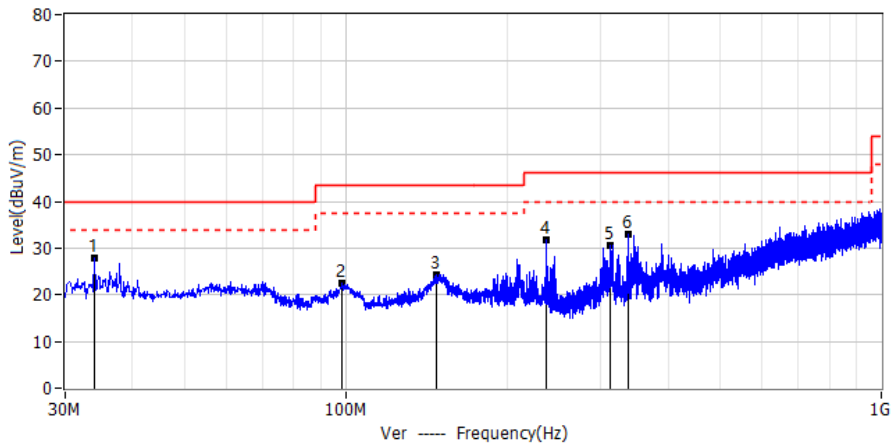




Project: LGT24A025	Test Engineer: Xiangdong Ma
EUT: 4G Smart phone	Temperature: 23.1°C
M/N: L65A	Humidity: 46%RH
Test Voltage: Battery	Test Data: 2024-03-23
Test Mode: USB Data Transmission	
Note:	



No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	49.764	7.91	19.35	27.26	40.00	-12.74	QP	Hor
2*	150.038	8.77	19.99	28.76	43.50	-14.74	QP	Hor
3*	162.648	10.16	19.82	29.98	43.50	-13.52	QP	Hor
4*	194.415	11.87	17.43	29.30	43.50	-14.20	QP	Hor
5*	540.705	7.31	25.94	33.25	46.00	-12.75	QP	Hor
6*	779.931	5.92	30.90	36.82	46.00	-9.18	QP	Hor

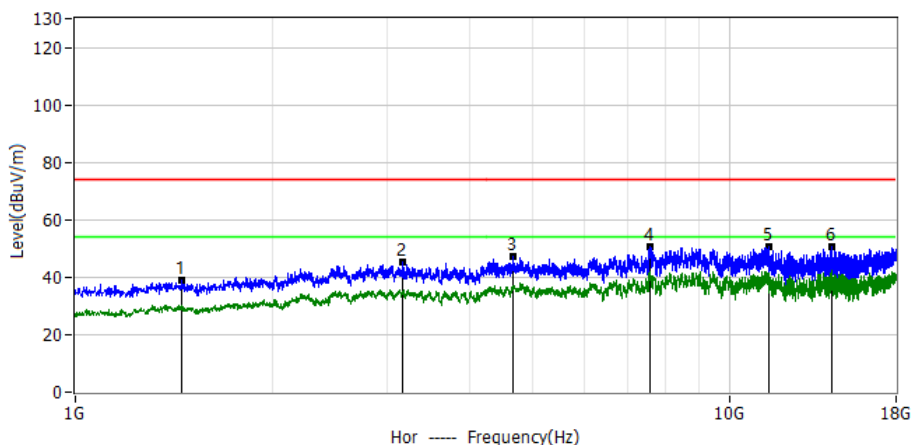


No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	34.001	9.33	18.47	27.80	40.00	-12.20	QP	Ver
2*	98.385	6.96	15.53	22.49	43.50	-21.01	QP	Ver
3*	148.098	4.59	19.81	24.40	43.50	-19.10	QP	Ver
4*	236.853	14.39	17.50	31.89	46.00	-14.11	QP	Ver
5*	312.270	10.23	20.30	30.53	46.00	-15.47	QP	Ver
6*	337.005	12.04	20.94	32.98	46.00	-13.02	QP	Ver

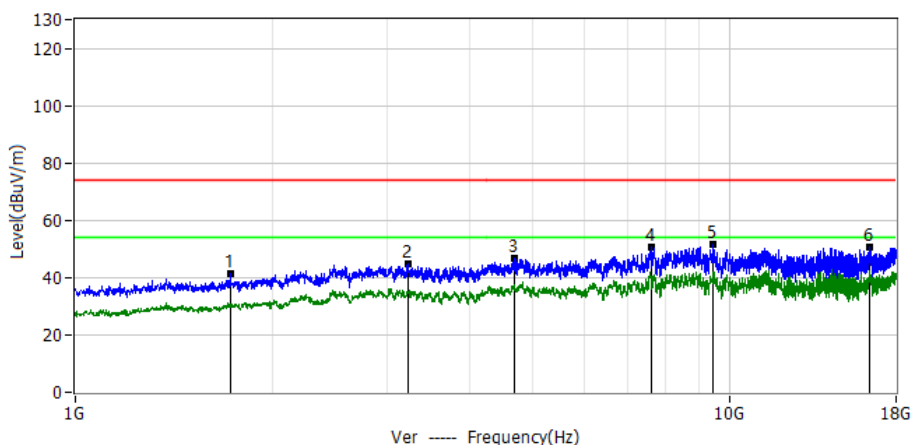


## ABOVE 1GHz

Project: LGT24A025	Test Engineer: Xiangdong Ma
EUT: 4G Smart phone	Temperature: 23.1°C
M/N: L65A	Humidity: 46%RH
Test Voltage: AC 120V/60Hz	Test Data: 2024-03-23
Test Mode: Charging+GSM link+BT+Wi-Fi+GPS+Camera recording+Earphone	
Note:	



No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	1456.9000	60.07	-21.17	38.90	74.00	-35.10	PK	Hor
2*	3167.5000	53.94	-8.86	45.08	74.00	-28.92	PK	Hor
3*	4663.5000	53.70	-6.67	47.03	74.00	-26.97	PK	Hor
4*	7562.0000	56.45	-5.66	50.79	74.00	-23.21	PK	Hor
5*	11478.4000	52.32	-1.83	50.49	74.00	-23.51	PK	Hor
6*	14364.1000	50.10	0.72	50.82	74.00	-23.18	PK	Hor



No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	1724.6000	60.43	-19.13	41.30	74.00	-32.70	PK	Ver
2*	3233.4000	53.53	-8.90	44.63	74.00	-29.37	PK	Ver
3*	4693.2000	53.29	-6.70	46.59	74.00	-27.41	PK	Ver
4*	7587.5000	56.49	-5.65	50.84	74.00	-23.16	PK	Ver
5*	9461.7000	55.58	-3.91	51.67	74.00	-22.33	PK	Ver
6*	16374.4000	49.96	0.75	50.71	74.00	-23.29	PK	Ver

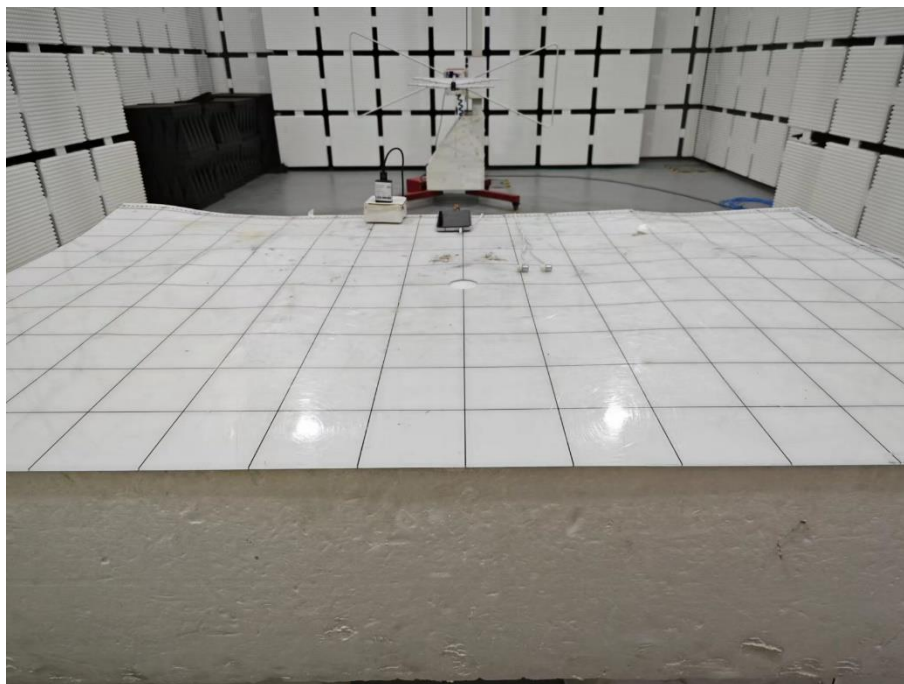


## APPENDIX I - TEST SETUP

### Set-up for Conducted Emission on AC Mains (CE)

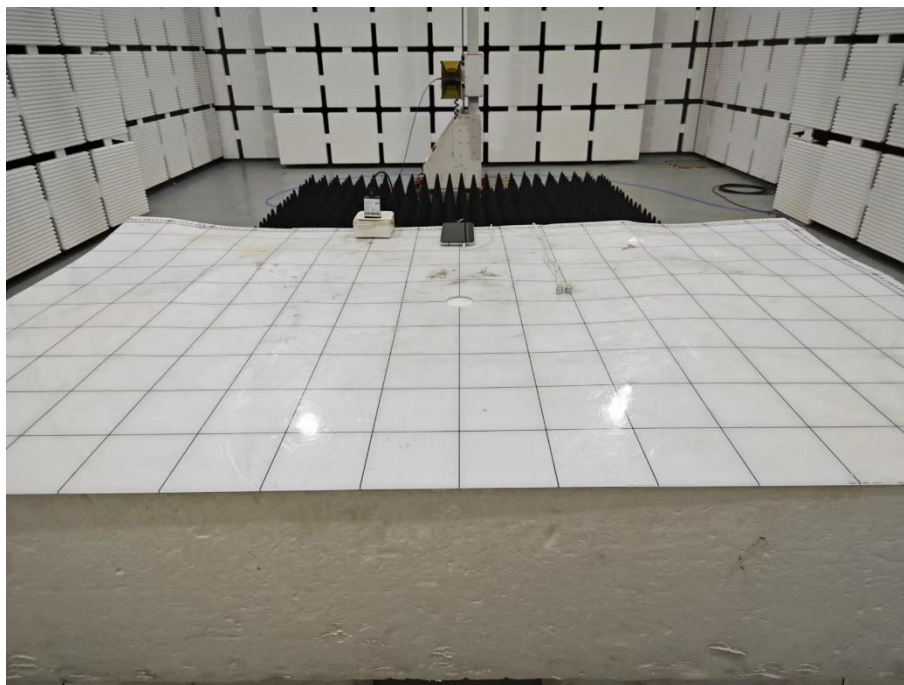


### Set-up for Radiated Emission (RE), Below 1GHz





### Set-up for Radiated Emission (RE), Above 1GHz



※※※※※ END OF THE REPORT ※※※※※