

# FCC Test Report FCC ID: 2AQRM-A63

**Product:** Smart phone

Trade Mark: FOXXD

Model No.: A63

Family Model: N/A

**Report No.:** S23120604202007

**Issue Date:** Jan 19, 2024

# **Prepared for**

Foxx Development Inc.
3480 Preston Ridge Road, Suite500, Alpharetta, GA 30005, USA

# Prepared by

Shenzhen NTEK Testing Technology Co., Ltd.

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Version.1.2 Page 1 of 19





#### **TEST RESULT CERTIFICATION**

Applicant's name...... Foxx Development Inc.

Manufacturer's Name.....: Foxx Development Inc.

Address .....: 3480 Preston Ridge Road, Suite500, Alpharetta, GA 30005, USA

**Product description** 

Product name.....: Smart phone

Trade Mark.....: FOXXD

Model name .....: A63

Family Model.....: N/A

Test Sample Number .....: S231206042003

Standards :: FCC Part15B 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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Test Result ....:

Prepared .

(Project Engineer)

Reviewed By: Aaron Cheng

(Supervisor)

Approved . By :

(Manager)

Version.1.2 Page 2 of 19

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	11
3.1 CONDUCTED EMISSION MEASUREMENT	11
3.1.1 POWER LINE CONDUCTED EMISSION	11
3.1.2 TEST PROCEDURE	12
3.1.3 TEST SETUP	12
3.1.4 EUT OPERATING CONDITIONS	12
3.1.5 TEST RESULTS	13
3.2 RADIATED EMISSION MEASUREMENT	15
3.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT	15
3.2.2 TEST PROCEDURE	15
3.2.3 TEST SETUP	16
3.2.4 TEST RESULTS	17
3.2.5 TEST RESULTS(1000~18000MHz)	19

Version.1.2 Page 3 of 19

# 1. TEST SUMMARY

Test procedures according to the technical standards:

EMC Emission							
Standard Test Item Limit Judgment Re							
FCC Part15B	Conducted Emission	Class B	PASS				
ANSI C63.4: 2014	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.

Version.1.2 Page 4 of 19

## 1.1 TEST FACILITY

Shenzhen NTEK Testing Technology Co., Ltd

Add.: 1/F, Building E, Fenda Science Park, Sanwei Community, Xixiang Street, Bao'an District,

Shenzhen 518126 P.R. China.

IC-Registration The Certificate Registration Number is 9270A.

CAB identifier:CN0074

FCC- Accredited Test Firm Registration Number: 463705.

Designation Number: CN1184

#### 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	±2.80dB	

#### B. Radiated Measurement:

Test Site	Method	Measurement Frequency Range	U, (dB)	NOTE
NTEKA01	ANSI	30MHz~1000MHz	±2.64dB	
		1GHz~6GHz	±2.40dB	
		6GHz~26.5GHz	±2.52dB	

Version.1.2 Page 5 of 19



# 2. GENERAL INFORMATION

# 2.1 GENERAL DESCRIPTION OF EUT

Equipment	Smart phone			
Trade Mark	FOXXD			
Model Name	A63			
Family Model	N/A			
Model Difference	N/A			
Product Description  Adapter	Connecting I/O port: Micro USB, Earphone  Operation Frequency: 5.8GHz  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.  Model: ZFX-11U-0510-05-B Input: 100-240V~50/60Hz 0.2A Output: 5.0V—1000mA			
Battery	DC 3.8V, 3000mAh, 11.4Wh			
Power supply	DC 3.8V from battery or DC 5V from adapter			
HW Version	H327_MB_V1			
SW Version	Android_F0XXD_A63			

Version.1.2 Page 6 of 19



# 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.

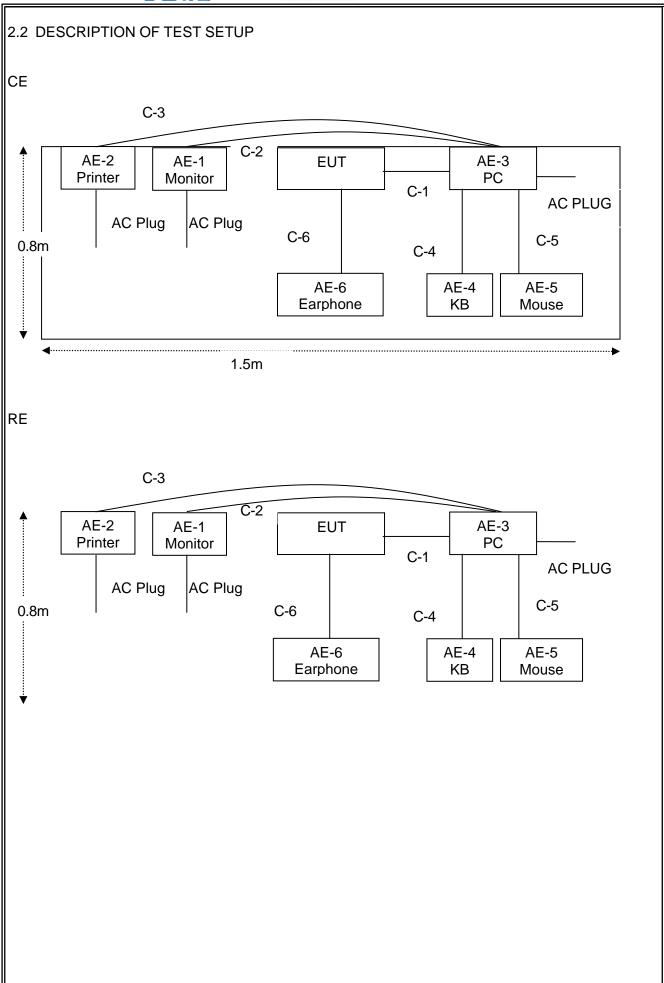
Pretest Mode	Description
Model 1	USB Data Transmission
Model 2	Charging +TF card Playing
Model 3	Charging +REC
Model 4	Charging +FM
Model 5	GPS

For Conducted Test					
Final Test Mode Description					
Model 1	USB Data Transmission				
Model 2	Charging +TF card Playing				
Model 3	Charging +REC				
Model 4	Charging +FM				
Model 5	GPS				

For Radiated Test					
Final Test Mode Description					
Model 1	USB Data Transmission				
Model 2	Charging +TF card Playing				
Model 3	Charging +REC				
Model 4	Charging +FM				
Model 5	GPS				

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

Version.1.2 Page 7 of 19



Version.1.2 Page 8 of 19



#### 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	Model/Type No.	Series No.	Note
AE-1	Monitor	N/A	N/A	Peripherals
AE-2	Printer	N/A	N/A	Peripherals
AE-3	PC	N/A	N/A	Peripherals
AE-4	KB	N/A	N/A	Peripherals
AE-5	Mouse	N/A	N/A	Peripherals
AE-6	Earphone	N/A	N/A	Peripherals

Item	Cable Type	Shielded Type	Ferrite Core	Length	Note
C-1	USB Cable	YES	NO	1.0m	
C-2	HDMI Cable	YES	NO	1.0m	
C-3	Power Cable	YES	NO	1.5m	
C-4	KB Cable	NO	NO	1.0m	
C-5	Mouse Cable	NO	NO	1.0m	
C-6	Earphone Cable	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".

Version.1.2 Page 9 of 19

# 2.4 MEASUREMENT INSTRUMENTS LIST

Radiation Test equipment

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until	Calibratio n period
1	Spectrum Analyzer	Aglient	E4440A	MY4100013 0	2023.03.27	2024.03.26	1 year
2	Test Receiver	R&S	ESPI	101318	2023.03.27	2024.03.26	1 year
3	Bilog Antenna	TESEQ	CBL6111D	31216	2023.03.16	2024.03.15	1 year
4	50Ω Coaxial Switch	Anritsu	MP59B	620026441 6	2023.05.06	2026.05.05	3 year
5	Spectrum Analyzer	ADVANTEST	R3132	150900201	2023.03.27	2024.03.26	1 year
6	Horn Antenna	SCHWARZB ECK	BBHA 9120 D	2816	2023.01.12	2026.01.11	3 year
7	Horn Ant	Schwarzbeck	BBHA 9170	9170-181	2022.11.07	2025.11.06	3 year
8	Amplifier	EMC	EMC05183 5SE	980246	2023.05.29	2024.05.28	1 year
9	Loop Antenna	ARA	PLA-1030/B	1029	2023.05.29	2024.05.28	1 year
10	Power Meter	DARE	RPR3006W	15I00041S NO84	2023.05.29	2024.05.28	1 year
11	Power Sensor	R&S	URV4-Z4	0395.1619. 05	2023.05.29	2024.05.28	1 year
12	Test Cable (30MHz-1GH z)	N/A	R-02	N/A	2022.06.17	2025.06.16	3 year
13	High Test Cable(1G-40 GHz)	N/A	R-03	N/A	2022.06.17	2025.06.16	3 year
14	High Test Cable(1G-40 GHz)	N/A	R-04	N/A	2022.06.17	2025.06.16	3 year
15	Test Receiver	R&S	ESCI	101160	2023.03.27	2024.03.26	1 year

AC Conduction Test equipment

Item	Kind of	Manufactu	Type No.	Serial No.	Last	Calibrated	Calibratio
	Equipment	rer			calibration	until	n period
1	Test Receiver	R&S	ESCI	101160	2023.03.27	2024.03.26	1 year
2	LISN	R&S	ENV216	101313	2023.03.27	2024.03.26	1 year
3	LISN	SCHWAR ZBECK	NNLK 8129	8129245	2023.03.27	2024.03.26	1 year
4	50Ω Coaxial Switch	ANRITSU CORP	MP59B	620098370 4	2023.05.06	2026.05.05	3 year
5	Test Cable (9KHz-30MHz)	N/A	C01	N/A	2023.05.06	2026.05.05	3 year
6	Test Cable (9KHz-30MHz)	N/A	C02	N/A	2023.05.06	2026.05.05	3 year
7	Test Cable (9KHz-30MHz)	N/A	C03	N/A	2023.05.06	2026.05.05	3 year

Note: Each piece of equipment is scheduled for calibration once a year except the Test Cable which is scheduled for calibration every 3 years.

Version.1.2 Page 10 of 19



# 3. EMC EMISSION TEST

## 3.1 CONDUCTED EMISSION MEASUREMENT

# 3.1.1 POWER LINE CONDUCTED EMISSION (Frequency Range 150KHz-30MHz)

EDEOLIENCY (MH-)	Class A	(dBuV)	Class B (dBuV)		
FREQUENCY (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

The following table is the setting of the receiver	ie feliewing 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				

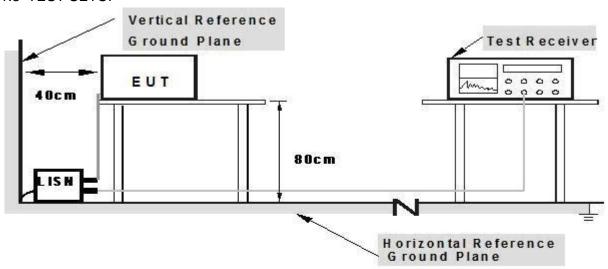
Version.1.2 Page 11 of 19



#### 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.
- 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 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.

Version.1.2 Page 12 of 19



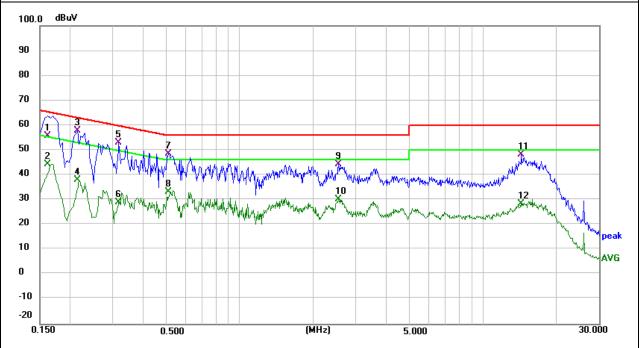
# 3.1.5 TEST RESULTS

EUT:	Smart phone	Model Name.:	A63		
Temperature:	<b>24.5</b> ℃	Relative Humidity:	52%		
Pressure:	1010hPa	Test Date:	2023/12/12		
Test Mode:	Mode 1	Phase :	L		
Test Voltage:	DC 5V powered by Adapter AC 120V/60Hz				

Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Margin	Remark
(MHz)	(dBµV)	(dB)	(dBµV)	(dBµV)	(dB)	Remark
0.1620	45.85	9.95	55.80	65.36	-9.56	QP
0.1620	34.33	9.95	44.28	55.36	-11.08	AVG
0.2140	47.71	10.06	57.77	63.05	-5.28	QP
0.2140	27.96	10.06	38.02	53.05	-15.03	AVG
0.3180	42.80	10.28	53.08	59.76	-6.68	QP
0.3180	18.90	10.28	29.18	49.76	-20.58	AVG
0.5100	38.02	10.67	48.69	56.00	-7.31	QP
0.5100	22.62	10.67	33.29	46.00	-12.71	AVG
2.5500	34.61	9.67	44.28	56.00	-11.72	QP
2.5500	20.60	9.67	30.27	46.00	-15.73	AVG
14.3260	38.67	9.70	48.37	60.00	-11.63	QP
14.3260	18.72	9.70	28.42	50.00	-21.58	AVG

#### Remark:

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



Version.1.2 Page 13 of 19

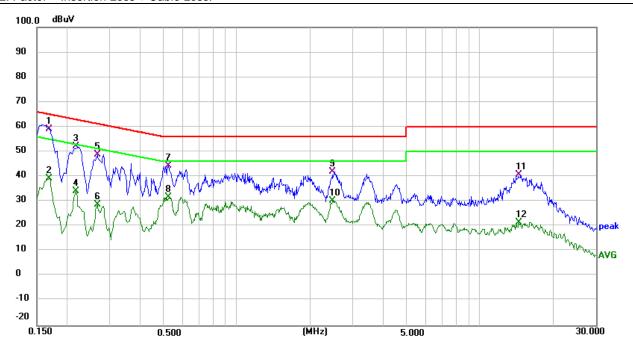


			_	
EUT:	Smart phone	Model Name. :	A63	
Temperature:	<b>24.5</b> ℃	Relative Humidity:	52%	
Pressure:	1010hPa	Test Date:	2023/12/12	
Test Mode:	Mode 1	Phase :	N	
Test Voltage:	DC 5V powered by Adapter AC 120V/60Hz			

Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Margin	Remark
(MHz)	(dBµV)	(dB)	(dBµV)	(dBµV)	(dB)	Remark
0.1685	49.13	9.97	59.10	65.03	-5.93	QP
0.1685	29.29	9.97	39.26	55.03	-15.77	AVG
0.2180	41.97	10.08	52.05	62.89	-10.84	QP
0.2180	24.07	10.08	34.15	52.89	-18.74	AVG
0.2660	38.60	10.18	48.78	61.24	-12.46	QP
0.2660	18.68	10.18	28.86	51.24	-22.38	AVG
0.5220	33.72	10.69	44.41	56.00	-11.59	QP
0.5220	20.94	10.69	31.63	46.00	-14.37	AVG
2.4780	32.30	9.66	41.96	56.00	-14.04	QP
2.4780	20.71	9.66	30.37	46.00	-15.63	AVG
14.4660	31.20	9.70	40.90	60.00	-19.10	QP
14.4660	11.85	9.70	21.55	50.00	-28.45	AVG

#### Remark:

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



Version.1.2 Page 14 of 19



#### 3.2 RADIATED EMISSION MEASUREMENT

#### 3.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT

EDECLIENCY (MU-)	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

Version.1.2 Page 15 of 19

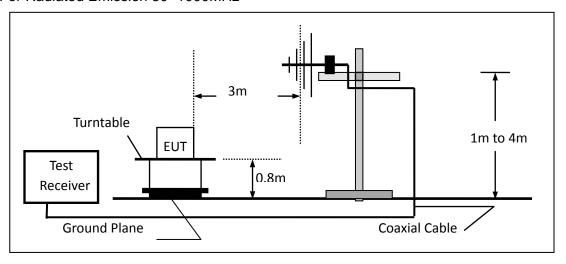


During the radiated emission test, according to ANSI C63.4-2014(4.2), the Spectrum Analyzer was set with the following configurations:

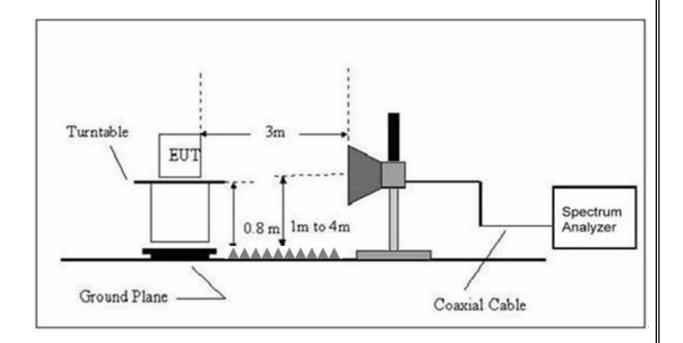
Frequency Band (MHz)	Function	Resolution bandwidth	Video Bandwidth
30 to 1000	QP	120 kHz	300 kHz
	Peak	1 MHz	3 MHz
Above 1000	Avg	1 MHz	10 Hz

#### 3.2.3 TEST SETUP

For Radiated Emission 30~1000MHz



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



Version.1.2 Page 16 of 19



# 3.2.4 TEST RESULTS

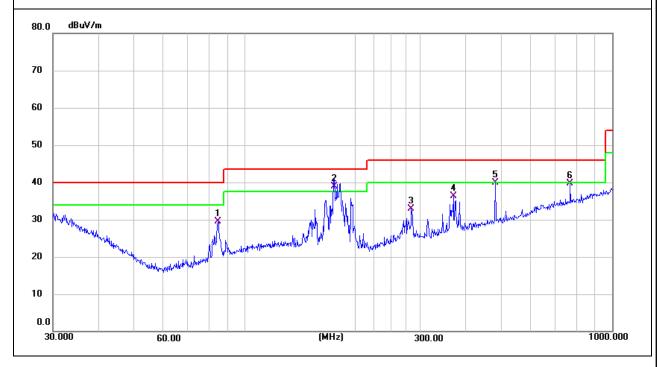
## TEST RESULTS (30~1000 MHz)

	(00 :000 :::::=)		
EUT:	Smart phone	Model Name:	A63
Temperature:	24.5 ℃	Relative Humidity:	55%
Pressure:	1010 hPa	Test Date :	2023/12/12
Test Mode:	Mode 1	Polarization:	Horizontal
Test Power:	DC 5V powered by Adapter AC 1	120V/60Hz	

Polar	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Remark
(H/V)	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	rterria it
Н	84.7019	13.60	15.93	29.53	40.00	-10.47	QP
Н	175.1568	21.90	17.05	38.95	43.50	-4.55	QP
Н	283.9791	13.01	19.88	32.89	46.00	-13.11	QP
Н	369.4047	13.91	22.46	36.37	46.00	-9.63	QP
Н	480.5276	15.37	24.54	39.91	46.00	-6.09	QP
Н	768.7481	10.68	28.97	39.65	46.00	-6.35	QP

#### Remark:

Factor = Antenna Factor + Cable Loss - Amplifier.



Version.1.2 Page 17 of 19

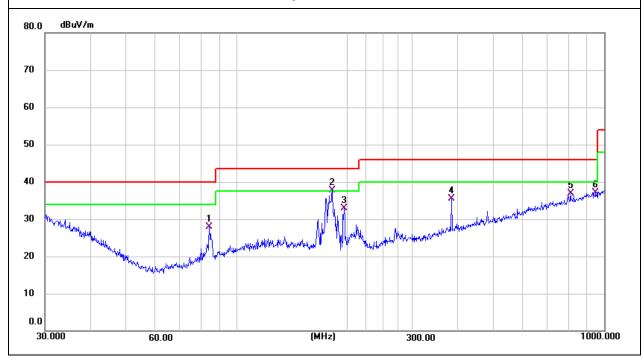


EUT:	Smart phone	Model Name :	A63	
Temperature:	<b>24.5</b> ℃	Relative Humidity:	55%	
Pressure:	1010 hPa	Test Date :	2023/12/12	
Test Mode:	Mode 1	Polarization:	Vertical	
Test Power:	DC 5V powered by Adapter AC 120V/60Hz			

Polar	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Remark
(H/V)	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
V	84.1100	12.03	15.85	27.88	40.00	-12.12	QP
V	181.9202	21.02	16.66	37.68	43.50	-5.82	QP
V	195.8220	16.62	16.21	32.83	43.50	-10.67	QP
V	383.9318	12.81	22.78	35.59	46.00	-10.41	QP
V	810.2654	7.36	29.52	36.88	46.00	-9.12	QP
V	948.7610	5.97	31.16	37.13	46.00	-8.87	QP

# Remark:

Factor = Antenna Factor + Cable Loss - Amplifier.



Version.1.2 Page 18 of 19

# 3.2.5 TEST RESULTS(1000~18000MHz)

EUT:	Smart phone	Model Name :	A63			
Temperature:	<b>24.5</b> ℃	Relative Humidity:	55%			
Pressure:	1010 hPa	Test Date :	2023/12/12			
Test Mode:	Mode 1					
Test Power:	DC 5V powered by Adapter AC 120V/60Hz					

All the modulation modes have been tested, and the worst result was report as below:

Polar (H/V)	Frequency	Reading	Correct	Result	Limit	Over Limit	Remark	
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	reman	
V	14328.000	52.95	3.25	56.20	74.00	-17.80	peak	
V	14328.000	35.33	3.25	38.58	54.00	-15.42	AVG	
V	16504.000	52.91	5.08	57.99	74.00	-16.01	peak	
V	16504.000	36.44	5.08	41.52	54.00	-12.48	AVG	
V	17541.000	54.42	6.26	60.68	74.00	-13.32	peak	
V	17541.000	37.28	6.26	43.54	54.00	-10.46	AVG	
Н	11387.000	51.90	2.14	54.04	74.00	-19.96	peak	
Н	11387.000	36.30	2.14	38.44	54.00	-15.56	AVG	
Н	14311.000	52.89	3.16	56.05	74.00	-17.95	peak	
Н	14311.000	38.25	3.16	41.41	54.00	-12.59	AVG	
Н	17541.000	53.85	6.26	60.11	74.00	-13.89	peak	
Н	17541.000	37.62	6.26	43.88	54.00	-10.12	AVG	

#### Remark:

Result = Reading + Correct, Over Limit= Result - Limit

Note: Only the worst results data points are reported in the report.

Other emissions are attenuated 20dB below the limit that does not recorded in the report.

**END OF REPORT** 

Version.1.2 Page 19 of 19