

FCC TEST REPORT for

Shenzhen Huafurui Technology Co., Ltd

Product : Smartphone
Model No. : KINGKONG 7

Prepared for : Shenzhen Huafurui Technology Co., Ltd
Address : Unit 1401 & 1402, 14/F, Jinqi Zhigu Mansion (No.4 Building of Chongwen Garden), Crossing of the Liuxian Street and Tangling Road, Taoyuan Street, Nanshan District, Shenzhen, P.R. China

Test laboratory : Shenzhen Accurate Technology Co., Ltd.
Address : 1/F., Building A, Changyuan New Material Port, Science & Industry Park, Nanshan District, Shenzhen, Guangdong, P.R. China

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Report No. : SZ1210507-15650E-EM
Date of Test : May 25, 2021 to Jun. 09, 2021
Date of Report : Jun. 17, 2021

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Test Report Declaration

Applicant : Shenzhen Huafurui Technology Co., Ltd
Manufacturer : Shenzhen Huafurui Technology Co., Ltd
Product : Smartphone
Model No. : KINGKONG 7
Trade Mark : CUBOT

Measurement Procedure Used:

FCC Rules and Regulations Part 15 Subpart B Class B ANSI C63.4: 2014

The device described above is tested by Shenzhen Accurate Technology Co., Ltd. to determine the maximum emission levels emanating from the device. The maximum emission levels are compared to the FCC Part 15 Subpart B Class B limits both radiated and conducted emissions. The measurement results are contained in this test report and Shenzhen Accurate Technology Co., Ltd. is assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the Equipment Under Test (EUT) is to be technically compliant with the FCC requirements.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of Shenzhen Accurate Technology Co., Ltd.

Date of Test : May 25, 2021 to Jun. 09, 2021
Date of Report: Jun. 17, 2021

Prepared by :



(Amy Cao, Engineer)

Approved & Authorized Signer :



(Candy Li, Engineer)

1. TEST RESULTS SUMMARY

Test Items	Test Standard	Test Results
Conducted Emission (150KHz-30MHz)	FCC Part 15 Subpart B	Pass
Radiated Emission (30-1000MHz)	FCC Part 15 Subpart B	Pass
Radiated Emission (1GHz- 26.5GHz)	FCC Part 15 Subpart B	Pass

2. GENERAL INFORMATION

2.1. Description of Device (EUT)

Product : Smartphone

Trademark : CUBOT
Model No. : KINGKONG 7

Adapter : Model: HJ-0502000W2-US
Input: AC 100-240V, 50/60Hz, 0.3A
Output: DC 5V, 2.0A

Remark(s) : The EUT highest operating frequency is 5250 MHz,
the radiated emission measurement shall be made up
to 26.5GHz

Applicant : Shenzhen Huafurui Technology Co., Ltd
Address : Unit 1401 & 1402, 14/F, Jinqi Zhigu Mansion (No.4
Building of Chongwen Garden), Crossing of the
Liuxian Street and Tangling Road, Taoyuan Street,
Nanshan District, Shenzhen, P.R. China

Manufacturer : Shenzhen Huafurui Technology Co., Ltd
Address : Unit 1401 & 1402, 14/F, Jinqi Zhigu Mansion (No.4
Building of Chongwen Garden), Crossing of the
Liuxian Street and Tangling Road, Taoyuan Street,
Nanshan District, Shenzhen, P.R. China

Date of sample received : May. 07, 2021
Date of Test : May 25, 2021 to Jun. 09, 2021

Sample Number : SZ1210507-15650E-EM-S1

2.2. Test mode

Mode 1: Charging & Playing
Mode 2: Downloading
Mode 3: FM receiving

2.3. Accessory and Auxiliary Equipment

PC : Manufacturer: DELL
Model: E5570

2.4. Description of Test Facility

EMC Lab : Listed by Innovation, Science and Economic Development
Canada (ISED)
The Registration Number is 5077A-2

Accredited by China National Accreditation Service for
Conformity Assessment (CNAS)
The Registration Number is CNAS L3193

Accredited by American Association for Laboratory
Accreditation (A2LA)
The Certificate Number is 4297.01

Name of Firm : Shenzhen Accurate Technology Co., Ltd.

Site Location : 1/F., Building A, Changyuan New Material Port, Science &
Industry Park, Nanshan District, Shenzhen, Guangdong,
P.R. China

2.5. Measurement Uncertainty

Radiated emission expanded uncertainty : $U=4.28dB, k=2$
(30MHz-1000MHz)

Radiated emission expanded uncertainty : $U=4.98dB, k=2$
(1GHz-18GHz)

Radiated emission expanded uncertainty : $U=5.06dB, k=2$
(18GHz-26.5GHz)

Conduction Emission Expanded Uncertainty : $U=2.72dB, k=2$
(150kHz-30MHz)

3. MEASURING DEVICE AND TEST EQUIPMENT

3.1.For Conducted Emission Test

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Test Receiver	Rohde & Schwarz	ESPI3	100396	Dec. 24, 2020	1 Year
2.	L.I.S.N.	R & S	ENV216	101314	Dec. 25, 2020	1 Year
3.	50Ω Coaxial Switch	Anritsu Corp	MP59B	6200506474	Dec. 25, 2020	1 Year
4.	Conducted Emission Test Software: ES-K1 V1.71					

3.2.For Radiated Emission Measurement (Below 1GHz)

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Test Receiver	Rohde& Schwarz	ESR	101817	Dec. 24, 2020	1 Year
2.	Amplifier	SONOMA INSTRUMENT	310 N	186131	Dec. 25, 2020	1 Year
3.	50 Coaxial Switch	Anritsu Corp	MP59B	6100237248	Dec. 25, 2020	1 Year
4.	Bilog Antenna	Schwarzbeck	VULB9163	9163-323	Jan.05, 2020	3 Year
5.	Radiated Emission Test Software: EZ EMC V					

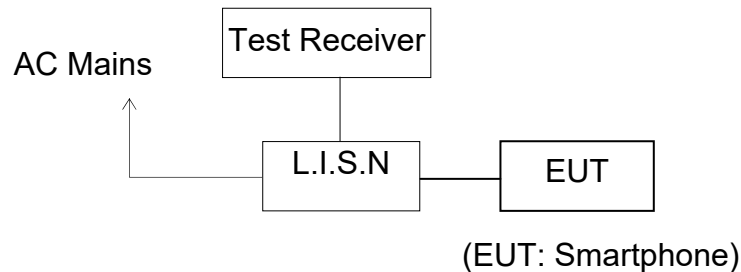
3.3.For Radiated Emission Measurement (Above 1GHz)

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Horn Antenna	Schwarzbeck	BBHA9120 D	9120D-1067	Jan. 05, 2020	3 Year
2.	Preamplifier	A.H. Systems, inc.	PAM-0118 P	531	July 08, 2020	1 Year
3.	Spectrum Analyzer	Rohde&Schwarz	FSV40	101495	Dec. 24, 2020	1 Year
4.	Amplifier	Quinstar	QLW-1840 5536-J0	15964001002	Nov. 28, 2020	1 Year
5.	HORN ANTENNA	Schwarzbeck	BBHA9170	9170-359	Jan. 05, 2020	3 Year
6.	Radiated Emission Test Software: EZ EMC V					

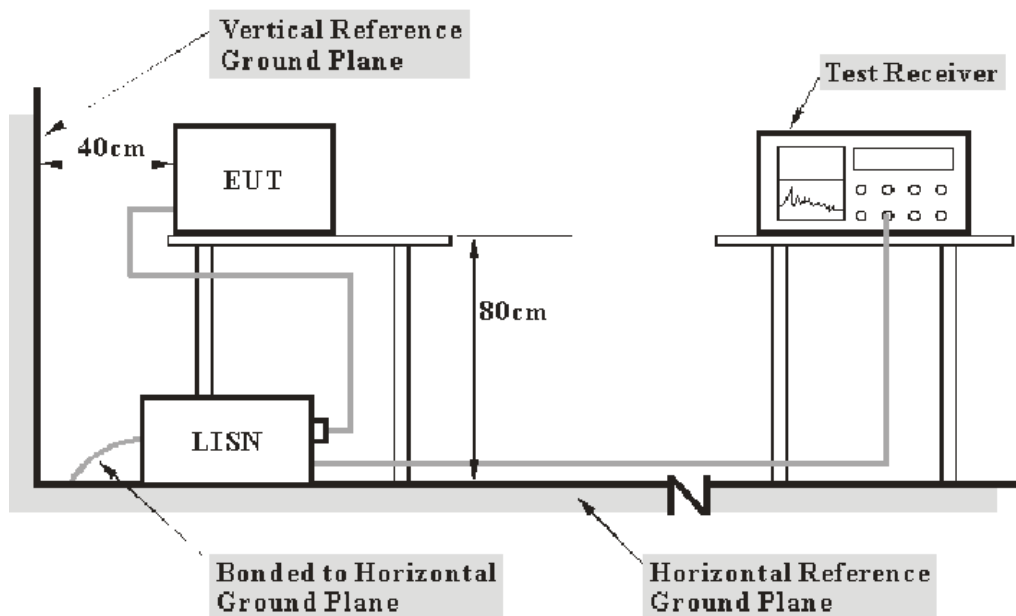
4. CONDUCTED EMISSION MEASUREMENT

4.1. Block Diagram of Test Setup

4.1.1. Block diagram of connection between the EUT and simulators



4.1.2. Test System Setup



Note: 1. Support units were connected to second LISN.
 2. Both of LISNs (AMN) 80 cm from EUT and at the least 80 cm from other units and other metal planes support units.

4.2. Power Line Conducted Emission Measurement Limits (Class B)

Frequency (MHz)	Limit dB(μV)	
	Quasi-peak Level	Average Level
0.15 - 0.50	66.0 – 56.0 *	56.0 – 46.0 *
0.50 - 5.00	56.0	46.0
5.00 - 30.00	60.0	50.0

NOTE1: The lower limit shall apply at the transition frequencies.

NOTE2: The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.50MHz.

4.3. Test mode description

See section 2.2

4.4. Manufacturer

The following equipments are installed on Power Line Conducted Emission Measurement to meet the commission requirement and operating regulations in a manner, which tends to maximize its emission characteristics in a normal application.

4.4.1. Smartphone (EUT)

Model Number : KINGKONG 7

Manufacturer : Shenzhen Huafurui Technology Co., Ltd

4.5. Operating Condition of EUT

4.5.1. Setup the EUT and simulator as shown as Section 4.1.

4.5.2. Turn on the power of all equipments.

4.5.3. Let the EUT work in test mode and measure it.

4.6. Test Procedure

The EUT is put on the plane 0.8m high above the ground by insulating support and is connected to the power mains through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm coupling impedance for the EUT system. Please refer the block diagram of the test setup and photographs. Both sides of AC lines are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to ANSI C63.4: 2014 on Conducted Emission Measurement.

The bandwidth of test receiver is set at 9kHz.

The frequency range from 150kHz to 30MHz is checked.

Margin = Limit (dB μ V) - Level (dB μ V)

4.7. Power Line Conducted Emission Measurement Results

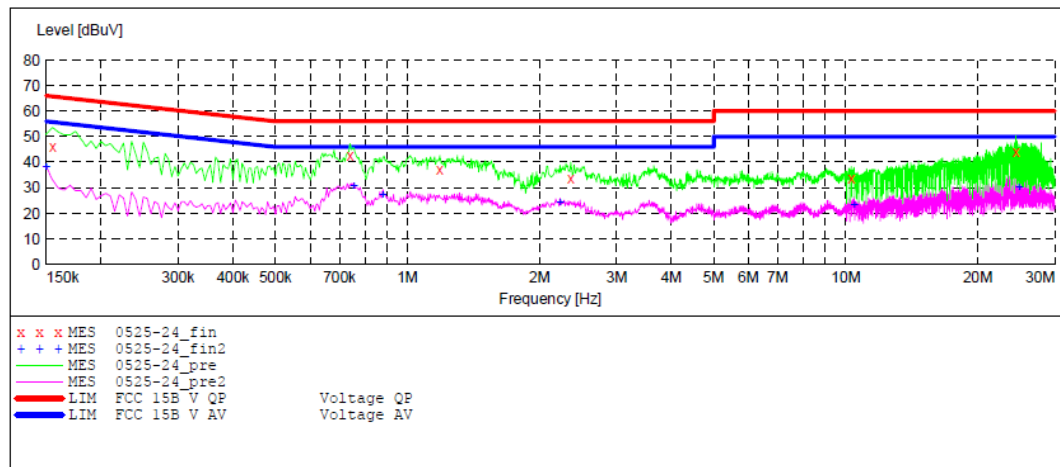
PASS.

The frequency range from 150kHz to 30MHz is checked.

All data was recorded in the Quasi-peak and average detection mode.

The spectral diagrams are attached as below.

Port: L
 Test Mode: Charging & Playing
 Power Source: AC 120V/60Hz



MEASUREMENT RESULT: "0525-24_fin"

2021-5-25 10:08

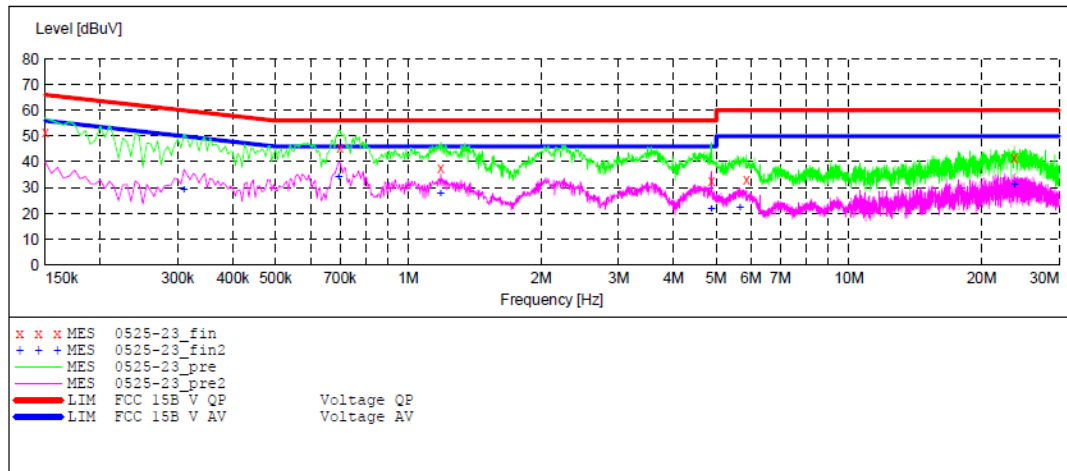
Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.155000	46.30	10.8	66	19.7	QP	L1	GND
0.740000	42.50	11.1	56	13.5	QP	L1	GND
1.185000	37.00	11.2	56	19.0	QP	L1	GND
2.360000	33.80	11.3	56	22.2	QP	L1	GND
10.300000	33.70	11.6	60	26.3	QP	L1	GND
24.450000	44.00	11.7	60	16.0	QP	L1	GND

MEASUREMENT RESULT: "0525-24_fin2"

2021-5-25 10:08

Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.150000	38.30	10.8	56	17.7	AV	L1	GND
0.755000	30.90	11.1	46	15.1	AV	L1	GND
0.880000	27.30	11.1	46	18.7	AV	L1	GND
2.230000	24.50	11.3	46	21.5	AV	L1	GND
10.450000	23.00	11.6	50	27.0	AV	L1	GND
24.900000	30.10	11.7	50	19.9	AV	L1	GND

Port: N
Test Mode: Charging & Playing
Power Source: AC 120V/60Hz



MEASUREMENT RESULT: "0525-23_fin"

2021-5-25 10:06

Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.150000	51.40	10.8	66	14.6	QP	N	GND
0.700000	45.50	11.1	56	10.5	QP	N	GND
1.185000	37.50	11.2	56	18.5	QP	N	GND
4.880000	32.80	11.4	56	23.2	QP	N	GND
5.860000	33.20	11.5	60	26.8	QP	N	GND
23.750000	41.90	11.7	60	18.1	QP	N	GND

MEASUREMENT RESULT: "0525-23_fin2"

2021-5-25 10:06

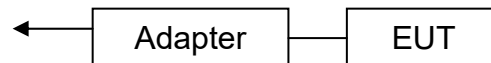
Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.310000	29.50	10.9	50	20.5	AV	N	GND
0.695000	34.40	11.1	46	11.6	AV	N	GND
1.185000	28.00	11.2	46	18.0	AV	N	GND
4.880000	21.70	11.4	46	24.3	AV	N	GND
5.660000	22.30	11.5	50	27.7	AV	N	GND
23.750000	31.30	11.7	50	18.7	AV	N	GND

5. RADIATED EMISSION MEASUREMENT

5.1. Block Diagram of Test Setup

5.1.1. Block diagram of connection between the EUT and simulators

Charging & Playing:
AC Mains

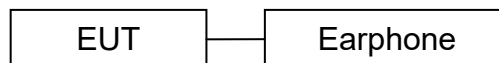


(EUT: Smartphone)

Downloading:



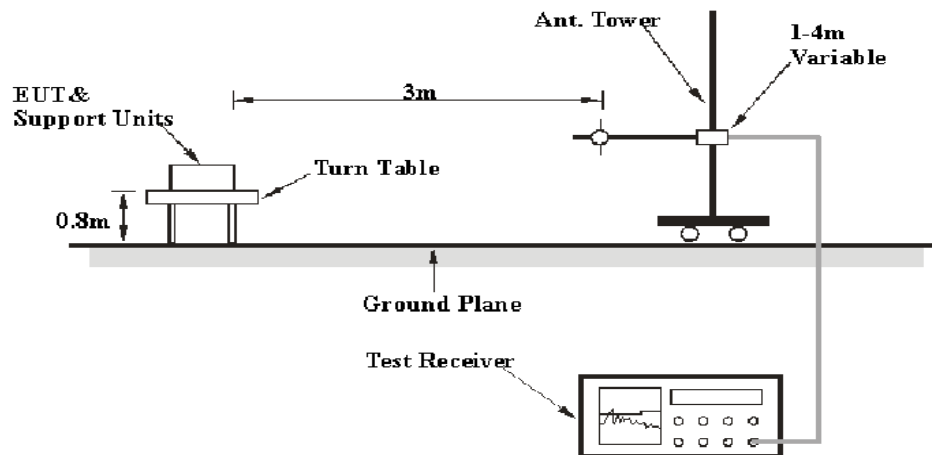
Downloading:



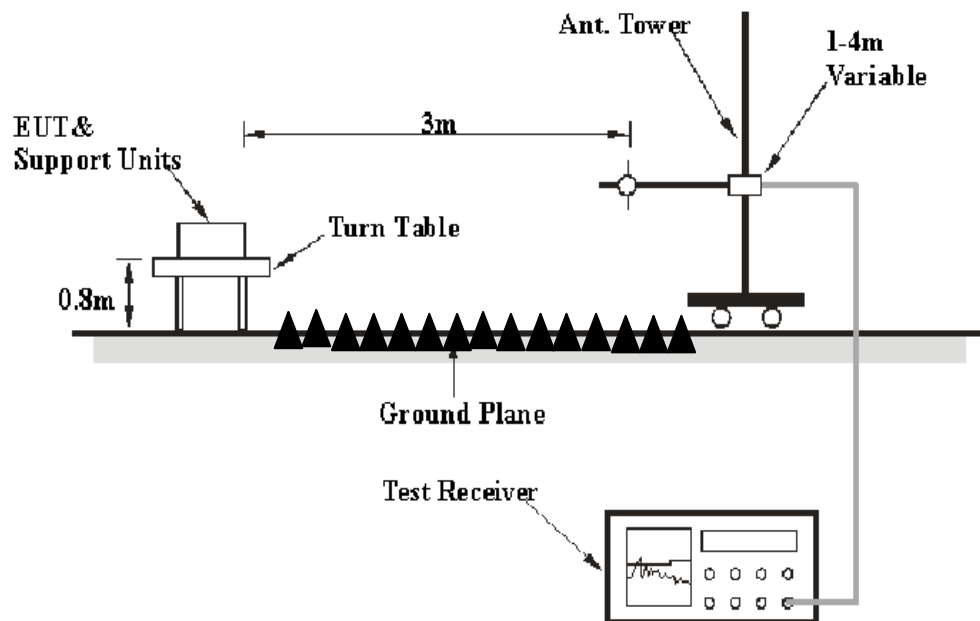
(EUT: Smartphone)

5.1.2. Test System Setup

Below 1GHz:



Above 1GHz:



5.2. Radiated Emission Limit (Class B)

All emanations from a class B device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified below:

Frequency MHz	Distance Meters	Field Strengths Limit	
		$\mu\text{V/m}$	$\text{dB}(\mu\text{V/m})$
30-88	3	100	40.0
88-216	3	150	43.5
216-960	3	200	46.0
Above 960	3	500	54.0
Remark: (1) Emission level $\text{dB}(\mu\text{V}) = 20 \log$ Emission level $\mu\text{V/m}$. (2) The smaller limit shall apply at the cross point between two frequency bands. (3) Distance is the distance in meters between the measuring instrument antenna and the closest point of any part of the device or system.			

5.3. Test Mode Description

See section 2.2

5.4. Manufacturer

The following equipments are installed on Power Line Conducted Emission Measurement to meet the commission requirement and operating regulations in a manner, which tends to maximize its emission characteristics in a normal application.

5.4.1. Smartphone (EUT)

Model Number : KINGKONG 7

Manufacturer : Shenzhen Huafurui Technology Co., Ltd

5.5. Operating Condition of EUT

5.5.1. Setup the EUT and simulator as shown as Section 5.1.

5.5.2. Turn on the power of all equipments.

5.5.3. Let the EUT work in test mode and measure it.

5.6. Test Procedure

The EUT and its simulators are placed on a turntable, which is 0.8 meter high above ground. The turntable can rotate 360 degrees to determine the position of the maximum emission level. EUT is set 3.0 meters away from the receiving antenna, which is mounted on an antenna tower. The antenna can be moved up and down between 1.0 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bilog antenna) is used as receiving antenna. Both horizontal and vertical polarizations of the antenna are set on measurement. In order to find the maximum emission levels, all of the interface cables must be manipulated according to ANSI C63.4: 2014 on radiated emission measurement.

The bandwidth of the Receiver is set at 9kHz in 9kHz-30MHz, 120 kHz in 30-1000MHz, and 1MHz in above 1000MHz.

The frequency range from 30MHz to 18GHz is investigated.

Highest frequency generated or used in the device or on which the device operates or tunes (MHz)	Upper frequency of measurement 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.

$$\text{Margin (dB)} = \text{Result(dB}\mu\text{V/m)} - \text{Limit (dB}\mu\text{V/m)}$$

5.7. Radiated Emission Measurement Result

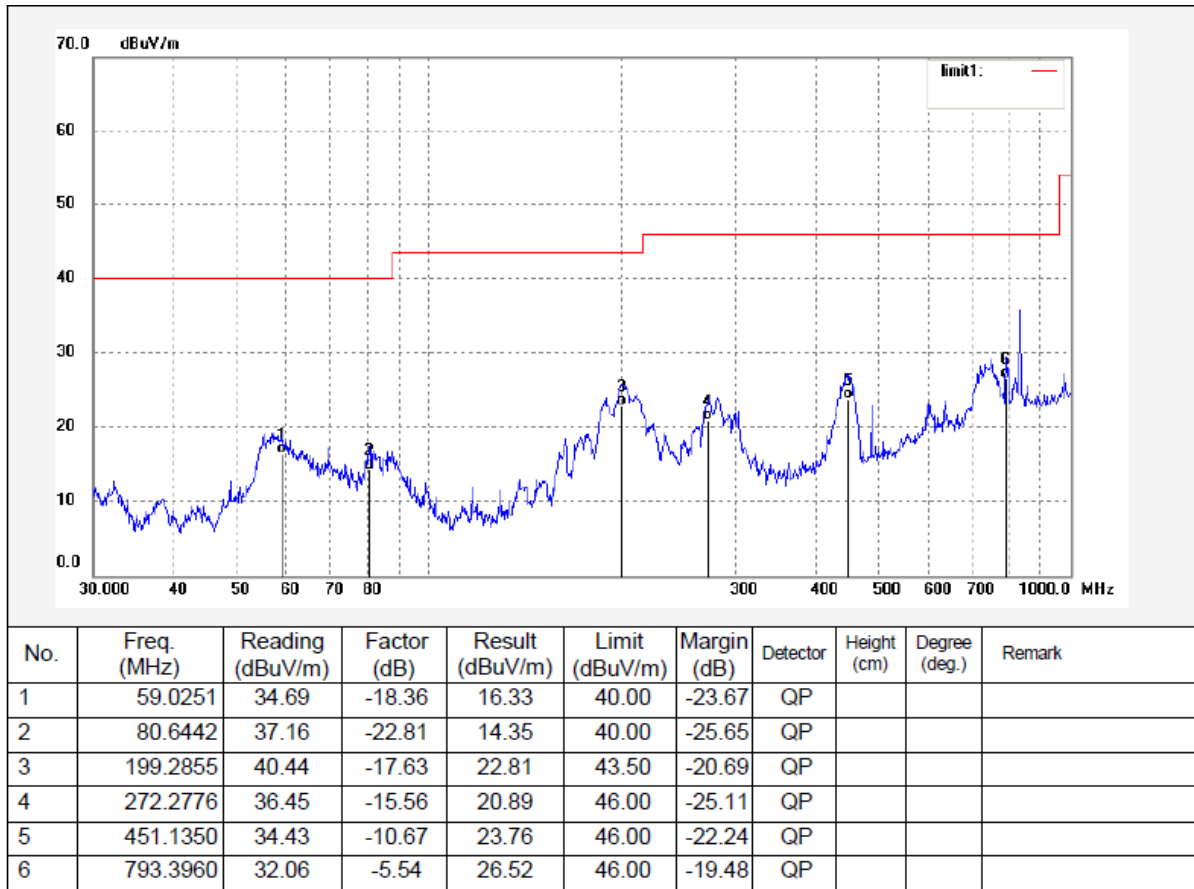
PASS.

The frequency range from 30MHz to 26.5GHz is investigated.

The spectral diagrams are attached as below.

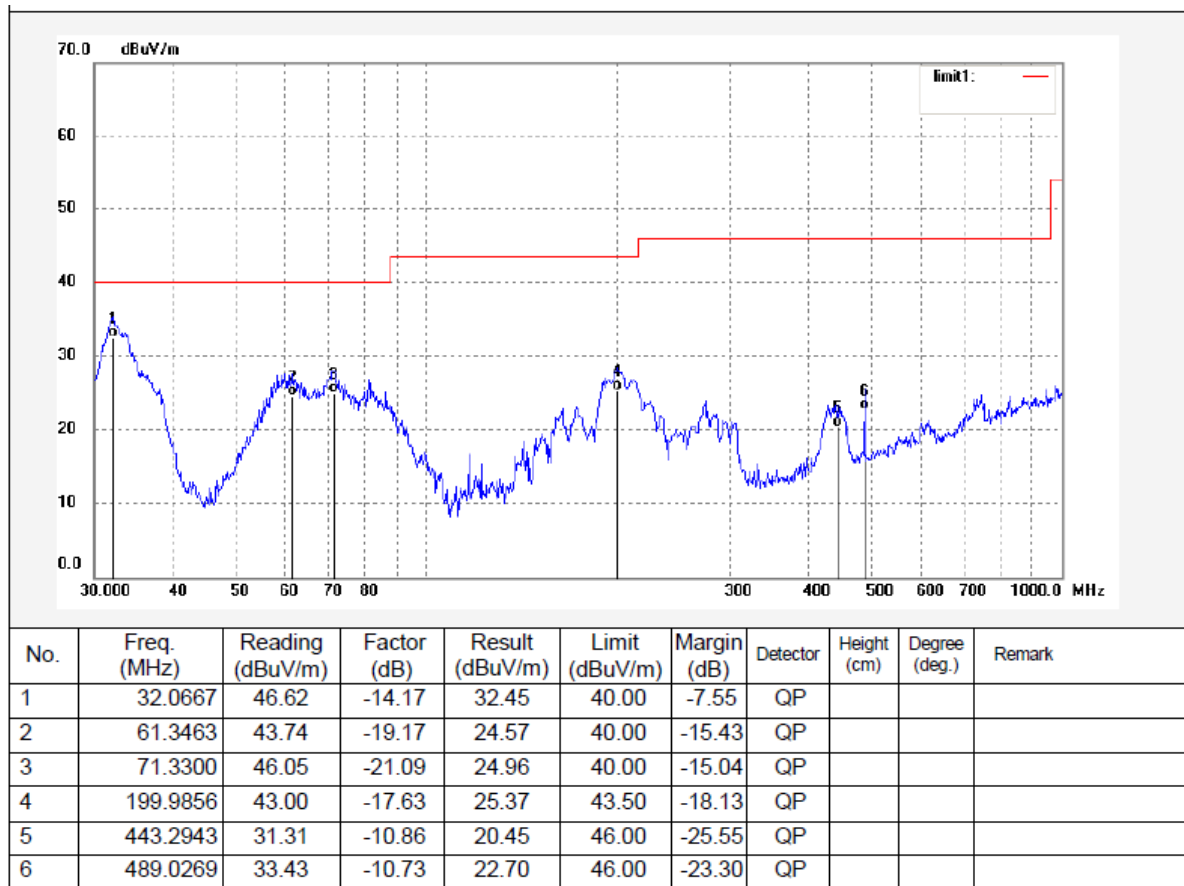
Condition: FCC Part 15B Class B Below 1GHz
 Test Mode: Charging&Playing
 Distance: 3m

Polarization: Horizontal
 Power: AC 120V/60Hz



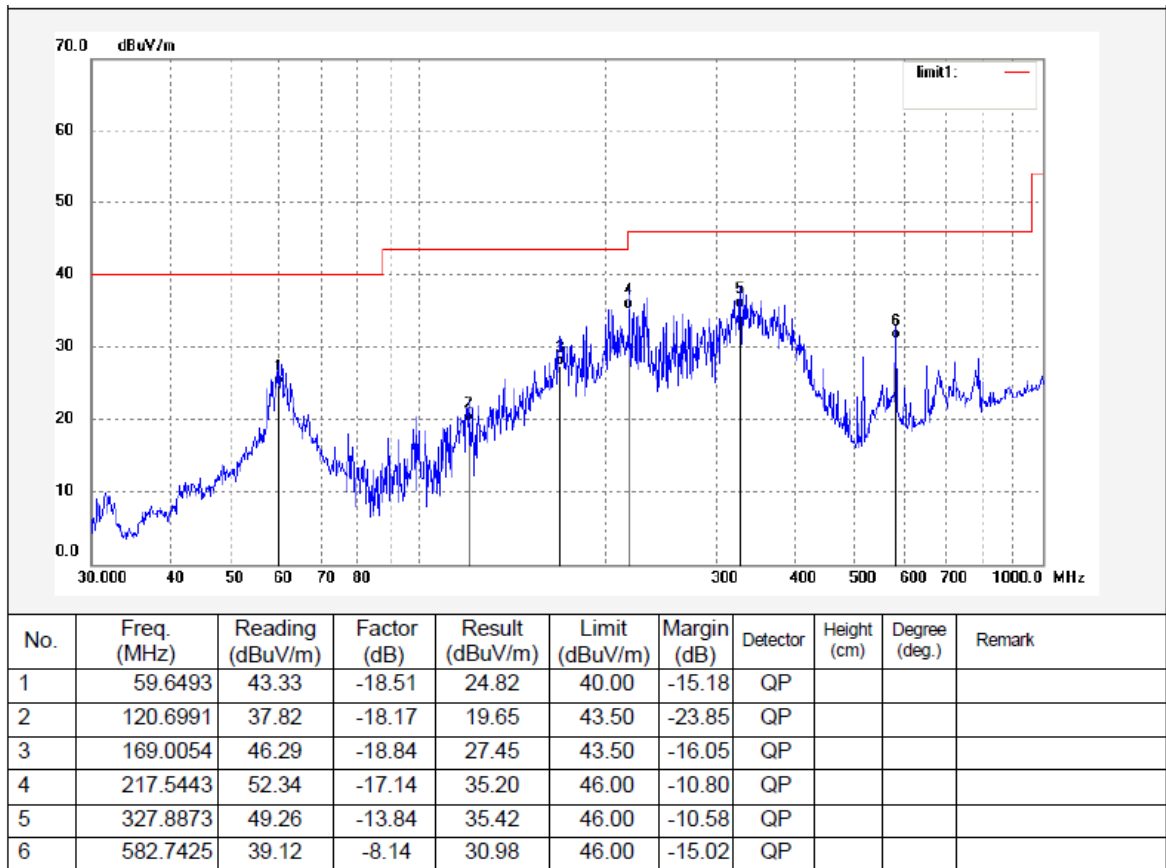
Condition: FCC Part 15B Class B Below 1GHz
 Test Mode: Charging&Playing
 Distance: 3m

Polarization: Vertical
 Power: AC 120V/60Hz



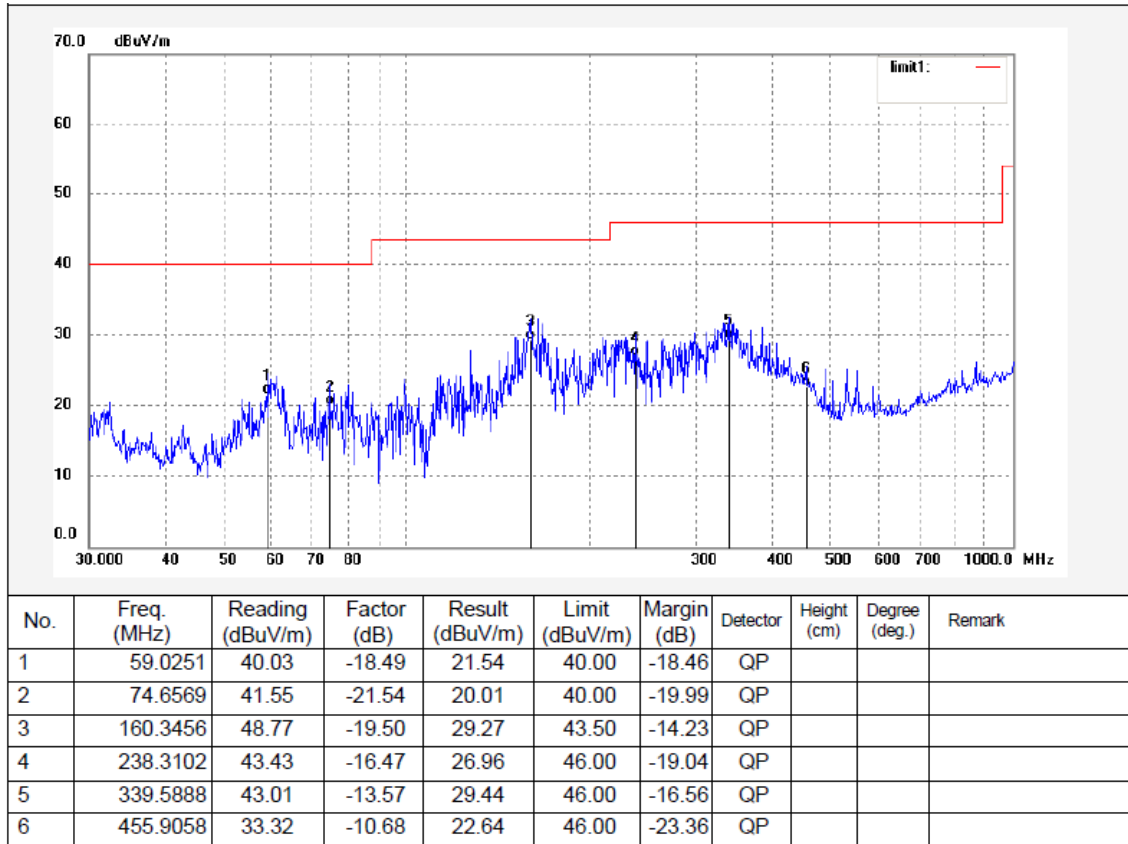
Condition: FCC Part 15B Class B Below 1GHz
 Test Mode: Downloading
 Distance: 3m

Polarization: Horizontal
 Power: AC 120V/60Hz



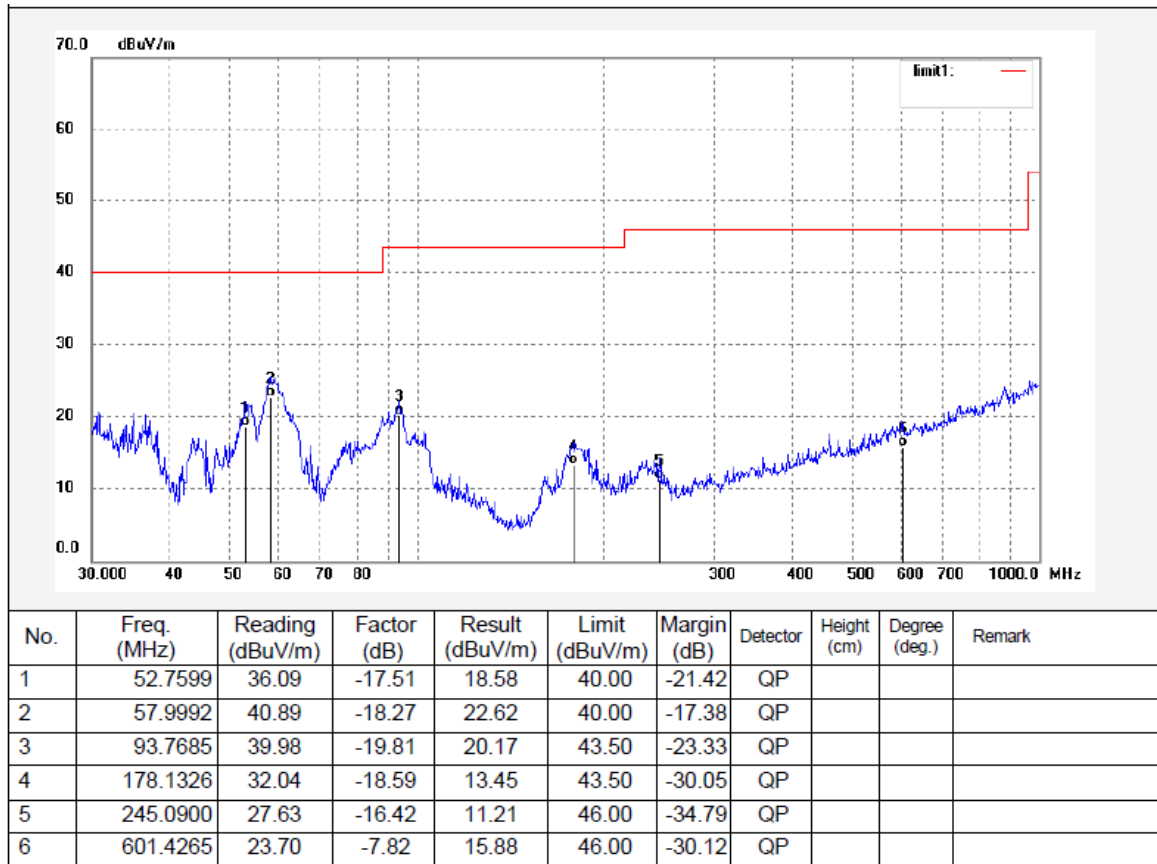
Condition: FCC Part 15B Class B Below 1GHz
 Test Mode: Downloading
 Distance: 3m

Polarization: Vertical
 Power: AC 120V/60Hz



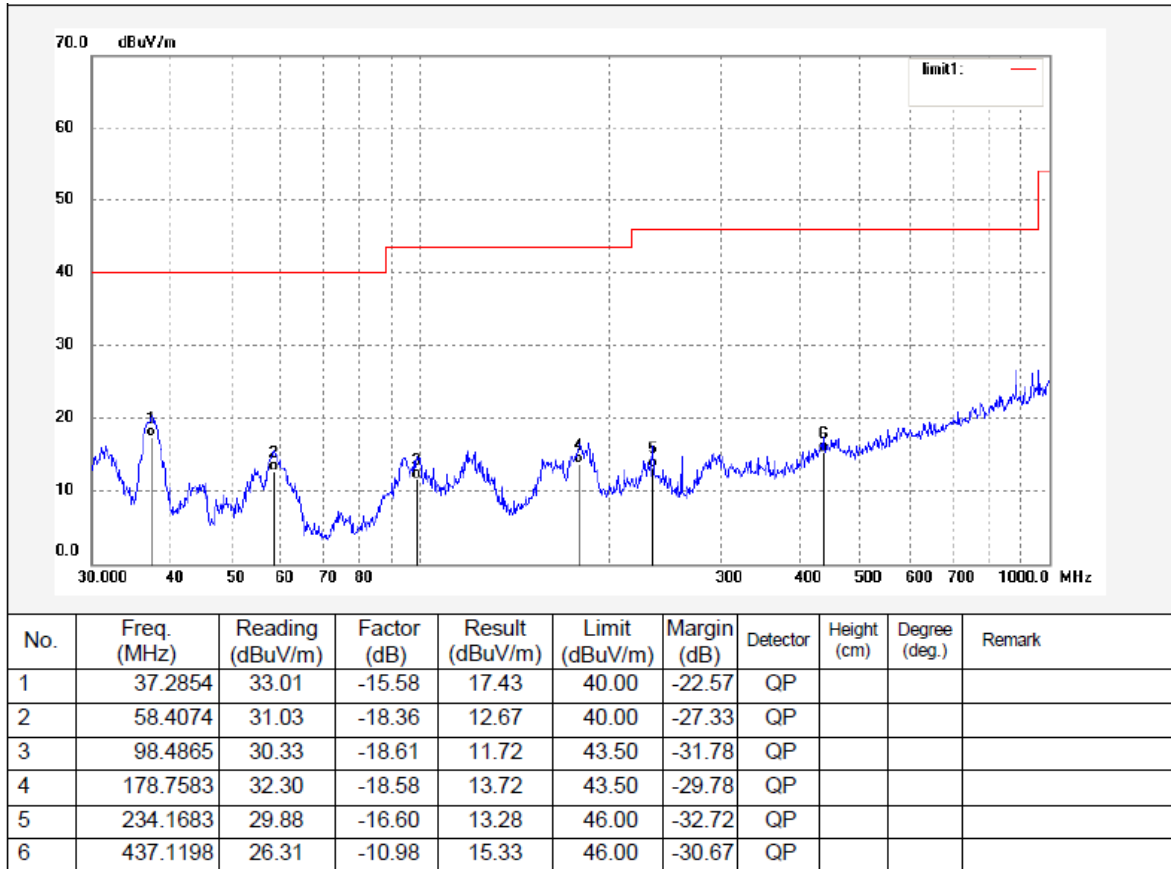
Condition: FCC Part 15B Class B Below 1GHz
 Test Mode: FM receiving
 Distance: 3m

Polarization: Horizontal
 Power: AC 120V/60Hz



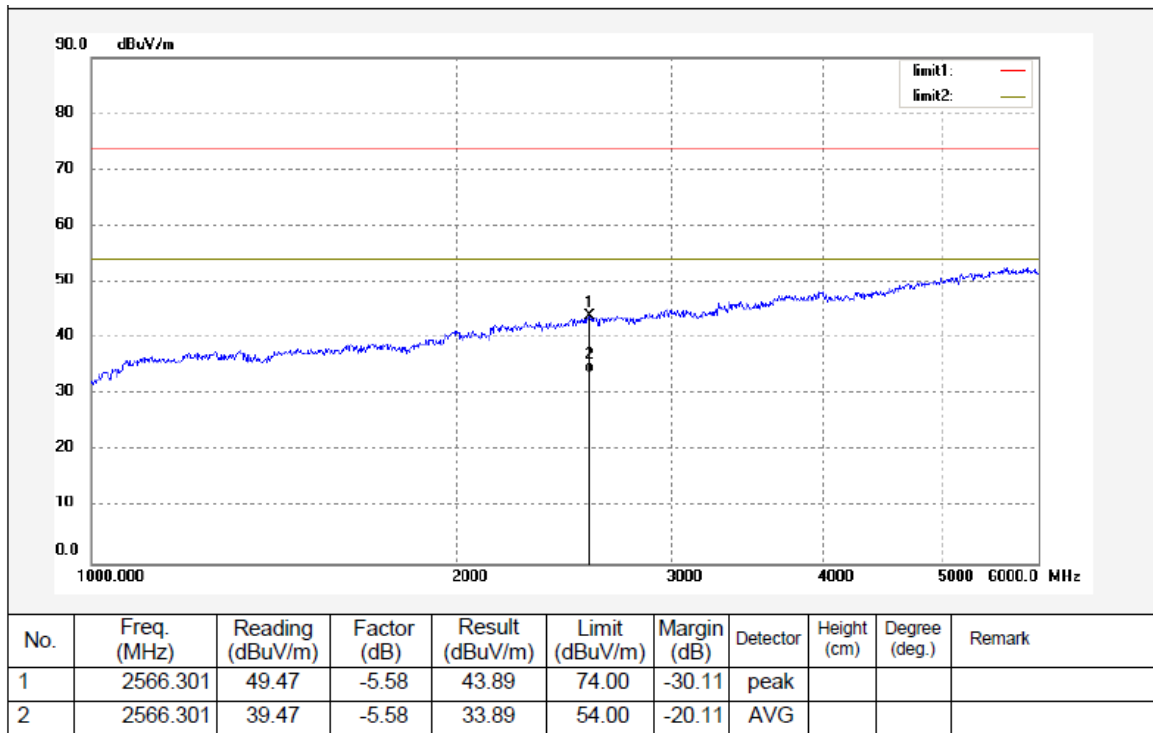
Condition: FCC Part 15B Class B Below 1GHz
 Test Mode: FM receiving
 Distance: 3m

Polarization: Vertical
 Power: AC 120V/60Hz



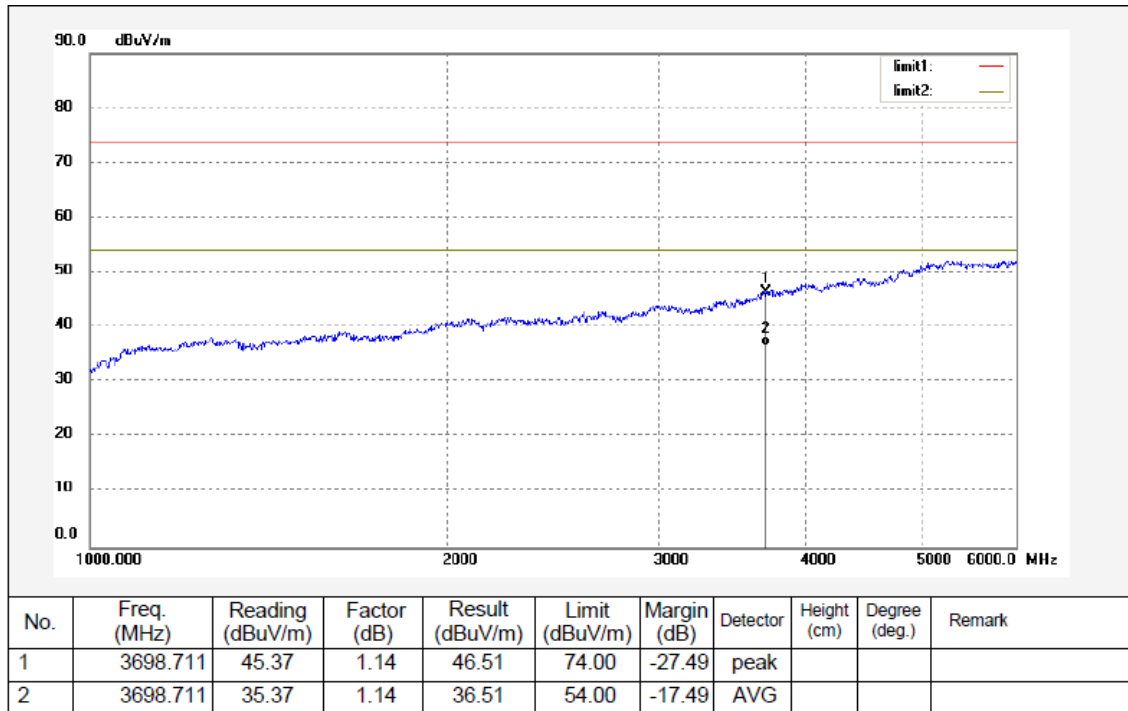
Condition: FCC Part 15B Class B Above 1GHz
Test Mode: Playing& Charging(Worst Case)
Distance: 3m

Polarization: Horizontal
Power: AC 120V/60Hz



Condition: FCC Part 15B Class B Above 1GHz
 Test Mode: Playing& Charging(Worst Case)
 Distance: 3m

Polarization: Vertical
 Power: AC 120V/60Hz



Note: The test result of 6-26.5GHz lower than the limits of 20dB or in the noise floor level, the test data were not recorded in the report.

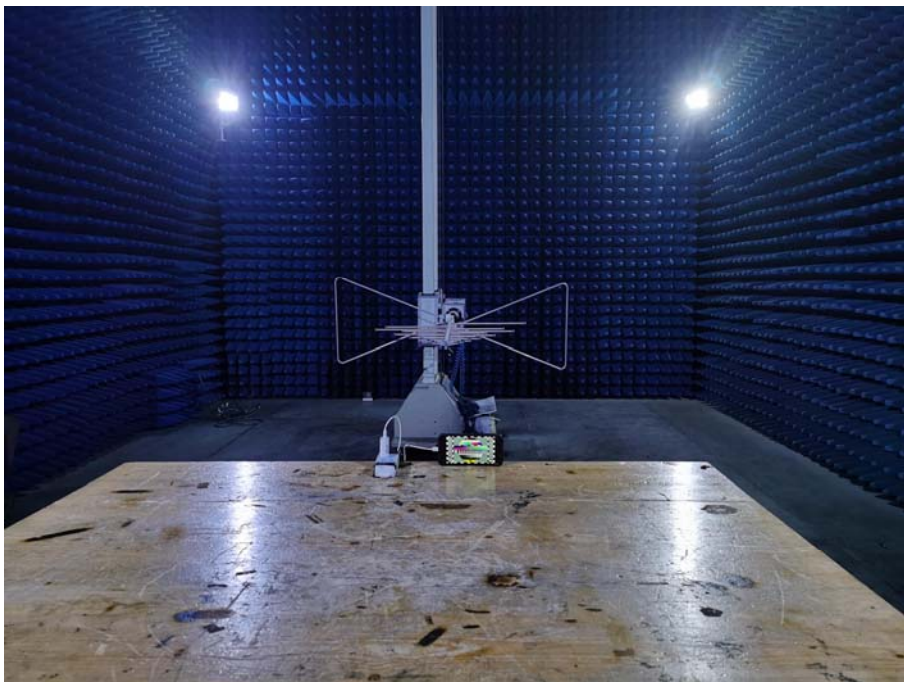
6. PHOTOGRAPHS

6.1.Photo of Conducted Emission Measurement



6.2.Photo of Radiation Emission Measurement

Below 1GHz



Above 1GHz



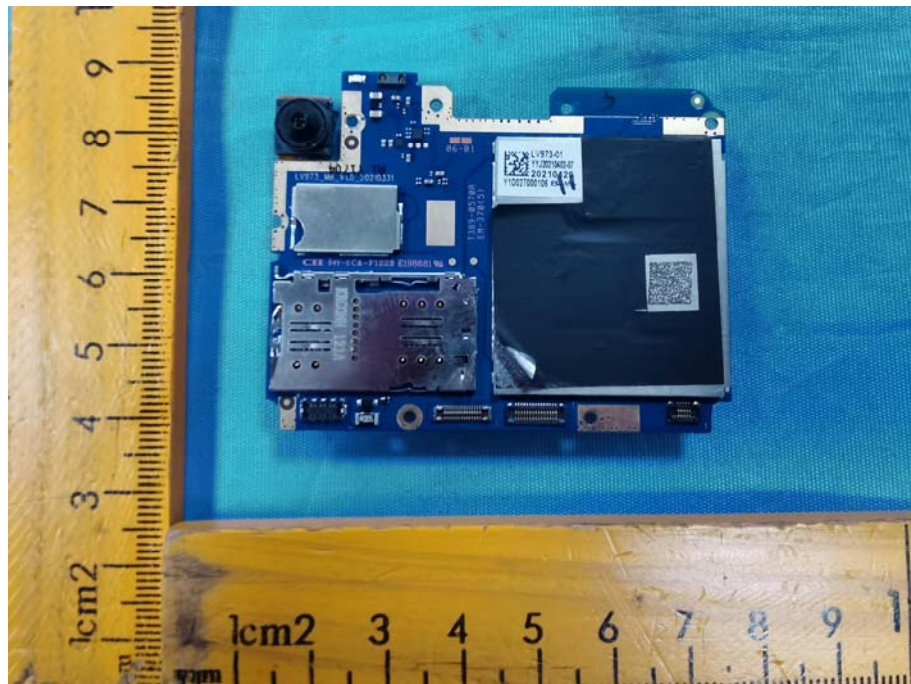
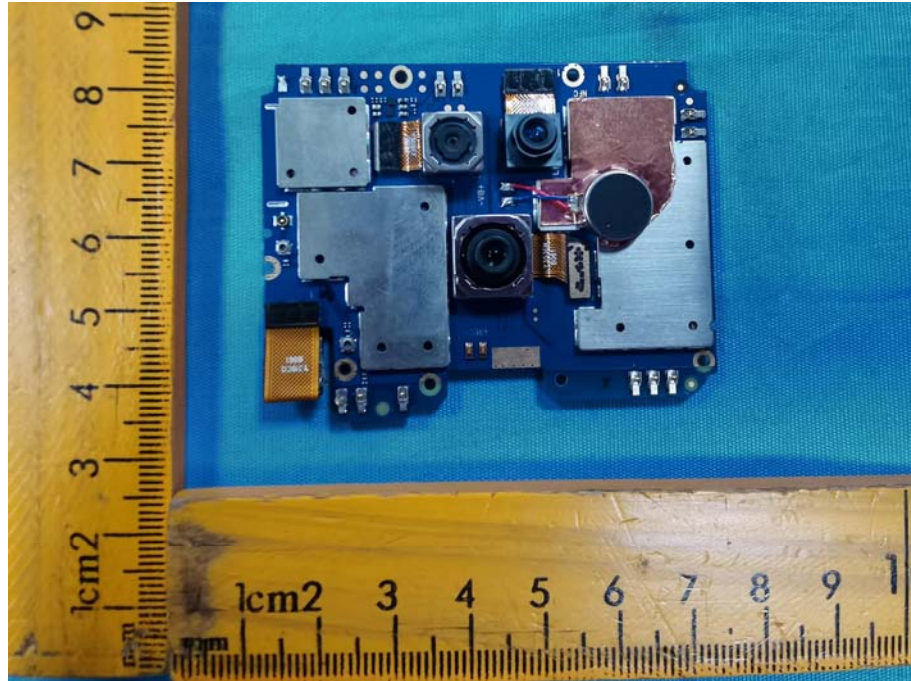
6.3.Photos of EUT

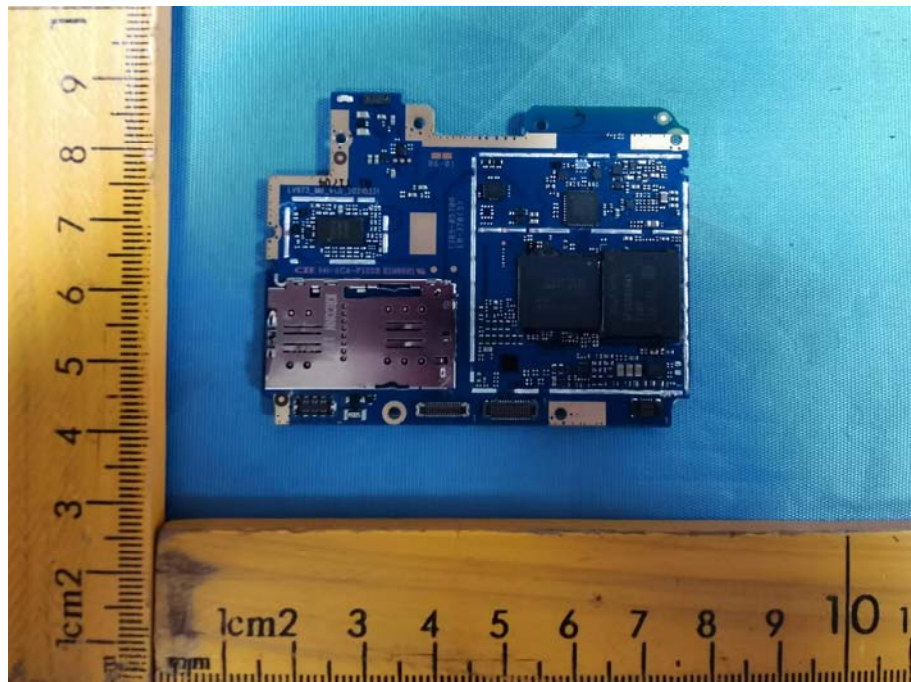
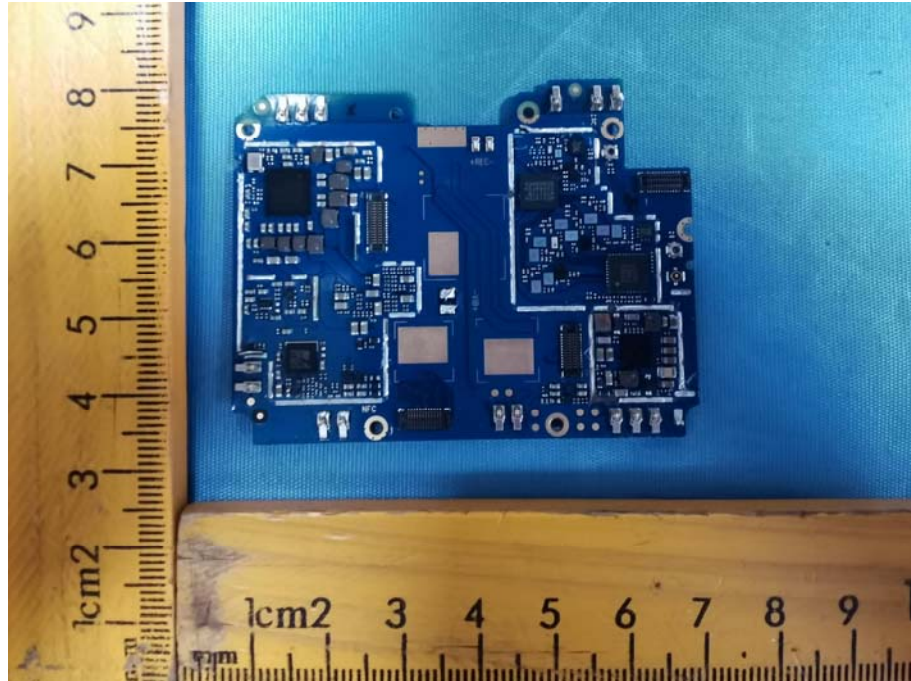


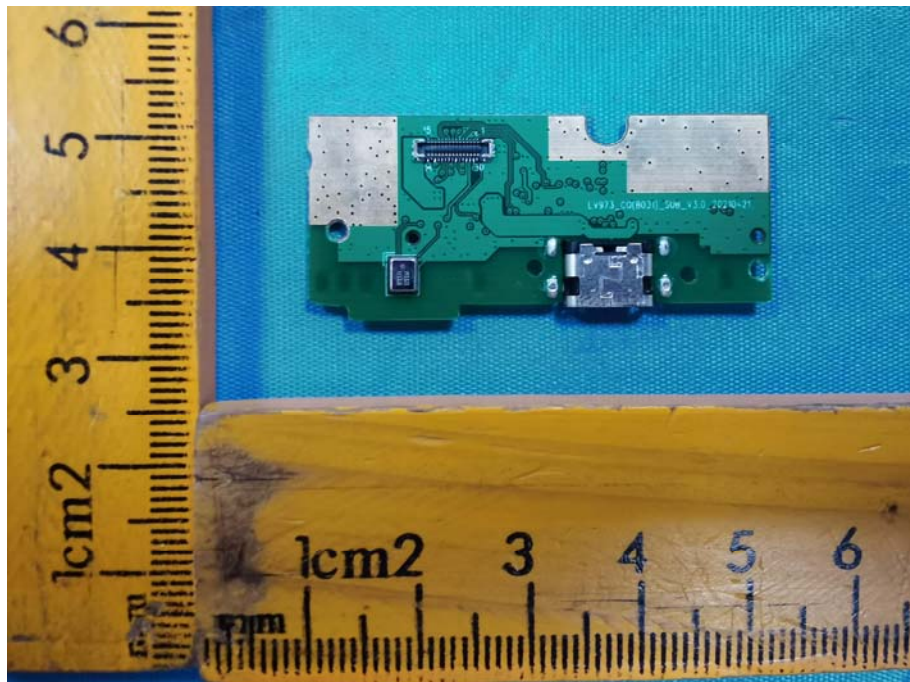
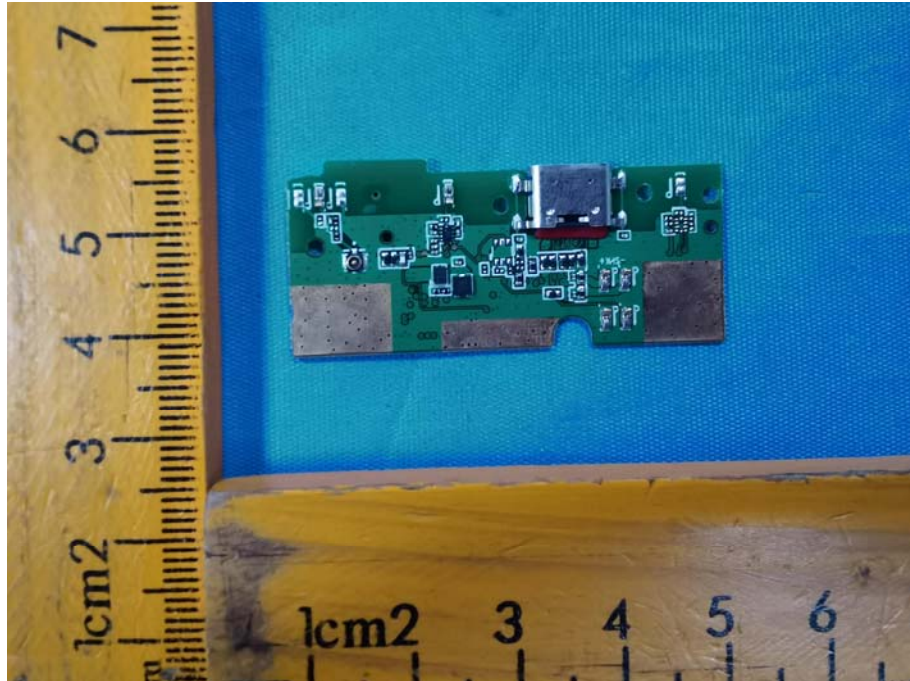


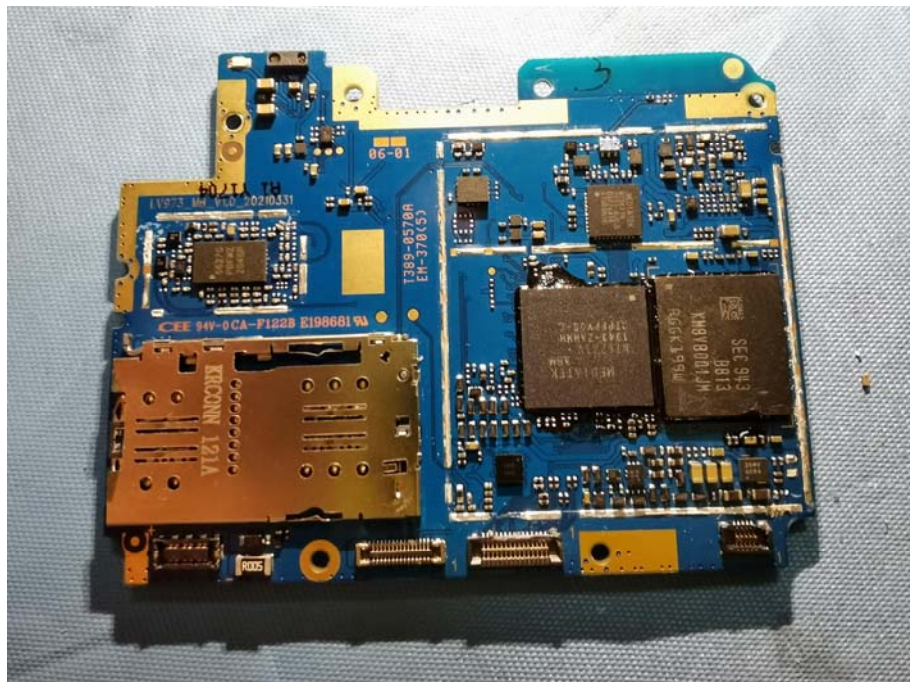
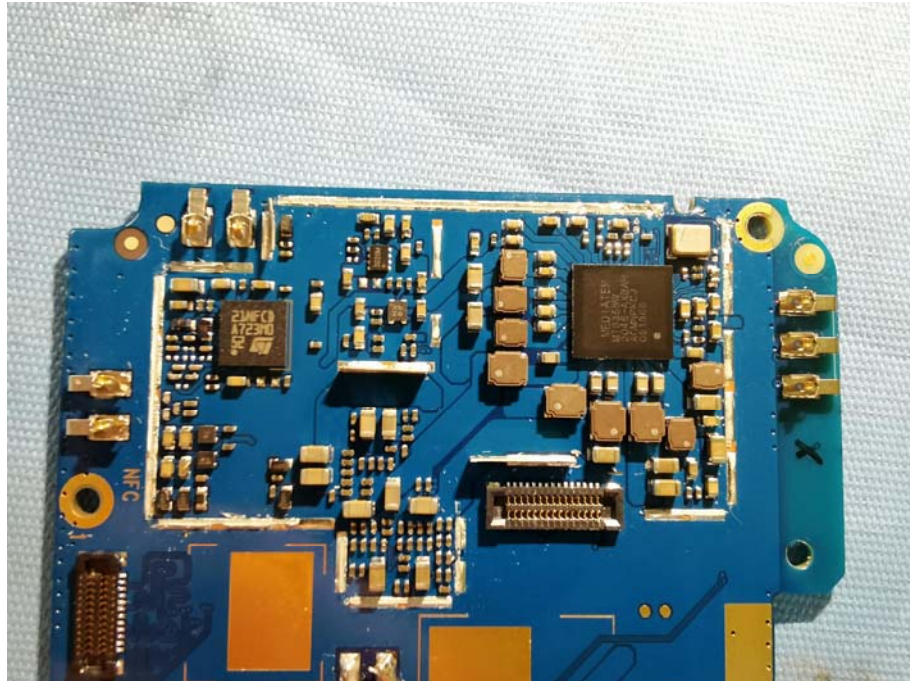


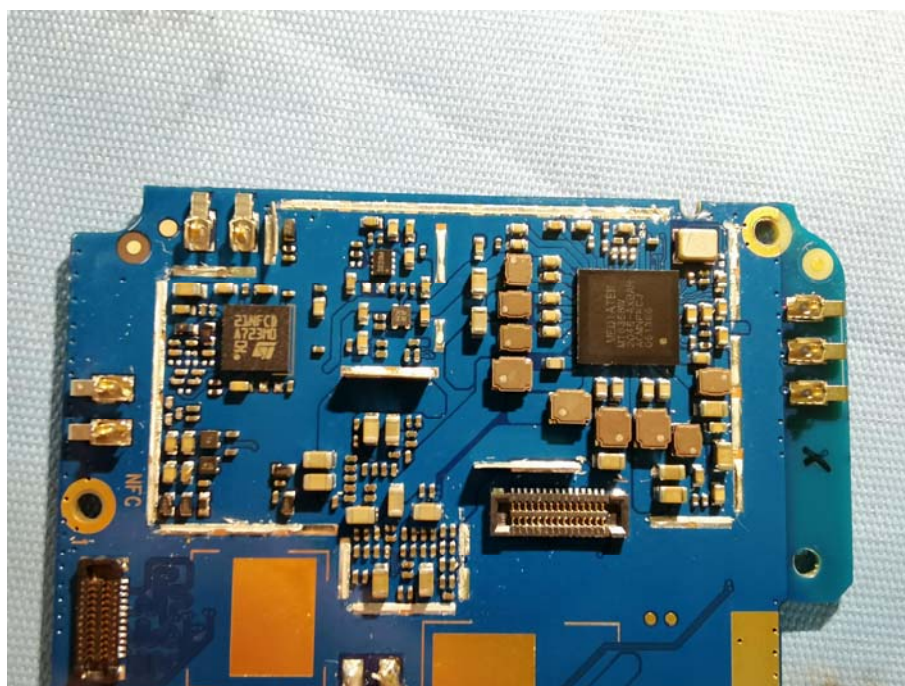
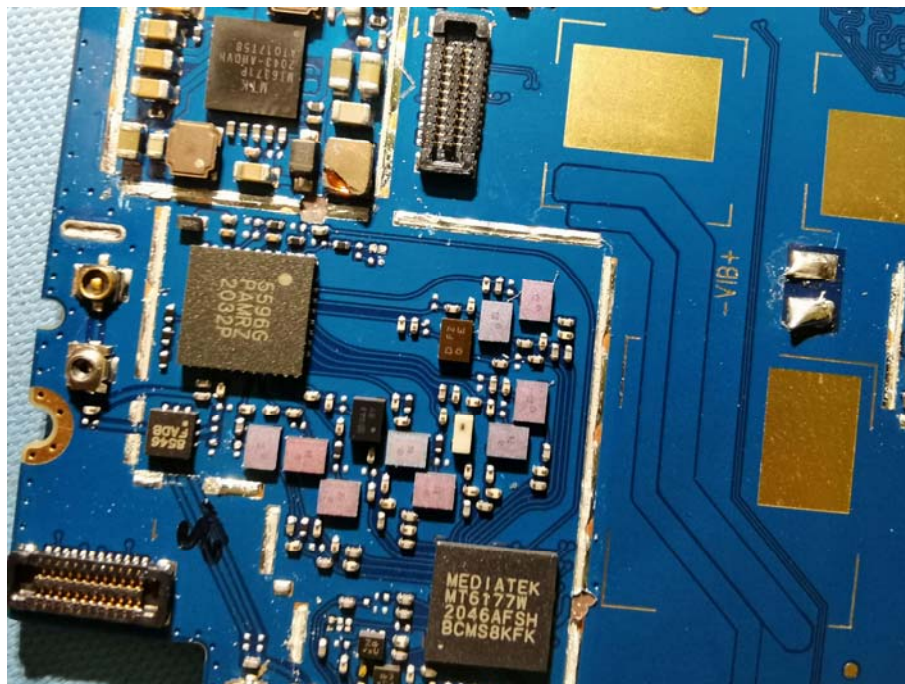














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