Shenzhen Huatongwei International Inspection Co.,Ltd.
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Phone:86-755-26715499 E-mail: cs@szhtw.com.cn Website:http://www.szhtw.com.cn

TEST REPORT

Report No. ..... :	**CHTEW21060207**	Report verification:
Project No. ..... :	**SHT2104017704EW**	
FCC ID ..... :	**2A2GZWXC-01**	
Applicant's name .....:	**Dongguan SIMZO Electronic Technology Co., Ltd**	
Address.....:	No.6,Zhangzhou Road,Daojiao Town,Dongguan City,Guangdong Province,523187,P.R.China	
Test item description ..... :	**3 in 1 wireless charger**	
Trade Mark .....:	-	
Model/Type reference.....:	WXC-01	
Listed Model(s) .....:	-	
Standard ..... :	**47 CFR FCC Part 18**	
Date of receipt of test sample……..:	May. 14, 2021	
Date of testing……:	May. 15, 2021- Jun. 28, 2021	
Date of issue……...:	Jul. 09, 2021	
Result..... ……..:	**Pass**	

Compiled by (position+printed name+signature)..:	File administrators Yueming Li	Silvia Li
Supervised by (position+printed name+signature)..:	Project Engineer Xiao Cheng	Chengxiao
Approved by (position+printed name+signature)..:	RF Manager Hans Hu	Hans Hu

Testing Laboratory Name ..... :	**Shenzhen Huatongwei International Inspection Co., Ltd.**
Address.....:	1/F, Bldg 3, Hongfa Hi-tech Industrial Park, Genyu Road, Tianliao, Gongming, Shenzhen, China

Contents

1. TEST STANDARDS AND REPORT VERSION

1.1. Test Standards

The tests were performed according to following standards:

47 CFR FCC Part 18 - Industrial, Scientific, and medical medical equipment.

FCC/OST MP-5 -Methods of Measurements of Radio Noise Emissions from Industrial, Scientific and Medical equipment (February 1986)

1.2. Report version information

Revision No.	Date of issue	Description
N/A	2021-07-09	Original

2. TEST DESCRIPTION

Test Item	Section in CFR 47	Result	Test Engineer
Conducted Emissions	PART 18.307(b)	Pass	Jiongsheng Feng
Radiated Emissions	PART 18.305(b)	Pass	Pan Xie

Note: The measurement uncertainty is not included in the test result.

3. SUMMARY

3.1. Client Information

Applicant:	Dongguan SIMZO Electronic Technology Co., Ltd
Address:	No.6,Zhangzhou Road,Daojiao Town,Dongguan City,Guangdong Province,523187,P.R.China
Manufacturer:	Dongguan SIMZO Electronic Technology Co., Ltd
Address:	No.6,Zhangzhou Road,Daojiao Town,Dongguan City,Guangdong Province,523187,P.R.China

3.2. Product Description

Name of EUT:	3 in 1 wireless charger
Trade Mark:	-
Model No.:	WXC-01
Listed Model(s)	-
Power supply:	DC 9.0V
Adapter information:	-
Operation Frequency:	110kHz~300kHz
Category:	Consumer devices

3.3. Test mode

All the test model(s) and condition(s) mentioned were considered and evaluated respectively by performing full tests, the worst data(15W) were recorded and reported.

Description	Test mode
15W	Transmitting with Almighty receiver
5W	Transmitting with Almighty receiver
2.5W	Transmitting with Almighty receiver

3.4. EUT configuration

The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application.
The following peripheral devices and interface cables were connected during the measurement:

Whether support unit is used?					
✓					
Item	Equipement	Trade Name	Model No.	FCC ID	Power cord
1	Almighty receiver	-	-	-	-
2	-	-	-	-	-

3.5. Modifications

No modifications were implemented to meet testing criteria.

4. TEST ENVIRONMENT

4.1. Testing Laboratory Information

Laboratory Name	Shenzhen Huatongwei International Inspection Co., Ltd.	
Laboratory Location	1/F, Bldg 3, Hongfa Hi-tech Industrial Park, Genyu Road, Tianliao, Gongming, Shenzhen, China	
Connect information:	Tel: 86-755-26715499 E-mail: cs@szhtw.com.cn http://www.szhtw.com.cn	
Qualifications	Type	Accreditation Number
	FCC	762235

4.2. Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

Temperature:	15~35°C
Relative Humidity:	30~60 %
Air Pressure:	950~1050mba

4.3. Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to CISPR 16 - 4 „Specification for radio disturbance and immunity measuring apparatus and methods – Part 4: Uncertainty in EMC Measurements“ and is documented in the Shenzhen Huatongwei International Inspection Co., Ltd quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Hereafter the best measurement capability for Shenzhen Huatongwei laboratory is reported:

Test	Range	Measurement Uncertainty	Notes
Radiated Emissions	30~1000MHz	4.28 dB	(1)
Radiated Emissions	1~18GHz	5.16 dB	(1)
Conducted Disturbance	0.15~30MHz	3.35 dB	(1)

(1) This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=1.96.

4.4. Equipments Used during the Test

● Conducted Emission							
Used	Test Equipment	Manufacturer	Equipment No.	Model No.	Serial No.	Last Cal. Date (YY-MM-DD)	Next Cal. Date (YY-MM-DD)
●	Shielded Room	Albatross projects	HTWE0114	N/A	N/A	2018/09/28	2023/09/27
●	EMI Test Receiver	R&S	HTWE0111	ESCI	101247	2020/10/19	2021/10/18
●	Artificial Mains	SCHWARZBECK	HTWE0113	NNLK 8121	573	2020/10/15	2021/10/14
●	Pulse Limiter	R&S	HTWE0033	ESH3-Z2	100499	2020/10/15	2021/10/14
●	RF Connection Cable	HUBER+SUHNER	HTWE0113-02	ENVIROFLEX_142	EF-NM-BNCM-2M	2020/10/15	2021/10/14
●	Test Software	R&S	N/A	ES-K1	N/A	N/A	N/A

● Radiated emission-6th test site							
Used	Test Equipment	Manufacturer	Equipment No.	Model No.	Serial No.	Last Cal. Date (YY-MM-DD)	Next Cal. Date (YY-MM-DD)
●	Semi-Anechoic Chamber	Albatross projects	HTWE0127	SAC-3m-02	C11121	2018/09/30	2021/09/29
●	EMI Test Receiver	R&S	HTWE0099	ESCI	100900	2020/10/19	2021/10/18
●	Loop Antenna	R&S	HTWE0170	HFH2-Z2	100020	2021/04/06	2022/04/05
●	Ultra-Broadband Antenna	SCHWARZBECK	HTWE0123	VULB9163	538	2021/04/06	2022/04/05
●	Pre-Amplifer	SCHWARZBECK	HTWE0295	BBV 9742	N/A	2020/11/13	2021/11/12
●	RF Connection Cable	HUBER+SUHNER	HTWE0062-01	N/A	N/A	2021/02/26	2022/02/25
●	RF Connection Cable	HUBER+SUHNER	HTWE0062-02	SUCOFLEX104	501184/4	2021/02/26	2022/02/25
●	Test Software	R&S	N/A	ES-K1	N/A	N/A	N/A

5. TEST CONDITIONS AND RESULTS

5.1. Conducted Emissions Test

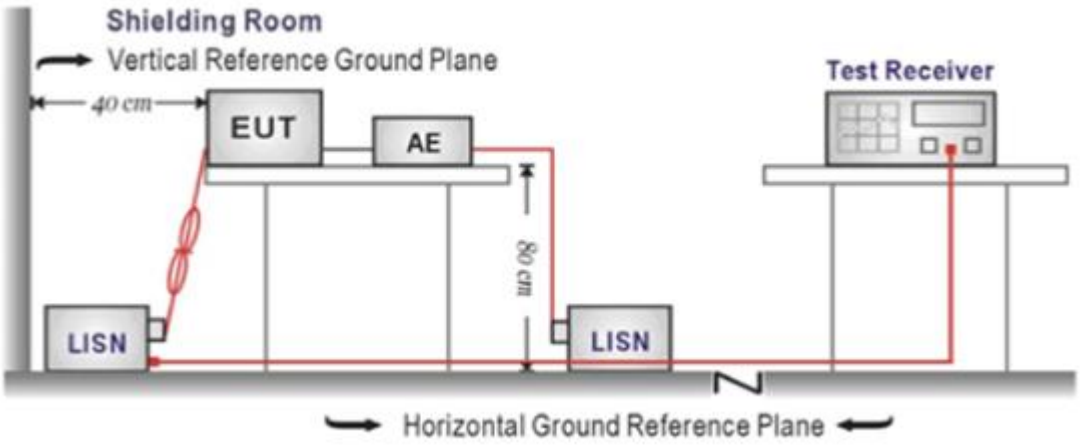
LIMIT

According to §18.307 (b):

Frequency range (MHz)	Limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

* Decreases with the logarithm of the frequency.

TEST CONFIGURATION



TEST PROCEDURE

1. The EUT was setup according to test configuration
2. The EUT was placed on a plat form of nominal size, 1 m by 1.5 m, raised 10 cm above the conducting ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 10 cm from any other grounded conducting surface.
3. The EUT and simulators are connected to the main power through a line impedance stabilization network (LISN). The LISN provides a 50ohm / 50uH coupling impedance for the measuring equipment.
4. The peripheral devices are also connected to the main power through a LISN. (Please refer to the block diagram of the test setup and photographs)
5. Each current-carrying conductor of the EUT power cord, except the ground (safety) conductor,was individually connected through a LISN to the input power source.
6. The excess length of the power cord between the EUT and the LISN receptacle were folded back and forth at the center of the lead to form a bundle not exceeding 40 cm in length.
7. Conducted emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9 kHz.
8. During the above scans, the emissions were maximized by cable manipulation.

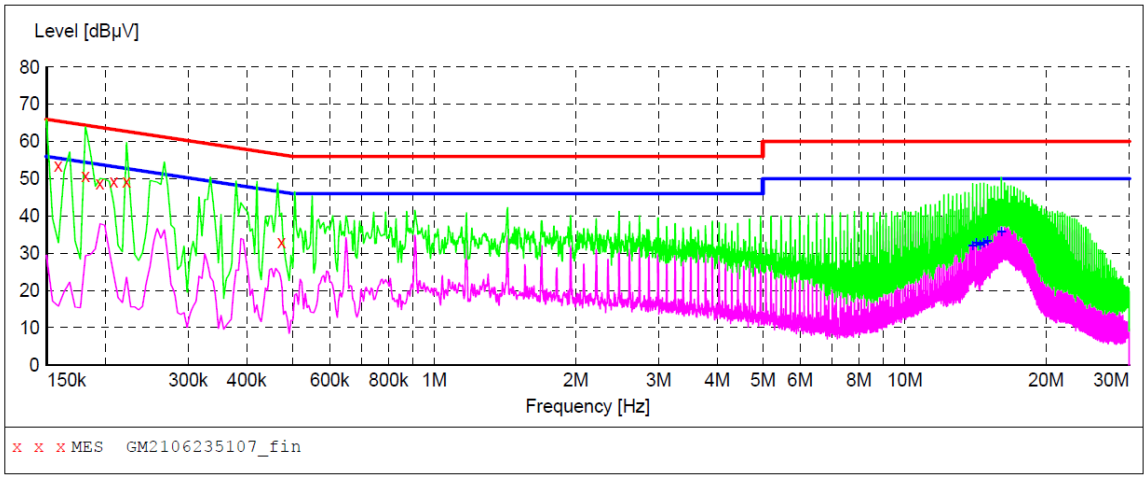
TEST MODE:

Please refer to the clause 3.3

TEST RESULTS

☒ **Passed** ☐ **Not Applicable**

Test Line:	L



MEASUREMENT RESULT: "GM2106235107_fin"

6/23/2021 7:21PM

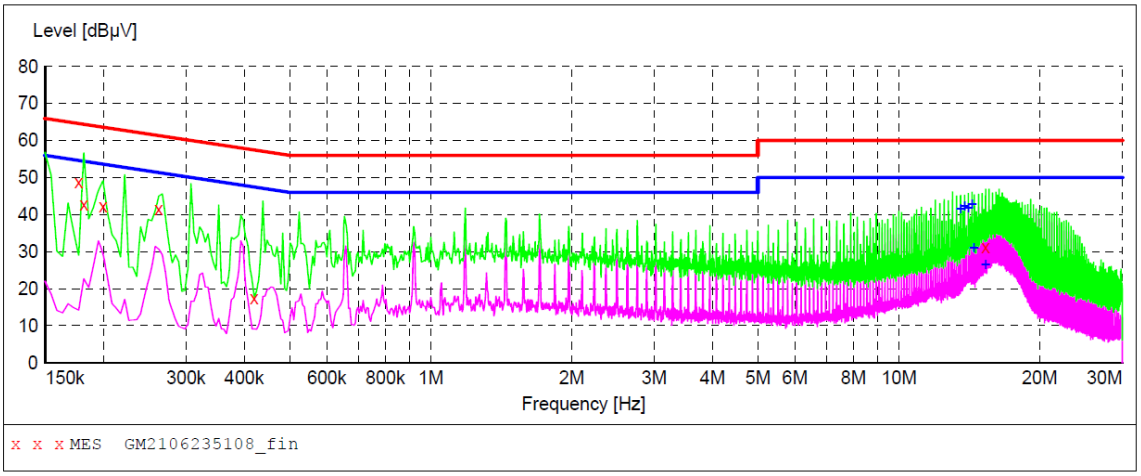
Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.159000	53.50	10.2	66	12.0	QP	N	GND
0.181500	50.80	10.2	64	13.6	QP	N	GND
0.195000	48.90	10.2	64	14.9	QP	N	GND
0.208500	49.20	10.2	63	14.1	QP	N	GND
0.222000	49.20	10.2	63	13.5	QP	N	GND
0.474000	33.10	10.2	56	23.3	QP	N	GND

MEASUREMENT RESULT: "GM2106235107_fin2"

6/23/2021 7:21PM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
13.938000	32.00	10.4	50	18.0	AV	N	GND
14.203500	32.80	10.4	50	17.2	AV	N	GND
14.464500	32.20	10.4	50	17.8	AV	N	GND
14.730000	32.70	10.4	50	17.3	AV	N	GND
14.991000	33.20	10.4	50	16.8	AV	N	GND
16.044000	35.90	10.4	50	14.1	AV	N	GND

Test Line:	N



MEASUREMENT RESULT: "GM2106235108_fin"

6/23/2021 7:24PM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.177000	48.80	10.2	65	15.8	QP	L1	GND
0.181500	42.90	10.2	64	21.5	QP	L1	GND
0.199500	42.20	10.2	64	21.4	QP	L1	GND
0.262500	41.50	10.2	61	19.9	QP	L1	GND
0.420000	17.50	10.2	57	39.9	QP	L1	GND
15.324000	31.20	10.4	60	28.8	QP	L1	GND

MEASUREMENT RESULT: "GM2106235108_fin2"

6/23/2021 7:24PM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
13.546500	41.60	10.4	50	8.4	AV	L1	GND
13.807500	42.20	10.4	50	7.8	AV	L1	GND
14.073000	41.80	10.4	50	8.2	AV	L1	GND
14.334000	42.70	10.4	50	7.3	AV	L1	GND
14.464500	31.00	10.4	50	19.0	AV	L1	GND
15.297000	26.40	10.4	50	23.6	AV	L1	GND

5.2. Radiated Emissions Test

LIMIT

According to §18.305 (b):

Equipment	Operating frequency	RF Power generated by equipment (watts)	Field strength limit (uV/m)	Distance (meters)
Any type unless otherwise specified (miscellaneous)	Any ISM frequency	Below 500 500 or more	25 25 × SQRT(power/500)	300 [1]300
	Any non-ISM frequency	Below 500 500 or more	15 15 × SQRT(power/500)	300 [1]300
Industrial heaters and RF stabilized arc welders	On or below 5,725 MHz Above 5,725 MHz	Any Any	10 ([2])	1,600 ([2])
Medical diathermy	Any ISM frequency Any non-ISM frequency	Any Any	25 15	300 300
Ultrasonic	Below 490 kHz	Below 500 500 or more	2,400/F(kHz) 2,400/F(kHz) × SQRT(power/500)	300 [3]300
	490 to 1,600 kHz Above 1,600 kHz	Any Any	24,000/F(kHz) 15	30 30
Induction cooking ranges	Below 90 kHz On or above 90 kHz	Any Any	1,500 300	[4]30 [4]30

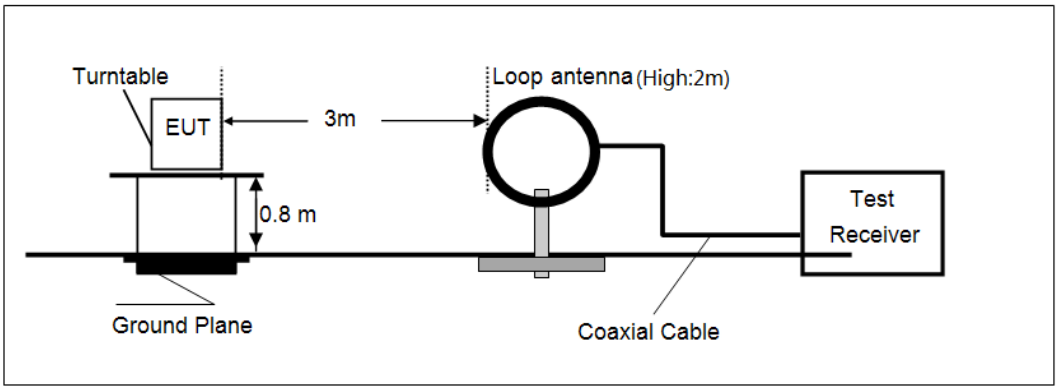
[1]Field strength may not exceed 10 μV/m at 1600 meters. Consumer equipment operating below 1000 MHz is not permitted the increase in field strength otherwise permitted here for power over 500 watts.

[2]Reduced to the greatest extent possible.

[3]Field strength may not exceed 10 μV/m at 1600 meters. Consumer equipment is not permitted the increase in field strength otherwise permitted here for over 500 watts.

[4]Induction cooking ranges manufactured prior to February 1, 1980, shall be subject to the field strength limits for miscellaneous ISM equipment.

TEST CONFIGURATION



TEST PROCEDURE

1. The EUT is placed on a turn table which is 0.8 meter above ground.
2. The turn table is rotated 360 degrees to determine the position of the maximum emission level.
3. The EUT waspositioned such that the distance from antenna to the EUT was 3 meters.
4. The antenna is scanned from 2m.
5. Use the following spectrum analyzer settings
   (1) Span shall wide enough to fully capture the emission being measured;
   (2) Below 30MHz
   RBW=9kHz, VBW=30kHz Sweep=auto, Detector function=peak, Trace=max hold;

TEST MODE:

Please refer to the clause 3.3

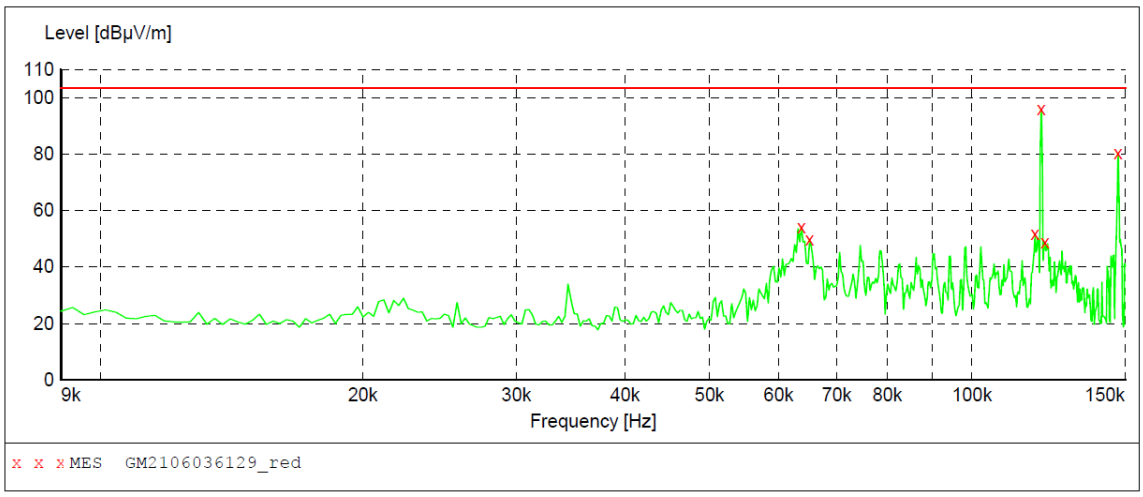
TEST RESULTS

☒ **Passed** ☐ **Not Applicable**

Note:

1. Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
2. This product belong to any non-ISM frequency equipment, the field strength limit is 15uV/m at 300 meter
3. Emission level dBμV/m for 0.009~30MHz = 20log (15) + 40log (300/3) dBμV/m;

9K-150K

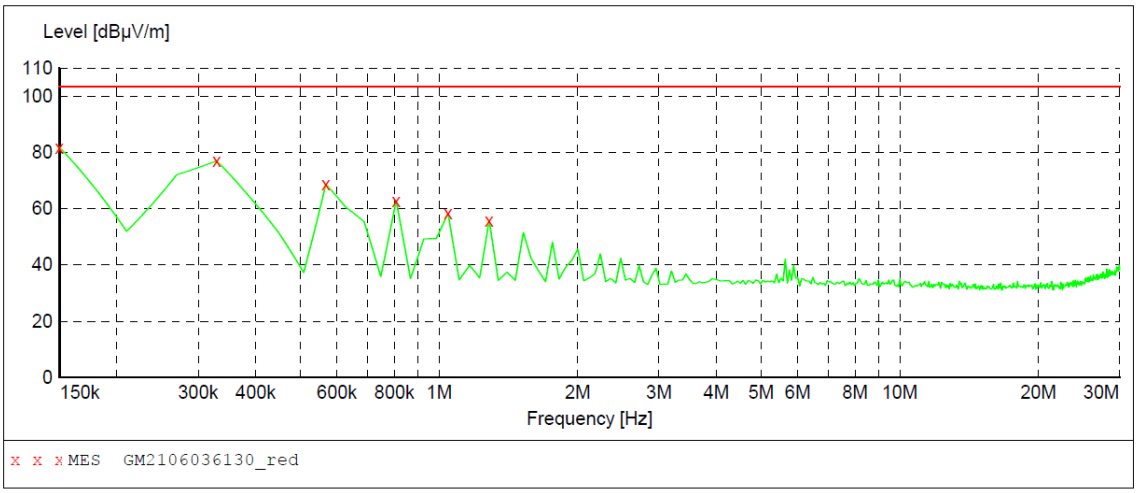


MEASUREMENT RESULT: "GM2106036129_red"

6/4/2021 12:49AM

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
0.063708	54.20	22.3	103.5	49.3	Peak	0.0	360.00	---
0.065118	49.90	22.3	103.5	53.6	Peak	0.0	360.00	---
0.118134	51.90	22.3	103.5	51.6	Peak	0.0	360.00	---
0.120108	96.00	22.3	103.5	7.5	Peak	0.0	360.00	---
0.121236	48.90	22.3	103.5	54.6	Peak	0.0	360.00	---
0.147180	80.50	22.3	103.5	23.0	Peak	0.0	360.00	---

0.15M-30M



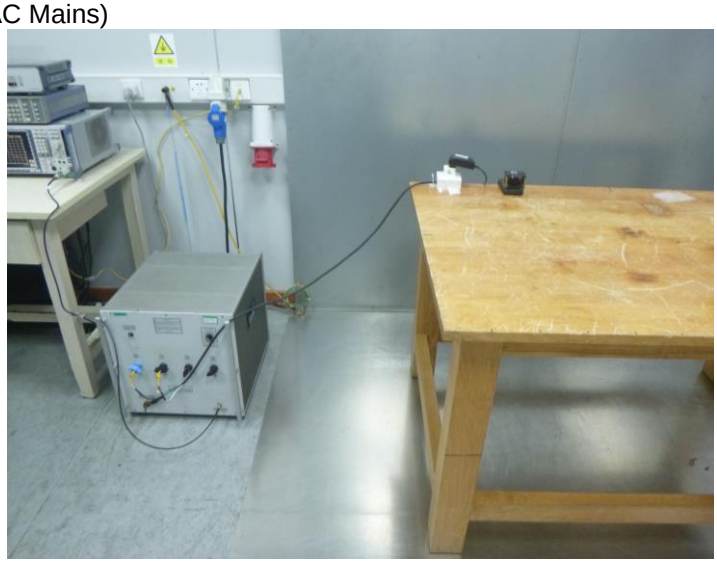
MEASUREMENT RESULT: "GM2106036130_red"

6/4/2021 12:52AM

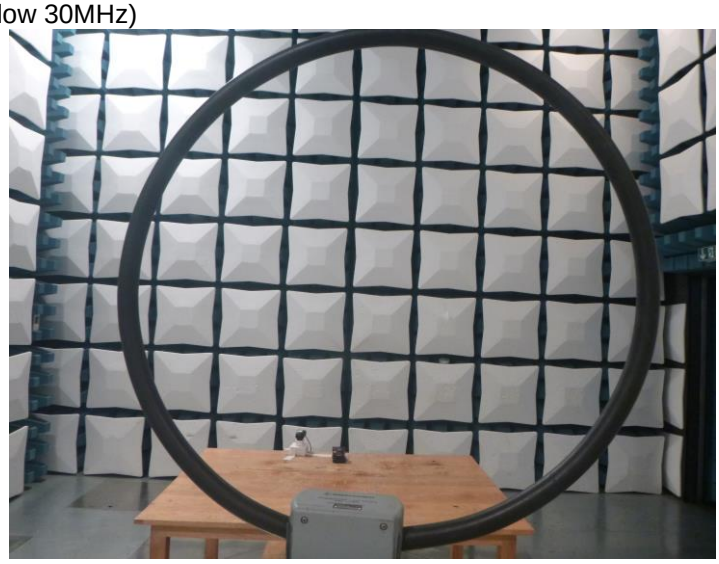
Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
0.150000	81.80	22.3	103.5	21.7	Peak	0.0	360.00	---
0.329100	77.00	22.3	103.5	26.5	Peak	0.0	360.00	---
0.567900	68.70	22.3	103.5	34.8	Peak	0.0	360.00	---
0.806700	62.90	22.3	103.5	40.6	Peak	0.0	360.00	---
1.045500	58.40	22.3	103.5	45.1	Peak	0.0	360.00	---
1.284300	55.90	22.3	103.5	47.6	Peak	0.0	360.00	---

6. TEST SETUP PHOTOS OF THE EUT

Conducted Emissions (AC Mains)

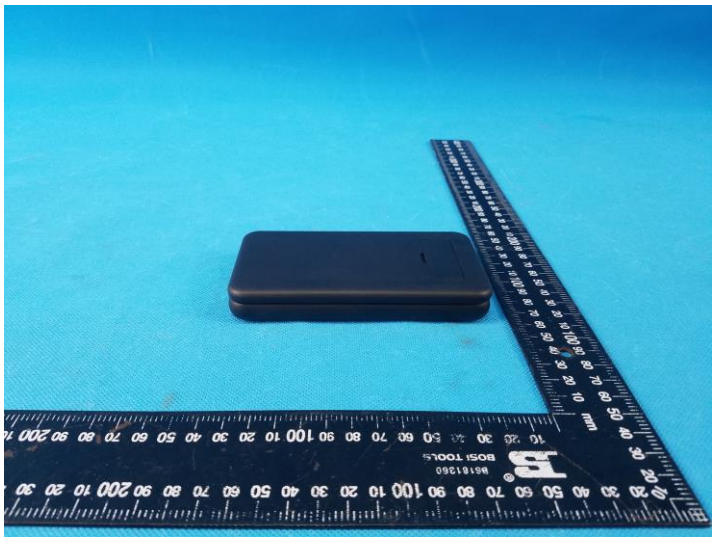


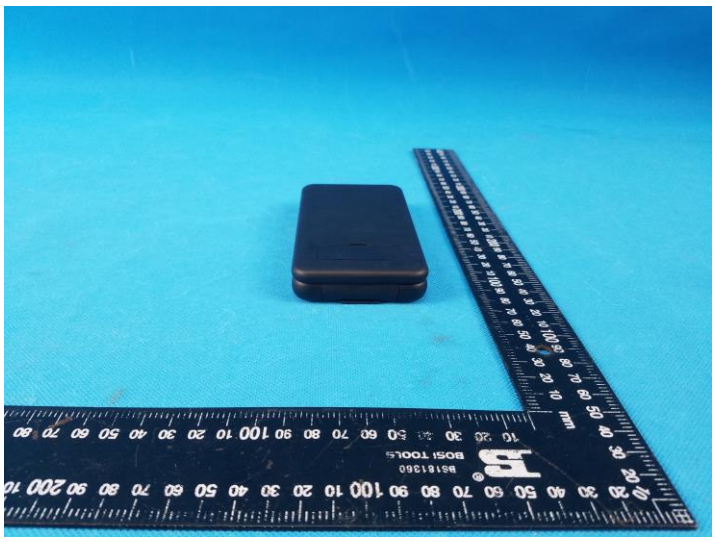
Radiated Emissions (Below 30MHz)

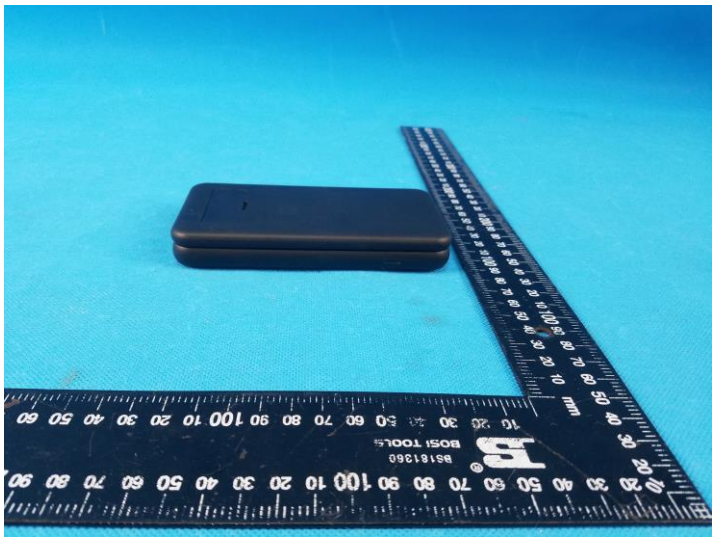


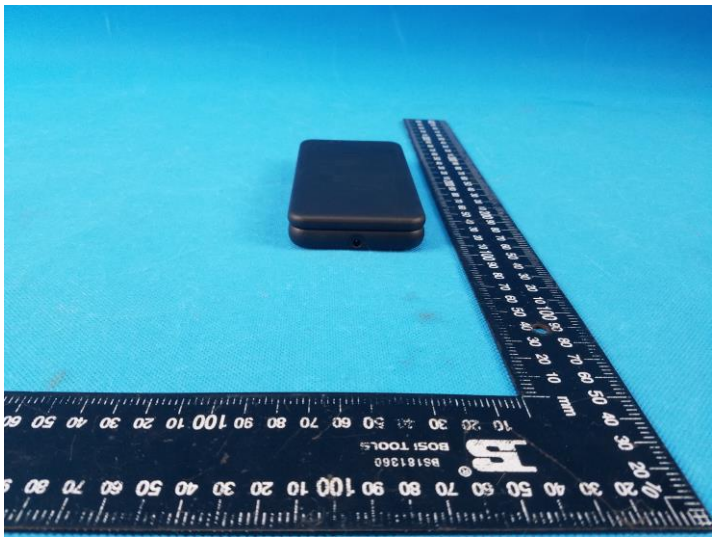
7. EXTERNAL AND INTERNAL PHOTOS OF THE EUT

EXTERNAL PHOTOS OF THE EUT

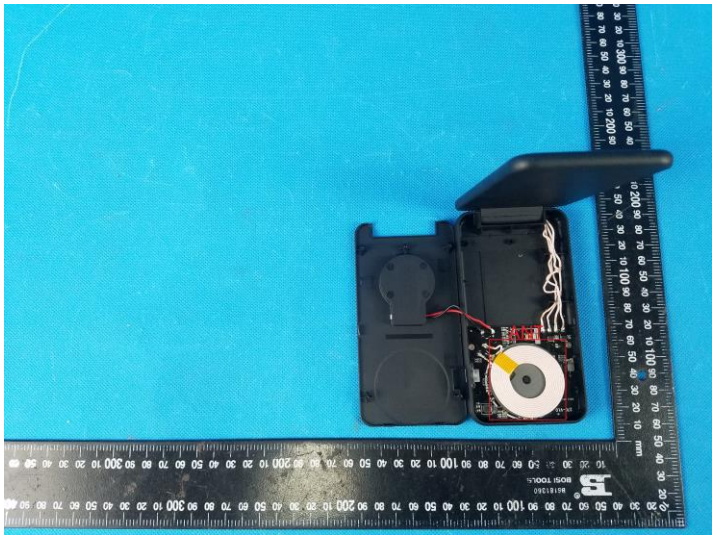


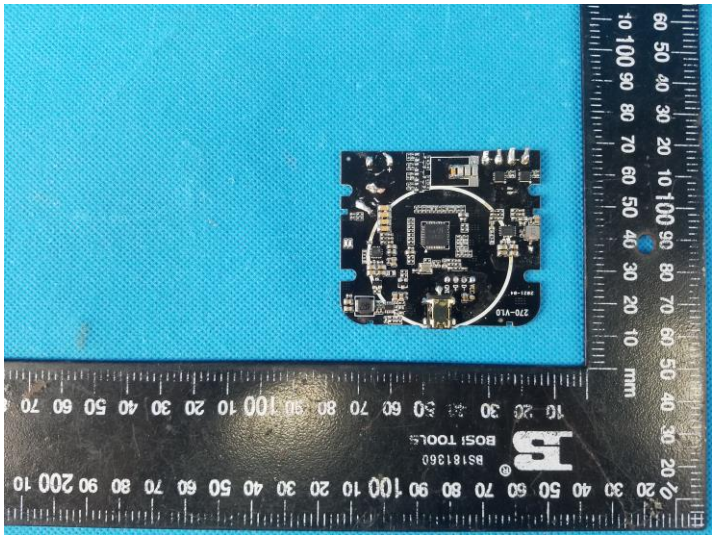


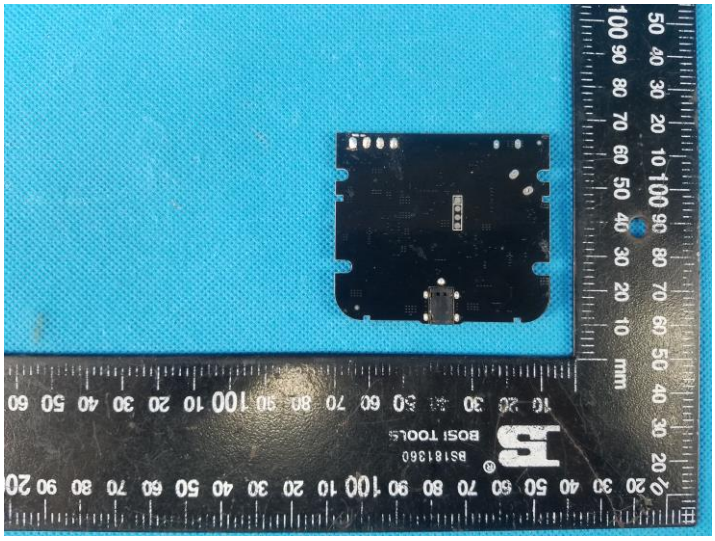


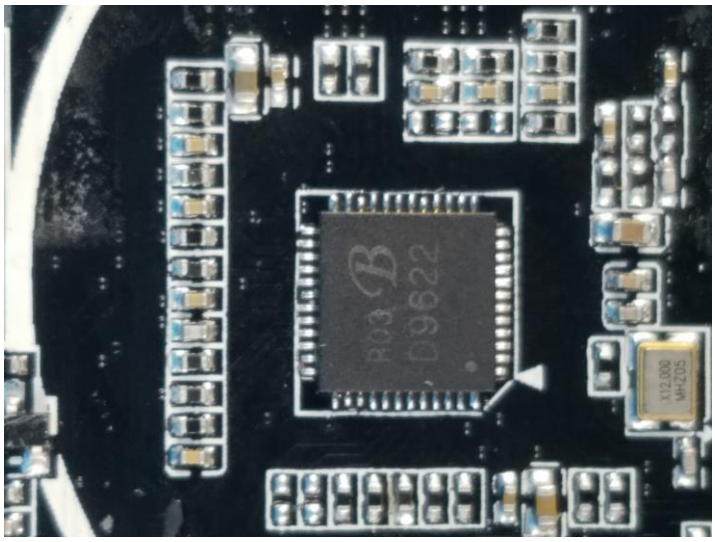


INTERNAL PHOTOS OF THE EUT









--------End of Report--------