




TEST REPORT

Report No......: **CHTEW19060065R1** Report Verification: 
Project No......: **SHT1905051203EW**
FCC ID..... : **2AQXMSWP-A59A-QC1**
Applicant's name..... : **Shenzhen Ruijing Industrial Co., Ltd.**
Address.....: C1 Building,Hengli Industrial Park, Xiakeng 1st Road
 No.168,Longgang Street, Longgang District, Shenzhen,
 Guangdong, China
Manufacturer.....: Shenzhen Ruijing Industrial Co., Ltd.
Address.....: C1 Building,Hengli Industrial Park, Xiakeng 1st Road
 No.168,Longgang Street, Longgang District, Shenzhen,
 Guangdong, China
Test item description : **WIRELESS CHARGER**
Trade Mark: ZTE
Model/Type reference.....: SWP-A59A-QC
Listed Model(s): -
Standard : **FCC CFR Title 47 Part 15 Subpart C**
Date of receipt of test sample.....: May 27, 2019
Date of testing.....: May 28, 2019 – June 10, 2019
Date of issue.....: June 11, 2019
Result.....: **PASS**

Compiled by
 (position+printedname+signature)....: File administrators Echo Wei

Echo Wei

Supervised by
 (position+printedname+signature).....: Project Engineer Jerry Zhao

Jerry Zhao

Approved by
 (position+printedname+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

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The test report merely correspond to the test sample.

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1. TEST STANDARDS AND REPORT VERSION

1.1. Test Standards

The tests were performed according to following standards:

[FCC CFR Title 47 Part 15 Subpart C](#):Intentional Radiators.

[ANSI C63.10-2013](#):AmericanNationalStandardforTestingUnlicensedWirelessDevices.

1.2. Report version information

Revision No.	Date of issue	Description
N/A	2019-06-11	Original

2. TESTDESCRIPTION

Test Item	Section in CFR 47	Result	Test Engineer
AC Power Line Conducted Emissions	15.207	PASS	Jiongsheng Feng
20dB Occupied Bandwidth	2.1049	PASS	Jiongsheng Feng
Spurious Emissions	15.209	PASS	Jiongsheng Feng

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

3. SUMMARY

3.1. Client Information

Applicant:	Shenzhen Ruijing Industrial Co., Ltd.
Address:	C1 Building,Hengli Industrial Park, Xiakeng 1st Road No.168,Longgang Street, Longgang District, Shenzhen, Guangdong, China
Manufacturer:	Shenzhen Ruijing Industrial Co., Ltd.
Address:	C1 Building,Hengli Industrial Park, Xiakeng 1st Road No.168,Longgang Street, Longgang District, Shenzhen, Guangdong, China

3.2. Product Description

Name of EUT:	WIRELESS CHARGER
Trade Mark:	ZTE
Model No.:	SWP-A59A-QC
Listed Model(s):	-
Power supply:	DC 5V,2A/9V, 2A/12V, 1.5A
Rating output:	DC 5V, 1A/9V, 1.1A/12V, 1.25A
Adapter information:	-
RF Specification	
Operation frequency:	115-205KHz
Modulation Type:	ASK

3.3. EUT operation mode

- Test frequency list

Frequency (MHz)
0.149

- TEST MODE

For RF test items
The EUT was programmed to be in continuously transmitting mode with rating output(5V, 9V and 12V) for charging
For AC power line conducted emissions:
The EUT was programmed to be in continuously transmitting mode with rating output(5V, 9V and 12V) for charging
For Radiated suprious emissions test item:
The EUT was programmed to be in continuously transmitting mode with rating output(5V, 9V and 12V) for charging

3.4. EUT configuration

The following peripheral devices and interface cables were connected during the measurement:

- - supplied by the manufacturer
- - supplied by the lab

○	Adapter	Manufacturer :	-
		Model No. :	-
○	Load	Manufacturer :	-
		Model No. :	-
●	USB Cable	Length(m) :	0.8m
		Shield :	Unshield

3.5. Modifications

No modifications were implemented to meet testing criteria.

4. TEST ENVIRONMENT

4.1. Address of the test laboratory

Laboratory: Shenzhen Huatongwei International Inspection Co., Ltd.

Address: 1/F, Bldg 3, Hongfa Hi-tech Industrial Park, Genyu Road, Tianliao, Gongming, Shenzhen, China

Phone: 86-755-26748019 Fax: 86-755-26748089

4.2. Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

CNAS-Lab Code: L1225

Shenzhen Huatongwei International Inspection Co., Ltd. has been assessed and proved to be in compliance with CNAS-CL01 Accreditation Criteria for Testing and Calibration Laboratories (identical to ISO/IEC17025: 2005 General Requirements) for the Competence of Testing and Calibration Laboratories.

A2LA-Lab Cert. No. 3902.01

Shenzhen Huatongwei International Inspection Co., Ltd. EMC Laboratory has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025: 2005 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.

FCC-Registration No.: 762235

Shenzhen Huatongwei International Inspection Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the FCC (Federal Communications Commission). The acceptance letter from the FCC is maintained in our files. Registration 762235.

IC-Registration No.: 5377B-1

Two 3m Alternate Test Site of Shenzhen Huatongwei International Inspection Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for the performance of radiated measurements with Registration No. 5377B-1.

ACA

Shenzhen Huatongwei International Inspection Co., Ltd. EMC Laboratory can also perform testing for the Australian C-Tick mark as a result of our A2LA accreditation.

4.3. 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

4.4. 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 in calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report according to TR-100028-01 "Electromagnetic compatibility and Radio spectrum Matters (ERM); Uncertainties in the measurement of mobile radio equipment characteristics; Part 1" and TR-100028-02 "Electromagnetic compatibility and Radio spectrum Matters (ERM); Uncertainties in the measurement of mobile radio equipment characteristics; Part 2" and is documented in the Shenzhen Huatongwei International Inspection Co., Ltd quality system according to 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 is reported:

Test Items	Measurement Uncertainty	Notes
Conducted spurious emissions 9KHz-30MHz	3.39 dB	(1)
Radiated Emissions 30~1000MHz	4.24 dB	(1)
Occupied Bandwidth	-----	(1)

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

4.5. Equipments Used during the Test

● Conducted Emission						
Used	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal. Date (YY-MM-DD)	Next Cal. Date (YY-MM-DD)
●	Shielded Room	Albatross projects	N/A	N/A	2018/09/28	2023/09/27
●	EMI Test Receiver	R&S	ESCI	101247	2018/10/27	2019/10/26
●	Artificial Mains	SCHWARZBECK	NNLK 8121	573	2018/10/27	2019/10/26
●	Pulse Limiter	R&S	ESH3-Z2	100499	2018/10/27	2019/10/26
●	RF Connection Cable	HUBER+SUHNER	EF400	N/A	2018/11/15	2019/11/14
●	Test Software	R&S	ES-K1	N/A	N/A	N/A
○	Single Balanced Telecom Pair ISN	FCC	FCC-TLISN-T2-02	20371	2018/10/28	2019/10/27
○	Two Balanced Telecom Pairs ISN	FCC	FCC-TLISN-T4-02	20373	2018/10/28	2019/10/27
○	Four Balanced Telecom Pairs ISN	FCC	FCC-TLISN-T8-02	20375	2018/10/28	2019/10/27
○	V-Network	R&S	ESH3-Z6	100211	2018/10/27	2019/10/26
○	V-Network	R&S	ESH3-Z6	100210	2018/10/27	2019/10/26
○	2-Line V-Network	R&S	ESH3-Z5	100049	2018/10/27	2019/10/26

● Radiated Emission-6th test site						
Used	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal. Date (YY-MM-DD)	Next Cal. Date (YY-MM-DD)
●	Semi-Anechoic Chamber	Albatross projects	SAC-3m-02	N/A	2018/09/30	2021/09/29
●	EMI Test Receiver	R&S	ESCI	100900	2018/10/28	2019/10/27
●	Loop Antenna	R&S	HFH2-Z2	100020	2017/11/20	2020/11/19
●	Ultra-Broadband Antenna	SCHWARZBECK	VULB9163	546	2017/04/05	2020/04/04
●	Pre-Amplifier	SCHWARZBECK	BBV 9742	N/A	2018/11/15	2019/11/14
●	RF Connection Cable	HUBER+SUHNER	N/A	N/A	2018/09/28	2019/09/27
●	RF Connection Cable	HUBER+SUHNER	SUCOFLEX104	501184/4	2018/09/28	2019/09/27
●	Test Software	R&S	ES-K1	N/A	N/A	N/A
●	Turntable	Maturo Germany	TT2.0-1T	N/A	N/A	N/A
●	Antenna Mast	Maturo Germany	CAM-4.0-P-12	N/A	N/A	N/A

● Radiated emission-7th test site						
Used	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal. Date (YY-MM-DD)	Next Cal. Date (YY-MM-DD)
●	Semi-Anechoic Chamber	Albatross projects	SAC-3m-01	N/A	2018/09/30	2021/09/29
●	Spectrum Analyzer	R&S	FSP40	100597	2018/10/27	2019/10/26
●	Horn Antenna	SCHWARZBECK	9120D	1011	2017/03/27	2020/03/26
●	Pre-amplifier	BONN	BLWA0160-2M	1811887	2018/11/14	2019/11/13
●	Pre-amplifier	CD	PAP-0102	12004	2018/11/14	2019/11/13
●	Broadband Pre-amplifier	SCHWARZBECK	BBV 9718	9718-248	2019/04/28	2020/04/27
●	RF Connection Cable	HUBER+SUHNER	RE-7-FH	N/A	2018/11/15	2019/11/14
●	RF Connection Cable	HUBER+SUHNER	RE-7-FL	N/A	2018/11/15	2019/11/14
●	Test Software	Audix	E3	N/A	N/A	N/A
●	Turntable	Maturo Germany	TT2.0-1T	N/A	N/A	N/A
●	Antenna Mast	Maturo Germany	CAM-4.0-P-12	N/A	N/A	N/A

● RF Conducted Method						
Used	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal. Date (YY-MM-DD)	Next Cal. Date (YY-MM-DD)
●	Signal and spectrum Analyzer	R&S	FSV40	100048	2018/10/28	2019/10/27
●	Spectrum Analyzer	Agilent	N9020A	MY50510187	2018/09/29	2019/09/28
○	Radio communication tester	R&S	CMW500	137688-Lv	2018/09/29	2019/09/28
○	Test software	Tonscend	JS1120-1(LTE)	N/A	N/A	N/A
○	Test software	Tonscend	JS1120-2(WIFI)	N/A	N/A	N/A
○	Test software	Tonscend	JS1120-3(WCDMA)	N/A	N/A	N/A
○	Test software	Tonscend	JS1120-4(GSM)	N/A	N/A	N/A

5. TEST CONDITIONS AND RESULTS

5.1. AC Power Conducted Emissions

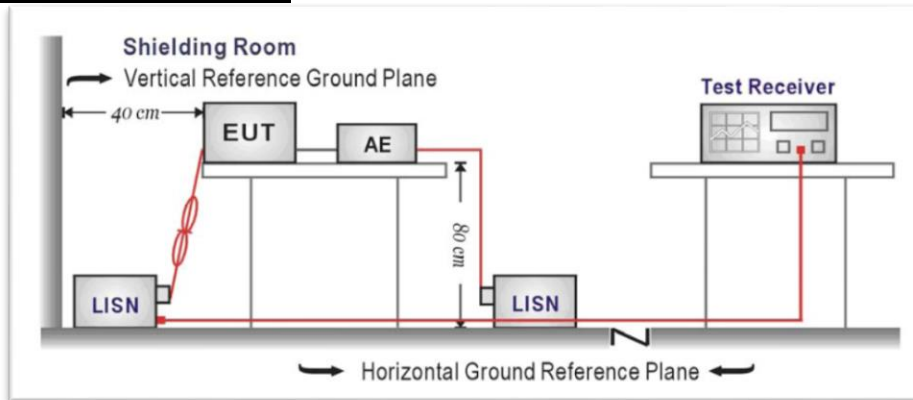
LIMIT

FCC CFR Title 47 Part 15 Subpart C Section 15.207:

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 ANSI C63.10:2013
2. The EUT was placed on a platform 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

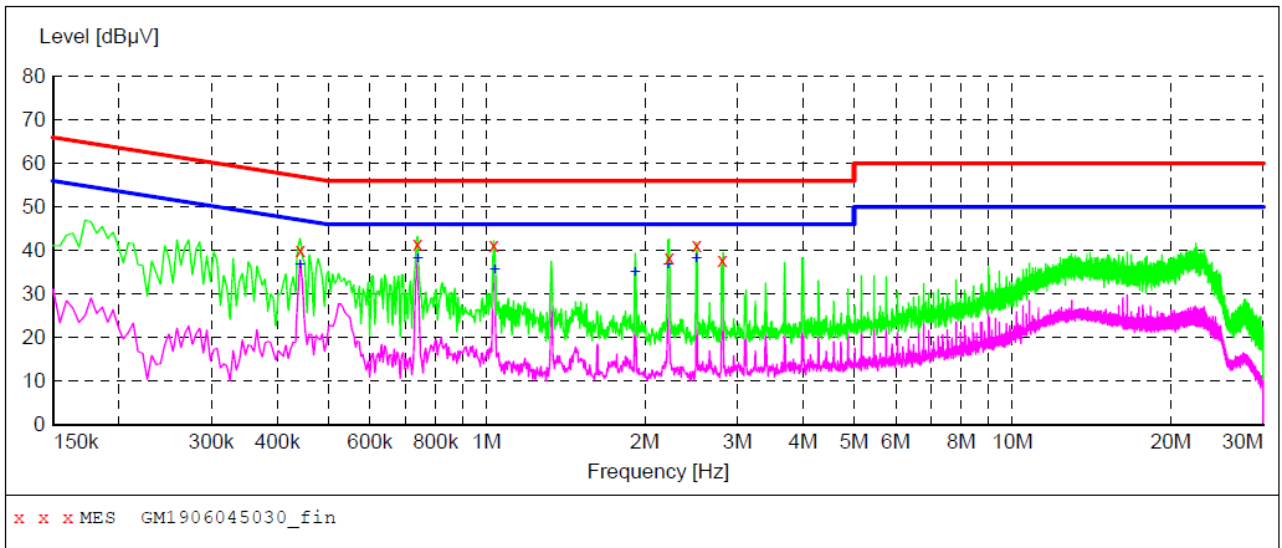
TEST RESULTS

Passed Not Applicable

Note:

- 1) Transd= Cable lose +Pulse Limiter Factor + Artificial Mains Factor
- 2) Margin= Limit - Level

Test Mode:	DC 5V output
Test Line:	L



MEASUREMENT RESULT: "GM1906045030_fin"

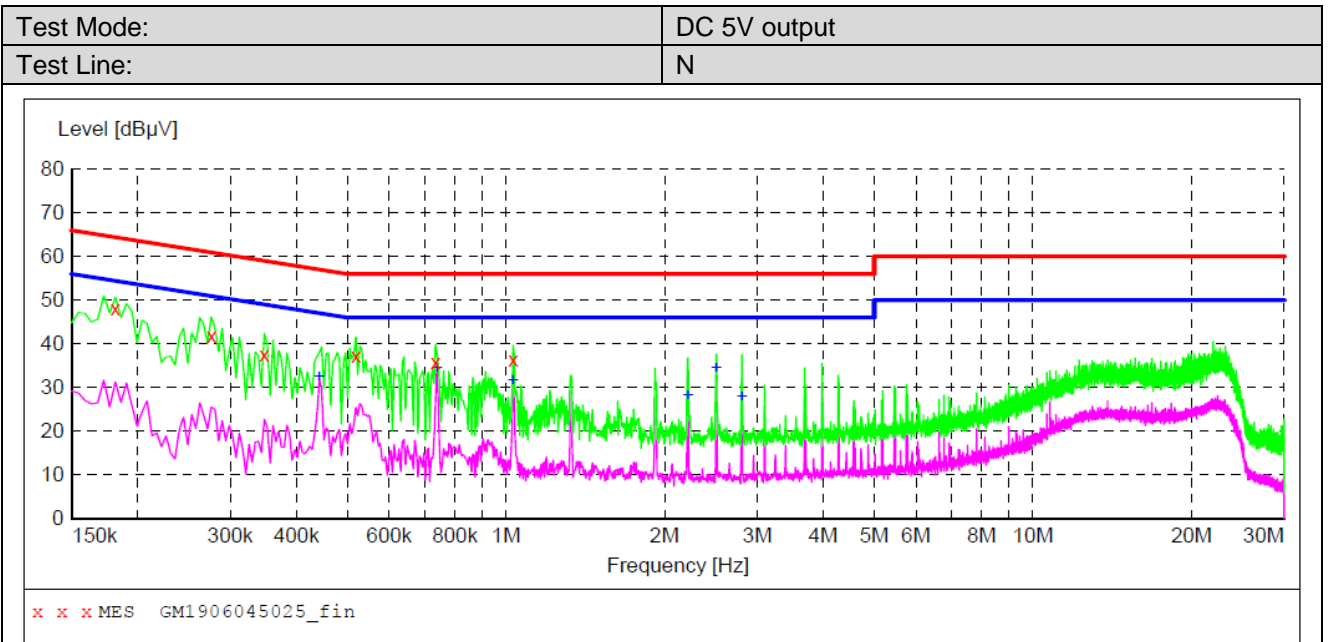
6/4/2019 2:48PM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.442500	40.20	9.9	57	16.8	QP	L1	GND
0.739500	41.60	9.9	56	14.4	QP	L1	GND
1.032000	41.10	9.9	56	14.9	QP	L1	GND
2.224500	38.50	9.9	56	17.5	QP	L1	GND
2.508000	41.30	9.9	56	14.7	QP	L1	GND
2.805000	37.80	9.9	56	18.2	QP	L1	GND

MEASUREMENT RESULT: "GM1906045030_fin2"

6/4/2019 2:48PM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.442500	36.50	9.9	47	10.5	AV	L1	GND
0.739500	38.20	9.9	46	7.8	AV	L1	GND
1.036500	35.50	9.9	46	10.5	AV	L1	GND
1.918500	34.90	9.9	46	11.1	AV	L1	GND
2.215500	36.80	9.9	46	9.2	AV	L1	GND
2.508000	38.10	9.9	46	7.9	AV	L1	GND



MEASUREMENT RESULT: "GM1906045025_fin"

6/4/2019 2:31PM

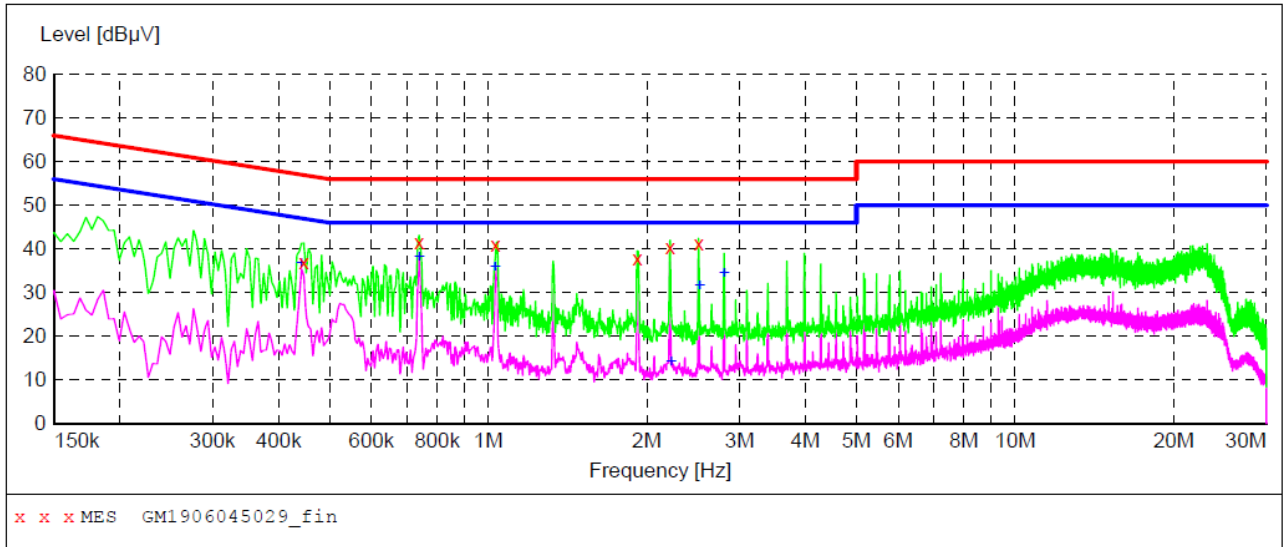
Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.181500	48.10	9.9	64	16.3	QP	N	GND
0.276000	41.80	9.9	61	19.1	QP	N	GND
0.348000	37.50	9.9	59	21.5	QP	N	GND
0.519000	37.20	9.9	56	18.8	QP	N	GND
0.735000	35.70	9.9	56	20.3	QP	N	GND
1.032000	36.40	9.9	56	19.6	QP	N	GND

MEASUREMENT RESULT: "GM1906045025_fin2"

6/4/2019 2:31PM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.442500	32.40	9.9	47	14.6	AV	N	GND
0.739500	34.40	9.9	46	11.6	AV	N	GND
1.032000	31.50	9.9	46	14.5	AV	N	GND
2.215500	28.00	9.9	46	18.0	AV	N	GND
2.508000	34.40	9.9	46	11.6	AV	N	GND
2.805000	27.80	9.9	46	18.2	AV	N	GND

Test Mode:	DC 9V output
Test Line:	L



MEASUREMENT RESULT: "GM1906045029_fin"

6/4/2019 2:45PM

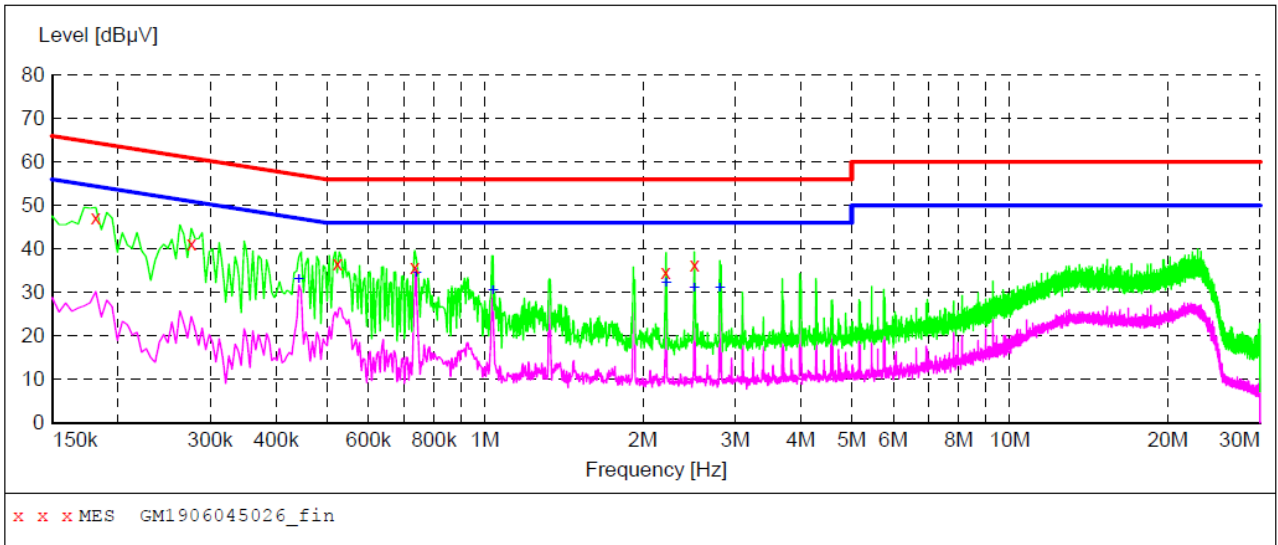
Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.447000	37.00	9.9	57	19.9	QP	L1	GND
0.739500	41.60	9.9	56	14.4	QP	L1	GND
1.032000	41.00	9.9	56	15.0	QP	L1	GND
1.918500	37.90	9.9	56	18.1	QP	L1	GND
2.215500	40.30	9.9	56	15.7	QP	L1	GND
2.508000	41.30	9.9	56	14.7	QP	L1	GND

MEASUREMENT RESULT: "GM1906045029_fin2"

6/4/2019 2:45PM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.442500	36.60	9.9	47	10.4	AV	L1	GND
0.739500	38.00	9.9	46	8.0	AV	L1	GND
1.032000	35.60	9.9	46	10.4	AV	L1	GND
2.224500	14.10	9.9	46	31.9	AV	L1	GND
2.521500	31.50	9.9	46	14.5	AV	L1	GND
2.805000	34.30	9.9	46	11.7	AV	L1	GND

Test Mode:	DC 9V output
Test Line:	N



MEASUREMENT RESULT: "GM1906045026_fin"

6/4/2019 2:34PM

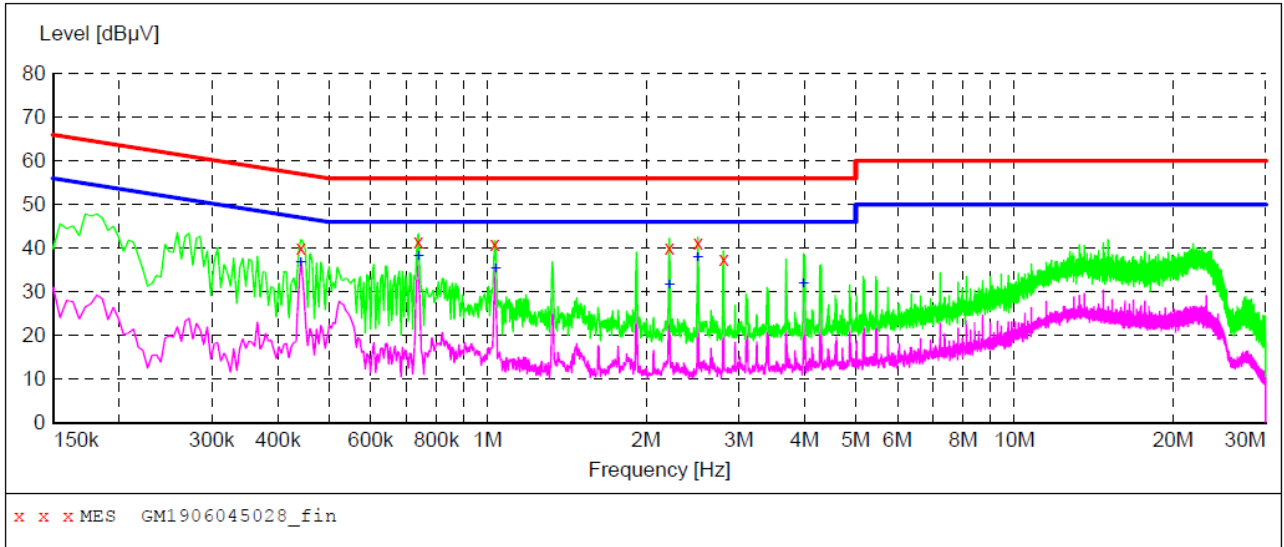
Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.181500	47.20	9.9	64	17.2	QP	N	GND
0.276000	41.30	9.9	61	19.6	QP	N	GND
0.523500	36.80	9.9	56	19.2	QP	N	GND
0.735000	35.90	9.9	56	20.1	QP	N	GND
2.211000	34.70	9.9	56	21.3	QP	N	GND
2.508000	36.30	9.9	56	19.7	QP	N	GND

MEASUREMENT RESULT: "GM1906045026_fin2"

6/4/2019 2:34PM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.442500	33.00	9.9	47	14.0	AV	N	GND
0.739500	34.50	9.9	46	11.5	AV	N	GND
1.036500	30.40	9.9	46	15.6	AV	N	GND
2.215500	32.10	9.9	46	13.9	AV	N	GND
2.508000	31.10	9.9	46	14.9	AV	N	GND
2.805000	30.90	9.9	46	15.1	AV	N	GND

Test Mode:	DC 12V output
Test Line:	L



MEASUREMENT RESULT: "GM1906045028_fin"

6/4/2019 2:40PM

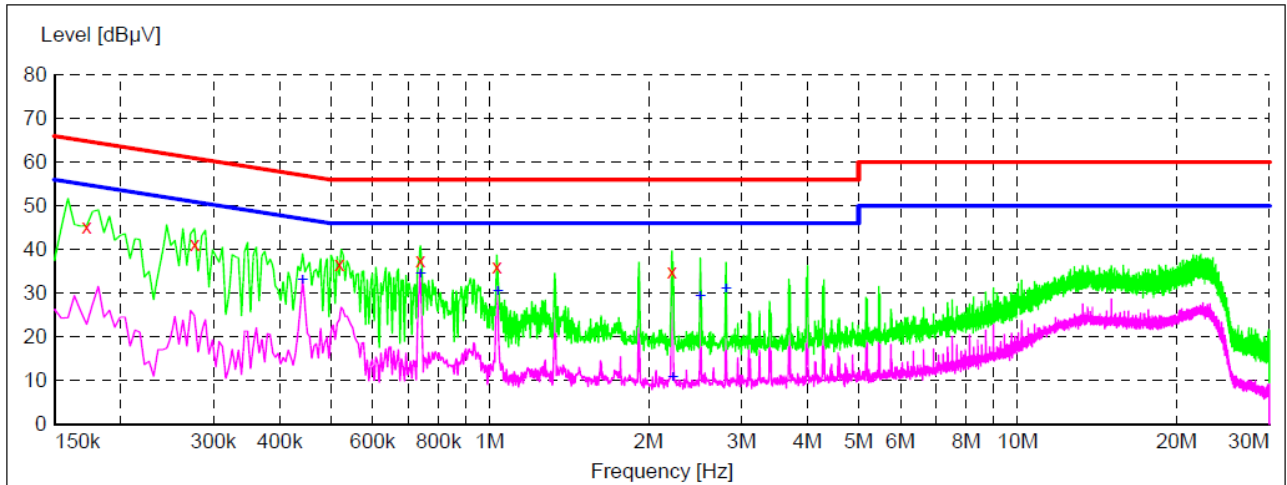
Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.442500	40.10	9.9	57	16.9	QP	L1	GND
0.739500	41.50	9.9	56	14.5	QP	L1	GND
1.032000	41.00	9.9	56	15.0	QP	L1	GND
2.215500	40.10	9.9	56	15.9	QP	L1	GND
2.508000	41.20	9.9	56	14.8	QP	L1	GND
2.805000	37.50	9.9	56	18.5	QP	L1	GND

MEASUREMENT RESULT: "GM1906045028_fin2"

6/4/2019 2:40PM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.442500	36.60	9.9	47	10.4	AV	L1	GND
0.739500	38.10	9.9	46	7.9	AV	L1	GND
1.036500	35.20	9.9	46	10.8	AV	L1	GND
2.215500	31.50	9.9	46	14.5	AV	L1	GND
2.508000	37.90	9.9	46	8.1	AV	L1	GND
3.984000	31.70	9.9	46	14.3	AV	L1	GND

Test Mode:	DC 12V output
Test Line:	N



x x x MES GM1906045027_fin

MEASUREMENT RESULT: "GM1906045027_fin"

6/4/2019 2:37PM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.172500	45.30	9.9	65	19.5	QP	N	GND
0.276000	41.10	9.9	61	19.8	QP	N	GND
0.519000	36.70	9.9	56	19.3	QP	N	GND
0.739500	37.50	9.9	56	18.5	QP	N	GND
1.032000	36.00	9.9	56	20.0	QP	N	GND
2.215500	35.00	9.9	56	21.0	QP	N	GND

MEASUREMENT RESULT: "GM1906045027_fin2"

6/4/2019 2:37PM

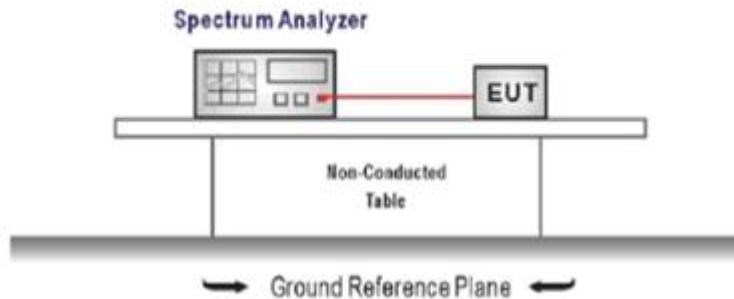
Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.442500	32.90	9.9	47	14.1	AV	N	GND
0.739500	34.30	9.9	46	11.7	AV	N	GND
1.036500	30.30	9.9	46	15.7	AV	N	GND
2.224500	10.60	9.9	46	35.4	AV	N	GND
2.508000	29.10	9.9	46	16.9	AV	N	GND
2.805000	30.90	9.9	46	15.1	AV	N	GND

5.2. 20 dB Occupied Bandwidth

Limit

FCC Part 2.1049, Only applicable to report.

TEST CONFIGURATION



TEST PROCEDURE

1. The transmitter output was connected to the spectrum analyzer through an attenuator, the pathloss was compensated to the results for each measurement.
2. Set to the maximum power setting and enable the EUT transmit continuously
3. Use the following spectrum analyzer settings:
Span = approximately 2 to 3 times the 20 dB bandwidth, centered on a hopping channel
RBW \geq 1% of the 20 dB bandwidth, VBW \geq RBW
Sweep = auto, Detector function = peak, Trace = max hold
4. Measure and record the results in the test report(5V rating output).

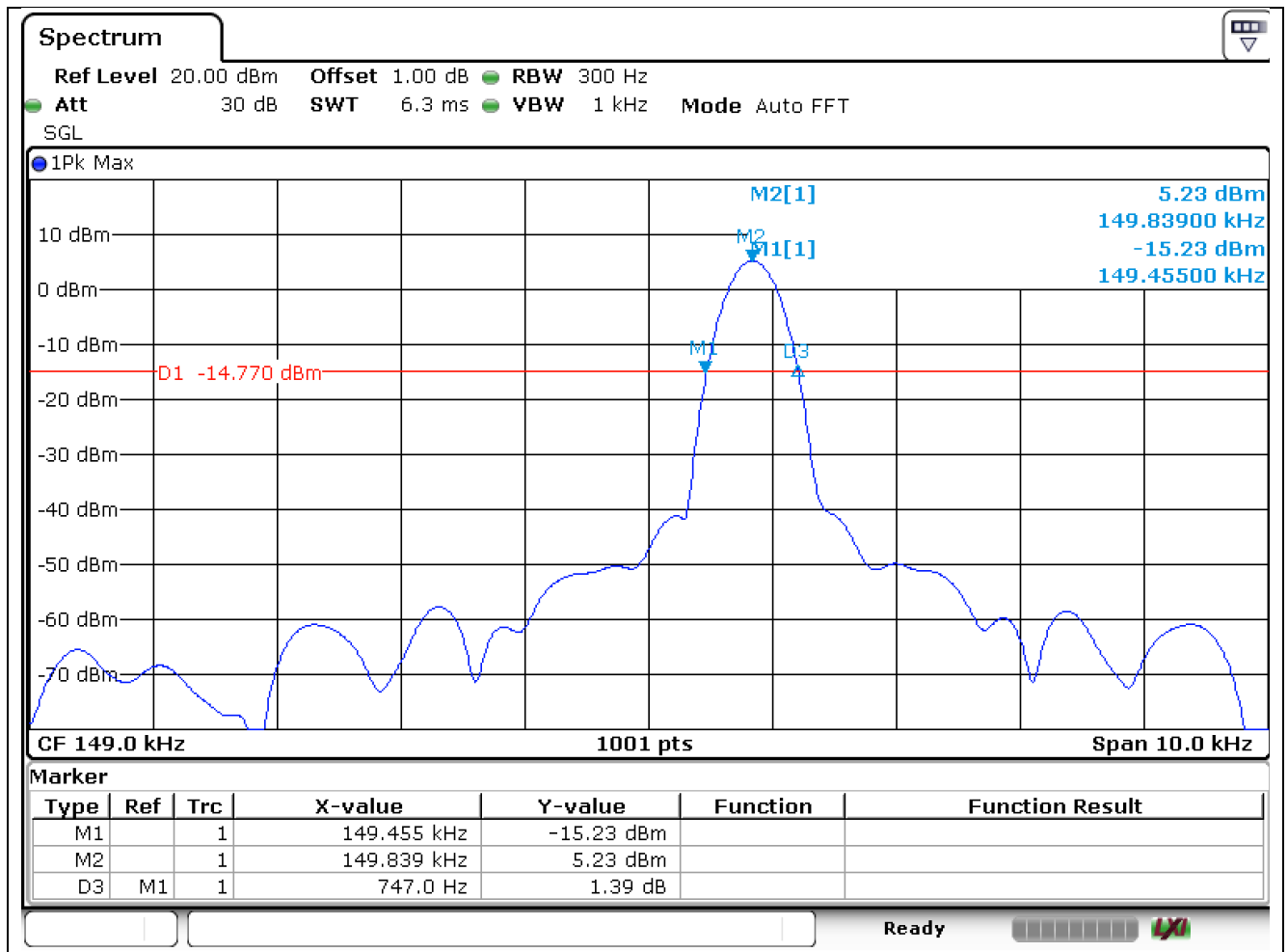
TEST MODE:

Please refer to the clause 3.3

TEST RESULTS

Passed Not Applicable

Test Channel	20dB Bandwidth (KHz)	Limit (KHz)	Result
0.149MHz	0.747	-	Pass



5.3. Radiated Spurious Emissions

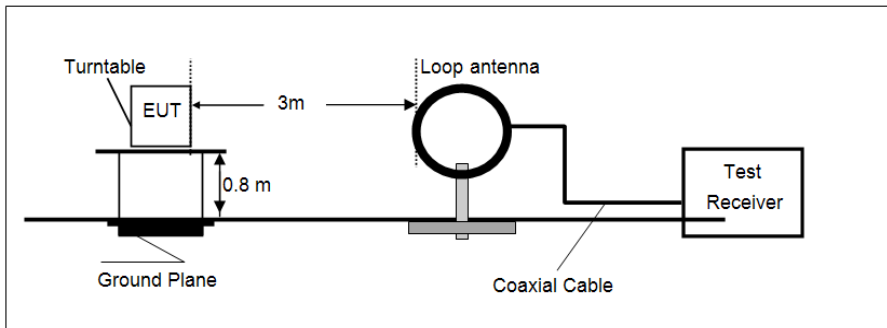
LIMIT

FCC CFR Title 47 Part 15 Subpart C Section 15.209

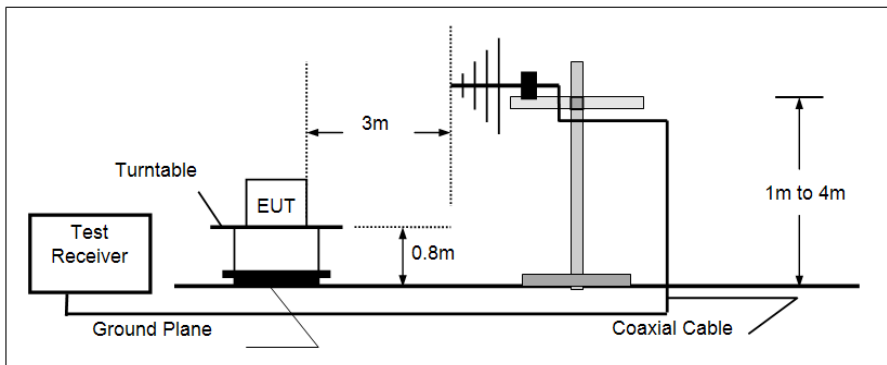
Frequency[MHz]	Field Strength [uV/m]	Measurement Distance [Meters]
0.009 ~ 0.490	2400/F (kHz)	300
0.490 ~ 1.705	24000/F (kHz)	30
1.705 ~ 30	30	30
30 ~ 88	100	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

TEST CONFIGURATION

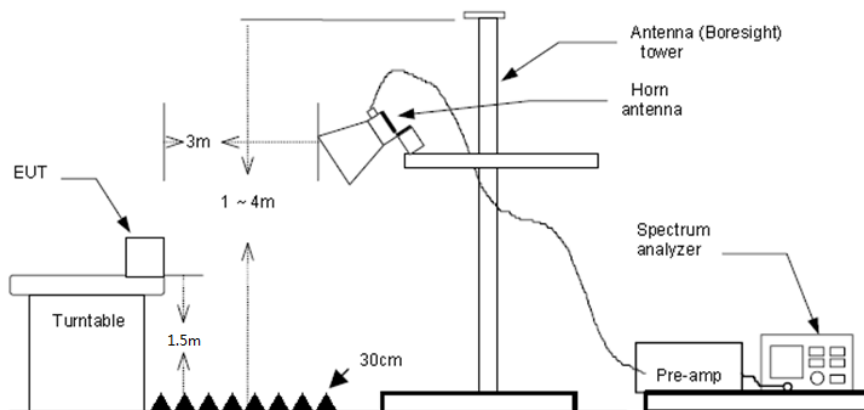
- 9 kHz ~ 30 MHz



- 30 MHz ~ 1 GHz



- Above 1 GHz



TEST PROCEDURE

1. The EUT was setup and tested according to ANSI C63.10:2013 requirements.
2. The EUT is placed on a turn table which is 0.8 meter above ground for below 1 GHz, and 1.5 m for above 1 GHz. The turn table is rotated 360 degrees to determine the position of the maximum emission level.
3. The EUT was set 3 meters from the receiving antenna, which was mounted on the top of a variable height antenna tower.
4. For each suspected emission, the EUT was arranged to its worst case and then tune the Antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level to comply with the guidelines.
5. Set to the maximum power setting and enable the EUT transmit continuously.
6. Use the following spectrum analyzer settings
 - (1) Span shall wide enough to fully capture the emission being measured;
 - (2) From 9KHz to 30MHz:
RBW=10KHz, VBW =30KHz, Sweep time= Auto, Trace = max hold, Detector function = peak
§ 15.209(d) The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.
 - (3) Below 1 GHz:
RBW=120 kHz, VBW=300 kHz, Sweep=auto, Detector function=peak, Trace=max hold;
If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.
 - (4) From 1 GHz to 10th harmonic:
RBW=1MHz, VBW=3MHz Peak detector for Peak value.
RBW=1MHz, VBW=3MHz RMS detector for Average value.

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) The EUT was pre-scanned the frequency band (9 kHz ~ 30 MHz), found the DC 5V OUTPUT was the worst data, and recorded it in the report.

Radiated Spurious Emissions

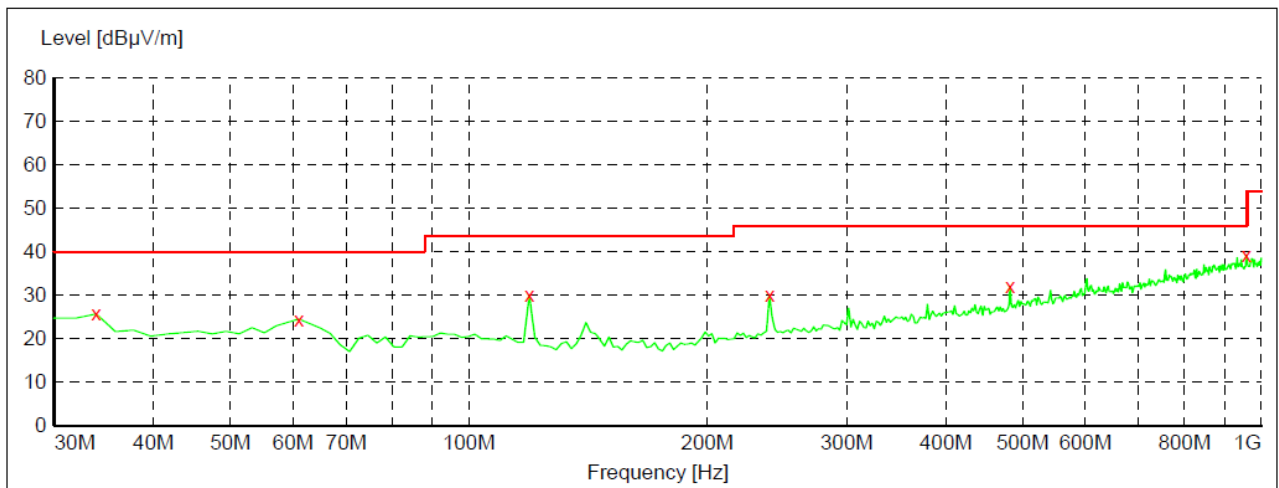
9 kHz ~ 30 MHz

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Test value
0.03	18.78	22.37	0.20	0.00	41.35	118.87	-77.52	QP
0.04	25.63	22.33	0.21	0.00	48.17	116.23	-68.06	QP
0.07	20.95	22.30	0.22	0.00	43.47	110.17	-66.70	QP
0.40	37.56	22.20	0.23	0.00	59.99	87.58	-27.59	QP
0.67	29.53	22.20	0.25	0.00	51.98	71.10	-19.12	QP
0.03	18.78	22.37	0.20	0.00	41.35	118.87	-77.52	QP

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Test value
0.149	56.89	22.24	0.23	0.00	79.36	104.12	-24.76	QP

30 MHz ~ 1 GHz

Test Mode:	DC 5V output
Polarization:	Vertical

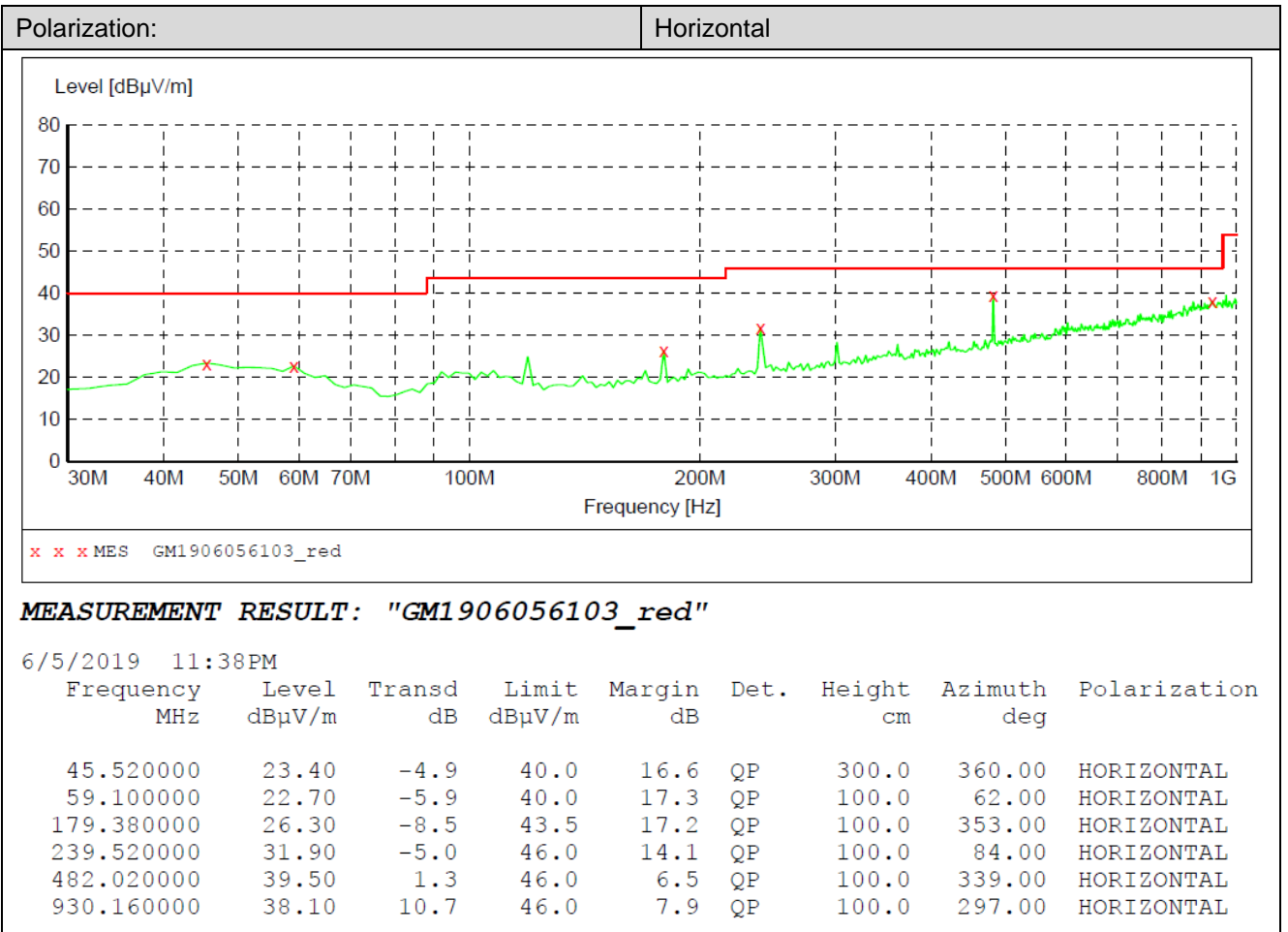


x x x MES GM1906056102_red

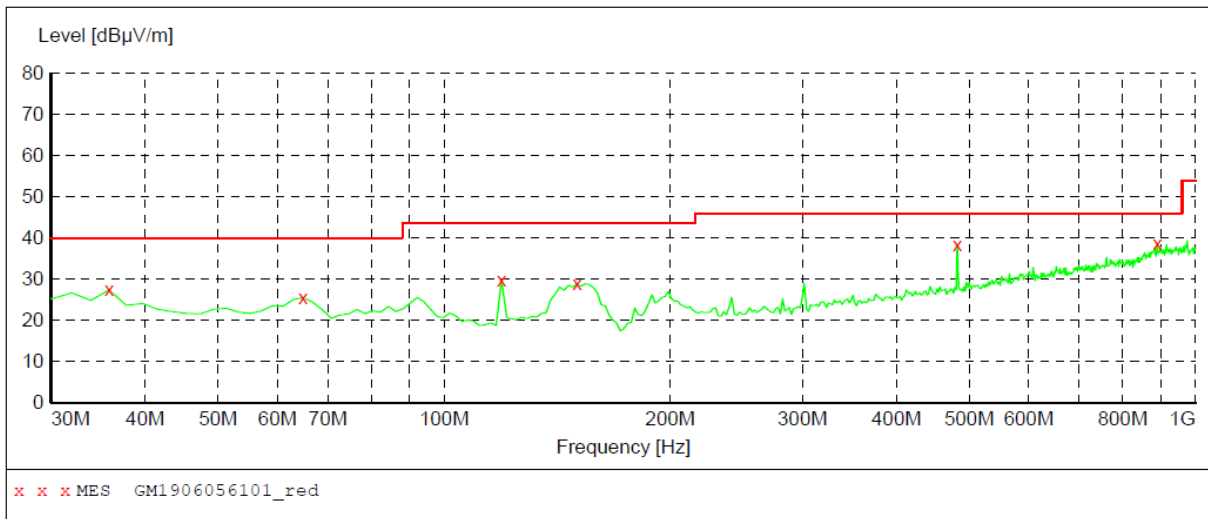
MEASUREMENT RESULT: "GM1906056102_red"

6/5/2019 11:34PM

Frequency MHz	Level dBuV/m	Transd dB	Limit dBuV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
33.880000	25.70	-8.7	40.0	14.3	QP	100.0	337.00	VERTICAL
61.040000	24.50	-6.4	40.0	15.5	QP	100.0	274.00	VERTICAL
119.240000	30.00	-8.3	43.5	13.5	QP	100.0	198.00	VERTICAL
239.520000	30.10	-5.0	46.0	15.9	QP	100.0	221.00	VERTICAL
482.020000	32.10	1.3	46.0	13.9	QP	100.0	221.00	VERTICAL
957.320000	39.30	10.9	46.0	6.7	QP	100.0	95.00	VERTICAL



Test Mode:	DC 9V output
Polarization:	Vertical

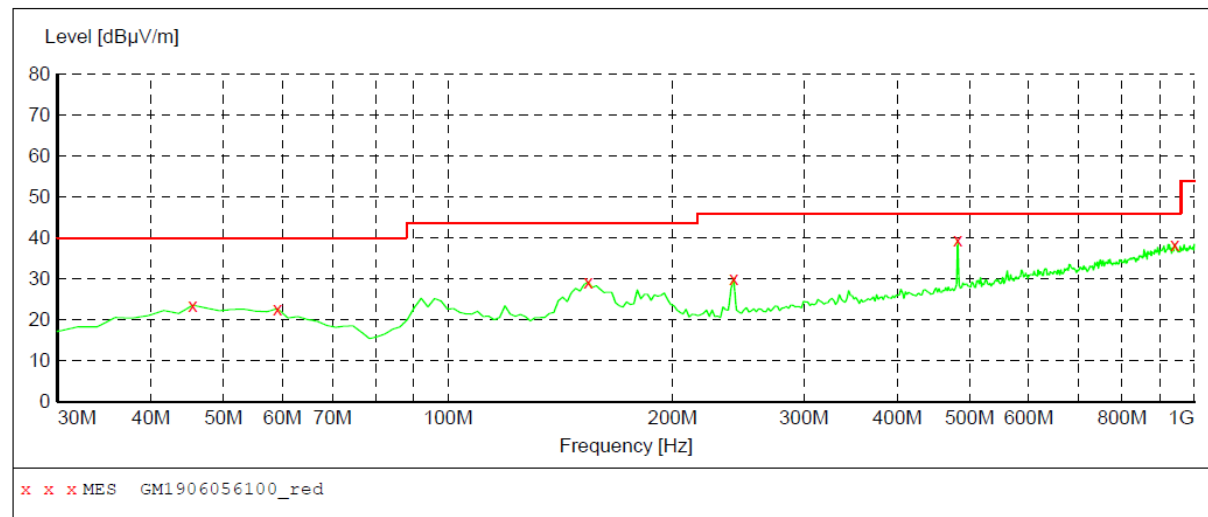


MEASUREMENT RESULT: "GM1906056101_red"

6/5/2019 11:27PM

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
35.820000	27.40	-7.7	40.0	12.6	QP	100.0	325.00	VERTICAL
64.920000	25.50	-7.5	40.0	14.5	QP	100.0	325.00	VERTICAL
119.240000	29.80	-8.3	43.5	13.7	QP	100.0	169.00	VERTICAL
150.280000	28.90	-10.0	43.5	14.6	QP	100.0	274.00	VERTICAL
482.020000	38.50	1.3	46.0	7.5	QP	100.0	14.00	VERTICAL
889.420000	38.70	10.2	46.0	7.3	QP	100.0	195.00	VERTICAL

Polarization:	Horizontal
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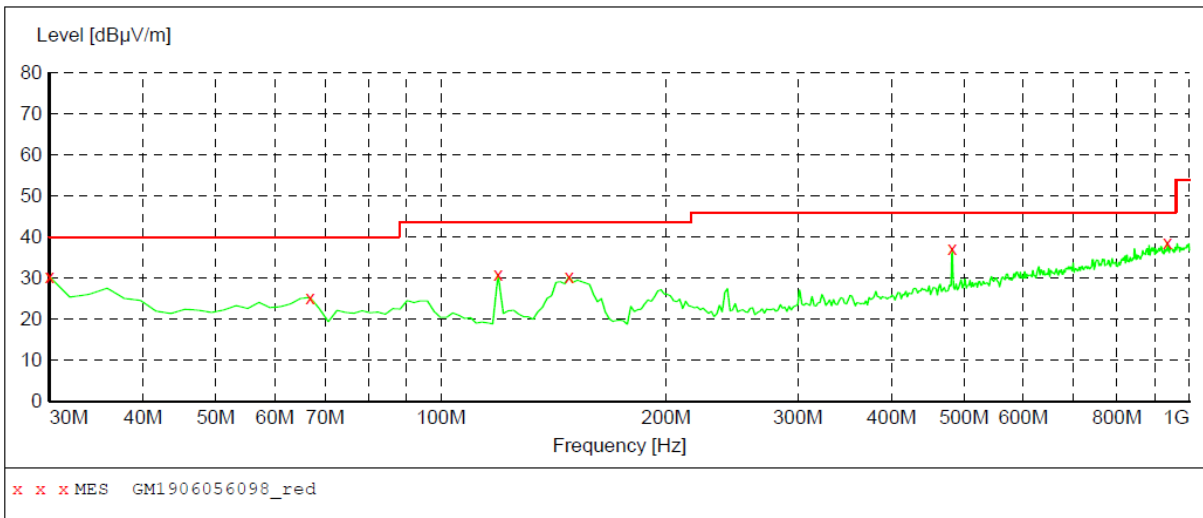


MEASUREMENT RESULT: "GM1906056100_red"

6/5/2019 11:24PM

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
45.520000	23.60	-4.9	40.0	16.4	QP	300.0	3.00	HORIZONTAL
59.100000	22.70	-5.9	40.0	17.3	QP	300.0	194.00	HORIZONTAL
154.160000	29.30	-9.9	43.5	14.2	QP	100.0	229.00	HORIZONTAL
241.460000	30.20	-4.9	46.0	15.8	QP	100.0	136.00	HORIZONTAL
482.020000	39.50	1.3	46.0	6.5	QP	100.0	3.00	HORIZONTAL
941.800000	38.50	10.8	46.0	7.5	QP	300.0	51.00	HORIZONTAL

Test Mode:	DC 12V output
Polarization:	Vertical

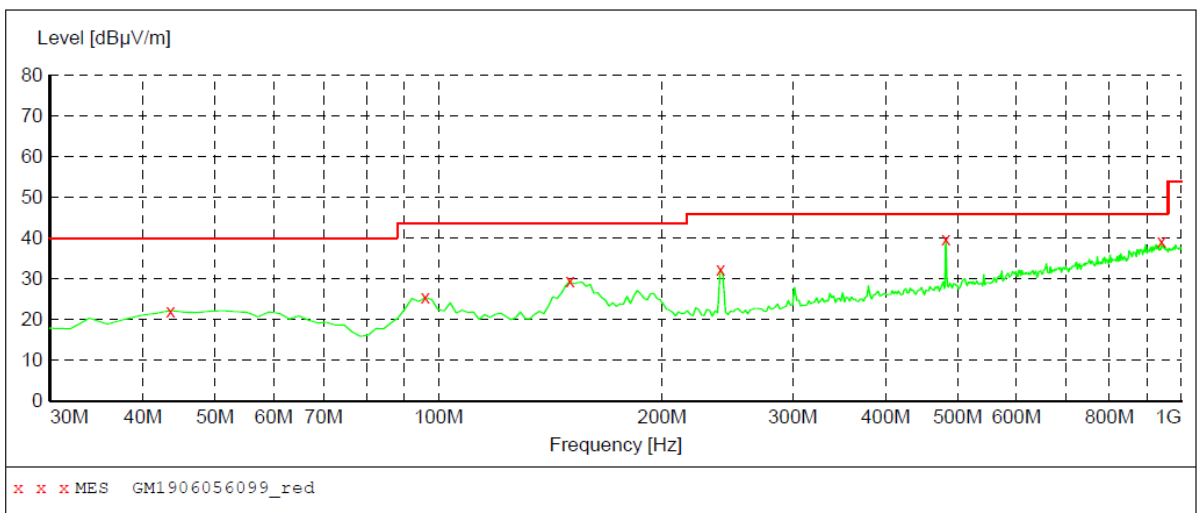


MEASUREMENT RESULT: "GM1906056098_red"

6/5/2019 11:17PM

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
30.000000	30.30	-9.4	40.0	9.7	QP	100.0	263.00	VERTICAL
66.860000	25.30	-8.1	40.0	14.7	QP	100.0	0.00	VERTICAL
119.240000	30.90	-8.3	43.5	12.6	QP	100.0	193.00	VERTICAL
148.340000	30.40	-10.1	43.5	13.1	QP	100.0	245.00	VERTICAL
482.020000	37.20	1.3	46.0	8.8	QP	100.0	359.00	VERTICAL
934.040000	38.80	10.8	46.0	7.2	QP	100.0	180.00	VERTICAL

Polarization:	Horizontal
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MEASUREMENT RESULT: "GM1906056099_red"

6/5/2019 11:21PM

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
43.580000	22.20	-5.2	40.0	17.8	QP	100.0	121.00	HORIZONTAL
95.960000	25.40	-7.3	43.5	18.1	QP	300.0	186.00	HORIZONTAL
150.280000	29.40	-10.0	43.5	14.1	QP	100.0	222.00	HORIZONTAL
239.520000	32.40	-5.0	46.0	13.6	QP	100.0	210.00	HORIZONTAL
482.020000	39.70	1.3	46.0	6.3	QP	100.0	54.00	HORIZONTAL
939.860000	39.20	10.8	46.0	6.8	QP	100.0	69.00	HORIZONTAL

6. TEST SETUP PHOTOS OF THE EUT

Conducted Emissions (AC Mains)

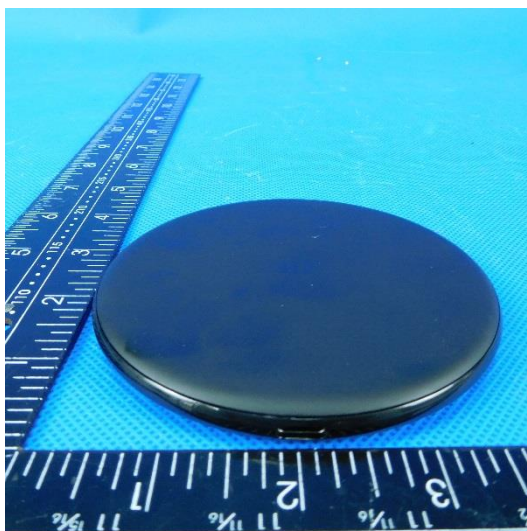
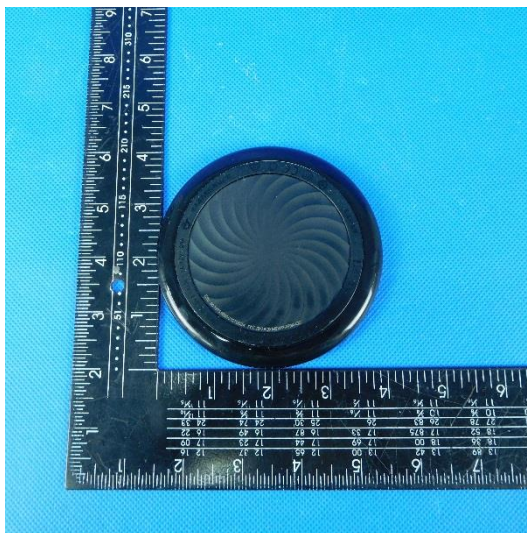
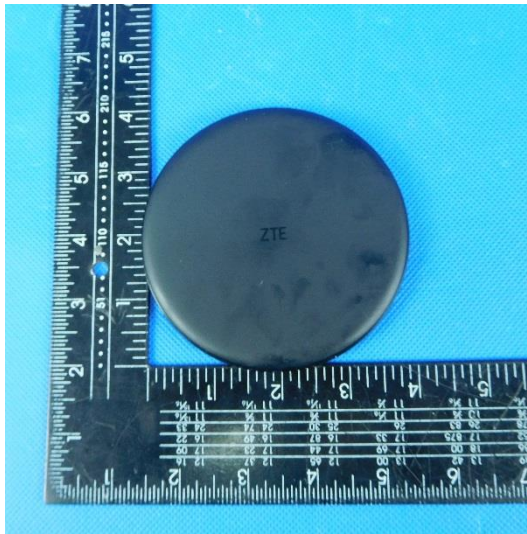


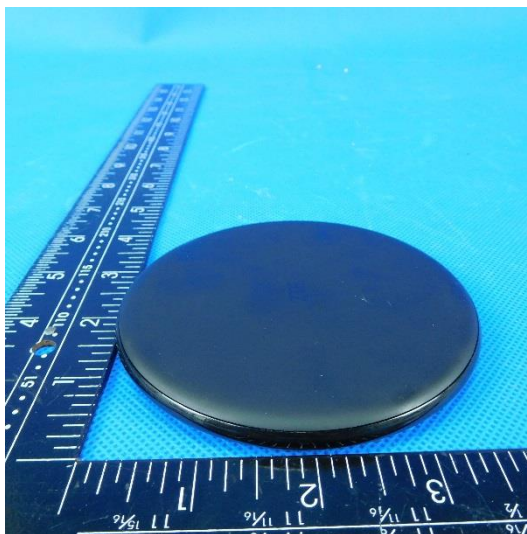
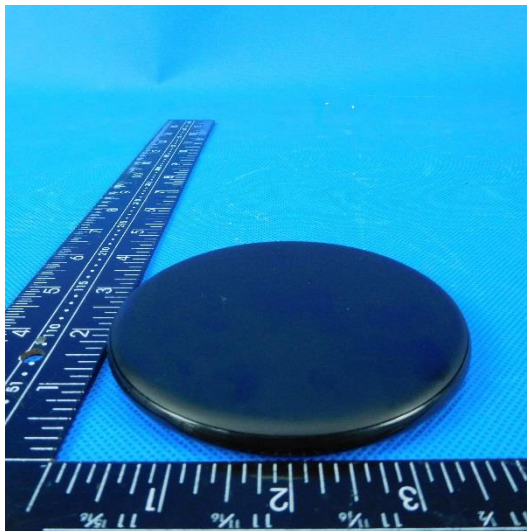
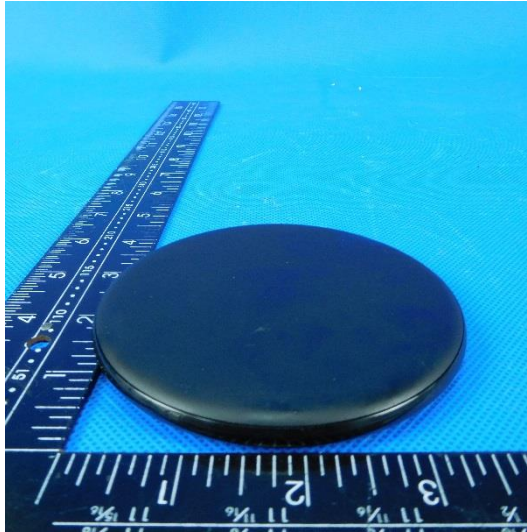
Radiated Emissions



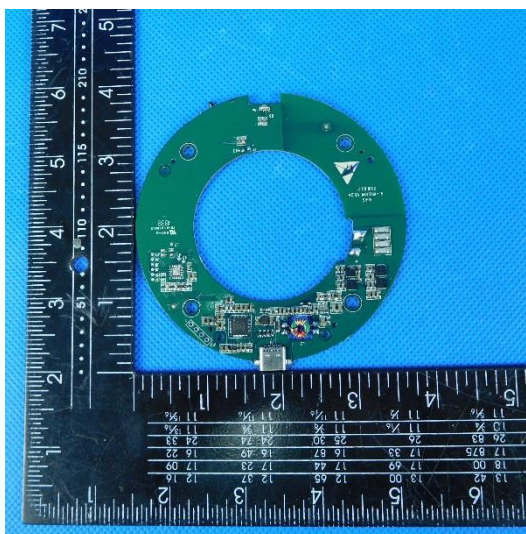
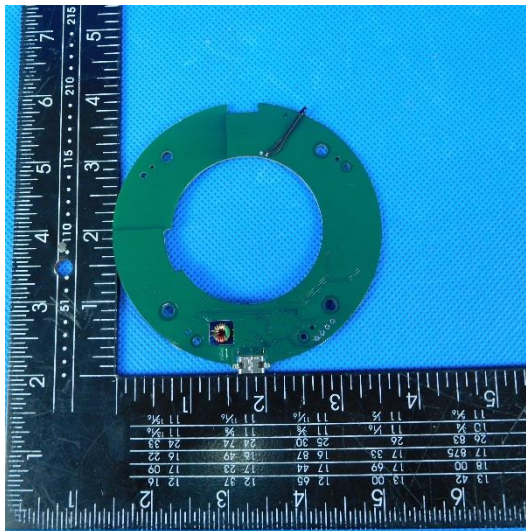
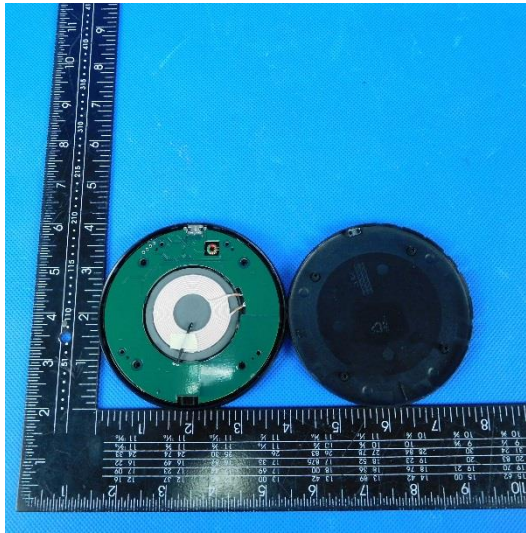
7. EXTERNAL AND INTERNAL PHOTOS OF THE EUT

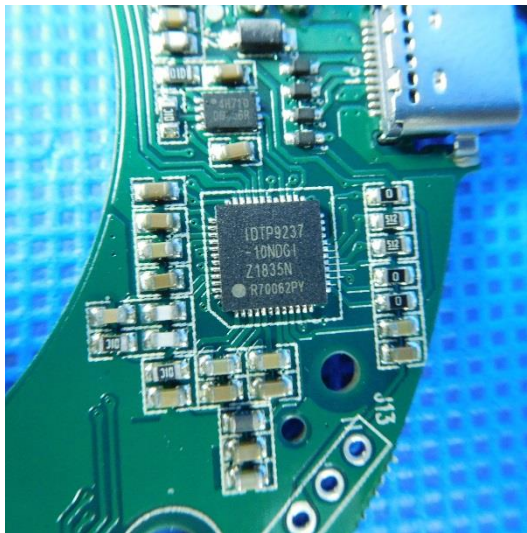
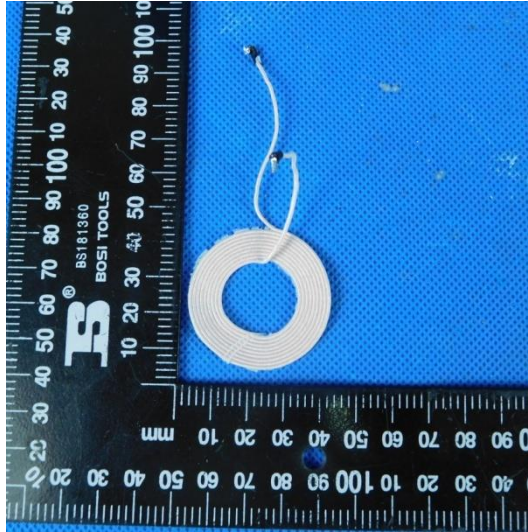
External Photos of the EUT





Internal Photos of the EUT





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