

FCC Test Report

Report No.: AGC00184190601FE04

FCC ID : 2ASQI-3880

APPLICATION PURPOSE : Original Equipment

PRODUCT DESIGNATION : Top Dogg Ground Swat Grey Camo 360 Degree Sound

BRAND NAME : Primos

MODEL NAME : 3880, 3870

APPLICANT : Bushnell Holdings Inc.

DATE OF ISSUE : Nov. 15, 2019

STANDARD(S) : FCC Part 15.247

REPORT VERSION : V1.0

Attestation of Global Compliance (Shenzhen) Co., Ltd

CAUTION:

This report shall not be reproduced except in full without the written permission of the test laboratory and shall not be quoted out of context.



Attestation of Global Compliance

Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, Sanwei Chaxi Industrial Park, Sanwei Community,
Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline: 400 089 2118

REPORT REVISE RECORD

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	/	Nov. 15, 2019	Valid	Initial Release



TABLE OF CONTENTS

1. VERIFICATION OF COMPLIANCE	5
2.GENERAL INFORMATION	6
2.1PRODUCT DESCRIPTION.....	6
2.2. TABLE OF CARRIER FREQUENCYS	6
2.3 RELATED SUBMITTAL(S)/GRANT(S)	7
2.4TEST METHODOLOGY	7
2.5 SPECIAL ACCESSORIES	7
2.6 EQUIPMENT MODIFICATIONS	7
3. MEASUREMENT UNCERTAINTY	8
4. DESCRIPTION OF TEST MODES.....	9
5. SYSTEM TEST CONFIGURATION	10
5.1 CONFIGURATION OF TESTED SYSTEM.....	10
5.2 EQUIPMENT USED IN TESTED SYSTEM	10
5.3. SUMMARY OF TEST RESULTS.....	10
6. TEST FACILITY	11
7. PEAK OUTPUT POWER	12
7.1. MEASUREMENT PROCEDURE	12
7.2. TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)	12
7.3. LIMITS AND MEASUREMENT RESULT	13
8. 6 DB BANDWIDTH.....	14
8.1. MEASUREMENT PROCEDURE	14
8.2. TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)	14
8.3. LIMITS AND MEASUREMENT RESULTS	14
9. CONDUCTED SPURIOUS EMISSION	15
9.1. MEASUREMENT PROCEDURE	15
9.2. TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)	15
9.3. MEASUREMENT EQUIPMENT USED	15
9.4. LIMITS AND MEASUREMENT RESULT	15
10. MAXIMUM CONDUCTED OUTPUT POWER SPECTRAL DENSITY	18

10.1 MEASUREMENT PROCEDURE	18
10.2 TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)	18
10.3 MEASUREMENT EQUIPMENT USED	18
10.4 LIMITS AND MEASUREMENT RESULT	18
11. RADIATED EMISSION	19
11.1. MEASUREMENT PROCEDURE	19
11.2. TEST SETUP	20
11.3. LIMITS AND MEASUREMENT RESULT	21
11.4. TEST RESULT	21
12. FCC LINE CONDUCTED EMISSION TEST	25
12.1. LIMITS OF LINE CONDUCTED EMISSION TEST	25
12.2. BLOCK DIAGRAM OF LINE CONDUCTED EMISSION TEST	25
12.3. PRELIMINARY PROCEDURE OF LINE CONDUCTED EMISSION TEST	26
12.4. FINAL PROCEDURE OF LINE CONDUCTED EMISSION TEST	26
12.5. TEST RESULT OF LINE CONDUCTED EMISSION TEST	27
APPENDIX A: PHOTOGRAPHS OF TEST SETUP	29
APPENDIX B: PHOTOGRAPHS OF EUT	31

1. VERIFICATION OF COMPLIANCE

Applicant	Bushnell Holdings Inc.
Address	9200 Cody, Overland Park, KS 66214 USA
Manufacturer	Wata Electronics Co., Ltd.
Address	No 142, South Tanshen Road, Tanzhou Town, Zhongshan City, Guangdong, China
Factory	Wata Electronics Co., Ltd.
Address	No 142, South Tanshen Road, Tanzhou Town, Zhongshan City, Guangdong, China
Product Designation	Top Dogg Ground Swat Grey Camo 360 Degree Sound
Brand Name	Primos
Test Model	3880
Series Model	3870
Difference description	All the same except for the model name and battery. The 3880 will be marketed with Li-on battery and adapter. The 3870 will be marketed with dry battery and without adapter. Both of them had been tested, the 3880 is the worst case and recorded in the report.
Date of test	Nov. 05, 2019 to Nov. 14, 2019
Deviation	No any deviation from the test method
Condition of Test Sample	Normal
Test Result	Pass
Report Template	AGCRT-US-BLE/RF

We hereby certify that:

The above equipment was tested by Attestation of Global Compliance (Shenzhen) Co., Ltd. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.10 (2013) and the energy emitted by the sample EUT tested as described in this report is in compliance with radiated emission limits of FCC part 15.247.

Prepared By



NiNi Guo
(Project Engineer)

Nov. 14, 2019

Reviewed By



Max Zhang
(Reviewer)

Nov. 15, 2019

Approved By



Forrest Lei
(Authorized Officer)

Nov. 15, 2019

2.GENERAL INFORMATION

2.1PRODUCT DESCRIPTION

The EUT is designed as a “Top Dogg Ground Swat Grey Camo 360 Degree Sound”. It is designed by way of utilizing the GFSK technology to achieve the system operation.

A major technical description of EUT is described as following

Operation Frequency	915MHz
RF Output Power	11.011dBm(Average)
Modulation	GFSK
Number of channels	1 Channel
Antenna Designation	PIFA Antenna(Comply with requirements of the FCC part 15.203)
Antenna Gain	0dBi
Hardware Version	V2.41
Software Version	V1.0
Power Supply	DC 14.8V by battery

2.2. TABLE OF CARRIER FREQUENCIES

Frequency Band	Frequency
902-928MHz	915MHz

2.3 RELATED SUBMITTAL(S)/GRANT(S)

This submittal(s) (test report) is intended for **FCC ID: 2ASQI-3880** filing to comply with the FCC Part 15.247 requirements.

2.4 TEST METHODOLOGY

Both conducted and radiated testing was performed according to the procedures in ANSI C63.10 (2013). Radiated testing was performed at an antenna to EUT distance 3 meters.

2.5 SPECIAL ACCESSORIES

Refer to section 2.2.

2.6 EQUIPMENT MODIFICATIONS

Not available for this EUT intended for grant.



3. MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement $y \pm U$, where expanded uncertainty U is based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately 95%.

- Uncertainty of Conducted Emission, $U_c = \pm 3.2$ dB
- Uncertainty of Radiated Emission below 1GHz, $U_c = \pm 3.9$ dB
- Uncertainty of Radiated Emission above 1GHz, $U_c = \pm 4.8$ dB
- Uncertainty of total RF power, conducted, $U_c = \pm 0.8$ dB
- Uncertainty of RF power density, conducted, $U_c = \pm 2.6$ dB
- Uncertainty of spurious emissions, conducted, $U_c = \pm 2.7$ dB
- Uncertainty of Occupied Channel Bandwidth: $U_c = \pm 2$ %



4. DESCRIPTION OF TEST MODES

NO.	TEST MODE DESCRIPTION
1	Transmitting mode

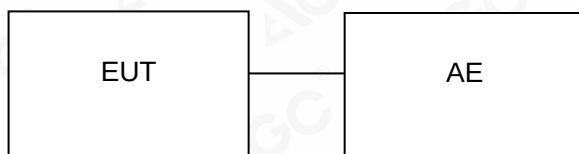
Note:

1. Only the result of the worst case was recorded in the report, if no other cases.
2. For Radiated Emission, 3axis were chosen for testing for each applicable mode.
3. For Conducted Test method, a temporary antenna connector is provided by the manufacture.



5. SYSTEM TEST CONFIGURATION

5.1 CONFIGURATION OF TESTED SYSTEM



5.2 EQUIPMENT USED IN TESTED SYSTEM

Item	Equipment	Model No.	ID or Specification	Remark
1	Top Dogg Ground Swat Grey Camo 360 Degree Sound	3880	2ASQI-3880	EUT
2	Adapter	GQ24-190100-AU	Input: AC 100-240V, 50/60Hz, 1.0A max Output: DC 19V $\approx$ 1.0A	Supprt

5.3. SUMMARY OF TEST RESULTS

FCC RULES	DESCRIPTION OF TEST	RESULT
15.247 (b)(3)	Peak Output Power	Compliant
15.247 (a)(2)	6 dB Bandwidth	Compliant
15.247 (d)	Conducted Spurious Emission	Compliant
15.247 (e)	Maximum Conducted Output Power Density	Compliant
15.209	Radiated Emission	Compliant
15.207	Conducted Emission	Compliant

6. TEST FACILITY

Test Site	Attestation of Global Compliance (Shenzhen) Co., Ltd
Location	1-2/F, Building 19, Junfeng Industrial Park, Chongqing Road, Heping Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China
Designation Number	CN1259
FCC Test Firm Registration Number	975832
A2LA Cert. No.	5054.02
Description	Attestation of Global Compliance(Shenzhen) Co., Ltd is accredited by A2LA

TEST EQUIPMENT OF CONDUCTED EMISSION TEST

Equipment	Manufacturer	Model	S/N	Cal. Date	Cal. Due
TEST RECEIVER	R&S	ESCI	10096	Jun. 12, 2019	Jun. 11, 2020
LISN	R&S	ESH2-Z5	100086	Aug. 26, 2019	Aug. 25, 2020
Test software	R&S	ES-K1 (Ver V1.71)	N/A	N/A	N/A

TEST EQUIPMENT OF RADIATED EMISSION TEST

Equipment	Manufacturer	Model	S/N	Cal. Date	Cal. Due
TEST RECEIVER	R&S	ESCI	10096	Jun. 12, 2019	Jun. 11, 2020
EXA Signal Analyzer	Aglient	N9010A	MY53470504	Dec. 20, 2018	Dec. 19, 2019
2.4GHz Fliter	EM Electronics	2400-2500MHz	N/A	Feb. 27, 2019	Feb. 26, 2020
Attenuator	ZHINAN	E-002	N/A	Sep. 09, 2019	Sep. 08, 2020
Horn antenna	SCHWARZBECK	BBHA 9170	#768	Sep.21, 2019	Sep. 20, 2021
Active loop antenna (9K-30MHz)	ZHINAN	ZN30900C	18051	Jun. 13, 2018	Jun. 12, 2020
Double-Ridged Waveguide Horn	ETS LINDGREN	3117	00034609	May. 17, 2018	May. 16, 2020
Broadband Preamplifier	ETS LINDGREN	3117PA	00225134	Oct. 15, 2019	Oct. 16, 2020
ANTENNA	SCHWARZBECK	VULB9168	494	Sep. 20, 2019	Sep. 19, 2021
Test software	Tonscend	JS32-RE (Ver.2.5)	N/A	N/A	N/A

7. PEAK OUTPUT POWER

7.1. MEASUREMENT PROCEDURE

For peak power test:

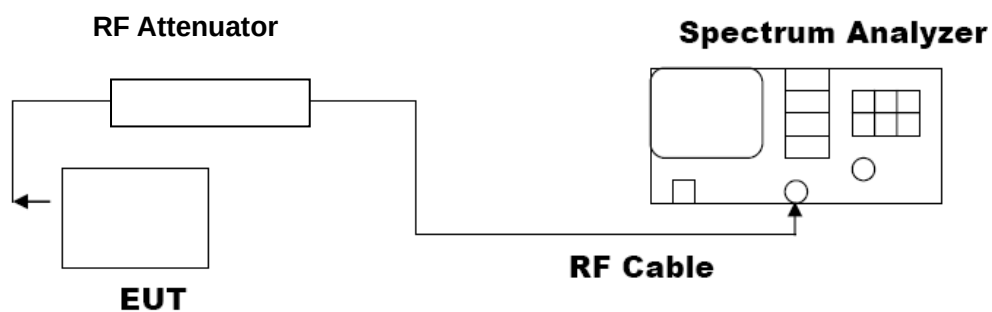
1. Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
2. $RBW \geq DTS$ bandwidth
3. $VBW \geq 3 \times RBW$.
4. $SPAN \geq VBW$.
5. Sweep: Auto.
6. Detector function: Peak.
7. Trace: Max hold.

Allow trace to stabilize. Use the marker-to-peak function to set the marker to the peak of the emission. The indicated level is the peak output power, after any corrections for external attenuators and cables.

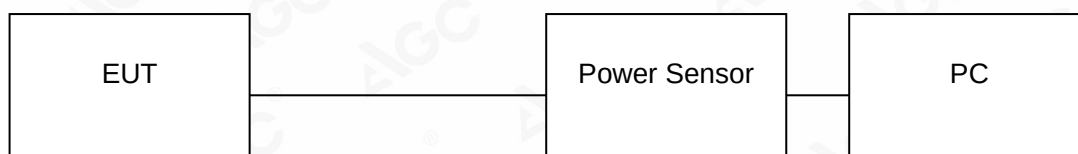
For average power test:

Connect EUT RF output port to the average power sensor.

7.2. TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION) PEAK POWER TEST SETUP

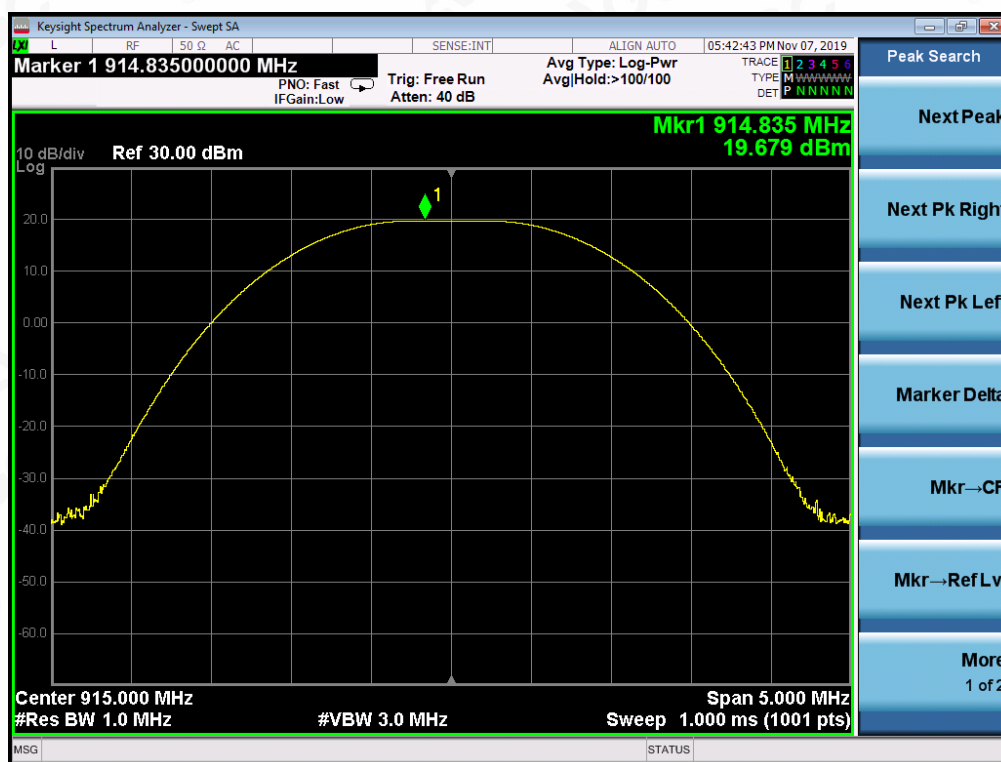


AVERAGE POWER SETUP



7.3. LIMITS AND MEASUREMENT RESULT

PEAK OUTPUT POWER MEASUREMENT RESULT FOR GFSK MODULATION				
Frequency (GHz)	Peak Power (dBm)	Average power (dBm)	Applicable Limits (dBm)	Pass or Fail
0.915	19.679	11.011	30	Pass



Attestation of Global Compliance

Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, Sanwei Chaxi Industrial Park, Sanwei Community,
Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline: 400 089 2118

8. 6 DB BANDWIDTH

8.1. MEASUREMENT PROCEDURE

1. Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
2. Set the EUT Work on the top, the middle and the bottom operation frequency individually.
3. Set SPA Centre Frequency = Operation Frequency, RBW= 100 KHz, VBW $\geq 3 \times$ RBW.
4. Set SPA Trace 1 Max hold, then View.

Note: The EUT was tested according to ANSI C63.10 for compliance to FCC PART 15.247 requirements.

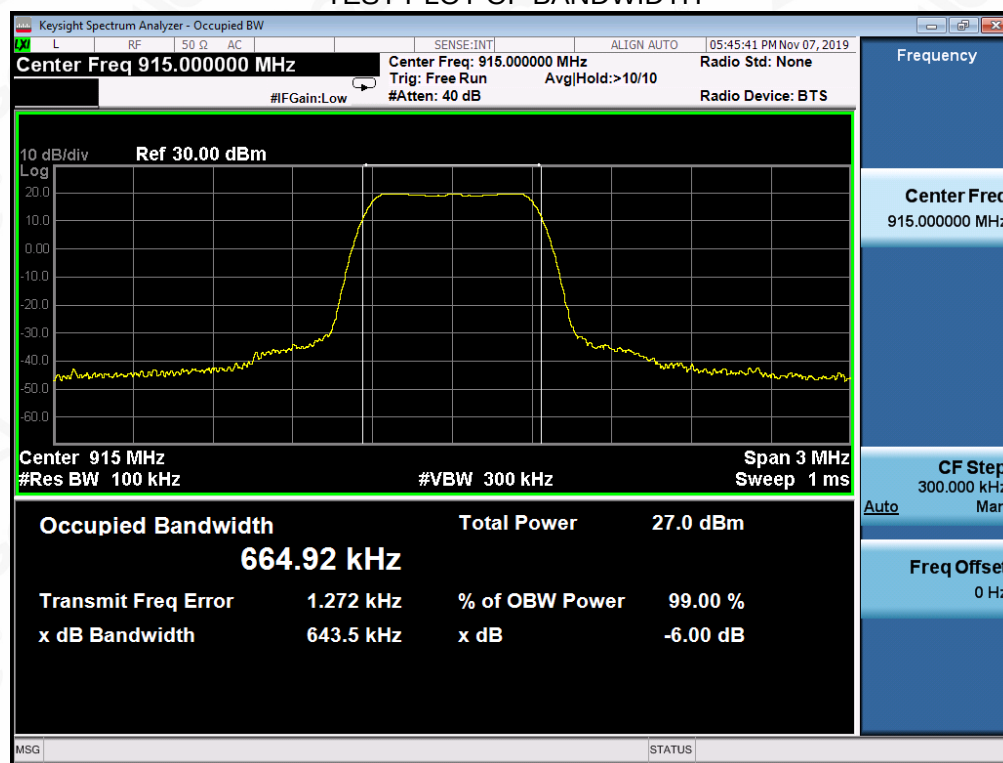
8.2. TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)

The same as described in section 7.2.

8.3. LIMITS AND MEASUREMENT RESULTS

LIMITS AND MEASUREMENT RESULT			
Applicable Limits	Applicable Limits		
	Test Data (kHz)		Criteria
>500KHZ	operate Channel	643.5	PASS

TEST PLOT OF BANDWIDTH



9. CONDUCTED SPURIOUS EMISSION

9.1. MEASUREMENT PROCEDURE

1. Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
2. Set the EUT Work on the top, the middle and the bottom operation frequency individually.
3. Set SPA Trace 1 Max hold, then View.

Note: The EUT was tested according to ANSI C63.10 for compliance to FCC PART 15.247 requirements.

9.2. TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)

The same as described in section 7.2.

9.3. MEASUREMENT EQUIPMENT USED

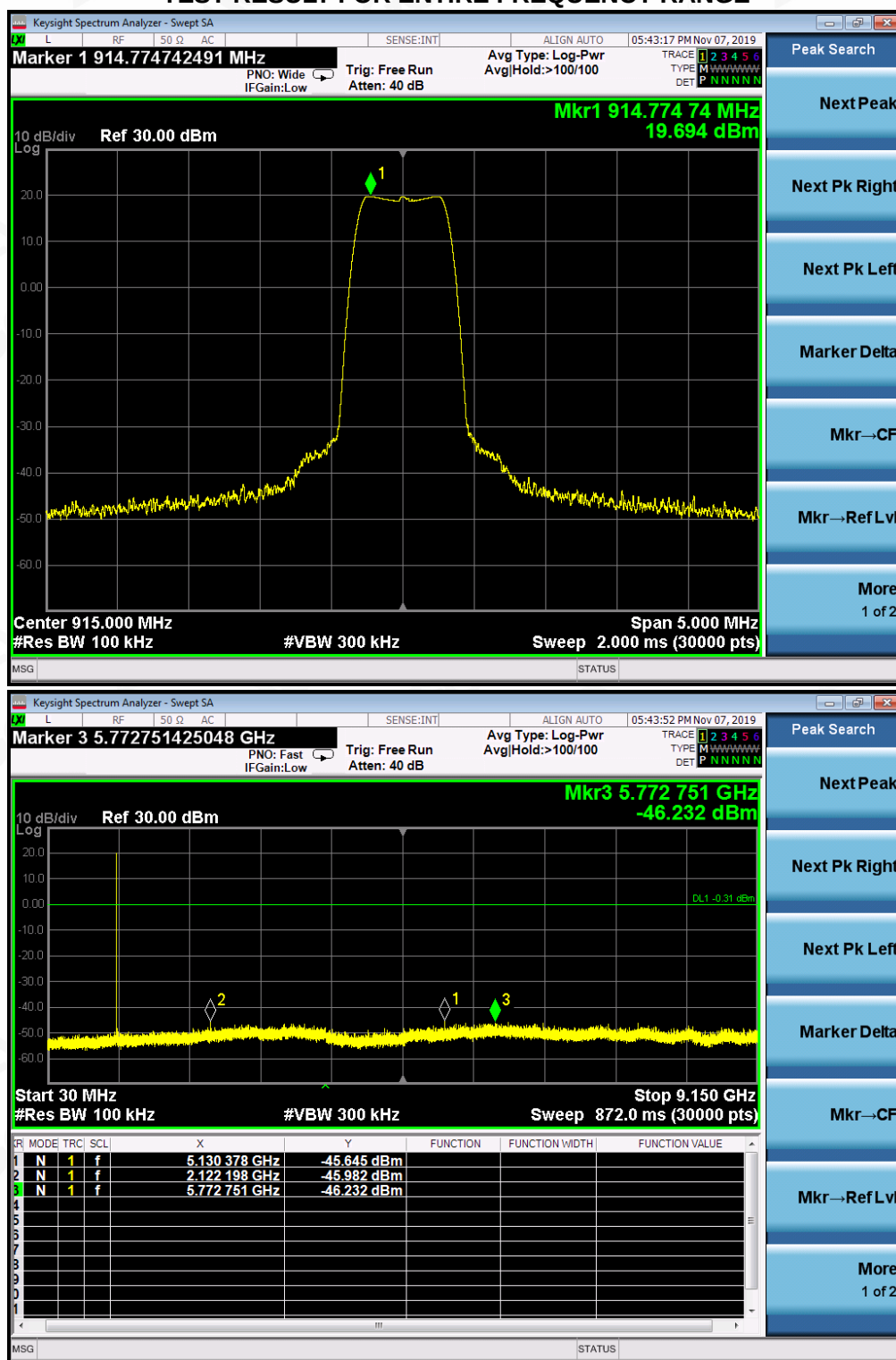
The same as described in section 6.

9.4. LIMITS AND MEASUREMENT RESULT

LIMITS AND MEASUREMENT RESULT		
Applicable Limits	Measurement Result	
	Test Data	Criteria
In any 100 KHz Bandwidth Outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produce by the intentional radiator shall be at least 20 dB below that in 100KHz bandwidth within the band that contains the highest level of the desired power.	At least -20dBc than the reference level	PASS PASS

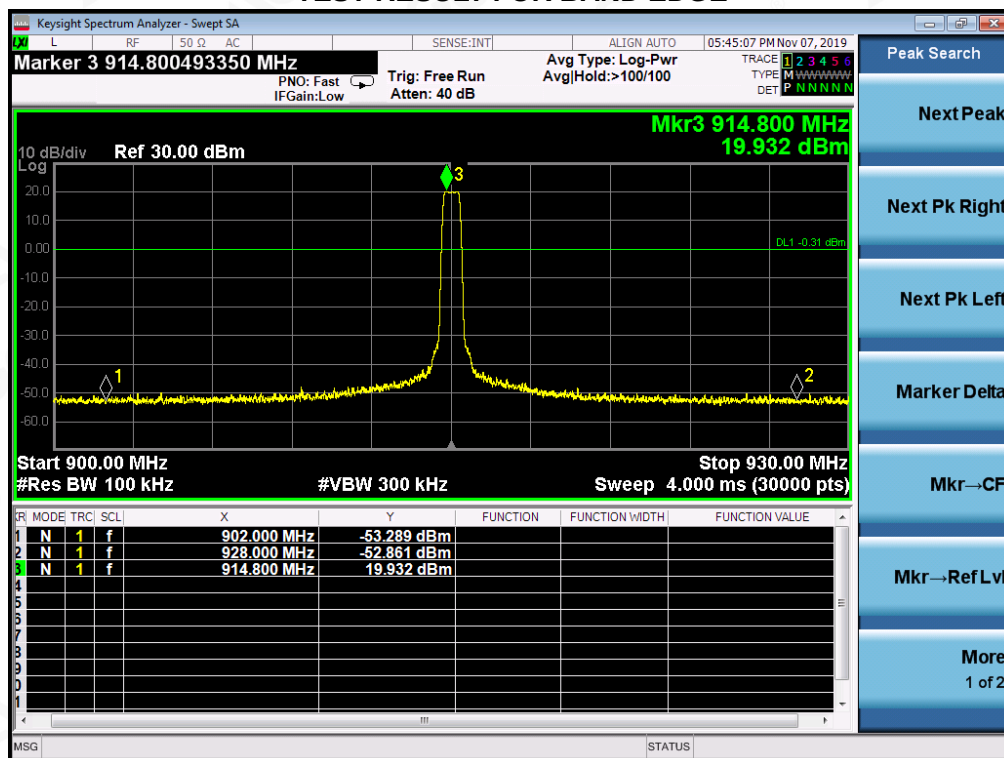


TEST RESULT FOR ENTIRE FREQUENCY RANGE



Note: The peak emissions without marker on the above plots are fundamental wave and need not to compare with the limit.

TEST RESULT FOR BAND EDGE



10. MAXIMUM CONDUCTED OUTPUT POWER SPECTRAL DENSITY

10.1 MEASUREMENT PROCEDURE

- (1). Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
- (2). Set the EUT Work on the top, the middle and the bottom operation frequency individually.
- (3). Set SPA Trace 1 Max hold, then View.

Note: The method of PKPSD in the KDB 558074 item 10.2 was used in this testing.

10.2 TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)

Refer To Section 7.2.

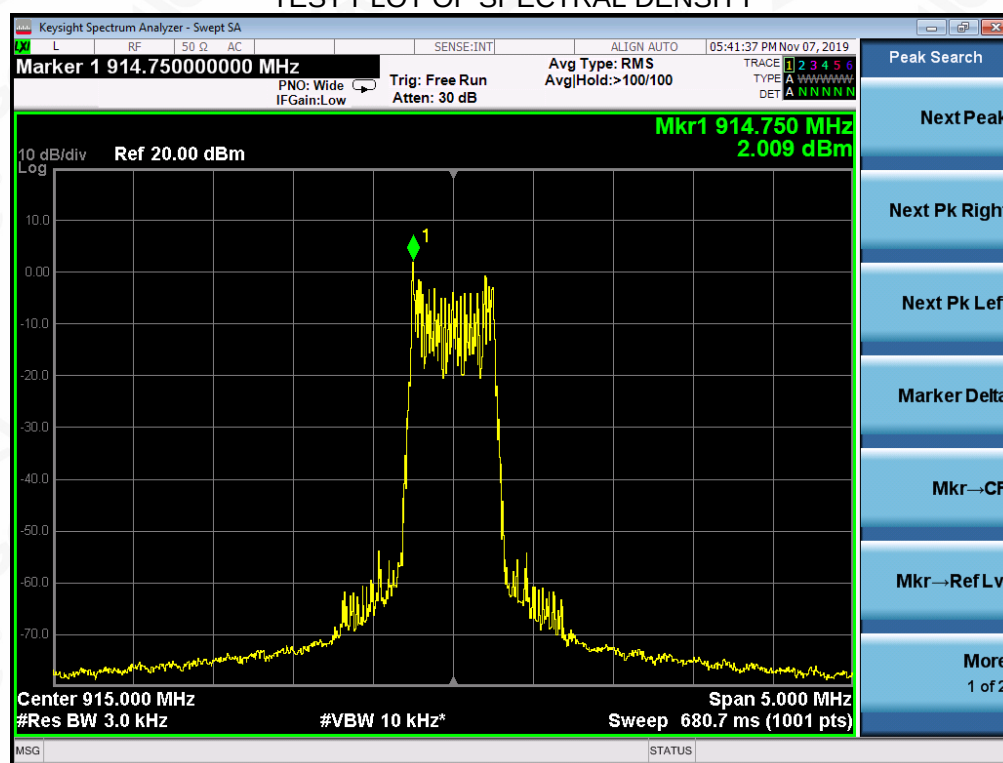
10.3 MEASUREMENT EQUIPMENT USED

Refer To Section 6.

10.4 LIMITS AND MEASUREMENT RESULT

Channel No.	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Result
operate Channel	2.009	8	Pass

TEST PLOT OF SPECTRAL DENSITY



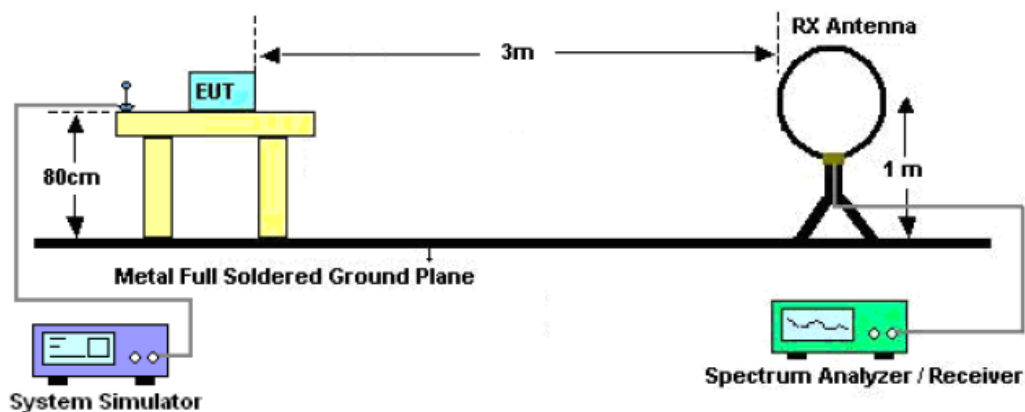
11. RADIATED EMISSION

11.1. MEASUREMENT PROCEDURE

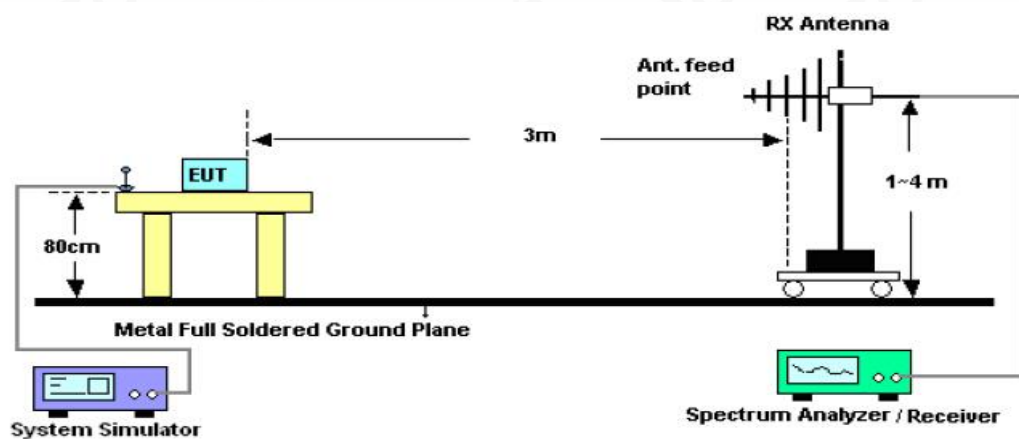
1. The EUT was placed on the top of the turntable 0.8 or 1.5 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.
2. Power on the EUT and all the supporting units. The turntable was rotated by 360 degrees to determine the position of the highest radiation.
3. The height of the broadband receiving antenna was varied between one meter and four meters above ground to find the maximum emissions field strength of both horizontal and vertical polarization.
4. For each suspected emissions, the antenna tower was scan (from 1 M to 4 M) and then the turntable was rotated (from 0 degree to 360 degrees) to find the maximum reading.
5. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function with specified bandwidth under Maximum Hold Mode.
6. For emissions above 1GHz, use 1MHz RBW and 3MHz VBW for peak reading. Place the measurement antenna away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The measurement antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for receiving the maximum signal. The final measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane.
7. When the radiated emissions limits are expressed in terms of the average value of the emissions, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds. As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum values.
8. If the emissions level of the EUT in peak mode was 3 dB lower than the average limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method for below 1GHz.
9. For testing above 1GHz, the emissions level of the EUT in peak mode was lower than average limit (that means the emissions level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
10. In case the emission is lower than 30MHz, loop antenna has to be used for measurement and the recorded data should be QP measured by receiver. High - Low scan is not required in this case.

11.2. TEST SETUP

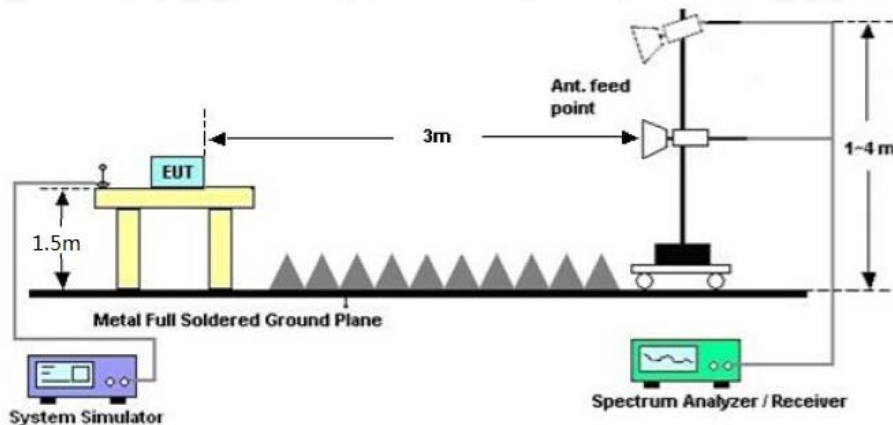
Radiated Emission Test-Setup Frequency Below 30MHz



RADIATED EMISSION TEST SETUP 30MHz-1000MHz



RADIATED EMISSION TEST SETUP ABOVE 1000MHz



11.3. LIMITS AND MEASUREMENT RESULT

15.209 Limit in the below table has to be followed

Frequencies (MHz)	Field Strength (micorvolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

Note: All modes were tested For restricted band radiated emission,
the test records reported below are the worst result compared to other modes.

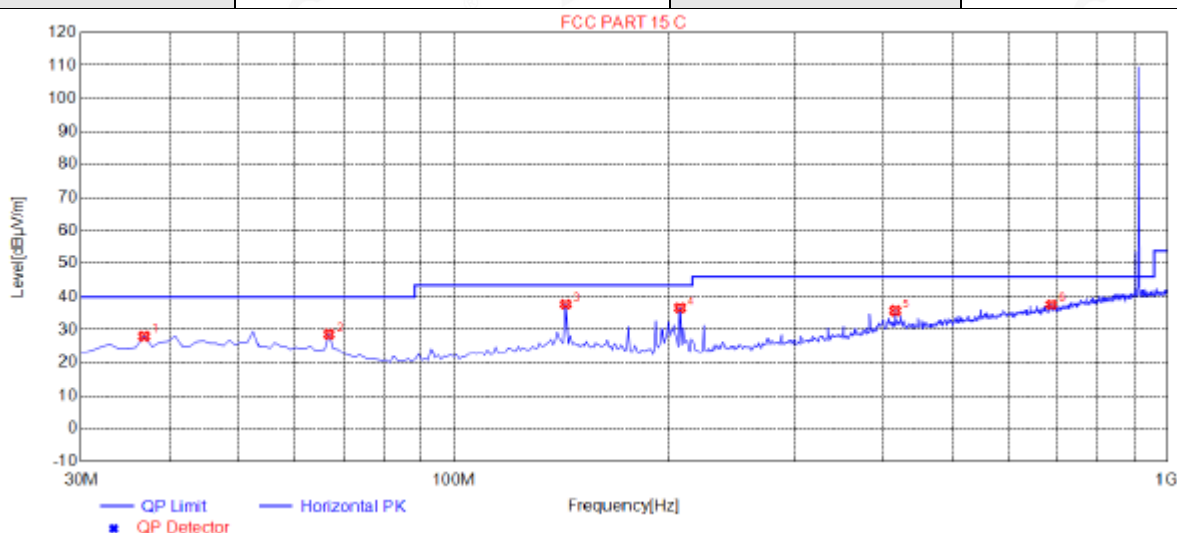
11.4. TEST RESULT

RADIATED EMISSION BELOW 30MHZ

No emission found between lowest internal used/generated frequencies to 30MHz.

RADIATED EMISSION BELOW 1GHZ

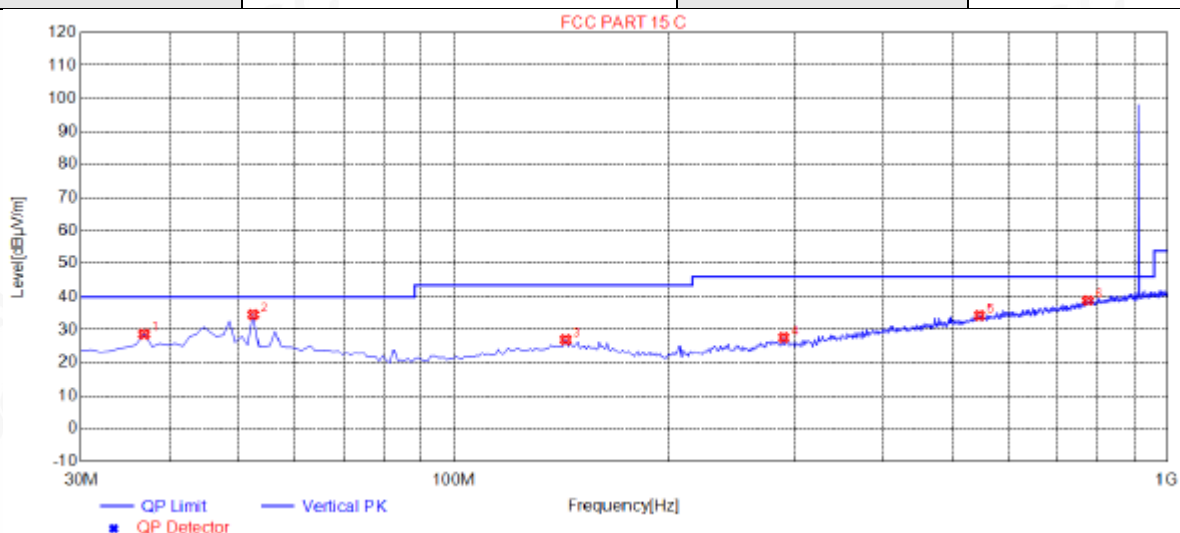
EUT	Top Dogg Ground Swat Grey Camo 360 Degree Sound	Model Name	3880
Temperature	25° C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	Mode 1	Antenna	Horizontal



NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	36.7900	28.06	14.16	40.00	11.94	100	339	Horizontal
2	66.8600	28.64	12.76	40.00	11.36	150	160	Horizontal
3	143.490	37.69	14.88	43.50	5.81	150	213	Horizontal
4	207.510	36.51	12.52	43.50	6.99	150	3	Horizontal
5	416.060	35.63	20.14	46.00	10.37	100	297	Horizontal
6	688.630	37.58	25.80	46.00	8.42	100	323	Horizontal

RESULT: PASS

EUT	Top Dogg Ground Swat Grey Camo 360 Degree Sound	Model Name	3880
Temperature	25° C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	Mode 1	Antenna	Vertical



NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	36.7900	28.68	14.16	40.00	11.32	100	313	Vertical
2	52.3100	34.46	14.49	40.00	5.54	100	245	Vertical
3	143.490	27.05	14.88	43.50	16.45	100	113	Vertical
4	289.960	27.68	16.11	46.00	18.32	100	344	Vertical
5	546.040	34.21	23.18	46.00	11.79	100	171	Vertical
6	774.960	38.84	27.80	46.00	7.16	100	261	Vertical

RESULT: PASS

Note:

- Factor=Antenna Factor + Cable loss, Margin=Measurement-Limit.
- The emission above the limit is the fundamental wave, and there is a filter used for it .

RADIATED EMISSION ABOVE 1GHZ

EUT	Top Dogg Ground Swat Grey Camo 360 Degree Sound	Model Name	3880
Temperature	25° C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	Mode 1	Antenna	Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
1830.014	50.14	-1.25	48.89	74.00	-25.11	peak
1830.014	48.98	-1.25	47.73	54.00	-6.27	AVG
2745.026	42.46	0.13	42.59	74.00	-31.41	peak
2745.026	39.26	0.13	39.39	54.00	-14.61	AVG

Remark:

Factor = Antenna Factor + Cable Loss – Pre-amplifier.

EUT	Top Dogg Ground Swat Grey Camo 360 Degree Sound	Model Name	3880
Temperature	25° C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	Mode 1	Antenna	Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
1830.014	50.28	-1.25	49.03	74.00	-24.97	peak
1830.014	46.77	-1.25	45.52	54.00	-8.48	AVG
2745.026	44.89	0.13	45.02	74.00	-28.98	peak
2745.026	42.64	0.13	42.77	54.00	-11.23	AVG

Remark:

Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Note:

Other emissions from 1G to 9.2GHz are considered as ambient noise. No recording in the test report.

Factor = Antenna Factor + Cable loss - Amplifier gain, Over=Measure-Limit.

The “Factor” value can be calculated automatically by software of measurement system.

12. FCC LINE CONDUCTED EMISSION TEST

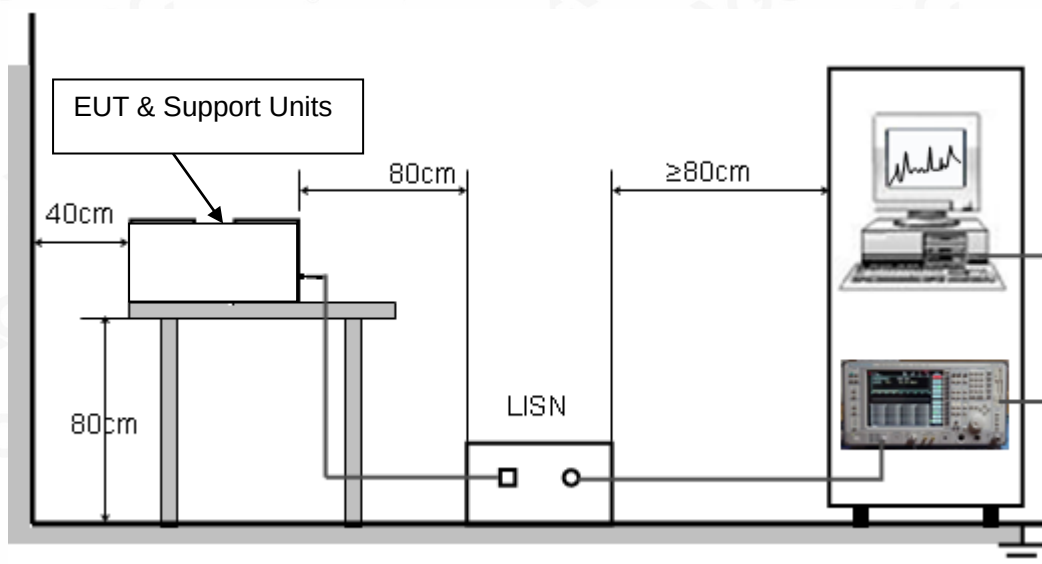
12.1. LIMITS OF LINE CONDUCTED EMISSION TEST

Frequency	Maximum RF Line Voltage	
	Q.P.(dBuV)	Average(dBuV)
150kHz~500kHz	66-56	56-46
500kHz~5MHz	56	46
5MHz~30MHz	60	50

Note:

1. The lower limit shall apply at the transition frequency.
2. The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz.

12.2. BLOCK DIAGRAM OF LINE CONDUCTED EMISSION TEST



12.3. PRELIMINARY PROCEDURE OF LINE CONDUCTED EMISSION TEST

1. The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. When the EUT is a tabletop system, a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.10 (see Test Facility for the dimensions of the ground plane used). When the EUT is a floor-standing equipment, it is placed on the ground plane which has a 3-12 mm non-conductive covering to insulate the EUT from the ground plane.
2. Support equipment, if needed, was placed as per ANSI C63.10.
3. All I/O cables were positioned to simulate typical actual usage as per ANSI C63.10.
4. All support equipments received AC120V/60Hz power from a LISN, if any.
5. The EUT received DC charging voltage by adapter which received AC120V/60Hz power by a LISN..
6. The test program was started. Emissions were measured on each current carrying line of the EUT using a spectrum Analyzer / Receiver connected to the LISN powering the EUT. The LISN has two monitoring points: Line 1 (Hot Side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1 connected to Analyzer / Receiver and Line 2 connected to a 50 ohm load; the second scan had Line 1 connected to a 50 ohm load and Line 2 connected to the Analyzer / Receiver.
7. Analyzer / Receiver scanned from 150 kHz to 30MHz for emissions in each of the test modes.
8. During the above scans, the emissions were maximized by cable manipulation.
9. The test mode(s) were scanned during the preliminary test.

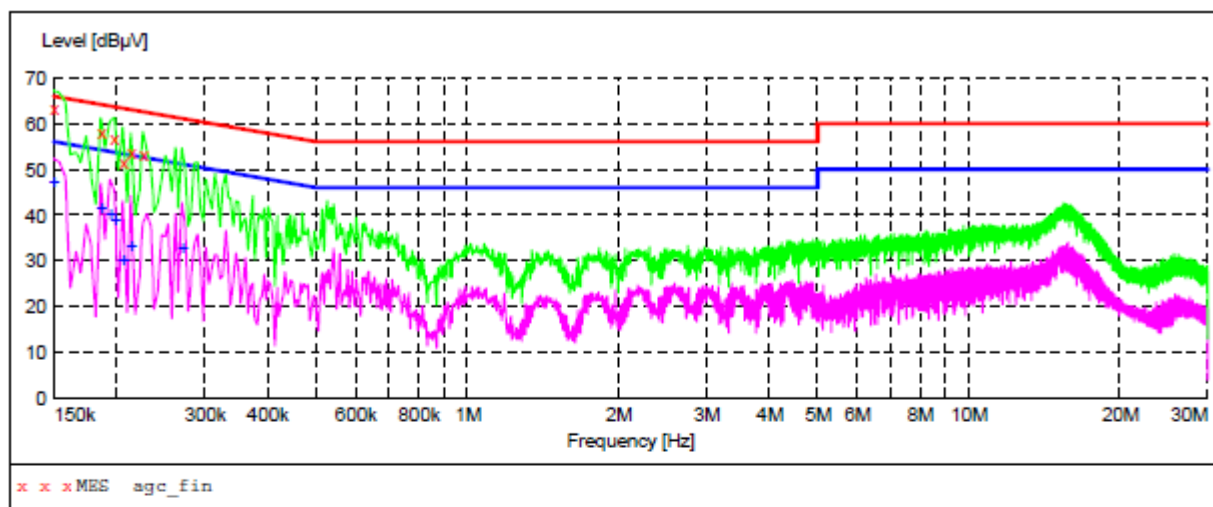
Then, the EUT configuration and cable configuration of the above highest emission level were recorded for reference of final testing.

12.4. FINAL PROCEDURE OF LINE CONDUCTED EMISSION TEST

1. EUT and support equipment was set up on the test bench as per step 2 of the preliminary test.
2. A scan was taken on both power lines, Line 1 and Line 2, recording at least the six highest emissions. Emission frequency and amplitude were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit. If EUT emission level was less -2dB to the A.V. limit in Peak mode, then the emission signal was re-checked using Q.P and Average detector.
3. The test data of the worst case condition(s) was reported on the Summary Data page.

12.5. TEST RESULT OF LINE CONDUCTED EMISSION TEST

Line Conducted Emission Test Line 1-L



MEASUREMENT RESULT: "agc_fin"

2019/11/08 16:56

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.150000	63.30	10.6	66	2.7	QP	L1	FLO
0.186000	58.20	10.8	64	6.0	QP	L1	FLO
0.198000	57.00	10.8	64	6.7	QP	L1	FLO
0.206000	51.90	10.8	63	11.5	QP	L1	FLO
0.214000	53.90	10.8	63	9.1	QP	L1	FLO
0.226000	53.50	10.8	63	9.1	QP	L1	FLO

MEASUREMENT RESULT: "agc_fin2"

2019/11/08 16:56

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.150000	47.10	10.6	56	8.9	AV	L1	FLO
0.186000	41.30	10.8	54	12.9	AV	L1	FLO
0.194000	40.10	10.8	54	13.8	AV	L1	FLO
0.198000	38.80	10.8	54	14.9	AV	L1	FLO
0.206000	30.00	10.8	53	23.4	AV	L1	FLO
0.214000	33.10	10.8	53	19.9	AV	L1	FLO
0.270000	32.70	10.8	51	18.4	AV	L1	FLO



Attestation of Global Compliance

Attestation of Global Compliance(Shenzhen)Co.,Ltd.

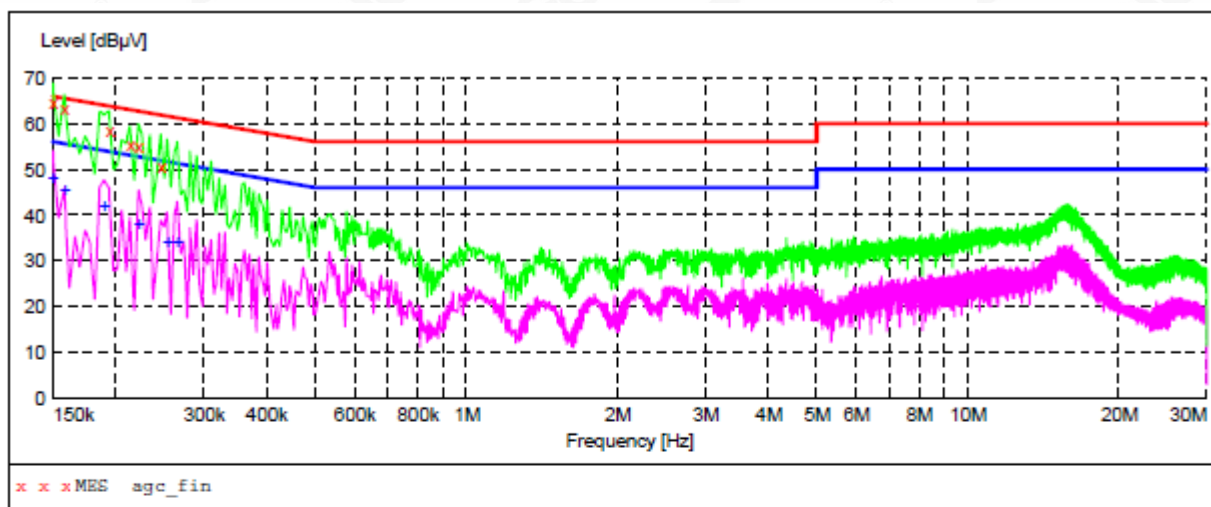
Add: 2/F., Building 2, Sanwei Chaxi Industrial Park, Sanwei Community,
Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline: 400 089 2118

Line Conducted Emission Test Line 2-N



MEASUREMENT RESULT: "agc_fin"

2019/11/08 16:53

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.150000	64.60	10.6	66	1.4	QP	N	FLO
0.158000	63.60	10.7	66	2.0	QP	N	FLO
0.194000	58.70	10.8	64	5.2	QP	N	FLO
0.214000	55.40	10.8	63	7.6	QP	N	FLO
0.222000	55.20	10.8	63	7.5	QP	N	FLO
0.246000	50.60	10.8	62	11.3	QP	N	FLO

MEASUREMENT RESULT: "agc_fin2"

2019/11/08 16:53

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.150000	48.20	10.6	56	7.8	AV	N	FLO
0.158000	45.30	10.7	56	10.3	AV	N	FLO
0.190000	42.00	10.8	54	12.0	AV	N	FLO
0.222000	38.20	10.8	53	14.5	AV	N	FLO
0.254000	34.20	10.8	52	17.4	AV	N	FLO
0.266000	33.90	10.8	51	17.3	AV	N	FLO

RESULT: PASS

Note: All the test modes had been tested, the mode 1 was the worst case. Only the data of the worst case would be record in this test report.

APPENDIX A: PHOTOGRAPHS OF TEST SETUP

RADIATED EMISSION TEST SETUP BELOW 1GHZ



RADIATED EMISSION TEST SETUP ABOVE 1GHZ

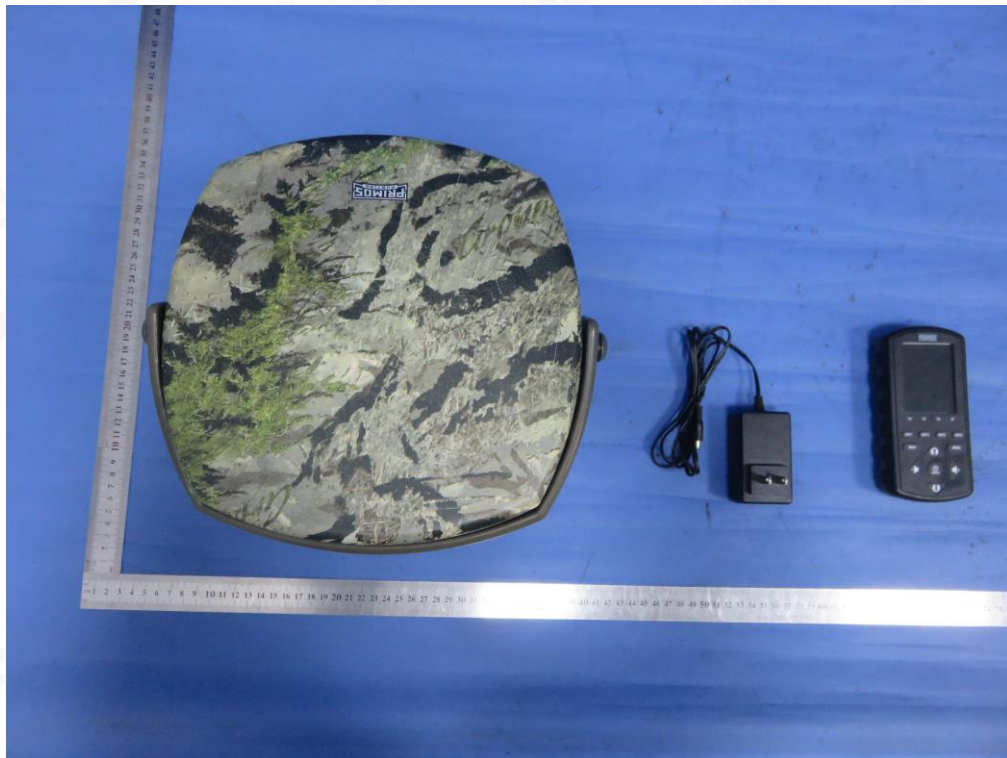


CONDUCTED EMISSION TEST SETUP



APPENDIX B: PHOTOGRAPHS OF EUT

ALL VIEW OF EUT



Attestation of Global Compliance

Attestation of Global Compliance(Shenzhen)Co.,Ltd.

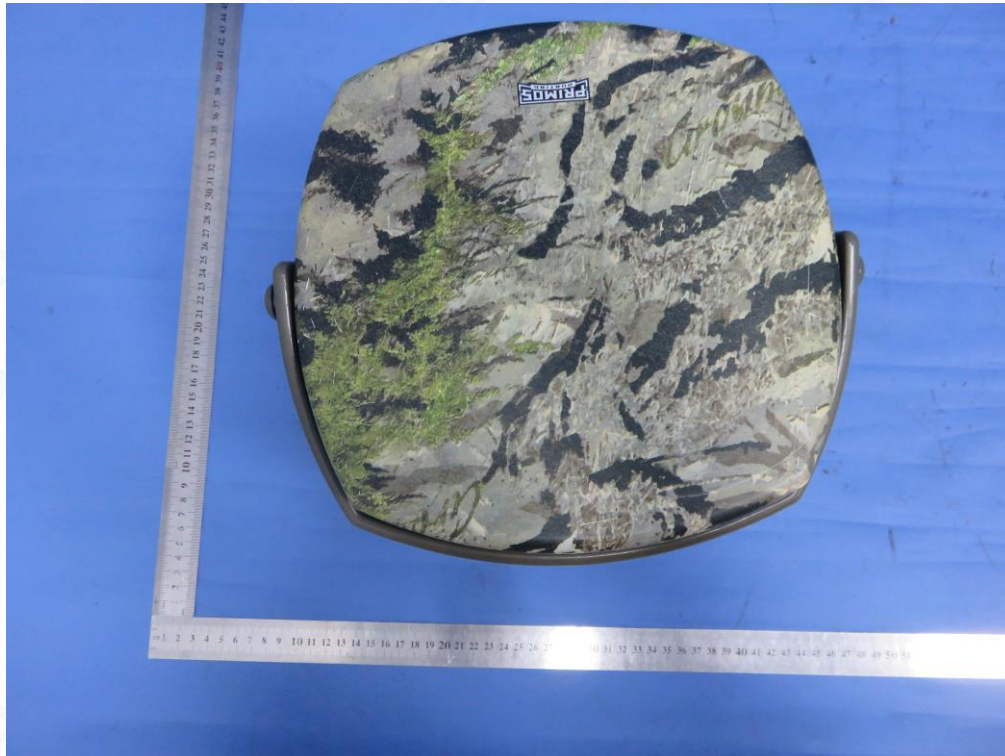
Add: 2/F., Building 2, Sanwei Chaxi Industrial Park, Sanwei Community,
Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

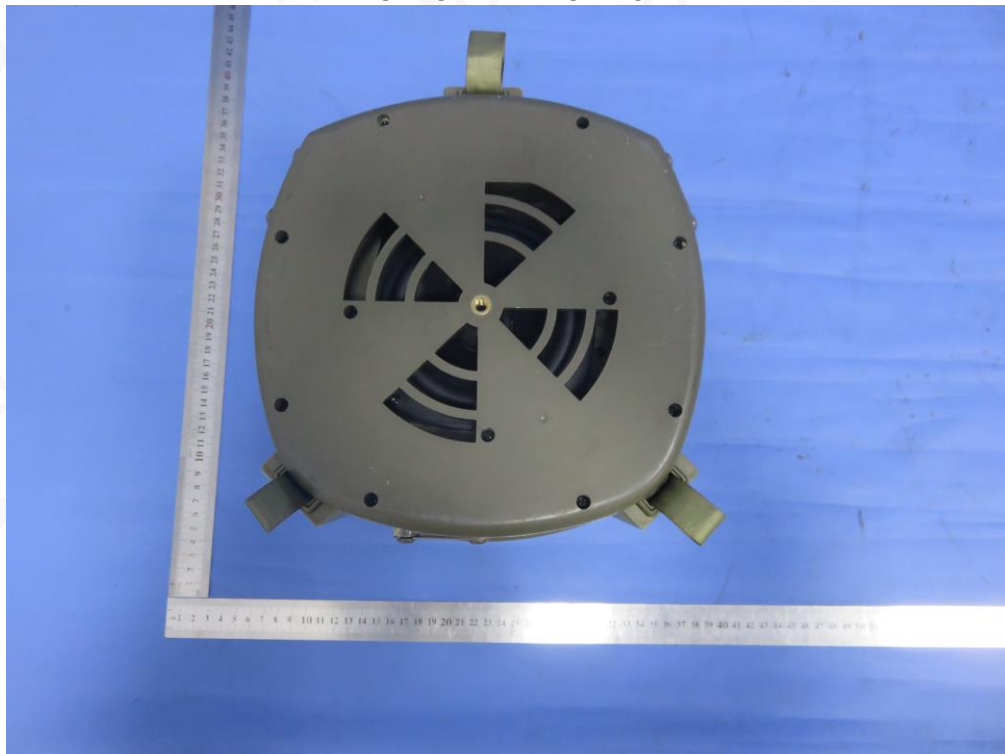
E-mail: agc@agc-cert.com

Service Hotline: 400 089 2118

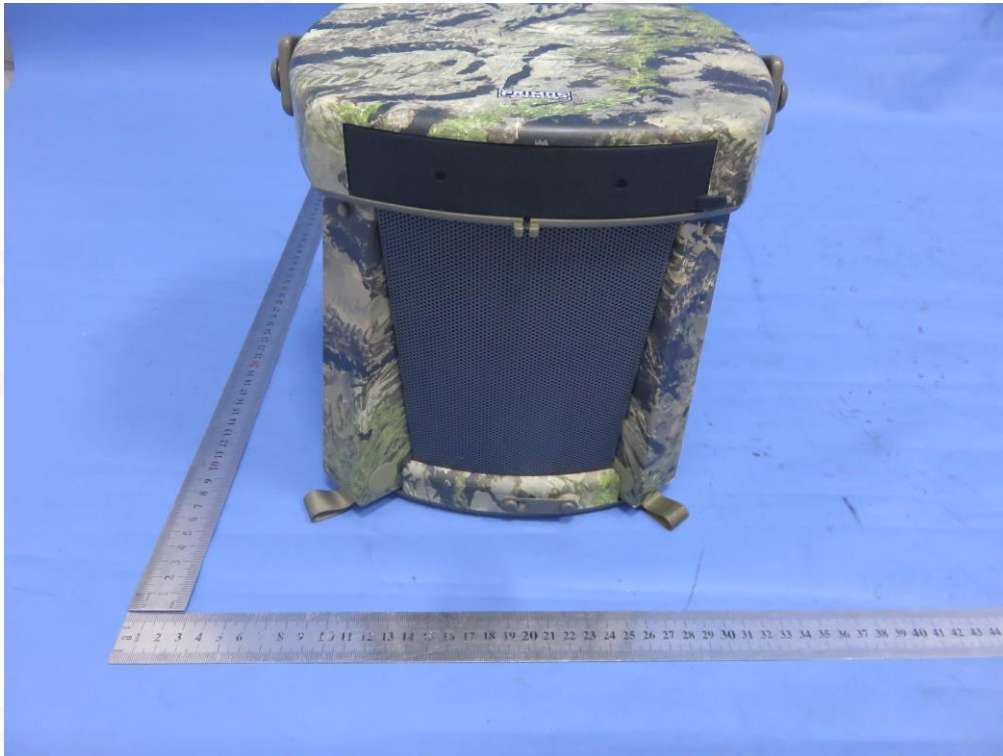
TOP VIEW OF EUT



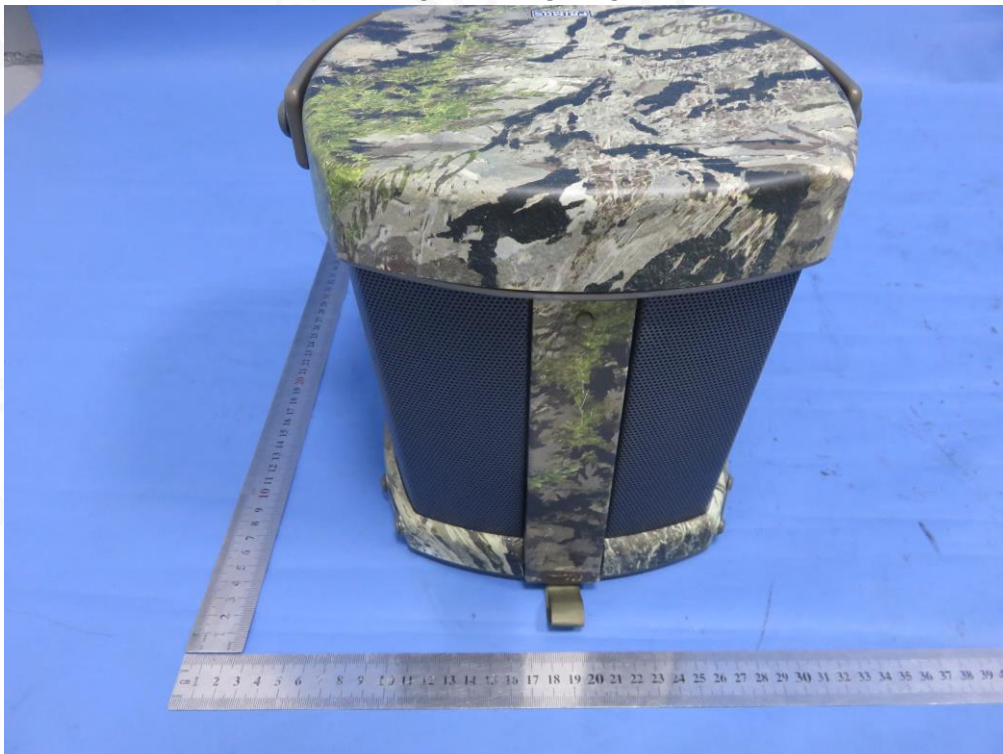
BOTTOM VIEW OF EUT



FRONT VIEW OF EUT



BACK VIEW OF EUT



LEFT VIEW OF EUT



RIGHT VIEW OF EUT



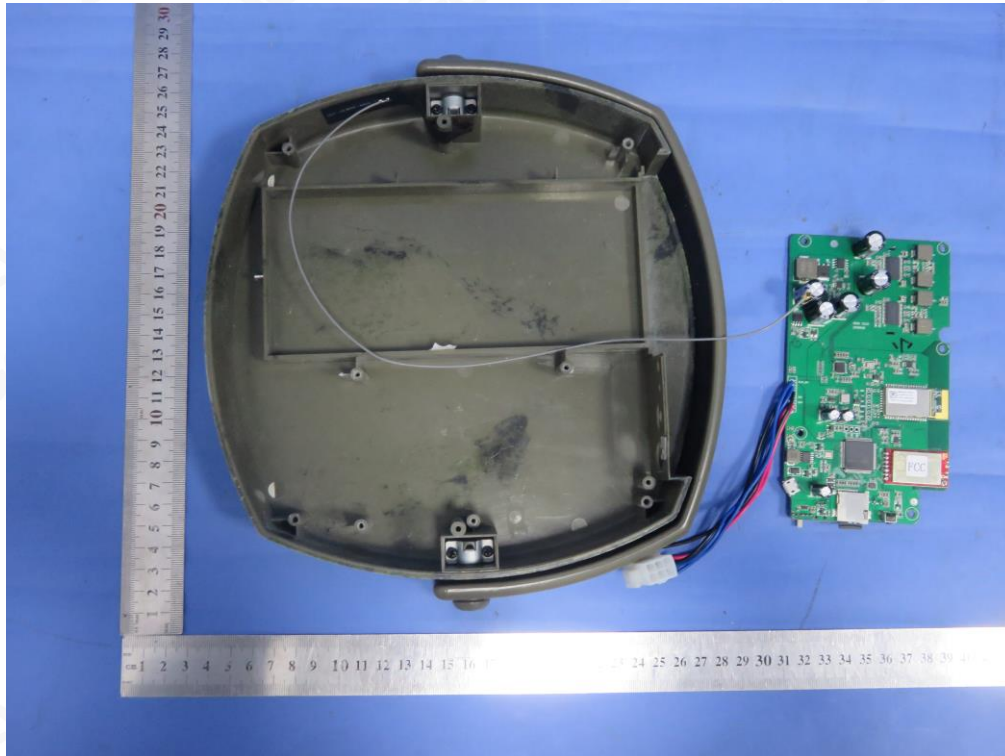
VIEW OF EUT (PORT)



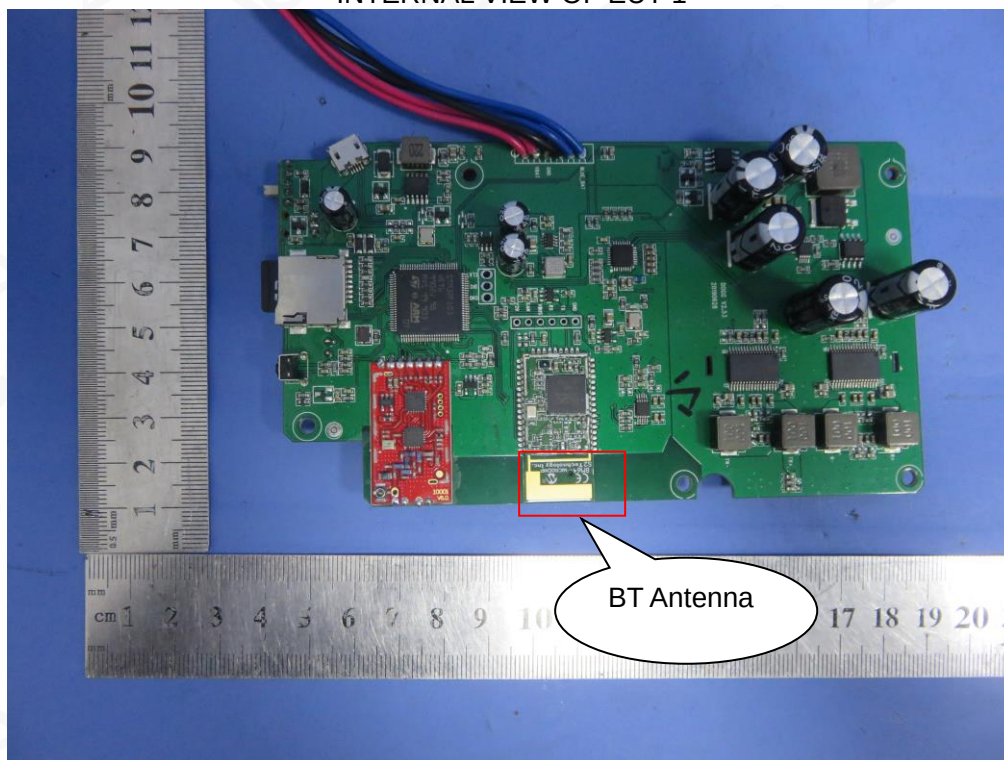
OPEN VIEW-1 OF EUT



OPEN VIEW OF EUT-2



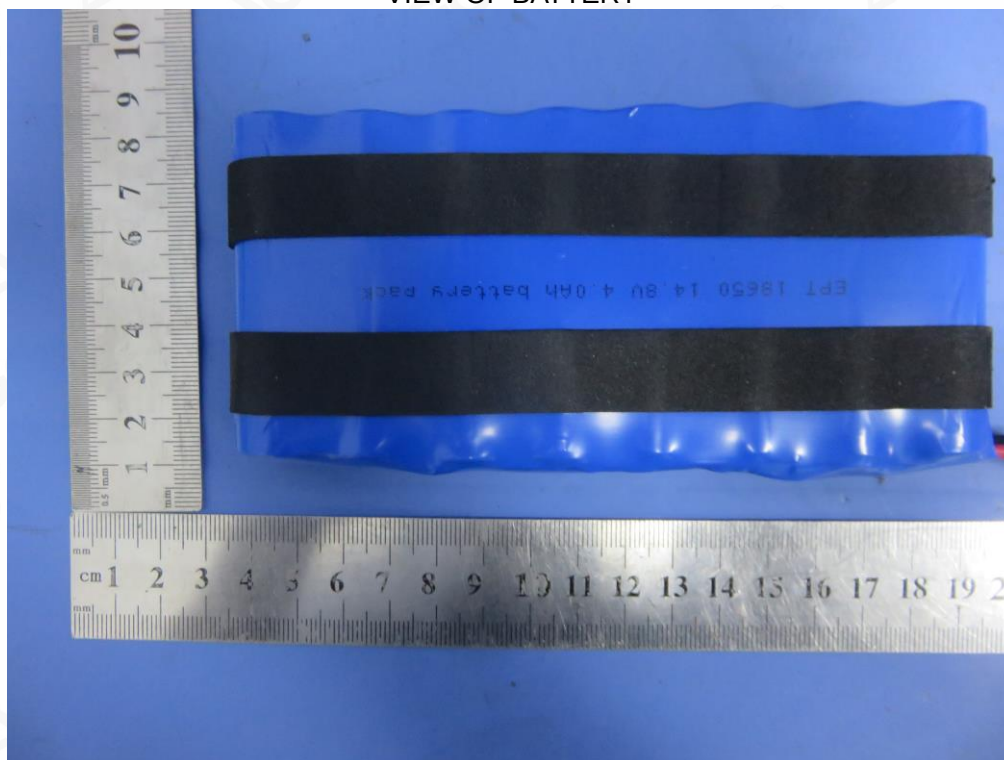
INTERNAL VIEW OF EUT-1



INTERNAL VIEW OF EUT-2



VIEW OF BATTERY



----END OF REPORT----