FCC Test Report

Report No.: AGC02762220607FE01

FCC ID	:	2AL26-D3N
PRODUCT DESIGNATION	:	Body Worn Camera
BRAND NAME	:	Reveal Media
MODEL NAME	:	D3
APPLICANT	:	Reveal Media Limited
DATE OF ISSUE	:	Aug. 02, 2022
STANDARD(S)	:	FCC Part 15 Subpart B
REPORT VERSION	:	V1.0

*A*ttestation of *G*lobal *C*ompliance (Shenzhen) Co., Ltd

REPORT REVISE RECORD

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	/	Aug. 02, 2022	Valid	Initial release

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1 VERIFICATION OF CONFORMITY

Applicant	Reveal Media Limited
Address	Riverview House, 20 Old Bridge Street, Hampton Wick, KT1 4BU, UNITED KINGDOM
Manufacturer	Reveal Media Hong Kong Ltd.
Address	6/F., Luk Kwok Centre, 72 Gloucester Road, Wan Chai, Hong Kong
Factory	Reveal Media Hong Kong Ltd.
Address	6/F., Luk Kwok Centre, 72 Gloucester Road, Wan Chai, Hong Kong
Product Designation	Body Worn Camera
Brand Name	Reveal Media
Test Model	D3
Date of test	Jun. 10, 2022 to Aug. 02, 2022
Deviation	No deviation from the test method.
Condition of Test Sample	Normal
Test Result	Pass

The above equipment was tested by Attestation of Global Compliance (Shenzhen) Co., Ltd. for compliance with the requirements set forth in the FCC Rules and Regulations Part 15, the measurement procedure according to ANSI C63.4:2014. This said equipment in the configuration described in this report shows the maximum emission levels emanating from equipment are within the compliance requirements.
The test results of this report relate only to the tested sample identified in this report.

Prepared By	Eder Zhan (Project Engineer)	Aug. 02, 2022
Reviewed By	Calvin Liu (Reviewer)	Aug. 02, 2022
Approved By	Forrest Lei (Authorized Officer)	Aug. 02, 2022

2 SYSTEM DESCRIPTION

TEST MODE DESCRIPTION		
NO.	**TEST MODE DESCRIPTION**	**WORST**
1	Data transmission mode	V
2	Video Recording with Adapter	--
3	Video Recording with Battery	--

Note:
1. V means EMI worst mode.
2. Only worst mode data recorded in the test report.

3 MEASUREMENT UNCERTAINTY

The uncertainty is calculated using the methods suggested in the “Guide to the Expression of Uncertainty in measurement” (GUM) published by CISPR and ANSI.

- Uncertainty of Conducted Emission, Uc = ±2.9dB
- Uncertainty of Radiated Emission below 1GHz, Uc = ±3.8dB
- Uncertainty of Radiated Emission above 1GHz, Uc = ±4.9dB

4 PRODUCT INFORMATION

Housing Type	Plastic and metal
EUT Input Rating	DC 5V by adapter or DC 3.8V by battery
Hardware Version	V1.0
Software Version	V1.0

I/O Port Information (☒Applicable ☐Not Applicable)

I/O Port of EUT			
I/O Port Type	**Number**	**Cable Description**	**Tested With**
Micro-B	1	--	1

5 SUPPORT EQUIPMENT

Device Type	Manufacturer	Model Name	Serial No.	Data Cable	Power Cable
PC	Redmi Book	Redmi14 II	--	--	--
Adapter(PC)	MI	AD651	--	--	1.5m unshielded
Adapter	KT05W050100USU	N/A	--	--	--
Micro-B Cable	--	--	--	--	0.8m Unshielded

Note: All the above equipment/cables were placed in worse case positions to maximize emission signals during emission test.

6 TEST FACILITY

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

7 TEST EQUIPMENT LIST

TEST EQUIPMENT OF CONDUCTED EMISSION TEST

Equipment	Manufacturer	Model	S/N	Cal. Date	Cal. Due
Test Receiver	R&S	ESPI	101206	Mar. 28, 2022	Mar. 27, 2023
LISN	R&S	ESH2-Z5	100086	Jun. 08, 2022	Jun. 07, 2023
Test software	R&S	ES-K1(Ver.V1.7.1)	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	Mar. 28, 2022	Mar. 27, 2023
Antenna	SCHWARZBECK	VULB9168	494	Jan. 08, 2021	Jan. 07, 2023
Double-Ridged Waveguide Horn	ETS LINDGREN	3117	00034609	Apr. 23, 2021	Apr. 22, 2023
EXA Signal Analyzer	Agilent	N9010A	MY53470504	Dec. 06, 2021	Dec. 05, 2022
Test software	FARA	EZ-EMC (Ver.RA-03A)	N/A	N/A	N/A
Test software	Tonscend	JS32-RE(Ver.2.5)	N/A	N/A	N/A

8 TEST SUMMARY LIST

Test item	Test Requirement	Test Method	Class/Severity	Result
Conducted Emission	FCC Part 15 Subpart B	ANSI C63.4	Class B	Pass
Radiated Emission	FCC Part 15 Subpart B	ANSI C63.4	Class B	Pass

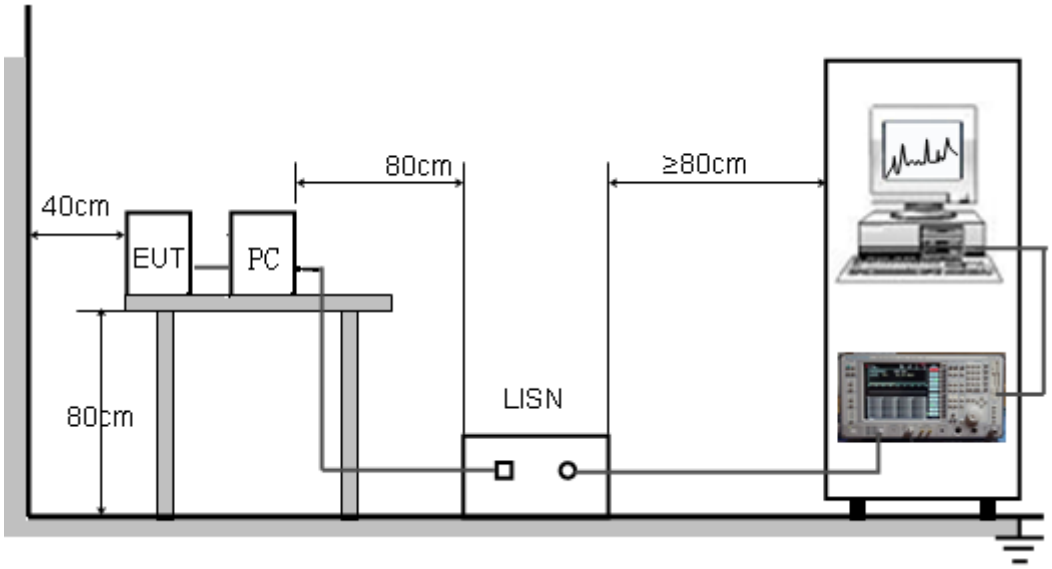
9 FCC LINE CONDUCTED EMISSION TEST

9.1 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 0.50MHz.

9.2 BLOCK DIAGRAM OF TEST SETUP



9.3 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 C63.4 (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 C63.4.

(3) All I/O cables were positioned to simulate typical actual usage as per ANSI C63.4.

(4) The EUT received DC 5V power from adapter which received AC 120V/60Hz power through a Line Impedance Stabilization Network (LISN) which supplied power source and was grounded to the ground plane.

(5) The EUT 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.

(6) Analyzer / Receiver scanned from 150 kHz to 30MHz for emissions in each of the test modes.

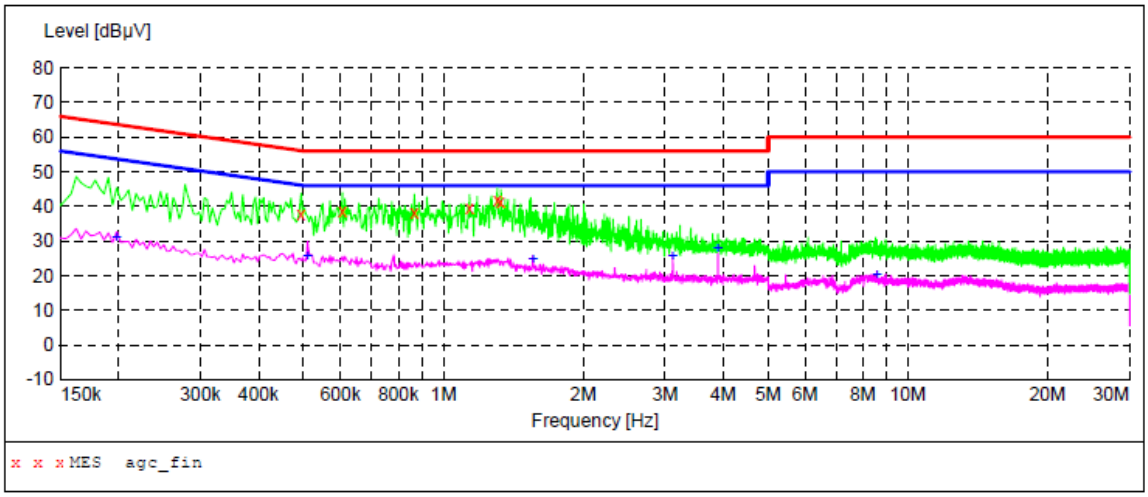
(7) During the above scans, the emissions were maximized by cable manipulation.

(8) A scan was taken on both power lines, Line 1 and Line 2, recording at least the six highest emissions.

(9) 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.

9.4 TEST RESULT OF LINE CONDUCTED EMISSION TEST

LINE CONDUCTED EMISSION TEST-L



MEASUREMENT RESULT: "agc_fin"

2022/8/2 10:44

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.494000	37.60	5.4	56	18.5	QP	L1	GND
0.606000	38.80	5.4	56	17.2	QP	L1	GND
0.866000	38.10	5.4	56	17.9	QP	L1	GND
1.138000	39.40	5.6	56	16.6	QP	L1	GND
1.306000	41.90	5.8	56	14.1	QP	L1	GND
1.330000	41.10	5.9	56	14.9	QP	L1	GND

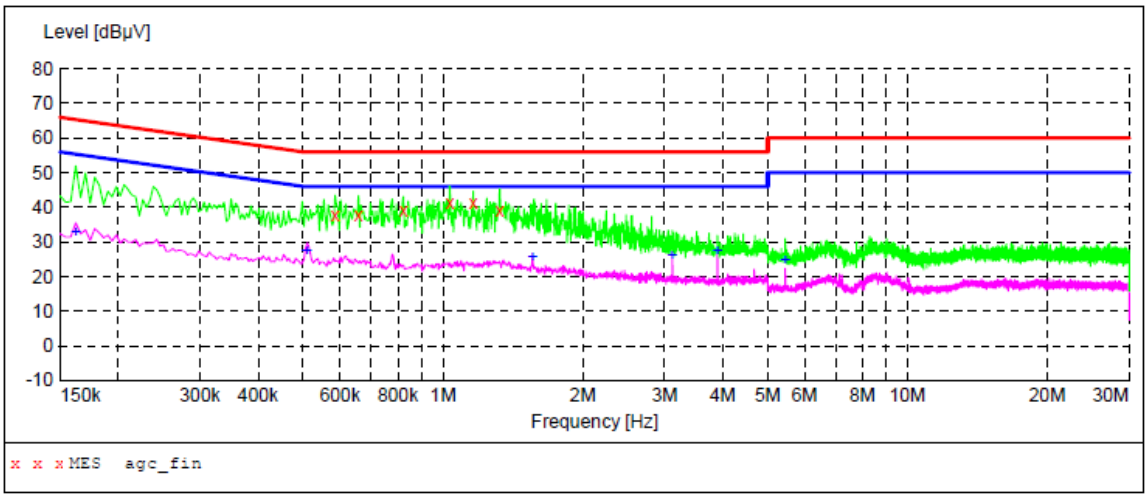
MEASUREMENT RESULT: "agc_fin2"

2022/8/2 10:44

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.198000	31.20	6.6	54	22.5	AV	L1	GND
0.510000	25.70	5.4	46	20.3	AV	L1	GND
1.558000	24.60	6.1	46	21.4	AV	L1	GND
3.118000	25.80	6.5	46	20.2	AV	L1	GND
3.898000	27.80	6.5	46	18.2	AV	L1	GND
8.570000	20.40	6.8	50	29.6	AV	L1	GND

RESULT: PASS

LINE CONDUCTED EMISSION TEST-N



MEASUREMENT RESULT: "agc_fin"

2022/8/2 10:39

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.586000	37.70	5.4	56	18.3	QP	N	GND
0.658000	37.70	5.4	56	18.3	QP	N	GND
0.822000	39.00	5.4	56	17.0	QP	N	GND
1.034000	41.40	5.5	56	14.6	QP	N	GND
1.162000	41.20	5.7	56	14.8	QP	N	GND
1.326000	39.20	5.9	56	16.8	QP	N	GND

MEASUREMENT RESULT: "agc_fin2"

2022/8/2 10:38

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.162000	33.00	6.8	55	22.4	AV	N	GND
0.510000	27.30	5.4	46	18.7	AV	N	GND
1.558000	25.60	6.1	46	20.4	AV	N	GND
3.118000	25.90	6.5	46	20.1	AV	N	GND
3.898000	27.30	6.5	46	18.7	AV	N	GND
5.458000	24.60	6.6	50	25.4	AV	N	GND

RESULT: PASS

Note：

Measurement Level(dBuV) = Receiver reading(dBuV)+Tansd(dB)

Transd(dB)=AMN Factor(dB)+Cable Loss(dB)+Attenuation(dB) for Attenuator

Margin= Limit-Level

10 FCC RADIATED EMISSION TEST

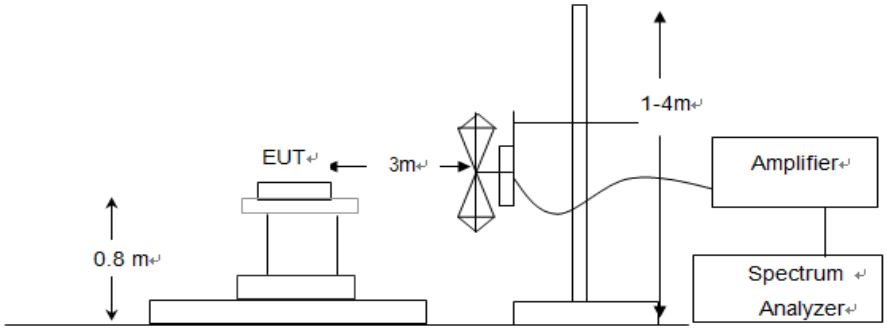
10.1 LIMITS OF RADIATED EMISSION TEST

Frequency (MHz)	Distance (m)	Maximum Field Strength Limit (dBuV/m/ Q.P.)
30~88	3	40.0
88~216	3	43.5
216~960	3	46.0
Above 960	3	54.0

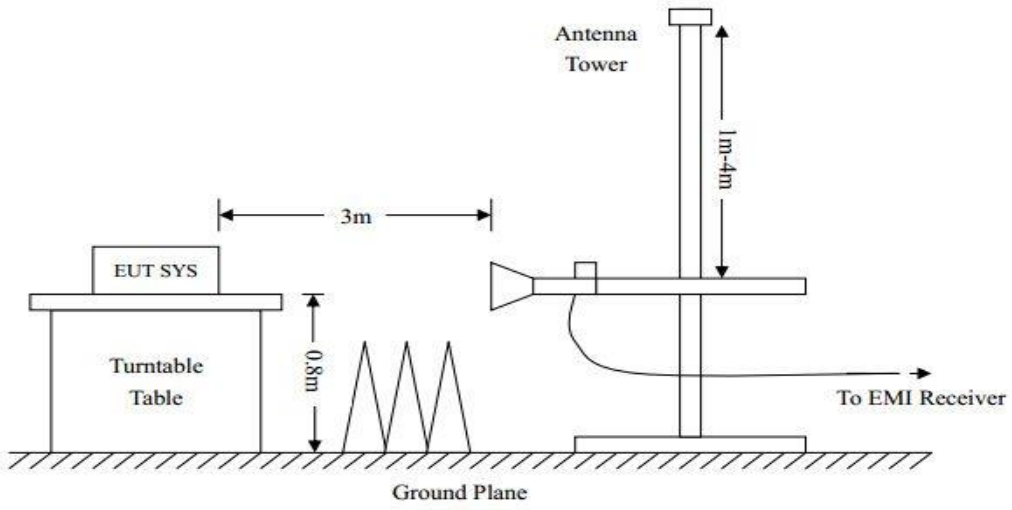
Note: The lower limit shall apply at the transition frequency.

10.2 BLOCK DIAGRAM OF TEST SETUP

System Diagram of Connections between EUT and Simulators



RADIATED EMISSION TEST SETUP ABOVE 1000MHz



10.3 PROCEDURE OF RADIATED 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 turntable with a height of 0.8 meters is used which is placed on the ground plane as per ANSI C63.4 (see Test Facility for the dimensions of the ground plane used). When the EUT is 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 C63.4.

(3) All I/O cables were positioned to simulate typical actual usage as per ANSI C63.4.

(4) The EUT received DC 5V power from adapter which received AC 120V/60Hz power from socket under the turntable.

(5) The antenna was placed at 3 meter away from the EUT as stated in FCC Part 15. The antenna connected to the Analyzer via a cable and at times a pre-amplifier would be used.

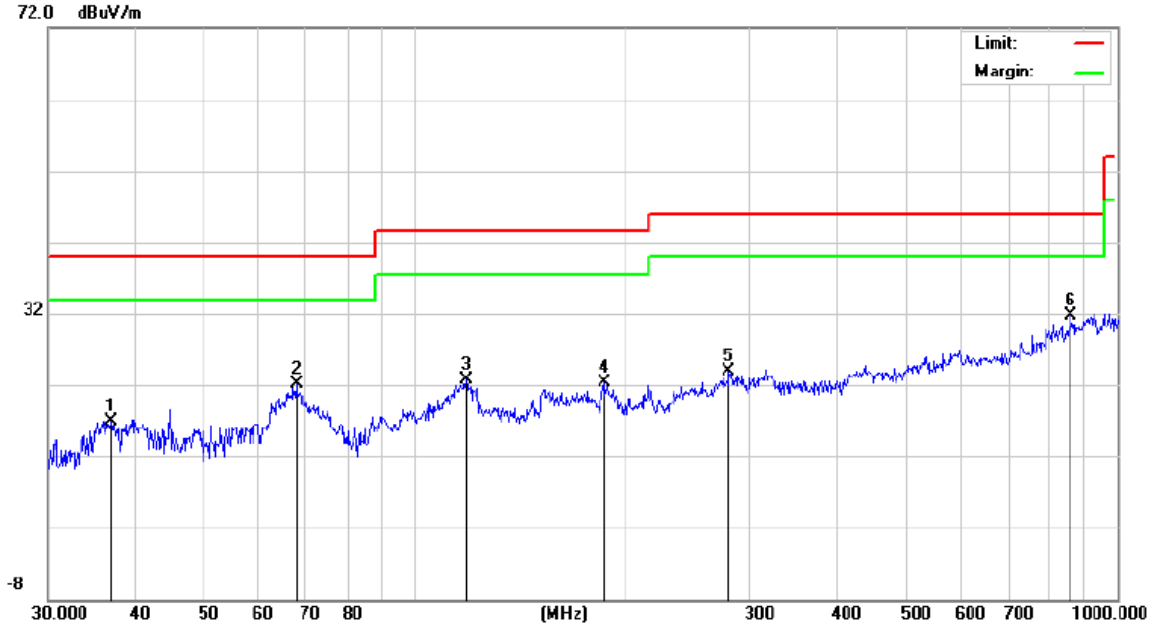
(6) The Analyzer / Receiver quickly scanned from 30MHz to 1000MHz. The EUT test program was started. Emissions were scanned and measured rotating the EUT to 360 degrees and positioning the antenna 1 to 4 meters above the ground plane, in both the vertical and the horizontal polarization, to maximize the emission reading level.

(7) The test mode(s) were scanned during the test:

(8) Recorded at least the six highest emissions. Emission frequency, amplitude, antenna position, polarization and turntable position were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit and Q.P./Peak reading is presented.

10.4 TEST RESULT OF RADIATED EMISSION TEST

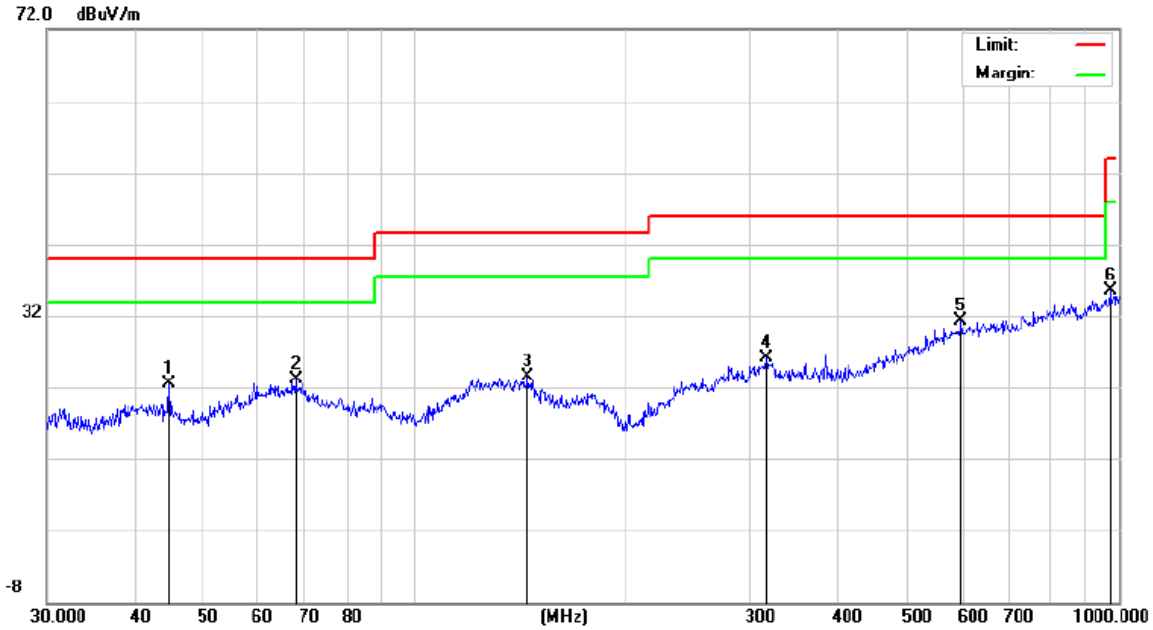
Radiated Emission Test at 3m Distance-(30MHz-1000MHz) Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		36.8952	3.57	13.37	16.94	40.00	-23.06	peak
2		67.6751	5.00	17.05	22.05	40.00	-17.95	peak
3		118.1861	5.13	17.52	22.65	43.50	-20.85	peak
4		185.7881	6.36	15.95	22.31	43.50	-21.19	peak
5		280.0237	4.03	19.94	23.97	46.00	-22.03	peak
6	*	860.0352	4.18	27.55	31.73	46.00	-14.27	peak

RESULT: PASS

Radiated Emission Test at 3m Distance-(30MHz-1000MHz) Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		44.7433	8.33	14.27	22.60	40.00	-17.40	peak
2		67.6751	6.00	17.05	23.05	40.00	-16.95	peak
3		144.8418	5.78	17.74	23.52	43.50	-19.98	peak
4		315.4808	6.79	19.39	26.18	46.00	-19.82	peak
5	*	597.2234	6.44	24.87	31.31	46.00	-14.69	peak
6		972.3374	6.41	29.03	35.44	54.00	-18.56	peak

RESULT: PASS

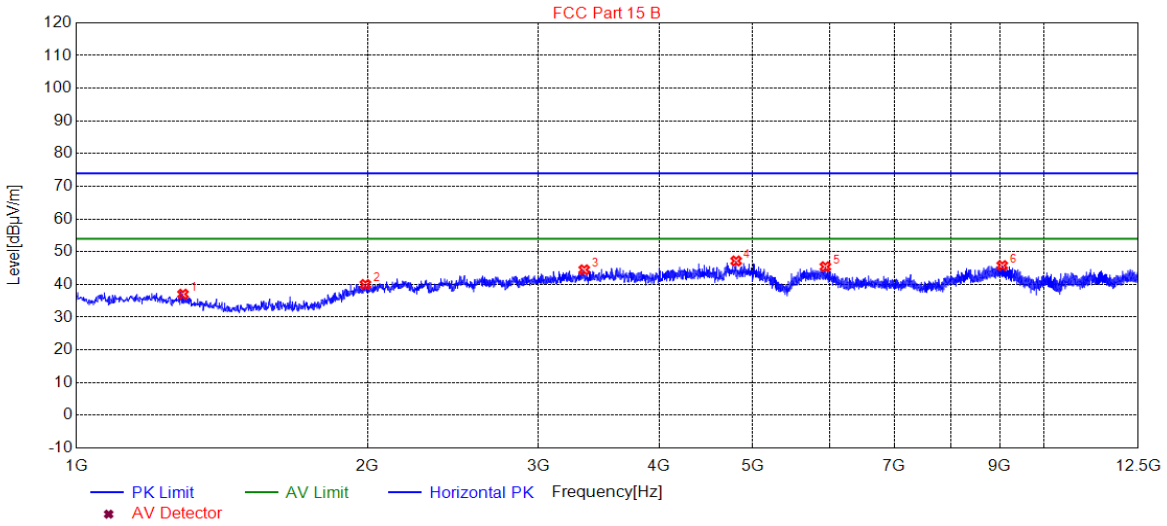
Note：

Measurement(dBuV/m)=Reading(dBuV)+Factor(dB/m)

Factor(dB/m)=Antenna Factor(dB/m)+Cable loss(dB)+Attenuation(dB)for Attenuator

Over= Measurement –Limit

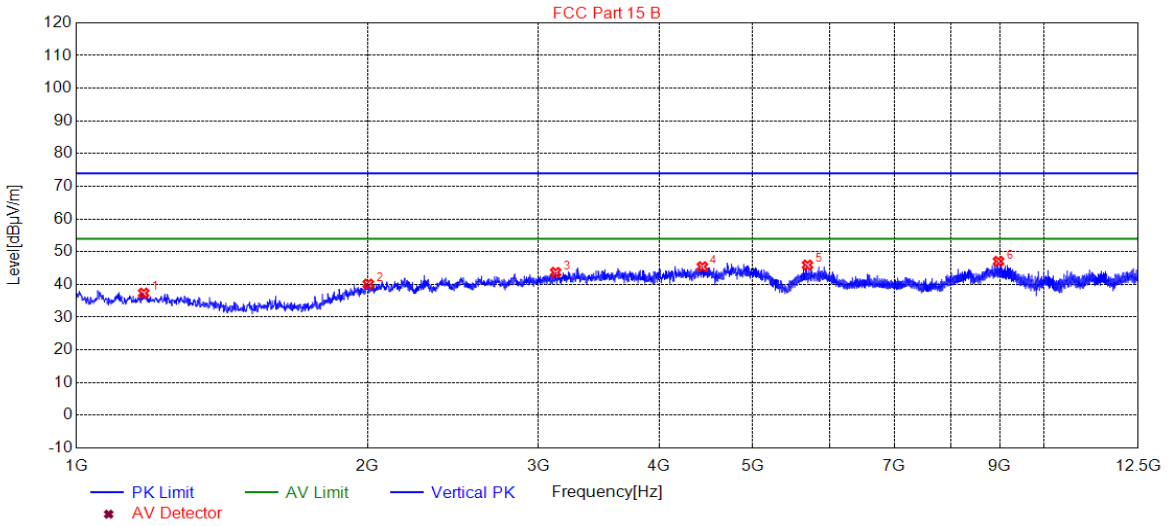
Radiated Emission Test at 3m Distance-Above 1G –Horizontal



NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1288.6789	37.03	-16.92	74.00	36.97	150	180	Horizontal
2	1989.0989	40.01	-11.94	74.00	33.99	150	230	Horizontal
3	3347.3847	44.49	-8.13	74.00	29.51	150	220	Horizontal
4	4804.5805	47.20	-4.91	74.00	26.80	150	110	Horizontal
5	5940.8941	45.44	-3.87	74.00	28.56	150	130	Horizontal
6	9048.5049	45.79	1.45	74.00	28.21	150	90	Horizontal

RESULT: PASS

Radiated Emission Test at 3m Distance Above 1G –Vertical



NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1173.6674	37.37	-16.81	74.00	36.63	150	140	Vertical
2	2002.9003	40.13	-11.81	74.00	33.87	150	310	Vertical
3	3127.7128	43.71	-8.89	74.00	30.29	150	90	Vertical
4	4434.2434	45.45	-5.37	74.00	28.55	150	120	Vertical
5	5693.6194	45.95	-4.67	74.00	28.05	150	220	Vertical
6	8970.2970	47.08	1.41	74.00	26.92	150	210	Vertical

RESULT: PASS

Note：

Level(dBuV/m)=Reading(dBuV)+Factor(dB/m)

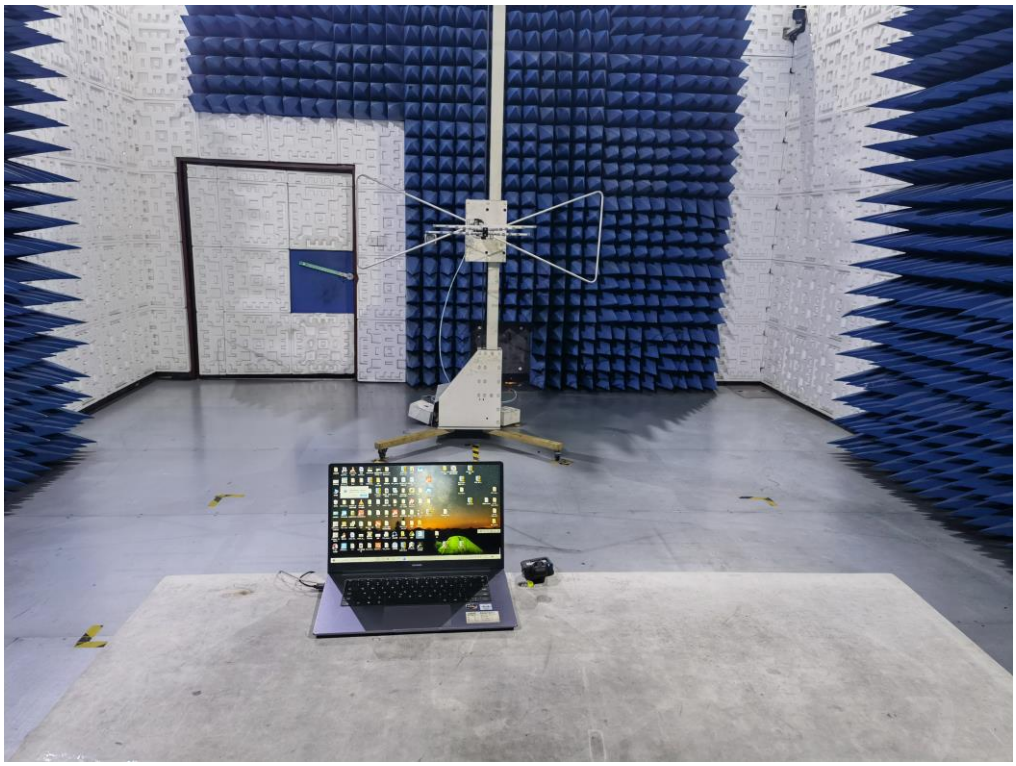
Factor(dB/m)=Antenna Factor(dB/m)+Cable loss(dB)+Attenuation(dB)for Attenuator

Margin= Limit –Level

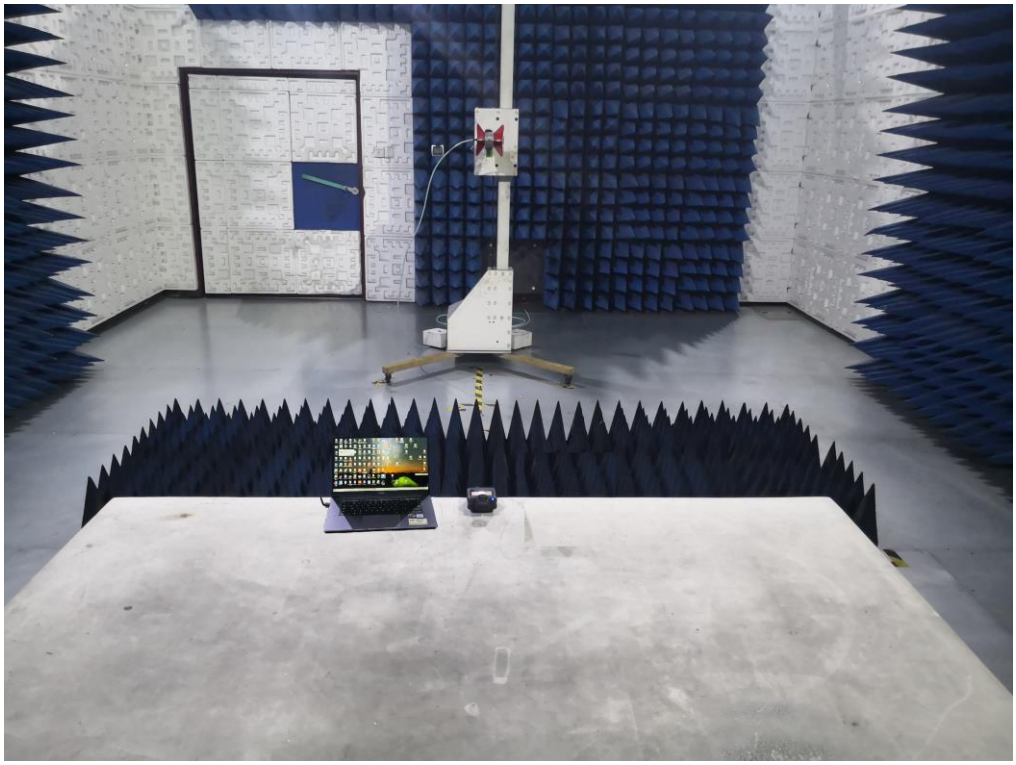
APPENDIX A: PHOTOGRAPHS OF TEST SETUP

FCC LINE CONDUCTED EMISSION TEST SETUP

FCC RADIATED EMISSION TEST SETUP (Below 1GHz)



FCC RADIATED EMISSION TEST SETUP (Above 1GHz)



APPENDIX B: PHOTOGRAPHS OF EUT

TOP VIEW OF EUT

BOTTOM VIEW OF EUT

FRONT VIEW OF EUT

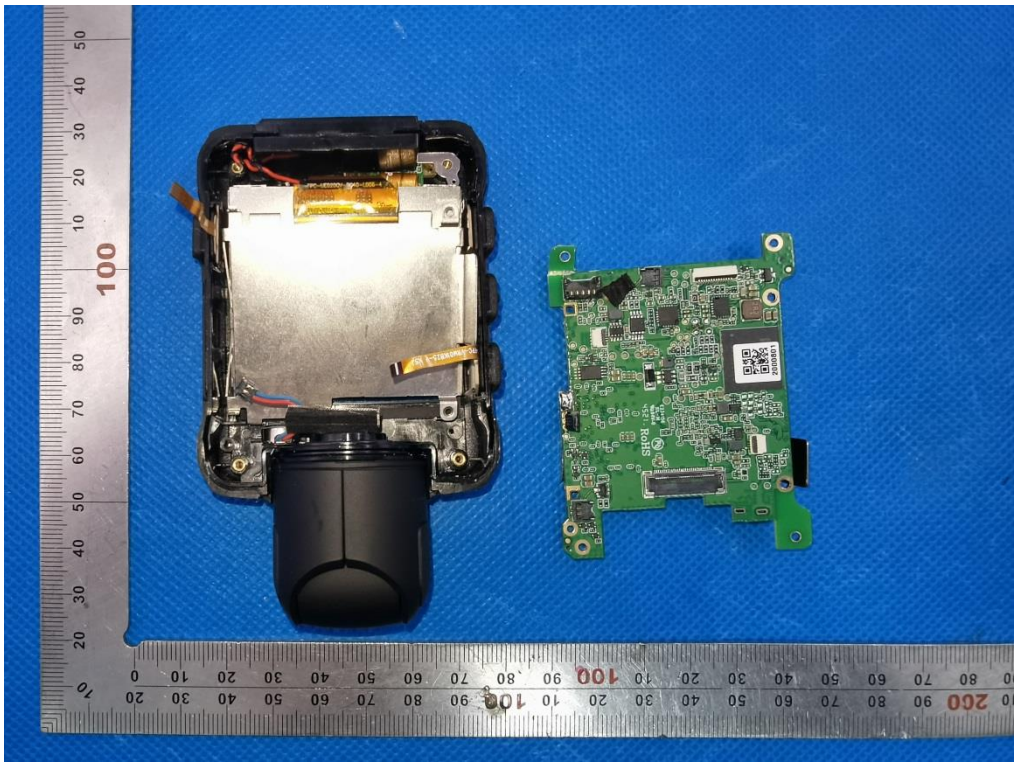
BACK VIEW OF EUT

LEFT VIEW OF EUT

RIGHT VIEW OF EUT

OPEN VIEW OF EUT-1

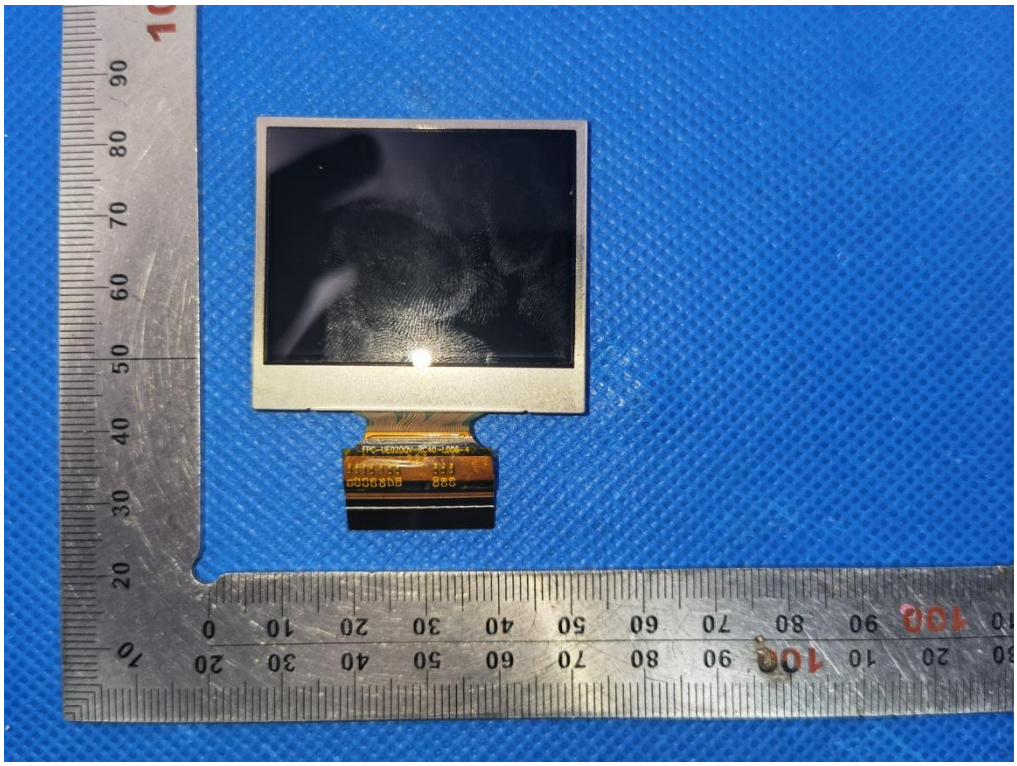
OPEN VIEW OF EUT-2



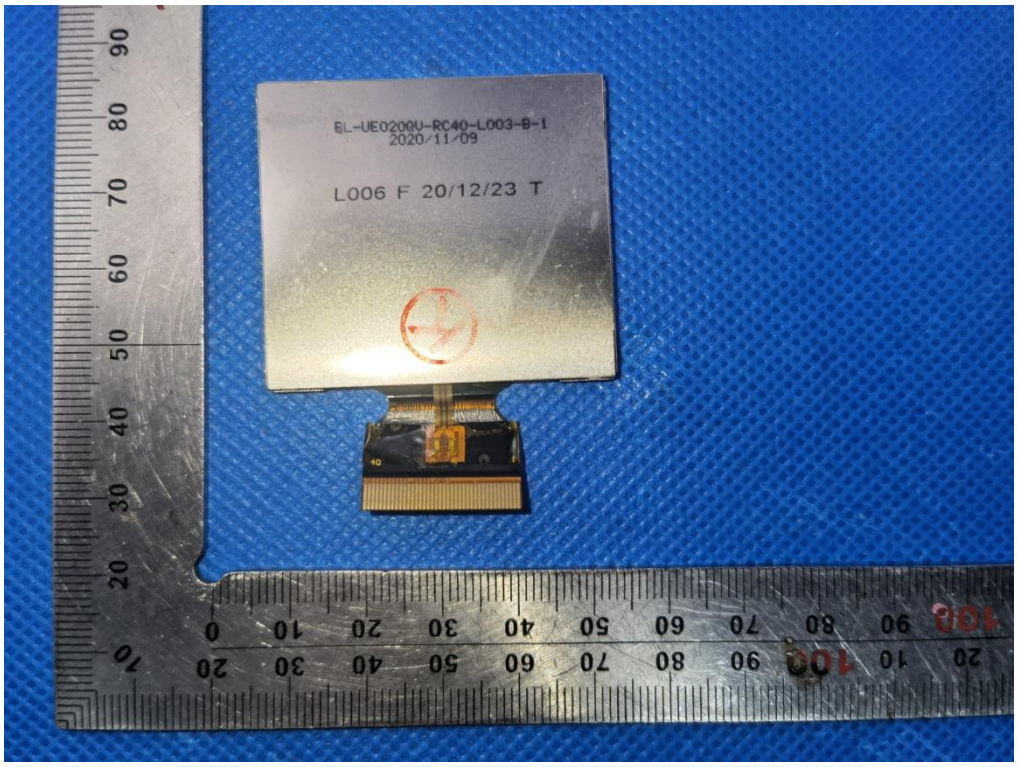
OPEN VIEW OF EUT-3

1 

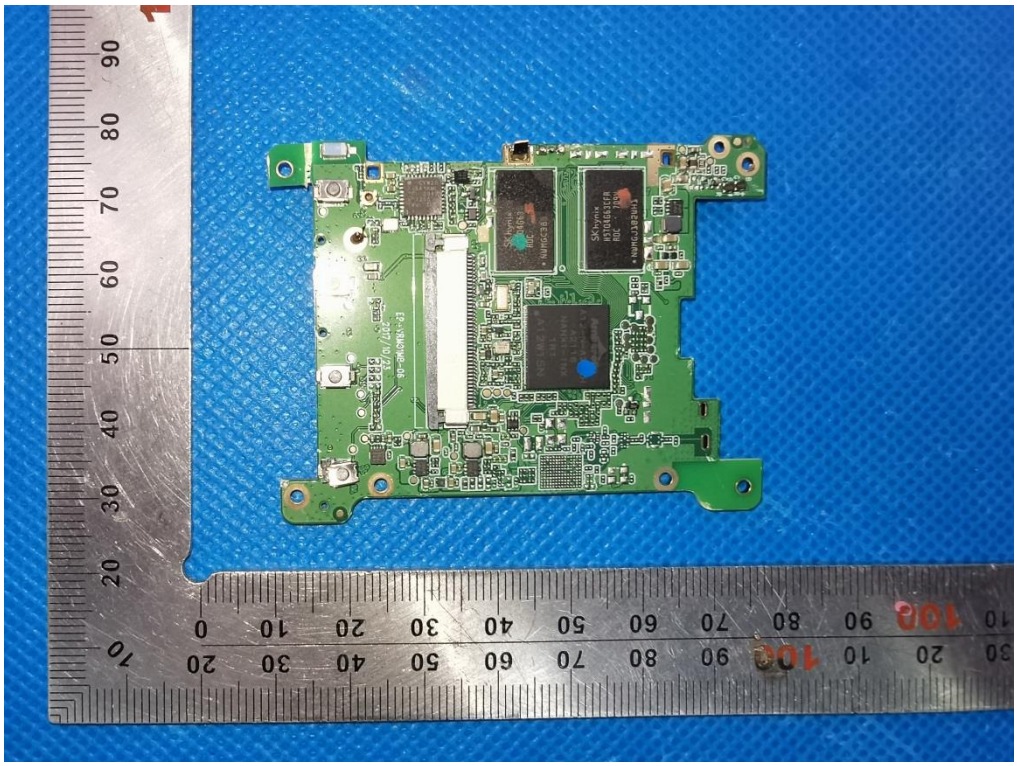
INTERNAL VIEW OF EUT-1



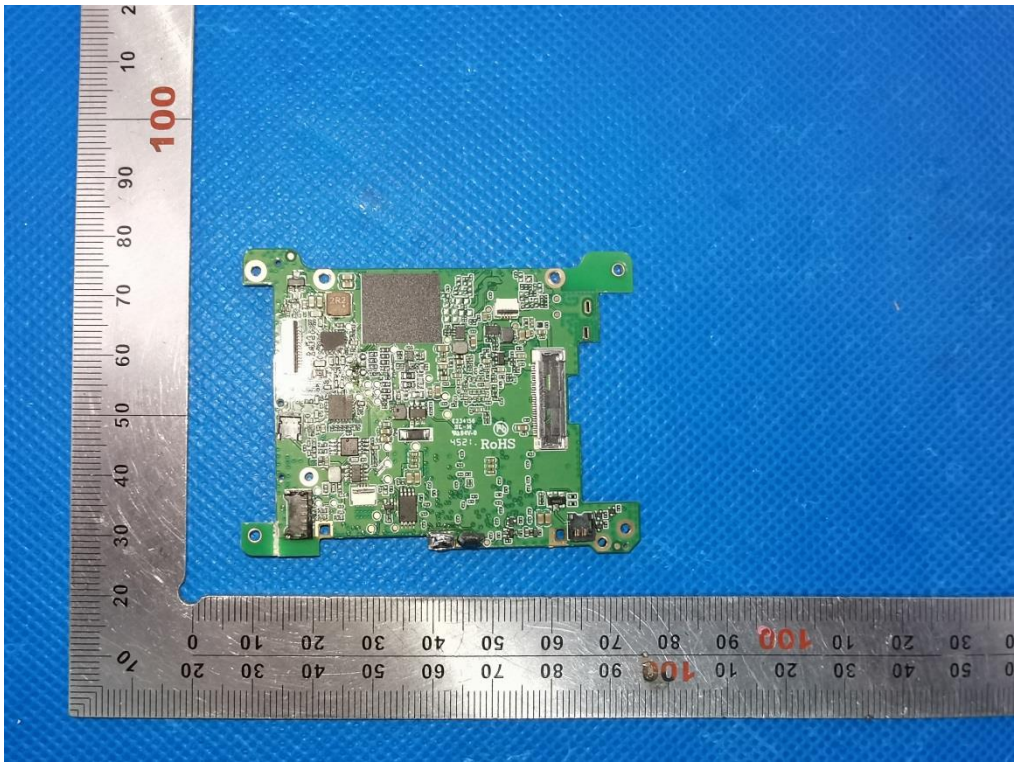
INTERNAL VIEW OF EUT-2



INTERNAL VIEW OF EUT-3



INTERNAL VIEW OF EUT-4



Battery close-up photo

----END OF REPORT----

Conditions of Issuance of Test Reports

1. All samples and goods are accepted by the Attestation of Global Compliance (Shenzhen) Co., Ltd. (the "Company") solely for testing and reporting in accordance with the following terms and conditions. The company provides its services on the basis that such terms and conditions constitute express agreement between the company and any person, firm or company requesting its services (the "Clients").
2. Any report issued by Company as a result of this application for testing services (the "Report") shall be issued in confidence to the Clients and the Report will be strictly treated as such by the Company. It may not be reproduced either in its entirety or in part and it may not be used for advertising or other unauthorized purposes without the written consent of the Company. The Clients to whom the Report is issued may, however, show or send it, or a certified copy thereof prepared by the Company to its customer, supplier or other persons directly concerned. The Company will not, without the consent of the Clients, enter into any discussion or correspondence with any third party concerning the contents of the Report, unless required by the relevant governmental authorities, laws or court orders.
3.The Company shall not be called or be liable to be called to give evidence or testimony on the Report in a court of law without its prior written consent, unless required by the relevant governmental authorities, laws or court orders.
4. In the event of the improper use of the report as determined by the Company, the Company reserves the right to withdraw it, and to adopt any other additional remedies which may be appropriate.
5. Samples submitted for testing are accepted on the understanding that the Report issued cannot form the basis of, or be the instrument for, any legal action against the Company.
6. The Company will not be liable for or accept responsibility for any loss or damage however arising from the use of information contained in any of its Reports or in any communication whatsoever about its said tests or investigations.
7.Clients wishing to use the Report in court proceedings or arbitration shall inform the Company to that effect prior to submitting the sample for testing.
8. The Company is not responsible for recalling the electronic version of the original report when any revision is made to them. The Client assumes the responsibility to providing the revised version to any interested party who uses them.
9. Subject to the variable length of retention time for test data and report stored hereinto as otherwise specifically required by individual accreditation authorities, the Company will only keep the supporting test data and information of the test report for a period of six years. The data and information will be disposed of after the aforementioned retention period has elapsed. Under no circumstances shall we provide any data and information which has been disposed of after retention period. Under no circumstances shall we be liable for damage of any kind, including (but not limited to) compensatory damages, lost profits, lost data, or any form of special, incidental, indirect, consequential or punitive damages of any kind, whether based on breach of contract of warranty, tort (including negligence), product liability or otherwise, even if we are informed in advance of the possibility of such damages.