

14.3. 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 3.6V power from control board which received AC120V/60Hz power from 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.

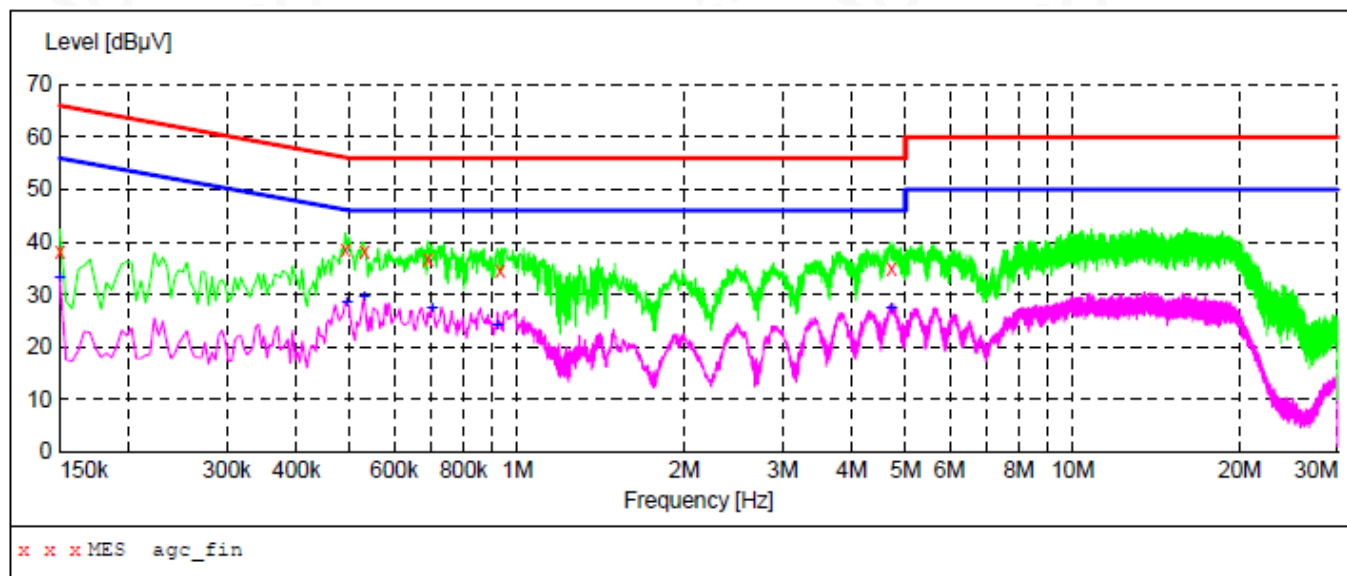
14.4. FINAL PROCEDURE OF LINE CONDUCTED EMISSION TEST

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.



14.5. TEST RESULT OF LINE CONDUCTED EMISSION TEST

Line Conducted Emission Test Line 1-L



MEASUREMENT RESULT: "agc_fin"

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Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.150000	38.00	11.3	66	28.0	QP	L1	GND
0.490000	38.40	11.3	56	17.8	QP	L1	GND
0.530000	38.30	11.3	56	17.7	QP	L1	GND
0.690000	36.60	11.3	56	19.4	QP	L1	GND
0.930000	34.50	11.3	56	21.5	QP	L1	GND
4.714000	35.10	11.4	56	20.9	QP	L1	GND

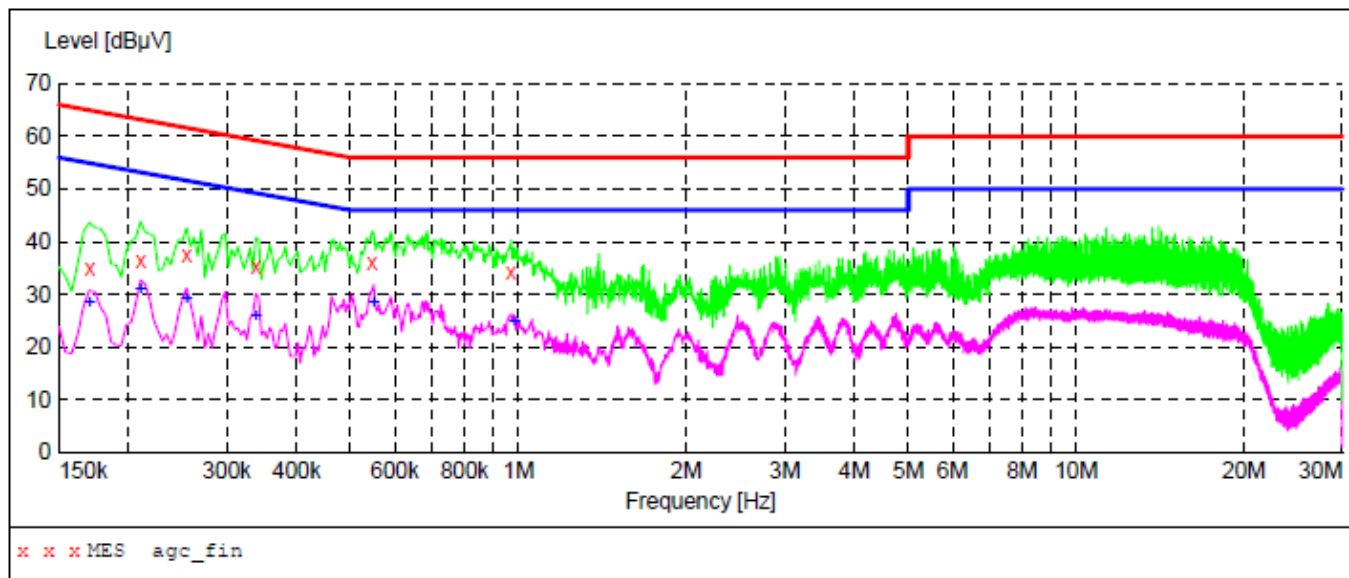
MEASUREMENT RESULT: "agc_fin2"

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Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.150000	33.10	11.3	56	22.9	AV	L1	GND
0.494000	28.50	11.3	46	17.6	AV	L1	GND
0.530000	29.60	11.3	46	16.4	AV	L1	GND
0.702000	27.20	11.3	46	18.8	AV	L1	GND
0.922000	24.10	11.3	46	21.9	AV	L1	GND
4.710000	27.20	11.4	46	18.8	AV	L1	GND



Line Conducted Emission Test Line 2-N


MEASUREMENT RESULT: "agc_fin"

2020/5/15 15:15

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.170000	34.80	11.3	65	30.2	QP	N	GND
0.210000	36.30	11.3	63	26.9	QP	N	GND
0.254000	37.30	11.3	62	24.3	QP	N	GND
0.338000	35.30	11.3	59	24.0	QP	N	GND
0.546000	36.00	11.3	56	20.0	QP	N	GND
0.970000	34.00	11.3	56	22.0	QP	N	GND

MEASUREMENT RESULT: "agc_fin2"

2020/5/15 15:15

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.170000	28.50	11.3	55	26.5	AV	N	GND
0.210000	31.00	11.3	53	22.2	AV	N	GND
0.254000	29.00	11.3	52	22.6	AV	N	GND
0.338000	25.90	11.3	49	23.4	AV	N	GND
0.550000	28.30	11.3	46	17.7	AV	N	GND
0.982000	24.80	11.3	46	21.2	AV	N	GND

RESULT: PASS


APPENDIX A: PHOTOGRAPHS OF TEST SETUP

CONDUCTED EMISSION TEST SETUP



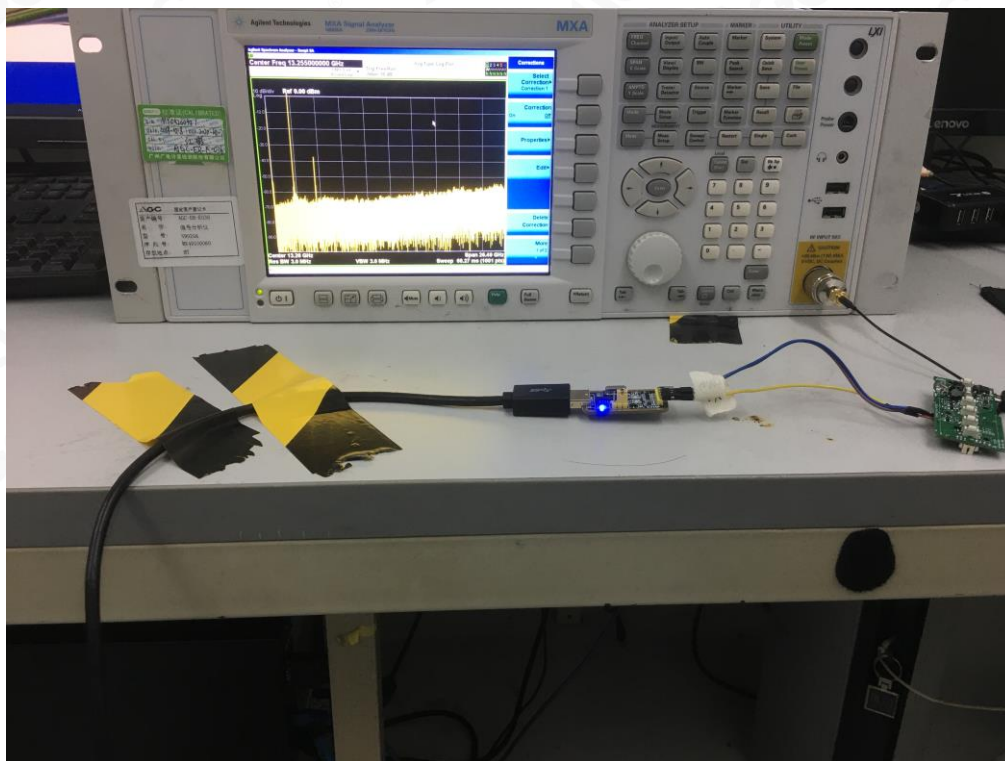
RADIATED EMISSION TEST SETUP BELOW 1GHZ



RADIATED EMISSION TEST SETUP ABOVE 1GHZ



CONDUCTED TEST SETUP



APPENDIX B: PHOTOGRAPHS OF EUT

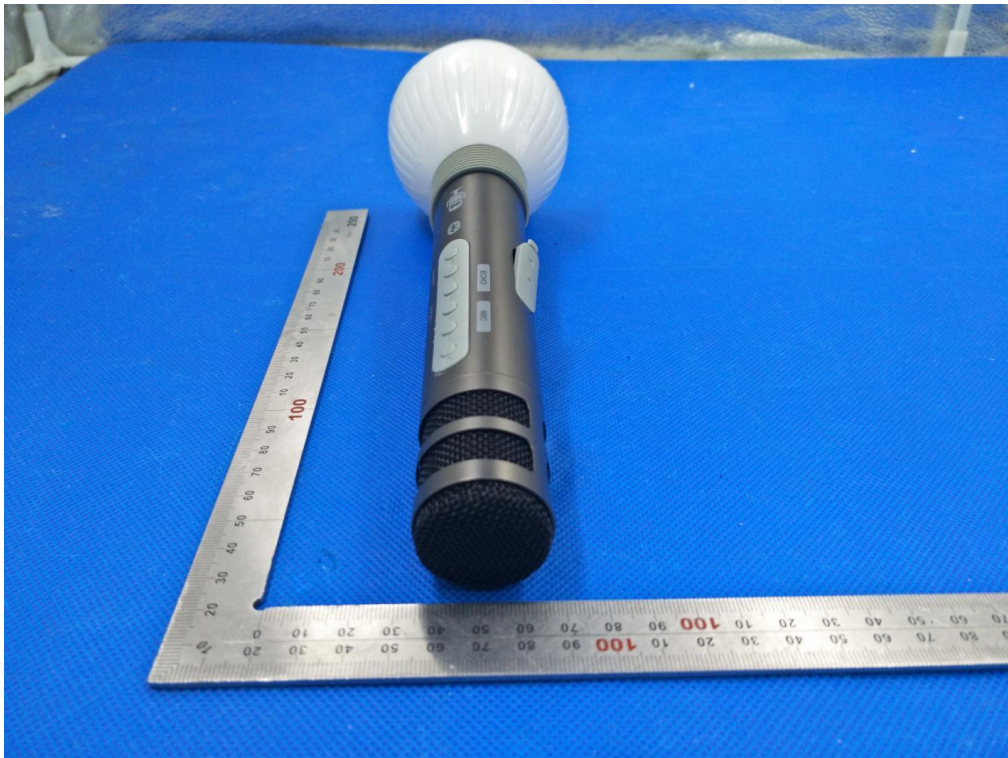
TOP VIEW OF EUT



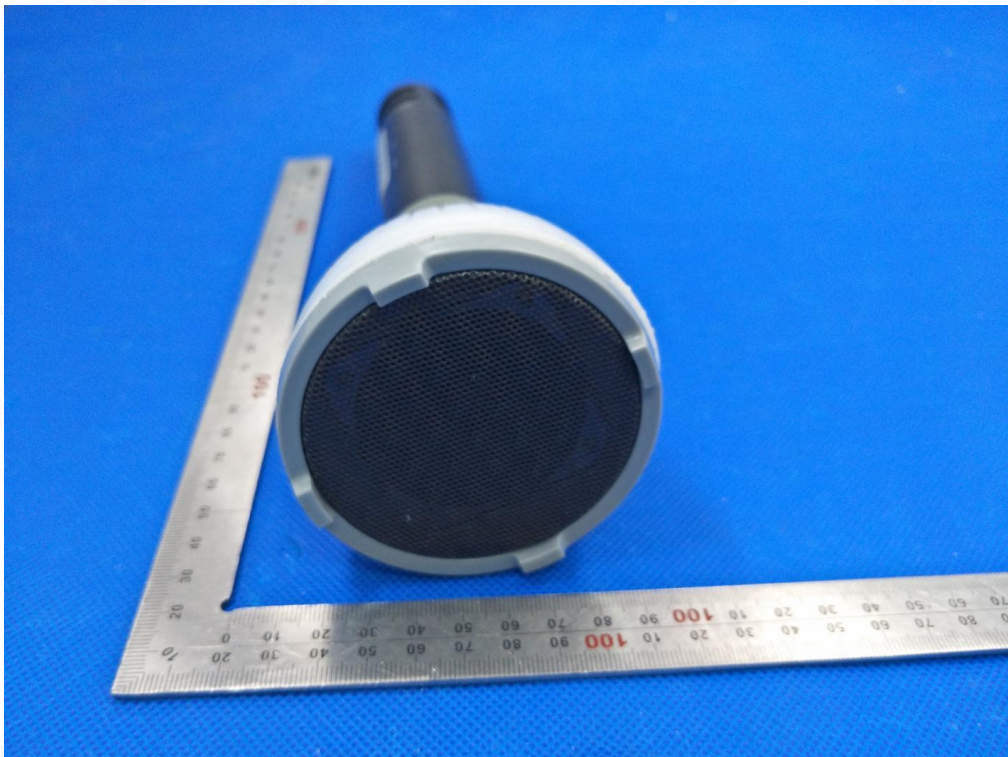
BOTTOM VIEW OF EUT



FRONT VIEW OF EUT



BACK VIEW OF EUT



LEFT VIEW OF EUT



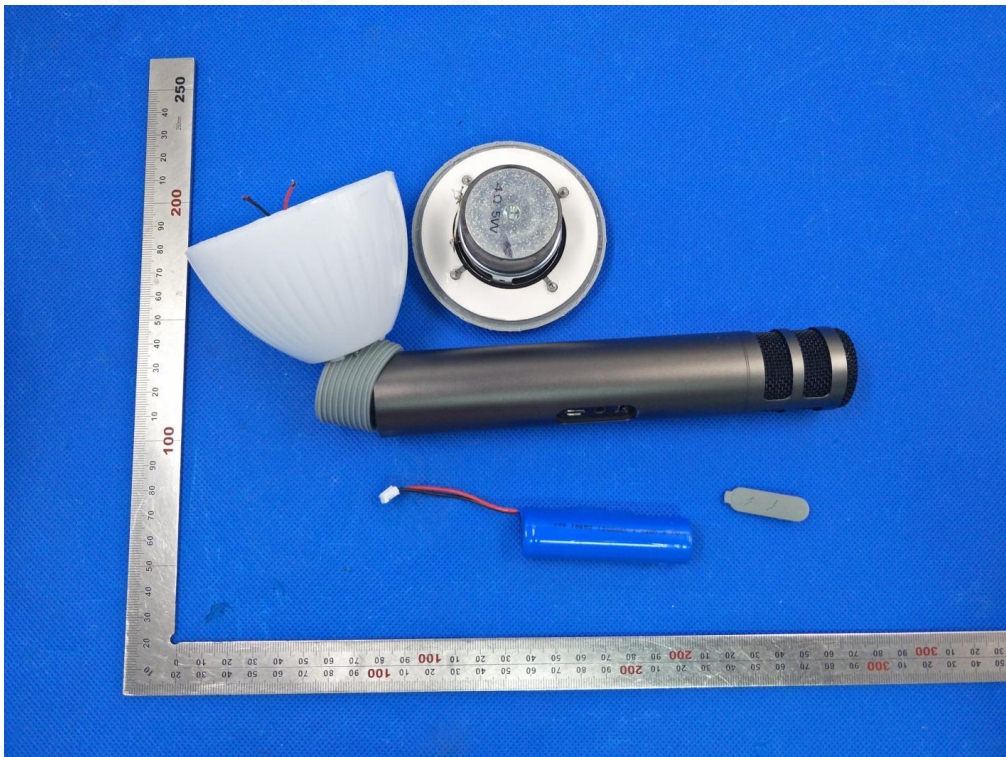
RIGHT VIEW OF EUT



VIEW OF EUT(Port)



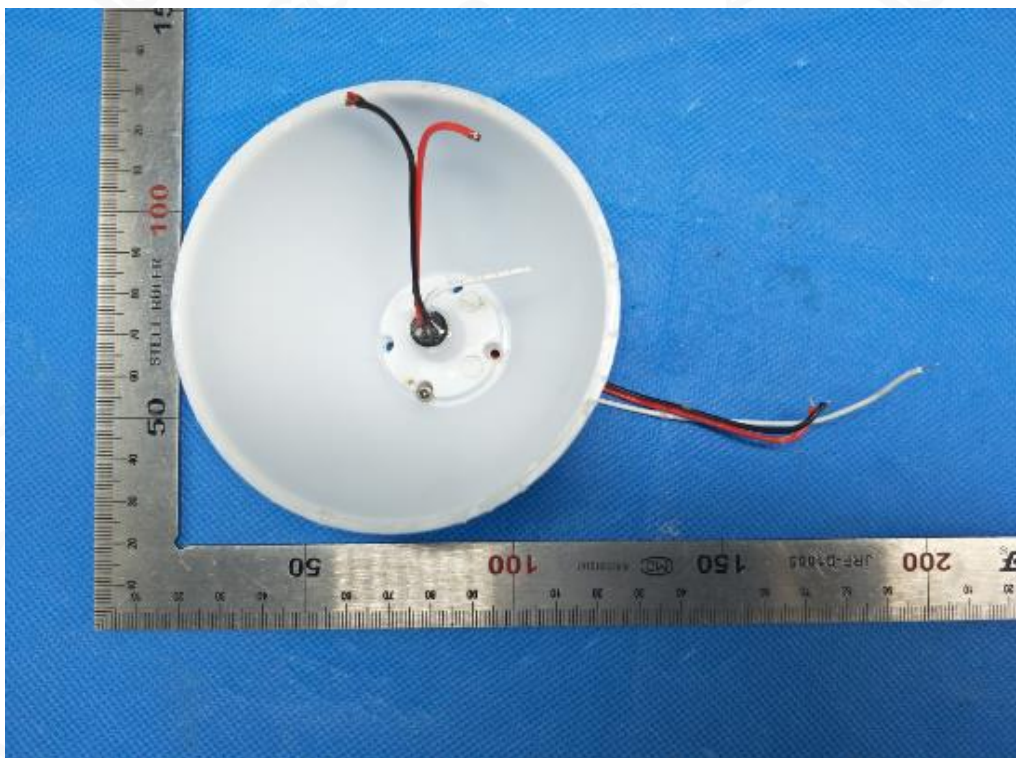
OPEN VIEW OF EUT-1



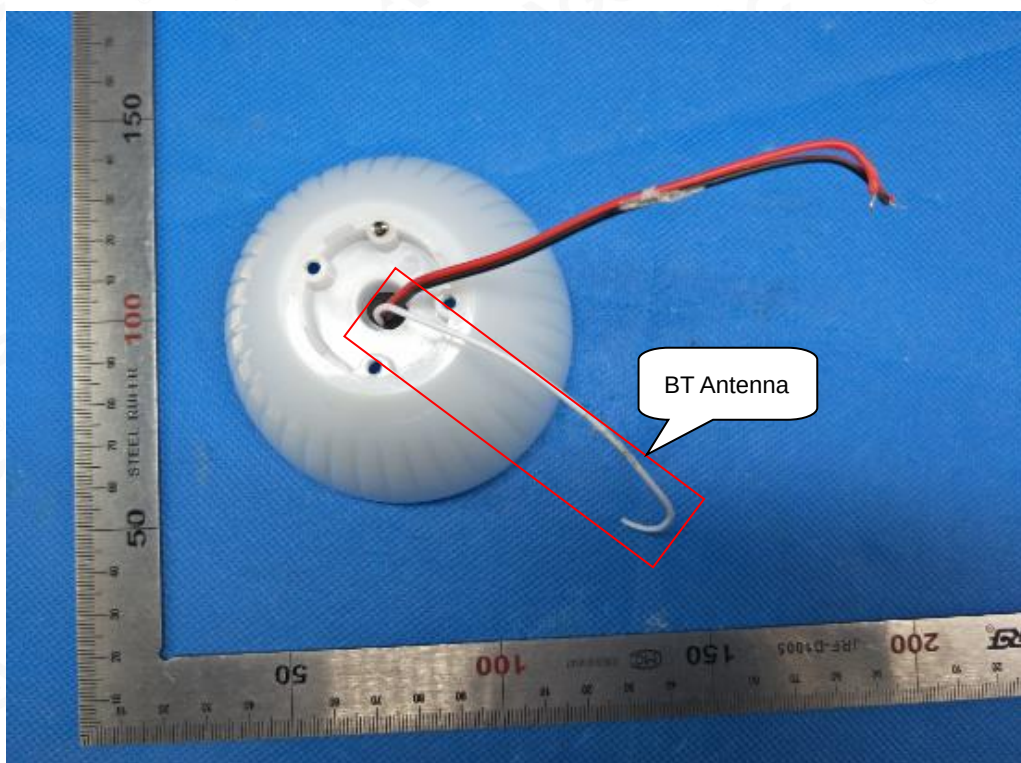
OPEN VIEW OF EUT-2



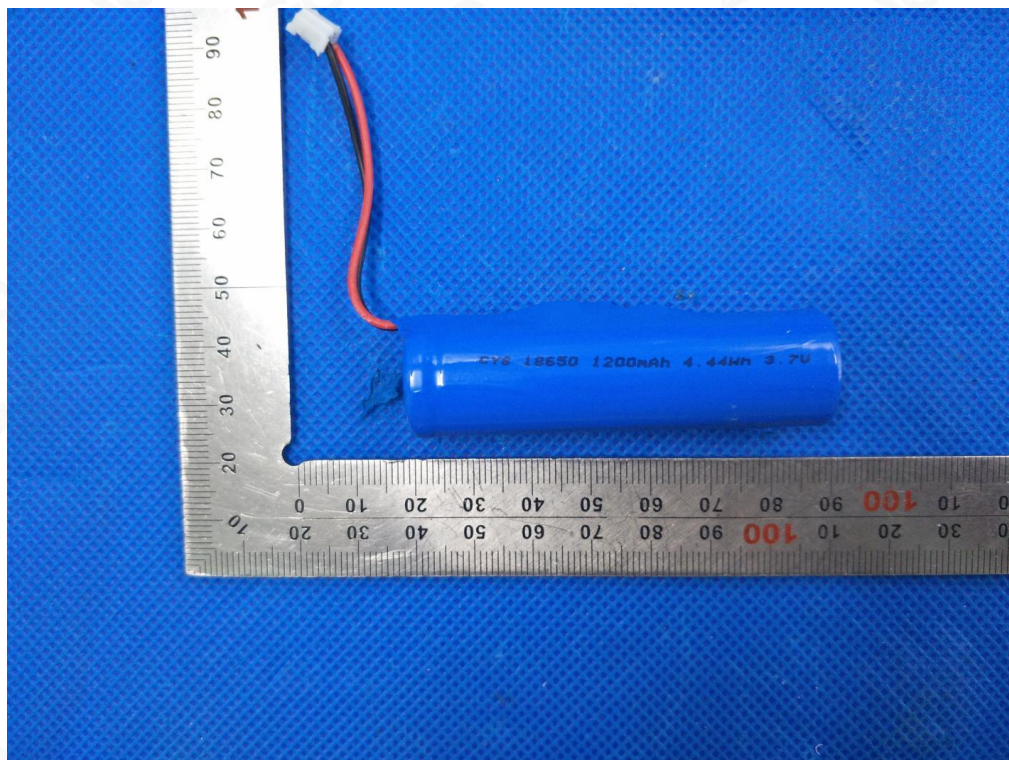
OPEN VIEW OF EUT-3



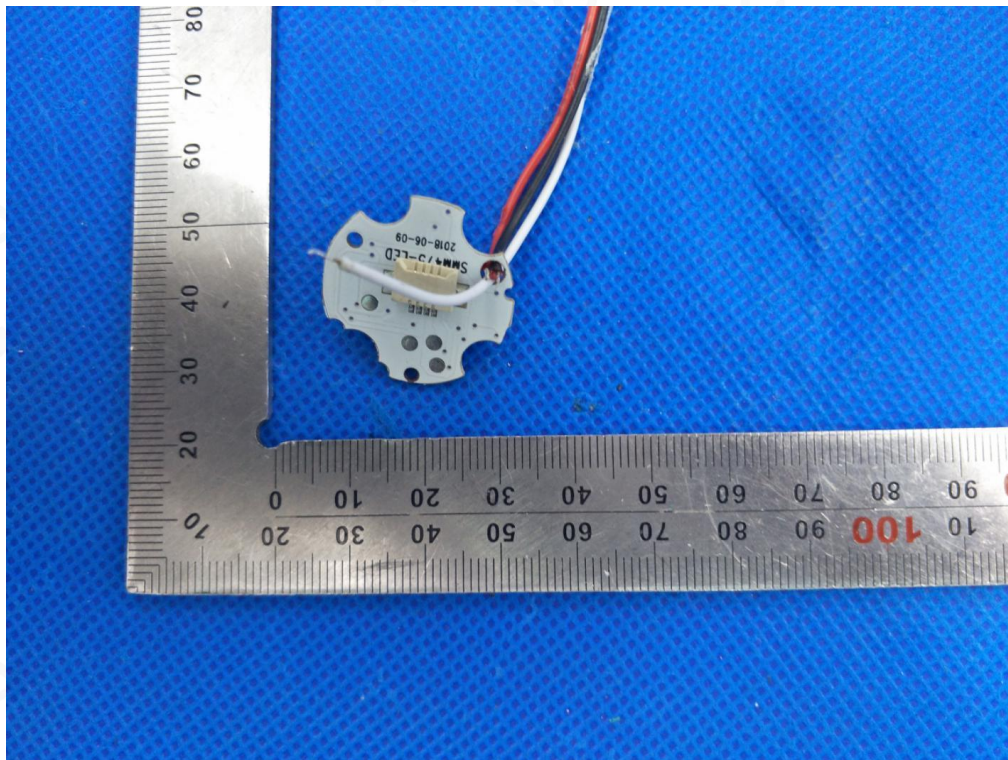
OPEN VIEW OF EUT-4



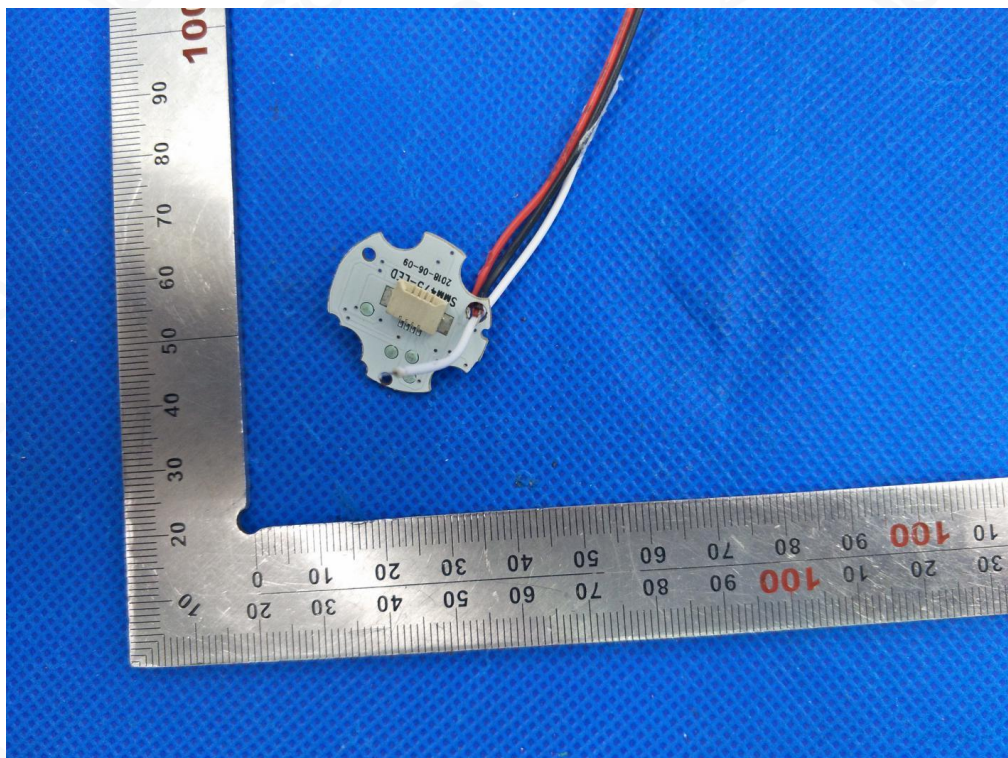
VIEW OF BATTERY



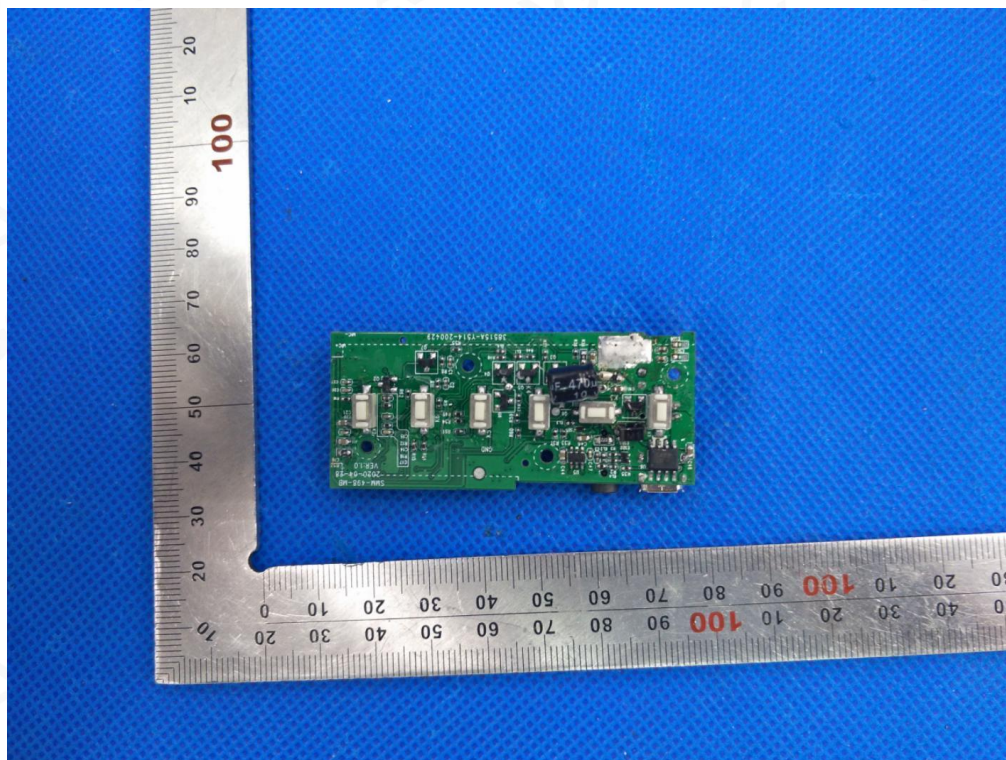
INTERNAL VIEW OF EUT-1



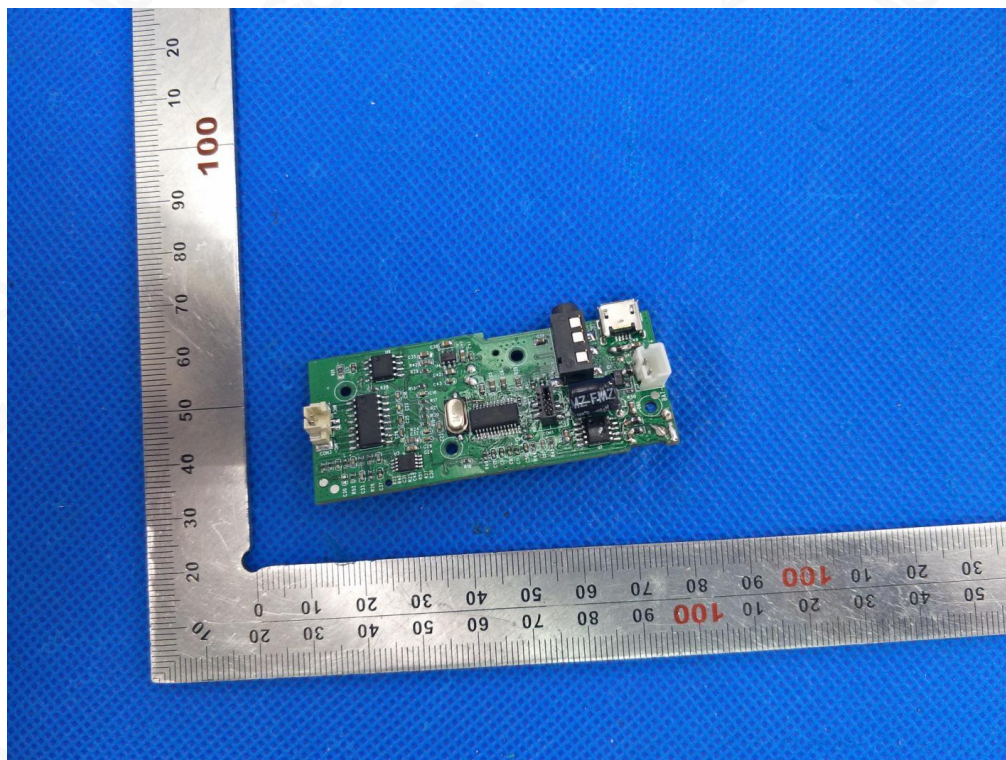
INTERNAL VIEW OF EUT-2



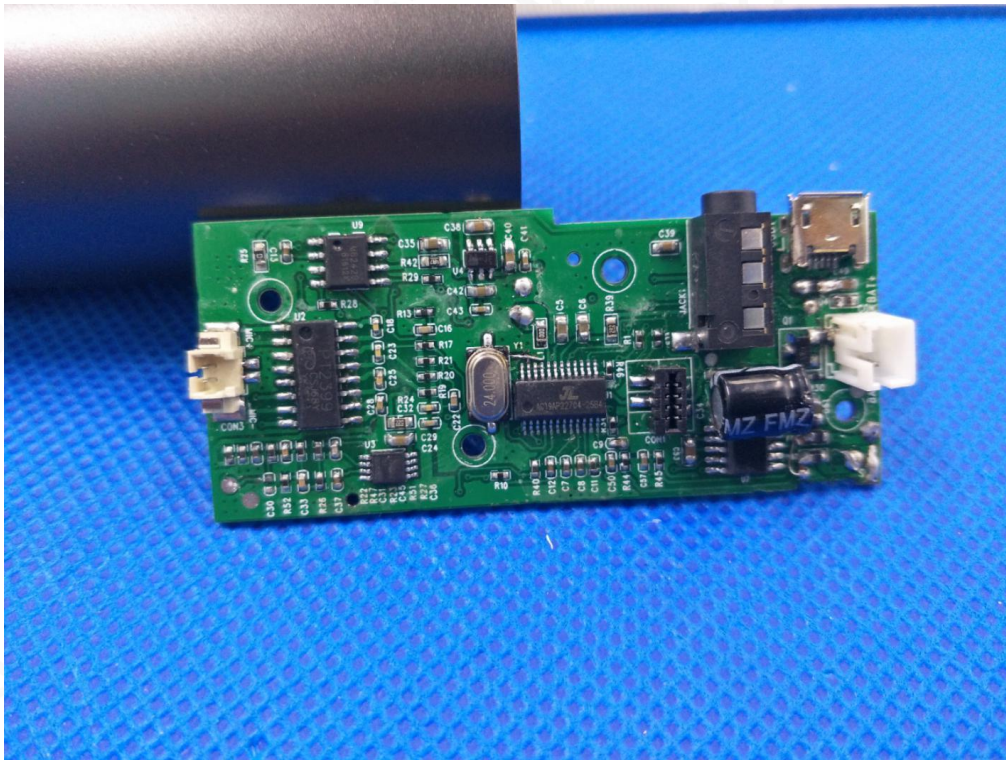
INTERNAL VIEW OF EUT-3



INTERNAL VIEW OF EUT-4



INTERNAL VIEW OF EUT-5



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