

FCC - TEST REPORTReport Number : **60.792.17.024.01E01** Date of Issue : September 20, 2017Model : **BT LED Display**Product Type : **BT LED Display**Applicant : **Guillemot Corp S.A.**Address : **Place du Granier, B.P 97143, Chantepie, France, 35171**Production Facility : **Guillemot Corp S.A.**Address : **Place du Granier, B.P 97143, Chantepie, France, 35171**Test Result : **Positive** **Negative**Total pages including Appendices : 26

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2 Description of Equipment Under Test

Description of the Equipment Under Test

Product: BT LED Display

Model no.: BT LED Display

Rating: 1) 3.8VDC (1 x 3.8VDC Rechargeable battery)
2) 5.0VDC (USB port)



3 Summary of Test Standards

Test Standards

FCC Part 15 Subpart B 10-1-16 Edition Federal Communications Commission, PART 15 — Radio Frequency Devices, Subpart B — Unintentional Radiators

4 Details about the Test Laboratory

Site 1

Company name: TÜV SÜD Hong Kong Ltd.
3/F, West Wing, Lakeside 2,
10 Science Park West Avenue,
Science Park, Shatin, Hong Kong

Site 2

Company name: TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
Building 12&13 Zhiheng Wisdomland Business Park,
Nantou Checkpoint Road 2,
Shenzhen 518052, P.R.China
FCC Registration Number: 502708

Emission Tests	
Test Item	Test Site
FCC Part 15 Subpart B	
FCC Title 47 Part 15.109 Radiated Emission 30MHz-1000MHz	Site 2
FCC Title 47 Part 15.107 Conduct Emission 150kHz-30MHz	Site 2

4.1 Test Equipment Site List

Radiated emission Test – Site 2

DESCRIPTION	MANUFACTURER	MODEL NO.	SERIAL NO.	CAL. DUE DATE
EMI Test Receiver	Rohde & Schwarz	ESR 26	101269	07-July-18
Trilog Super Broadband Test Antenna	Schwarzbeck	VULB 9163	707	07-July-18
Horn Antenna	Rohde & Schwarz	HF907	102294	07-July-18
Pre-amplifier	Rohde & Schwarz	SCU 18	102230	07-July-18
3m Semi-anechoic chamber	TDK	9X6X6	----	14-July-20

Conducted emission Test – Site 2

DESCRIPTION	MANUFACTURER	MODEL NO.	SERIAL NO.	CAL. DUE DATE
EMI Test Receiver	Rohde & Schwarz	ESR 3	101782	14-July-18
LISN	Rohde & Schwarz	ENV4200	100249	14-July-18
LISN	Rohde & Schwarz	ENV216	100326	14-July-18
ISN	Rohde & Schwarz	ENY81	100177	14-July-18
ISN	Rohde & Schwarz	ENY81-CAT6	101664	14-July-18
High Voltage Probe	Rohde & Schwarz	TK9420(VT9420)	9420-58	14-July-18
RF Current probe	Rohde & Schwarz	EZ-17	100816	14-July-18

4.2 Measurement System Uncertainty

Measurement System Uncertainty Emissions

System Measurement Uncertainty	
Items	Extended Uncertainty
Uncertainty for Radiated Emission in 3m chamber 30MHz-1000MHz	Horizontal: 4.83dB; Vertical: 4.91dB;
Uncertainty for Conducted Emission 150kHz-30MHz	3.50dB

5 Summary of Test Results

Emission Tests				
FCC Part 15 Subpart B				
Test Condition	Pages	Test Result		
		Pass	Fail	N/A
FCC Title 47 Part 15.109 Radiated Emission 30MHz-1000MHz	10-17	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
FCC Title 47 Part 15.107 Conduct Emission 150kHz-30MHz	18-23	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6 General Remarks

Remarks

AC and DC operation conditions has been tested. Only worse case data in shown.

The following notebook computer was connected during the testing:

Brand: Lenovo

Model: X240

Series: SL10F31638JS

SUMMARY:

- All tests according to the regulations cited on page 5 were

■ - Performed

□ - **Not** Performed

- The Equipment Under Test

■ - **Fulfills** the general approval requirements.

□ - **Does not** fulfill the general approval requirements.

Sample Received Date: June 23, 2017

Testing Start Date: June 24, 2017

Testing End Date: August 11, 2017

- TÜV SÜD HONG KONG LTD. -

Reviewed by:



CHAN Kwong Ngai
EMC Test Engineer



Prepared by:



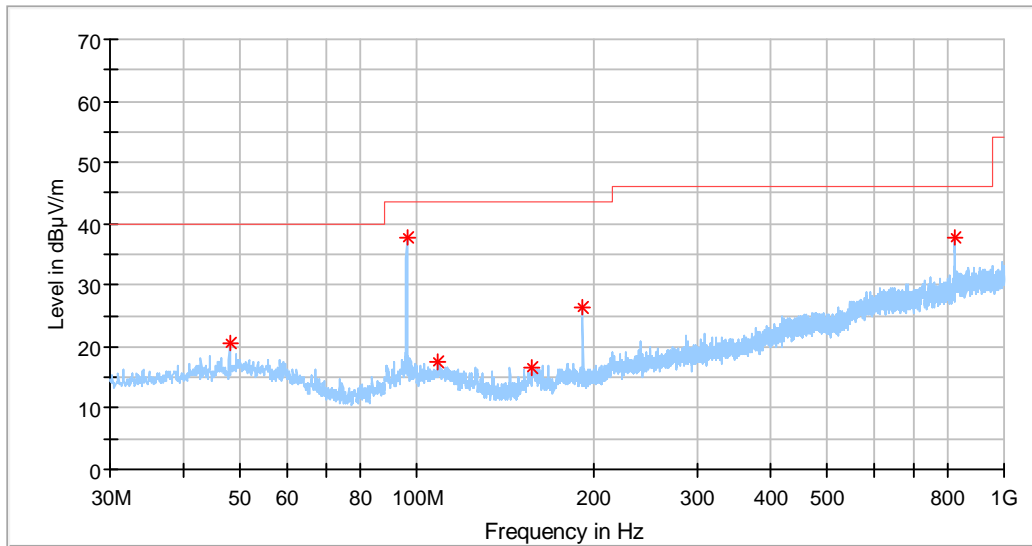
Alex CHAN
EMC Project Engineer

7 Emission Test Results

7.1 Radiated Emission

EUT: BT LED DISPLAY
 Op Condition: Charging
 Test Specification: Antenna: Horizontal
 Comment: 120VAC, 60Hz (From external adaptor)

Test Result	
<input checked="" type="checkbox"/>	Passed
<input type="checkbox"/>	Not Passed

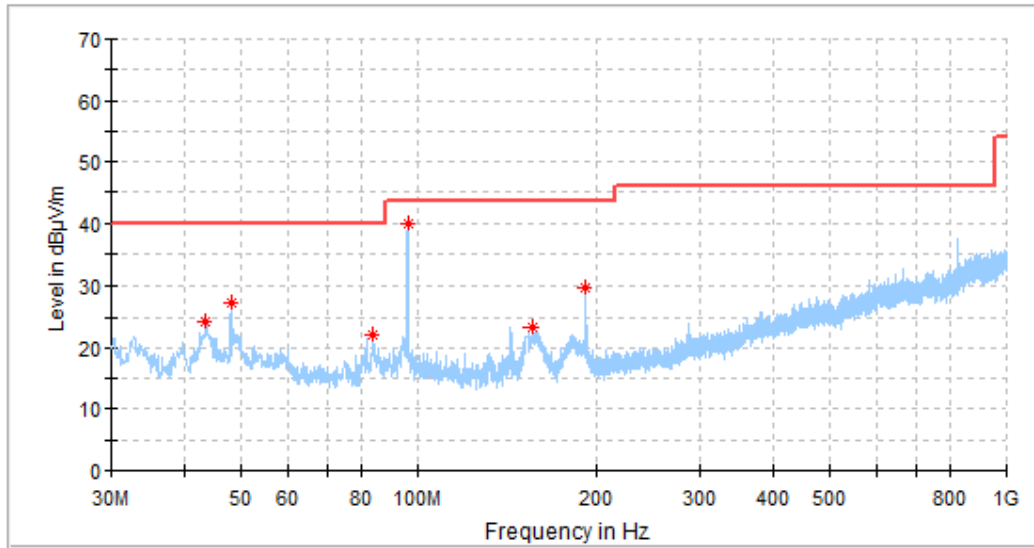


Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)
47.945000	20.60	40.00	-19.40
95.960000	37.79	43.50	-5.71
108.388125	17.52	43.50	-25.98
157.130625	16.44	43.50	-27.06
191.990000	26.52	43.50	-16.98
826.188125	37.83	46.00	-8.17

Radiated Emission

EUT: BT LED DISPLAY
 Op Condition: Charging
 Test Specification: Antenna: Vertical
 Comment: 120VAC, 60Hz (From external adaptor)

Test Result	
<input checked="" type="checkbox"/>	Passed
<input type="checkbox"/>	Not Passed

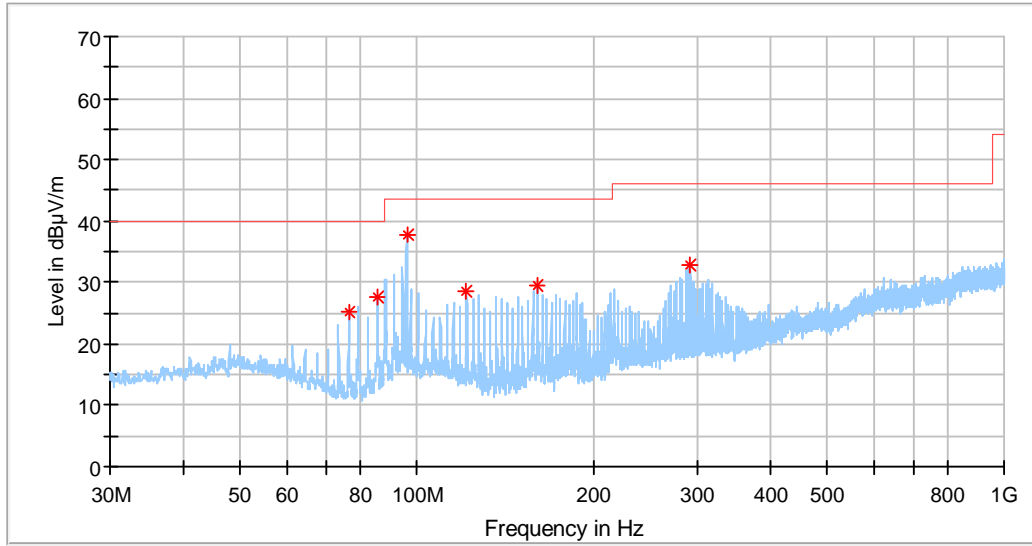


Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)
43.398125	24.39	40.00	-15.61
47.945000	27.23	40.00	-12.77
84.016875	22.19	40.00	-17.81
95.998750	40.15	43.50	-3.35
155.978750	23.44	43.50	-20.06
191.990000	29.73	43.50	-13.77

Radiated Emission

EUT: BT LED DISPLAY
 Op Condition: Data Transfer
 Test Specification: Antenna: Horizontal
 Comment: 120VAC, 60Hz (From external adaptor)

Test Result	
<input checked="" type="checkbox"/>	Passed
<input type="checkbox"/>	Not Passed

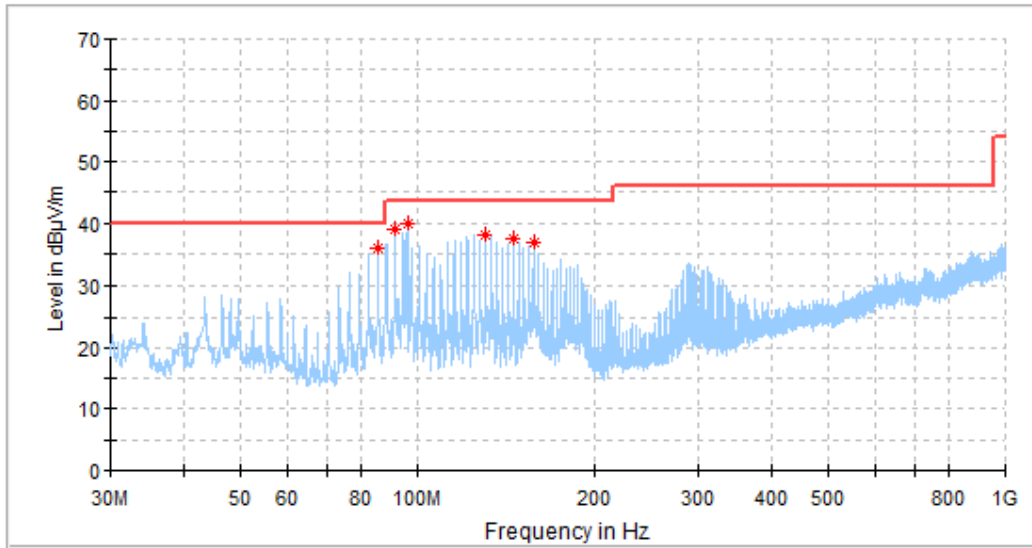


Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)
76.499375	25.17	40.00	14.83
85.471875	27.49	40.00	12.51
95.960000	37.87	43.50	5.63
121.483125	28.46	43.50	15.04
160.465000	29.47	43.50	14.03
292.506250	32.95	46.00	13.05

Radiated Emission

EUT: BT LED DISPLAY
 Op Condition: Data Transfer
 Test Specification: Antenna: Vertical
 Comment: 120VAC, 60Hz (From external adaptor)

Test Result	
<input checked="" type="checkbox"/>	Passed
<input type="checkbox"/>	Not Passed

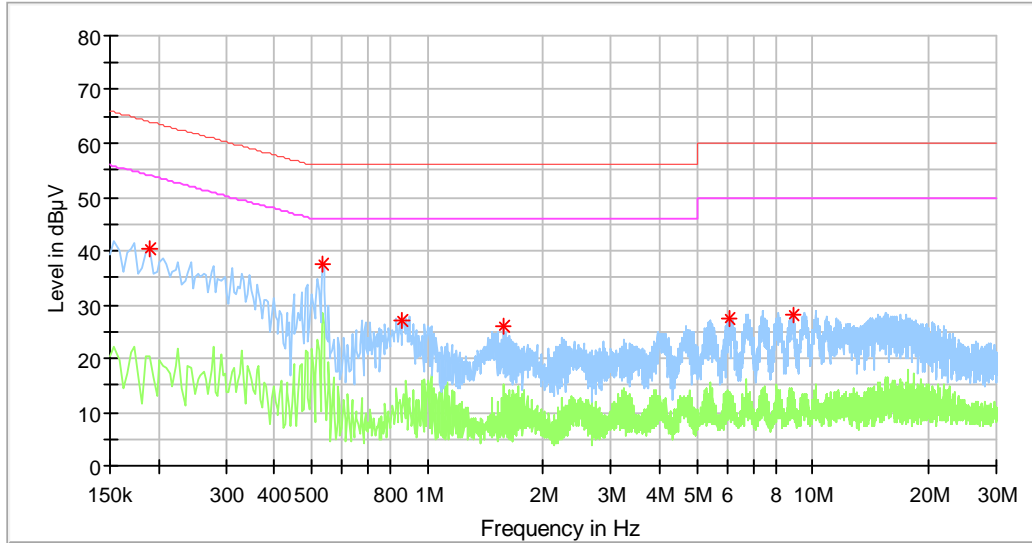


Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)
85.471875	35.92	40.00	-4.08
91.473750	39.13	43.50	-4.37
95.960000	40.27	43.50	-3.23
130.455625	38.11	43.50	-5.39
145.490625	37.33	43.50	-6.17
157.494375	36.89	43.50	-6.61

7.2 Conducted Emission

EUT: BT LED DISPLAY
 Op Condition: Charging
 Test Specification: AC Mains, L Line
 Comment: 120VAC, 60Hz (For external adaptor)

Test Result	
<input checked="" type="checkbox"/>	Passed
<input type="checkbox"/>	Not Passed

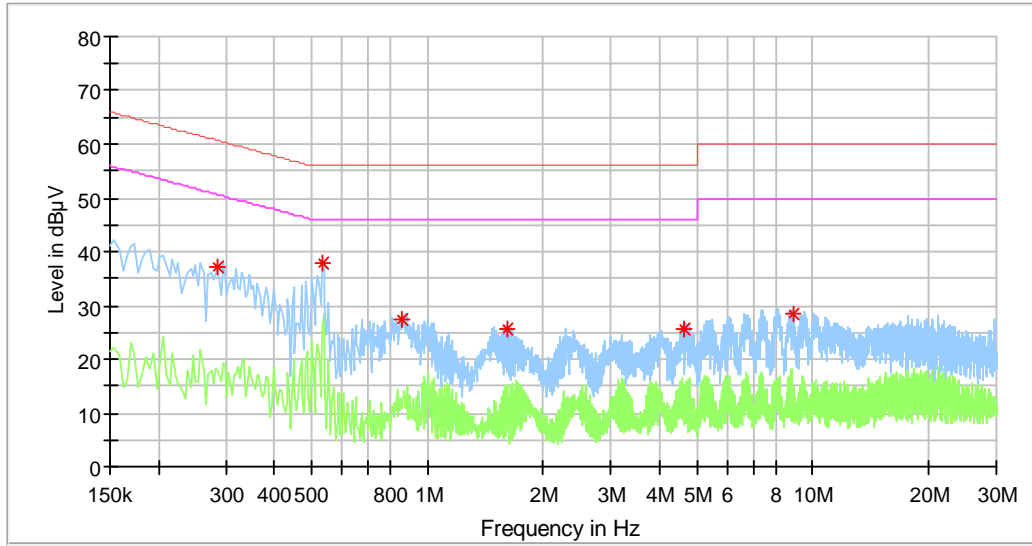


Frequency (MHz)	QuasiPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)
0.190000	40.50	---	64.04	-23.54
0.534000	37.55	---	56.00	-18.45
0.862000	27.17	---	56.00	-28.83
1.574000	25.81	---	56.00	-30.19
6.082000	27.47	---	60.00	-32.53
8.898000	28.09	---	60.00	-31.91

Conducted Emission

EUT: BT LED DISPLAY
 Op Condition: Charging
 Test Specification: AC Mains, N Line
 Comment: 120VAC, 60Hz (For external adaptor)

Test Result	
<input checked="" type="checkbox"/>	Passed
<input type="checkbox"/>	Not Passed

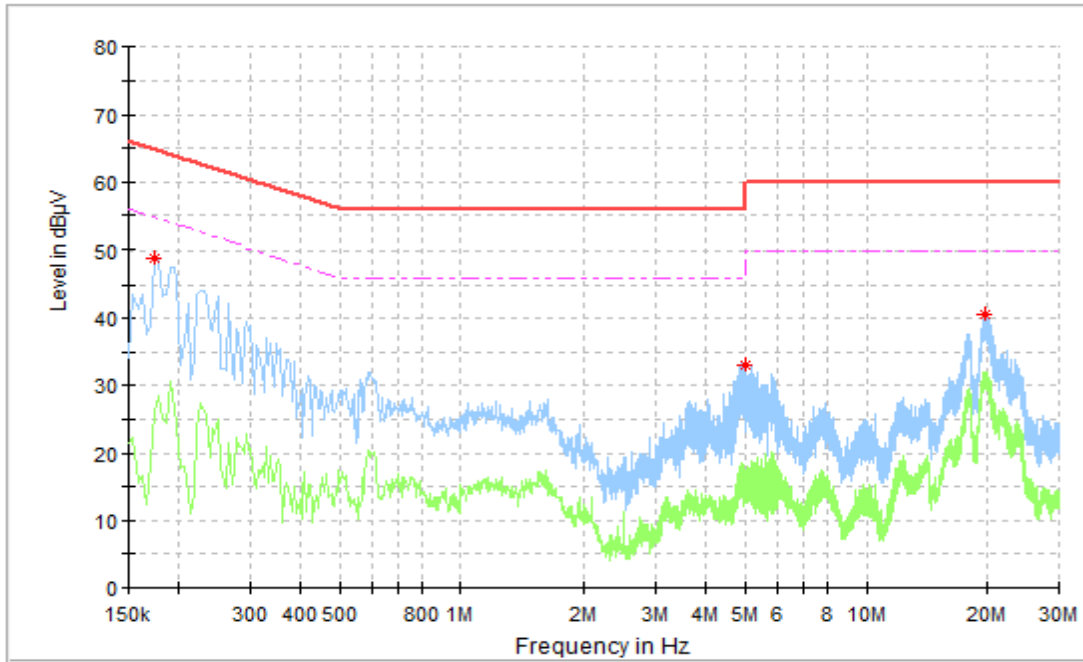


Frequency (MHz)	QuasiPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)
0.286000	37.30	---	60.64	-23.34
0.534000	37.77	---	56.00	-18.23
0.854000	27.45	---	56.00	-28.55
1.610000	25.64	---	56.00	-30.36
4.638000	25.67	---	56.00	-30.33
8.858000	28.48	---	60.00	-31.52

Conducted Emission

EUT: BT LED DISPLAY
 Op Condition: Data Transfer
 Test Specification: AC Mains, L Line
 Comment: 120VAC, 60Hz (For PC)

Test Result	
<input checked="" type="checkbox"/>	Passed
<input type="checkbox"/>	Not Passed

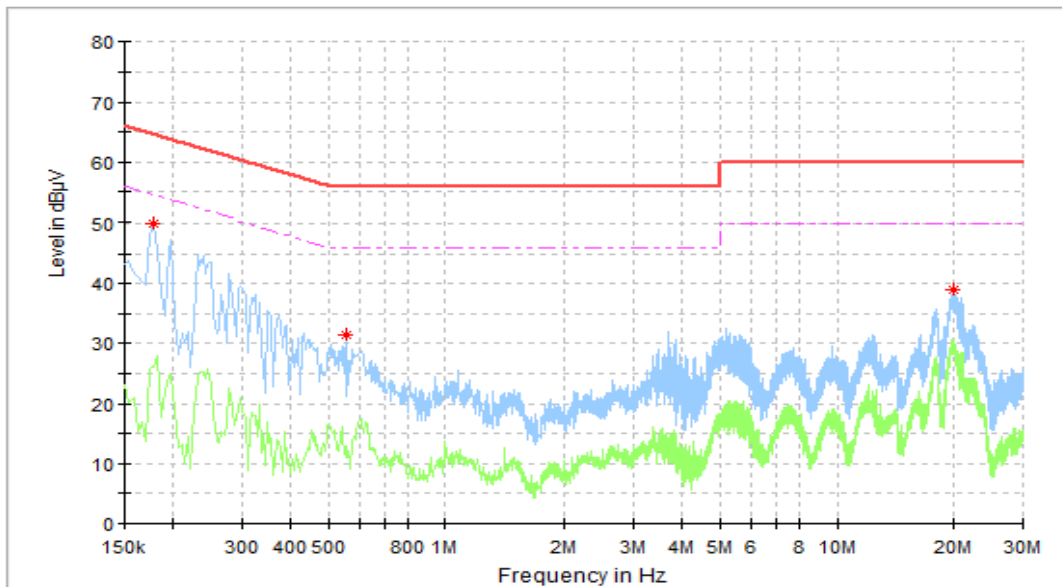


Frequency (MHz)	QuasiPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)
0.174000	48.70	---	64.77	16.07
5.022000	33.11	---	60.00	26.89
19.666000	40.48	---	60.00	19.52

Conducted Emission

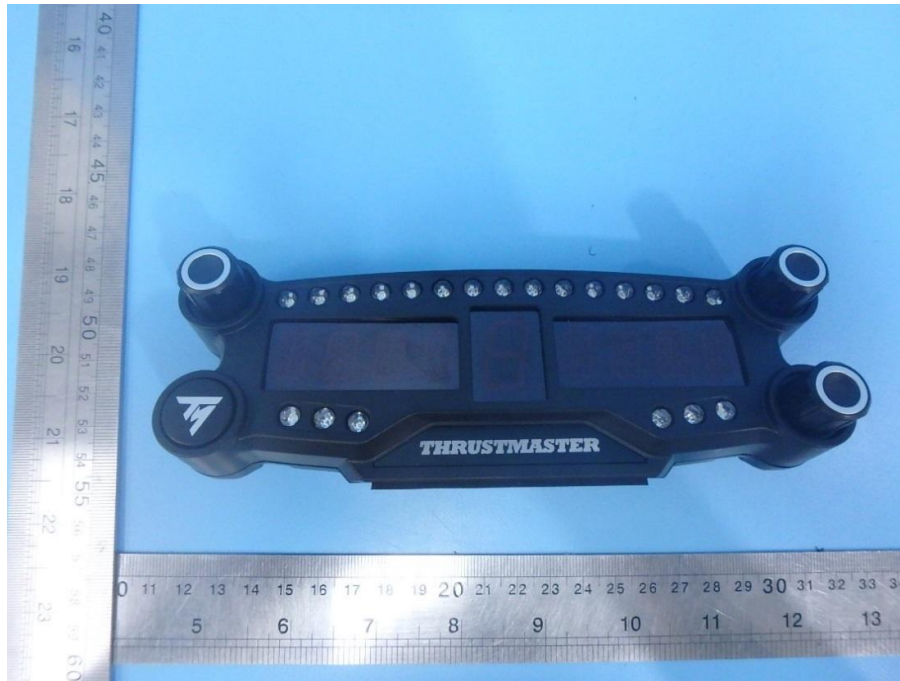
EUT: BT LED DISPLAY
 Op Condition: Data Transfer
 Test Specification: AC Mains, N Line
 Comment: 120VAC, 60Hz (For PC)

Test Result	
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<input type="checkbox"/>	Not Passed

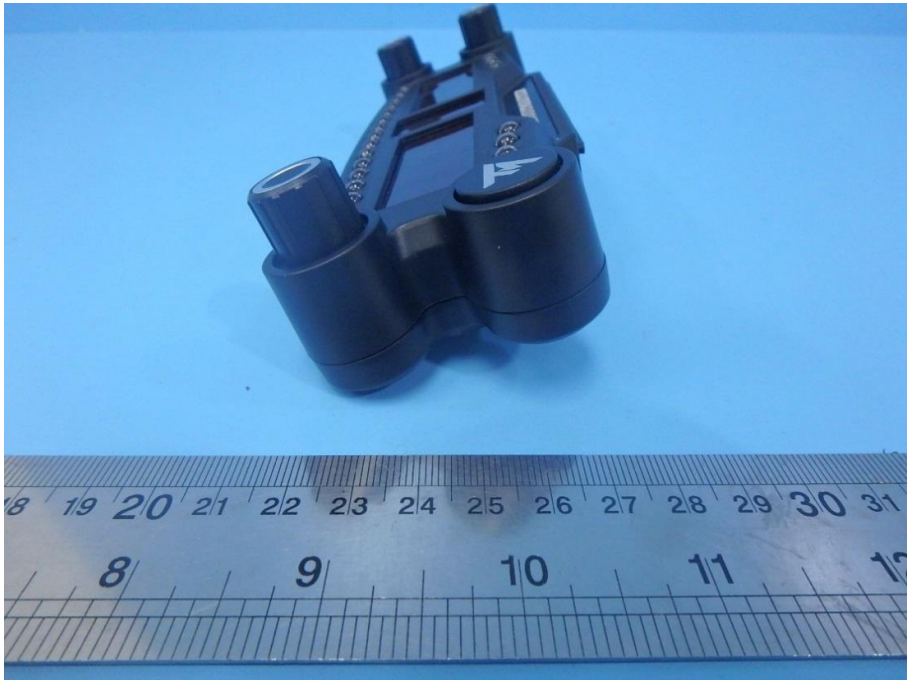
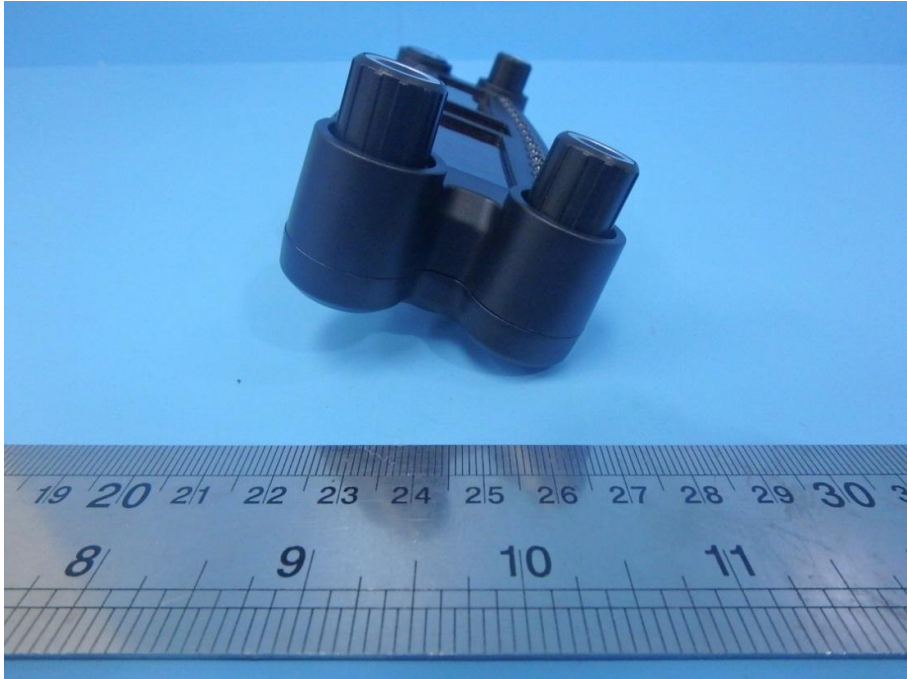


Frequency (MHz)	QuasiPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)
0.178000	49.76	---	64.58	14.81
0.558000	31.32	---	56.00	24.68
19.874000	38.87	---	60.00	21.13

8 Appendix A - Photographs of EUT



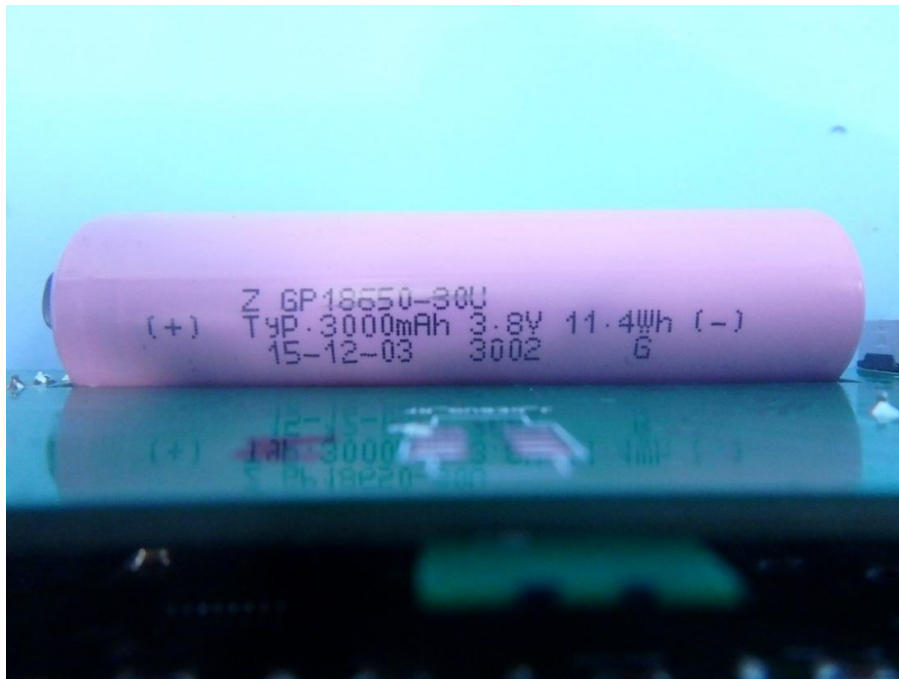
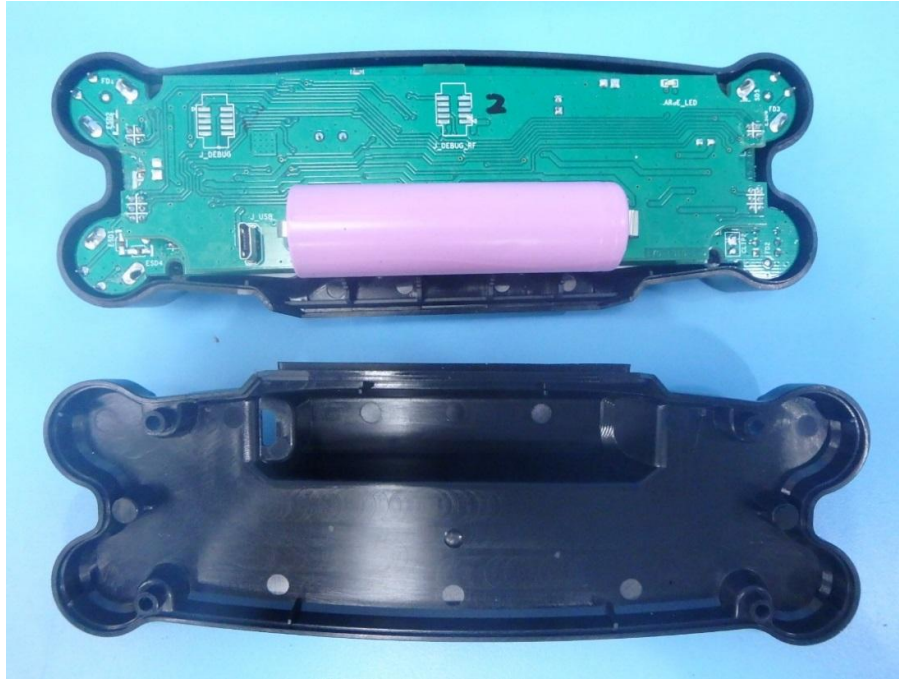
Appendix A



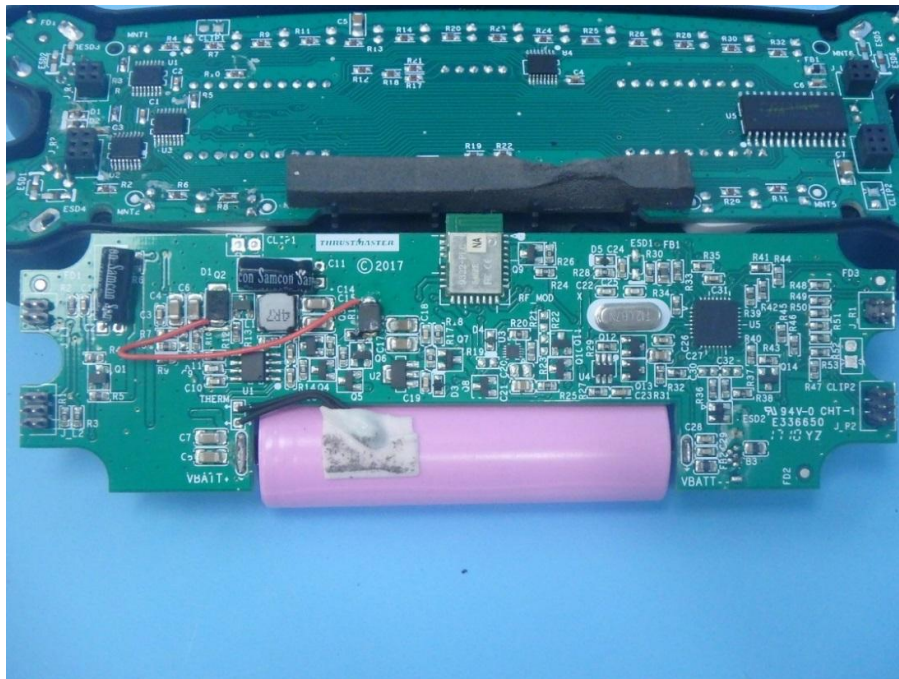
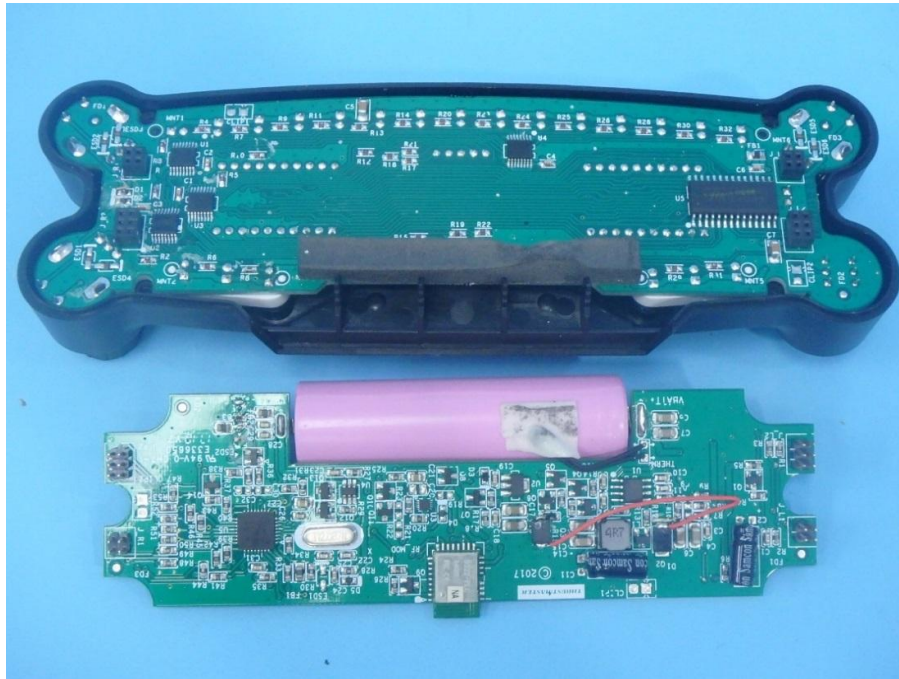
Appendix A



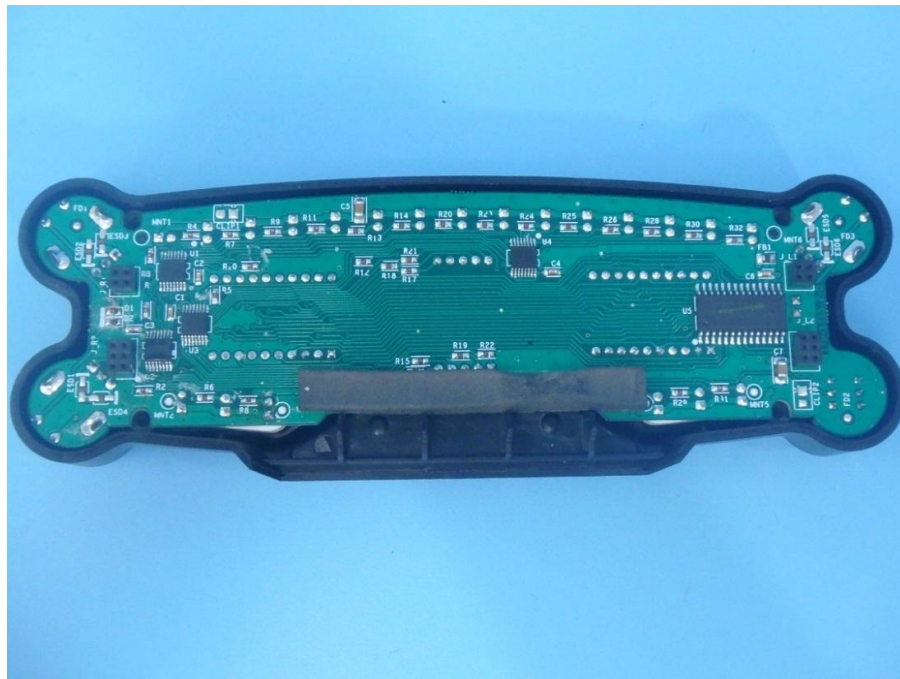
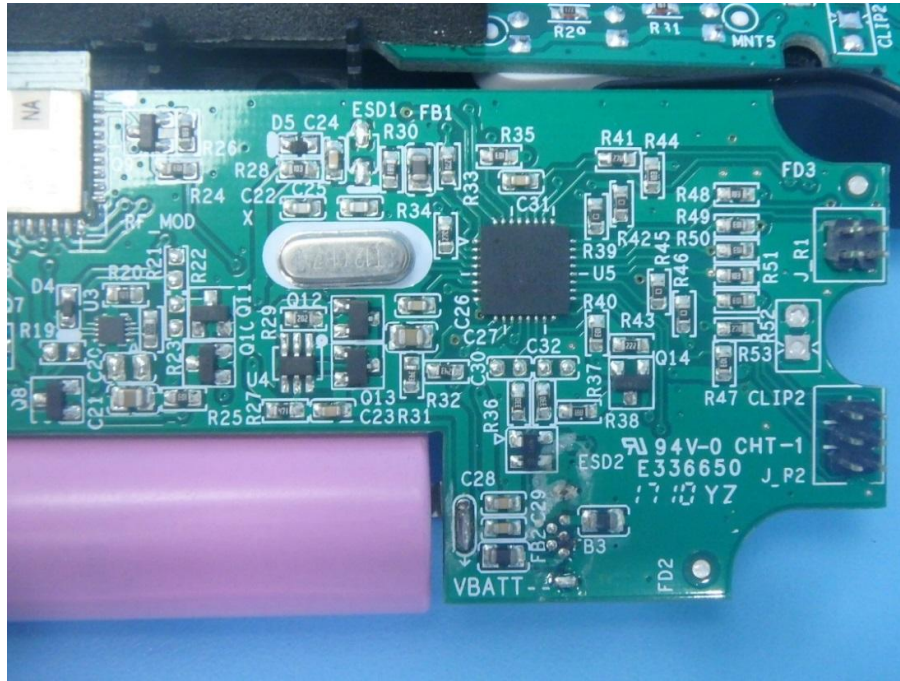
Appendix A



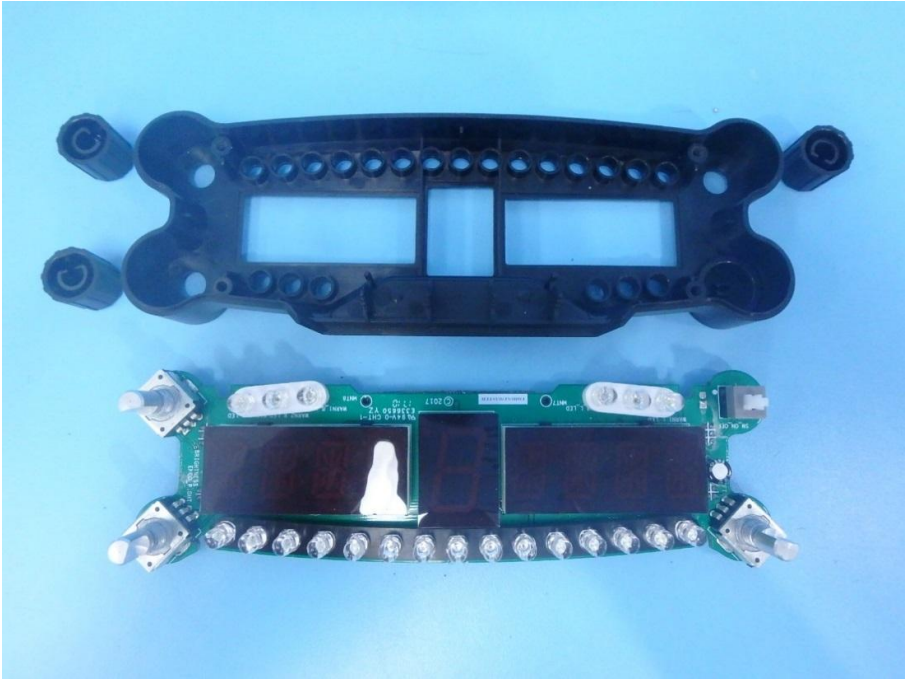
Appendix A



Appendix A

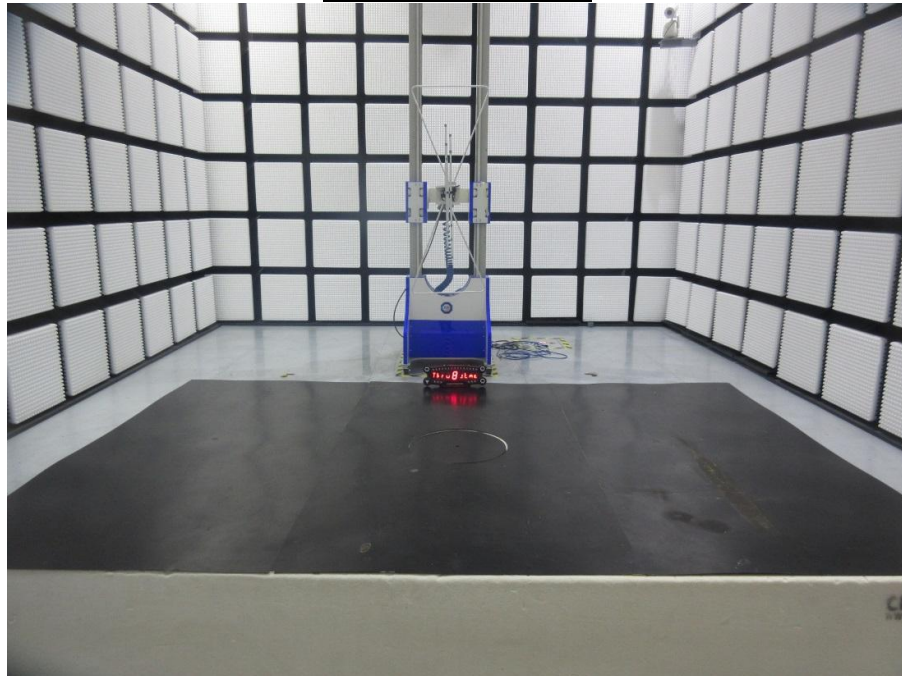


Appendix A



9 Appendix B - Setup Photographs of EUT

Radiated Emission



Appendix B

Conducted Emission

