TEST REPORT

Product	:	LED Work Light
Trade mark	:	Olafus
Model/Type reference	:	LEB50E
Test Model No.	:	LEB50E
Serial Number	:	N/A
Report Number	:	EED32O80591201
FCC ID	:	2AT7E-LEB50E
Date of Issue	:	May 27, 2022
Test Standards	:	47 CFR Part 15 Subpart C
Test result	:	PASS

Prepared for:

Shen Zhen Shi Zhi Hui Duo Ke Ji You Xian Gong Si
Qian Wan yi lu 1 hao A dong 201 shi, qian hai shen gang he zuo qu, shen zhen,guang dong, China 518000

Prepared by:

Centre Testing International Group Co., Ltd.
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Compiled by: Frazer Li — Reviewed by: Tom Chen

Approved by: Aaron Ma — Date of issue: May 27, 2022

Check No.:1853270422

2 Content

3 Version

Version No.	Date	Description
00	May 27, 2022	Original

4 Test Summary

Test Item	Test Requirement	Result
Antenna Requirement	47 CFR Part 15 Subpart C Section 15.203/15.247 (c)	PASS
AC Power Line Conducted Emission	47 CFR Part 15 Subpart C Section 15.207	PASS
DTS Bandwidth	47 CFR Part 15 Subpart C Section 15.247 (a)(2)	Note
Maximum Conducted Output Power	47 CFR Part 15 Subpart C Section 15.247 (b)(3)	Note
Maximum Power Spectral Density	47 CFR Part 15 Subpart C Section 15.247 (e)	Note
Band Edge Measurements	47 CFR Part 15 Subpart C Section 15.247(d)	Note
Conducted Spurious Emissions	47 CFR Part 15 Subpart C Section 15.247(d)	Note
Radiated Spurious Emission & Restricted bands	47 CFR Part 15 Subpart C Section 15.205/15.209	PASS

Remark:

1.Note:Refer to the report of 708881974871-00,
This test report (Ref. No.:EED32O80591201) is only valid with the original test report (Ref. No.: 708881974871-00).
Review this report and original report,the module without changes in circuit and product function, therefore in this report the Radiated Spurious Emission were retested and shown the data in this report, other tests data please refer to original report No.708881974871-00.

2.Company Name and Address shown on Report, the sample(s) and sample Information were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified.

5 General Information

5.1 Client Information

Applicant:	Shen Zhen Shi Zhi Hui Duo Ke Ji You Xian Gong Si
Address of Applicant:	Qian Wan yi lu 1 hao A dong 201 shi, qian hai shen gang he zuo qu, shen zhen,guang dong, China 518000
Manufacturer:	Shen Zhen Shi Zhi Hui Duo Ke Ji You Xian Gong Si
Address of Manufacturer:	Qian Wan yi lu 1 hao A dong 201 shi, qian hai shen gang he zuo qu, shen zhen,guang dong, China 518000
Factory:	Shen Zhen Shi Zhi Hui Duo Ke Ji You Xian Gong Si
Address of Factory:	Qian Wan yi lu 1 hao A dong 201 shi, qian hai shen gang he zuo qu, shen zhen,guang dong, China 518000

5.2 General Description of EUT

Product Name:	LED Work Light
Model No.:	LEB50E
Test Model No.:	LEB50E
Trade mark:	Olafus
Product Type:	☐ Mobile ☐ Portable ☒ Fix Location
Operation Frequency:	2402MHz~2480MHz
Modulation Type:	GFSK
Transfer Rate:	☒ 1Mbps ☐ 2Mbps
Number of Channel:	40
Antenna Type:	PCB antenna
Antenna Gain:	5.0dBi
Power Supply:	AC 100-120V~60Hz
Test Voltage:	AC 120V
Sample Received Date:	Apr. 28, 2022
Sample tested Date:	May. 18, 2022 to May.25, 2022

Operation Frequency each of channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
0	2402MHz	10	2422MHz	20	2442MHz	30	2462MHz
1	2404MHz	11	2424MHz	21	2444MHz	31	2464MHz
2	2406MHz	12	2426MHz	22	2446MHz	32	2466MHz
3	2408MHz	13	2428MHz	23	2448MHz	33	2468MHz
4	2410MHz	14	2430MHz	24	2450MHz	34	2470MHz
5	2412MHz	15	2432MHz	25	2452MHz	35	2472MHz
6	2414MHz	16	2434MHz	26	2454MHz	36	2474MHz
7	2416MHz	17	2436MHz	27	2456MHz	37	2476MHz
8	2418MHz	18	2438MHz	28	2458MHz	38	2478MHz
9	2420MHz	19	2440MHz	29	2460MHz	39	2480MHz

Note:

In section 15.31(m), regards to the operating frequency range over 10 MHz, the lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, and the selected channel see below:

Channel	Frequency
The lowest channel (CH0)	2402MHz
The middle channel (CH19)	2440MHz
The highest channel (CH39)	2480MHz

5.3 Test Configuration

EUT Test Software Settings:				
Software:	EMI Tool			
EUT Power Grade:	Default			
Use test software to set the lowest frequency, the middle frequency and the highest frequency keep transmitting of the EUT.				
Test Mode	Modulation	Rate	Channel	Frequency(MHz)
Mode a	GFSK	1Mbps	CH0	2402
Mode b	GFSK	1Mbps	CH19	2440
Mode c	GFSK	1Mbps	CH39	2480

5.4 Test Environment

Operating Environment:	
Radiated Spurious Emissions:	
Temperature:	22~25.0 °C
Humidity:	50~55 % RH
Atmospheric Pressure:	1010mbar
Conducted Emissions:	
Temperature:	22~25.0 °C
Humidity:	50~55 % RH
Atmospheric Pressure:	1010mbar

5.5 Description of Support Units

The EUT has been tested with associated equipment below.

1）support equipment

Description	Manufacturer	Model No.	Certification	Supplied by
Netbook	DELL	Latitude 3490	FCC&CE	CTI
Phone	XIAOMI	MI 6X	FCC&CE	CTI

5.6 Test Location

All tests were performed at:

Centre Testing International Group Co., Ltd
Building C, Hongwei Industrial Park Block 70, Bao'an District, Shenzhen, China
Telephone: +86 (0) 755 33683668 Fax:+86 (0) 755 33683385
No tests were sub-contracted.
FCC Designation No.: CN1164

5.7 Measurement Uncertainty (95% confidence levels, k=2)

No.	Item	Measurement Uncertainty
1	Radio Frequency	7.9×10^{-8}
2	RF power, conducted	0.46dB (30MHz-1GHz)
		0.55dB (1GHz-18GHz)
3	Radiated Spurious emission test	3.3dB (9kHz-30MHz)
		4.3dB (30MHz-1GHz)
		4.5dB (1GHz-18GHz)
		3.4dB (18GHz-40GHz)
4	Conduction emission	3.5dB (9kHz to 150kHz)
		3.1dB (150kHz to 30MHz)
5	Temperature test	0.64°C
6	Humidity test	3.8%
7	DC power voltages	0.026%

6 Equipment List

Conducted disturbance Test					
Equipment	**Manufacturer**	**Model No.**	**Serial Number**	**Cal. date (mm-dd-yyyy)**	**Cal. Due date (mm-dd-yyyy)**
Receiver	R&S	ESCI	100435	05-06-2022	05-05-2023
Temperature/ Humidity Indicator	Defu	TH128	/	---	---
LISN	R&S	ENV216	100098	03-01-2022	02-28-2023
Barometer	changchun	DYM3	1188	---	---

3M Semi-anechoic Chamber (2)- Radiated disturbance Test					
Equipment	Manufacturer	Model	Serial No.	Cal. Date	Due Date
3M Chamber & Accessory Equipment	TDK	SAC-3	---	05/24/2019 05/22/2022	05/23/2022 05/21/2025
Receiver	R&S	ESCI7	100938-003	10/14/2021	10/13/2022
TRILOG Broadband Antenna	schwarzbeck	VULB 9163	9163-618	05/23/2019 05/22/2022	05/22/2022 05/21/2023
Multi device Controller	maturo	NCD/070/10711112	---	---	---
Horn Antenna	ETS-LINGREN	BBHA 9120D	9120D-1869	04/15/2021	04/14/2024
Spectrum Analyzer	R&S	FSP40	100416	04/01/2022	03/31/2023
Microwave Preamplifier	Agilent	8449B	3008A02425	06/23/2021	06/22/2022

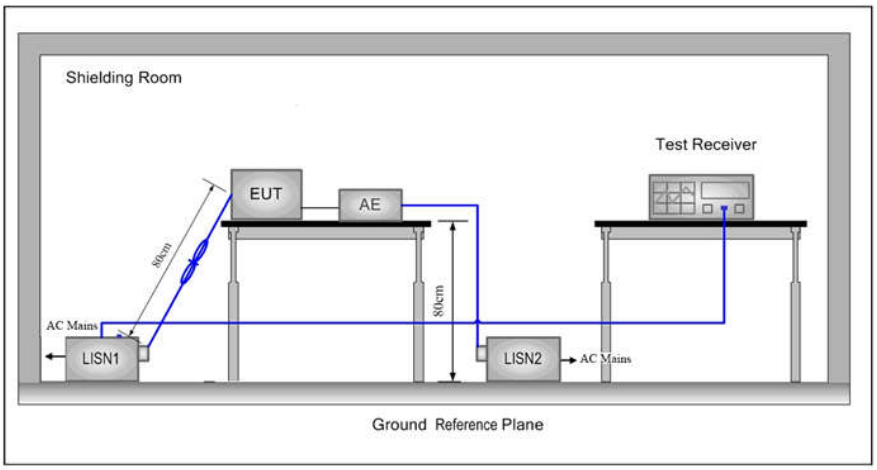
3M full-anechoic Chamber					
Equipment	**Manufacturer**	**Model No.**	**Serial Number**	**Cal. Date (mm-dd-yyyy)**	**Cal. Due date (mm-dd-yyyy)**
RSE Automatic test software	JS Tonscend	JS36-RSE	10166	---	---
Receiver	Keysight	N9038A	MY57290136	03-01-2022	02-28-2023
Spectrum Analyzer	Keysight	N9020B	MY57111112	02-23-2022	02-22-2023
Spectrum Analyzer	Keysight	N9030B	MY57140871	02-23-2022	02-22-2023
TRILOG Broadband Antenna	Schwarzbeck	VULB 9163	9163-1148	04-28-2021	04-27-2024
Horn Antenna	Schwarzbeck	BBHA 9170	9170-832	04-15-2021	04-14-2024
Horn Antenna	ETS-LINDGREN	3117	57407	07-04-2021	07-03-2024
Preamplifier	EMCI	EMC184055SE	980597	04-20-2022	04-19-2023
Preamplifier	EMCI	EMC001330	980563	04-01-2022	03-31-2023
Preamplifier	JS Tonscend	980380	EMC051845SE	12-24-2021	12-23-2022
Communication test set	R&S	CMW500	102898	12-24-2021	12-23-2022
Temperature/ Humidity Indicator	biaozhi	GM1360	EE1186631	04-11-2022	04-10-2023
Fully Anechoic Chamber	TDK	FAC-3	---	01-09-2021	01-08-2024
Cable line	Times	SFT205-NMSM-2.50M	394812-0001	---	---
Cable line	Times	SFT205-NMSM-2.50M	394812-0002	---	---
Cable line	Times	SFT205-NMSM-2.50M	394812-0003	---	---
Cable line	Times	SFT205-NMSM-2.50M	393495-0001	---	---
Cable line	Times	EMC104-NMNM-1000	SN160710	---	---
Cable line	Times	SFT205-NMSM-3.00M	394813-0001	---	---
Cable line	Times	SFT205-NMNM-1.50M	381964-0001	---	---
Cable line	Times	SFT205-NMSM-7.00M	394815-0001	---	---
Cable line	Times	HF160-KMKM-3.00M	393493-0001	---	---

7 Test results and Measurement Data

7.1 Antenna Requirement

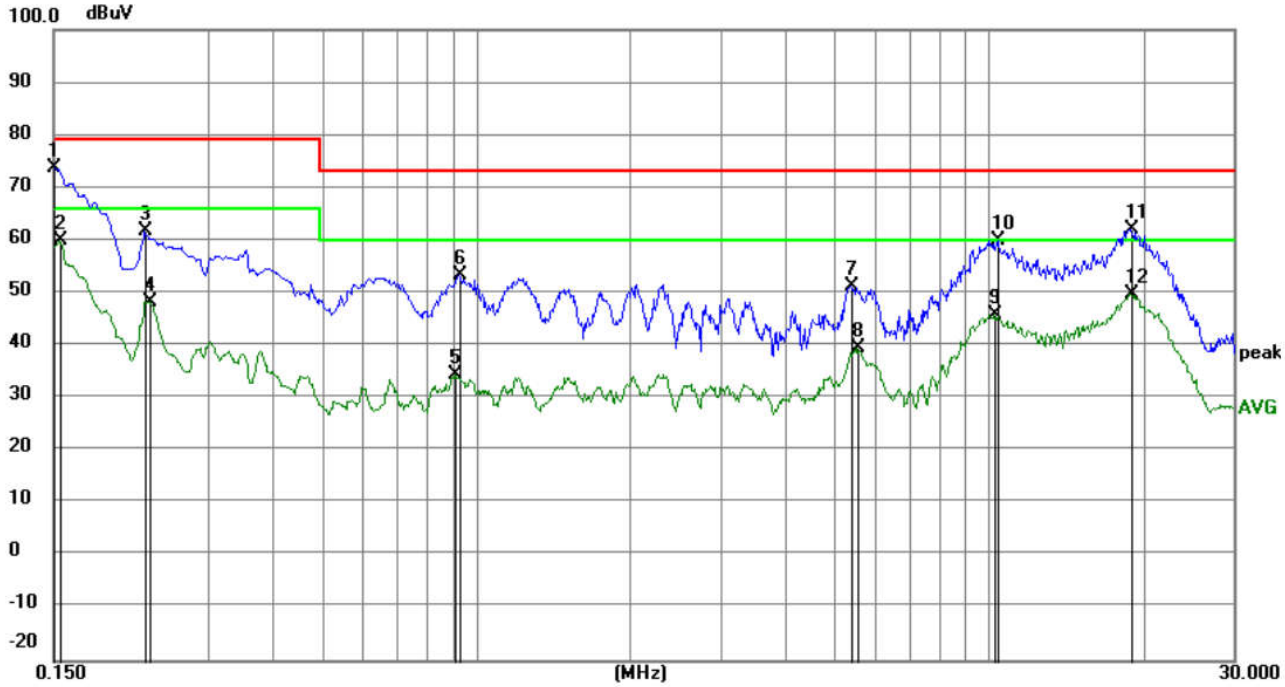
Standard requirement:	47 CFR Part 15C Section 15.203 /247(c)
15.203 requirement: An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. 15.247(b) (4) requirement: The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.	
EUT Antenna:	Please see Internal photos
The antenna is PCB antenna. The best case gain of the antenna is 5.0dBi.	

7.2 Conducted Emissions

Test Requirement:	47 CFR Part 15C Section 15.207
Test Method:	ANSI C63.10: 2013
Test Frequency Range:	150kHz to 30MHz
Receiver setup:	RBW=9 kHz, VBW=30 kHz, Sweep time=auto
Limit:	Frequency range (MHz) / Limit (dBuV): Quasi-peak / Average 0,15 to 0,50: 79 / 66 0,50 to 30: 73 / 60 * Decreases with the logarithm of the frequency.
Test Setup:	
Test Procedure:	1) The mains terminal disturbance voltage test was conducted in a shielded room. 2) The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a 50Ω/50μH + 5Ω linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the ground reference plane in the same way as the LISN 1 for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was not exceeded. 3) The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane. 4) The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0.4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal ground reference plane. The LISN 1 was placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane for LISNs mounted on top of the ground reference plane. This distance was between the closest points of the LISN 1 and the EUT. All other units of the EUT and associated equipment was at least 0.8 m from the LISN 2. 5) In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10: 2013 on conducted measurement.
Test Mode:	All modes were tested, only the worst case mode a was recorded in the report.
Test Results:	Pass

Measurement Data

Live line:

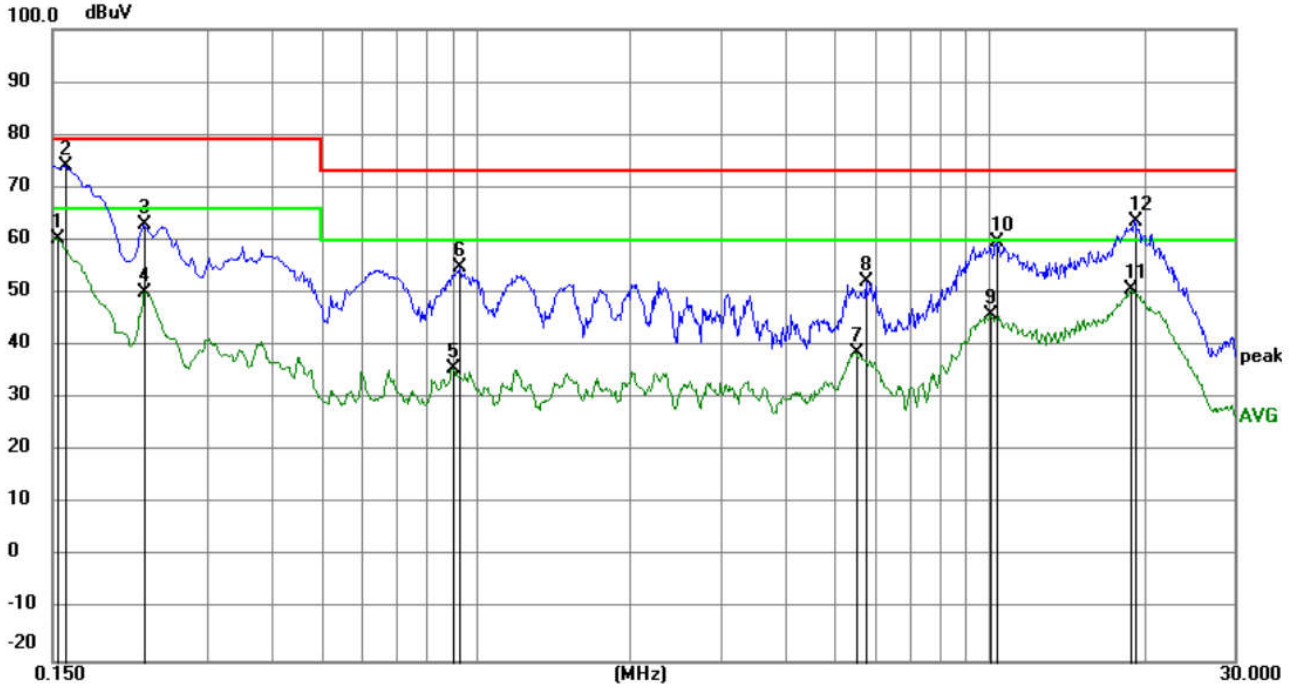


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.1500	63.76	9.87	73.63	79.00	-5.37	QP	
2		0.1545	50.22	9.87	60.09	66.00	-5.91	AVG	
3		0.2265	51.69	9.92	61.61	79.00	-17.39	QP	
4		0.2310	38.46	9.93	48.39	66.00	-17.61	AVG	
5		0.9104	24.47	9.85	34.32	60.00	-25.68	AVG	
6		0.9239	43.53	9.85	53.38	73.00	-19.62	QP	
7		5.3880	41.50	9.78	51.28	73.00	-21.72	QP	
8		5.5590	29.77	9.78	39.55	60.00	-20.45	AVG	
9		10.2705	36.04	9.79	45.83	60.00	-14.17	AVG	
10		10.4010	50.28	9.79	60.07	73.00	-12.93	QP	
11		18.9375	52.20	9.96	62.16	73.00	-10.84	QP	
12		18.9375	39.92	9.96	49.88	60.00	-10.12	AVG	

Remark:

1. The following Quasi-Peak and Average measurements were performed on the EUT:
2. Final Test Level =Receiver Reading + LISN Factor + Cable Loss.
3. If the Peak value under Average limit, the Average value is not recorded in the report.

Neutral line:



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1539	50.34	9.87	60.21	66.00	-5.79	AVG	
2	*	0.1590	64.32	9.87	74.19	79.00	-4.81	QP	
3		0.2256	53.15	9.92	63.07	79.00	-15.93	QP	
4		0.2256	40.25	9.92	50.17	66.00	-15.83	AVG	
5		0.8992	25.89	9.85	35.74	60.00	-24.26	AVG	
6		0.9331	45.07	9.84	54.91	73.00	-18.09	QP	
7		5.5054	28.87	9.78	38.65	60.00	-21.35	AVG	
8		5.7437	42.50	9.78	52.28	73.00	-20.72	QP	
9		10.0718	35.94	9.78	45.72	60.00	-14.28	AVG	
10		10.3422	49.74	9.79	59.53	73.00	-13.47	QP	
11		18.8205	40.63	9.96	50.59	60.00	-9.41	AVG	
12		19.1535	53.74	9.96	63.70	73.00	-9.30	QP	

Remark:

1. The following Quasi-Peak and Average measurements were performed on the EUT:
2. Final Test Level =Receiver Reading + LISN Factor + Cable Loss.
3. If the Peak value under Average limit, the Average value is not recorded in the report.

7.3 Radiated Spurious Emission & Restricted bands

<table>
<tr><td>Test Requirement:</td><td>47 CFR Part 15C Section 15.209 and 15.205</td></tr>
<tr><td>Test Method:</td><td>ANSI C63.10 2013</td></tr>
<tr><td>Test Site:</td><td>Measurement Distance: 3m (Semi-Anechoic Chamber)</td></tr>
<tr><td>Receiver Setup:</td><td>
<table>
<tr><th>Frequency</th><th>Detector</th><th>RBW</th><th>VBW</th><th>Remark</th></tr>
<tr><td>0.009MHz-0.090MHz</td><td>Peak</td><td>10kHz</td><td>30kHz</td><td>Peak</td></tr>
<tr><td>0.009MHz-0.090MHz</td><td>Average</td><td>10kHz</td><td>30kHz</td><td>Average</td></tr>
<tr><td>0.090MHz-0.110MHz</td><td>Quasi-peak</td><td>10kHz</td><td>30kHz</td><td>Quasi-peak</td></tr>
<tr><td>0.110MHz-0.490MHz</td><td>Peak</td><td>10kHz</td><td>30kHz</td><td>Peak</td></tr>
<tr><td>0.110MHz-0.490MHz</td><td>Average</td><td>10kHz</td><td>30kHz</td><td>Average</td></tr>
<tr><td>0.490MHz -30MHz</td><td>Quasi-peak</td><td>10kHz</td><td>30kHz</td><td>Quasi-peak</td></tr>
<tr><td>30MHz-1GHz</td><td>Quasi-peak</td><td>100 kHz</td><td>300kHz</td><td>Quasi-peak</td></tr>
<tr><td rowspan="2">Above 1GHz</td><td>Peak</td><td>1MHz</td><td>3MHz</td><td>Peak</td></tr>
<tr><td>Peak</td><td>1MHz</td><td>10kHz</td><td>Average</td></tr>
</table>
</td></tr>
<tr><td>Limit:</td><td>
<table>
<tr><th>Frequency</th><th>Field strength (microvolt/meter)</th><th>Limit (dBuV/m)</th><th>Remark</th><th>Measurement distance (m)</th></tr>
<tr><td>0.009MHz-0.490MHz</td><td>2400/F(kHz)</td><td>-</td><td>-</td><td>300</td></tr>
<tr><td>0.490MHz-1.705MHz</td><td>24000/F(kHz)</td><td>-</td><td>-</td><td>30</td></tr>
<tr><td>1.705MHz-30MHz</td><td>30</td><td>-</td><td>-</td><td>30</td></tr>
<tr><td>30MHz-88MHz</td><td>100</td><td>40.0</td><td>Quasi-peak</td><td>3</td></tr>
<tr><td>88MHz-216MHz</td><td>150</td><td>43.5</td><td>Quasi-peak</td><td>3</td></tr>
<tr><td>216MHz-960MHz</td><td>200</td><td>46.0</td><td>Quasi-peak</td><td>3</td></tr>
<tr><td>960MHz-1GHz</td><td>500</td><td>54.0</td><td>Quasi-peak</td><td>3</td></tr>
<tr><td>Above 1GHz</td><td>500</td><td>54.0</td><td>Average</td><td>3</td></tr>
</table>
Note: 15.35(b), Unless otherwise specified, the limit on peak radio frequency emissions is 20dB above the maximum permitted average emission limit applicable to the equipment under test. This peak limit applies to the total peak emission level radiated by the device.
</td></tr>
</table>

Test Setup:	

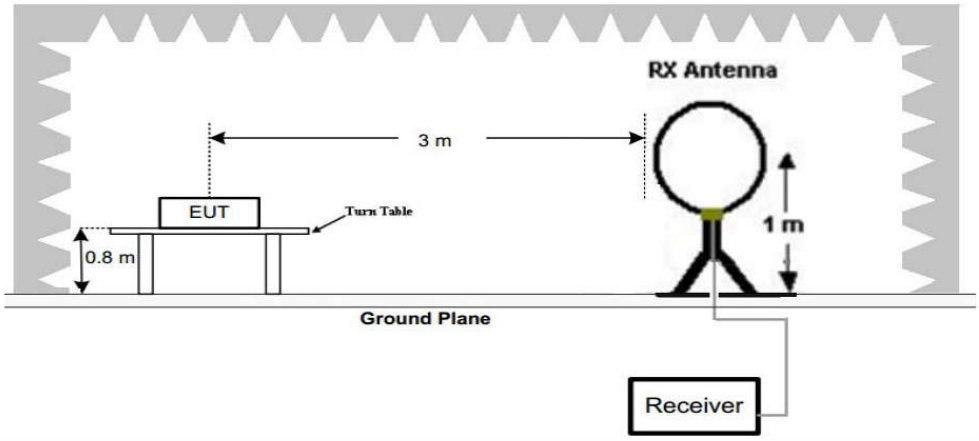


Figure 1. Below 30MHz

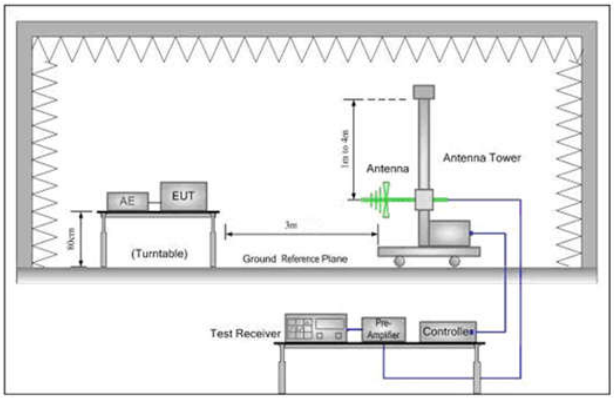


Figure 2. 30MHz to 1GHz

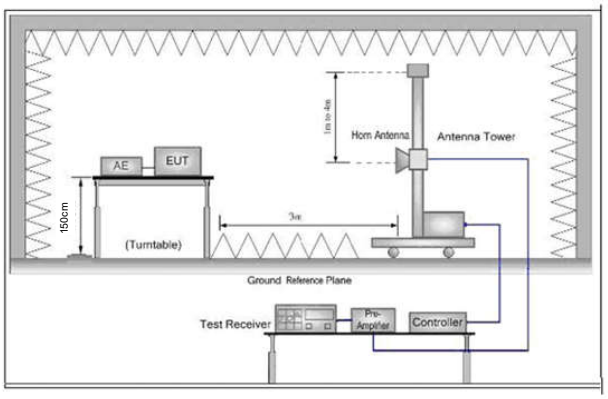


Figure 3. Above 1 GHz

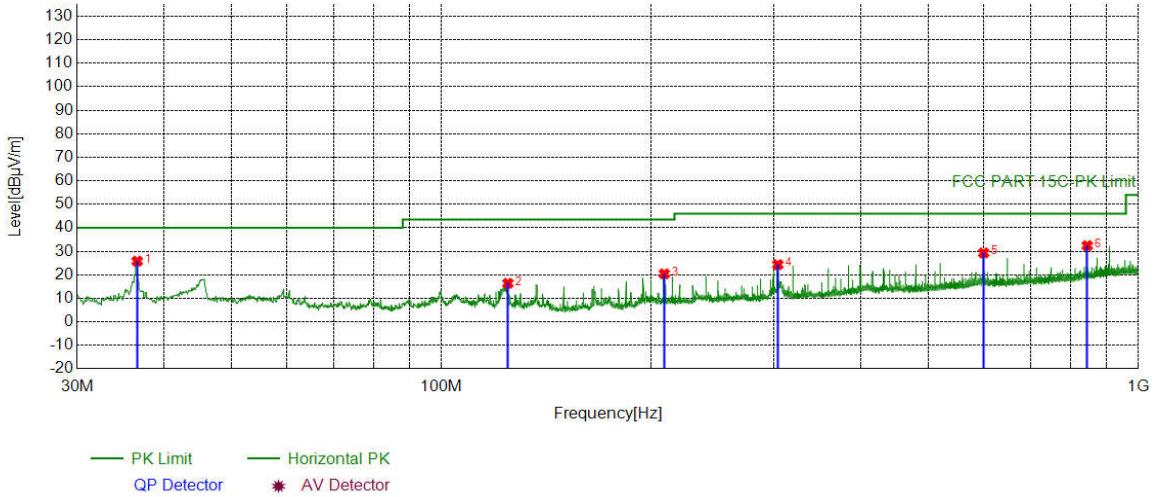
Test Procedure:	a. 1) Below 1G: The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic camber. The table was rotated 360 degrees to determine the position of the highest radiation. 2) Above 1G: The EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter semi-anechoic camber. The table was rotated 360 degrees to determine the position of the highest radiation. Note: For the radiated emission test above 1GHz: 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. b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both

	horizontal and vertical polarizations of the antenna are set to make the measurement. d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading. e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet. g. Test the EUT in the lowest channel (2402MHz),the middle channel (2440MHz),the Highest channel (2480MHz) h. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case. i. Repeat above procedures until all frequencies measured was complete.
Test Mode:	Refer to clause 5.3
Test Results:	Pass

Radiated Spurious Emission below 1GHz:

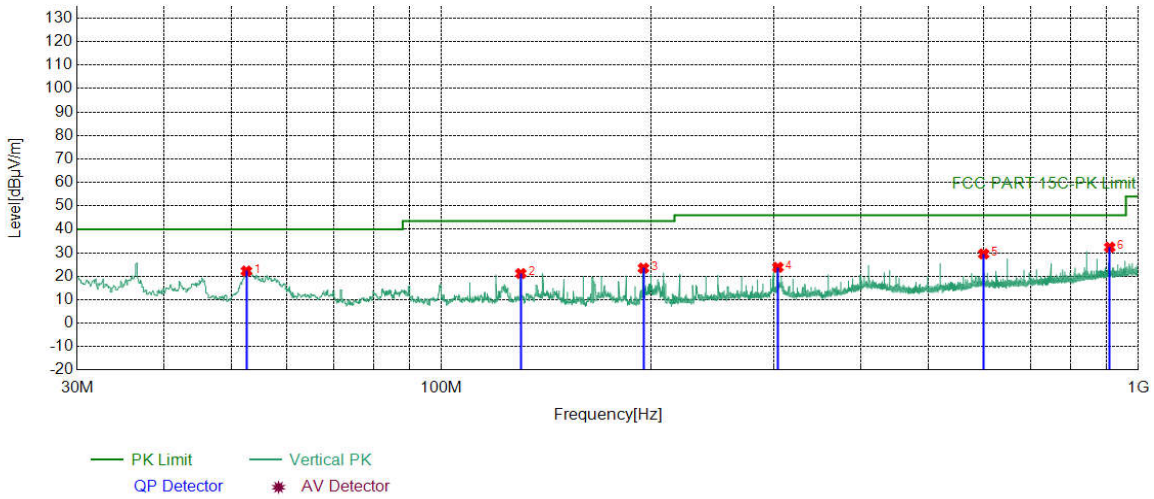
During the test, the Radiates Emission from 30MHz to 1GHz was performed in all modes, only the worst case Mode a was recorded in the report.

Test Graph



Suspected List									
NO	Freq. [MHz]	Factor [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity	Remark
1	36.5967	-19.50	45.31	25.81	40.00	14.19	PASS	Horizontal	PK
2	124.5845	-22.22	38.61	16.39	43.50	27.11	PASS	Horizontal	PK
3	208.8859	-19.10	39.54	20.44	43.50	23.06	PASS	Horizontal	PK
4	303.9554	-16.24	40.58	24.34	46.00	21.66	PASS	Horizontal	PK
5	600.0290	-9.54	38.85	29.31	46.00	16.69	PASS	Horizontal	PK
6	844.9785	-6.88	39.31	32.43	46.00	13.57	PASS	Horizontal	PK

Test Graph



Suspected List									
NO	Freq. [MHz]	Factor [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity	Remark
1	52.5063	-18.42	40.63	22.21	40.00	17.79	PASS	Vertical	PK
2	130.0170	-22.99	44.16	21.17	43.50	22.33	PASS	Vertical	PK
3	195.0135	-19.87	43.31	23.44	43.50	20.06	PASS	Vertical	PK
4	304.0524	-16.24	40.04	23.80	46.00	22.20	PASS	Vertical	PK
5	600.0290	-9.54	39.05	29.51	46.00	16.49	PASS	Vertical	PK
6	909.9750	-5.72	38.07	32.35	46.00	13.65	PASS	Vertical	PK

Radiated Spurious Emission above 1GHz:

Mode:			GFSK Transmitting			Channel:		2402 MHz	
NO	Freq. [MHz]	Factor [dB]	Reading [dBμV]	Level [dB μV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	1419.2419	-11.52	51.40	39.88	74.00	34.12	PASS	Horizontal	PK
2	3227.0151	-5.27	50.80	45.53	74.00	28.47	PASS	Horizontal	PK
3	4804.1203	-3.75	52.54	48.79	74.00	25.21	PASS	Horizontal	PK
4	7206.0000	-0.04	46.13	46.09	74.00	27.91	PASS	Horizontal	PK
5	9608.0000	2.17	46.39	48.56	74.00	25.44	PASS	Horizontal	PK
6	12010.0000	5.01	47.01	52.02	74.00	21.98	PASS	Horizontal	PK
7	1803.8804	-8.99	50.58	41.59	74.00	32.41	PASS	Vertical	PK
8	3335.0223	-5.23	50.03	44.80	74.00	29.20	PASS	Vertical	PK
9	4804.1203	-3.75	55.54	51.79	74.00	22.21	PASS	Vertical	PK
10	7206.0000	-0.04	47.04	47.00	74.00	27.00	PASS	Vertical	PK
11	9608.0000	2.17	47.70	49.87	74.00	24.13	PASS	Vertical	PK
12	12010.0000	5.01	46.89	51.90	74.00	22.10	PASS	Vertical	PK

Mode:			GFSK Transmitting			Channel:		2440 MHz	
NO	Freq. [MHz]	Factor [dB]	Reading [dBμV]	Level [dB μV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	1656.2656	-10.19	51.64	41.45	74.00	32.55	PASS	Horizontal	PK
2	3094.0063	-5.13	51.18	46.05	74.00	27.95	PASS	Horizontal	PK
3	4880.1253	-3.50	51.29	47.79	74.00	26.21	PASS	Horizontal	PK
4	7320.0000	0.13	46.00	46.13	74.00	27.87	PASS	Horizontal	PK
5	9760.0000	2.33	46.92	49.25	74.00	24.75	PASS	Horizontal	PK
6	12200.0000	5.19	46.23	51.42	74.00	22.58	PASS	Horizontal	PK
7	1782.0782	-9.15	51.06	41.91	74.00	32.09	PASS	Vertical	PK
8	2963.5964	-5.52	50.38	44.86	74.00	29.14	PASS	Vertical	PK
9	4880.1253	-3.50	54.27	50.77	74.00	23.23	PASS	Vertical	PK
10	7320.0000	0.13	46.94	47.07	74.00	26.93	PASS	Vertical	PK
11	9760.0000	2.33	47.34	49.67	74.00	24.33	PASS	Vertical	PK
12	12200.0000	5.19	44.87	50.06	74.00	23.94	PASS	Vertical	PK

Mode:			GFSK Transmitting			Channel:		2800 MHz	
NO	Freq. [MHz]	Factor [dB]	Reading [dBμV]	Level [dB μV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	1692.0692	-9.82	51.59	41.77	74.00	32.23	PASS	Horizontal	PK
2	3182.0121	-5.21	50.02	44.81	74.00	29.19	PASS	Horizontal	PK
3	4960.0000	-3.48	48.10	44.62	74.00	29.38	PASS	Horizontal	PK
4	7440.0000	0.28	47.30	47.58	74.00	26.42	PASS	Horizontal	PK
5	9920.0000	2.46	46.30	48.76	74.00	25.24	PASS	Horizontal	PK
6	12400.0000	5.50	46.43	51.93	74.00	22.07	PASS	Horizontal	PK
7	1280.6281	-11.90	51.60	39.70	74.00	34.30	PASS	Vertical	PK
8	2899.9900	-5.68	50.80	45.12	74.00	28.88	PASS	Vertical	PK
9	4960.0000	-3.48	49.18	45.70	74.00	28.30	PASS	Vertical	PK
10	7440.0000	0.28	46.83	47.11	74.00	26.89	PASS	Vertical	PK
11	9920.0000	2.46	45.58	48.04	74.00	25.96	PASS	Vertical	PK
12	12400.0000	5.50	46.73	52.23	74.00	21.77	PASS	Vertical	PK

Remark:

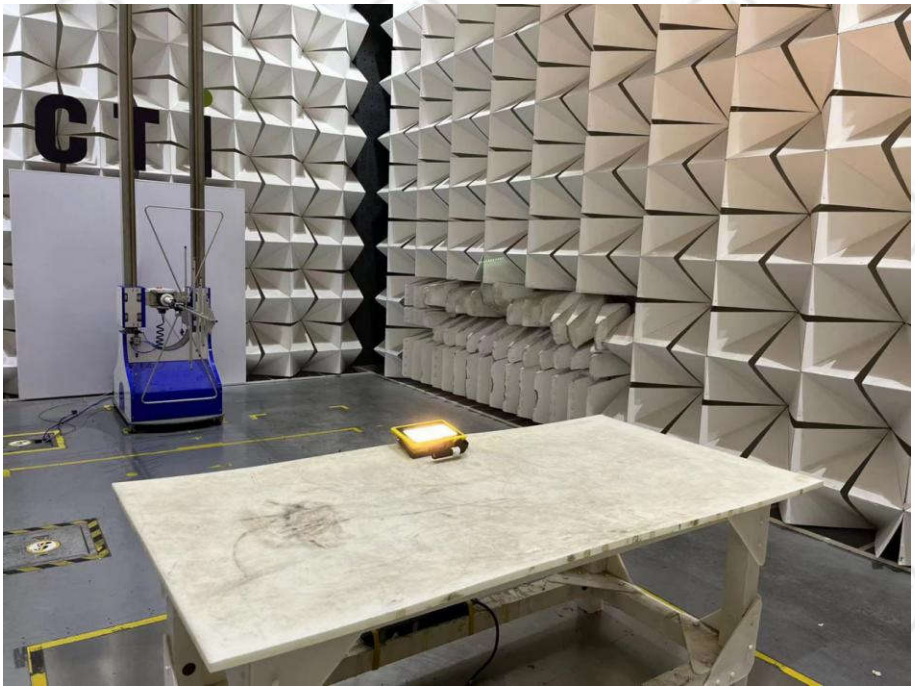
1) The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

   Final Test Level =Receiver Reading + Antenna Factor + Cable Factor – Preamplifier Factor

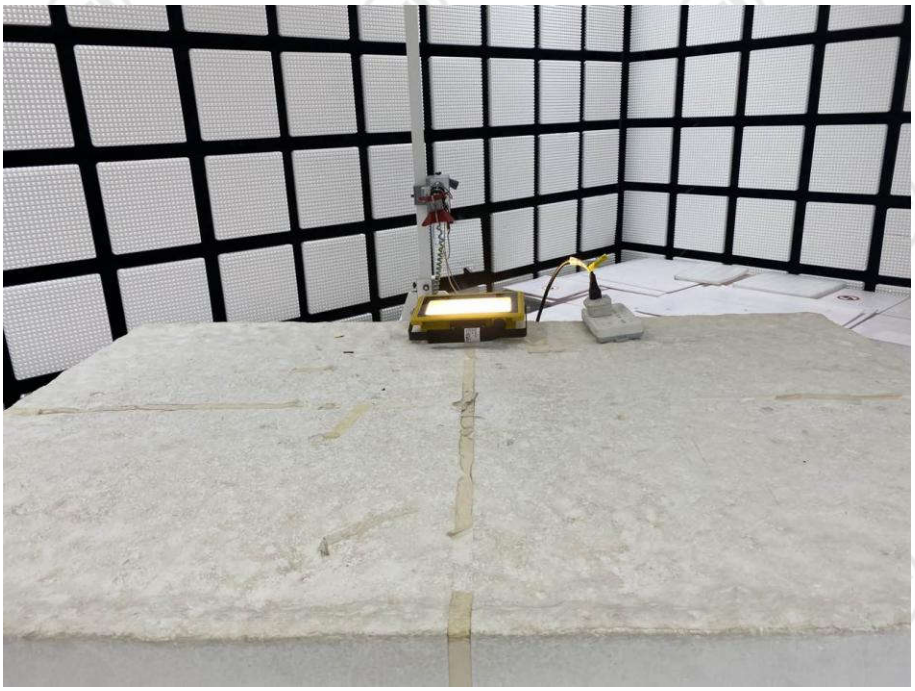
2) Scan from 9kHz to 25GHz, the disturbance above 10GHz and below 30MHz was very low. As shown in this section, for frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. So, only the peak measurements were shown in the report.

PHOTOGRAPHS OF TEST SETUP

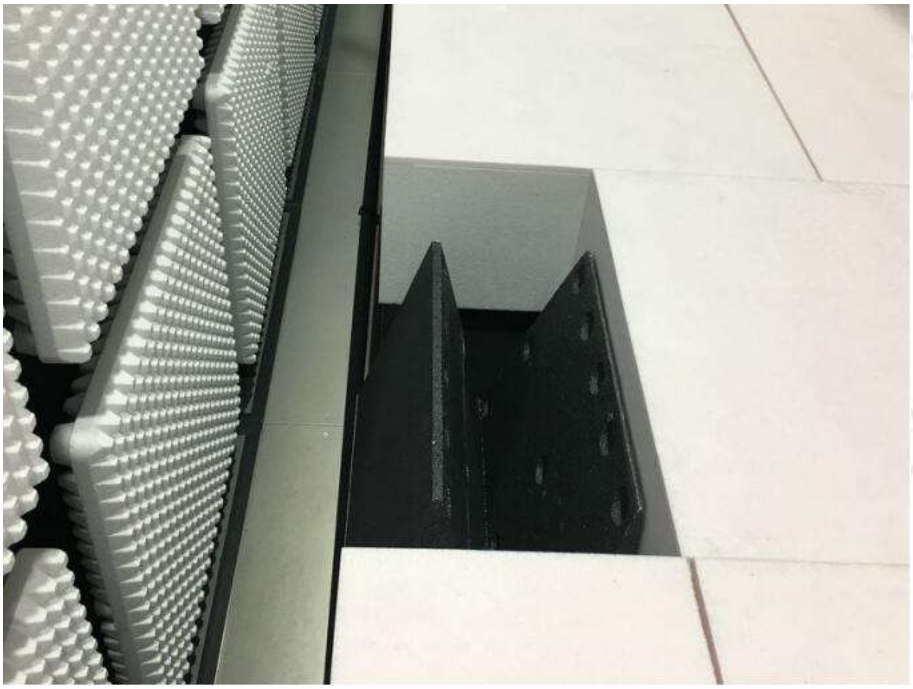
Test model No.:LEB50E



Radiated spurious emission Test Setup-1(Below 1GHz)



Radiated spurious emission Test Setup-2(Above 1GHz)



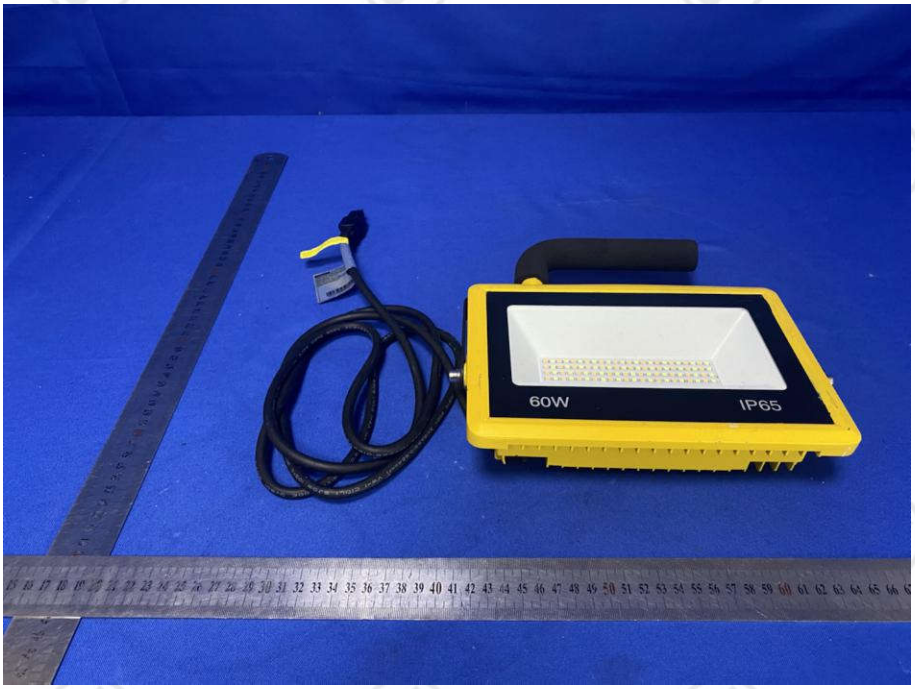
Radiated spurious emission Test Setup-3(Above 1GHz)
There are absorbing materials under the ground.

AC Power Line Conducted
Emission Test Setup

PHOTOGRAPHS OF EUT Constructional Details

Test model No.:LEB50E

View of Product-1



View of Product-2

View of Product-3

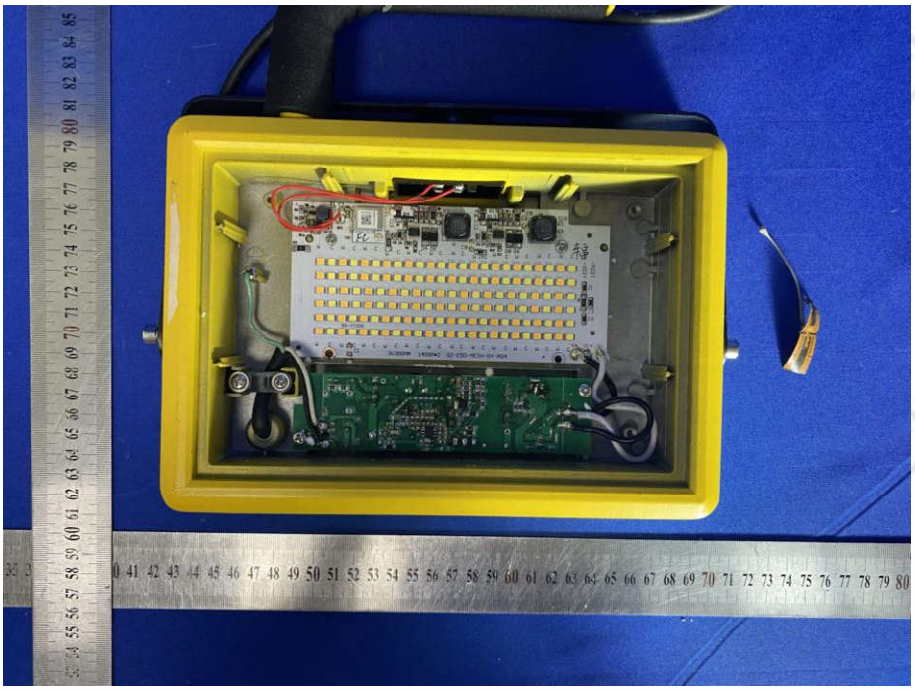
View of Product-4

View of Product-5

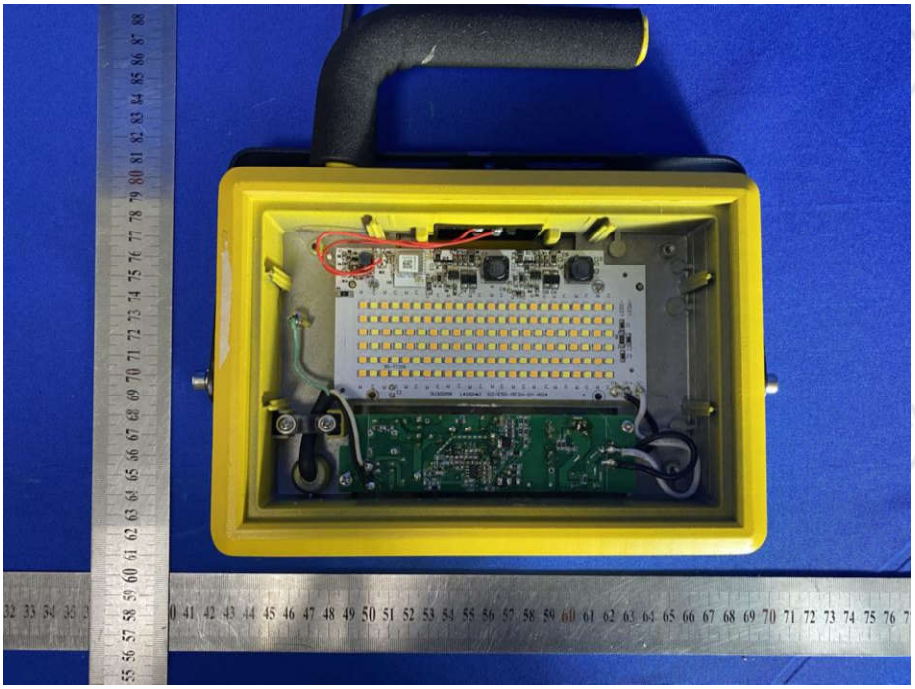
View of Product-6

View of Product-7

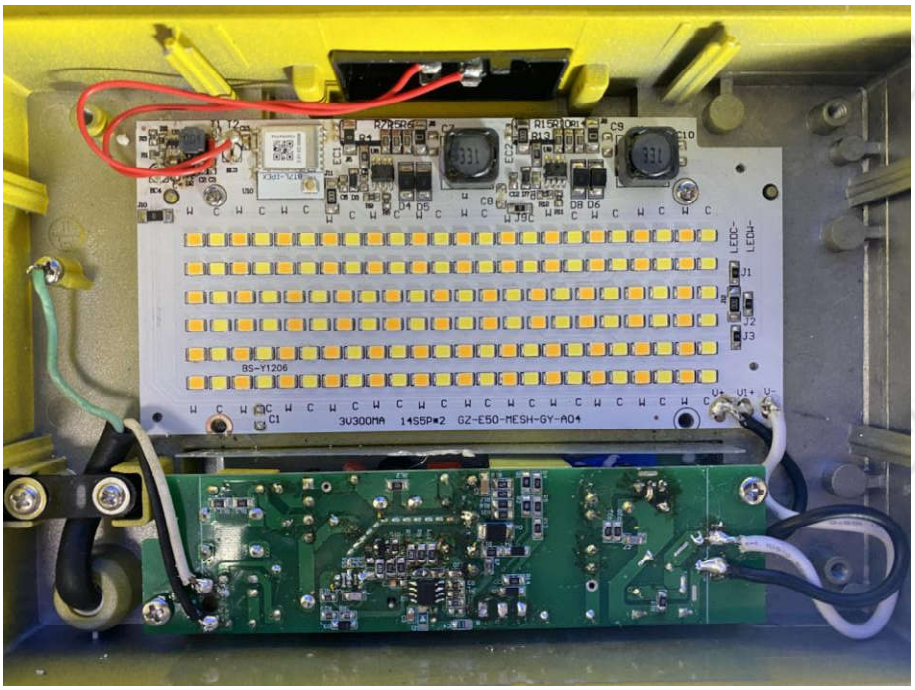
View of Product-8



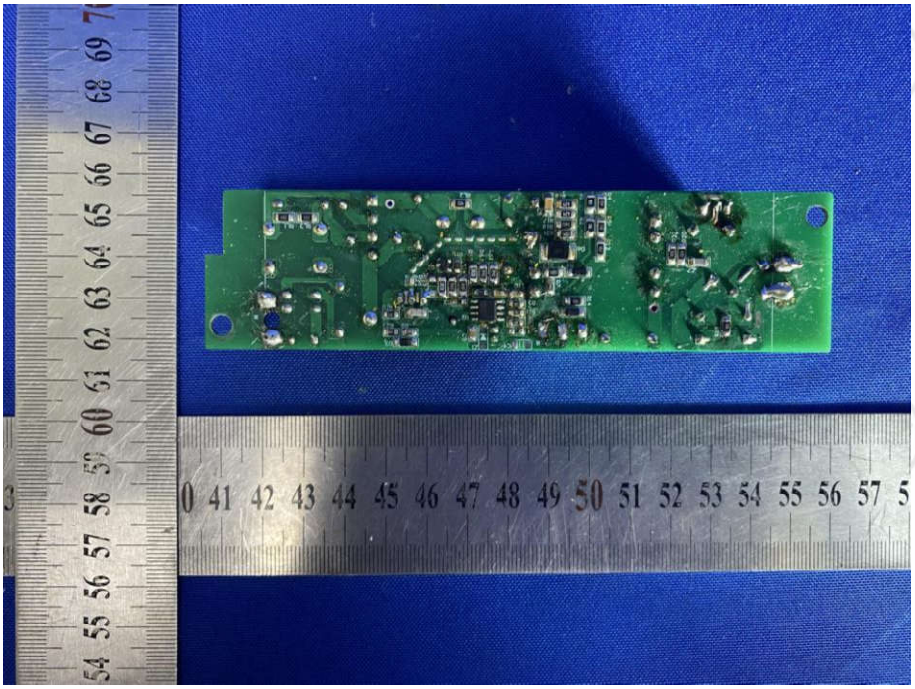
View of Product-9



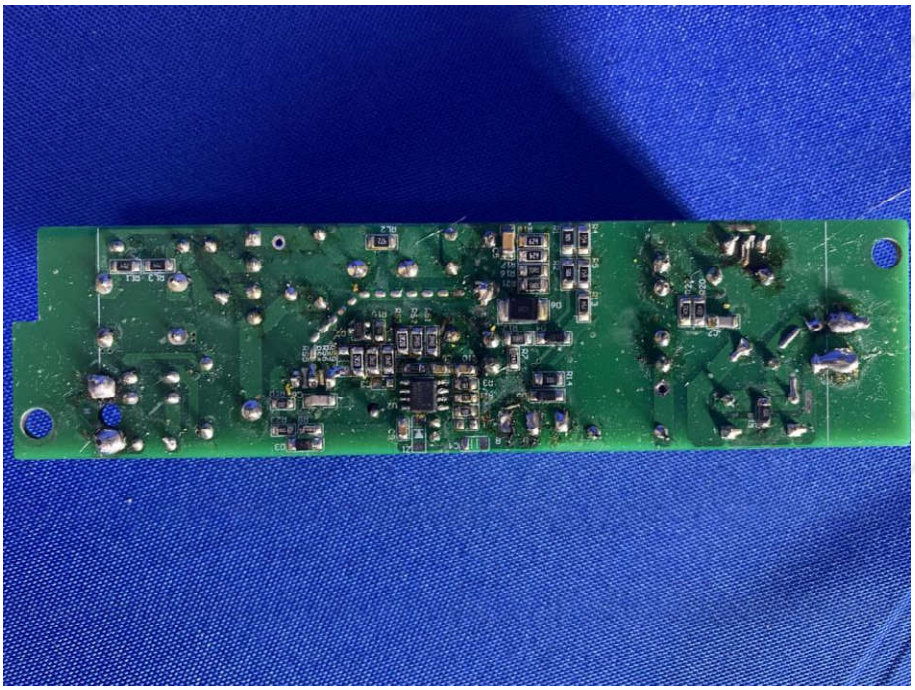
View of Product-10



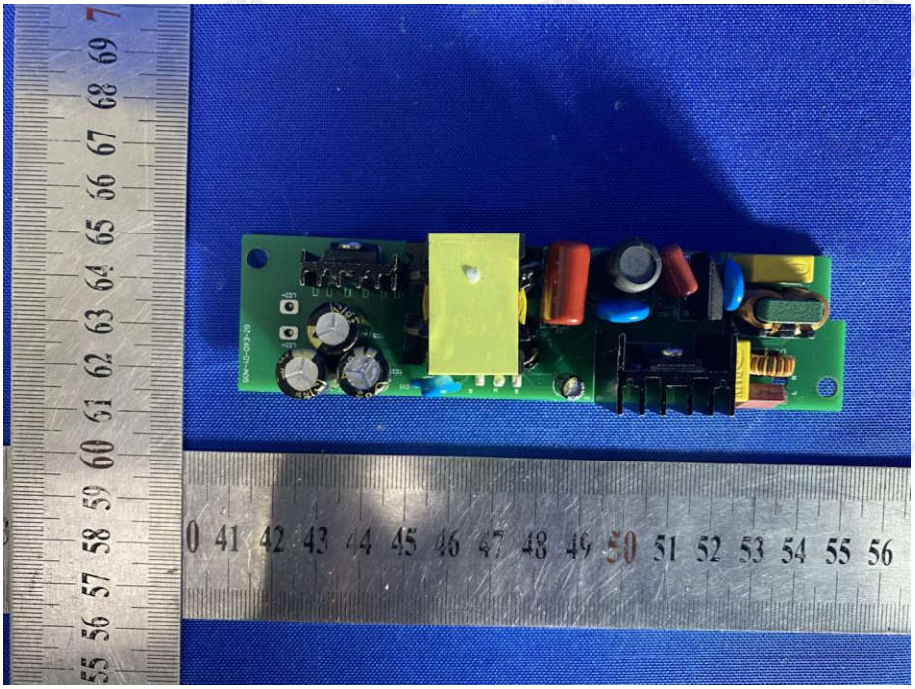
View of Product-11



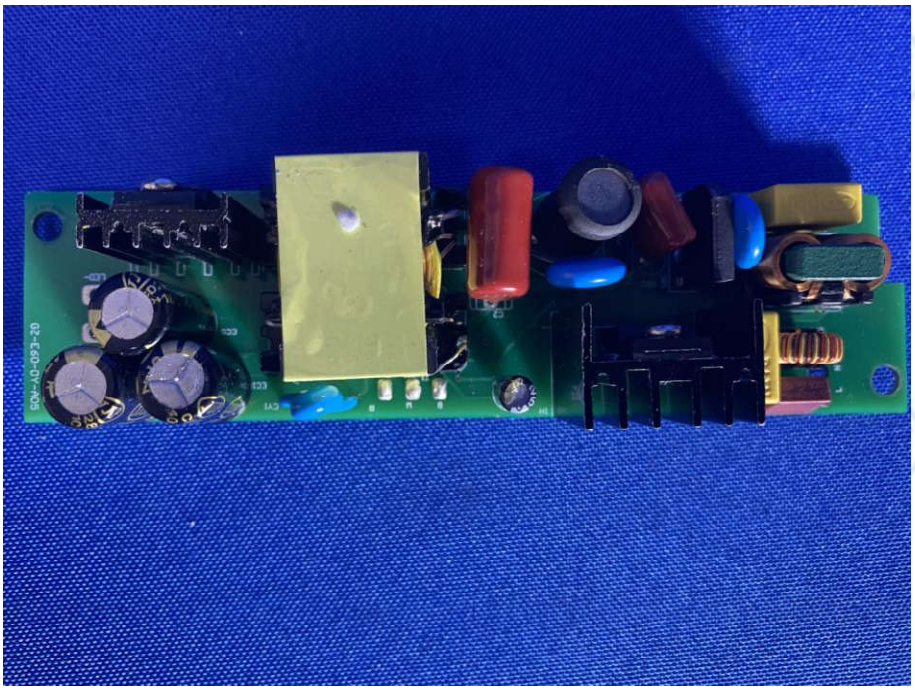
View of Product-12



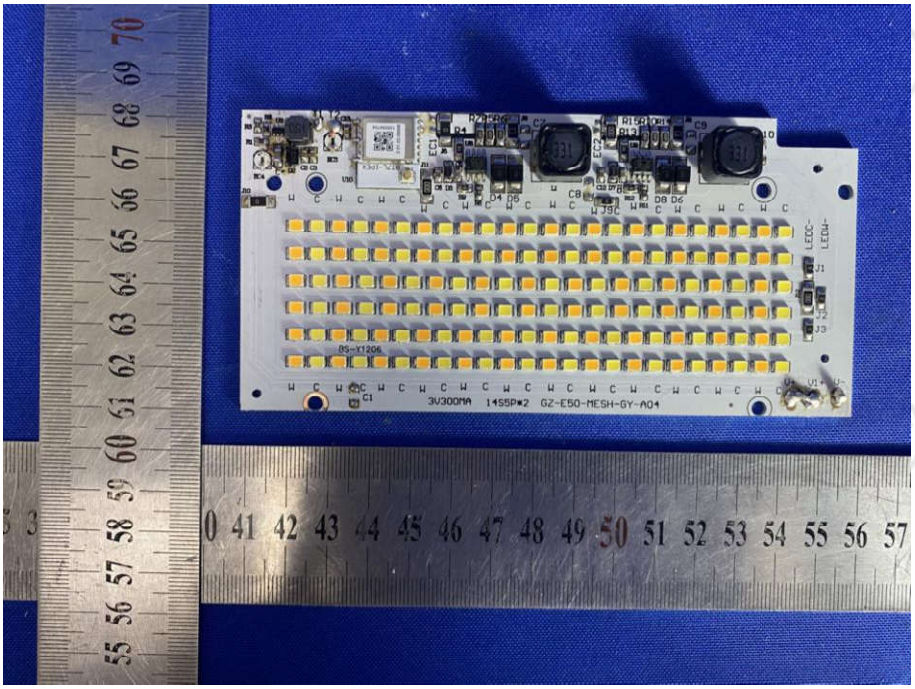
View of Product-13



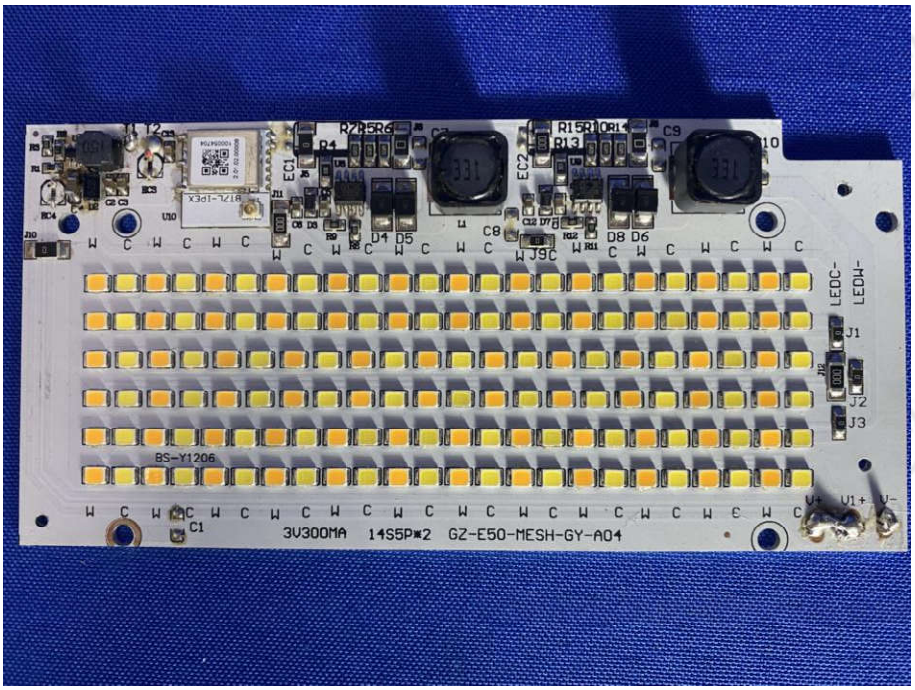
View of Product-14



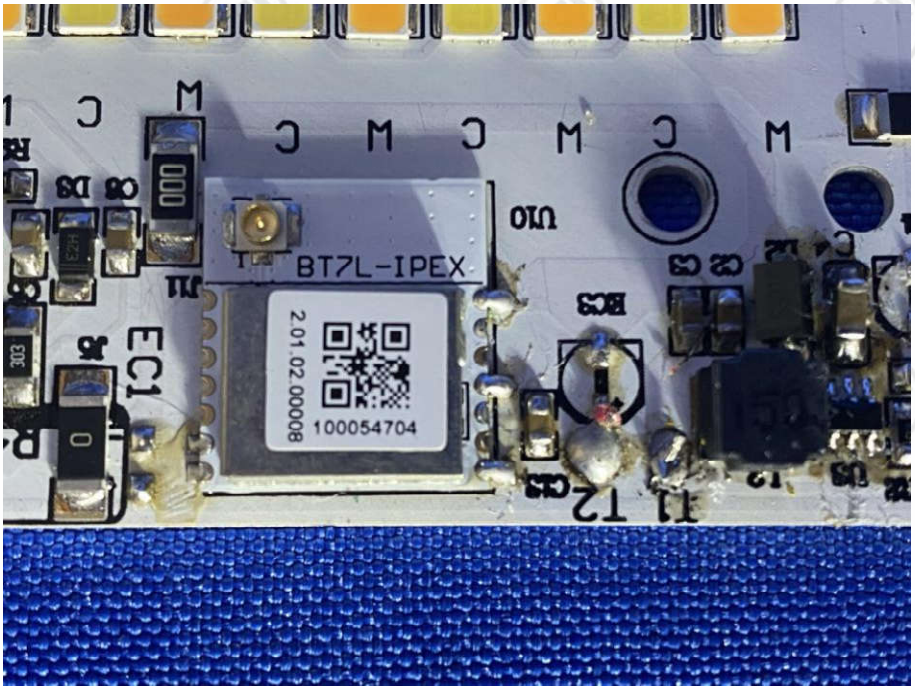
View of Product-15



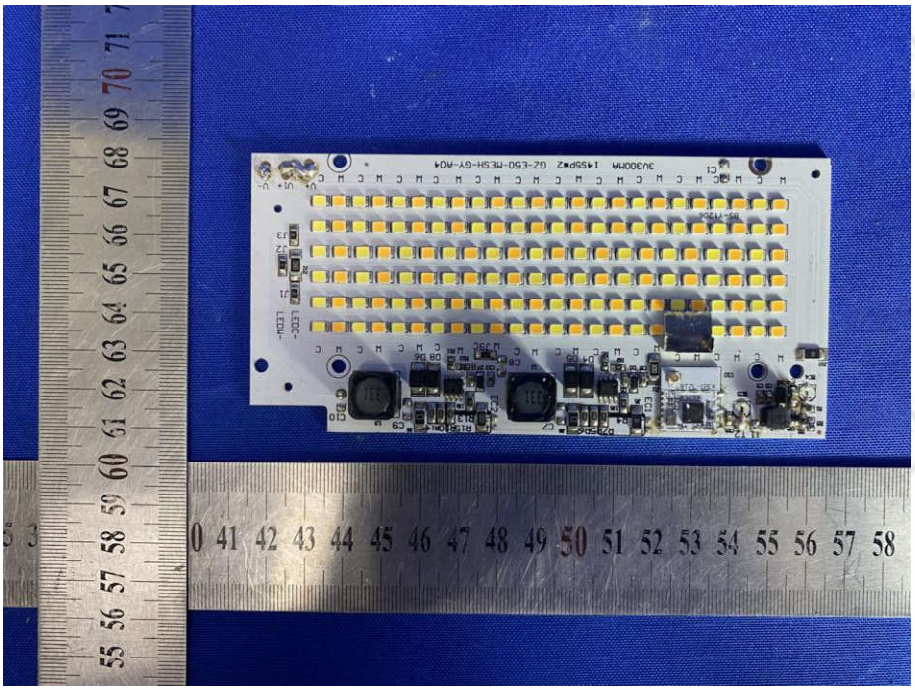
View of Product-16



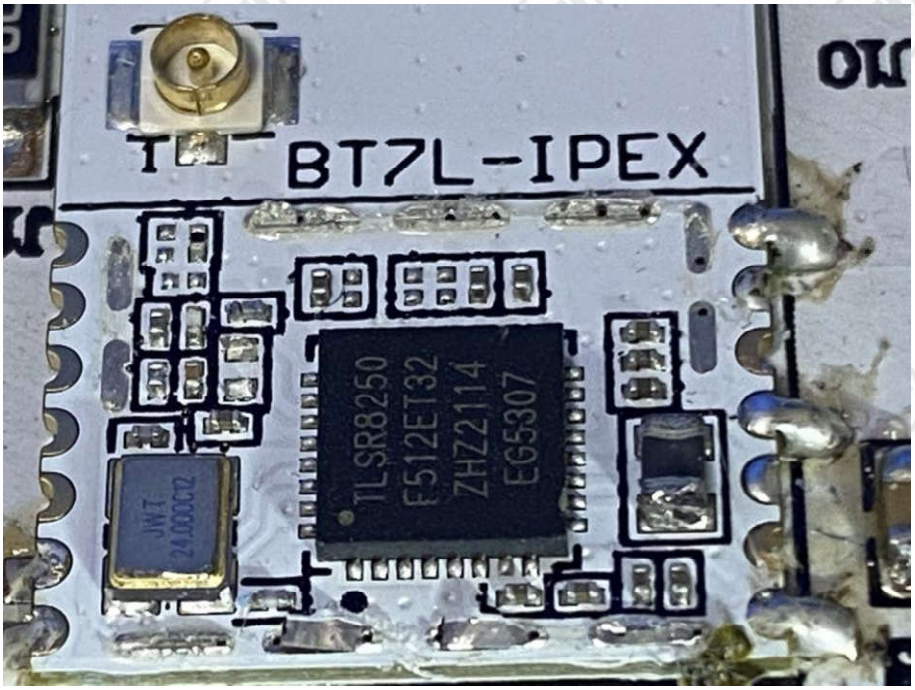
View of Product-17



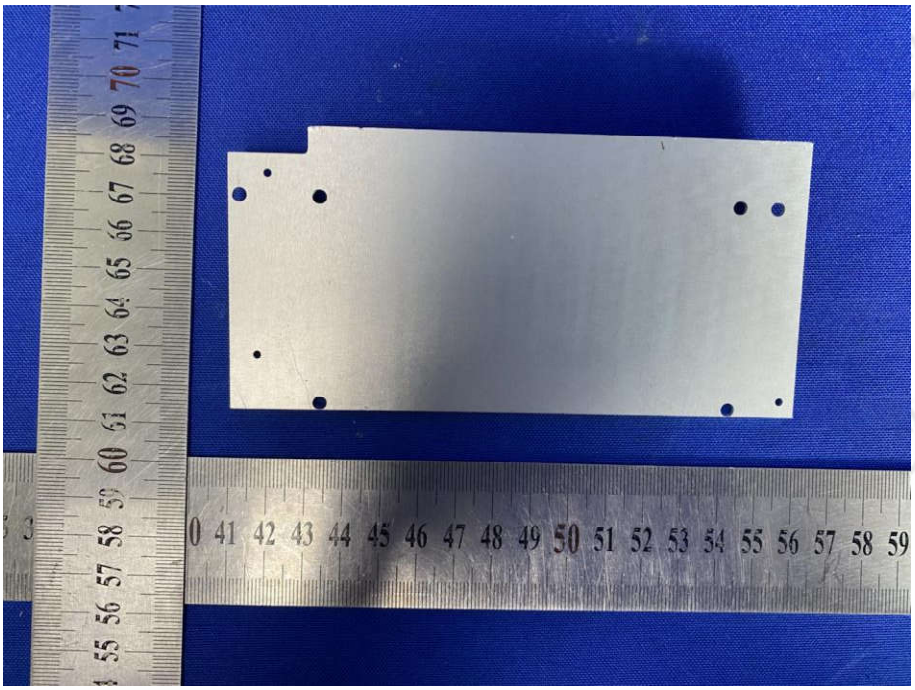
View of Product-18



View of Product-19



View of Product-20



View of Product-21

View of Product-22

The test report is effective only with both signature and specialized stamp, The result(s) shown in this report refer only to the sample(s) tested. Without written approval of CTI, this report can't be reproduced except in full.

*** End of Report ***