

TEST REPORT

Product Name : Tail Light
Model Number : BS 50
FCC ID : 2A44S-BS50

Prepared for : Shenzhen Olight E-Commerce Technology Co., Ltd.
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1. TEST RESULT CERTIFICATION

Applicant : Shenzhen Olight E-Commerce Technology Co., Ltd.
Address : 5th Floor, Building A2, Fuhai Information Harbor, Fuhai Subdistrict, Baoan District, Shenzhen, Guangdong, 518000, China
Manufacturer : Shenzhen Olight E-Commerce Technology Co., Ltd.
Address : 5th Floor, Building A2, Fuhai Information Harbor, Fuhai Subdistrict, Baoan District, Shenzhen, Guangdong, 518000, China
EUT : Tail Light
Model Name : BS 50
Trademark : OLIGHT

Measurement Procedure Used:

APPLICABLE STANDARDS	
STANDARD	TEST RESULT
§ 15.247(i), § 2.1093, 1.1307(b)(1)	PASS

The above equipment was tested by EMTEK(DONGGUAN) 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 the requirements of FCC Rules FCC § 15.247(i), § 2.1093, 1.1307(b)(1).
The test results of this report relate only to the tested sample identified in this report

Date of Test : October 10, 2024 to December 03, 2024

Prepared by : Warren Deng
Warren Deng /Editor

Reviewer : Galen Xiao
Galen Xiao /Supervisor

Approve & Authorized Signer : Sam Lv /Manager

Modified History

Version	Report No.	Revision Date	Summary
	EDG2410100173E00602R	/	Original Report



2. EUT Specification

Characteristics	Description
Product:	Tail Light
Model Number:	BS 50
Sample:	2#
Device Type:	2.4GHz SRD
Modulation:	GFSK
Operating Frequency Range(s) :	2402-2480 MHz
Number of Channels:	40 channels for SRD
Transmit Power Max:	-2.52 dBm(0.00056 W)
Antenna Gain:	2.48 dBi
Power supply:	DC5V 0.5A from USB DC3.7V from BATTERY
Evaluation applied:	☐ MPE Evaluation ☒ SAR Evaluation

3. Test Requirement:

SAR Evaluation

According to 447498 D01 V06, systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at *test separation distances* ≤ 50 mm are determined by:

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot$

$[\sqrt{f_{\text{(GHz)}}}] \leq 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR,²⁴ where

- $f_{\text{(GHz)}}$ is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation²⁵
- The result is rounded to one decimal place for comparison
- 3.0 and 7.5 are referred to as the numeric thresholds in the step 2 below

The test exclusions are applicable only when the minimum *test separation distance* is ≤ 50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum *test separation distance* is < 5 mm, a distance of 5 mm according to 5) in section 4.1 is applied to determine SAR test exclusion.

Routine SAR evaluation refers to that specifically required by § 2.1093, using measurements or computer simulation. When routine SAR evaluation is not required, portable transmitters with output power greater than the applicable low threshold require SAR evaluation to qualify for TCB approval. One antenna is available for the EUT. The minimum separation distance is 5mm.

4. Measurement Result

Antenna gain: 2.48 dBi

2.4GHz SRD

Mode	Transmit Frequency(MHz)	Mode	Measured Power (dBm)	E.I.R.P(dBm)	Tune upPower (dBm)	Max tune up power(dBm)	Calculation Result	1-g SAR
1M	2402	GFSK	-2.67	-0.19	-1±1	0	0.3099677	3
	2441	GFSK	-4.63	-2.15	-3±1	-2	0.1971578	3
	2480	GFSK	-5.59	-3.11	-4±1	-3	0.1578541	3
2M	2404	GFSK	-2.52	-0.04	-1±1	0	0.3099677	3
	2441	GFSK	-4.25	-1.77	-2±1	-1	0.2482069	3
	2478	GFSK	-5.29	-2.81	-3±1	-2	0.1987265	3

According to KDB 447498 D01 V06, no stand-alone required for BT antenna, and no simultaneous SAR measurement is required.

*** End of Report ***