



# FCC RF EXPOSURE REPORT

Applicant : Qingdao Magene Intelligence Technology Co., Ltd.  
Address : Room 302, Building 3, No.328A Chengkang Road,  
Xiazhuang Subdistrict, Chengyang District, Qingdao,  
Shandong, China.  
Equipment : Radar Tail Light  
Model No. : P0108001, SEEMEE 508  
Trade Name : Magene, MAGICSHINE  
FCC ID. : 2ALZG-320

**I HEREBY CERTIFY THAT :**

The sample was received on Jul. 14, 2022 and the testing was completed on Jul. 27, 2022 at CerpPASS Technology Corp. The test result refers exclusively to the test presented test model / sample. Without written approval of CerpPASS Technology Corp., the test report shall not be reproduced except in full.

Approved by:

Leevin Li /Supervisor



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### History of this test report

Original

Additional attachment as following record:

Attachment No.	Issue Date	Description
DEFJ2207032	Jul. 28, 2022	Original



## 1. Test Configuration of Equipment under Test

### 1.1 Feature of Equipment

Equipment	Radar Tail Light
Model Name	P0108001, SEEMEE 508
Model Discrepancy	All models are identical except for the name and trade mark.
Frequency Range	BLE: 2400MHz-2483.5MHz ANT+: 2457MHz
Modulation Type	BLE: GFSK ANT+: GFSK
Antenna Type	BLE/ ANT+: PCB Antenna
Temperature Range	-10°C~50°C
EUT Power Rating	DC 5V, 750mA

Note: For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

### 1.2 General Information of Test

Test Site	<b>CerpPASS Technology Corporation(CerpPASS Laboratory)</b> Address: Room 102, No. 5, Xing'an Road, Chang'an Town, Dongguan City, Guangdong Province Tel: +86-769-8547-1212 Fax: +86-769-8547-1912
FCC Designation No.:	CN1288



## 2. Radio Frequency Exposure

<b>Device category</b>	<input type="checkbox"/> Portable (<20cm separation) <input checked="" type="checkbox"/> Mobile (>20cm separation)
<b>Exposure classification</b>	<input type="checkbox"/> Occupational/Controlled exposure (S = 5mW/cm <sup>2</sup> ) <input checked="" type="checkbox"/> General Population/Uncontrolled exposure (S=1mW/cm <sup>2</sup> )
<b>Antenna diversity</b>	<input checked="" type="checkbox"/> Single antenna <input type="checkbox"/> Multiple antennas <input type="checkbox"/> Tx diversity <input type="checkbox"/> Rx diversity <input type="checkbox"/> Tx/Rx diversity
<b>Evaluation applied</b>	<input checked="" type="checkbox"/> MPE Evaluation* <input type="checkbox"/> SAR Evaluation <input type="checkbox"/> N/A

### TEST RESULTS

No non-compliance noted.

### Calculation

Given  $E = \frac{\sqrt{30 \times P \times G}}{d}$  &  $S = \frac{E^2}{3770}$

Where  $E$  = Field strength in Volts / meter  
 $P$  = Power in Watts  
 $G$  = Numeric antenna gain  
 $d$  = Distance in meters  
 $S$  = Power density in milliwatts / square centimeter

Combining equations and re-arranging the terms to express the distance as a function of the remaining variables yields:

$$S = \frac{30 \times P \times G}{3770d^2}$$

Changing to units of mW and cm, using:

$$P \text{ (mW)} = P \text{ (W)} / 1000 \text{ and}$$

$$d \text{ (cm)} = d \text{ (m)} / 100$$

Yields

$$S = \frac{30 \times (P/1000) \times G}{3770 \times (d/100)^2} = 0.0796 \times \frac{P \times G}{d^2} \quad \text{Equation 1}$$

Where  $d$  = Distance in cm  
 $P$  = Power in mW  
 $G$  = Numeric antenna gain  
 $S$  = Power density in mW / cm<sup>2</sup>



**Maximum Permissible Exposure**

**Bluetooth**

Mode	Frequency band (MHz)	Peak output power(dBm)	Peak output power(mW)	Antenna Gain (dBi)	Antenna gain (Numeric)	Distance (cm)	Power density (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )
Bluetooth LE	2402-2480	-0.73	0.845278845	0	1.00	20	0.00016821	1

-----End of the report -----