

## RF Exposure Evaluation Report

**Product** : LED Floodlight  
**Trade mark** : Onforu  
**Model/Type reference** : D100BL,G50BL,D30BL,E10BL  
**Test Model No.** : D100BL  
**Serial Number** : N/A  
**Report Number** : EED32O80246802  
**FCC ID** : 2A3W8D100BL  
**Date of Issue** : Apr. 12, 2022  
**Test Standards** : 47 CFR Part 1.1307  
47 CFR Part 2.1093  
KDB447498D01 General  
RF Exposure Guidance v06  
**Test result** : PASS

Prepared for:

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Prepared by:

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2 Version

| Version No. | Date          | Description |
|-------------|---------------|-------------|
| 00          | Apr. 12, 2022 | Original    |
|             |               |             |
|             |               |             |

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## 4 General Information

### 4.1 Client Information

|                          |                                                                                                       |
|--------------------------|-------------------------------------------------------------------------------------------------------|
| Applicant:               | Shen Zhen Shi Meng Zhi Tuo 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,518000 guang dong, China |
| Manufacturer:            | Shen Zhen Shi Meng Zhi Tuo 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,518000 guang dong, China |
| Factory:                 | Shen Zhen Shi Meng Zhi Tuo 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,518000 guang dong, China |

### 4.2 General Description of EUT

|                                  |                          |
|----------------------------------|--------------------------|
| Product Name:                    | LED Floodlight           |
| Model No.:                       | D100BL,G50BL,D30BL,E10BL |
| Test model:                      | D100BL                   |
| Trade Mark:                      | Onforu                   |
| EUT Supports Radios application: | BLE:1Mbps                |

### 4.3 Product Specification subjective to this standard

|                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                               |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| Frequency Range:                                                                                                                                                                                                                                                                                                                                                                                       | 2402MHz~2480MHz                                                                                               |
| Modulation Type:                                                                                                                                                                                                                                                                                                                                                                                       | GFSK                                                                                                          |
| Test Power Grade:                                                                                                                                                                                                                                                                                                                                                                                      | Default                                                                                                       |
| Test Software of EUT:                                                                                                                                                                                                                                                                                                                                                                                  | EMI Tool                                                                                                      |
| Antenna Type:                                                                                                                                                                                                                                                                                                                                                                                          | External antenna                                                                                              |
| Antenna Gain:                                                                                                                                                                                                                                                                                                                                                                                          | 2.0dBi                                                                                                        |
| Power Supply:                                                                                                                                                                                                                                                                                                                                                                                          | AC 100-120V~60Hz                                                                                              |
| Test Voltage:                                                                                                                                                                                                                                                                                                                                                                                          | AC 120V                                                                                                       |
| Max Conducted Peak Output Power:                                                                                                                                                                                                                                                                                                                                                                       | BLE:9.80dBm(9.5499258602 mW)<br>The Max Conducted Peak Output Power data refer to the report 708881974871-00. |
| Sample Received Date:                                                                                                                                                                                                                                                                                                                                                                                  | Feb. 25, 2022                                                                                                 |
| Sample tested Date:                                                                                                                                                                                                                                                                                                                                                                                    | Mar. 10, 2022 to Apr. 07, 2022                                                                                |
| 1.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.<br>2.Model No.:D100BL,G50BL,D30BL,E10BL<br>Only the model D100BL was tested.Their electrical circuit design, layout, components used and internal wiring are identical,only the power and size is different. |                                                                                                               |

## 4.4 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

## 4.5 Deviation from Standards

None.

## 4.6 Abnormalities from Standard Conditions

None.

## 4.7 Other Information Requested by the Customer

None.

## 5 RF Exposure Evaluation

### 5.1 RF Exposure Compliance Requirement

Given  $E = \frac{\sqrt{30 \times P \times G}}{d}$  &  $S = \frac{E^2}{377}$

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:

$$S = \frac{30 \times P \times G}{377 d^2}$$

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

$$S = \frac{30 \times (P/1000) \times G}{377 \times (d/100)^2} = 0.0796 \times \frac{P \times G}{d^2} \quad \text{Equation 1}$$

Where d = Distance in cm

P = Power in mW

G = Numeric antenna gain

S = Power density in mW / cm<sup>2</sup>

## 5.2 Maximum Permissible Exposure

Substituting the MPE safe distance using  $d = 20$  cm into Equation 1:

$$S = 0.000199 \times P \times G$$

Where  $P$  = Power in mW

$G$  = Numeric antenna gain

$S$  = Power density in mW / cm<sup>2</sup>

### BLE:

The tune-up conducted power:

|                                                          |      |
|----------------------------------------------------------|------|
| Maximum peak output power at antenna input terminal(dBm) | 9.80 |
| Maximum peak output power at antenna input terminal(mW)  | 9.55 |
| Tune-up conducted power(dBm)                             | 10   |
| Tune-up conducted power(mW)                              | 10   |

Calculated data:

| Ch. | Frq.<br>(MHz) | P (mW) | Gain (dBi) | Gain (num.)  | D (cm) | Power density in mW<br>/ cm <sup>2</sup> | Limit (mW/cm <sup>2</sup> ) |
|-----|---------------|--------|------------|--------------|--------|------------------------------------------|-----------------------------|
| 0   | 2480          | 10.00  | 2.00       | 1.5848931925 | 20     | 0.00315                                  | 1                           |

Note: The tune-up conducted power (10dBm) was declared by the manufacturer of module. The test data please refer to original report No.708881974871-00A.

$0.00315(\text{mW}/\text{cm}^2) < 1(\text{mW}/\text{cm}^2)$

Result:compliant

## PHOTOGRAPHS OF EUT Constructional Details

Refer to Report No. EED32N81243701 for EUT external and internal photos.

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 \*\*\*