

RF Exposure Evaluation Report

Product : Smart LED Flood Light
Trade mark : MustWin
Model/Type reference : MWA10
Serial Number : N/A
Report Number : EED32M80015602
FCC ID : 2AWPYMWA10
Date of Issue : Nov. 04, 2020
Test Standards : 47 CFR Part 1.1307
47 CFR Part 2.1091
KDB447498D01v06
Test result : PASS

Prepared for:

Shenzhen Michuang Technology Ltd
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Nov. 04, 2020

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2 Version

Version No.	Date	Description
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4 General Information

4.1 Client Information

Applicant:	Shenzhen Michuang Technology Ltd
Address of Applicant:	Rm.1012, A Bldg., No.142, Meilong St., Longhua District, Shenzhen, CHINA 518000
Manufacturer:	Shenzhen Michuang Technology Ltd
Address of Manufacturer:	Rm.1012, A Bldg., No.142, Meilong St., Longhua District, Shenzhen, CHINA 518000
Factory:	Shenzhen Michuang Technology Ltd
Address of Factory:	Rm.1012, A Bldg., No.142, Meilong St., Longhua District, Shenzhen, CHINA 518000

4.2 General Description of EUT

Product Name:	Smart LED Flood Light
Model No.(EUT):	MWA10
Trade Mark:	MustWin
EUT Supports Radios application	BT5.0 Single mode 2402MHz to 2480MHz

4.3 Product Specification subjective to this standard

Frequency Range:	2402MHz to 2480MHz
Modulation Type:	GFSK
Number of Channels:	40
Test Power Grade:	Default
Test Software of EUT:	EMI_Tool.exe
Antenna Type:	Monopole Antenna
Antenna Specification	2.5dBi
Maximum tune up power	Bluetooth: 1.10 dBm (1.289 mW)
Power Supply:	AC 120V/60Hz
Sample Received Date:	Oct. 19, 2020
Sample tested Date:	Oct. 19, 2020 to Oct. 28, 2020
Company Name and Address shown on Report, the sample(s) and sample Information was/ were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified.	

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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 (mW) = P (W) / 1000 and

d (cm) = d(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 / cm²

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 / cm²

Bluetooth:

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm ²	Limit (mW/cm2)
39	2480	1.289	1.78	20	0.0005	1

PHOTOGRAPHS OF EUT Constructional Details

Refer to Report No. EED32M80015601 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 ***