



RF Exposure Evaluation

Project Number: 4427245 / 8089

Report Number: 4427245EMC05

Revision: 0

Client: GE Lighting

Equipment Under Test: BLE/Zigbee Module

Model Name: Daughter Board of GED80MCC/Z2P1500

Model Number: A-1002271-01 Rev 3

Applicable Standards: 47 CFR §§ 2.1091 and 2.1093;

**FCC KDB 447498 D01 General RF Exposure Guidance
v06**

Remarks: This report details the results of the testing carried out on one sample, the results contained in this test report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

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1 General Information

1.1 Client Information

Name: GE Lighting
Address: 1975 Noble Road
City, State, Zip, Country: Cleveland, OH 44112

1.2 Test Laboratory

Name: SGS North America, Inc.
Address: 620 Old Peachtree Road NW, Suite 100
City, State, Zip, Country: Suwanee, GA 30024, USA

Accrediting Body: A2LA
Type of lab: Testing Laboratory
Certificate Number: 3212.01

1.3 General Information of EUT

Product Marketing Name (PMN): Daughter Board of GED80MCC/Z2P1500
Model Number (HVIN): A-1002271-01 Rev 3
Firmware Version ID (FVIN): Github Repository - Lighting/Ironman v0.3.1
Serial Number: NSN

Frequency Range: 2405 – 2480 MHz (Zigbee)
2402 – 2480 MHz (BLE)
Data Modes: 802.15.4 - 250 kbps (Zigbee)
Bluetooth Low Energy - GFSK
Antennae: Walsin - RFPCA430618IMAB301 [2.2 dBi_{pk}]
Pulse Larson - W3357 [0.4 dBi_{pk}]

Rated Voltage: 4.2 V_{dc}
Test Voltage: 4.2 V_{dc}

Sample Received Date: 2/12/2019

2 RF Exposure

2.1 Test Result

Test Description	Product Specific Standard	Test Result
RF Exposure	FCC Part 1.1310	Compliant

2.2 Test Method

Using the maximum power, the power density was calculated. Maximum antenna gain was assumed for this exercise.

2.3 Single transmission RF Exposure Levels (mW/cm²)

Band of Operation		Conducted Power w/tolerance dBm	Antenna Gain	Cable Loss	Average EIRP		Distance (R) cm	Power Density EIRP _{Avg} /(4πR ²) mW/cm ²	FCC mW/cm ²	% of Limit	Verdict
Type	MHz				dBm	mW					
Bluetooth	2400-2483.5	2.0	2.2	0.0	4.2	3	20	0.001	1.00	0%	Pass
802.15.4	2400-2483.5	4.9	2.2	0.0	7.1	5	20	0.001	1.00	0%	Pass

2.4 Simultaneous transmissions

DUT not capable of simultaneous transmission.

3 Revision History

Revision Level	Description of changes	Revision Date
DRAFT	--	25 February 2019
0	Initial release	6 March 2019