

# **RF Exposure Report**

**Report No.:** SA171116C22

FCC ID: 2AGPT-PLNX

Test Model: 2AGPT-PLNX

Received Date: Nov. 16, 2017

Test Date: Dec. 13 ~ Dec. 28, 2017

**Issued Date:** Mar. 22, 2018

Applicant: SolarEdge Technologies Ltd

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Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch

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(R.O.C.)

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33383, TAIWAN (R.O.C.)





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## **Release Control Record**

| Issue No.   | Description       | Date Issued   |
|-------------|-------------------|---------------|
| SA171116C22 | Original release. | Mar. 22, 2018 |



### 1 Certificate of Conformity

Product: Linux communication board

Brand: solaredge

Test Model: 2AGPT-PLNX

Sample Status: Mass-production

Applicant: SolarEdge Technologies Ltd

Test Date: Dec. 13 ~ Dec. 28, 2017

Standards: FCC Part 2 (Section 2.1091)

KDB 447498 D01 General RF Exposure Guidance v06

**IEEE C95.1** 

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's RF characteristics under the conditions specified in this report.

Prepared by: , Date: Mar. 22, 2018

Suntee Liu / Specialist

Approved by: , Date: Mar. 22, 2018

Bruce Chen / Project Engineer



### 2 RF Exposure

#### 2.1 Limits for Maximum Permissible Exposure (MPE)

| Frequency Range<br>(MHz)                              | Electric Field<br>Strength (V/m) | Magnetic Field<br>Strength (A/m) | Power Density<br>(mW/cm <sup>2</sup> ) | Average Time (minutes) |  |  |
|---|----------------------------------|----------------------------------|--|------------------------|--|--|
| Limits For General Population / Uncontrolled Exposure |                                  |                                  |  |                        |  |  |
| 300-1500  |                                  |                                  | F/1500                                 | 30                     |  |  |
| 1500-100,000  |                                  |                                  | 1.0                                    | 30                     |  |  |

F = Frequency in MHz

#### 2.2 MPE Calculation Formula

 $Pd = (Pout*G) / (4*pi*r^2)$ 

where

Pd = power density in mW/cm<sup>2</sup>

Pout = output power to antenna in mW

G = gain of antenna in linear scale

Pi = 3.1416

R = distance between observation point and center of the radiator in cm

#### 2.3 Classification

The antenna of this product, under normal use condition, is at least 20cm away from the body of the user. So, this device is classified as Mobile Device.

#### 3 Calculation Result of Maximum Conducted Power

| Function | Frequency<br>Band (MHz) | Max Power<br>(dBm) | Antenna Gain<br>(dBi) | Distance (cm) | Power Density<br>(mW/cm <sup>2</sup> ) | Limit<br>(mW/cm²) |
|----------|-------------------------|--------------------|-----------------------|---------------|--|-------------------|
| WLAN     | 2412~2462               | 11.32              | 2.9                   | 20            | 0.005                                  | 1                 |
| Zigbee   | 2405~2480               | 18.85              | 2.9                   | 20            | 0.030                                  | 1                 |

| Fraguency Bond | Max Pow | ver (dBm) | Total Power (dBm) | Power Limit (dBm) |
|----------------|---------|-----------|-------------------|-------------------|
| Frequency Band | WLAN    | Zigbee    |                   |                   |
| 2.4GHz         | 11.32   | 18.85     | 19.56             | 30                |

#### Conclusion:

The formula of calculated the MPE is:

CPD1 / LPD1 + CPD2 / LPD2 + .....etc. < 1

CPD = Calculation power density

LPD = Limit of power density

WLAN + Zigbee = 0.005 + 0.030 = 0.035 < 1

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