

## **FCC ID : 2BPF3-LUMINAS-970A**

### ➤ Test Standards and Limits

#### 1. According to KDB 447498 D01 v06, Section 4.3.1

#### 2. FCC Radiofrequency radiation exposure limits:

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances  $\leq 50$  mm are determined by:

$[(\text{max power of channel})/(\text{min test separation distance})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$  for 1-g SAR and  $\leq 7.5$  for 10-g extremity SAR, where

- f(GHz) is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm
- The result is rounded to one decimal place for comparison
- 3.0 and 7.5 are referred to as the numeric thresholds

The test exclusions are applicable only when the minimum test separation distance is  $\leq 50$  mm, and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is  $< 5$  mm, a distance of 5 mm according to 4.1 f) is applied to determine SAR test exclusion.

### ➤ Measurement and Calculation

#### 1. Maximum transmit power

2.4G SRD, Antenna Gain: 3.01 dBi

| Operation Mode                                                                                      | Channel Number | Channel Frequency (MHz) | EIRP (dBm) | Result calculation | 1-g SAR |
|-----------------------------------------------------------------------------------------------------|----------------|-------------------------|------------|--------------------|---------|
| 2.4G SRD                                                                                            | 4              | 2402                    | -3.30      | 0.145              | 3       |
|                                                                                                     | 82             | 2441                    | -3.81      | 0.130              | 3       |
|                                                                                                     | 160            | 2480                    | -2.93      | 0.160              | 3       |
| * $\text{EIRP}[\text{dBm}] = \text{E}[\text{dB}\mu\text{V/m}] + 20 \log(d[\text{meters}]) - 104.77$ |                |                         |            |                    |         |

#### 2. MPE Calculation

For the max result :  $0.16 \leq 3.0$  for 1-g SAR extremity SAR, No SAR is required.

-End of the Report-