

## **FCC ID : 2AJ55HOLYSTONE4T**

### ➤ **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

- $f(\text{GHz})$  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.

For 2.4G band device, the limit of worse case is

$$P_{\text{max}} \leq 3.0 \cdot D_{\text{min}} / f = 3.0 \cdot 5 / [\sqrt{2.474}] = 9.537 \text{ mW}$$

### ➤ **Measurement and Calculation**

#### **1. Maximum transmit power**

2.4G SRD, Antenna Gain: 0 dBi

| Operation Mode                                                                                      | Channel Number | Channel Frequency (MHz) | EIRP (dBm) |
|-----------------------------------------------------------------------------------------------------|----------------|-------------------------|------------|
| 2.4G SRD                                                                                            | 1              | 2402                    | -8.16      |
|                                                                                                     | 41             | 2442                    | -7.18      |
|                                                                                                     | 78             | 2479                    | -9.96      |
| * $\text{EIRP}[\text{dBm}] = \text{E}[\text{dB}\mu\text{V/m}] + 20 \log(d[\text{meters}]) - 104.77$ |                |                         |            |

#### **2. MPE Calculation**

According to the formula. calculate the EIRP test result:

$$\text{EIRP} = 0.19 \text{ mW} < 9.525 \text{ mW}$$

**So the SAR report is not required.**

-End of the Report-