

## **FCC ID : 2AXGMBL-YQD01**

### ➤ **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

$$P_{\text{max}} \leq 3.0 \cdot D_{\text{min}} / f = 3.0 \cdot 5 / 2.480 = 9.525 \text{ mW}$$

### ➤ **Measurement and Calculation**

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

BT, Antenna Gain: 0dBi

| Operation Mode | Channel Number | Channel Frequency (MHz) | Measurement Level (dBm) | Limit (dBm) | Verdict |
|----------------|----------------|-------------------------|-------------------------|-------------|---------|
| GFSK           | 0              | 2402                    | 1.03                    | 30          | PASS    |
|                | 39             | 2441                    | <b>1.68</b>             | 30          | PASS    |
|                | 78             | 2480                    | 0.91                    | 30          | PASS    |
| pi/4-DQPSK     | 0              | 2402                    | 0.97                    | 21          | PASS    |
|                | 39             | 2441                    | 1.60                    | 21          | PASS    |
|                | 78             | 2480                    | 0.87                    | 21          | PASS    |
| 8DPSK          | 0              | 2402                    | 0.95                    | 21          | PASS    |
|                | 39             | 2441                    | 1.63                    | 21          | PASS    |
|                | 78             | 2480                    | 0.91                    | 21          | PASS    |

BLE, Antenna Gain: 0dBi

| Operation Mode | Data Rate | Channel Number | Channel Frequency (MHz) | Measurement Level (dBm) | Limit (dBm) | Verdict |
|----------------|-----------|----------------|-------------------------|-------------------------|-------------|---------|
| Bluetooth DTS  | 1M        | 0              | 2402                    | <b>0.10</b>             | 30          | PASS    |
|                |           | 19             | 2440                    | -0.11                   | 30          | PASS    |
|                |           | 39             | 2480                    | -0.13                   | 30          | PASS    |

## 2. MPE Calculation

| Mode | Max Measured power (dBm) | Max tune-up power (dBm) | Antenna gain | Antenna Gain Numeric | Evaluation result (mW) | Limits    |
|------|--------------------------|-------------------------|--------------|----------------------|------------------------|-----------|
| BT   | 1.68                     | 2                       | 0            | 1                    | 1.47                   | < 9.525mW |
| BLE  | 0.10                     | 1                       | 0            | 1                    | 1.26                   | < 9.525mW |

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

-End of the Report-

