

## INTERTEK TESTING SERVICES

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### RF Exposure

The equipment under test (EUT) is a Mobile Ring Light & Transmitter microphone with mobilephone receiver adaptor with Bluetooth function operating in 2402-2480MHz. The EUT is powered by DC 5V from USB port or DC 3.7V from battery. For more detail information pls. refer to the user manual.

Antenna Type: Integral antenna

Modulation Type: GFSK,  $\pi/4$ -DQPSK and 8-DPSK

Antenna Gain: 2.6 dBi

Bluetooth Version: 5.0

The nominal conducted output power specified: 1 dBm ( $\pm 3$ dB)

The nominal radiated output power (e.i.r.p) specified: 3.6 dBm ( $\pm 3$ dB)

According to the KDB 447498 V06:

The Maximum peak radiated emission for the EUT is 98.3 dB $\mu$ V/m at 3m in the frequency 2441MHz

The EIRP =  $[(FS \cdot D)^2 / 30]$  mW = 3.07dBm

which is within the production variation.

The Minimum peak radiated emission for the EUT is 94.1 dB $\mu$ V/m at 3m in the frequency 2402MHz

The EIRP =  $[(FS \cdot D)^2 / 30]$  mW = -1.13dBm

which is within the production variation.

The maximum EIRP specified is 6.6 dBm = 4.571mW

The maximum conducted output power specified is 4 dBm = 2.51mW

The maximum ERP is 4.45dBm = 2.79mW

The SAR Exclusion Threshold Level:

The source- based time-averaging conducted output power  
= 2.51 \* Duty factor mW (where Duty Factor  $\leq 1$ )  
= 2.51 mW

The SAR Exclusion Threshold Level:  
= 3.0 \* (min. test separation distance, mm) /  $\sqrt{\text{freq. in GHz}}$   
= 3.0 \* 5 /  $\sqrt{2.480}$  mW  
= 9.53 mW

Since the source-based time-averaging conducted output power is well below the SAR low threshold level, so the EUT is considered to comply with SAR requirement without testing.

Antenna Type: Integral antenna

Modulation Type: GFSK

Antenna Gain: 2.6dBi

Bluetooth Version: 5.0 BLE

The nominal conducted output power specified: 5 dBm ( $\pm 2$ dB)

The nominal radiated output power (e.i.r.p) specified: 7.6 dBm ( $\pm 2$ dB)

According to the KDB 447498 V06:

The Maximum peak radiated emission for the EUT is 101.7 dB $\mu$ V/m at 3m in the frequency 2480MHz

The EIRP =  $[(FS * D)^2 / 30]$  mW = 6.47dBm

which is within the production variation.

The Minimum peak radiated emission for the EUT is 99.2 dB $\mu$ V/m at 3m in the frequency 2440MHz

The EIRP =  $[(FS * D)^2 / 30]$  mW = 3.97dBm

which is within the production variation.

The maximum EIRP specified is 9.6 dBm = 9.120mW

The maximum conducted output power specified is 7dBm = 5.01mW

The maximum ERP is 7.45dBm = 5.56mW

The SAR Exclusion Threshold Level:

The source- based time-averaging conducted output power

= 5.01 \* Duty factor mW (where Duty Factor  $\leq 1$ )

= 5.01 mW

The SAR Exclusion Threshold Level:

= 3.0 \* (min. test separation distance, mm) / sqrt(freq. in GHz)

= 3.0 \* 5 / sqrt (2.480) mW

= 9.53 mW

Since the source-based time-averaging conducted output power is well below the SAR low threshold level, so the EUT is considered to comply with SAR requirement without testing.