

INTERTEK TESTING SERVICES

RF Exposure

The equipment under test (EUT) is a Thermo Engine operating at 2.4G Band. The EUT is powered by DC 5.0V by adaptor. For more detail information pls. refer to the user manual.

Antenna Type: Integral antenna

Modulation Type: GFSK

Antenna Gain: -3.66dBi Max

The normal radiated output power (e.i.r.p) is: -1.0dBm (tolerance: +/- 3dB).

The normal conducted output power is 2.66dBm (tolerance: +/- 3dB).

According to the KDB 447498 V06:

The Maximum peak radiated emission for the EUT is 96.3dBμV/m at 3m in the frequency 2426MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = 1.07dBm

which is within the production variation.

The Minimum peak radiated emission for the EUT is 94.6dBμV/m at 3m in the frequency 2480MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = -0.63dBm

which is within the production variation.

The maximum conducted output average power specified is 5.66dBm = 3.681mW

The source- based time-averaging conducted output power = 3.681 mW

The SAR Exclusion Threshold Level:

= $3.0 \cdot (\text{min. test separation distance, mm}) / \sqrt{\text{freq. in GHz}}$

= $3.0 \cdot 5 / \sqrt{2.480}$ 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.