

INTERTEK TESTING SERVICES

RF Exposure

The equipment under test (EUT) is a remote controller operating at 2.4G Band. The EUT can be powered by DC 3.0V (2 x 1.5V AAA batteries). For more detail information pls. refer to the user manual.

Antenna Type: Integral antenna.

Antenna Gain: 0dBi.

The normal radiated output power (e.i.r.p) is: -2.0dBm (tolerance: +/- 1dB).

The normal conducted output power is -2.0dBm (tolerance: +/- 1dB).

Modulation Type: GFSK.

According to the KDB 447498 V06:

The Maximum peak radiated emission for the EUT is 92.5dBμV/m at 3m in the frequency 2418MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = -2.73dBm

which is within the production variation.

The Minimum peak radiated emission for the EUT is 89.8dBμV/m at 3m in the frequency 2462MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = -5.43dBm

which is within the production variation.

The maximum conducted output power specified is -1.0dBm= 0.794mW

The source- based time-averaging conducted output power
=0.794mW

For 100 MHz to 6 GHz and test separation distances ≤ 50 mm, the 1-g SAR test exclusion thresholds are determined by the following:

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$

The result is

$=(0.794/5) \cdot \sqrt{2.462 \text{ GHz}}$

=0.25

Since the result is well below the values 3.0, so the EUT is considered to comply with SAR requirement without testing.