

INTERTEK TESTING SERVICES

RF Exposure

The Equipment under Test (EUT) is a Control unit for VXR Ant model: 406-3346 operating at 2.4GHz band. It is powered by DC 9.0V (1 x 9.0V 6F22 battery). 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: 4.0dBm (tolerance: +/- 3dB).

The normal conducted output power is 4.0dBm (tolerance: +/- 3dB).

Modulation Type: GFSK.

According to the KDB 447498:

The Maximum peak radiated emission for the EUT is 100.3dB μ V/m at 3m in the frequency 2401.5MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = 5.07dBm

which is within the production variation.

The Minimum peak radiated emission for the EUT is 96.7dB μ V/m at 3m in the frequency 2433.5MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = 1.47dBm

which is within the production variation.

The maximum conducted output power specified is 7.0dBm = 5.0mW

The source- based time-averaging conducted output power

= $5.0 \cdot \text{Duty Cycle}$ mW < 5.0 mW (Duty Cycle < 100%)

The SAR Exclusion Threshold Level:

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

= $3.0 \cdot 5 / \sqrt{2.4335}$ mW

= 9.6 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.