

## INTERTEK TESTING SERVICES

---

### RF Exposure

The equipment under test (EUT) is a VEXNET KEY 2.0 operating at 2.4G Band. The EUT is powered by USB port of Power Bank model: PPUMINI. The EUT can only be connected to and operated with a suitable host without connected directly or indirectly to AC mains. 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: 15.0dBm (tolerance: +/- 3dB).

The normal conducted output power is 15.0dBm (tolerance: +/- 3dB).

Modulation Type: GFSK.

According to the KDB 447498:

The Maximum peak radiated emission for the EUT is 110.9dB $\mu$ V/m at 3m in the frequency 2441MHz

The EIRP =  $[(FS \cdot D)^2 / 30]$  mW = 15.67dBm

which is within the production variation.

The Minimum peak radiated emission for the EUT is 107.8dB $\mu$ V/m at 3m in the frequency 2480MHz

The EIRP =  $[(FS \cdot D)^2 / 30]$  mW = 12.57dBm

which is within the production variation.

The maximum conducted output power specified is 18.0dBm = 63.1 mW

The source- based time-averaging conducted output power

= 63.1 \* Duty cycle mW = 3.3 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.

The duty cycle is simply the on-time divided by the period:

The duration of one cycle = 24.9565ms

Effective period of the cycle = 1.3043ms

DC = 1.3043ms / 24.9565ms = 0.0523 or 5.23%