

INTERTEK TESTING SERVICES

RF Exposure

The equipment under test (EUT) is a Reactive Flash Replacement Auxiliary Pod with 2.4G Transmitting function operating in 2405-2480MHz. The EUT is powered by DC 5.0V for USB port or DC 3.7V rechargeable battery. The equipment was turned off while it was charging. For more detail information pls. refer to the user manual.

Antenna Type: Integrate antenna

Modulation Type: OQPSK

Antenna Gain: 1.0dBi Max

The nominal conducted output power specified: -11.5 dBm (± 2.0 dB)

The nominal radiated output power (e.i.r.p) specified: -10.5 dBm (± 2.0 dB)

According to the KDB 447498 V07:

The Maximum peak radiated emission for the EUT is 85.6 dB μ V/m at 3m in the frequency 2405MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = -9.63dBm

which is within the production variation.

The Minimum peak radiated emission for the EUT is 83.1 dB μ V/m at 3m in the frequency 2480MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = -12.13dBm

which is within the production variation.

The maximum conducted output power specified is -9.5dBm= 0.112mW

The maximum radiated output power specified is -8.5dBm= 0.14mW

The SAR Exclusion Threshold Level:

$$\begin{aligned} P_{th}(\text{mW}) &= ERP_{20\text{cm}} * (d/20\text{cm})^x \quad (X = -\log_{10} \left(\frac{60}{ERP_{20\text{cm}} \sqrt{f}} \right)) \\ &= 3060 * (0.5/20)^{1.9} \text{ mW} \\ &= 2.72 \text{ mW} \end{aligned}$$

Since max. conducted output power and effective radiated power (ERP) is well below the SAR low threshold level, so the EUT is considered to comply with SAR requirement without testing.

Note: EIRP is higher than ERP, thus EIRP is compared with the Exclusion Threshold.