

INTERTEK TESTING SERVICES

RF Exposure

The Equipment Under Test (EUT) is a Security System Fob operating at 433.92MHz. The EUT is powered by DC 3V by button battery. This product is a wireless key for motorcycles. The 125KHz function for this product is receive only. For more detailed features description, please refer to the user's manual.

Modulation Type: FSK

Antenna Type: Integral antenna.

Antenna Gain: -3.32 dBi Max

The nominal radiated output power (e.i.r.p) specified: -31dBm (+/- 3dB)

According to the KDB 447498:

The maximum peak radiated emission for the EUT is 66.7dB μ V/m at 3m in the frequency 433.92MHz.

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = -28.53dBm
which is within the production variation.

The maximum conducted output power specified is -31+3-3.32dBm = 0.00074mW

The source-based time-averaging conducted output power
= 0.00074 * Duty factor mW (where Duty Factor $\leq$ 1)
= 0.00074 mW

The SAR Exclusion Threshold Level:

= 3.0 * (min. test separation distance, mm) / sqrt(freq. in GHz)
= 3.0 * 5 / sqrt (0.43391) mW
= 22.77 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.