

INTERTEK TESTING SERVICES

Analysis Report

The equipment under test (EUT) is a transmitter for Remote Key Finder operating at 433.92MHz. The EUT is powered by DC 3 battery. The EUT has two control Key, press the corresponding control key on the EUT in order to locate the desired receiver. For more detail information pls. refer to the user manual.

Antenna Type: Integral antenna

Antenna Gain: 1.2dBi

The nominal conducted output power specified: -12dBm (+/- 3dB)

The nominal radiated output power (e.r.p) specified: -12.95dBm (+/- 3dB)

Modulation Type: ASK

According to the KDB 447498:

The worst-case peak radiated emission for the EUT is 83.10dB μ V/m at 3m in the frequency 433.92MHz

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

The ERP=EIRP-2.15=-14.28dBm

which is within the production variation.

The maximum conducted output power specified is -9dBm = 0.125mW

The source- based time-averaging conducted output power

= 0.125 * Duty Cycle mW = 0.04mW

The SAR Exclusion Threshold Level:

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

= $3.0 * 5 / \sqrt{0.43392}$ 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.

The duration of one cycle = 41.34ms

Effective period of the cycle = $11 * 0.86 + 14 * 0.24 = 12.82$ ms

DC = $12.82 / 41.34\text{ms} = 0.31$ or 31%