

Analysis Report

The equipment under test (EUT) is a transmitter for Remote Vibrating K-Ball operating at 433.92MHz which is operated by a crystal. The EUT is powered by one 3.0V Size CR1220 battery. For more detailed features description, please refer to the user's manual.

Type of the antenna: Integral Antenna

Modulation Type: ASK

Antenna Gain: 0dBi

The nominal conducted output power specified: -20.00dBm (+/- 3dB)

The nominal radiated output power (e.r.p) specified: -22.15dBm (+/- 3dB)

According to the KDB 447498:

The worst-case peak radiated emission for the EUT is 74.8dB μ V/m at 3m in the frequency 433.92MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = -20.43dBm

The ERP = EIRP - 2.15 = -22.58 dBm

which is within the production variation.

The maximum conducted output power specified is -17.0dBm = 0.02mW

The source-based time-averaging conducted output power
= 0.02 * Duty Cycle mW < 0.02 mW (Duty Cycle < 100%)

The SAR Exclusion Threshold Level:

= 3.0 * (min. test separation distance, mm) / sqrt(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.