

ANALYSIS REPORT

Report No.: 102364216BOX-001a

The equipment under test (EUT) is a transmitter to operate a gate or garage door opener. The transmitter/remote is operating at $433.92 \text{ MHz} \pm 1 \text{ MHz}$ which is controlled by a SAW resonator. The EUT is powered by DC 3.0V (CR2032 coin cell battery). Push buttons, SW1 and SW2, are the only buttons that can initiate transmission. The transmitter will only transmit up to 30 seconds with the buttons being press down continuously. Press the 'Test' button and then SW1 or SW2 will send a signal to the gate/garage door opener to indicate its battery condition. Press the 'Party' button then SW1 or SW2 will send a signal the gate/garage door opener to stay open. Press the 'Learn' button will put the unit into 'Learn Mode', it can only learn from another transmitter with the same coding scheme at 433.92MHz frequency.

Antenna Type: Single loop internal integral antenna

Antenna FGain: 0 dBi

Nominal Rated Field Strength: $87.0 \text{ dB}\mu\text{V/m}$ @ 3m

Maximum allowed field strength of production tolerance: $\pm 3\text{dB}$

According to the KDB 447498:

Based on the Maximum allowed field strength of production tolerance was $90.0 \text{ dB}\mu\text{V/m}$ at 3m at 433.92 MHz frequency, thus;

The EIRP= $[(\text{FS} \cdot \text{D})^2 \cdot 1000 / 30] = 0.300\text{mW}$

Conducted Power = 0.300 mW

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The SAR Exclusion Threshold Level:

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

$= 3.0 \cdot 5 / \sqrt{0.43392} \text{ mW}$

$= 22.78 \text{ mW}$

Since the above conducted output power is well below the SAR Exclusion threshold level, so the EUT is considered to comply with SAR requirement without testing.