

Analysis Report

Report No.: 14051604HKG-002

The Equipment Under Test (EUT) is a 433.92MHz wireless transmitter (remote controller) for its associated wireless receiver (AC power socket). It uses discrete radio carriers rather than the conventional FM multiplex system. Transmit carrier is generated by a SAW resonator. The operating frequency is 433.92MHz in one channel.

It is powered by 3x 1.5V "AAA" size batteries. A POWER switch is on unit rear side. When pushing handle of unit once, it will transmit RF signal out to turn On/Off the AC power of the paired wireless power socket. The LEDs (red,yellow,green colour) on top of unit will also flash and melody will sound.

Antenna Type: internal integral, wire type antenna

Antenna Gain: 0dBi

Nominal rated field strength: 76.3dB μ V/m at 3m

Maximum allowed field strength of production tolerance: +/- 3dB

According to the KDB 447498:

Based on the Maximum allowed field strength of production tolerance was 79.3dB μ V/m at 3m in frequency 433.92MHz, thus;

The EIRP = $[(FS \cdot D)^2 \cdot 1000 / 30] = 0.026mW$

Conducted power = Radiated Power (EIRP) – Antenna Gain

So;

Conducted Power = 0.026mW.

The SAR Exclusion Threshold Level:

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

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

= 22.77 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.