RF Exposure

The Equipment Under Test (EUT) is a Dimming Switch Mini module transceiver connected directly to AC 120V/60Hz main line. It is designed to act as a repeater, which will re-transmit the 908.42MHz RF signal (when receive a command signal from the remote controller) to ensure that the signal is received. It also has manual function. For more detail information pls. refer to the user manual.

Modulation Type: FSK.

Antenna Type: Integral antenna.

Antenna Gain: 0dBi

The nominal radiated output power (e.r.p) specified: -12.15dBm (+/- 3dB)
The nominal conducted output power specified: -10dBm (+/- 3dB)

According to the KDB 447498:

The maximun peak radiated emission for the EUT is 87.9dBμV/m at 3m
The EIRP = [(FS*D) ^2 / 30] mW = -7.33dBm
The ERP = EIRP - 2.15dBi = -9.48dBm

which is within the production variation.

The maximun conducted output power specified is -7dBm = 0.2mW
The source- based time-averaging conducted output power
= 0.2 * Duty Cycle mW (where Duty Cycle ≤ 100%)
≤ 0.2 mW

The SAR Exclusion Threshold Level:
= 3.0 * (min. test separation distance, mm) / sqrt(freq. in MHz)
= 3.0 * 5 / sqrt (0.908) mW
= 15.7 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.