

Analysis Report

Report No.: 14070655HKG-001

The Equipment Under Test (EUT) is a Clock Radio. The EUT has Bluetooth Audio portion which is operating between 2402MHz and 2480MHz (79 channels with 1MHz channel spacing). When the EUT is switched ON in Bluetooth mode, the display will show "BT" and a LED flashing. The Bluetooth enabled device would be searched and connected the EUT before playing audio. After pairing, the "BT" LED will stay lit. The audio signal will be amplified and fed to internal stereo loudspeaker. The EUT also have AM/FM radio and alarm clock function. A LED display acts as the visual interface. The EUT is powered by 5V DC from an AC/DC adaptor. The AC/DC adaptor can accept 100-240VAC. Two optional size AA batteries (3VDC) are for real-time-clock memory back-up. A USB port (5VDC) is for charging purpose only.

Antenna Type: Internal, Integral

Antenna Gain: 0dBi

Nominal rated field strength: 98.4dB 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 101.4dB μ V/m at 3m in frequency 2.4GHz, thus;

The EIRP = $[(FS \cdot D)^2 \cdot 1000 / 30] = 4.14\text{mW}$

Conducted power = Radiated Power (EIRP) – Antenna Gain
So;

Conducted Power = 4.14mW.

The conducted source-based time-averaged output power
= $(4.14 \cdot 5/6)$ mW
= 3.45 mW

The SAR Exclusion Threshold Level:
= $3.0 \cdot (\text{min. test separation distance, mm}) / \text{sqrt}(\text{freq. in GHz})$
= $3.0 \cdot 5 / \text{sqrt}(2.480)$ mW
= 9.53 mW

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

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