

Analysis Report

The Equipment Under Test (EUT) is an Bluetooth digital clock radio with CD player. The EUT can accept audio sources including Aux-in, CD, FM Tuner and Bluetooth devices. The Bluetooth module in the EUT is operating in the frequency range from 2402MHz to 2480MHz (79 channels with 1MHz channel spacing). The audio signal is amplified and fed to the internal loudspeakers. The EUT also has a headphone output. The EUT is powered by 100-240VAC. Two size "AA" batteries are for alarm clock memory backup.

2.4GHz Bluetooth portion

Bluetooth 3.0

Antenna Type: Internal, Integral

EIRP range is 0dBm to 4dBm

Antenna gain is 2dBi

Modulation Type: GFSK

Frequency Range: 2402MHz to 2480MHz, 1MHz channel spacing, 79 channels

According to the KDB 447498:

Conducted Power (max) = EIRP – Antenna gain

= 4 dBm – 2 dBi

= 2 dBm (1.58 mW)

The SAR Exclusion Threshold Level:

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

= $3.0 * 5 / \text{sqrt}(2.480)$ mW

= 9.53 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.