

RF Exposure

The equipment under test (EUT) is a Digestive Monitor with Bluetooth 5.0 function operating in 2402-2480MHz. The EUT is powered by DC 3.7V by rechargeable battery and charged by AC 120V/60Hz. For more detailed features description, please refer to the user's manual.

Standalone SAR evaluation for BT function

Bluetooth Version: 5.0 BLE (Single Mode)

Antenna Type: Integral antenna

Modulation Type: GFSK

Antenna Gain: 2.0dBi Max

The nominal conducted output power specified: -13.0dBm (+/-3dB)

The maximum conducted output power for the EUT is -12.25dBm in the frequency 2402MHz which is within the production variation.

The minimum conducted output power for the EUT is -14.16dBm in the frequency 2480MHz which is within the production variation.

The maximum conducted output power specified is -10.0dBm = 0.1mW

The source-based time-averaging conducted output power

= $0.1 * \text{Duty factor mW}$ (where Duty Factor ≤ 1)

= 0.1 mW

The SAR Exclusion Threshold Level:

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

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

= 9.53 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.