

INTERTEK TESTING SERVICES

RF Exposure

The equipment under test (EUT) is a G-GO (G-500) Bluetooth Wireless Speaker with Bluetooth 5.1 EDR function operating in 2402-2480MHz. The EUT is powered by DC 3.7V by battery which can be charged by DC 5V/1A through adapter input. For more detail information pls.

Antenna Type: Integral antenna

Modulation Type: GFSK, p/4-DQPSK, 8DPSK

Antenna Gain: -0.59 dBi Max

The nominal radiated output power (e.i.r.p) specified: -5.0dBm (+/-2dB)

The nominal conducted output power specified: -4.41dBm (+/-2dB)

According to the KDB 447498:

The maximum peak radiated emission for the EUT is 90.3 dBμV/m at 3m in the frequency 2441MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = -4.93dBm

which is within the production variation.

The minimum peak radiated emission for the EUT is 88.5 dBμV/m at 3m in the frequency 2402MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = -6.73dBm

which is within the production variation.

The maximum conducted output power specified is -2.41dBm = 0.57 mW

The source-based time-averaging conducted output power

= 0.57 * Duty factor mW (where Duty Factor ≤ 1)

= 0.57 mW

The SAR Exclusion Threshold Level:

$$P_{th}(mW) = ERP_{20cm} * (d/20cm)^x \quad (X = -\log_{10} \left(\frac{60}{ERP_{20cm} \sqrt{f}} \right))$$

$$= 3060 * (0.5/20)^{1.9} mW$$

$$= 2.72 mW$$

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.