

INTERTEK TESTING SERVICES

RF Exposure

The equipment under test (EUT) is a LTTREME Free-Style with BT 2.1+EDR function operating in 2402-2480MHz. The EUT is powered by rechargeable battery (DC 24V, 4300mAh) which can be charged by adapter (Input: AC100-240V, 50/60Hz, 1.8A; Output: DC 29.4V, 2A. For more detail information pls. refer to the user manual.

Modulation Type: GFSK, $\pi/4$ -DQPSK and 8-DPSK

Bluetooth Version: BT 2.1+EDR

Antenna Type: Integral antenna

Antenna Gain: 0dBi Max

The nominal conducted output power specified: -12.0dBm (Tolerance: +/-3dB)

The nominal radiated output power (e.i.r.p) specified: -12.0dBm (Tolerance: +/-3dB)

According to the KDB 447498:

The maximum peak radiated emission for the EUT is 81.1 dB μ V/m at 3m in the frequency 2402MHz.

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = -14.13dBm
which is within the production variation.

The minimum peak radiated emission for the EUT is 80.6 dB μ V/m at 3m in the frequency 2480MHz.

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = -14.63dBm
which is within the production variation.

The maximum conducted output power specified is -9.0dBm = 0.13mW

The source-based time-averaging conducted output power
= 0.13 * Duty factor mW (where Duty Factor \leq 1)
= 0.13 mW

The SAR Exclusion Threshold Level:

= 3.0 * (min. test separation distance, mm) / sqrt(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.