

INTERTEK TESTING SERVICES

Radiofrequency radiation exposure evaluation

The equipment under test (EUT) is a Laser distance meter/ DWHT78200 with Bluetooth 5.1 (single-mode) function operating in 2402-2480MHz. The EUT is powered by DC 3.7V 1500mAh, 5.55Wh from battery. For more detailed features description, please refer to the user's manual.

Type of Modulation: GFSK (BLE support 1M and 2M), Bluetooth Version: 5.1
Antenna Type: 2.4G Bluetooth Ceramic Antenna, Antenna Gain: Max. 0.32 dBi

The nominal radiated output power (e.i.r.p) specified: 0.32dBm (tolerance: ± 1 dB).
The nominal conducted output power specified: 0dBm (tolerance: ± 1 dB).

According to the KDB 447498 V06:

The Maximum peak conducted output power for the EUT is -0.11 dBm in
the frequency 2402MHz for BLE 1M
which is within the production variation.

The Minimum peak conducted output power for the EUT is -0.27 dBm in
the frequency 2480MHz for BLE 1M
which is within the production variation.

The Maximum peak conducted output power for the EUT is -0.14 dBm in
the frequency 2402MHz for BLE 2M
which is within the production variation.

The Minimum peak conducted output power for the EUT is -0.33 dBm in
the frequency 2480MHz for BLE 2M
which is within the production variation.

The maximum conducted output power specified is 1dBm= 1.259mW
The source- based time-averaging conducted output power
=1.259mW

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.