

INTERTEK TESTING SERVICES

RF Exposure

The equipment under test (EUT) is a AR BOW with Bluetooth function. The EUT was powered by DC 3V (2 x 1.5V "AAA" battery). For more detail information pls. refer to the user manual.

Modulation Type: GFSK.

Bluetooth Version: 4.2 BLE (single mode).

Antenna Type: Integral antenna.

Antenna Gain: 1.5dBi.

The nominal conducted output power specified: 2.5dBm (+/- 3dB)

The nominal radiated output power (e.i.r.p) specified: 4dBm (+/- 3dB)

According to the KDB 447498:

The maximum peak radiated emission for the EUT is 101.8dB μ V/m at 3m in the frequency 2480MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = 6.6dBm
which is within the production variation.

The minimum peak radiated emission for the EUT is 100.9dB μ V/m at 3m in the frequency 2440MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = 5.7dBm
which is within the production variation.

The maximum conducted output power specified is 5.5dBm = 3.5mW

The source- based time-averaging conducted output power
= 3.5 * Duty factor mW (where Duty Factor \leq 1)
= 3.5 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.