

INTERTEK TESTING SERVICES

RF Exposure

The equipment under test (EUT) is a MEKAMONBERSERKER-BLK-USA (SKU:MB-BLK-US-01) with Bluetooth function operated at 2.4GHz band. The EUT is powered by DC 11.1V (1 x 11.1V rechargeable battery). It can't use Bluetooth function while charging. For more detail information pls. refer to the user manual.

Modulation Type: GFSK

Bluetooth Version: 4.0 BLE(single mode)

Antenna Type: Integral antenna.

Antenna Gain: 0dBi.

The nominal conducted output power specified: -16.0dBm (+/-3dB).

The nominal radiated output power (e.i.r.p) specified: -16.0dBm (+/- 3dB)

According to the KDB 447498:

The maximum peak radiated emission for the EUT is 80.1dBμV/m at 3m in the frequency 2402MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = -15.13dBm
which is within the production variation.

The minimum peak radiated emission for the EUT is 78.1dBμV/m at 3m in the frequency 2480MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = -17.13dBm
which is within the production variation.

The maximum conducted output power specified is -13dBm = 0.05mW

The source- based time-averaging conducted output power
= 0.05 * Duty factor mW (where Duty Factor ≤ 1)
= 0.05 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.