

INTERTEK TESTING SERVICES

RF Exposure

The equipment under test (EUT) is a Wireless Presenter with Bluetooth and 2.4G SRD function operated at 2.4GHz band while Bluetooth and 2.4G SRD function can't be used at the same time. The EUT is powered by DC 1.5V by AAA battery. For more detail information pls. refer to the user manual.

Bluetooth Version: 4.2 (Single Mode BLE)

Modulation Type: GFSK

Antenna Type: Integral antenna.

Antenna Gain: -1dBi.

The nominal conducted output power specified: -1dBm (+/-3dB).

The nominal radiated output power (e.i.r.p) specified: -2dBm (+/- 3dB).

According to the KDB 447498:

The maximum peak radiated emission for the EUT is 92.8dB μ V/m at 3m in the frequency 2402MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = -2.43dBm
which is within the production variation.

The minimum peak radiated emission for the EUT is 91.8dB μ V/m at 3m in the frequency 2440MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = -3.43dBm
which is within the production variation.

The maximum conducted output power specified is 2dBm = 1.6mW

The source-based time-averaging conducted output power
= 1.6 * Duty factor mW (where Duty Factor \leq 1)
= 1.6 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.

2.4G SRD:

Modulation Type: GFSK

Antenna Type: Integral antenna.

Antenna Gain: -1dBi.

The nominal conducted output power specified: -1dBm (+/-3dB).

The nominal radiated output power (e.i.r.p) specified: -2dBm (+/- 3dB).

According to the KDB 447498:

The maximum peak radiated emission for the EUT is 93.6dB μ V/m at 3m in the frequency 2404MHz

The EIRP = $[(FS * D)^2 / 30]$ mW = -1.63dBm
which is within the production variation.

The minimum peak radiated emission for the EUT is 91.2dB μ V/m at 3m in the frequency 2478MHz

The EIRP = $[(FS * D)^2 / 30]$ mW = -4.03dBm
which is within the production variation.

The maximum conducted output power specified is 2dBm = 1.6mW

The source-based time-averaging conducted output power

= 1.6 * Duty factor mW (where Duty Factor \leq 1)

= 1.6 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.