

INTERTEK TESTING SERVICES

RF Exposure

1. Client Information

Applicant: Seiko Epson Corporation
3-3-5 Owa Suwa-shi Nagano-Ken 392-8502, Japan

2. EUT General Information

Description of EUT: REMOTE CONTROLLER

Type Number (s): B064E-02-W7

Brand Name(s): EPSON

Bluetooth Version: 5.0 BLE (Single Mode)

Operation Frequency: 2402-2480MHz

Modulation: GFSK

Antenna Type: PCB Antenna

Antenna Gain: 1.92dBi

Number of Channel 40

Rated Voltage: DC 3.0V from 2*AAA battery

Note: For more detail information pls. refer to the user manual.

RF Exposure

3. Calculation method

The nominal conducted output power specified: 0.0 dBm (± 2 dB)

The nominal radiated output power (e.i.r.p) specified: 1.92 dBm (± 2 dB)

According to the test report 240326067SZN-001:

The maximum conducted output power for the EUT is 1.35dBm in the frequency 2.402GHz which is within the production variation.

The minimum conducted output power for the EUT is 1.18dBm in the frequency 2.440GHz which is within the production variation.

According to the KDB 447498 V07:

The maximum conducted output power specified is	2.0dBm=	1.585mW
The maximum radiated output power specified is	3.92dBm=	2.466mW

The SAR Exclusion Threshold Level:

$$\begin{aligned} P_{th}(\text{mW}) &= ERP_{20\text{cm}} * (d/20\text{cm})^x \quad \left(X = -\log_{10} \left(\frac{60}{ERP_{20\text{cm}} \sqrt{f}} \right) \right) \\ &= 3060 * (0.5/20)^{1.9} \text{ mW} \\ &= 2.72 \text{ mW} \end{aligned}$$

Since max. conducted output power and effective radiated power (ERP) is well below the SAR low threshold level, so the EUT is considered to comply with SAR requirement without testing.

Note: EIRP is higher than ERP, thus ERP is compared with the Exclusion Threshold.