

1. RF Exposure Requirements

1.1 General Information

Client Information

Applicant: ZEROMOUSE PTY LTD
Address of applicant: Unit 17 / 2 Indigo Loop, Yallah, NSW, 2530, Australia

Manufacturer: ZEROMOUSE PTY LTD
Address of manufacturer: Unit 17 / 2 Indigo Loop, Yallah, NSW, 2530, Australia

General Description of EUT:

Product Name: Zeromouse Blade
Trade Name: /
Model No.: BLADE
Adding Model(s): /
Rated Voltage: Charging port:DC5V
Battery:DC3.87V
Battery Capacity: 250mAh
Power Adapter: /
FCC ID: 2BVY7-BLADEII
Equipment Type: Portable device

Technical Characteristics of EUT:

Bluetooth

Bluetooth Version: V5.0 (LE mode)
Frequency Range: 2402-2480MHz
RF Output Power: 4.38dBm (Conducted)
Data Rate: 1Mbps
Modulation: GFSK
Quantity of Channels: 40
Channel Separation: 2MHz
Type of Antenna: Ceramic chip Antenna
Antenna Gain: 1.5dBi

1.2 RF Exposure Exemption

According to the KDB 447498 D01 v06 section 4.3.1, for 100 MHz to 6 GHz and test separation distances ≤ 50 mm, the 1-g and 10-g SAR test exclusion thresholds are determined by the following:

$$\left[\frac{\text{max. power of channel, including tune-up tolerance, mW}}{\text{min. test separation distance, mm}} \right] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0 \text{ for 1-g SAR and } \leq 7.5 \text{ for 10-g extremity SAR, where}$$

- $f(\text{GHz})$ is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation¹⁷
- The result is rounded to one decimal place for comparison

1.3 Calculated Result

Bluetooth

Tx frequency range: 2402-2480MHz

Min. test separation distance: 5mm

Maximum Conducted Output Power: 4.38dBm

Tune-Up output power: 5.0dBm

RF channel transmit frequency: 2480MHz

Result: 1.0

Limit: 3.0

So the transmitter complies with the RF exposure requirements and the SAR is not required.