

Product Name: 2.4GHz Wireless Gaming Mouse

Model Number: X100

FCCID: OO9X100

RADIO FREQUENCY EXPOSURE COMPLIANCE RESULT :

PASS Test standard : According to 447498 D01 General RF Exposure Guidance v05

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

$$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot [f(\text{GHz})] \leq 3.0 \text{ for 1-g SAR and } \leq 7.5 \text{ for 10-g extremity SAR, where}$$
$$f(\text{GHz}) \text{ is the RF channel transmit frequency in GHz}$$

Power and distance are rounded to the nearest mW and mm before calculation

The result is rounded to one decimal place for comparison

$$\text{eirp} = \text{pt} \times \text{gt} = (\text{EXd})^2/30$$

where:

pt = transmitter output power in watts,

gt = numeric gain of the transmitting antenna (unitless),

E = electric field strength in V/m, --- $10^{((\text{dBuV/m})/20)}/10^6$

d = measurement distance in meters (m)---3m

$$\text{So pt} = (\text{EXd})^2/30 \times \text{gt}$$

Field strength =89.21dBuV/m @3m

Ant gain =0dBi

$$\text{So pt} = \{ [10^{(89.21/20)}/10^6 \times 3]^2/30 \times 1 \} \times 1000 \text{ mW} = 0.2501 \text{ mW}$$

$$\text{So } (0.2501 \text{ mW}/5\text{mm}) \times \sqrt{2.402} = 0.050 < 3$$

Then SAR evaluation is not required