

# Radio Frequency Exposure

## EUT INFORMATION

|                                   |                                                                                                                                                                                                                                |
|-----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>EUT</b>                        | Mouse                                                                                                                                                                                                                          |
| <b>FCC ID</b>                     | 2A9L8-XESWL                                                                                                                                                                                                                    |
| <b>Frequency band (Operating)</b> | 2.402~2.480 GHz                                                                                                                                                                                                                |
| <b>Antenna diversity</b>          | <input checked="" type="checkbox"/> Single antenna<br><input type="checkbox"/> Multiple antennas<br><input type="checkbox"/> Tx diversity<br><input type="checkbox"/> Rx diversity<br><input type="checkbox"/> Tx/Rx diversity |
| <b>Field strength</b>             | 87.69 dBuV/m @3m                                                                                                                                                                                                               |
| <b>Antenna gain (Max)</b>         | 5.3 dBi                                                                                                                                                                                                                        |

## TEST RESULT

According to KDB 447498 D01 v06 section 4.3.1, the 1-g SAR test exclusion thresholds at test separation distance  $\leq 50$  mm are determined by:

The min. test separation distance (mm) is 5 mm,

$$\text{eirp} = \text{pt} \cdot \text{gt} = (\text{E} \cdot \text{d})^2 / 30$$

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

$$\text{So pt} = (\text{E} \cdot \text{d})^2 / (30 \cdot \text{gt})$$

Ant. numeric gain, Ant. = 5.3 dBi = 3.39

$$\text{So pt} = \{ [10^{(87.69/20)} / 10^6 \cdot 3]^2 / (30 \cdot 3.39) \} \cdot 1000 = 0.052 \text{ mW}$$

$$\text{So } (0.052 \text{ mW} / 5 \text{ mm}) \cdot \sqrt{2.402 \text{ GHz}} = \mathbf{0.016} < 3.0 \text{ for 1-g SAR}$$

Therefore, standalone SAR measurements are not required for both head and body.

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