

12 RF EXPOSURE

12.1 Standard Applicable

According to §2.1093 this is a Portable device.

For The radiation source included into the device the output power is taken from a corresponding RF test report. If needed the output power is converted to source based, time –average out power. Finally the output power is compared to FCC low power SAR evaluation exemption level.

FCC SAR test exclusion:

According to KDB 447498 D01 V5, Appendix A: SAR Test Exclusion Thresholds for 100 MHz – 6 GHz and ≤ 50 mm, the thresholds power level is 10mW (10dBm) at 5 mm.

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

$$\frac{\text{max. power of channel [mW]}}{\text{min. test separation distance [mm]}} \cdot \sqrt{f[\text{GHz}]} \leq \begin{cases} 3.0 & 1g \text{ SAR} \\ 7.5 & 10g \text{ SAR} \end{cases}$$

- f [GHz] 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

12.2 Measurement Result:

The Measured Max. peak output power is 7.81dBm (6.04 mW) , which is lower than the threshold power level 10 mW (24.48mW) at 5mm (KDB 447498 D01 V5, Appendix A) in general population category.

The SAR measurement is not necessary.