

12. Appendix C - General Product Information

Radiofrequency radiation exposure evaluation

According to KDB 447498 D01v06 section 4.3.1, For frequencies between 100 MHz to 6GHz and test separation distances ≤ 50 mm, the Numeric threshold is determined as:

Step a)

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

>> The fundamental frequency of the EUT is 2402-2480MHz,
 the test separation distance is ≤ 50 mm.
 (Manufacturer specified the separation distance is: 20mm)

Step a)

>> Numeric threshold (2402MHz), $\text{mW} / 20\text{mm} \cdot \sqrt{2.402\text{GHz}} \leq 3.0$
 Numeric threshold (2402MHz) $\leq 38.713\text{mW}$

>> Numeric threshold (2440MHz), $\text{mW} / 20\text{mm} \cdot \sqrt{2.440\text{GHz}} \leq 3.0$
 Numeric threshold (2440MHz) $\leq 38.411\text{mW}$

>> Numeric threshold (2457MHz), $\text{mW} / 20\text{mm} \cdot \sqrt{2.457\text{GHz}} \leq 3.0$
 Numeric threshold (2457MHz) $\leq 38.278\text{mW}$

>> Numeric threshold (2480MHz), $\text{mW} / 20\text{mm} \cdot \sqrt{2.480\text{GHz}} \leq 3.0$
 Numeric threshold (2480MHz) $\leq 38.100\text{mW}$

>> The power of EUT measured (2402MHz) is: $-0.85\text{dBm} = 0.822\text{mW}$
 The power of EUT measured (2440MHz) is: $-0.17\text{dBm} = 0.961\text{mW}$
 The power of EUT measured (2457MHz) is: $-5.67\text{dBm} = 0.271\text{mW}$
 The power of EUT measured (2480MHz) is: $0.34\text{dBm} = 1.081\text{mW}$

Which is smaller than the Numeric threshold.

Therefore, the device is exempt from stand-alone SAR test requirements.