



47173 Benicia Street  
Fremont, CA 94538  
Tel: 510-771-1000  
Fax: 510-661-0888

### **SAR Exemption per KDB 447498 D01 v05r01**

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz, as described in KDB 447498 section 4.3.1, at test separation distances  $\leq 50$  mm are determined by: [(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 and  $\leq 7.5$  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 calculation
- The result is **rounded to one decimal** place for comparison

The test exclusions are applicable only when the minimum test separation distance is  $\leq 50$  mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is  $< 5$  mm, a distance of 5 mm is applied to determine SAR test exclusion.

For small devices and for devices used close to the body the enclosure-to-person separation distance is used rather than the antenna-to-person separation distance.

For this device:

- $f = 2.44$  GHz
- distance = 0 mm with the device in direct contact with the skin (so 5 mm is used in the calculation)
- the maximum output power declared by the manufacturer is 1.96dBm = 1.6mW (so 2 mW is used in the calculation)

The calculated value =  $[ 2 / 5 ] \cdot \sqrt{2.44} = \underline{\underline{0.62}}$

As this is below 3.0, the device is excluded from SAR evaluation for extremity and body exposure conditions.