

According to 447498 D01 General RF Exposure Guidance

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

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

-- $f(\text{GHz})$  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

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

where:

$\text{pt}$  = transmitter output power in watts,

$\text{gt}$  = numeric gain of the transmitting antenna (unitless),

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

$d$  = measurement distance in meters (m)  $\text{---}3\text{m}$

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

$$\text{Field strength} = 98.05\text{dBuV/m} @ 3\text{m}$$

$$\text{Ant gain} = 0.00\text{dBi, so Ant numeric gain} = 1.00$$

$$\text{So } \text{pt} = \{ [10^{(98.05/20)/10^6} \times 3]^2 / 30 \times 1 \} \times 1000 \text{ mW} = 1.915\text{mW}$$

$$\text{So } (1.915\text{mW} / 5\text{mm}) \times \sqrt{2.480} = 0.603 < 3$$

$$\text{So } \text{pt} = \{ [10^{(81.21/20)/10^6} \times 3]^2 / 30 \times 1 \} \times 1000 \text{ mW} = 0.04 \text{ mW}$$

$$\text{So } (0.04 \text{ mW} / 5\text{mm}) \times \sqrt{0.0747} = 0.0022 < 3$$

$$0.603 + 0.0022 = 0.6052 < 3$$

Then SAR evaluation is not required