

According to 447498 D01 General RF Exposure Guidance v05

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

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

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

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

Field strength = 99.28dBuV/m @3m

Ant gain =2dBi, so Ant numeric gain= 1.58

So pt={ $[10^{(99.28/20)}/10^6 \times 3]^2/30 \times 1.58$ }x1000 mW =1.61mW

So $(1.61\text{mW} / 5\text{mm}) \times \sqrt{2.415} = 0.5 < 3$

Then SAR evaluation is not required