

According to 447498 D01 General RF Exposure Guidance v06

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

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

--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

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

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

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

Ant gain = 0.0dBi, so Ant numeric gain= 1.00

2.4G WiFi:

Maximum peak output power=9.52dBm=8.954mw

So pt=8.954*1.00 =8.954mW

So $(8.954\text{mW} / 5\text{mm}) \times \sqrt{2.412} = 2.781 < 3.0$

5.1G WiFi:

Maximum peak output power=7.56dBm=5.702mw

So pt=5.702*1.00 =5.702mW

So $(5.702\text{mW} / 5\text{mm}) \times \sqrt{5.2} = 2.601 < 3.0$

5.8G SRD:

Maximum peak output power=7.32dBm=5.395mw

So pt=5.395*1.00 =5.395mW

So $(5.395\text{mW} / 5\text{mm}) \times \sqrt{5.825} = 2.604 < 3.0$

Then SAR evaluation is not required