# RF Exposure evaluation

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 ≤ 50 mm are determined by:
[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] •[√f(GHz)] ≤ 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

$eirp = pt \times gt = (EXd)^2/30$
where:
pt = transmitter output power in watts,
gt = numeric gain of the transmitting antenna (unitless),
E = electric field strength in V/m, --- $10^{((dBuV/m)/20)}/10^6$
d = measurement distance in meters (m)---3m
So $pt = (EXd)^2/30 \times gt$

Ant gain 0dBi ;so Ant numeric gain=1

Field strength = 98.16 dBuV/m @3m
So Pt={ $[10^{(98.16\ /20)}/10^6\ \ x3]^2/30x1$ }x1000 mW = 1.964 mW

So ( 1.964 mW/5mm)x √2.480 GHz = 0.62 < 3

Then SAR evaluation is not required