RF Exposure evaluation

According to KDB 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 $\leqslant$ 50 mm are determined

by:
[(max. power of channel, including tune-up tolerance,

mW)/(min. test separation distance, mm)] • [$\sqrt{f(GHz)}$] $\leqslant$ 3.0

for 1-g SAR and $\leqslant$ 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 x gt = $(E X d)^2/30$
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 = $(E X d)^2/30$ x gt

Field strength =81.78dBuV/m @3m
Ant gain 2dBi; so Ant numeric gain=1.58

So pt={[$10^{(81.78/20)}/10^6$ x3]^2/30x1.58}x1000 mW = 0.0286mW
So (0.0286mW/5mm)x $\sqrt{0.9168}$ GHz = 0.005<3

Then SAR evaluation is not required