RF exposure evaluation

According to 447498 D01 General RF Exposure Guidance v05r02 Mobile and Portable Devices RF Exposure Procedures and Equipment Authorization Policies

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)] · [$\sqrt{f(GHz)}$] ≤ 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

Worse case for 2.4G Tx as below:
Field strength = 68.66 dBuV/m @3m (highest channel=2470MHz)
So Pt={[10^(68.66/20)/10^6x3]^2/30}x1000 mW = 0.0022035 mW
(0.0022035 mW /5mm) •[√2.470(GHz)]=0.0007 <3 for 1-g SAR