424611 RF Exposure Technical Brief

FCC 47 CFR 2.1093 SAR Exclusion Calculation

As per FCC KDB 447498 D01 General RF Exposure Guidance DR03-41372

Maximum conducted output power measured plus tolerance of 1dB (dBm)	Maximum conducted output power, tolerance included (mW)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	Worst Possible Duty Cycle (%)	EIRP Duty Cylce Corrected (mW)	d Separation Distance (cm)	d Separation Distance (mm)	S Power Density (mW/cm^2)	S Power Density (W/m^2)	Frequency (GHz)	(100 MHz to 6 GHz) 1-g SAR Exclusion Threshold Applies only if: d <= 50mm) <= 3.0	SAR Testing Exclusion
-3.32	0.5	1.3616	-1.9584	0.64	45.8	0.292	0.5	5	0.093	0.93	2.45	0.146	No SAR

The below calculation are performed using the formula below.

a) For 100 MHz to 6 GHz and *test separation distances* $\leq$ 50 mm, the 1-g and 10-g *SAR test exclusion thresholds* are determined by the following:

$[$*(max. power of channel, including tune-up tolerance, mW)* / *(min. test separation distance, mm)*$]$ · $[\sqrt{f_{(GHz)}}] \leq 3.0$ for 1-g SAR, and ≤ 7.5 for 10-g extremity SAR,[30] where

- $f_{(GHz)}$ is the RF channel transmit frequency in GHz