

## RF exposure evaluation

### §2.1093 Radiofrequency radiation exposure evaluation: Portable Devices.

**According to §15.247(i) and §1.1307b(1), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the commission's guidance.**

The 1-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances  $\leq$  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, where

- $f(\text{GHz})$  is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- When the minimum test separation distance is  $< 5$  mm, a distance of 5 mm according is applied to determine SAR test exclusion.
- The result is rounded to one decimal place for comparison

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Test Mode	Channel	Frequency (GHz)	Max. Power (dBm)	Tune up Power (dBm)	Max. Tune up Power (dBm)	Max. Tune up Power (mW)	Test distance (mm)	Result	exclusion thresholds for 1-g SAR	
GFSK	CH 01	2.402		4.0±1	5.0	3.16	5	1.00	3.0	
	CH 40	2.441						0.63		
	CH 79	2.480								
$\pi/4$ -DQPSK	CH 01	2.402		2.0±1	3.0	2.00	5	0.63	3.0	
	CH 40	2.441								
	CH 79	2.480								
8DPSK	CH 01	2.402		2.0±1	3.0	2.00	5	0.63	3.0	
	CH 40	2.441								
	CH 79	2.480								

#### Result:

Base on the calculation value, No SAR measurement is required.