

* RF Exposure

1. Regulation

According to §15.247(i), 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 levels in excess of the Commission's guidelines. See § 1.1307(b)(1) of this Chapter.

KDB447498 was used as the guidance.

According to §1.1310 and §2.1093 RF exposure is calculated.

1.1 Result

Test frequency [GHz]	Conducted output power [dBm]	Conducted output power [mW]	Min. test separation distance [mm]	SAR test exclusion thresholds ≤ 3.0 for 1-g SAR
2.402	0.5	1.12	5	0.35

1. SAR test exclusion thresholds

$$= [(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] \cdot [\sqrt{f(GHz)}]$$

$$= [(2.82)/(5)] \cdot [\sqrt{2.480}] = 0.87$$

Mode	Target power [dBm]	Allowed tolerant [dB]	Max tune up power [dBm]	Measured Average power [dBm]
GFSK	0	±0.5	0.5	0.42
$\pi/4$ DQPSK	-1.5	±0.5	-1	-1.16
8DPSK	-1.5	±0.5	-1	-1.11

1.2 RF Exposure Compliance Issue

Therefore, EUT is not required the SAR Evaluation.