

RF Exposure Considerations for FCC ID: ZBW-MPHAC001B

Per FCC KDB 447498 D01 General RF Exposure Guidance v06

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 (Eq.1) below:

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

If result of Eq.1 is less than or equal to the exemption limits below, then corresponding SAR test is not required.

SAR Test Configuration	Exemption limit
1-g SAR	Result of Eq.1 ≤ 3.0
10-g extremity SAR	Result of Eq.1 ≤ 7.5

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.

The test exclusions are applicable only when the minimum *test separation distance* is ≤ 50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum *test separation distance* is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.

For our device, the parameters for consideration are as follows:

E (dBuV/m)	E (V/m)	d (m)	G (Numeric Gain)	P (mW)	P (dBm)
63.7	0.00153109	3.0	1	0.00070326864	-31.53

Frequency (MHz)	Maximum source-based time averaged conducted output power or EIRP (worst case) including tune-up tolerance		Minimum separation distance (mm)	Limit for 1-g SAR (mW)	Verdict	Limit for 10-g SAR (mW)	Verdict
	(dBm)	(mW)					
13,560	-31,53	0,00	5	414,96	Exempt from SAR	1079,42	Exempt from SAR

Conclusion: Therefore, our device complies with FCC's RF radiation exposure limits for general population without SAR evaluation.