

MPE REPORT

**Prediction of MPE Limit
 47 CFR § 2.1091/ § 2.1093**

$$S_{20} = \frac{P_A G_N}{4\pi R_{20}^2} \quad S_C = \frac{P_A G_N}{4\pi R_C^2} \quad R_C = \sqrt{\frac{P_A G_N}{4\pi S_L}}$$

$$S_L = \frac{180}{f^2} \text{ (mW/cm}^2\text{)}$$

- S₂₀** = Power Density of the Device at 20cm
- S_L** = Power Density Limit
- S_C** = Power Density of the Device at the Compliance Distance R_C
- R₂₀** = 20cm
- R_C** = Minimum Distance to the Radiating Element to Meet Compliance
- P_T** = Power Input to Antenna
- P_A** = Adjust Power
- G_N** = Numeric Gain of the Antenna
- f** = Transmit Frequency

Transmit Duty Cycle = 75%

Use Group = General Population

Transmit Duty Cycle:	75.00	(%)
Tx Frequency (f):	27.40	(MHz)
RF Power at Antenna Input Port (P _T):	4000.00	(mW)
Antenna Gain:	3.00	(dBi)
Numeric Antenna Gain (G _N):	2.00	(numeric)
Cable or Other Loss:	0.00	(dB)
Duty Cycle/Loss Adjusted Power (P _A):	3000.00	(mW)

S _L =	0.240	(mW/cm ²)
S ₂₀ at 20cm =	1.191	(mW/cm ²)
R _C =	44.6	(cm)
S _C =	0.24	(mW/cm ²)

User's Manual must indicate a minimum separation distance of: **45cm**

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Note: This device is capable of operating in a mobile/fixed application as well as a portable application. This MPE report addresses the RF Exposure for the mobile/fixed use case. A separate SAR report accompanying this application address the RF Exposure for the Portable use case.

Note: The MPE calculations differ between the FCC and ISED. The ISED calculations yield a more conservative separation distance of 53cm and this is the reported separation distance.