

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

$$S_{20} = \frac{P_A G_N}{4\pi R_{20}^2}$$

$$S_C = \frac{P_A G_N}{4\pi R_C^2}$$

$$R_C = \sqrt{\frac{P_A G_N}{4\pi S_L}}$$

$$S_L = \frac{f}{1500} \text{ (mW/cm}^2\text{)}$$

$S_{20}$  = Power Density of the Device at 20cm

$S_L$  = Power Density Limit

$S_C$  = Power Density of the Device at the Compliance Distance  $R_C$

$R_{20}$  = 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 = 100%**

**Use Group = General Population**

|   |        |           |
|---|--------|-----------|
| Transmit Duty Cycle:                      | 100.00 | (%)       |
| Tx Frequency (f):                         | 912.00 | (MHz)     |
| RF Power at Antenna Input Port ( $P_T$ ): | 1.00   | (mW)      |
| Antenna Gain:                             | 0.00   | (dBi)     |
| Numeric Antenna Gain ( $G_N$ ):           | 1.00   | (numeric) |
| Cable or Other Loss:                      | 0.00   | (dB)      |
| Duty Cycle/Loss Adjusted Power ( $P_A$ ): | 1.00   | (mW)      |

|                    |        |                       |
|--------------------|--------|-----------------------|
| $S_L$ =            | 0.608  | (mW/cm <sup>2</sup> ) |
| $S_{20}$ at 20cm = | 0.0002 | (mW/cm <sup>2</sup> ) |
| $R_C$ =            | 0.4    | (cm)                  |
| $S_C$ =            | 0.61   | (mW/cm <sup>2</sup> ) |

FCC ID: 2AFJT-11400A

RESULT: PASS