



5473A Clouds Rest Road : Mariposa, CA 95338 : Phone 209-966-5420 : Fax 209-742-6133

FCC 1.1310(b), Maximum Permissible Exposure Calculations RSS133 Sun clause 8 Exposure of Humans to RF Field

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Calculations prepared for:

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Model Number: T5204e, T5304e
FCC Identification: E5AAN2RFID

Fundamental Operating Frequency: 902-928 MHz

Maximum Rated Output Power: 0.850 Watt
Measured Output Power: 0.205 watts

MPE Limit in accordance with 1.1310(b): Limits for general population/uncontrolled exposure

MPE Limit for 902-928 MHz = $915/1500 \text{ mW/cm}^2 = 0.61 \text{ mW/cm}^2 (6 \text{ W/m}^2)$

Power Output (Watts)	Power Density Limit (mW/cm ²)	Minimum Distance (Meters)
0.205	0.61	0.04

$$\text{Power Density (W/m}^2\text{)} = \frac{30 \times P_t \times G}{d^2 \times Z_0}$$

P_t = Power Delivered to the Antenna
 d = Distance in meters

G = Antenna Gain
 Z_0 = Impedance of Free Space

The antennas to be used with the EUT are mounted in the EUT's enclosure which under normal operation has an a protected distance of 0.5 meter from the user As can be seen from the MPE result, this device passes the limit specified in 1.1310 at a distance of 0.04 meter.

Calculation:

$$d = \sqrt{\frac{30 \times 0.205 \times 1}{10 \times 377}}$$

= 0.04 meter.