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## Maximum Permissible Exposure Calculations

Date of Report: 12/15/06

Calculations prepared for:

*Powerwave Technologies*  
1801 E. St. Andrew Place  
Santa Ana, CA 92705

Model Number: RH300020/110  
FCC Identification: NA

Fundamental Operating Frequency:

Maximum Rated Output Power:  
Measured Output Power:

Calculations prepared by:

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1930-1990 MHz

20 Watts  
20 Watts

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

MPE Limit for 1930-1990 MHz = 1 mW/cm<sup>2</sup> (10 W/m<sup>2</sup>)

Power Output (Watts)	Power Density Limit (mW/cm <sup>2</sup> )	Minimum Distance (Meters)
<b>20</b>	<b>1</b>	<b>0.4</b>

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

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

$G$  = Antenna Gain  
 $Z_0$  = Impedance of Free Space

The typical antennas to be used with the EUT are structure mount antennas which under normal operation has an antenna height of at least 5 meters. As can be seen from the MPE result, this device passes the limit specified in 1.1310 at a distance of 0.4 meter.

Calculation:

$$d = \sqrt{\frac{30 \times 20 \times 1}{10 \times 377}}$$

= 0.4meter.