



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

Maximum Permissible Exposure Calculations

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Calculations prepared for:

Calculations prepared by:

IP Mobile Net

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Dustin Oaks

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Mariposa, CA 95338

Model Number: IP8HPV
FCC Identification: MI7-IPMNIP8

Fundamental Operating Frequency: 806MHz - 821MHz

Maximum Rated Output Power: 16.00 Watts
Measured Output Power: 15.85 Watts

Power Output and Operating Frequency Information used for these calculations were from:
Garwood Laboratories, Test Report # FR1744-E

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

$$\text{MPE Limit} = f/1500, \text{ where } f = \text{Frequency in MHz}$$

$$\text{MPE Limit for 806 MHz} = 806/1500 = \mathbf{0.5373\text{mW/cm}^2}$$

$$\text{MPE Limit for 821 MHz} = 821/1500 = \mathbf{0.5473\text{mW/cm}^2}$$

Power Output (Watts)	Distance (Meters)	V/M	Power Density (mW/cm ²)	Result
15.85	0.5	43.62	0.504	PASS
16.0	0.5	43.82	0.5093	PASS

$$\text{Power Density (W/M}^2\text{)} = (30 * P_t * G) / (d^2 * Z_o)$$

P_t = Power Delivered to the Antenna

G = Antenna Gain

d = Distance in meters

Z_o = Impedance of Free Space

Under normal operating conditions, the antenna is designed to maintain a separation distance of 2 meters from all persons. As can be seen from the MPE results, this device passes the limits specified in 1.1310 at a distance of 50cm and at the rated output power of 16 Watts.