

## **SPB820P MPE Limit Calculation**

Equation from OET Bulletin 65, Edition 97-01

$$S = \frac{PG}{4\pi R^2}$$

where: S = power density

P = power input to the antenna

G = power gain of the antenna in the direction of interest relative to an isotropic radiator

R = distance to the center of radiation of the antenna

Maximum peak output power at device output terminal: 22,4 dBm

Cable and Jumper loss: 0,00 dB

Maximum peak output power at antenna input terminal: 22,4 dBm

173,7800829 mW

Single Antenna gain (typical): 3,50 dBi

Number of Antennae: 1

Total Antenna gain (typical): 3,50 dBi

2,238721139 (numeric)

Prediction distance: 20 cm

Prediction frequency: 2437 MHz

MPE limit for uncontrolled exposure at prediction frequency: 1 mW/cm<sup>2</sup>

Power density at prediction frequency: 0.008123 mW/cm2 0,077398 mW/cm<sup>2</sup>

0,773981 W/m<sup>2</sup>

Tx On time: 1,00 ms
Tx period time: 1,00 ms
Average Factor: 100%

Average Power density at prediction frequency: 0,773981 W/m<sup>2</sup>

Gain at limit: 14,61269855 dBi

Margin of Compliance: 11,11 dB