

## RF Exposure

This calculation is based on the highest EIRP possible from the Remote or the Base considering maximum power and antenna gain. The following formulas were used:

The highest output power of the EUT is 154 mW Peak and 11.1 mW Average and the gain of the antenna is 0 dBi.

The the maximum total on time for any 100 mSec time period is 27 mSec. The peak to average factor is  $20 \cdot \log(27/100) = -11.4$  dB.

### 1 MINIMUM SEPARATION DISTANCE PER OET 65

The following information provides the minimum separation distance for the EUT, as calculated from **FCC OET 65 Appendix B, Table 1B** "Guidelines for General Population/Uncontrolled Exposure"

Freq. MHz	S GP limit mW/cm <sup>2</sup>	Maximum RF power dBm	Antenna Gain dB	EIRP dBm	EIRP watts	MSD d meters
2440	1	21.9	0	21.9	0.1549	0.0351

GP is the limit for general Population/Uncontrolled Exposure

MSD is the minimum Separation Distance

Notes on above table.

(S) GP limit is from OET 65 table 1B

EIRP = Power in dBm + Antenna Gain in dBi

MSD (Minimum Separation Distance) =  $((EIRP \cdot 30) / 3770 \cdot S)^{0.5}$

**NOTE: For fixed location transmitters, minimum separation distance is 20 cm, even if calculations indicate MPE distance is less**

### 2 RF EVALUATION FOR RSS-102E

Since the e.i.r.p. of the Product is 11 mW Average, it is exempt from routine SAR and RF exposure evaluations in accordance to Sections 2.5.1 or 2.5.2 of RSS-102e.

The following information provides the calculation for section 4.2 of RSS-102e for the General Public.

Freq. MHz	RF Power dBm	Antenna Gain dB	Effective RF power dBm	Measurment Distance meters	RF field from EUT V/m	Exposure GP limit V/m rms
2440	10.47	0	10.47	11.14	0.025	23.1

GP is the limit for general Public

Note on above table.

ERP =  $(V/m \cdot dist)^{2/30}$