

# RF Exposure

## CNTFAT1981AA

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 Effective output power of the EUT is less than 0.1 mW

### 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>	EIRP watts	MSD d meters
13.56	0.98	0.0001	0.0009

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 = Effective Radiated Power; this is Calculated from Radiated Emissions values

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

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

The threshold for a device operated within 2.5 cm from human body is  $60 / (f \text{ GHz}) = 60 / 0.01356 = 4425 \text{ mW}$   
Since this device has a power which is lower than 4425 mw, no SAR is required.

### 2 RF EVALUATION FOR RSS-102E

Since the EIRP of the Product is less than 0.1 mW 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	Effectiv RF pow mW	Measurment Distance meters	RF field from EUT V/m	Exposure GP limit V/m rms
13.56	0.10	0.002	28.0	28.0

GP is the limit for general Public

Note on above table.

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