

## §1.1307 (b) (3) &§2.1091 – RF EXPOSURE

### Applicable Standard

According to subpart 2.1091 systems operating under the provisions of this section shall be operated in a manner that ensures the public is not exposed to RF energy level in excess of the communication guidelines.

According to KDB 447498 D04 Interim General RF Exposure Guidance

MPE-Based Exemption:

General frequency and separation-distance dependent MPE-based effective radiated power(ERP) thresholds are in Table B.1 [Table 1 of § 1.1307(b)(1)(i)(C)] to support an exemption from further evaluation from 300 kHz through 100 GHz.

Table 1 to § 1.1307(b)(3)(i)(C) - Single RF Sources Subject to Routine Environmental Evaluation

RF Source frequency (MHz)	Threshold ERP (watts)
0.3-1.34	$1,920 R^2$ .
1.34-30	$3,450 R^2/f^2$ .
30-300	$3.83 R^2$ .
300-1,500	$0.0128 R^2 f$ .
1,500-100,000	$19.2R^2$ .

R is the minimum separation distance in meters  
f = frequency in MHz

### Result

Mode	Frequency Range (MHz)	★Tune up EIRP (dBm)	ERP		Evaluation Distance (m)	ERP Limit (W)
			(dBm)	(W)		
SRD	10503.5 –10541.3	7.5	5.35	0.00343	0.2	0.768

#### Note:

1. For the above tune up power were declared by the manufacturer.
2. Chose the maximum power to do RF exposure analysis.
3. This device maximum E-Field level is 102.32 dB $\mu$ V/m at 3m, so the EIRP power is 7.12 dBm.
4. EIRP (dBm)=Field Strength of Fundamental(dB $\mu$ V/m)-95.2 (dB)
5. ERP (dBm)= EIRP (dBm) -2.15(dB)

### Result: Compliance