

**6 MAXIMUM PERMISSIBLE EXPOSURE (MPE) CALCULATIONS**

The § 1.1310 Radiofrequency radiation exposure limits are listed in the table below.

	<b>Frequency Range (MHz)</b>	<b>Power Density Limit (mW/cm<sup>2</sup>)</b>
<b>Limits for Occupational/Controlled Exposures</b>	0.3-3.0	100
	3.0-30	900/ Frequency <sup>2</sup>
	30-300	1.0
	300-1500	Frequency/300
	1500-100,000	5.0
<b>Limits for General Population/Uncontrolled Exposure</b>	0.3-1.34	100
	1.34-30	180/Frequency <sup>2</sup>
	30-300	0.2
	300-1500	Frequency/1500
	1500-100,000	1.0

**6.1 Test Procedure**

The ERP and EIRP were measure in section 5, Radiated RF Power. The radiated RF power was used to calculate the maximum RF exposure at a 20 cm distance using the formula:

$$\text{Maximum RF Exposure at 20cm} = (\text{EIRP in mW}) / (4\text{Pi}(20\text{cm})^2)$$

If ERP was measured in section 5, a 2.15dB conversion factor was added to the reading to convert it to EIRP before applying the Maximum RF Exposure formula above. Once the Maximum RF Exposure calculations were complete the results were compared to the MPE limits above.

**6.2 Test Results**

The following table shows the Maximum RF Exposure from the SX5T Fixed Wireless Terminal at 20cm. The maximum exposure for the SX5T Fixed Wireless Terminal is 0.23 mW/cm<sup>2</sup> which is well below the limit at that frequency (0.565 mW/cm<sup>2</sup>)

<b>EUT Mode</b>	<b>TX Channel</b>	<b>Frequency (MHz)</b>	<b>Vertical ERP (dBm)</b>	<b>Horizontal ERP (dBm)</b>	<b>Vertical ERP (mW)</b>	<b>Horizontal ERP (mW)</b>	<b>ERP to EIRP Factor</b>	<b>Vertical Max. Exposure at 20cm (mW/cm<sup>2</sup>)</b>	<b>Horizontal Max Exposure at 20cm (mW/cm<sup>2</sup>)</b>
CDMA 800	384	836.52	26.89	23.17	488.65	207.49	2.15	0.16	0.07
CDMA 800	777	848.31	28.51	18.55	709.58	71.61	2.15	0.23	0.02
CDMA 800	1013	824.7	28.3	17.03	676.08	50.47	2.15	0.22	0.02
CDMA 1900	25	1851.25	29.93	19.02	984.01	79.80	0	0.20	0.02
CDMA 1900	600	1880	28.42	18.45	695.02	69.98	0	0.14	0.01
CDMA 1900	1175	1908.75	27.55	18.47	568.85	70.31	0	0.11	0.01