5   FCC §2.1091– RF Exposure

5.1   Applicable Standard

According to FCC §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

Limits for General Population/Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm^2)	Averaging Time (minutes)
Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	* (100)	30
1.34-30	824/f	2.19/f	* (180/f^2)	30
30-300	27.5	0.073	0.2	30
300-1500	/	/	f/1500	30
1500-100,000	/	/	1.0	30

   f = frequency in MHz
  * = Plane-wave equivalent power density

5.2   MPE Prediction

Predication of MPE limit at a given distance, Equation from OET Bulletin 65, Edition 97-01

$$S = PG/4\pi R^2$$

Where: S = power density
       P = power input to 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

5.3   MPE Results

BS1010:

Maximum peak output power at antenna input terminal (dBm):	44.30
Maximum peak output power at antenna input terminal (W):	26.915
Prediction distance (cm):	150
Prediction frequency (MHz):	218.5
Maximum Antenna Gain, typical (dBi):	0
Maximum Antenna Gain (numeric):	1
Power density of prediction frequency at 150 cm (mW/cm^2):	0.0951
MPE limit for uncontrolled exposure at prediction frequency (mW/cm^2):	0.2

FS4500:

Maximum peak output power at antenna input terminal (dBm):	44.91
Maximum peak output power at antenna input terminal (W):	30.974
Prediction distance (cm):	150
Prediction frequency (MHz):	218.5
Maximum Antenna Gain, typical (dBi):	0
Maximum Antenna Gain (numeric):	1
Power density of prediction frequency at 150 cm (mW/cm^2):	0.1095
MPE limit for uncontrolled exposure at prediction frequency (mW/cm^2):	0.2

The device compliances with FCC MPE limit at 150 cm distance.