

### 3. 6 RF Exposure Requirements

#### 3.6.1 Test Equipment

Please refer to section 6 this report.

#### 3.6.2 Limit

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environmental impact of human exposure to radio-frequency (RF) radiation as specified in 1.1307(b)(1) of this chapter.

TABLE 1—LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm <sup>2</sup> )	Averaging time (minutes)
<b>(A) Limits for Occupational/Controlled Exposures</b>				
0.3–3.0 .....	614	1.63	*(100)	6
3.0–30 .....	1842/f	4.89/f	*(900/f <sup>2</sup> )	6
30–300 .....	61.4	0.163	1.0	6
300–1500 .....	.....	.....	f/300	6
1500–100,000 .....	.....	.....	5	6
<b>(B) Limits for General Population/Uncontrolled Exposure</b>				
0.3–1.34 .....	614	1.63	*(100)	30
1.34–30 .....	824/f	2.19/f	*(180/f <sup>2</sup> )	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

NOTE 1 TO TABLE 1: Occupational/controlled limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure.

NOTE 2 TO TABLE 1: General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or can not exercise control over their exposure.

#### 3.6.3 Test Result

Evaluation of RF Exposure Compliance Requirements MPE Prediction of MPE according to OET Bulletin 65	
RF Exposure Requirements	Compliance with FCC Rules
<p><b>Calculation Method of RF Safety Distance:</b>  <math>S = PG/4\pi r^2 = EIRP/4\pi r^2</math></p> <p>Where:</p> <p>P: power input to the antenna in mW  EIRP: Equivalent (effective) isotropic radiated power.  S: power density mW/cm<sup>2</sup>  G: numeric gain of antenna relative to isotropic radiator  r: distance to centre of radiation in cm</p> <p><math>r = \sqrt{PG/4\pi S}</math></p>	<p><b>Power density</b>  <math>S = PG/4\pi r^2 = EIRP/4\pi r^2</math>  <math>= 0.964 \text{ mW/cm}^2</math>  R = 100cm</p> <p>Where:  Max Average Power = 1.92 W, f = 9410 MHz  Antenna gain = 18 dBi  EIRP = 121143.81 mW</p> <p>MPE limit for General Population/Uncontrolled exposure at prediction frequency: 1.0 mW/cm<sup>2</sup></p>