4   FCC §2.1091 - RF Exposure

4.1   Applicable Standards

According to §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/cm²)	Averaging Time (minute)
Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f²)	30
30-300	27.5	0.073	0.2	30
300-1500	/	/	f/1500	30
1500-100,000	/	/	1.0	30

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

4.2   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

4.3   Test Results

Maximum peak output power at antenna input terminal (dBm):	26.71
Maximum peak output power at antenna input terminal (mW):	468.813
Prediction distance (cm):	20
Prediction frequency (MHz):	1932.4
Antenna Gain, typical (dBi):	3
Maximum Antenna Gain (numeric):	1.995
Power density at predication frequency and distance (mW/cm²):	0.186
MPE limit for uncontrolled exposure at predication frequency (mW/cm²):	1.0

The device is compliant with the requirement MPE limit for uncontrolled exposure. The maximum power density at the distance of 20 cm is 0.186 mW/cm². Limit is 1.0 mW/cm². The percentage is 0.186/1= 18.6%. The total percentage is 18.6% (WWAN) + 4.55% (WLAN) = 23.15%.