RF exposure exhibit

FCC RF Exposure Requirements

General information:

FCCID: OW5BST1900
Modulation: CDMA
Device category: Mobile / Part 2.1091
Environment: General Population/Uncontrolled Exposure

Mobile devices that operate in the Personal Communication Service authorized under subpart H of part 22 and subpart E of part 24 are subject to routine environmental evaluation for RF exposure prior to equipment authorization or use if they operate at frequencies of 1.5 GHz or below and their effective radiated power (ERP) is 1.5 watts (2.46WEIRP) or more, or if they operate at frequencies above 1.5 GHz and their ERP is 3 watts (4.92WEIRP) or more.

Otherwise, compliance with the power density limits of 1.1310 is required.

Mobile devices under part 24.232(b) must not exceed 2W EIRP.

Antenna:

The manufacturer specifies antennas to be used with this device as documented in the user's manual.

This device has provisions for operation in a vehicle.

Configuration	Antenna p/n	Type	Max. Gain (dBi)
Passenger car	-	Dual band omni	3

Operating configuration and exposure conditions:

The conducted output power is 33dBm = 2 Watt

The maximum antenna gain and cable loss chosen for the calculations overestimate the maximum EIRP, as found for such applications.

Typical antenna, of the type listed in the user's manual, 15" dual band magnet or glass mount, do not exceed a gain of 3dBi. They would yield a 3 dBi gain if mounted with a perfect ground. However, they are used in applications where the measurement should be made in free space in the case of glass mount and with an imperfect ground plane for

magnet mount. The actual rating for such antenna installed on the roof of a vehicle or a window is lower than 3dBi.

Vehicle Operation: The maximum antenna gain used for the calculation is 3dBi. A coaxial cable of the type RG174/58 has a loss of at least 3dB/4.5dB at 1880MHz for a length of 10\15feet. For such configuration the maximum EIRP is less than 2Watt.

MPE Calculation:

The minimum separation distance is calculated as follows:

$$E(V/m) = \frac{\sqrt{30 \times P \times G}}{d} \qquad \text{Power density: } P_d(mW/cm^2) = \frac{E^2}{3770}$$

The limit for general population/uncontrolled exposure environment is 1mW/cm2 above 1500MHz.

Channel Frequency: 1880MHz

Power Density at 20 cm distance			Max. Antenna Gain (dBi) / Minimum Cable Loss (dB)		
			3dBi / 3dB	-	-
Freq (MHz)	Power EIRP (W)	Duty Cycle (%)	(mW/cm^2)	(mW/cm^2)	(mW/cm^2)
-	-	100 (CDMA)	-	-	-
1880	2	100 (CDMA)	0.4	-	-

Conclusion:

The device complies with the MPE requirements by providing a safe separation distance of 20 cm between the antenna, including any radiating structure, and any persons when normally operated .