

UMTS-2100

Exhibit K - Radiation Exposure Information

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This section affirms compliance with respect to controlled and uncontrolled exposure limits for MPE/SAR.

Requirements:

The rules concerning RF radiation exposure are 1.1310, 2.1091 and 2.1093.

FCC Section 1.1310 Table 1 defines the Maximum Permissible Exposure (MPE) power density limits for the frequency range from 1500 to 100,000 MHz as follows:

(A) Controlled Exposures	5 mW/cm ²
(B) Uncontrolled Exposure	1 mW/cm ²

The UMTS-2100 GSM/UMTS cellular system antenna is mounted on the topside of the exterior structure of air transport aircraft. This location is highly restricted to only airport maintenance personnel and is off limits to any general population. In addition, the topside of the exterior structure of air transport aircraft is generally 20 to 30 feet above the ground and thus is inaccessible to any personnel without ladders or special lift equipment. These limited access restrictions place the UMTS-2100 under the definition of (A) Controlled Exposures which requires a MPE power density limit of 5 mW/cm² averaged over a 6 minute period.

Section 2.1091(b) defines a "mobile device" as "a transmitting device designed to be used in other than fixed locations and to generally be used in such a way that a separation distance of at least 20 centimeters is normally maintained between the transmitters radiating structures and the body of the user(s) or nearby persons."

Since the UMTS-2100 GSM/UMTS cellular system antenna mounting location is on the topside of the exterior structure of air transport aircraft and inaccessible in normal usage to any personnel and is located greater than 20 centimeters from any persons, it falls under the definition of mobile device in the Section 2.1091 (b).

The UMTS-2100 does not fall into any of the categories described in Section 2.1091(c) that are subject to routine environmental evaluation for RF exposure.

As such, the UMTS-2100 is categorically excluded from routine environmental evaluation for RF exposure prior to equipment authorization or use".

Radiation Hazard Assessment:

The UMTS-2100 transmitter output is very low power. Under maximum operating conditions, the maximum RF power output of the UMTS-2100 is in the order of 2 watts, roughly equivalent to a small night light.

Compliance Statement:

The UMTS-2100 does not exceed the Minimum Permissible Exposure (MPE) limits of 5 mW/cm² contained in FCC Section 1.1310 Table 1.

The UMTS-2100 unit contains Sierra Wireless MC8780/MC8781 GSM/UMTS cellular modem and uses it's granted modular approval (FCC ID: N7NMC8780) (FCC ID: N7NMC8781) and its related RF exposure guidelines.