

GSP 1620 Globalstar Satellite Packet Data Modem Product Specification Errata Sheet Input

Modifications to add MPE Distance Restriction Statements and Other RF Safety Statements to **Section 8, Certification/Restrictions**, and to be incorporated in the forthcoming User Guide for the Module:

Add following new text, Section 8.3 Radio Frequency Exposure Restrictions, and Section 8.4 Electronic Device Restrictions:

8.3 Radio Frequency Exposure Restrictions

This section describes RF exposure safety issues related to using a GSP 1620 Modem, explains how to avoid excessive levels of RF exposure, and provides language which should be incorporated into the End User documentation (User Guide and Installation Manual), to satisfy FCC requirements.

8.3.1 Radio Frequency Energy

The GSP 1620 Modem incorporates a relatively low-power radio transmitter, receiver, and antenna (the ODU). When it is ON it receives and also sends out radio frequency (RF) signals. In August 1996, the Federal Communications Commission (FCC) adopted RF exposure guidelines with safety levels for portable wireless phones and devices. Those guidelines are consistent with the safety standards previously set by both US and international standards bodies:

- ANSI/IEEE C95.1-1992 Standard¹
- NCRP Report 86 (1986)²
- ICNIRP (1996)³
- IRPA (1991)⁴

The modem is designed to comply with the established ANSI, FCC, and international safety standards for safe levels of human exposure to RF energy. Nonetheless, RF field intensity at the surface of the transmitting Globalstar antenna is fairly high. Maintaining a minimum line-of-sight separation distance of 21.5 cm (8.5 inches) between the transmitting antenna and all personnel will ensure that the General Population / Uncontrolled Exposure maximum permissible exposure (MPE) limits are not exceeded. This satisfies the MPE limits mandated by the FCC in 47 CFR Ch. 1 (10-1-99 Edition), Part 1, §1.1310 and defined in the ANSI/IEEE C95.1-1992 standard, and also satisfies the slightly more-stringent European and international exposure limit recommendations of IRPA (1991) and ICNIRP (1996).

Footnotes:

1. American National Standards Institute / Institute of Electrical and Electronic Engineers
2. National Council on Radiation Protection and Measurements
3. International Commission on Non-Ionizing Radiation Protection
4. International Radiation Protection Association

8.4 Electronic Device Restrictions

Most modern electronic equipment is shielded from RF signals. However, certain electronic equipment may not be shielded against the RF signals from wireless phones and modems.

8.4.1 Pacemakers

The Health Industry Manufacturers Association recommends that a minimum separation distance of 6 inches (6") be maintained between a handheld wireless phone and a pacemaker to avoid potential interference with the pacemaker. For a wireless modem, which has a higher power output than a wireless phone, the distance must be increased. For a GSP 1620 modem, a minimum separation distance of 10.5 inches (10") should be maintained between the transmitting modem ODU and all pacemakers. These recommendations are consistent with the independent research by and recommendations of Wireless Technology Research, L.L.C.

Persons with pacemakers:

- Should always keep the modem ODU (antenna unit) more than 10.5 inches from their pacemaker when the modem is turned ON;
- If you have any reason to suspect that interference is taking place, turn your modem OFF immediately.

8.4.2 Hearing Aids

Some digital wireless phones and other wireless devices (including wireless modems) may interfere with some hearing aids. In the event of such interference, you may want to consult your service provider (or call the customer service line to discuss alternatives). Optional for each wireless device manufacturer.

8.4.3 Other Medical Devices

If you use any other personal medical device, consult the manufacturer of your device to determine if it is adequately shielded from external RF energy. Your physician may be able to assist you in obtaining this information.

Do not operate your wireless modem (turn your modem OFF) in health care facilities when any regulations posted in these areas instruct wireless phone users to do so. Hospitals or health care facilities may be using equipment that could be sensitive to external RF energy.