

RF-7800B-VU104

LAND MOBILE BGAN TERMINAL

L-Band satellite connectivity

The Harris RF-7800B-VU104 Land Mobile Broadband Global Area Network (BGAN) SATCOM Terminal provides a tactical radio network capability that enhances the FALCON III[®] multiband radio family. The RF-7800B-VU104 is a Class 10 BGAN SATCOM-on-the-Move (SOTM) Terminal that provides data rates of up to 492 Kbps while on the move. The RF-7800B-VU104 BGAN terminal is designed for operation in harsh environmental conditions.

The RF-7800B-VU104 antenna may be permanently mounted on a vehicle and is capable of traveling at speeds of up to 70 MPH. Continuous tracking with the INMARSAT satellite is provided to achieve successful communications. Full network connectivity is uninterrupted when vehicular velocity of motion is up to 100 degrees per second, and vehicular acceleration is up to 100 degrees per second squared in both azimuth and elevation, with simultaneous random pitch and roll.

The RF-7800B-VU104 can be considered for global network connectivity solutions when used with a computer for standalone terminal applications such as law enforcement, homeland security, or first responders.

When used with the AN/PRC-117G(V)1(C) or the RF-7800M manpack radio, the terminal provides a multi-mode system utilizing ad-hoc networking to automatically route between mobile wideband networked line-of-sight (LOS) nodes, adding global beyond-line-of-sight (BLOS) satellite connectivity. The system is designed to ensure a seamless tactical network-centric BLOS connectivity to the existing FALCON III tactical networks, providing secure IP data transfer capability and increased communications reliability. The Harris BGAN Terminal IP data is encrypted by the Sierra[®] II Type-1 algorithms in the AN/PRC-117G or the Acropolis[®] II AES Encryption algorithms in the RF-7800M. The embedded software of the manpack radio provides the ability to fully configure, remotely control and provide status and fault monitoring of the RF-7800B-VU104 BGAN Terminal using the radio's front panel.



Specifications for the RF-7800B-VU104

Features

Full IP compatibility: Email, Web browsing, FTP, etc.

Global INMARSAT coverage

INMARSAT BGAN-X certified to Land Mobile User Equipment Class 10, providing:

- BGAN Background user data rates up to 492 Kbps
- BGAN Streaming Quality of Service: User data rates of 32, 64, 128, 256* Kbps

Compatible with the following VPNs: Cisco-VPN, Client V1 or V2.6.3, Nortel-Contivity VPN Client, V04-15.06, Netscreen-Remote Client 8.1, Checkpoint-V4.1, and SonicWall

Allows simultaneous use of all interfaces (Ethernet, USB, ISDN)

Multi-user capability of up to 11 simultaneous primary user contexts/sessions

IP Network bridging mode and modem mode support

Built-in test

Customer access to a removable GSM/GPRS/UMTS subscriber identity module (SIM/USIM)

Accessories

Data Cables:

Ethernet, ISDN, USB (standalone), Data Extension

Power:

DC power supply cable, AC/DC power supply, Automobile 12V DC power supply

Vehicular installation kits

RF-7800B-VU104 Class 10 Land Mobile Characteristics

BGAN Satellite L-Band frequency operation;
TX: 1626.5-1660.5 MHz and RX: 1525-1559 MHz, Full-duplex, BLOS operation

20" diameter x 8" height (51x 20 cm)

Weighs less than 28 lbs. (12.6 kg)

BGAN INMARSAT satellite connectivity

- Continuous tracking with vehicle motion changes of:
- Angular velocity of 100°/s in both azimuth and elevation
 - Angular acceleration of 100°/s² in both azimuth and elevation
 - 360° continuous field of view in azimuth
 - 5° - 90° continuous field of view in elevation
 - Traveling at speeds of up to 70 MPH

Environmental Specifications

- Tested to MIL-STD-810F, MIL-STD-461, and MIL-STD-1275A
- ROHS Compliant

Certifications

FCC

C5

GMPCS / ITM

Interfaces

Ethernet

USB

ISDN voice (4 Kbps)

ISDN data (64 Kbps)

DC Power (10 to 34 VDC)

User-removable SIM Card Slot

CONOPS

Mobile reach-back operation

Mobile-mobile operation

Simultaneous mobile-mobile operation

* 256 Kbps is only available at elevation angles > 45°

Tactical Area Communications System Utilizing the RF-7800B Terminals

