

# RUGGED, SECURE INMARSAT BGAN SATELLITE COMMUNICATIONS

**ViaSat**

**Fully Ruggedized, Secure IP  
access that fits in your rucksack**

**inmarsat**

## **AN/PSC-14 BGAN Integrated Manpack Terminal**



### **Broadband SIPRNET<sup>†</sup> to the Rucksack**

- High-speed IP services using Inmarsat's BGAN system\*
- Integrated Type 1 encryption for fully secure IP communications<sup>§</sup>
- 6-pin audio for plain text voice over BGAN
- RJ-11 Telephone and ISDN Handset Voice interfaces
- Link mobile warfighters on the edge to the networked force

### **For Use on Inmarsat's Broadband Global Area Network**

- High-speed data network
- Variable bit rate service up to 258 kbps transmit and 422 kbps receive
- Guaranteed Constant Bit Rate service (streaming) up to 64 kbps
- Worldwide coverage ☐
- IP and circuit-switched application support for interoperability

### **Key Features Enable High Military Utility**

- Man-portable and small enough to use while in your rucksack or mounted in your vehicle
- Fully ruggedized to handle your toughest missions
- Powered by existing military inventory batteries for enhanced supportability
- Flexible modes of operation can support diverse missions
- Antenna packaged integral to terminal; slides off for quick deployment



Interfaces to tactical computers and tablet devices

ViaSat's ruggedized AN/PSC-14 Broadband Global Area Network (BGAN) integrated manpack terminal<sup>†</sup> is designed for tactical military use. The terminal integrates secure IP communications with up to 422 kbps speed in a form factor that is highly ruggedized, man-portable, and vehicular rack-mountable. For vehicular use, the terminal sits in a mounting tray which permits operation while charging the battery. Easily dismounted, the terminal can also be used while still in the rucksack. The detachable antenna can be operated remotely up to several hundred feet, if necessary, and the detachable front control module enables terminal operation while still on the warfighter's back.

The ViaSat AN/PSC-14 brings the IP advantage to your missions, delivering secure, man-portable, high-speed internet access that operates with Inmarsat's service on the new Inmarsat-4 satellite. This terminal combines communications security and broadband speed to offer a full range of secure and non-secure data and legacy voice services to the warfighter.

The ViaSat AN/PSC-14 extends your secure, integrated network infrastructure to warfighters, enabling the entire force to be fully networked. Ready for use wherever and whenever, this terminal interfaces with legacy-secure communications devices to ease the transition to a fully IP-based, network-centric environment when ready.

# AN/PSC-14 Interfaces

## Red Interface

- RJ-45 for Ethernet (IP, voice)
- Key Fill
- Zeroize
- Reset
- CIK
- Console Port

## Black Interface

- RJ-45 for USB Interface or ISDN Handset
- RJ-11 for audio
- Audio Port (Unencrypted Voice)
- Remote control for Core Module
- LCD and Buttons
- Power Switch/Handset Volume
- Remote Antenna Interface
- RJ-45 Ethernet (IP)



## Key Specifications

### General Characteristics

- Frequency Band: 1626.5 – 1660.5 MHz (Tx); 1525.0 – 1559.0 MHz (Rx)
- Modulation: QPSK and 16-QAM (Forward); 4-ary QPSK and 16-QAM (Return)
- Transmit EIRP: 20 dBW
- Receive G/T: > -10.5 dB/K
- Transmit data rate: 258.4 kbps (max)
- Receive data rate: 422 kbps (max)
- Streaming IP rate: 64 kbps (max)

### Encryptor

- Encryption: Type 1 HAIPE™ v1.3.5 compliant
- Key Fill Interface: DS101
- Dynamic Key Generation: FIREFLY
- Flexibility: Modular, reprogrammable architecture
- Crypto Ignition Key: CIK removal to unclassified CCI

### Physical Characteristics of the Complete Terminal

- Dimensions (WHD): 11.5" x 5.2" x 17"
- Weight: 25 lbs (including batteries)

### Modes of Operation

- Plain Text (PT): BGAN on, INE off (for power savings)
- Simultaneous Cipher Text and Plain Text (SIM CT-PT): INE and Black LAN over BGAN
- Independent Cipher Text and Plain Text (SIM CT-PT): BGAN on, INE over LAN
- Cipher Text (CT): INE on, BGAN off (for power savings)

### Power

- AC/DC Power Supply: MRC-82 or AC/DC/BT-TR-1 or equivalent
- Dual Battery Configuration: Two BA-5590 or equivalent in an MRC-89 battery box
- Standby Time (Dual Battery): 12 hrs (24 hrs with INE off)
- Transmit Time (Dual Battery): 8 hrs at nominal EIRP (100% duty cycle) (12 hrs with INE off)

### Environmental Tolerances

- Ambient Temperature: -20°C to +55°C (Operational) / -40°C to +80°C (Survival/Transport)
- Relative Humidity: up to 95% non-condensing at 40°C
- Ice Survival: up to 25mm of ice
- Immersion Survival: up to 1m salt water
- Altitude (operation): up to 15000 ft at 23°C
- Waterproof and Dustproof: IP 67 (Transceiver and Antenna)

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