

## Terminal Description

The TomCat™ X-Band from Globecomm is designed for use in the tactical environment and other rapid response applications. This small, light-weight X-Band terminal sets up in less than 10 minutes. With its solid construction, it is ideally suited to withstand harsh conditions and operate in some of the most remote territories. As part of Globecomm's Explorer terminal product line, the TomCat™ X-Band is man-transportable in a single case and meets the requirements for luggage aboard commercial airlines. The user-friendly set-up includes built-in diagnostics, an integrated spectrum analyzer and monitoring via a GUI (Graphic User Interface) and laptop computer and operates on a variety of power sources.

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### Features:

- Small, lightweight mechanical package
- Sets up in less than 10 minutes – no tools required
- No cooling fans – Unique convection thermal design eliminates active elements
- Integrated iDirect eVolution modem
- Accommodates external modem via L-band interface
- SSPA power modules available in 5, 10 or 16 watts
- Designed to Maximize Simplified Operation through Graphical User Interface (GUI), External GPS Sensor, Antenna Pointing Display, Electronic Elevation Sensor and Status LEDs
- Fine-tune azimuth and elevation mechanical adjustment
- Sealed Feed Assembly incorporating Field-switchable polarization with locking mechanism
- Operates with multiple power sources: Auto-ranging AC or DC.
- Power management controls permit maximum runtime when operation off battery power source
- LED Blackout Switch

### Optional Items:

- AC to DC Power Converter
  - Internal L-band Spectrum Analyzer
  - Rugged Laptop Computer (e.g. Toughbook)
  - Battery Box power supply utilizing two BA-5590 batteries
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## SYSTEM SPECIFICATIONS

| Parameter                     | Specification   | Notes   |
|-------------------------------|---|---|
| G/T                           | 8.0 dB/K nominal  | 20° elevation at 7.25 GHz   |
| Minimum EIRP                  | 41 dBW (1db compression)  | 16-watt version   |
| Transmit to Receive Isolation | < 0.1 dB  | Transmitter On, with and without carrier                            |
| Modem                         | iDirect eVolution (internal)  | External L-band modem interface                                     |
| Transmit Data Rate            | 1.5 Mbps (nominal)  | Higher data rates possible, depending on satellite link particulars |
| Receive Data Rate             | DVB-S2  | —   |
| Interfaces                    | x2 RJ45 Weather-Tight<br>x3 TNC-Female<br><br>Circular-MS Type  | Ethernet Interface<br>External Modem (Tx, Rx, 10MHz)<br>DC Input    |
| Indicators                    | Rx Signal Strength<br>Status —Normal<br>In-Network<br>Tx—On<br>Rx—Locked<br>Main Power-On<br>Tx-Alarm | All indicators have blackout control                                |
| AC Power                      | 90-260 VAC, 47-440Hz<br>Auto-ranging  | Optional external AC-DC adaptor                                     |
| DC Power                      | 12VDC   | BA-5590 or Military Vehicle Battery                                 |
| Power Consumption             | 140 watts   | 16-watt version   |
| Size                          | 25" x 14" x 10"<br>(63.5 x 35.6 x 25.4 cm)  | Packed in standard transit case                                     |
| Weight                        | 35 lbs (15.9 kg)  | Excluding Transport case, AC-DC Power supply, batteries or laptop   |

## ANTENNA SPECIFICATIONS

| Parameter                | Specification                        | Notes  |
|--------------------------|--------------------------------------|--|
| Transmit Frequency Range | 7.9 to 8.4 GHz                       | —  |
| Receive Frequency Range  | 7.25 to 7.75 GHz                     | —  |
| Antenna                  | 18 inch (0.45m)                      | Parabolic                                    |
| Antenna Material         | Composite, Six pieces                | —  |
| Feed                     | Two-port, Circular, Splash Plate     | Field-Switchable POL for XSTAR operation     |
| Radiation Patterns       | -15 db nominal                       | First sidelobes                              |
| Beamwidth (degrees)      | Rx:0.94<br>Tx:0.86                   | 3 dB<br>3 dB                                 |
| Travel Range (Coarse)    | Azimuth: 360°<br>Elevation: 5 to 90° | Fine adjustment ±30°<br>Fine adjustment ±30° |

## ENVIRONMENTAL SPECIFICATIONS

| Parameter                 | Specification   | Notes   |
|---------------------------|---|---|
| Temperature (Operational) | -20 to +50° Celsius -                                       | Method 501.4 (High Temp-hot climate) and 502.4 (Mild Cold-Procedure II) |
| Temperature (Storage)     | 40 to +70° Celsius  |   |
| Humidity                  | Up to 100% condensing                                       |   |
| Wind                      | Up to 35 mph gusts  |   |
| Altitude                  | 10,000ft/3,048m (Operational)<br>40,000ft/12,192m (Storage) |   |
| Sand/Dust                 | Method 510.4 per MIL-STD-810F                               |   |
| Transportation            | Method 514.5 C-2 per MIL-STD-810F                           | Packed in transport suitcase  |
| Rain, wind blown          | Method 506.4 per MIL-STD-810F                               |   |

Specifications subject to change.



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