



*A little bit of satellite  
goes a long way*

# **AUTO**XPLORER 1.0/1.2M

**SATELLITE COMMUNICATION TERMINALS**  
provide secure, transportable  
satellite communications  
for a wide range of  
global applications

- Broadband Connectivity
- Rapid Deployment
- Lightweight Transportability
- Secure Communications
- Ease of Operation
- Auto Acquisition
- Ka-Band Capable
- Environmentally tested to Mil-STD-810F



## GENERAL DESCRIPTION

Globecomm Systems Auto-Explorer Multimedia Transportable Satellite Communications Terminals provide high-bandwidth, cost-effective two-way communications designed to meet the demands of military units, governmental agencies, corporations, and other organizations to extend the reach of their networks to remote locations where traditional telecommunications infrastructure is either inadequate or non-existent. Applications include voice, fax, data, video, Internet and LAN-to-LAN connections.



**Communications Terminal field deployed**

The 1.0/1.2-meter Auto Explorer Satellite Communications Terminal is a compact self-contained Ku-band system that is packed into three transport cases, which meet the requirements for airline-checked baggage. The Auto Explorer is designed to meet the performance requirements of international and regional satellite operators. One person can easily set up the terminal in less than 15 minutes. The auto-acquisition antenna peaks up and drives to the theoretical cross-polarization position with base tilt correction.



**Optional Battery Module is mounted on the pedestal base and provides up to one-hour capacity during mains or generator failure via automatic switchover**

All Auto-Explorer systems are IP ENABLED to accept optional routers and IP satellite optimized solutions. The Auto-Acquisition and Terminal Management software is designed to allow operation of the Auto-Explorer Terminal by personnel with little or no communications or SATCOM experience.



**Complete Auto Explorer terminal packaged for transportation. Shown with optional Indoor Rack-mount case.**

## Applications

Auto-Explorer Terminals are suited for tactical support military and peacekeeping forces; for remote access to networks; telemedicine applications; remote distance learning; remote Internet access; or any other application where reliable, remote, rapidly deployed operation is essential.

Auto-Explorer Terminals are also the systems of choice for the rapid restoration of telecommunication applications interrupted by the failure or destruction of primary systems. They can provide connectivity up to 8.2 Mbps or more, depending on the distant end antenna size and link parameters, to support voice, fax, data, and video applications between domestic and international locations.

As a Cisco Partner, Globecomm Systems also offers proven "satellite-optimized" solutions for Internetworking, including Voice over IP, Quality of Service, Bandwidth-on-demand, exportable and higher level encryption, internal; firewalls, IP Video and LAN-to-LAN communications.



## Network Support

Globecomm Systems owns and operates the Long Island International Teleport and can provide network connectivity for the remote Auto-Explorer Terminals utilizing our existing iDirect VSAT hub and/or other networking hubs that are available.

Some of the world's foremost satellite network engineers are available on a 24/7 basis no matter how far and wide you travel with your Auto-Explorer Terminal. Through our continuously manned Network Operations Center we have the ability to support you with a level of knowledge and expertise no other company can match!



Terminal Management software enables a full system control and diagnostics from a ruggedized Laptop Computer

## S P E C I F I C A T I O N S

### Features

- Full Ku-band coverage for worldwide use
- Lightweight, highly transportable
- Set-up and operation in less than 15 minutes
- Environmentally Controlled Outdoor Unit with integrated iDirect modem
- Automatic satellite acquisition with GPS/Compass/Level sensors
- Auto Acquisition via GEO and iDirect SNR Method
- iDirect® integrated modem standard (ODU). System configurations available to support any commercial L-band modems using an Indoor/Outdoor Unit (IOU) approach
- Off-grid operation up to approximately 1-hour is possible with the (optional) environmentally sealed battery module
- Optional DSL transceiver works with Category 3 telephone cable to extend Ethernet connectivity up to 1-kilometer
- Proven Globecomm Systems Inc. performance, quality and reliability

### Terminal Management

- Embedded processor monitors health and manages data transfer between system components
- Graphical User Interface allows for easy terminal configuration / operation
- Embedded Web Server allows terminal status to be viewed with a Web Browser from anywhere in the user's network
- Integrated Hardware Watchdog
- Service Port allows for system configuration and diagnostics
- Convenient Access to iDirect Modem Console Port

### RF Specifications

Receive Frequency	10.95 to 11.70 GHz 11.70 to 12.20 GHz 12.25 to 12.75 GHz
Transmit Frequency	14.0 to 14.5 GHz (13.75 - 14.50 GHz optional)
IF Frequency	950 to 1450 MHz
Output Power	8-Watts standard, other power options available
Transmit Gain (Midband)	43.2 dBi
Transmit 3dB Beamwidth	1.1 Degrees
EIRP	52.0 dBw
Receive Gain (Midband)	42.2 dBW
Receive 3dB Beamwidth	1.3 Degrees
G/T	21.6 Db/K
Polarization	Linear

### Antenna Specifications

Reflector	Four Panel Carbon-Fiber, Ka Band Capable
Mount Geometry	Elevation over Azimuth with reflector/feed rotation for polarization
Azimuth Travel	400 Degrees or +/-200 Degrees from stow position
Elevation Travel	10 to 90 Degrees for boresight (feed up configuration)
Polarization Travel	+/- 75 degrees with manual H/V selection
Axis Backlash	
Azimuth	0.1 Degrees
Elevation	0.1 Degrees
Polarization	0.3 Degrees
Emergency Override	Handcranks for manual adjustment

## Modem Specifications

Frequency Range	Transmit	950 to 1450 MHz
	Receive	950 to 1450 MHz
Frequency Tuning Step Size	Transmit	38 kHz
	Receive	333 kHz with Demod CRL tracking
RF Power Range	Transmit	-35 to +7 dBm
	Receive	-65 to -5 dBm Composite
RF Power Adjustability	Transmit	0.5 dB Composite
	Receive	Under AGC
IP Data Rates	Downstream	64 kbps to 18 Mbps
	Upstream	64 kbps to 8.4 Mbps
FEC	Downstream	TPC 0.579
	Upstream	TPC 0.793
Modulation	Downstream	BPSK, 8PSK
	Upstream	QPSK, BPSK, 8PSK
Network Access	Downstream	TDM
	Upstream	D-TDMA, MESH, SCPC
Eb/No Threshold	Downstream	4.8 dB for 1x10 <sup>-9</sup> QEF
	Upstream	4.6 dB for 1x10 <sup>-9</sup> QEF
LAN Protocol	TCP, UDP, ICMP, IGMP, ARP, RIP v2, Static Route, Web Acceleration, TCP Acceleration, NAT, DHCP, CRTP	
Network Topology	Star, MESH, SCPC	
LAN Interface	Category 5 UTP/STP, 10/100 Base-T Ethernet (IEEE 802.3) Maximum Cable Distance 328 feet (Option) Fiber Optic, TFOCA-II Maximum Cable Distance 2-Kilometers (Option) DSL based CAT-3 cable Maximum Cable Distance 1-Kilometer	
Traffic Engineering	Committed Information rate Variable Information rate Rate Limiting True Application Based Quality of Service	

## Battery Specifications

(Optional)

Runtime: 1 hour  
Weight: 23lbs  
Status via TMS: Online Capacity, Battery low alarm

## Mechanical Specifications

Positioner Case	
Dimensions	20x20x20 inches
Weight	98 lbs
Indoor Electronics Case	
Dimensions	31x24x14 inches
Weight	85 lbs
Outdoor Electronics Case	
Dimensions	34x29x14 inches
Weight	95 lbs
Outdoor Reflector Case	
Dimensions	34x29x18 inches
Weight	97 lbs

## General Specifications

Input Power	120/240 VAC 50/60Hz auto-ranging 18V to 28V DC (24V DC Typical) 375-Watts Typical
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## Environmental Specifications

Environmental	-30 to 55° C (Operational) -40 to 70° (Storage)
Humidity	up to 100% (Condensing)
Wind	25 mph gusting to 45 mph (Operational)
Altitude	10,000ft/3048 meters (Operational) 40,000ft/12192 meters (Storage)
Sand/Dust	Method 510.4 per MIL-STD-810F
Humidity	Method 507.4 per MIL-STD-810F
Transportation	Method 514.5 per MIL-STD-810F

*Equipment descriptions and specifications are subject to change without notice or obligation.*



**Globecomms Systems, Inc.**

45 Oser Avenue, Hauppauge, New York 11788-3816 USA  
USA Phone: + 631-231-9800 • USA Fax: + 1 631-231-1557  
info@globecommsystems.com • www.globecommsystems.com  
NASDAQ: GCOM