

# EXPLORER 122

Comms-on-the-move satellite terminal for SkyTerra 1

**COBHAM**

March 2017 Product Sheet

The most important thing we build is trust

## Introducing the EXPLORER 122

EXPLORER 122 is the first EXPLORER terminal developed to operate over the SkyTerra 1 satellite utilizing ViaSat's low-latency, IP-based L-band Mobile Satellite Services network. It is a compact Comms-On-The-Move terminal offering reliable real-time IP data and voice connectivity, including Push-To-Talk and GPS tracking.

The lightweight one-piece design with an integrated transceiver and antenna, has no moving parts and a high IP-66 rating, making it robust and durable for use in any application.

Whether you're engaged in emergency response, humanitarian operations or fleet management, EXPLORER 122 is an easy deployable communication system you can always rely on. Simply place the antenna on the roof of your vehicle and get access to the internet and phone networks instantly.



## System features

- Integrated transceiver and antenna
- Lightweight: Less than 4lbs
- Smallest EXPLORER COTM terminal: 9.8x5.9x2.4in (LxWxH)
- 10-30VDC power input suited vehicle installs
- Works at speeds up to 125 miles per hour
- Data speeds up to 1 mbps download and 10 kbps upload
- IP-66 rating - dust and spray proof in all directions
- Ethernet via Chogori multi-pin connector
- Wireless connectivity with 802.11 B/G
- Roof mountable with optional magnetic mounts

## SkyTerra 1 Coverage Map



## SkyTerra 1 Satellite

Ligado Networks provides ubiquitous coverage throughout North America over one of the most powerful L-band commercial satellites ever built.

The high-powered SkyTerra 1 satellite enables transmissions to small fixed and mobile devices by using a 22-meter reflector-based antenna—the largest satellite reflector to be put into service on a commercial satellite, bringing higher data throughputs to smaller devices.

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## General Specifications

### Dimensions:

H / D / L: 62 / 150 / 250 mm  
2.4 / 5.9 / 9.8 inches

### Weight:

< 2kg / 4.4lbs

### Data Rate:

Forward: Up to 1 mbps  
Return: 10 kbps

### Frequency band:

TX: 1626.5 – 1660.5 MHz  
RX: 1525.0 – 1559.0 MHz

### Transmit EIRP:

Up to 8dBW at Zenith

### Receive G/T:

-21 dB/K typical at Zenith

### Link Encryption:

AES-256

### GNSS:

GPS L1 frequency

### Approvals:

FCC and IC

## Environmental Conditions

### Temperature

Operational: -20 to +55°C / -4 to 131°F  
Transport: -40 to +85°C / -40 to 185°F  
Storage: -40 to +85°C / -40 to 185°F

### Relative humidity:

95% non-condensing  
at +45°C / +113°F

### Solar Radiation:

1120W/m<sup>2</sup>p per IEC-60068-2-5

### Ingress Protection:

IP-66 (dust and spray proof)

### Wind:

Speeds up to 200 km/hr

### Vibration:

Operational: Random vibration of 1.05g rms in each of three mutually perpendicular axes  
The spectrum is: 5 to 20 Hz: 0.02g<sup>2</sup> /Hz  
Survival: Transportation vibrate per IEC 60068-2-64,  
Freq: 5-200Hz, ASD: 1.0m<sup>2</sup>/s<sup>3</sup>

### Shock:

Operational: IEC 60068-2-64, 50m/s<sup>2</sup>, 11ms  
Survival: Transportation shock per IEC 60068-2-29,  
A = 180m/s<sup>2</sup>, t = 6mS

## Interfaces

### Power:

10-30VDC  
Via multi-pin connector

### Ethernet:

IEEE 802.3 10/100  
Via multi-pin connector

### Remote On/off:

Via multi-pin connector

### Wireless:

IEEE 802.11 B/G, 2.4 GHz

## Power

### DC input range:

10-30VDC

### Consumption:

8W max in receive mode  
48W max in transmit mode

## Other features

### User Interface:

Web interface  
AT Commands

## Package

EXPLORER 122 integrated antenna and transceiver  
Multi-pin connector  
Getting started kit: Quick start guide

## Product number

403706A-00500 EXPLORER 122 System

## Accessories

403706A-009 Magnetic Mount Solution  
403706A-050 Connection Box  
403706A-055 Connection Cable  
- 6m combined Ethernet and power cable

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