

EXPLORER Mobile Gateway

Beyond Line-Of-Sight Push-To-Talk and Data Communication

**COBHAM
SATCOM**
Connecting the future

Product Sheet

Beyond Line-Of-Sight Communication

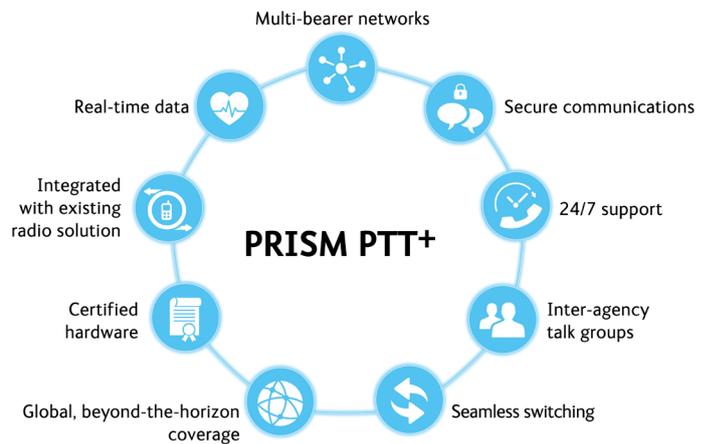
EXPLORER Mobile Gateway is an IP-based radio and data communications device that supports satellite/3G/LTE/LAN backhaul and Land Mobile Radio (LMR) integration to provide seamless switching between available networks in any situation. It is a cost-effective system designed to expand and augment traditional LMR systems widely used in the Public Safety, Utility, Mining, and Oil & Gas sectors.

The network agnostic multi-bearer solution extends legacy Push-To-Talk capabilities to hybrid data networks such as terrestrial cellular networks (where available), supplemented by satellite where no terrestrial network coverage is present. With no user intervention required, the system automatically routes voice and data traffic via the most reliable network available.

Enhanced Capabilities

EXPLORER Mobile Gateway solves many challenges faced by traditional LMR system operators:

- Coverage area can be extended by using satellite and existing cellular-based networks
- Lowers expensive terrestrial infrastructure costs
- High availability to support critical communications
- Scalable from two to thousands of units
- Seamless switching between available satellite, cellular, and LAN connectivity ensures constant communications
- Compatibility with many different brands of land mobile radios.
- SIP integration to any existing infrastructure
- Voice compression technologies are used to allow for the most efficient use of bandwidth across multiple transport mediums.
- 256-bit AES-CTR encryption



PRISM PTT+ integrates the EXPLORER Mobile Gateway into a fully Cobham-managed flat-rate solution, including access to the PRISM Portal and 24/7 support.

The look and feel of the included Control Speaker Microphone is exactly like a simple legacy Push-To-Talk handset. The vehicle installation of the system requires an on-the-move satellite terminal and the EXPLORER Mobile Gateway. Up to two cellular modems can be connected to the EXPLORER Mobile Gateway, allowing for independent network connections. The all-important automatic routing functionality enables seamless switching between the available networks.

Cobham PRISM PTT+ Service

The EXPLORER Mobile Gateway is managed and configured in the Cobham-managed PRISM Portal. The web-based portal ensures a simple and easy configuration of any EXPLORER Mobile Gateway, no matter its location and with over-the-air updates to vehicles. Access to the PRISM Portal is bought separately (item no. 650000-001).

The portal offers a long list of functionalities, e.g.:

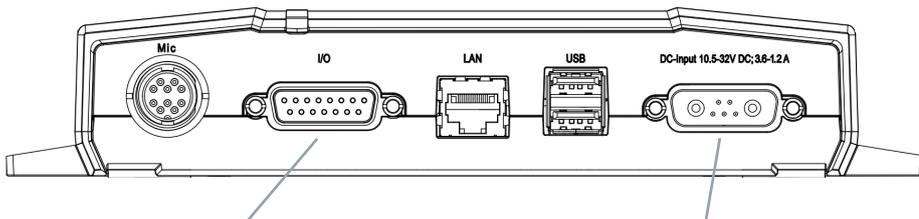
- Quick configuration of talk groups
- Preconfigured E&M radio interfaces for most existing LMR/DMR radios
- Easy duplication of configuration across EXPLORER Mobile Gateways
- User-friendly configuration of tracking and AGC settings
- Recording of all voice in one or more talk groups
- Advanced routing configuration for critical applications

EXPLORER Mobile Gateway

Beyond Line-Of-Sight Push-To-Talk and Data Communication



- A ruggedized and easy to use digital Push-To-Talk communication solution.
- Designed to cost effectively expand and augment Land Mobile Radio systems.
- Built-in support for LMR devices to ensure over-the-horizon radio communication.
- Voice-over-IP technologies optimized for use under difficult satellite or terrestrial link conditions.
- Automatic voice and data routing between cellular (2G/3G/LTE) and satellite networks.
- Beyond Line-Of-Sight communication - global coverage.



15 PIN D-SUB Input/Output		
1	Line In +	600 Ohm input
2	Line Out +	600 Ohm output
3	+12 VDC output	Fused, max. 100 mA
4	Input 1	PTT, active low
5	Input 2	General purpose digital input
6	Audio+	Amplified audio output 4-16 Ohm (1 W)
7	Output 1	PTT, push/pull 12 V
8	Output 2	Open drain
9	Service port (out)	UART, RS-232 levels
10	Service port (in)	UART, RS-232 levels
11	GND	Ground
12	Audio-	Amplified audio output
13	GND	Ground
14	Line Out -	Ground
15	Line In -	Ground

Power connector (DC input)	
A1	DC+
A2	DC-
1	Ignition
2	Common. Connected to pin 4 or pin 5.
3	General purpose open drain output. Max. 300 mA.
4	Connected to pin 2 when the PTT unit is on.
5	Connected to pin 2 when the PTT unit is off.

Specifications

Dimensions (H / W / D):

EXPLORER 3647 Terminal:	41 / 223 / 175 mm 1.6 / 8.8 / 6.9 inches
EXPLORER 6205 Handset:	148 / 67 / 40 mm (Control Speaker Microphone) 5.8 / 2.6 / 1.6 inches

Weight:

EXPLORER 3647 Terminal:	1 kg / 2.3 lbs
EXPLORER 6205 Handset:	375 g / 0.8 lbs

Services:

Push-To-Talk Voice:	Group call, Dispatch call
IP Service:	Seamless switching of IP Data

Approvals:

Approvals:	CE, GMPCS, FCC
------------	----------------

Power

Power supply:

Terminal:	Nominal 12-24 VDC Operating 10.5-32 VDC
Handset:	Powered by the Terminal

Power consumption:

Max wattage:	38W
Typical use:	<10W

Environmental conditions

Temperature:

Operational:	-15° to +55°
Storage:	-40° to +80°

Ingress Protection:

EXPLORER 3647 Terminal:	IP31
EXPLORER 6205 Handset:	IPX6

Interfaces (terminal)

1 x LAN interface:

Connector type:	RJ-45
Data rate:	10/100 Mbps
API integration:	Supported

1 x I/O interface:

Connector type:	15 pin D-SUB connector containing: Loudspeaker output, Audio in, Audio out, PTT in, PTT out, serial port, 4-wire E&M interface
-----------------	---

2 x USB:

Connector type:	USB host for Cellular Modems
-----------------	------------------------------

1 x Microphone:

Connector type:	12 pin LTW connector for the EXPLORER 6205 Control Speaker Microphone
-----------------	---

User Interface

Handset (CSM):	Power On/Off, PTT button, 4 control buttons, 40x30mm Display, Jogwheel selector, Dimmer (display backlight), Distress button
----------------	---

Product number

403648A-00500	EXPLORER Mobile Gateway
---------------	-------------------------

Box content

403647A-00500	EXPLORER 3647 PTT Terminal
406205B-00500	EXPLORER 6205 CSM Handset (Control Speaker Microphone)

Related Products

650000-001	Cobham PRISM Managed Service
403723A-00500	EXPLORER 323 Terminal
403706A-050	EXPLORER Connection Box



EXPLORER 6205 CSM Handset

For further information please contact:

satcom.land@cobhamsatcom.com