

# **BGAN** for Land

Reliable satcom for the government user





# Broadband Global Area Network

Rapidly deployable, easy to operate, reliable satcom for the government user

BGAN is the market leading mobile satellite communications service, providing reliable, cost-effective global broadband data and voice at the same time using compact, lightweight portable terminals.

Government users in the 21st Century need constant access to the full range of internet, voice and video services. Wherever they are in the world, whether moving rapidly to a remote trouble spot, working in a military headquarters deployed to a foreign country or providing first-class medical care in a remote corner of their own country, they demand high-availability communications that give them reliable access to the information and services essential for them to do their job.

Whilst many governments operate their own satellite constellations to support their ministers, officials and staff as they go about their business, few can match the range of capability and the technical sophistication on offer from Inmarsat. The most advanced commercial communications constellation ever launched, Inmarsat's fourth generation satellites are expected be in operation well into the 2020s, providing you the reassurance that you are choosing a stable platform that will support your needs now and in the future.

Whether chosen as a flexible, stand-alone primary terminal or as a complement to services available from national or other networks, BGAN provides government users the power to meet challenges head on, delivering high-speed state-of-the-art IP connectivity while also supporting core voice and legacy data services, such as ISDN.

Based on 3G standards, BGAN provides constant, simultaneous access to voice and high-speed data services, on a global basis. You can send and receive email with large file attachments, comfortably run complex applications and make voice calls all at the same time — and do it more affordably than ever before. Terminals are light-weight, portable and quick and easy to set up. What is more, you can rest assured that each one has been tested and approved to Inmarsat's own exacting standards to ensure that it is fully compatible with the BGAN network.



# Improving operational efficiency

Delivering secure, reliable connectivity. Globally.

# Global coverage

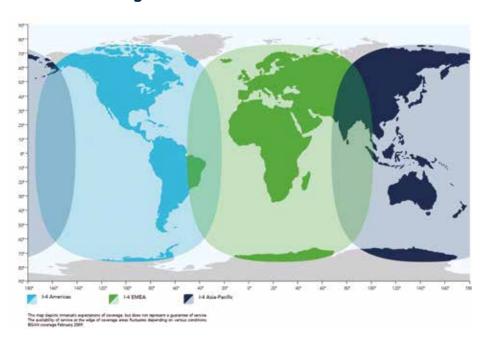
The BGAN service is accessible globally except in the extreme polar regions. Whether deploying a police and counterterrorism team to a remote flash point in an austere border region or sending a military liaison and reconnaissance group to a distant country in support of an international aid effort, BGAN ensures that you are never out of touch. Wherever you need to be. However quickly you need to get there.

# Superior performance

BGAN provides fast, cost-effective access to IP data-services. Whether you need fast, stable streaming services to send and receive high quality video or your role demands reliable, always-on connectivity to your office intranet for email access and collaborative tools on the move, BGAN allows you to use complex applications with confidence.

Simultaneous voice and data capability means that operational services can be running online and you can still access email, your intranet and make voice calls — all via a single, compact terminal.

### **BGAN Coverage**



# **Unrivalled reliability**

Inmarsat understands the needs of the government user and the importance of having confidence that your communications will work at the critical moment exactly when they are needed. The government user often will not have a second chance when the moment has been lost.

BGAN is designed specifically to provide you with the highest levels of network availability. Inmarsat's fourth generation satellites form the most sophisticated commercial constellation in operation today, with redundancy engineered into both space and ground segments. The network is based entirely on highly-resilient L-band links, which are unaffected by the rain-fade that degrades links in other bands. This technology allows constant, robust communications with overall network availability exceeding 99.9 per cent. Whatever the weather, you can depend on Inmarsat.

**Complete security** 

Inmarsat has long experience of providing secure communications to government and military customers. All BGAN traffic is passed over a secure, private carrier network and Inmarsat's continuous ongoing security programme ensures its networks continue to meet international standards and customer requirements. However, we also understand that, at times, government users have their own unique requirements for the security of their information and need even greater confidence in its level of protection.

Therefore our network also supports the use of additional security products such as VPNs, ISDN and IP cryptos. We also have available covert terminals for users with special operational requirements.

Whether you need additional protection for your information or the ability to stay in touch when operating covertly, explore the range of possibilities in a detailed discussion with our sales and engineering teams.

# Easy installation and integration

BGAN terminals operate in static locations or "On The Pause" and a wide range is also available for use in vehicles on the move. These can be quickly and easily installed across your entire fleet. Terminals operate globally, with a simple and intuitive interface.

Total flexibility. Supports the latest technologies and your older applications

BGAN supports the latest IP services, as well as circuit-switched voice and data for your legacy applications. You can choose between a standard, contended IP service and a service providing a guaranteed data rate on demand — with the ability to select

the rate according to your application. Various types of terminal are available, each of which offers different performance capabilities via approved hardware.



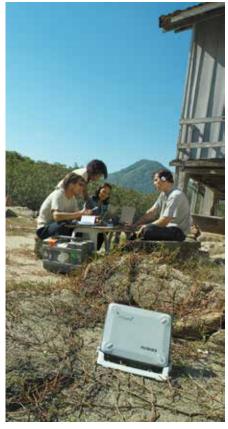
# **Cost-effective**

BGAN's high performance and flexibility need not come at a high price.

Terminal costs are low and a wide choice of airtime pricing packages allows you to match the service precisely to your needs. And there is no need to commit to a lengthy contract. BGAN makes global, mobile voice and data services more accessible than ever while allowing you to reduce the cost of ensuring that government ministers and officials always have the communications they need, where they need them to be able to carry out their role.

BGAN offers affordable communications that allow ministers and their staff to travel the world while remaining constantly in touch with their capital cities; that offer defence, security and blue-light responders the highest levels of operational readiness, effectiveness and agility; and allow citizen-facing departments to ensure that the same high-grade services are consistently available to everybody, at all times, regardless of whether they are in the urban centres or in the most remote highland villages. BGAN connectivity makes it possible for governments to provide the services that citizens deserve and expect in a digital age.

The range of BGAN terminals and service plans make it ideal for almost all government users. Services range from low usage machine-to-machine plans to high capacity assured access and guaranteed rates on-demand for streaming video. The new High Data Rate service offers rates up to 650kbps — and even the option of doubling this by combining two channels if using suitable hardware. Whether your requirement is for a simple SCADA solution or reliable streaming of high-resolution full motion video, there is a BGAN service plan that meets your requirement.



# **Service Enhancement**

Inmarsat Assured Access - Providing a guaranteed grade of service on the Inmarsat network for a known price.

Inmarsat Assured Access provides priority access and guaranteed connectivity to the Inmarsat global network for your BGAN, FleetBroadband and SwiftBroadband services. Assured Access will provide you with a highly reliable, secure communications link to support a range of applications in theatre — from tactical voice through to the rigorous demands of C4ISR.

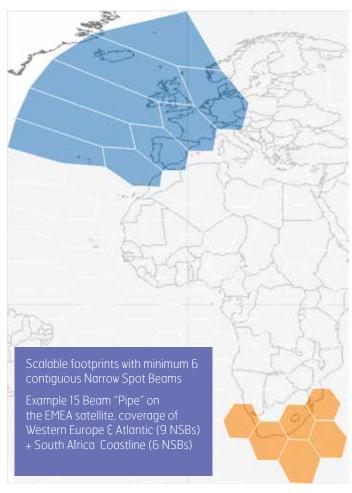
# **Applications**

- Assured Access will give you guaranteed communications for:
  - > Tactical radio nets
  - > Communications on the move
  - > Situational awareness
  - Surveillance and remote monitoring
  - > Full motion video

### **Benefits**

- Always available 24/7 assurance of network access
- > Pre-agreed fixed costs for predictable budgeting
- > Operational flexibility available globally and with options to move footprints
- > Scalable coverage up to 15 spot beams with options for dual footprints

# **Example of Assured Access Coverage**





# **Applications**

- > Stand-alone or complementary to dedicated government satellite
- > Mobile or static operation from portable, vehicle or fixed terminals
- > Email and webmail
- > Remote access to the internet or to company or department intranet
- > Secure voice and data communications
- > SMS and instant messaging
- > Videoconferencing
- > Watch or send Full Motion Video
- > Store and forward video

# Key benefits

### Standard IP

Ideal for email, internet and intranet access via a secure VPN connection, at speeds up to 492 kbps over a shared (contended) channel.

### Streaming IP

The BGAN X-Stream ™ service delivers guaranteed data rates on demand up to 384 kbps. Choose the data rate on a case by case basis, depending on your application.

A new High Data Rate service streaming service provides the fastest, non-contended data rates. With bandwidth up to 650 kbps in a single channel and the opportunity to double that using two channels combined, this service is particularly well suited to high quality video and imagery applications.

### **Assured Access**

A guaranteed data rate within a defined geographic region that can be shared between more than one terminal.

### Voice

Make voice calls at the same time as accessing your data applications. Voicemail is also available. Group 3 fax is supported via the voice channel.

### **ISDN**

Supports ISDN at 64 kbps for your legacy applications.

# Shared Corporate Allocation Plan

Choose a shared allocation plan that allows you to share your chosen data package between a small or large group of terminals. Ideal for departments and agencies who need a number of different terminals operatina



# **Terminals**

Ingress

Protection





IP-67







IP-55

IP-54

IP-55





terminals		HARRIS RF-7800B- DU024	Low Profile BGAN	EXPLORER 710	EXPLORER 510	HUGHES 9202	WIDEYE SABRE 1	HUGHES 9211
portable and fixed term	Manufacturer	Harris	Hughes	Cobham	Cobham	Hughes	Add Value	Hughes
	Dimensions WxHxD and weight	24.1 x 24.1 x 6.5cm 2.8 kg	IDU: 253 x 176 x 53 mm 2.2kg ODU: 240 x 240 x 29 mm 1.2kg	279 x 332 x 52mm 3.5kg (inc battery) Antenna: 1.9kg Transceiver: 1.6kg	202 x 202 x 51.8 mm 1.4kg	216 mm x 216 mm x 45 mm 1.4kg	259 x 195 x 58mm 1.6kgs	232 x 292 x 51 mm 2.019kg
	Portable/ Fixed	Portable	Portable and Fixed	Portable and Fixed	Portable and Fixed	Portable and Fixed	Portable	Portable and Fixed
	Standard IP	Up to 432 kbps	448 Kbps	Up to 492kbps (send and receive)	Up to 464 kbps	Up to 464 kbps	Up to 240 / 384kbps (send / receive)	Up to 464 kbps
	Streaming IP	32, 64, 128 kbps		32, 64, 128, 176, 256kbps BGAN X-Stream™, BGAN HDR 650kbps	32, 64, 128 kbps	32, 64, 128 kbps	32, 64kbps	Up to 650 Kbps
	Voice and Fax			Via RJ-11, 3.1kHz audio or IP handset	EXPLORER Connect App for IOS and Android*:	Two-line RJ-11, 802.11 WLAN	Via RJ-11, handset	Two-line RJ11 connector
	ISDN	Voice (4 kbps), data (64 kbps)		64kbps via RJ-45	Standard voice: 4 kbps Premium voice: 3.1 kHz audio, 64 kbps	RJ45 connector (ISDN)	N/A	Ethernet connection (RJ45)
	Other data interfaces	Ethernet, USB	Ethernet RJ-45, USB	2 x Ethernet, USB, WiFi	WLAN Access Point, USB	RJ45 connector,	Ethernet	Ethernet connection (RJ45)

11 BGAN for land

IP-66

IP-52

(transceiver) IP-66 (antenna)



terminals		WIDEYE SAFARI	EXPLORER 325	HUGHES 9450-C11	GLOCOM GX-10	GLOCOM GX11	EXPLORER 727	HUGHES 9350-C10	HARRIS RF- 7800B- VU104
er	Manufacturer	Addvalue	Cobham	Hughes	Glocom	Glocom	Cobham	Hughes	Harris
vehicular t	Dimensions WxHxD and weight	Terminal 340 x 253 x 61mm 3.5kgs Antenna 252 x 191mm 1.9kgs	Terminal 231 x 278 x 41mm 2.4kgs Antenna 349 x 128mm 3.6kgs	Terminal 234 x 281 x 46mm 2.3kgs Antenna 252 x 119mm 2kgs	Terminal 260 x 256 x 44mm 2.8kgs Antenna 494 x 153mm 5.5kgs	Terminal 260 x 210 x 44mm 2.4kgs Antenna 252 x 119mm 1.86kgs	Terminal 247 x 270 x 43mm 2.5kgs Antenna 477 x 160mm 6kgs	Terminal 260 x 256 x 50mm 2.8kgs Antenna 494 x 153mm 5.5kgs	20 x 51cm 12.6 kg
vel	Standard IP	Up to 448 / 464kbps (send / receive)	Up to 448 / 464kbps (send / receive)	Up to 448 / 464kbps (send / receive)	Up to 492kbps (send and receive)	Up to 448 / 464kbps (send and receive)	Up to 492kbps (send and receive)	Up to 492kbps (send and receive)	Up to 492kbps (send and receive)
	Streaming IP	32, 64, 128 kbps	32, 64, 128kbps	32, 64, 128kbps	32, 64, 128, 256kbps	32, 64, 128 kbps	32, 64, 128, 256kbps2 BGAN X-Stream™ on- the-pause	32, 64, 128, 256kbps	32, 64, 128, 256kbps
	Voice and Fax	2 RJ-11 ports for voice or fax	1 RJ-11 port for voice	Via RJ-45 ISDN handset, via ISDN TA with two RJ-11 ports for voice or 3.1kHz for audio / fax	Via RJ-45 ISDN handset, via ISDN TA with two RJ-11 ports for voice or 3.1kHz for audio / fax	Via RJ-45 ISDN handset, via ISDN TA with two RJ-11 ports for voice or 3.1kHz for audio / fax	2 RJ-11 ports for voice and 3.1kHz audio / fax	Via RJ-45 ISDN handset, via ISDN TA with two RJ-11 ports for voice or 3.1kHz for audio / fax	Falcon III manpack radios
	ISDN	N/A	N/A	56 / 64kbps	56 / 64kbps	56 / 64kbps	56 / 64kbps	56 / 64kbps	Voice (4 kbps), data (64 kbps)
	Other data interfaces	2 x Ethernet, WLAN 802.11b/g (Wi-Fi)	2 x Ethernet	4 x Ethernet, Wi-Fi with extended standard connector	Ethernet, Wi-Fi, USB	Ethernet, Wi-Fi with extended standard connector, USB	4 x Ethernet, USB	Ethernet, Wi-Fi with extended standard connector, USB	Ethernet, USB
	Ingress Protection	IP 44 (terminal) IP 56 (antenna)	IP 31 (terminal) IP 56 (antenna)	IP 54 (terminal) IP 56 (antenna)	IP 54 (terminal) IP 56 (antenna)	IP 54 (terminal) IP 55 (antenna)	IP 31 (terminal) IP 56 (antenna)	IP 54 (terminal) IP 56 (antenna)	

# HARRIS RF-7800B-DU024

# Designed for harsh environments - Military Standard BGAN

The Harris RF-7800B-DU024 BGAN Terminal provides tactical radio network capability that enhances the FALCON III® multiband radio family. The RF-7800B-DU024 is a Class 2 BGAN Land Portable Terminal that provides data rates of up to 432 kbps.

The RF-7800B-DU024 BGAN Terminal is designed for operation in harsh environmental conditions.

The RF-7800B-DU024 terminal is a manually pointed antenna system capable of rapid deployment for sending and receiving data once pointed at the satellite. When used with the AN/PRC-117G(V)1(C) or the RF-7800M-MP manpack radios, the terminal provides a multimode system that utilizes ad-hoc networking to automatically route between mobile wideband networked line-of-sight (LOS) nodes, adding global beyond-line-of-sight (BLOS) satellite connectivity. The Falcon III integrated system manages Inmarsat subscriber costs through the automated routing between ANW2 LOS and BLOS nodes. The system is designed to ensure a seamless tactical network-centric BLOS connectivity to the existing FALCON III tactical networks, providing secure IP data transfer capability and increased communications reliability. When used with the Falcon III manpack radios, the Harris BGAN terminals can



provide an increased effective throughput of up to 2 Mbps over the Inmarsat network due to TCP/IP acceleration and compression algorithms within the ANW2 waveform, further reducing your costs.

The Harris BGAN Terminal IP data is encrypted by the Sierra II™ Type-1 algorithms in the AN/PRC-117G or the Acropolis™ II AES encryption algorithms in the RF-7800M-MP. The embedded software of the manpack radio provides the ability

to fully configure, remotely control and provide status and fault monitoring of the RF-7800B-DU024 BGAN Terminal using the radio's front panel, making it the easiest BGAN Terminal to set up and operate. The RF-7800B-DU024 provides global network connectivity solutions when used as a standalone terminal with a computer for applications such as law enforcement, homeland security or humanitarian and disaster relief efforts.

# Low Profile BGAN

# Covert - Military Standard BGAN

The Low Profile BGAN (LPB) is Inmarsat's unique surveillance terminal. A rapid-to-deploy, coverable, covert antenna allowing the user to bury the antenna under a layer of material yet maintain connectivity, is combined with a toughened, remotely operated BGAN terminal providing broadband data rates

This capability allows the terminal, when fitted to triggers and surveillance hardware, to lay dormant until awoken by a network command from the command centre or triggered into action by an event in the field. When attached to movement, audio, infrared and radar sensors it allows eyes and ears on the ground without any of the risk or resource demand that having hidden manned surveillance entails

The LPB meets end user operational requirements and is ideal for fixed land, static vehicle and rapid deployment connectivity. Compatible with a wide range of government furnished equipment, the LPB is designed to be deployed for long periods of time without any attendance, allowing users to activate the terminal remotely using SMS or UT commands streaming information to a variety of devices. Events on the ground can also be set to trigger activation thus providing real-time situational awareness by alerting those who need to know what is happening in the area of interest, instantly.

# Remote management

An IP Watchdog integrated into the system ensures "always-on" network connectivity. When the terminal loses power no manual intervention is required to reawaken it. Auto-on/auto-context activation automatically restores power and PDP connection to itself following loss of power and/or IP connection

The terminal can be awoken by remote control via SMS or UT. This provides remote management platform for command and control to the terminal using SMS, including configuration, debugging, and activation of surveillance hardware

### Covert antenna

A rugged antenna that still achieves high performance when laid flat allows for easy deployment in a variety of locations. With the ability to cover the terminal in soil, sand or even water the LPB, harnessing the resilience of BGAN, allows peace of mind that your connection is going to be maintained even in the most hostile situations.





# **EXPLORER 710**

### Class 1 BGAN Terminal. The ultimate BGAN

At the forefront of a new era of high speed ultra-portable satellite streaming, EXPLORER 710 is a sophisticated communication tool for those that demand high performance IP based applications.

### **BGAN** but faster

EXPLORER 710 provides streaming rates over 650 kbps out of the box when using Inmarsats latest high data rate streaming service.

With EXPLORER 710, you can leverage the fastest on-demand video streaming via satellite with guaranteed QoS to enhance the quality of live imagery, video streaming and remote communication.

# **Unique possibilities**

Continuing the tradition of technology leadership started when the EXPLORER team introduced its first BGAN terminal in 2005, EXPLORER 710 introduces several advanced new features.

Uniquely, it has the ability to bond the signals from multiple EXPLORER 710 terminals via Ethernet to achieve IP streaming rates of 1 Mbps or even higher, for the most demanding uses such as high quality imagery and video.

# **Bring Your Own Device**

EXPLORER 710 also introduces Smart Phone apps to the world of BGAN connectivity, enabling users to connect their own devices wirelessly for voice calling and connectivity.

It's light, compact, tough and incredibly reliable. It opens more possibilities for connecting devices, offering more flexibility. It's ultra-portable, so you can be set-up within minutes of arriving on scene.

# **Next generation**

EXPLORER 710 is the complete package, featuring touches like a USB host interface, hot-swappable batteries, easy-to-use LED display and multiple interfaces.

It's the world's smallest and lightest Class 1 BGAN terminal and the first platform to make use of new high data rate streaming as standard, so is a true next generation BGAN terminal.





# **EXPLORER 510**

Ultra-portable and easy to use, this lightweight BGAN terminal is a powerful next generation tool for field communication worldwide

### A new way to connect

EXPLORER 510 is focused on wireless connectivity. It harnesses the power of the new EXPLORER Connect App, which turns your Android and IOS smartphones and tablets into powerful satellite communications tools.

When it comes to setting up you can be online in minutes using your own wireless devices. The USB host allows wired connections to the terminal and the optional EXPLORER LTE dongle (available in Q1 2015), so you can use local cellular if available and switch to BGAN when needed.

# Professional performance

Whether you're reporting the news, exploring for natural resources, doing commercial or government business or helping people in emergencies, EXPLORER 510's high quality voice and broadband up to 464 kbps offer the performance you need to carry out your work in the field.

Regardless of location or environment, with EXPLORER 510 you can make and receive calls, use email, access the web, connect to your corporate network, stream video \$\xi\$ audio, and harness the power of work specific IP applications to make sure you get the job done.

### Ultra-portable

At 200mm x 200mm x 50mm, EXPLORER 510 is smaller than a standard laptop and weighs less than 1.4 kg. In fact, it's the smallest EXPLORER BGAN terminal ever but despite its compact size it delivers reliable communication in any conditions.

Your ability to communicate and do your job will not weigh you down with EXPLORER 510. Its unique design makes it an ideal tool for field communication on its own, or as a companion alongside EXPLORER 710 or a semi-permanent EXPLORER VSAT terminal.

# Reliable connectivity

EXPLORER 510 draws from the established EXPLORER legacy, offering the same high-quality materials and manufacturing, but featuring a whole new design direction for this leading series of satellite terminals.

Media, government, humanitarian and utility users know that EXPLORER terminals are designed and built to last. So whether you are helping people on the fault line, creating news on the frontline or measuring flow on a pipeline, you know you can rely on EXPLORER 510 to connect every time.





# **HUGHES 9202**

Class 2 BGAN Terminal. Broadband satellite IP terminal with voice, ISDN and built-in 802.11 Wi-Fi access point

The reliable and lightweight Hughes 9202 Land Portable Terminal boasts a compact and sleek design. A budget-friendly and highly attractive portable terminal, the Hughes 9202 is ideal for governments and NGOs, first responders, public safety and mobile health care workers.

The Hughes 9202 provides high performance connectivity and reliability for the most demanding users and extreme conditions.

Using the world's smallest BGAN terminal, users can connect at IP broadband speeds up to 464 kbps, as well as take advantage of such features as built-in multi user Wi-Fi access and automatic context activation (ACA), including the ability to transmit SMS messages via the integrated user interface (IUI) without a connected laptop, PDA, or other user device.

The Hughes 9202 allows the user to send and receive IP traffic via Ethernet and Wi-Fi. In parallel with the packet data service, the Hughes 9202 supports full ISDN and circuit switched voice and fax calls via a two-line RJ11 plug. Planners, commanders, headquarters staff and others can collaborate with confidence and efficiency with various agencies and headquarters staff using video, voice, and data simultaneously.

As with all Hughes BGAN models, the Hughes 9202 is IP-based, delivering selectable, dedicated Quality of Service (QoS) levels.

### **Main Features**

- > Rugged and durable IP55 rating
- Backlit LCD user display including fourbutton control
- > Wi-Fi inside supporting multi-user access
- > Two-line RJ11 for voice and fax
- Full ISDN support including Unrestricted Digital Information (UDI)
- > Advanced integrated user interface (IUI)
- > Automatic Context Activation (ACA)
- > XL-band ready





# **WIDEYE SABRE 1**

Class 3 BGAN Terminal. Voice and data, single-user device

The SABRE™I combines a robust, compact design with performance and optimal flexibility. It is equipped with a range of common interfaces, providing connectivity options in the field and the swivelled antenna facilitates rapid and easy pointing for a satellite connection. Combined with its sub-laptop size, the terminal is ideal for single users who need to set up a complete broadband mobile office in frequently changing locations.

### **Applications**

- Remote access high-speed access to your office or headquarters network, as well as company and customer information.
- > Internet access access the internet at speeds up to 384kbps.
- > Email send and receive email via the internet or email applications.
- > Telephony make phone calls at the same time as accessing data applications.
- Streaming select guaranteed quality of service up to 64kbps on demand eg. for video, audio.
- > File transfer send and receive large files.



# Key benefits

- Ultimate portability at around half the size of a laptop, it is one of the smallest and lightest terminals in the range.
- > Simultaneous voice and broadband data -access your data applications and make a phone call at the same time using the SABRF™ I
- > Highly flexible can be connected to a laptop via the Ethernet port or wirelessly via Bluetooth.

- > Global coverage provides service anywhere within the BGAN coverage area.
- Easy to use you can easily access the service using the intuitive icon-based BGAN LaunchPad on your laptop.
- > Robust the strong casing means the SABRE™ I can withstand the toughest of environments.
- Completely secure connect seamlessly via your preferred VPN application

# **HUGHES 9211**

The rugged and lightweight Hughes 9211-HDR is a budget-friendly High Data Rate (HDR) terminal, ideal for media, governments, NGOs, mobile healthcare providers and more, who demand the finest balance of high performance, quality of service and lowest cost.

- > Smallest & lightest BGAN "HDR" terminal to date
- > Rugged IP-55 all-in-one terminal
- > Integrated WLAN/Wi-Fi with Hughes MMI
- > Asymmetrical "HDR" streaming up to 650Kbps+
- > Plug-\(\xi\)-play with auto-tracking Vehicular Class-11 BGAN antenna

High Data Rate (HDR) mobile satellite terminal with voice and built-in 802.11 b/g/n WiFi access point

The rugged and lightweight Hughes 9211–HDR is a budget-friendly High Data Rate terminal, ideal for media, governments, NGOs, mobile healthcare providers and more, who demand the finest balance of high performance, quality of service and lowest cost.

The 9211-HDR boasts a hardened, compact, and sleek design—the world's smallest and lightest HDR-capable BGAN. Users can connect at streaming broadband speeds of over 650 kbps with features such as built-in, multi-user WiFi access.

An external powered antenna is available to support long RF cable runs for temporary or permanent fixed-site installations. The user even has the freedom to connect an accessory vehicular tracking antenna, enabling comms-on-the-move directly from the 9211-HDR terminal.

The Hughes 9211-HDR enables users to send and receive IP traffic via Ethernet and/or 802.11 b/g/n WiFi and voice or fax via a standard telephone connection. It is all IP-based and offers Class 1 background IP or selectable, dedicated Quality of Service (OoS) levels.

Inmarsat's BGAN HDR service network now offers new and higher streaming rates. The Hughes 9211-HDR supports the highest streaming rates available (above 650 kbps) for transmitting video and other critical data from the field. Asymmetric streaming rates are supported, enabling users to better tailor the service to their individual preferences to control and minimize costs



# WIDEYE SAFARI

# Compact voice and broadband solution for vehicles

The SAFARI™ is a Land Vehicular BGAN Terminal operating on the Inmarsat BGAN Satellite Network.

The SAFARI™ has one of the smallest Land Vehicular BGAN antennas in the market at 252 mm Dia x 119.12 mm H and weighs only 1.9kg. The complete system consists of three fully integrated units — an IP44 rated Transceiver Unit with built-in Wi-Fi, an IP66 rated Handset and an IP56 rated roof mounted Antenna Unit. The Antenna Unit is compact and lightweight, ideal for vehicles on-the-move. It has been designed for the most demanding environments — and is easy to carry when traveling around the world.

The SAFARI™ Land Vehicular BGAN
Terminal offers the user standard voice
(4kbps AMBE+2), optional 3.1 KHz high
quality voice/fax, high speed Streaming
and Standard IP data service for various
applications, including internet browsing,
email and file transfer.

The terminal allows simultaneous use of all services including voice/fax, data and SMS. Physical interfaces include, 2 x RJ-11 for Voice and Fax, 2 x RJ45 for Ethernet LAN connections, a RS232 port for GPS output and 4 x GPIOs, for external control or indications

### **Key features:**

- > Easy to use and operate. Simply turn the unit on to create wireless hotspot
- > Up to 464 Kbps download, 448 Kbps upload Internet speeds - Class 2 BGAN Terminal
- Wireless hotspot can connect any inrange device, laptop, smartphone, iPad
- > Simple 3 piece design Roofmount antenna, controller & handheld phone
- > Phone voicemail, phonebook, web portal for customization
- SMS texting with web accessible address book
- > Fax (Group 3) capable
- Includes GPS output for GPIO's for external applications
- Remote system access allows vehicle tracking and fleet management



# **EXPLORER 325**

Compact voice and broadband solution in vehicles

The EXPLORER 325 is a compact BGAN system for on-the-move communication. The system consists of three fully integrated units — a transceiver, an IP handset and a roof mountable antenna with magnetic mounts.

Whether you're engaged in humanitarian operations, cargo transportation, surveillance or telemedicine, you need easy deployable communications equipment you can always rely on. Regardless of time or place.

# Key features:

- Instant communication: Simply place the antenna on the roof, connect the antenna and your PC to the EXPLORER terminal, switch on the Thrane \$ Thrane IP Handset and the vehicle is turned into a mobile communication but
- Compact: The antenna is compact and lightweight, ideal for vehicles on-themove. It is robust and durable, designed for use in demanding environments
- No roaming charges: BGAN offers mobile broadband connectivity wherever you go at fixed pricing with no roaming. With the EXPLORER 325 you know your cost of communication regardless of the number of borders you cross.



# **HUGHES 9450-C11**

Broadband satellite IP terminal and WLAN (Wi-Fi Hot Spot) access point

Government teams can now connect at IP broadband speeds of up to 464 kbps while on-the-move using the world's smallest mobile BGAN terminal—the Hughes 9450-C11.

The Hughes 9450-C11 terminal is fully approved for operation on Inmarsat's Broadband Global Area Network (BGAN) satellite service and provides high-performance, on-the-move connectivity for the most demanding environments.

The Hughes 9450-C11 is a budget-friendly and highly competitive mobile terminal, ideal for government, first responders, public safety, mobile healthcare, and remote mobile fleet personnel.

Government crisis response planners and remote field personnel can collaborate reliably and efficiently with various agencies and headquarters staff using video, voice, and data simultaneously. As with all Hughes BGAN models, the Hughes 9450-C11 includes a built-in wireless Wi-Fi access point. The Hughes 9450-C11 terminal is IP-based and offers selectable, dedicated Quality of Service (QoS) levels.

### **Features**

- Fully autonomous tracking antenna acquires and tracks the BGAN satellite signal while on-the-move
- Simultaneous use of Ethernet and WLAN for IP data plus RJ-11 or ISDN for voice
- Internal Web User Interface (UI) for configuration and control without the use of LaunchPad
- > Web UI is accessible via Wi-Fi-enabled PC, PDAs, BlackBerry™ and iPhones™
- Auto context activation feature allows data connections to be activated without user action
- Multi-user capability (up to 11 simultaneous sessions)



# **GLOCOM GX-11**

### Compact, economical vehicle terminal

Glocom's GX-11 is a compact, economical Inmarsat BGAN land vehicular user terminal designed to support a variety of broadband global area network services including IP packet data, Streaming, ISDN 3.1kHz audio or fax and secured voice, and low-rate AMBE telephony circuit-switched voice services.

GX-11 operates under the Inmarsat 4th generation satellites while the vehicle is in motion. GX-11 consists of two separate modules: ODU (Outdoor Unit) and IDU (Indoor Unit) and connected by a coaxial cable. The ODU features a helical antenna, a 2-axis stabiliser, a GPS receiver, and a front

end RFU. The IDU contains and enhanced Class 11 core module with crystal oscillator durable for the vehicle shock/vibration environment, a wide range (11 to 32 vdc) DC/DC power module and an Interface Module housed in ruggedised chassis shock mount for desk top or rack installation. The GX-11 antenna/stabiliser is shielded in a low-profile cylindrical dome roughly 15cm in height and 28cm in diameter.



# **GLOCOM GX-10**

Glocom's GX-10 is an Inmarsat BGAN Class 10 land vehicular user terminal (LVUT) designed to support a variety of broadband global area network services including IP packet data, ISDN UDI (64kbps) 3.1kHz audio or fax and secured voice, and low-rate AMBE telephony circuit-switched voice services.

GX-10 operates under the Inmarsat 4th generation satellites while the vehicle is in motion. GX-10 consists of two seperate modules: ODU (Outdoor Unit) and IDU (Indoor Unit) and connected by a coaxial cable. The ODU features a helical antenna, a 2-axis stabiliser, a GPS receiver, and a front end RFU. The IDU contains an enhanced Class 10 core module with crystal oscillator durable for the vehicle shock/vibration

environment, a wide range (11 to 32 vdc) DC/DC power module and an Interface Module housed in ruggedised chassis shock mount for desk top or rack installation. The GX-10 antenna/stabiliser is shielded in a low-profile cylindrical dome roughly 15cm in height and 49cm in diameter.



# **EXPLORER 727**

# High speed broadband on the move

Today's requirements for dynamic rapid response and deployable communications have never been more critical. To meet this demand Thrane \$ Thrane has developed the EXPLORER 727 – thus turning your vehicle into a mobile communications hub.

This means that you will have access to phone networks and the Internet while you are on the move anytime and anywhere in the world. The EXPLORER 727 antenna on the roof is constantly tracking satellite positions, which provides you with a high speed broadband connection at all times. whether you're engaged in military training, disaster response, telemedicine, or video conferencing, you need to rely on rapid response and deployable communications.

The EXPLORER 727 is unparalleled in the industry today with its robust, reliable and durable design. The EXPLORER 727 was developed with focus on High Speed Broadband on the Move solutions for key markets, including: Department of Defence (DoD), government and commercial organizations with broadband satellite communications requirements.

# **Typical applications:**

- > Simultaneous voice and data
- > Legacy analog and ISDN crypto devices
- > IP crypto
- > Surveillance
- > Back-up
- > Data collector
- > Situation awareness
- > Live broadcast
- > High quality audio broadcasting
- > Video conferencing
- > Large file transfer
- > Voice over IP (VoIP)
- > VPN
- > Access web and mail
- > Stream video
- > SIPR/NIPR



# **HUGHES 9350 C10**

### Broadband satellite IP terminal and WLAN access point

Imagine connecting at IP broadband speeds of up to 400+ kbps, uncompressed Internet access and voice while on the move—with a complete mobile communications package including a small interior modem and exterior auto-tracking antenna. That's exactly what you receive with the breakthrough Hughes 9350 mobile satellite terminal.

For the highest performance available over the BGAN network, choose the 9350-C10 solution. The Hughes 9350 offers reliable connectivity on the move for the most demanding environments.

The Hughes 9350 is ideal for emergency responders, reporters and mobile workers who need reliable, high-speed connectivity on the move, such as:

- > First responders and public safety workers
- Mobile healthcare technicians (telemedicine)
- > Government crisis response planners
- > Field personnel

Collaborate with staff back at headquarters using video, voice, and data simultaneously. It's an instant wireless hot spot for team members on the scene using the built-in Wi-Fi Access Point.

The Hughes 9350 is IP based and offers selectable, dedicated Quality of Service levels (QoS). Easy to install on any vehicle—the tracking antennas use a single cable connection and are available with a magnetic roof mount.

The Hughes 9350 allows you to send and receive IP packet data via Ethernet and WLAN interfaces in a land-vehicular application. In parallel with the packet data services, the same terminal supports a circuit switched voice call or a 64 kbps ISDN data call



# HARRIS RF-7800B-VU104

# Ruggedised BGAN SOTM terminal

The RF-7800B-VU104 BGAN Terminal provides a tactical radio network capability that enhances the FALCON III® multiband radio family. The RF-7800B-VU104 is a Class 10 BGAN SATCOM-on-the-Move (SOTM) Terminal that provides data rates of up to 492 kbps while on the move. The RF-7800B-VU104 is the only rugged BGAN SOTM terminal available today.

The RF-7800B-VU104 antenna may be permanently mounted on a vehicle and continuously tracks with the INMARSAT satellite for successful communications. The RF-7800B-VU104 can be considered for global network connectivity solutions when used with a computer for standalone terminal applications such as law enforcement, homeland security, or humanitarian and disaster relief efforts.

When used with the AN/PRC-117G(V)1(C) or the RF-7800M-MP manpack radios, the terminal provides a multi-mode system that utilizes ad-hoc networking to route automatically between mobile wideband networked line-of-sight (LOS) nodes, adding global beyond-line-of-sight (BLOS) satellite connectivity. The Falcon III integrated system manages Inmarsat subscriber costs

through the automated routing between ANW2 LOS and BLOS nodes. The system is designed to ensure a seamless tactical network-centric BLOS connectivity to the existing FALCON III tactical networks, providing secure IP data transfer capability and increased

communications reliability. When used with the Falcon III manpack radios, the Harris BGAN terminals can provide an increased effective throughput of up to 2 Mbps over the Inmarsat network due to TCP/IP acceleration and compression algorithms within the ANW2 waveform further reducing Inmarsat subscriber costs.

The Harris BGAN Terminal IP data is encrypted by the Sierra II™ Type-1 algorithms in the AN/PRC-117G or the Acropolis™ II AES encryption algorithms in the RF-7800M-MP. The embedded software of the manpack radio provides the ability to configure, remotely control and provide status and fault monitoring of the RF-7800B-VU104 BGAN Terminal using the radio's front panel, making it the easiest BGAN terminal to set up and operate.



# Enhance connectivity for the global land environment

### Standard IP

For email, internet and intranet access via a secure VPN connection, at speeds up to 492kbps over a shared channel.

### **Streaming IP**

Guaranteed data rates on demand up to 256kbps. Choose the data rate on a case by case basis, depending on your application. Also supports ISDN at 64kbps, X-Stream at up to 384kbps and BGAN HDR at up to 650kbps.

### Voice

Make voice calls at the same time as accessing your data applications. Voicemail is also available. Group 3 fax is supported via the voice channel.

### **ISDN**

Supports ISDN at 64kbps for your legacy applications.

### **SMS**

Send and receive text messages — up to 160 characters.

# Plan Standard Entry Mid High Super

### SCAP - SHARED CORPORATE ALLOWANCE PLANS

			With rollover			
	3 Months	12 Months	1 year	2 years	3 years	
UP TO 10 SIMS			$\checkmark$	$\checkmark$	$\checkmark$	
UP TO 20 SIMS	✓	√	✓	✓	$\checkmark$	
UP TO 50 SIMS	√	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	
UP TO 100 SIMS	✓	✓	✓	✓	V	
UP TO 175 SIMS	✓	$\checkmark$				
UP TO 200SIMS			✓	✓	$\checkmark$	
UP TO 250 SIMS	✓	<b>√</b>				

	BGAN Link*
5GB	
10GB	
15 GB	

<sup>\*</sup>intended for use at a specific location only and is not a portable service. Must be applied for with lat/long details

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