inmarsat
The mobile satellite company

Enterprise M2M terminals

Inmarsat's machine-to-machine (M2M) services are accessible via small, lightweight, satellite terminals, which are quick to set up, easy to use and integrate seamlessly with bespoke applications.

A range of certified terminals are available for mobile and fixed use, providing remote management and performance options to suit different operational needs in the most extreme environmental conditions.

		BGAN M2M					IsatData Pro			
		 **Hughes 9502** (external antenna)	 **Hughes 9502** (integrated antenna)	 **Cobham E540**	 **Hughes 9450-C11 Mobile**	 **SABRE Ranger 5000**	 **IsatData Pro 782**	 **IDP 800 series**	 **OGi**	 **ST6100**
Technical specifications	**Form factor**	Separate terminal with external antenna	Single terminal with integrated antenna	Single terminal with integrated antenna	Separate terminal with external mobile tracking antenna	Single Piece Terminal with integrated antenna	Satellite and 2G/3G hybrid terminal for use with external antenna	Low profile terminal for asset tracking	Satellite Modem for OEM integration	Terminal unit with integrated antenna
	Manufacturer	Hughes BGAN.hughes.com	Hughes BGAN.hughes.com	Cobham Cobham.com	Hughes BGAN.Hughes.com	AddValue Innovation Pte Ltd wideye.com.sg	SkyWave skywave.com	SkyWave skywave.com	Orbcomm Orbcomm.com	SkyWave skywave.com
	Dimensions (W x H x D) and weight	Terminal 200 x 150 x 45mm, 1.5kg Antenna 385 x 385 x 33mm, 1.9kg	275 x 275 x 84mm 3.8kg	202 x 202 x 51.8 mm 1.6kg	Terminal 281 x 234 x 46mm 2.3kg Antenna 252 x 119 2.0kg	241 x 239 x 71mm 2.5kg	115 x 136 x 41mm Transceiver: 2.5kg/3.3kg (without battery/with battery)	432 x 147 x 25mm 1.3kg	Modem: 99 x 64 x 10mm Antenna: Low profile: 126 x 93 x 25mm Low elevation: 126 x 93 x 76mm	127 x 127 x 49mm 0.46kg
	Interfaces	RJ45, Ethernet, GNSS and USB (for management only)	RJ45, Ethernet, GNSS and USB (for management only)	1x RJ45 Ethernet with PoE, 1x Micro USB for external cellular modem, 1x 3pin for I/O, 1 x 8 pin Ethernet interface, 1 x 2 pin for DC power input	4 x (PoE) ports, Multi-user WiFi	2 x Ethernet Ports (RJ45),2 x 12 Pin Terminal Block,1 x RS232 / RS485 Modbus, 1 x RS232 (debug), 4 x GPIO - Output, 4 x GPIO - Input, 1 x Analog Input Port, 1 x Local Wakeup - Input 1 x Power Supply Input (2 wires), Terminal Block, 1 x DC Output, 1 x Antenna Pointing Switch, 5 x Pointing LEDs, 1 x Antenna Pointing Buzzer, 1 x Safe Mode Button, 1 x Micro USB Port (Reserved)	2 x RS232, 1 x RS485 4 x digital/analogue inputs/ outputs, 2 x dedicated outputs (sink-ground) 1-CAN bus, 1-Wire, Accelerometer: 3 Axis	1 - RS232, 3 digital/analogue, internal accelerometer	Mini PCI Express: 52-pin edge connector	RS232, RS485, 4 x digital/analogue
	Power requirements	12 or 24 VDC	12 or 24 VDC	10.5-32VDC Pin Connector	12 or 24 VDC	10.8 - 32 VDC	9 - 32VDC (load dump protected) and battery backup	9-32 VDC (load dump protected) or integrated battery	5.0 VDC to 15 VDC	9-32 VDC
	Power consumption	Transmit: <20W Idle - regional beam: 1W Off: (wake on packet): <50mW	Transmit: <20W Idle - regional beam: 1W Off: (wake on packet): <50mW	Standby : 1.9W (@12VDC)/ 3.5W (PoE) Transmit : 19W (typical) Off (wake on GPIO: 0.1W @12VDC Off (wake on LAN): 0.9W @ 12VDC	Transmit <50 W Idle: 25 W Does not include power supplied to PoE devices	Transmit: 20W(typical) Idle: ~1W Off: (wake on packet): <50mW	Transmit: 1A, Cellular: 153mA GPS: 32mA, Receive: 64mA, Cellular: 35mA, Sleep: 110µA	Transmit: 750mA, GPS: 40mA Receive: 83mA, Sleep: 100µA	Transmit mode: 750 mA@12VDC GPS on: ~ 70mA Receive mode: ~ 80 mA@12VDC	Transmit: 750mA, GPS: 40mA Receive: 83mA, Sleep: 100 A
	Power sources	Mains (with adapter), solar, battery	Mains (with adapter), solar, battery	Mains (with adapter), Power over Ethernet ,battery, solar,	Mains (with adapter), vehicle/ vehicle battery	Mains (with adapter), solar, battery	Mains (with adapter), solar, battery	Mains, battery (up to 3 years life depending on usage)	N/A	Mains (with adapter), solar, battery
	Operating temperature range	-40°C to +75°C	-40°C to +75°C	-40 to 75°C	Modem -25° C to +55°C (operating) Antenna -25° C to +55° C (operating) -40° C to +80° C (survival)	-40°C -to- +75°C	Terminal and antenna: -40°C to +85°C; Back-up battery: -10°C to +60°C	-40°C to +85°C depending on battery option	Operating: -40C to +85C Storage: -40C to +85C	-40°C to +85°C

		BGAN M2M					IsatData Pro			
		 **Hughes 9502** (external antenna)	 **Hughes 9502** (integrated antenna)	 **Cobham E540**	 **Hughes 9450-C11 Mobile**	 **SABRE Ranger 5000**	 **IsatData Pro 782**	 **IDP 800 series**	 **OGi**	 **ST6100**
Service specifications	**Services**	Standard IP, SMS, BGAN M2M certified	Standard IP, SMS, BGAN M2M certified	Standard IP, SMS, BGAN M2M certified	Standard IP, SMS, BGAN M2M certified	Standard IP, SMS, BGAN M2M Certified	Store and forward messages; all messages acknowledged	Store and forward messages; all messages acknowledged	Store and forward messages; all messages acknowledged	Store and forward messages; all messages acknowledged
	Usage	Fixed	Fixed	Fixed	Semi-fixed or mobile	Fixed	Fixed and mobile	Fixed and mobile	Fixed and mobile	Fixed and mobile
	Typical performance	Up to 448/464kbps* (send/receive)	Up to 448/464kbps* (send/receive)	Up to 448/464kbps* (send/receive)	Up to 448/464kbps* (send/receive)	Up to 448 /464kbps* (send/receive)	Up to 6400 bytes send Up to 10000 bytes receive Cellular communications	Up to 6400 bytes send Up to 10000 bytes receive	Up to 6400 bytes send (sat) Up to 10000 bytes receive (sat)	Up to 6400 bytes send Up to 10000 bytes receive
	Latency	800 milliseconds round-trip	800 milliseconds round-trip	800 milliseconds round-trip	800 milliseconds round-trip	800 milliseconds round-trip	Event reports <15 seconds, files 45-60 seconds per kb	Event reports <15 seconds, files 45-60 seconds per kb	Event reports <15 seconds, files 45-60 seconds per kb	Event reports <15 seconds, files 45-60 seconds per kb
	Conformity	95% relative humidity IP 65 (antenna) IP 40 (modem) Class 1, Div. 2 certified (optional)	95% relative humidity IP 66 Class 1, Div. 2 certified (optional)	95% humidity non-condensing at 40°C Pollution degree 2 IP66 Compliant 0.5 m/1.64 ft drop on concrete (operational, 95% survival)	IP56 (antenna) Wind: 125 mph (200 km/h) - exception for Magnetic Mount: 100 mph (160 km/h) Ice: 25 mm non-operational IP 40 (modem)	95% relative humidity IP 66 Class 1, Div. 2 certified (inclusive)	IP 67 (antenna) IP 54 (modem)	90% relative humidity at 85°C IP 67	SAE J1455, Cab Mounted £ Transverse Axis MIL-STD-810E, Tracked Vehicle and Aircraft	95% relative humidity IP 67 Class 1, Div. 2 certified
	Typical applications	Remote fixed asset monitoring for telemetry and surveillance, real-time monitoring and control, small and large data transfer	Remote fixed asset monitoring for telemetry and surveillance, real-time monitoring and control, small and large data transfer	Remote fixed asset monitoring for telemetry and surveillance, real-time monitoring and control, small and large data transfer	Remote monitoring and management of high value assets such as heavy machinery within transportation and logistics, precision farming, forestry, construction, oil £ gas, mining, civil government and utilities	Remote fixed asset monitoring for telemetry and surveillance, real-time monitoring and control, small and large data transfer	Asset tracking, fleet management, event notification, remote monitoring, text messaging	Asset tracking, fleet management, event notification, remote monitoring, text messaging	Asset tracking, fleet management, event notification, remote monitoring, text messaging	Asset tracking, fleet management, event notification,remote monitoring, text messaging
	Accessories	Basic fixed mount kit, IDU strap, 1.5 and 2" Az/El bracket, solar panels, AC/DC adapter	Basic fixed mount kit, 1.5 and 2" Az/El bracket, solar panels, AC/DC adapter	Basic fixed mount kit, Explorer LTE USB Modem for Explorer 540	Magnetic feet for the antenna and the 12V Cig-plug power adapter	Fixed mount kit (Optional)	On board scripting engine with a range of standard agents.	On board scripting engine with a range of standard atgents, rechargeable and non-rechargeable options	Developer kit avaliable Antenna available as both packaged and unpackaged models	On board scripting engine with a range of standard agents, bottom and side entry connectors

*Inmarsat's BGAN M2M is a subscription-based service with monthly packages starting at 2MB with billing increments of 1KB. For additional flexibility, pooled data plans are also available.

For more information

Web: **inmarsat.com/enterprise**

Email: **EnterpriseMarketing@inmarsat.com**

inmarsat.com/enterprise