

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 | | | IsatDo | ata 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 |
| 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 Antenno: 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) | RI45, 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 I x RS232 / RS485 Modbus, 1 x RS232 (debug), 4 x GPIO - Output, 4 x GPIO - Input, 1 x Andlog 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: IW Off: (wake on packet): <50mW | Transmit: <20W Idle - regional beam: IW 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: -IW 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, batter |
| 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 |

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| | 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 |
| cations | 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 |
| Service specifications | Conformity | 95% relative humidity IP 65 (antenna) IP 40 (modern) 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 Closs 1, Div. 2 certified (inclusive) | IP 67 (antenna) IP 54 (modem) | 90% relative humidity at 85°C IP 67 | SAE J1455, Cob Mounted & Transverse Axis MIL–STD–810E, Tracked Vehicle and Aircraft | 95% relative humidity IP 67 Closs 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, all & 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.



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