







# M2M terminals

## A quick reference guide

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			
	 <b>Hughes 9502 (external antenna)</b>	 <b>Hughes 9502 (integrated antenna)</b>	 <b>Wideye Sabre™ RangerM2M</b>	 <b>IDP 600 series</b>	 <b>IDP 700 series</b>	 <b>IDP 800 series</b>	
<b>Technical specifications</b>	<b>Form factor</b>	Separate terminal with external antenna	Single terminal with integrated antenna	Single terminal with integrated antenna	Terminal unit with integrated antenna	Hybrid satellite 2G/3G modem for use with external antenna	Low profile terminal for asset tracking
	<b>Manufacturer</b>	Hughes BGAN.hughes.com	Hughes BGAN.hughes.com	Addvalue Communications wideye.com.sg	SkyWave skywave.com	SkyWave skywave.com	SkyWave skywave.com
	<b>Dimensions (W x H x D) and weight</b>	Terminal 200 x 150 x 45mm, 1.5kg Antenna 385 x 385 x 33mm, 1.9kg	275 x 275 x 84mm 3.8kg	305 x 186 x 49mm 1.5kg	IDP-680: 127 x 127 x 49mm 0.46kg IDP-690: 126 x 126 x 101mm 0.46kg	175 x 113 x 37mm 0.54kg	432 x 147 x 25mm 1.3kg
	<b>Interfaces</b>	RJ45 Ethernet, USB and GNSS	RJ45 Ethernet, USB and GNSS	RJ45 Ethernet	RS232, RS485, 4 x digital/analoge	2 - RS232, 1 - RS485, 17 digital/analoge, 2 - CAN/J1939, internal accelerometer	1 - RS232, 3 digital/analoge, internal accelerometer
	<b>Power requirements</b>	12 or 24 VDC	12 or 24 VDC	12-18 VDC	9-32 VDC (load dump protected)	9-48 VDC (load dump protected)	9-32 VDC (load dump protected), or integrated battery
	<b>Power consumption</b>	Transmit: <20W Idle - regional beam: 1W Off: (wake on packet): <50mW	Transmit: <20W Idle - regional beam: 1W Off: (wake on packet): <50mW	Transmit: <22W Idle - regional beam: 6W	Transmit: .75A, GPS: 40mA Receive: 83mA, Sleep: 100µA	Transmit: .75A, Cellular: 155mA GPS: 40mA, Receive: 83mA Cellular: 125mA, Sleep: 100µA	Transmit: .75A, GPS: 40mA Receive: 83mA, Sleep: 100µA
	<b>Power sources</b>	Mains (with adapter), solar, battery	Mains (with adapter), solar, battery	Mains (with adapter), solar, battery	Mains (with adapter), solar, battery	Mains (with adapter), solar, battery	Mains, battery (up to 3 years life depending on usage)
	<b>Operating temperature range</b>	-40°C to +75°C	-40°C to +75°C	-40°C to +75°C	-40°C to +85°C	-25°C to +85°C	-40°C to +85°C depending on battery option

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<b>Service specifications</b>	<b>Services</b>	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
	<b>Usage</b>	Fixed	Fixed	Fixed	Fixed and mobile	Fixed and mobile	Fixed and mobile
	<b>Typical performance</b>	Up to 448/464kbps* (send/receive)	Up to 448/464kbps* (send/receive)	Up to 384kbps (IP Rx)* Up to 240kbps (IP Tx)	Up to 6400 bytes send Up to 10000 bytes receive	Up to 6400 bytes send (sat) Up to 10000 bytes receive (sat) Cellular comms	Up to 6400 bytes send Up to 10000 bytes receive
	<b>Latency</b>	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
	<b>Conformity</b>	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% relative humidity IP 65 Class 1, Div. 2 certified (inclusive)	95% relative humidity IP 67 Class 1, Div. 2 certified	IP 54 (modem) IP 67 (antenna)	90% RH at 85°C IP 67
	<b>Typical applications</b>	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	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
	<b>Accessories</b>	Basic fixed mount kit, IDU strap, 1.5 and 2" Az/EI bracket, solar panels, AC/DC adapter	Basic fixed mount kit, 1.5 and 2" Az/EI bracket, solar panels, AC/DC adapter	Fixed mount kit, RS232 debugging kit, AC/DC adapter, solar panels	On board scripting engine with a range of standard agents, bottom and side entry connectors	On board scripting engine with a range of standard agents.	On board scripting engine with a range of standard agents, rechargeable and non-rechargeable options

\*BGAN M2M is a subscription based service with monthly packages starting at 2MB with billing increments of 1KB, alternatively pooled data plans provide additional flexibility

## How to buy

Our services are available globally through Inmarsat M2M partners and service providers. Visit our website or contact [m2m@inmarsat.com](mailto:m2m@inmarsat.com) to find the right partner for your organisation.

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