# Hughes 9502 BGAN M2M Terminal

**The world's most advanced, all-IP, BGAN machine-to-machine satellite terminal with integrated antenna and highest IP-66 ingress protection industry rating for outdoor installation.**

Introduced as an alternative to the external antenna version of the 9502, this product integrates the 9502 modem with a compact antenna to create a single-piece, integrated, rugged terminal to withstand the most extreme weather conditions. Providing reliable IP connectivity over the Inmarsat Broadband Global Area Network (BGAN), it includes backup and out-of-band management to primary site communications—ideal for SCADA and unattended sites equipped for machine-to-machine (M2M) applications such as environmental monitoring, SmartGrid, pipeline monitoring/control, compressor monitoring/control, well site automation and surveillance.

Its exceptional low power consumption (<1W idle) makes it possible to provide end-to-end IP connectivity to sites "off-the-grid". This breakthrough enables "always on" IP connectivity to power-challenged locations which rely upon solar-battery arrays with limited power budgets.

Installation is simplified as there is no need to remotely package the transceiver inside a standalone NEMA enclosure.

The Hughes M2M terminal qualifies for no charge over-the-air (OTA) upgrades, saving customers time and money.

Reliable. Compact. Affordable. Best in class.





**Mount assembly not included.**

**\*Also available in ATEX C1/D2 compliant**



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## Main Features

- No minimum connection charge
- Minimum billing increment of 1 kbyte
- No usage charge for over-the-air modem
- software upgrades
- Integrated IP Watchdog ensures "always-on" network connectivity. No manual intervention required to recover from an outage
- Auto-on/auto-context activation automatically restores the PDP context following restoration of power and/or loss of the IP connection
- Remote control via SMS provides management platform for command and control to the terminal using SMS, including configuration, debugging, and remote access to the
- Web interface
- Ultra-low power consumption
  - Idle: < 1W
  - Transmit: < 20W
  - Receive: < 3W
- Relay mode passes WAN IP address to the RTU
- Security enhancements with extended layers of
- embedded security options
- Basic installation; no PC required
- Built-in GPS receiver
- The Hughes M2M terminal is BGAN M2M Certified

## Interfaces

- Ethernet connection (RJ45)
- USB Type B for connection to PC for configuration of terminal
- RS-232 (DB9) to external NMEA 0183-based GNSS device
- (e.g., GLONASS receiver)

## Technical Specifications

| | |
|---|---|
| Satellite Transmit Frequency | 1626.5–1660.5 MHz |
| Satellite Receive Frequency | 1525–1559 MHz |
| GPS Frequency | 1574.42–1576.42 MHz |
| Weight | 3.8 Kg (8.4 lbs) |
| Dimensions | 275 mm x 275 mm x 84 mm |
| Operating Temperature | -40 °C to +75 °C |
| Storage Temperature | -55 °C to +75 °C |
| Humidity | 95% RH at +40 °C |
| Wind Loading | Survival wind loading (with optional mount) up to 100 mph |
| IDU Water and Dust | IP-40 Compliant |
| ODU Water and Dust | IP-66 Compliant |
| Input Voltage | +12 Vdc/+24 Vdc nominal |
| Firmware Upgrades | Over the air or local |

## Package Contents

- Hughes M2M Terminal
- Locking bar for padlock
- Mounting screws and washers

## Accessories

- Basic fixed mount kit
- Azimuth elevation bracket
- Mechanical spare parts kit
- Extended warranty options

**For additional information, please email BGANsales@hughes.com.**

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