

# Hughes M2M Satellite 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.

## 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)

## 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

## 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
ODU Water and Dust	IP-66 Compliant
Input Voltage	+12 Vdc/+24 Vdc nominal
Firmware Upgrades	Over the air or local

## About Hughes Network Systems

Hughes Network Systems, LLC (Hughes) is the world’s leading provider of satellite broadband for home and office, delivering innovative network technologies, managed services, and solutions for enterprises and governments globally. HughesNet® is the #1 high-speed satellite Internet service in the marketplace, with offerings to suit every budget. To date, Hughes has shipped more than 3.3 million systems to customers in over 100 countries, representing over 50 percent market share. Its products employ global standards approved by the TIA, ETSI, and ITU organizations, including IPoS/DVB-S2, RSM-A, and GMR-1. Headquartered outside Washington, D.C., in Germantown, Maryland, USA, Hughes operates sales and support offices worldwide, and is a wholly owned subsidiary of EchoStar Corporation (NASDAQ: SATS), a premier global provider of satellite operations and digital TV solutions.

For additional information, please contact us at  
1-866-569-5153 (Int’l dial +1 817-913-2700)  
or email [BGANsales@hughes.com](mailto:BGANsales@hughes.com).