

Hughes 9502 BGAN M2M Terminal

HUGHES

The world's most cost-effective, all-IP BGAN machine-to-machine satellite terminal with exceptionally low power consumption

inmarsat

The Hughes 9502 IP satellite terminal provides reliable connectivity over the Inmarsat Broadband Global Area Network (BGAN) for IP SCADA and machine-to-machine (M2M) applications. The Hughes terminal delivers affordable, global, end-to-end IP data connectivity enabling applications in industry sectors such as environmental monitoring, SmartGrid, pipeline monitoring, compressor monitoring, well site automation, video surveillance, and out-of-band management to primary site communications.



The exceptional low power consumption (<1 W idle) of the Hughes 9502 makes it possible to provide end-to-end IP connectivity to sites that are off the grid. This breakthrough provides end-to-end IP connectivity to power-challenged locations that rely upon solar-battery arrays involving sensitive power budgets.

The Hughes 9502 includes 10 meters of RF cabling, granting the user freedom to position the antenna remotely and away from the transceiver in complex installations while securing the SIM card inside a premise or enclosure to better protect against unauthorized use, theft, and vandalism.

Future firmware releases would be uncommon, meanwhile any such modem update will qualify for no charge over-the-air (OTA) upgrades saving customers time and money.

At less than a penny or two per kilobyte, customers cannot find better value from comparable technologies.



- Main Features
 - No connection charge with BGAN M2M (normal BGAN charge is 100 Kbytes)
 - Minimum CDRs only 1 Kbyte (normal BGAN charge is 10 Kbytes)
 - No charge over-the-air modem software upgrades
 - Exclusive airtime packages unique to the Hughes 9502
 - Integrated IP Watchdog to ensure “always-on” network connectivity. No manual intervention required to recover from an outage
 - Auto-on/auto-context activation automatically restores power and PDP connection to itself following loss of power and/or IP connection
 - Remote control via SMS—remote management platform for command and control to the terminal using SMS, including configuration, debugging, and access to Web interface
 - Ultra-low power consumption
 - Transmit: < 20 W
 - Narrow beam w/o transmit: 3 W
 - Idle (regional beam): < 1 W
 - Off (wake on packet): < 10 mW (@ 12 Vdc)
 - Off (wake on packet): < 30 mW (@ 24 Vdc)
 - Off (GPIO control): 0 W
 - Relay mode passes WAN IP address to the connected RTU
 - Security enhancements with extended layers of embedded security options
 - Basic installation; no PC required
 - Outdoor unit (ODU) can be pole mounted
 - Indoor unit (IDU) is housed inside building or the remote terminal unit (RTU)
 - Built-in GPS receiver
- Interfaces
 - Ethernet connection (RJ45)
 - USB—Type B for connection to configuration PC
 - RS-232 (DB9) to external NMEA 0183-based GNSS device (e.g., GLONASS receiver)
 - TNC connection on the IDU to the external antenna
- Package Contents
 - Hughes 9502 BGAN M2M Terminal IDU
 - 10 meters RF antenna cable
 - External antenna (ODU)
- Accessories
 - Modem (IDU) strap
 - Antenna basic fixed mount kit
 - Antenna azimuth elevation bracket
 - 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
IDU Weight	1.2 Kg (2.64 lbs)
IDU Dimensions	150 mm x 200 mm x 45 mm
ODU Weight	1.9 Kg (4.18 lbs)
ODU Dimensions	385 mm x 385 mm x 33 mm
Operating Temperature	-40° C to +75° C
Storage Temperature	-55° C to +75° C
Humidity	95% RH at +40° C
ODU Wind Loading	Survival wind loading (with optional mount) up to 100 mph
IDU Water and Dust	IP-40 Compliant
ODU Water and Dust	IP-65 Compliant
Input Voltage	+12 Vdc/+24 Vdc nominal
Firmware Upgrades	Over the air or local

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

bgan.hughes.com

Produkt	Wideye Sabre Ranger	Hughes 9202 M2M	Explorer 325	Explorer 727	Hughes 9350-C10	Hughes 9450-C11
Hersteller	Addvalue Communication www.wideye.com.sg	Hughes Network Systems www.hughes.com	Cobham plc www.cobham.com	Cobham plc www.cobham.com	Hughes Network Systems www.hughes.com	Hughes Network Systems www.hughes.com
Montageart	Festinstallation	Festinstallation	Fahrzeug	Fahrzeug	Fahrzeug	Fahrzeug
Stromversorgung						
DC input	15V	12 / 24V	10,5 - 32V	10 - 32V	12 / 24V	12 / 24V
Größe mm	305 x 186 x 49	150 x 200 x 45 Transceiver 385 x 385 x 33 Antenne	278 x 231 x 41 Transceiver Ø 350 x 120 Antenne	270 x 247 x 42,5 Transceiver Ø 476,5 x 160 Antenne	260 x 256 x 50 Transceiver Ø 477 x 153 Antenne	281x 234 x 46 Transceiver Ø 252 x 119 Antenne
Gewicht	1,5 kg	1,2 kg Transceiver 1,9 kg Antenne separat	2,4 kg Transceiver 4,5 kg Antenne autom. nachführend	2,4 kg Transceiver 6,0 kg Antenne autom. nachführend	2,8 kg Transceiver 5,5 kg Antenne autom. nachführend	2,3 kg Transceiver 1,9 kg Antenne autom. nachführend
Antenne	fest integriert					
Standard IP bis zu upload/download	240 / 384 kbit/s		384 / 384 kbit/s	432 / 432 kbit/s	492 / 492 kbit/s	400 / 400 kbit/s
Streaming IP	32, 64 kbit/s		32, 64,128 kbit/s	32, 64,128, 256 kbit/s QoS	32, 64,128, 256 kbit/s QoS bei Inklination >45°	32, 64,128, 256 kbit/s QoS bei Inklination >45°
Schnittstellen Sprache	1 x RJ-11		1 x RJ-11	1 x RJ-45 2 x RJ-11 3,1 kHz audio	1 x RJ-45 2 x RJ-11 3,1 kHz audio-Fax	1 x RJ-45 2 x RJ-11 3,1 kHz audio
Schnittstellen Daten	1 x Ethernet SCADA 3GPP AT Commands	1 x Ethernet USB RS-232 (DB9)	2 x Ethernet PoE 5 x I/O	4 x Ethernet PoE 5 x I/O	1 x Ethernet PoE WLAN 802.11b USB Nutzung simultan mgl.	4 x Ethernet PoE WLAN 802.11b Nutzung simultan mgl.
ISDN				UDI/RDI 64/56 kbit/s	64 kbit/s über RJ-45	64 kbit/s
Multi-User	-	-	2	4	11	11
Schutzklasse	IP65	IP 40 Transceiver IP 65 Antenne	IP 31 Transceiver IP 56 Antenne	IP 31 Transceiver IP 56 Antenne	IP 54 Transceiver IP 56 Antenne	N/A Transceiver IP 56 Antenne