

# Hughes 9201 M2M Satellite IP SCADA Terminal

**HUGHES**<sup>®</sup>



## Global machine-to-machine communications via Inmarsat BGAN service



The Hughes 9201 M2M Satellite Terminal is your gateway to global machine-to-machine communications. The 9201 M2M enables you to simultaneously send and receive IP packet data via Ethernet over the Inmarsat BGAN satellite network.

### IP SCADA ready

The high-performance, rugged 9201 M2M is designed to withstand varying weather conditions for extended periods of time. Yet, the terminal is small and light, so it can be installed easily enabling connectivity within minutes. The Inmarsat BGAN service, together with the 9201 M2M, offers a true IP network.

### Highlights

- Full IP compatibility—SMTP email, file transfer (FTP), and VPN
- Global public fixed IP available
- Compatible with the following VPNs: Cisco-VPN Client V1 or V2.6.3, Nortel-Contivity VPN Client V04-15.06, Netscreen-Remote Client 8.1, Checkpoint-V4.1, and SonicWall
- Cost-effective, “always-on” access—only charged for data sent and received
- Web MMI is accessible via WiFi-enabled PDAs, Blackberrys, and iPhones
- Auto context activation feature allows PDP contexts to be activated without user action
- Easy to install and connects in minutes
- UMTS IP-based services
- FCC, CE, and GMPCS certified

The Hughes 9201 M2M is designed and developed by Hughes, the world leader in broadband satellite networks and services, with more than 1.9 million terminals shipped worldwide.



## Features

- User Interfaces
  - SIM card
  - LED and audio pointing aids
  - Ethernet
  - USB
  - Serial-Ethernet interface available (see Hughes representative for details)
- Internal Web MMI
  - Terminal configuration and control via any browser (192.168.128.100)
  - Accessible via any WiFi-enabled PDA, iPhone, or Blackberry
  - Auto On/Auto Power Cycle
  - 24/7 Keep Alive. Terminal maintains an efficient, “always-on” connection, where users pay only for data transmitted.
  - SMS Wakeup (optional feature)
- Package
  - 9201 M2M Satellite IP SCADA Terminal
  - Rechargeable lithium ion battery pack
  - AC main power adapter (110 VAC - 240 VAC)
  - Ethernet cable
  - User guide (PDF file Web site)
- Optional Accessories
  - Standard lithium ion battery pack
  - Extended lithium ion battery pack
  - Terminal enclosures (see Hughes representative for details)
  - AC mains power adapter (110 to 240 VAC) output
  - Fixed mount kit
  - DC/DC adapter (10–32 VDC)
  - External flat-panel passive antenna - IP67

## Technical Specifications

### Physical and Environmental

Weight:	2.8 kg (terminal with battery)
Dimensions:	27.5 cm D x 34.5 cm W x 5.0 cm H
Battery Life*:	Transmit: 162 megabytes Receive: 864 megabytes 36 hours standby time
Humidity:	95% RH at +40° C
Temperature:	-25° C to +60° C operating -25° C to +60° C storage (w/ battery)
Water and Dust:	IP-55 standard
Wind:	Operational 25 mph (40 km/h)
Survival:	100 mph (160 km/h)
Ice:	25 mm non-operational

### Power Consumption

Idle Mode: on regional beam with data context active, PC connected via Ethernet. Only periodic network signalling. Average power usage over 16 hours = 0.19 A at 19.7 V = 3.74 W

Idle mode + Ping: Send 4 pings and then allow unit to transition back to regional beam. Total time 200 sec. Average power = 3.87 W

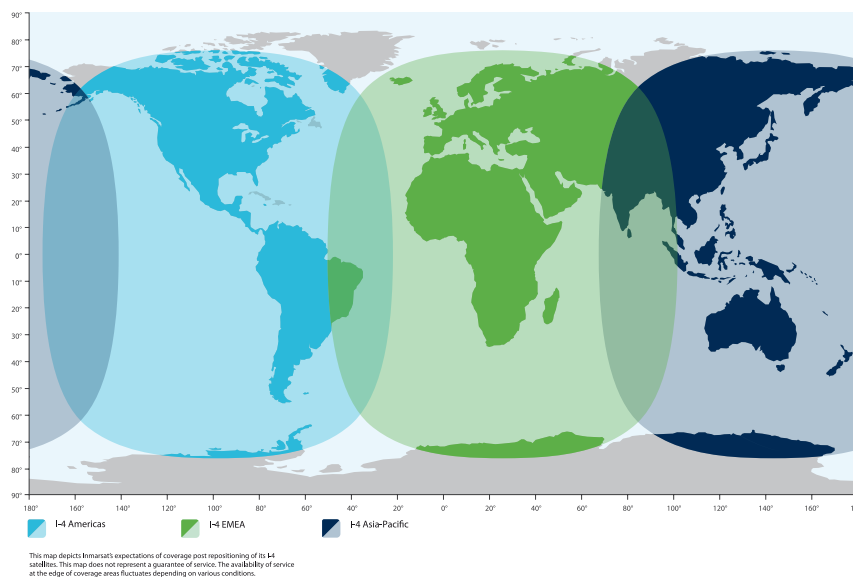
Receive Mode: FTP get of 5 MB file at 160 kbps. Average power consumption = 5 W (max ~10 W)

Transmit Mode: FTP put of 5 MB file at 310 kbps. Average power consumption = 24 W (max ~30 W)

### Solar Compatible

Requires 55–60 W solar panel plus DC/DC power adapter to input 20 V to 9201 M2M terminal

\* Actual performance will vary based upon a wide range of factors and actual usage.



For additional information, please contact us at 1-866-569-5153 or email [BGANsales@hughes.com](mailto:BGANsales@hughes.com).

[bgan.hughes.com](http://bgan.hughes.com)

HUGHES and HughesNet are trademarks of Hughes Network Systems, LLC.  
©2009 Hughes Network Systems, LLC. All information is subject to change. All rights reserved.

VSAT 334 OCT 09  
H41638 ID

**HUGHES**

11717 Exploration Lane Germantown, MD 20876 USA