HM100 Modem

The HM100 is the gateway modem for the Hughes HM System: an efficient and agile SATCOM system for government applications, whether fixed, mobile, or portable. A commercially based platform for ground station deployment, the HM100 boasts an open standards architecture and is frequency band-agnostic. It enables resilient, affordable networking solutions to meet the wide range of mobility and portability requirements demanded by government users.

The HM100 can be used as a standalone SCPC modem or be integrated into a robust, scalable HM Gateway. In the HM Gateway configuration, it is fully integrated under the HM Network Management System to support larger networks. HM Gateways provide Communications-on-the-Move (COTM) capabilities globally for airborne, maritime, and land-mobile platforms.

Engineered with Hughes Software-Definable Modem (SDM) technology and Scrambled Code Multiple Access (SCMA) waveform, the HM100 brings cost-effective and Commercial-off-the-Shelf (COTS) communications that make it ideal for government applications. The innovative Hughes SCMA waveform enables highly secure, next-generation performance of mobile video, voice, and data capabilities for SATCOM applications.

Benefits

- Gateway modem supporting all HM System terminals, including the HM200 and HM300
- High-data throughput, ideal for COTM
- Robust and secure satellite communications
- Open architecture
- Point-to-point or DAMA** operation
- WGS certification**

**Pending

Key Features

- Interoperable with Hughes SCMA waveform
- Standard 1U rack enclosure
- Industry Standard L-band interfaces supporting commercial and MILSATCOM constellations
- GUI for management and control
- Use as standalone SCPC modem or as part of an HM Gateway rack installation

Technical Specifications

Technical specifications and features are subject to change at any time without notice.

Mechanical, Environmental, Power

- Weight: Less than 10 lbs
- Dimensions: 15" x 12.5" x 1.75", rack mountable
- Temperature: 0° C to 50° C normal operation, -40° C to 70° C nonoperational
- LEDs: Power, System, Receive, Transmit, LAN
- Power: 55 W max, 37 W typical
- Input voltage: 110–240 VAC, 50/60 Hz
- Data rates: 64 kbps–45 Mbps
- FEC: 1/9, 2/9, 3/9, 4/9, 6/9
- Modulations: BPSK, QPSK

Physical Interfaces

- Two 10/100BaseT Ethernet LAN RJ45 ports
- Two TNC connectors (RX/TX)
- Two BNC connectors (10 MHz in/out)
- One serial port (RS-422 or RS-232)

Technical and Support Services: Hughes offers the following services for both defense and commercial markets for the HM series of Satellite communications products. These include the HM100 Ground Modem, the HM200 Air Modem, the HM400 Air Modem and the HM500 Portable Terminal. The following services are offered on either a fixed price or time and material basis using commercial labor rates:
- Complete system level acquisition and integration of adjunct subsystems that interface with the HM series products described above. These include antennas, routers, video compression, and VoIP audio devices.
- System Level Engineering analysis and support including review of satellite constellations, link budgets, antenna design overview, modem and system level interfaces, and platform integration support.
- On-site participation in end user engineering, program and status reviews.
- In-country support of systems integration and operation.
- Factory based or off-site training courses.
- User documentation development including foreign language translation.
- Satellite bandwidth acquisition for test or operation.
- Satellite managed services, backhaul and internet access for system operation.
- Extended warranty options.

Please contact Hughes Defense Systems Sales at 301-548-1907 for information on service plans and coverage areas before placing orders for this product.