

HM400 Modem

The Hughes HM400 is the next-generation software-defined modem for satellite communications (SATCOM) on-the-move. Building off the success of the award-winning HM200, the HM400 leverages the unique Hughes Scrambled Code Multiple Access (SCMA) Waveform technology that enables efficient bandwidth use for smaller antennas. The HM400 can operate over multiple frequencies (L-, Ku-, Ka-, Mil Ka, and X-band) and provides the capability to host a large suite of standardized and commercial waveforms like DVB-S2X. The HM400 also provides the capability to access worldwide SATCOM services through existing VSAT and MobileSat service providers or customer-specific networks/gateways.

The HM400 was designed with flexibility in mind, leveraging an open architecture that enables use with any qualified system components that are best suited for delivering mission-specific requirements. One key enhancement in the HM400 includes increased resiliency to withstand the harsh environmental conditions, such as high altitude flight, lightning strikes, and Electromagnetic Interference (EMI). This makes the unit ideal for applications ranging from disaster response, storm tracking, and military operations to agriculture surveillance and airborne geological surveys. The enhanced resiliency enables reliable Beyond-Line-of-Sight (BLoS) video and data communications, even in harsh environmental conditions.

Benefits

- High data throughput rates for efficient video and data transmissions
- Designed with open architecture for end user flexibility
- Enhanced resiliency
 - SCMA Waveform
 - Ruggedized to support high altitude flight applications
 - Lightning/EMC/EMI protection circuitry
- Open architecture for use with variety of qualified small antennas
- Low Size Weight and Power (SWaP) footprint
- Frequency reuse



Key Features

- Design is a ½-ATR style enclosure with heat sinks
- Designed for natural convection cooling
- Compliant with environmental standard requirements
- Wide variety of data interfaces
- Mil-Spec-compliant (vibration, temperature, EMI/RFI)
- Frequency band agnostic
- Available on multiple platforms

Technical Specifications

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

- Dimensions: 5" W x 13" L x 8" H
- Weight: ≤ 14 lbs
- Operational Temperature: -55° C+71° C
- Power: 65 W-75 W
- Environmental standards: MIL-STD-810, 461-, 462-, and 464-Compliant
- Throughput: Up to 45 Mbps
- Altitude: 50,000 ft+

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 301-428-5539 for information on service plans and coverage areas before placing orders for this product.