

Airborne SATCOM System

Advanced BLoS Satellite Communications



The Hughes Airborne Satellite Communications (SATCOM) System is an integrated solution providing a constant and reliable en route and outroute transmission of critical real-time information to support any airborne mission.

ISR Data Transfer

Ideal for Beyond-Line-of-Sight (BLoS) en route connectivity requirements, the innovative Hughes HM200 modem is paired with an advanced airborne antenna that provides high throughput communications over satellite. The HM200 transmits HD video and other critical sensor information from the aircraft for ISR missions and real-time situational awareness on the ground. It also has the capability of transmitting voice or command and control data to the aircraft for manned or unmanned operations.

En Route Communications

The multifunctional Hughes Airborne Microsat Modem (AMM) is designed especially for en route communications on board a variety of military and commercial aircraft to include Very Important Person Special Air Mission (VIPSAM) platforms for senior leaders in the US Government. The platform features MF-TDM communications which results in high modem efficiency and provides up to 30 Mbps for en route communications on the aircraft. It is the ideal platform for a highly secure and robust airborne broadband solution.

Open Architecture

Designed with an open architecture, the Hughes modems are Commercial-Off-The-Shelf (COTS) products that can be readily installed into a wide range of manned or unmanned, fixed, or rotary winged platforms, and can be interfaced with a variety of antenna solutions also with an open architecture. User flexibility is vital in today's evolving technological environment, enabling the Hughes Airborne SATCOM System to be optimized for any mission. Based on a unique Software-Defined Modem (SDM) and employing the specialized Hughes Scrambled Multiple Access (SCMA) waveform, they deliver a superior level of mobile video, voice, and

data capabilities for all airborne BLoS systems. Ground stations utilize the Hughes HM300 modem, which is designed with the same SDM and interfaced to a customized ground antenna. Packaged in a standard 1U rack-mountable enclosure, it can be readily installed in customers' teleports and mobile ground stations anywhere in the world. Hughes has integrated its airborne system in a variety of platforms; utilizing different antenna options. The system's architecture is based on customer-specified requirements with the goal to meet certain Size, Weight, and Power (SWaP), or performance characteristics.

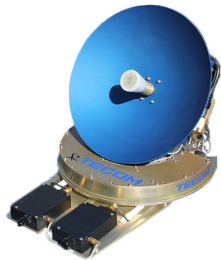
Benefits:

- Open architecture for user flexibility and interoperability with other systems
- High data throughput for BLoS applications (1-30 Mbps) inroute or outroute
- SCMA waveform
- Global coverage for all frequency bands: L-, X-, Ku-, Commercial-, and MIL Ka-bands
- Transmit/receive through rotary blades
- Transmit/receive on fixed wing platforms
- Very short acquisition and reacquisition time
- Low power consumption
- Variety of antenna SWaP options
- Mil-Spec-Compliant (vibration, temperature, EMI/RFI)

Technology Applications:

- BLOS ISR missions
- Border protection
- Search and rescue
- Wildfire response
- Law enforcement
- News and media
- VIP and passenger communications

Potential Antennas (others available):



Tecom KaStream 5000



Tecom KuStream 1500



General Dynamic Model 13-17LPA Antenna

Modems:

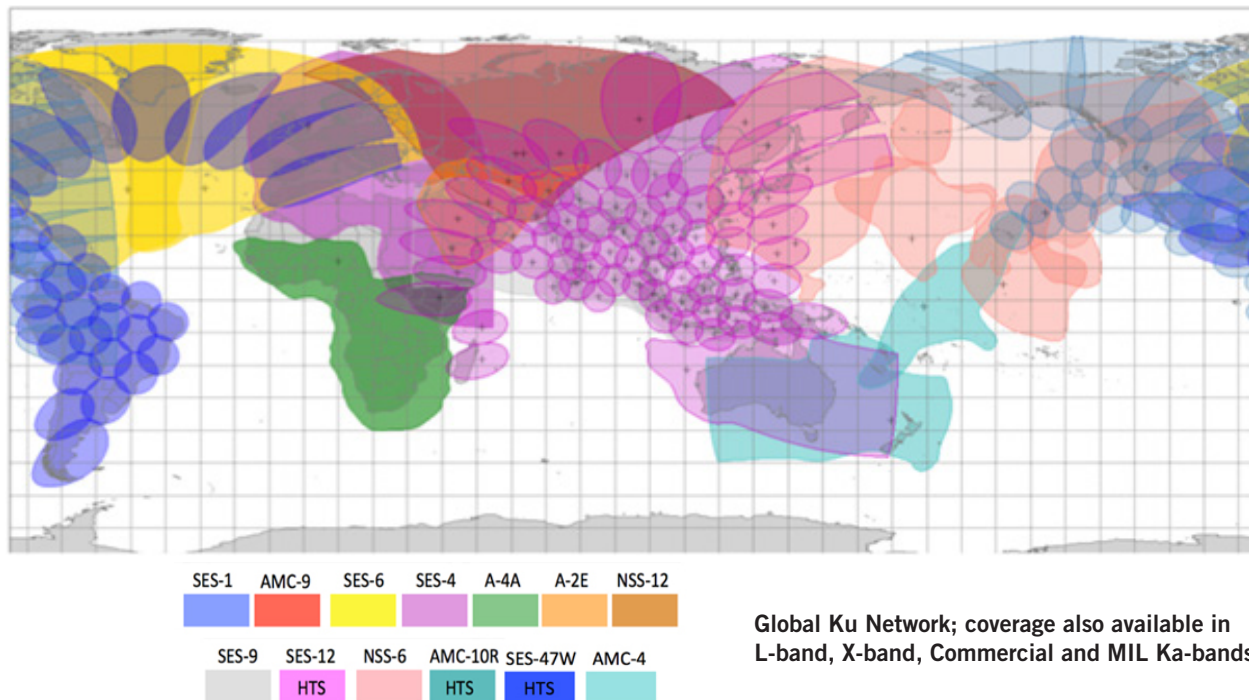


Airborne Microsat Modem (AMM)
For VIP en route communications



HM 200 Falcon Modem
For BLoS ISR applications

Hughes has the unique ability to offer true end-to-end SATCOM solutions, meeting the most demanding bandwidth and reliability requirements of its customers globally. Worldwide connectivity is delivered over both Hughes/EchoStar-owned satellites and its partner operators, in all frequency bands as demanded by end users.



Global Ku Network; coverage also available in L-band, X-band, Commercial and MIL Ka-bands

Please contact Hughes Defense Systems Sales at 301-428-5539 with specific requirements for your application, including antenna selection and service plans, before placing any order for this product.

Visit defense.hughes.com.

Contact Wayne Marhefka at wayne.marhefka@hughes.com or 301-428-2762.