Building upon Viasat’s strong history of delivering aviation SATCOM terminals, the Global Aero Terminal 5510 (GAT-5510) is apart of Viasat’s family of next-gen, full-ITU Ka-band terminals. The GAT-5510 enables broadband in-flight connectivity services for business jet and government users on Viasat’s high-capacity satellite network. Capable of operating on full ITU Ka-band spectrum with all polarizations and delivering the industry’s highest data rates to and from the aircraft, the GAT-5510 terminal is the best choice for manned and unmanned aircraft.

Each GAT-5510 terminal is made up of a 2-axis steerable 2-way Ka-band antenna with an integrated ACU, an antenna power supply unit and a modem. The GAT-5510 easily integrates onto an aircraft with a tail, fuselage, or hatch-mounted antenna and onboard modem — for a wide variety of in-flight applications and missions.

THE LATEST PATH TO MULTI-TERABIT NETWORK CAPACITY

The Viasat Global Aero Terminal 5510 delivers today’s fastest in-flight connectivity and the only path to Viasat’s ultra-high capacity satellite network. Viasat has the world’s highest capacity Ka-band satellites over North America. The recent launch of ViaSat-2 expands Ka-band coverage across North and Central America, Caribbean, and trans-Atlantic routes. Viasat’s GAT-5510 will work with the enhanced satellite technology of tomorrow - ViaSat-3, a global constellation of 1 Tbps Ka-band satellites, to provide in-flight internet services.

SUPPORTS BUSINESS AVIATION AND GOVERNMENT APPLICATIONS

- Business aviation internet and streaming services - stay connected to emails, web browsing, video streaming, and business applications
- Secure enroute government C3 and VIP transport communications for data, VoIP, VTC, internet access, virtual collaboration, and Viasat Unlimited Streaming
- Real-Time Intelligence, Surveillance and Reconnaissance (ISR) with HD Full Motion Video and Multi-sensor/Multi-Int operations for instant situational awareness and decision making

GLOBAL AERO TERMINAL 5510 AT-A-GLANCE

- Tail, fuselage, or hatch-mounted antenna with integrated RF and ACU

Network and Services

- Supports the full ITU Ka-band spectrum to maximize operational flexibility, throughput, and capacity
- Enables access to the highest capacity Ka-band satellites
- Operates on Viasat’s Hybrid Adaptive Network including partner and US government Ka-band constellations
- Flexible service plans with predictable monthly costs
- 24/7 global technical support

Mission Sets

- Real-Time Broadband ISR
- MedEvac/Telemedicine
- Search & Rescue
- Border/Maritime Surveillance

Viasat Next-Gen Full-ITU Ka Terminals

- GAT-5510 (G-12)
- GAT-5518 (G-18)
- GAT-5530 (Gen 2 KuKa)
# SPECIFICATIONS

## ANTENNA
- **Class**: Tail or fuselage mount, parabolic reflector Ka-band TX/RX airborne antenna
- **Aperture**: Parabolic reflector, circular polarization, electronically switchable, all combinations of R, L, co-pol, or cross-pol
- **Frequency**: Full ITU Ka, Commercial and Military
  - **Tx**: 27.5 - 31.0 GHz
  - **Rx**: 17.7 to 21.2 GHz
- **EIRP, 20W Tx mode**: 49.6 dBW at 36K ft., midband frequency including radome loss
- **EIRP, 10W Tx mode**: 46.6 dBW at 36K ft., midband frequency including radome loss
- **G/T**: 10.6 dB/K at 36K ft., midband frequency including radome loss
- **RF Electronics**: Integrated into antenna assembly
- **Elevation Coverage**: 0° to 90°
- **Azimuth Coverage**: 0° to 360°
- **Swept Volume (D x H)**: Ø 12.5 x 13.1 in.  
  Ø 31.7 x 33.3 cm
- **Weight**: 26.4 lb, 11.9 kg
- **Operating Temperature**: -55° C to +70° C

## MODEM
- **Form Factor**: ARINC 600 4 MCU
- **Power Source**: 115 VAC, 400 Hz, single phase or 28 VDC
- **Power Consumption**: 175 W
- **Dimensions (LxWxH)**: 14.6 x 4.9 x 7.6 in.; 37.0 x 12.5 x 19.4 cm
- **Weight**: 17.0 lb; 7.7 kg
- **Operating Temperature**: -55° C to +70° C
- **Baseband Interfaces**
  - **Data**: 1000 BASE-T Ethernet
  - **Control**: 1000 BASE-T Ethernet
- **Navigations Data**: ARINC 429, RS-422
- **External Modem Support**
  - **Transmit Frequency**: 950 – 1450 MHz
  - **Receive Frequency**: 950 – 2150 MHz

## INTERFACE CABLES
- **Modem to Antenna**: Two IFL cables
- **Power Supply to Antenna**: One cable

## QUALIFICATIONS
- **Environmental/EMC**: RTCA/DO-160G

# EXAMPLE SYSTEM DIAGRAM

![System Diagram](image_url)

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