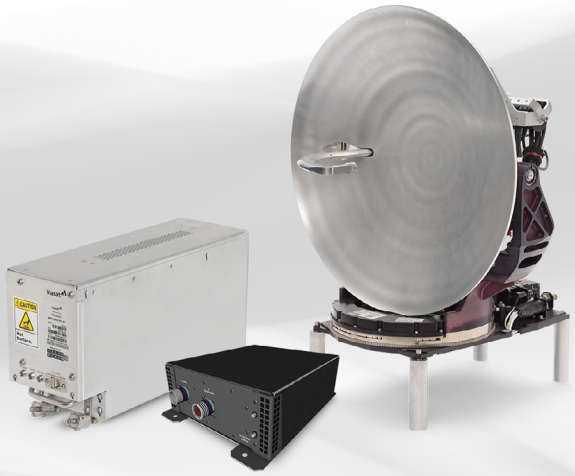
Global Aero Terminal 5518

Ka-Band Satellite Broadband for Aircraft

HIGHEST SPEED BROADBAND ACCESS FOR GLOBAL IN-FLIGHT CONNECTIVITY



Building upon Viasat's strong history of delivering aviation SATCOM terminals, the Global Aero Terminal 5518 (GAT-5518) is the latest to join Viasat's family of next-gen, full-ITU Ka-band terminals. The GAT-5518 enables broadband in-flight connectivity services for commercial 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-5518 terminal is the best choice for manned and unmanned aircraft.

Each GAT-5518 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-5518 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 GAT-5518 delivers today's fastest in-flight connectivity and a path to Viasat's ultra-high capacity satellite network. With the world's highest capacity Ka-band satellites over North America, Viasat provides manned and unmanned aircraft with an unrivaled in-flight service. Viasat's GAT-5518 will work with the enhanced satellite technology of tomorrow — ViaSat-3, a global constellation of 1 Tbit/s Ka-band satellites — as well as Viasat and partner satellites currently operating today. Whether it is a commercial or government, MEO or GEO satellite, the GAT-5518 provides the customer with orbital and frequency diversity.

SUPPORTS GOVERNMENT AND COMMERCIAL 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
- Internet and streaming services — stay connected to emails, web browsing, video streaming, and business applications

GLOBAL AERO TERMINAL 5518 AT-A-GLANCE

- Tail or fuselage mount 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 commercial 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)

* US Government satellite certifications in process.

Global Aero Terminal 5518

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 – 21.2 GHz
EIRP in 20W Tx mode	53.8 dBW at 36K ft., midband frequency including radome loss
EIRP in 10W Tx mode	50.8 dBW at 36K ft., midband frequency including radome loss
G/T	15.0 dB/K at 36K ft., midband frequency including radome loss
RF Electronics	Integrated into antenna assembly
Antenna Control	Integrated into antenna assembly
Elevation coverage	0° to 90°
Azimuth coverage	0° to 360° continuous
Swept Volume (DxH)	Ø19.6 x 19.6 in.; Ø49.8 x 49.8 cm
Weight	35.0 lb.; 15.9 kg
Operating Temperature	–55 °C to +70 °C

Antenna Power Supply

» **Power Source**	115 VAC, 360 Hz – 800 Hz single phase, or 28 VDC
» **Power Consumption**	420W
» **Dimensions (LxWxH)**	11.0 x 8.0 x 3.3 in.; 28.0 x 20.8 x 8.3 cm
» **Weight**	7.9 lb.; 3.6 kg
» **Operating Temperature**	–55 °C to +70 °C

MODEM

Form Factor	1U 19" rack mount, EIA-310 compliant
Power Source	100 VAC - 240 VAC, 50 Hz / 60 Hz, 1.9 A max
Power Consumption	175 W
Physical Dimensions (W x D x H)	17 x 20 x 1.72 in.; 43.2 x 50.8 x 4.4 cm
Weight	17 lb. (7.7 kg) max., without mounting brackets and fasteners
Operating Temperature	–20 °C to +55 °C (–4 °F to +131 °F)

Baseband Interfaces

» **Data**	4x 1000 BASE-T
» **Control**	4x 1000 BASE-T Ethernet

Navigation Data	ARINC 429 and RS-422, DB-25S

External Modem Support

» **Transmit Frequency**	950 – 1450 MHz
» **Receive Frequency**	950 – 2150 MHz

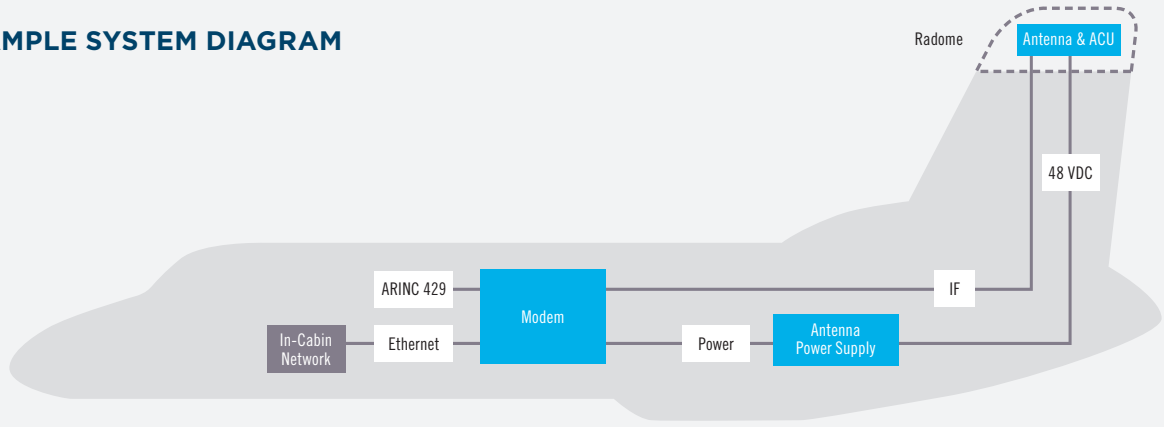
INTERFACE CABLES

Modem to Antenna	Two IFL cables
Power Supply to Antenna	One cable

QUALIFICATIONS

Environmental/EMC	RTCA/DO-160G

EXAMPLE SYSTEM DIAGRAM



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