Viasat

HIGH-SPEED BROADBAND ACCESS FOR GLOBAL IN-FLIGHT CONNECTIVITY

Building upon Viasat's strong history of delivering aviation SATCOM terminals, the Global Aero Terminal 5510 (GAT-5510) is a part 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, 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.

SUPPORTS BUSINESS AVIATION AND GOVERNMENT APPLICATIONS

» Business aviation internet and streaming services — stay connected to emails, web browsing, video streaming, and business applications

» Secure en route 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 Viasat's high-capacity Ka-band satellite networks, including partner and US government 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, 20 W Tx mode	49.6 dBW at 36K ft., midband frequency including radome loss
EIRP, 10 W 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
Antenna Control	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

Antenna Power Supply

» Power Source	115 VAC, 360 Hz - 800 Hz single phase, or 28 VDC
» Power Consumption	420 W
» 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	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
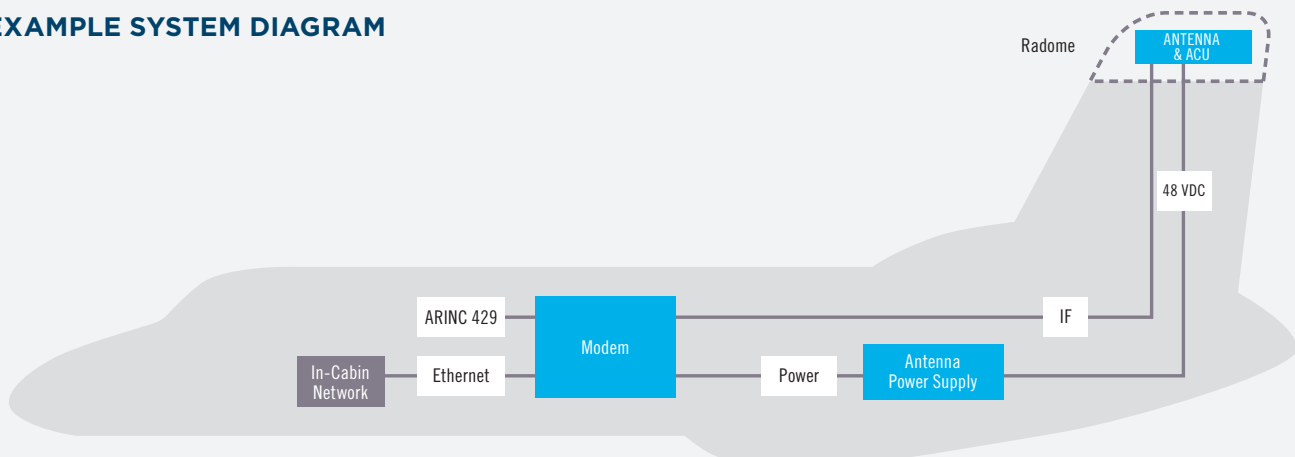
CONTACT

TEL 888 842 7281 (US Toll Free)   **EMAIL** insidesales@viasat.com

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