Global Aero Terminal 5530

Second-generation hybrid Ka- and Ku-band aviation SATCOM terminal



Seamless, global roaming on the Hybrid Adaptive Network

The Viasat Global Aero Terminal 5530 (GAT-5530) is a second- generation hybrid Ka and Ku-band aviation SATCOM terminal that enables global broadband connectivity service for commercial users on worldwide high-capacity satellite networks.

Today Viasat provides global in-flight internet and connectivity services to Government senior leadership aircraft with our KuKa service. Viasat offers a field-proven, certified, hybrid Ka- and Ku-band system, which will keep every passenger connected to Viasat's best available satellite network. The hybrid terminal and radome enables automatic in-flight network switching across Ku- and Ka-band satellite networks for an advanced global roaming capability. Viasat is here to take your passengers global today and on to the future.



A mature, fully operational terminal. A low SWaP solution — a dual-band, fuselage mounted antenna and onboard modem.



- Operates over commercial GEO Ku and Ka and commercial MEO Ka networks
- The only path to a global, multi-terabit satellite network



The GAT-5530's multi-frequency and multi-waveform, flexible terminal architecture, allows for the platform to operate over multiple networks.



Passengers can now engage with the Viasat seamless global roaming experience on the best available broadband network ... Global coverage starts now.



With every route, passengers can receive high-capacity coverage over key travel regions with access to wireless entertainment and connectivity.



Delivering the fastest data speeds and supporting:

- Real-time transfer of aircraft operational data
- Delivering the industry's highest data speeds to each aircraft



Viasat Global Aero Terminal 5530

Antenna specifications

CLASS

Fuselage mount, 2nd generation medium profile dual Ku-/Ka-band Tx/Rx airborne antenna

Ka-BAND		
Aperture	Waveguide horn array; circular polarization, electronically switchable, cross- and co-pol.	
Frequency	Full ITU Ka, Commercial and Military > Tx: 27.5 – 31.0 GHz > Rx: 17.7 – 21.2 GHz	
EIRP	52.5 dBW (includes radome loss)	
G/T	12.5 dB/K (includes radome loss)	
Ku-BAND		
Aperture	Waveguide horn array; linear polarization, electronic polarization tracking, cross and co-pol.	
Frequency	 Tx: 14.0 – 14.5 GHz Rx: 10.95 – 12.75 GHz 	
EIRP	47.0 dBW (includes radome loss)	
G/T	11.0 dB/K (includes radome loss)	
PHYSICAL CHARACTERISTICS		

RF electronicsIntegrated into antenna assemblyAntenna controlIntegrated into antenna assemblyElevation coverage0° to 90°Azimuth coverage0° to 360° continuousSwept volume (DxH)Ø39.25 x 11.3 in.; Ø99.7 x 28.7 cmWeight163.0 lb.; 73.9 kgOperating temp.-61 °C to +70 °C

ANTENNA POWER SUPPLY

Power source	115 VAC, 360 Hz – 800 Hz single phase, or 28 VDC
Power consumption	465 W max.
Dimensions (LxWxH)	11 x 8 x 3.3 in.; 28 x 21 x 8.4 cm
Weight	7.9 lb.; 3.6 kg
Operating temp.	-40 °C to +70 °C

Additional specifications

MODEM	
Form factor	ARINC 600 4 MCU
Power source	115 VAC, 400 Hz, single phase, or 28 VDC
Power consumption	175 W max.
Dimensions (LxWxH)	14.55 x 4.90 x 7.64 in.; 37 x 12.45 x 19.41 cm
Weight	17.0 lb.; 7.7 kg
Operating temp.	-40 °C to +70 °C
Baseband interfaces	 Data: 1000 BASE-T Ethernet Control: 1000 BASE-T Ethernet
Navigation data	ARINC 429, RS-422
External modem support	 Transmit Frequency: 950 – 1450 MHz Receive Frequency: 950 – 2150 MHz
RADOME	
Dimensions (LxWxH)	93 x 42 x 13 in.; 235 x 107 x 32 cm
Weight	90 lb.; 41 kg
QUALIFICATIONS	
Environmental/EMC	RTCA/DO-160G, MIL-STD-810, MIL-STD-461
SERVER	
Function	High-end in-flight entertainment server with failure tolerant solid state storage
Form factor	ARINC600 4MCU with Type II connector
Power management input	ACPI 4.0 115 VAC 360-800 Hz or 28VDC max 200 watts
Weight	16 lbs. (7.3 kg)

System diagram



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