Global Aero Terminal 5531 - KuKarrary2

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

Global roaming on the Hybrid Adaptive Network

The Viasat Global Aero Terminal 5531 (GAT-5531) 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.

Viasat helps airlines deliver a great passenger experience with high speed internet service to connect your fleet today and tomorrow. Viasat offers a field-proven, certified, high-capacity satellite network. Our hybrid Ka- and Ku-band system keeps passengers connected to Viasat's best available satellite network. The hybrid terminal enables automatic in-flight network switching across Ku- and Ka-band satellite networks for an advanced global roaming capability. Viasat's global network today scales to your global needs and end-user demands, now and for many years to come.

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
- Future forward : global, multi-terabit satellite network

The GAT-5531'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 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

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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 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)	Ø39.25 x 11.3 in.; Ø99.7 x 28.7 cm
Weight	163.0 lb.; 73.9 kg
Operating temp.	-61 °C to +70 °C

ANTENNA POWER SUPPLY

Power source	115 VAC, 360 Hz – 800 Hz single phase
Power consumption	470 W max.
Dimensions (LxWxH)	12 x 8.12 x 5.47 in; 30.48 x 20.62 x 13.89 cm
Weight	9.25 lb.; 4.2 kg
Operating temp.	-40 °C to +70 °C

Additional specifications

MODEM

Form factor	ARINC600 4 MCU with Type II connector
Power source	115VAC, 360 Hz – 800 Hz, single phase
Power consumption	160 W max.
Dimensions (LxWxH)	14.55 x 4.90 x 7.64 in.; 37 x 12.45 x 19.41 cm
Weight	16.0 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

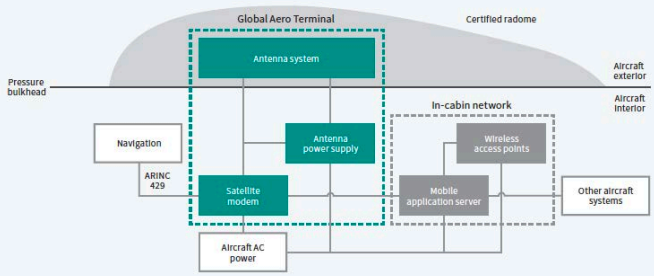
QUALIFICATIONS

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 | 15VAC, 360 Hz – 800 Hz, single phase | max 160 watts
Weight	16 lbs. (7.3 kg)
Ethernet ports	12

System diagram



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