



Dual-band business jet connectivity solution

Service and system overview

Viasat[™] 

Connect without compromise. Even at 40,000 feet.

Viasat Dual-band solution is bringing the most powerful internet services to the business jet market.

Viasat's Dual-band solution leverages both Ka-band and Ku-band networks to keep business jet customers connected in flight. Now, passengers can enjoy a high-speed internet experience for all they do online, wherever they go in the world. From emailing to downloading files to media streaming.

Uninterrupted connectivity

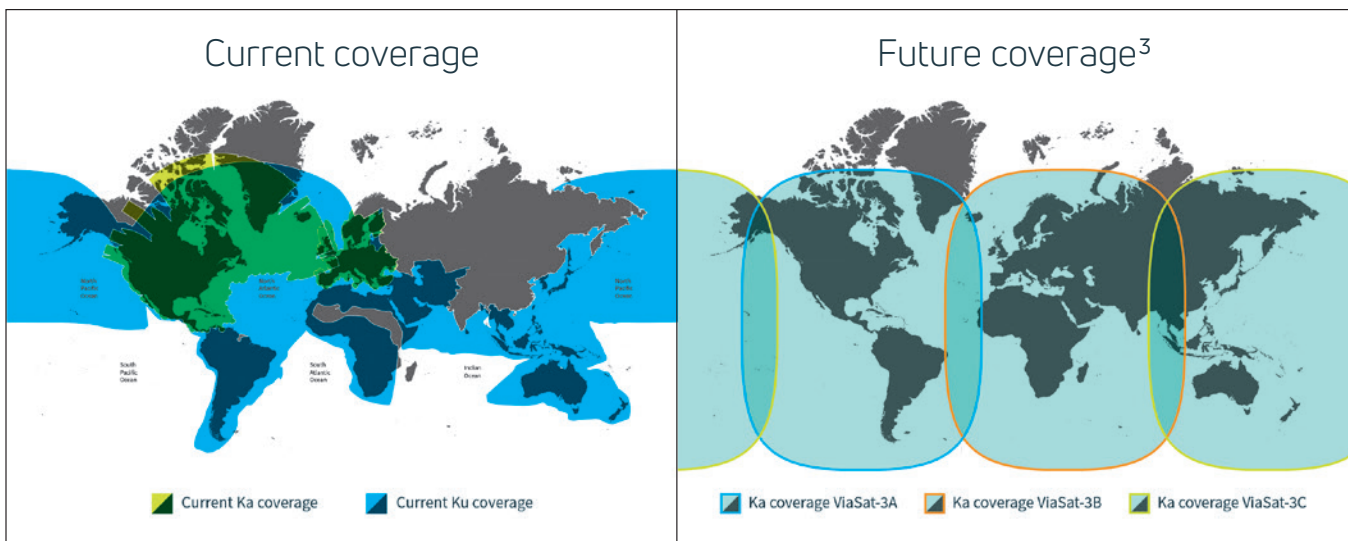
Viasat Dual-band solution is intelligently designed to provide the fastest speeds available, globally. The high capacity dual-band solution continuously navigates between Ka- and Ku-band networks bringing the best internet experience to everyone on board. In addition to web browsing, email, and corporate VPN access, passengers can conduct multi-site video conferences plus stream music, internet videos and live TV.

Dual-band service provides speeds up to 16 Mbps while in the Ka-band network, and up to 10 Mbps in the Ku-band network. The intelligent system will automatically default to Ka-band and leverage the Ku-band back-up service when outside of the growing Ka-band footprint.

In-flight connectivity is available during all phases of flight and ground operations¹ including taxi, takeoff, and landing, so passengers can conference, surf, stream just like they would in their office.

High speeds, highest capacity

Viasat already has the world's highest capacity satellites, including ViaSat-1 and ViaSat-2, which provide high-speed internet access to millions of users and devices across North and Central America, the Caribbean, and North Atlantic flight routes. We also manage KA-SAT, which expands coverage in Europe. The ViaSat-3 global satellite constellation will offer 3 Tbps total capacity for an even faster streaming media in-flight experience to passengers traveling anywhere in the world. And our global Ku-band service ensures you're always connected at no additional cost. Dual-band — the best of both worlds and only from Viasat.



The Viasat difference

Viasat Dual-band solution offers:

Fast speeds: Do more with speeds of up to 16 Mbps during all phases of flight. Stream, conference and surf — from takeoff to touchdown.

Forward-compatible: Protect your investment. Viasat's Ka-band equipment will work with our enhanced satellite technology of tomorrow² allowing you to accommodate the increased demand for speed, capacity and performance. Viasat is working to protect your investment by ensuring that the Ka-band equipment installed today will work with tomorrow's advanced technology.

Unrivaled capacity: Take advantage of global bandwidth and speed powered by the world's highest capacity satellite network. Capacity is the engine behind high-speed internet.

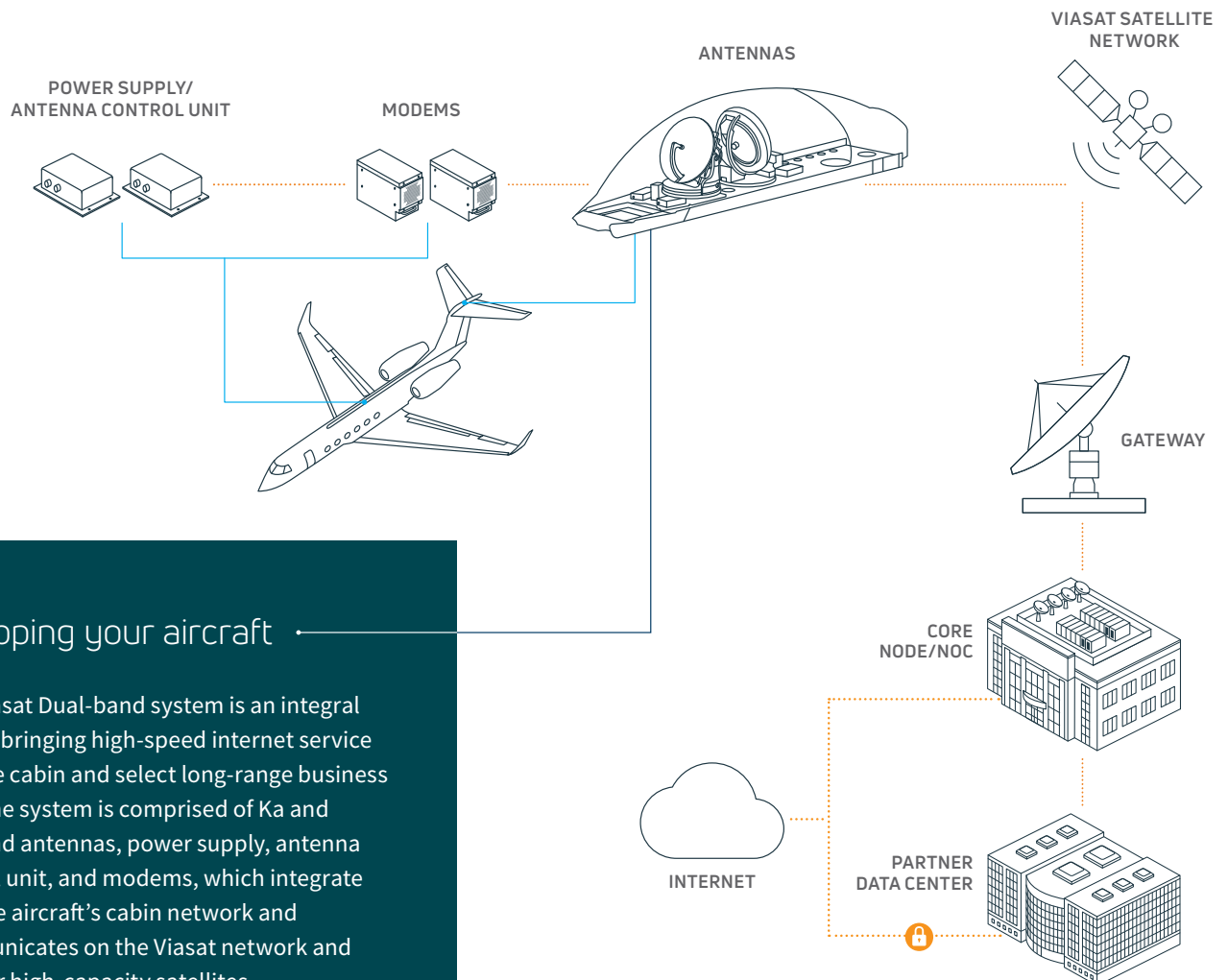
Streaming live TV: Enjoy streaming high definition live to TV cabin monitors and to passengers' own devices. Streaming TV does not impact your data plan allocation.

How it works

Viasat's Dual-band solution is an intelligently designed system that always provides the best satellite network for internet connectivity. The service seamlessly shifts connectivity between Ka- and Ku-band networks as needed, creating a continuous high-speed internet experience for passengers.

Once on board, passengers connect their devices to the aircraft's cabin network similar to how they'd connect to Wi-Fi on the ground. Data is transmitted between the Viasat dual-band system on the plane to the satellite ground station. As the plane moves through the air, the system automatically performs handovers between Ka- and Ku-band coverage areas.

Viasat equipment and network



Equipping your aircraft

The Viasat Dual-band system is an integral part of bringing high-speed internet service to large cabin and select long-range business jets. The system is comprised of Ka and Ku-band antennas, power supply, antenna control unit, and modems, which integrate into the aircraft's cabin network and communicates on the Viasat network and partner high-capacity satellites.

¹ Subject to country regulations. ² Includes Ka-band satellites launched through 2022.

Specifications

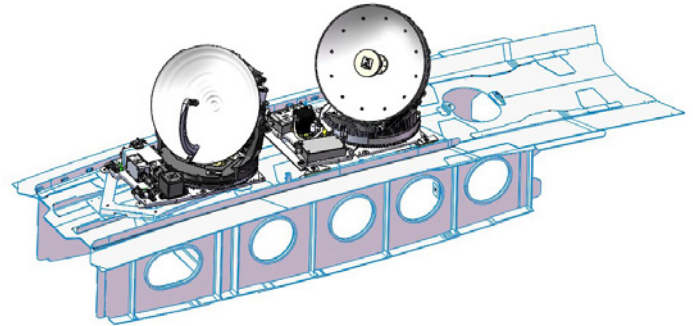
Dual-band solution

Operating frequencies

Transmit	Ka: 27.5 to 30.0 GHz Ku: 14.0 to 14.5 GHz
Receive	Ka: 17.7 to 21.2 GHz Ku: 11.55 to 12.75 GHz

Environmental & physical characteristics

Operating temperature	-55°C to +70°C
Size	Ka: 12.0" x 12.9" Ku: 11.9" x 12.9"
Weight, total system	88.5 lb; 40.1 kg
Power input (AC or DC options)	115 VAC, 400 Hz or 28 VDC



Supported aircraft

Gulfstream	GIV, GV, G450, G500, G550, G600, G650
Bombardier	Global Express, Global XRS, Global 5000 – 8000

Dual-band service plans

	ULTRA 40	ULTRA 60	ULTRA 100
Peak speeds to/from aircraft	16/2 Mbps	16/2 Mbps	16/2 Mbps
Committed info rate (CIR) to/from aircraft	4/.75 Mbps	4/.75 Mbps	4/.75 Mbps
Ku + Ka data allowance	40 GB	60 GB	100 GB
What can you do with Ka-band data? ¹	Download 20,000 documents or stream 6,400 songs	Skype™ video chat for about 45 hrs or watch 20 hrs of HD video on Netflix®	Send 1,000,000 emails or Skype™ group video w/ 5 people for about 48 hrs

¹ All activities are estimates based on average data usage and behaviors: data consumption is dependant upon streaming rate, device, file size, web page size, quality of video and other factors. Peak speeds to aircraft when in Ku-band mode vary from 5-10 Mbps. Up to 10 Mbps in CONUS. Sources: <https://help.netflix.com/en/node/87>; <https://community.skype.com/t5/Windows-archive/Video-Call-Data-Usage/td-p/706497>; <http://lowdown.carphonewarehouse.com/how-to/data-test-how-much-is-1gb/29283/>, and <https://www.broadbandchoices.co.uk/guides/broadband/guide-to-internet-data-usage>

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