

G-12L antenna

Ka-band satellite antenna for mobility

The Viasat G-12L Ka-band satcom antenna enables global broadband connectivity services for commercial and government users on worldwide high-capacity and conventional satellite networks. Capable of delivering the industry's highest data speeds, the antenna is interoperable with any modem, satellite network, and with multiple switched modems/networks. The G-12L tracks GEO, MEO, and LEO orbits from a platform that is in motion or stationary. The antenna is designed for high reliability aircraft and large UAV use but is also suited for maritime or land mobile applications. The G-12L is a single unit with integrated RF electronics and antenna control.

Compatible networks

With support for the full ITU Ka-band frequency range and any satellite polarization, the G-12L antenna is compatible with a broad range of networks:

- › ViaSat-1, ViaSat-2, ViaSat-3
- › Hughes JUPITER 1 and JUPITER 2
- › Inmarsat GX
- › SES O3b and mPower
- › Eutelsat KA-SAT
- › Avanti HYLAS
- › Wideband Global SATCOM (WGS)
- › Geostationary Defense and Strategic Communications (SGDC-1)
- › nbn Sky Muster
- › Telesat LEO
- › Amazon Project Kuiper



G-12L antenna at-a-glance

PRIMARY APPLICATIONS

- › Aircraft: Tail, fuselage, or hatch-mounted
- › Maritime
- › Large class UAVs
- › Ground mobile (improved roads)

HIGH-SPEED CONNECTIVITY

- › Supports the full ITU Ka-band spectrum to maximize operational flexibility, throughput, and capacity
- › Enables access to the highest capacity Ka-band satellites

MISSION SETS

- › Real-time broadband ISR
- › MedEvac/telemedicine
- › Search & rescue
- › Border/maritime surveillance
- › Mobile and portable broadband internet

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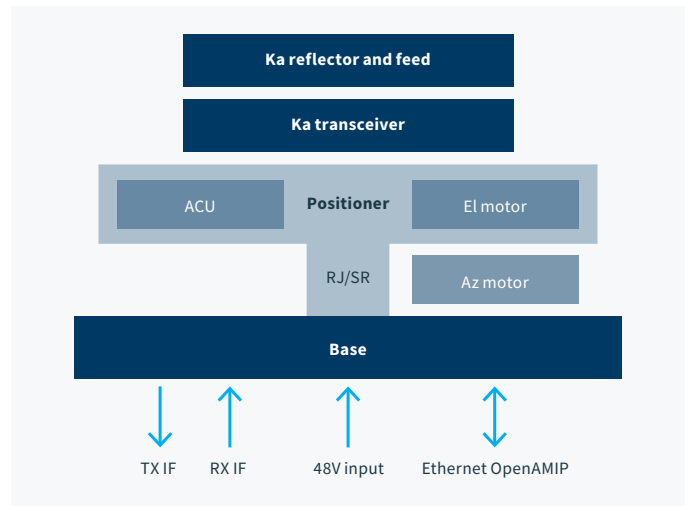
Specifications

ANTENNA

Class	12 inch mechanically steered reflector
Aperture	Parabolic reflector, circular polarization, electronically switchable, all combinations of RHCP, LHCP, 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	50 dBW
G/T	11.2 dB/K
Power (SSPA)	20W
RF electronics	Integrated into antenna assembly
Antenna control	Integrated into antenna assembly
Elevation coverage	0° to 90°
Azimuth coverage	0° to 360°
Power consumption	350 W max at 48V
Swept volume (DxH)	Ø12.0 x 13.0 in.; Ø30.5 x 33.0 cm
Weight	26.4 lb.; 11.9 kg
Operating temperature	-55 °C to +70 °C
MTBF	20,000 hours
Interface (IF)	L-band, OpenAMIP
LEO handover time	2 seconds or less
Velocity	100°/sec
Initial acquisition time	<30 sec
Tracking accuracy	0.3°

QUALIFICATIONS/CERTIFICATIONS

Environmental/EMC	› RTCA/DO-160G › Sea State 5 › Water resistant › Salt and fog qualified › Fluid inert › FCC 47 CFR 25.138 › ETSI EN 303-978
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