

# G-30L Ku-/Ka-band antenna

Hybrid satellite antenna for mobility

The Viasat G-30L Ku-/Ka-band hybrid aviation 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, this antenna is interoperable with any modem, satellite network, and with multiple switched modems/networks. It tracks GEO, MEO, and LEO orbits from a platform that is in motion or stationary. The antenna is designed for high reliability aircraft use but is also well suited for maritime or land mobile environments. The G-30L Ku-/Ka-band antenna is a single unit with integrated RF electronics and antenna control.

## Compatible networks

With support for Ku-band and the full ITU Ka-band frequency range as well as any satellite polarization, the G-30L Ku-/Ka-band antenna is compatible with a broad range of networks:

- › Viasat worldwide Ku-band network
- › Ku-band leased transponder networks
- › ViaSat-1, ViaSat-2, ViaSat-3
- › Hughes JUPITER 1 and JUPITER 2
- › Inmarsat GX & HCX
- › Intelsat Epic Flex Network
- › SES O3b and mPower
- › Eutelsat Ku-band and KA-SAT
- › Avanti Hylas
- › Wideband Global SATCOM (WGS)
- › Geostationary Defense and Strategic Communications (SGDC-1)
- › nbn Sky Muster
- › StarLink
- › Telesat LEO
- › Oneweb
- › Amazon Project Kuiper



## G-30L Ku-/Ka-band antenna at-a-glance

### FULL HORIZON-TO-HORIZON COVERAGE

- › Dual Ka-band and Ku-band aperture with -10 to 90 degree elevation and 360 degree azimuth motion
- › Electronic linear polarization tracking in Ku band
- › Circular Ka-band polarization (co-pol and cross-pol, RHCP, LHCP, switchable)
- › Integrated RF electronics for both bands
- › Integrated ACU with built-in GEO/MEO/LEO TLE tracking
- › Best-in-class G/T and EIRP, with no scan loss at the horizon

### PRIMARY APPLICATIONS

- › Large class UAVs
- › Fuselage mount commercial and government aircraft
- › Maritime
- › Ground mobile (improved roads)

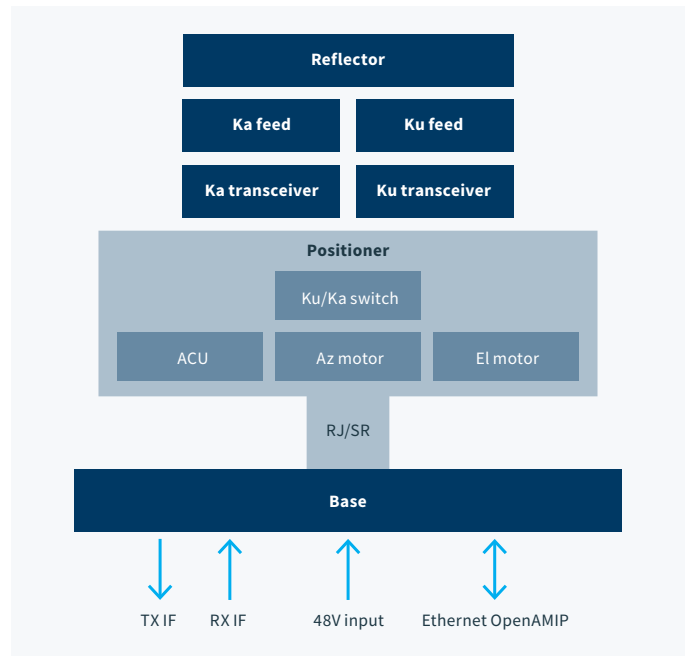
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## Specifications

ANTENNA	
<b>Class</b>	High profile mechanically steered reflector
<b>Aperture</b>	Circular reflector, dual Ku-band and Ka-band feed
<b>Ka-band</b>	Circular polarization, electronically switchable, all combinations of RHCP, LHCP, co-pol, or cross-pol
<b>Ku-band</b>	Linear polarization with electronic polarization tracking to satellite orientation. Horizontal, vertical, co-pol or cross-pol
<b>Ka-band frequency</b>	Full ITU Ka, commercial and military <ul style="list-style-type: none"> <li>› Tx: 27.5 – 31.0 GHz</li> <li>› Rx: 17.7 – 21.2 GHz</li> </ul>
<b>Ku-band frequency</b>	<ul style="list-style-type: none"> <li>› Tx: 14.0 – 14.5 GHz</li> <li>› Rx: 10.95 – 12.75 GHz</li> </ul>
<b>Ka-band EIRP</b>	57.7 dBW
<b>Ku-band EIRP</b>	52.7 dBW
<b>Ka-band G/T</b>	17.4 dB/K
<b>Ku-band G/T</b>	15.3 dB/K
<b>Power (SSPA)</b>	20W for Ka-band, 25W for Ku-band
<b>RF electronics</b>	Integrated into antenna assembly
<b>Antenna control</b>	Integrated into antenna assembly
<b>Elevation coverage</b>	-10° to 90°
<b>Azimuth coverage</b>	0° to 360° continuous
<b>Power consumption</b>	465W max at 48V
<b>Swept volume (DxH)</b>	Ø30.5 x 36.5 in.; Ø77.5 x 92.7 cm
<b>Weight</b>	70 lb.; 32 kg
<b>Operating temperature</b>	-6°C to +70°C
<b>MTBF</b>	15,000 hours
<b>Interface (IF)</b>	L-band, OpenAMIP
<b>LEO handover time</b>	2 seconds or less
<b>Velocity</b>	100°/sec
<b>Initial acquisition time</b>	<30 sec
<b>Tracking accuracy</b>	0.3°

## QUALIFICATIONS/CERTIFICATIONS

Environmental/EMC	
	› RTCA/DO-160G
	› MIL-STD-810
	› MIL-STD-461
	› Sea State 5
	› Water resistant
	› Salt and fog qualified
	› Fluid inert
	› FCC 47 CFR 25.138
	› ETSI EN 303-978



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