Delivering High Performance from Every Orbit

With high beam agility and all-orbit operation, the ThinAir Ku3030 antenna delivers exceptional network flexibility and consistently high performance for global inflight broadband.

Key Features

- Pole-to-pole coverage, including at high and low latitudes (high skew angles)
- Interoperability among LEO and GEO constellations
- Long-term reliability with patented design and minimal active components

- Ultra-low profile, reducing drag and associated fuel costs
- Gate-to-gate operation with low prime power demands
- High throughput: Up to 400 Mbps down and 100 Mbps up
- High spectral efficiency (up to 3 bits/Hz)

ThinKom
www.thinkom.com
Technical Specifications

Compatibility
Operating Band: Ku-band
Constellations: LEO and GEO
Satellite Services: Commercial, wide beam, HTS and XTS
Aircraft: Business and commercial aviation, military platforms

Tracking and Agility
Azimuth Coverage: 360° continuous
Elevation Coverage: +90° to +7.5° (depending on network)
Beam Agility: Up to 1000°/sec and 600°/sec²
Tracking Accuracy: <0.2°

Throughput and Performance
Data Rates: Up to 400 Mbps down and 100 Mbps up
Tx Band: 13.75 to 14.50 GHz
Rx Band: 10.70 to 12.75 GHz
G/T: 15 to 18 dB/K (12 dB/K at 20° elev.)
Network Efficiency: 1.5 to 3 bits/Hz
EIRP: 51 to 54 dBW (49 dBW at 20° elev., 70W BUC)
Transmit Power Spectral Density: (per 47 CFR 25.227)
  -17 to 18 dBW/4 kHz at high latitudes (to 65° N/S)
  -18 to 18 dBW/4 kHz PSD over CONUS (83W to 118W)
  -15 to 18 dBW/4 kHz PSD over Equator (Longitude +/- 35°)

Throughput and Performance (continued)
Geo-Plane Beamwidth: 1.86° Tx and 2.15° Rx typical (24°H x 36°W elliptical-dish equivalent)
Geo-Plane Patterns: First sidelobe -22 dB typical
Polarization: Tracking linear (co-pol or orthogonal-pol)
X-pol Isolation: 30 dB typical

Dimensions and Installation
Antenna: 74"L x 35"W x 4"H
Radome: 105"L x 48"W x 6.5"H (from fuselage, retrofit)
Installation: Line fit or retrofit

Environmental
Operating Temperature: -55°C to +74°C external
Environmental Compatibility: RTCA/DO-160G and MIL-STD-810G

Compliance and Certifications
Regulatory: FCC, ITU
FAA Certifications: Part 145 Repair Station

Other Mobility Applications
The Ku3030’s design and performance characteristics are also well suited for maritime and high-speed rail applications. Contact Thinkom to learn more.