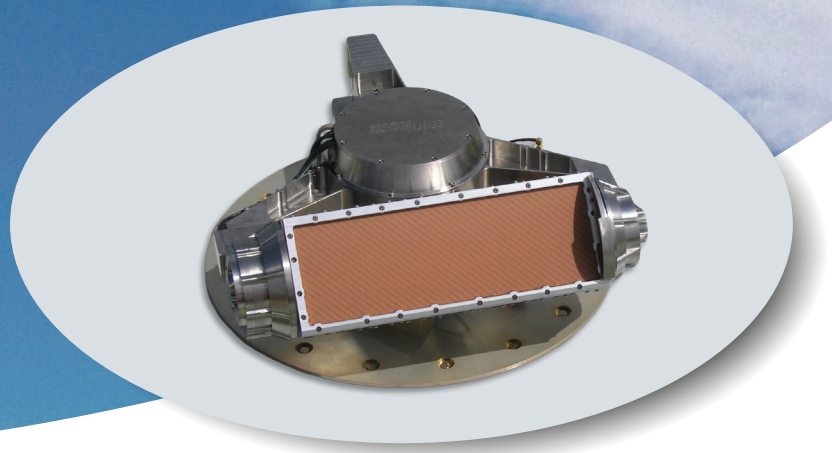


ThinAir® Eagle-Ka2000

Office-in-the-Air Connectivity



ThinKom

Global Connectivity

www.thinkom.com

Delivering General Business Aviation, Transport and Government Users Broadband Connectivity in a Low-Profile, Small Form-Factor Fuselage Mount Antenna

ThinKom's agile, low-profile, high-efficiency antenna provides high throughput (up to 30 Mbps Downlink at 15 dB/K G/T and 12 Mbps Uplink at 48 dBW EIRP) with efficient use of transponder bandwidth (1.5-3 bits/Hz). Our small swept volume, enables a similarly small form-factor fuselage mount radome which reduces fuel costs and provides flexibility for installation on a broad range of regional jet, single-aisle and twin-aisle aircraft. The superior high latitude and low skew angle performance improves flexibility of fleet operations throughout the world, including equatorial regions. *ThinAir® Eagle-Ka2000* supports dual-use and global applications including WGS and all Commercial Ka-band services.

ThinAir Eagle-Ka2000

General Information (Antenna)

Swept Volume Dimensions: 33" D x 8.0" H
(84 cm x 20 cm)

Transmit Band: 28.1-31.0 GHz

Receive Band: 18.3-21.2 GHz

G/T: 15.5 dB/K (20.2 GHz, cruise)

EIRP: 48 dBW (30 GHz, 12W BUC -
up to 65 dBW w/ 600W HPA)

Transmit Power Spectral Density: (per 47 CFR 25.138)

24 to 32 dBW/40 kHz at High Latitudes (to 65° N/S)

24 to 32 dBW/40 kHz PSD over CONUS (83W to 118W)

15 to 32 dBW/40 kHz PSD over Equator (Longitude +/- 35°)

Geo-Plane Beamwidth (Typ): 1.0° Transmit & 1.5° Receive
(30" diameter dish equivalent)

Geo-Plane Patterns (Typ): First Sidelobe -24 dB

Polarization: Fixed or Switchable Circular (Orthogonal-Pol)

Axial Ratio: < 2.0 dB Typical

Tracking

Azimuth Coverage: 360° (continuous)

Elevation Coverage: -10° to +90°

Agility (ARINC 429 Nav): >100°/sec, >100°/sec²

Tracking Accuracy: < 0.2°

Environmental

Operational Temperature: -55°C to +74°C (External)

Environmental Compatibility: RTCA/DO-160G & MIL-STD-810G

Performance (Dependent on Modem, Waveform & Bandwidth)

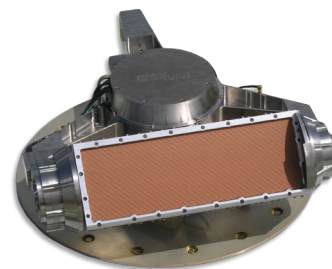
Data Rates (Forward Link/Receive): up to 30 Mbps

Data Rates (Return Link/Transmit): up to 12 Mbps

(up to 300 Mbps at 65 dBW EIRP)

Advantages and Benefits (relative to high profile radome antennas)

- Superior high latitude performance (low elevation angle operation)
- Small form-factor (33" Dia) and low-profile (8.0" H) fuselage-mount compatible with single-aisle and twin-aisle aircraft
- Equivalent performance to a 60cm (24") Ka-Band Parabolic Dish
- Up to 90% lower transponder cost (\$/Mb) as compared to 30cm Ka-Band Parabolic Dish
- 60% lower profile than fuselage-mount 30cm Ka-Band Parabolic Dish
- Dual-use Commercial and Government Ka-band
- High-reliability direct-drive gimbal



Antenna Subsystem



Antenna Control Unit



High Power Transceiver



Modem Unit

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