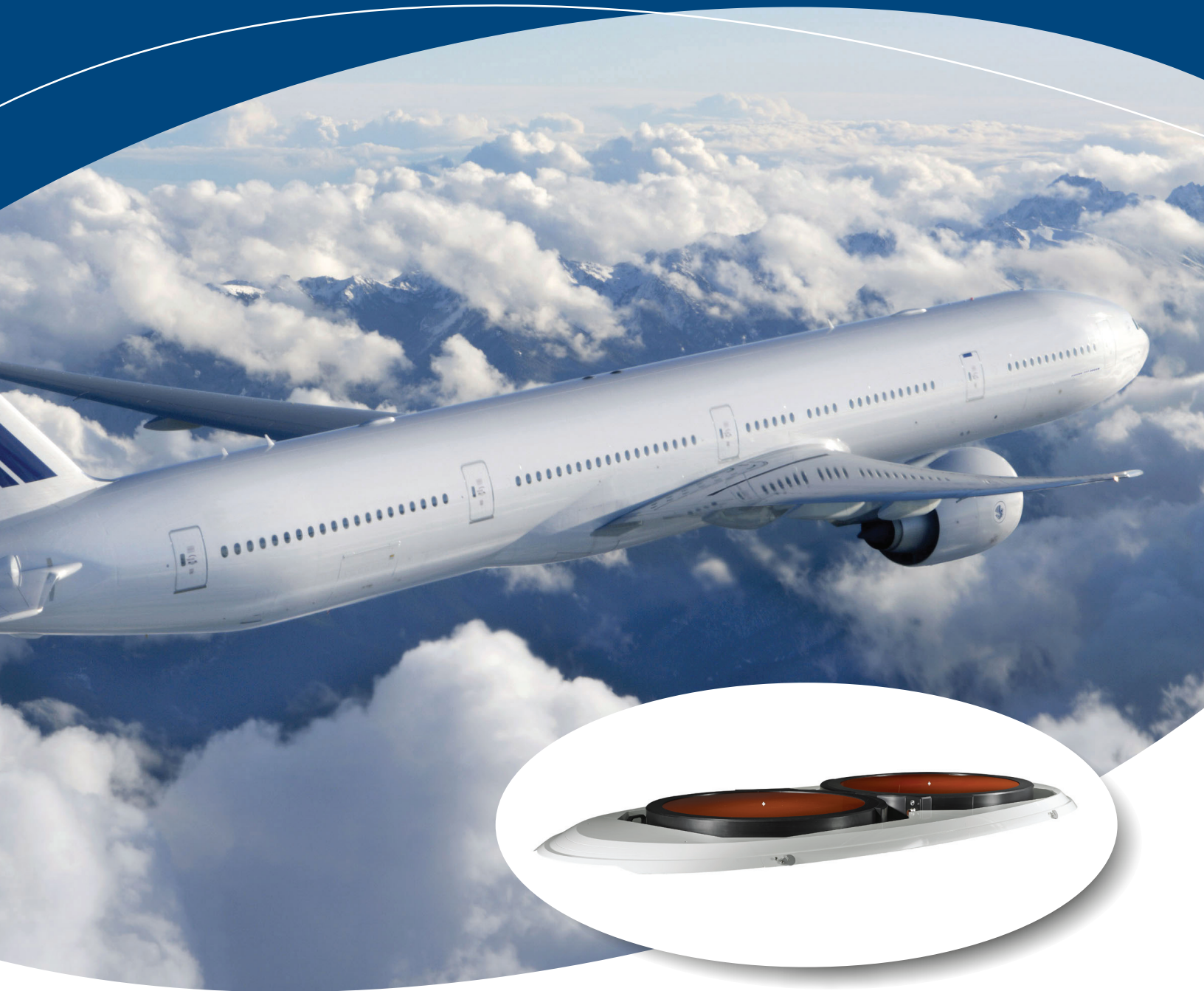


ThinAir® Falcon-Ku3030

Office-in-the-Air Connectivity



ThinKom

Global Connectivity

www.thinkom.com

Uniquely Enabling Commercial Air Transport Connectivity with 3x-12x More Throughput at 2x-10x the Efficiency, 1/2 the Size and 1/3 the Aerodynamic Drag

ThinKom's agile, *ThinAir® Falcon-Ku3030* antenna provides high throughput (up to 70 Mbps Downlink and 15 Mbps Uplink) and with maximally efficient use of transponder bandwidth (1.5-3 bits/Hz). Our ultra low profile antenna design enables a similarly low profile, conformal radome which reduces fuel costs related to drag by up to 50% and provides flexibility for installation on Regional, Single-aisle and Twin-aisle aircraft. The superior high skew angle and low latitude performance also improves fleet flexibility in equatorial regions. The *ThinAir® Falcon-Ku3030* offers the highest efficiency Ku-band solution to meet Commercial Air Transport's "big pipe" demand for broadband in-flight connectivity.

ThinAir[®] Falcon-Ku3030

General Information (Antenna)

Swept Volume Dimensions: 74" L x 35" W x 4.0" H
(188cm x 89cm x 10cm)

Transmit Band: 13.75-14.50 GHz

Receive Band: 10.70-12.75 GHz

G/T: 15 to 18 dB/K (12 dB/K at 20° Elev)

EIRP: 51 to 54 dBW (49 dBW at 20° Elev, 40W BUC)

Transmit Power Spectral Density: (per 47 CFR 25.227)

17 to 18 dBW/4 kHz at High Latitudes (to 65° N/S)

16 to 18 dBW/4 kHz PSD over CONUS (83W to 118W)

15 to 18 dBW/4 kHz PSD over Equator (Longitude +/- 35°)

Geo-Plane Beamwidth (Typ): 1.85° Transmit & 2.15° Receive
(24" H x 36" W Elliptical Dish equivalent)

Geo-Plane Patterns (Typ): First Sidelobe -22 dB

Polarization: Tracking Linear (Co-Pol or Orthogonal-Pol)

X-pol Isolation: 30 dB Typical

Tracking

Azimuth Coverage: 360° continuous

Elevation Coverage: (+10°) +15° to +85°

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 Rate (Forward Link/Receive): 65 to 90 Mbps

Data Rate (Return Link/Transmit): 8 to 15 Mbps

Advantages and Benefits (relative to high profile radome antennas)

- Fuel savings - reduced drag enabled by low profile
- Deflector can be reinforced for bird strike w/o affecting RF performance
- Superior equatorial performance (high skew angle operation)
- Supports 2x to 3x higher Forward Link (Receive) data rates
- Supports 4x to 6x higher Return Link (Transmit) data rates
- Fuselage-mount compatible with regional, single-aisle & twin-aisle aircraft
- Equivalent performance to 24" H x 36" W Ku-Band Elliptical Dish
- 50% to 80% lower transponder cost (\$/Mb)
- Full International (Ku-band) Frequency Coverage
- High-reliability direct-drive positioner (no gears or belts)
- RTCA / DO-160 Certified

Other Applications



Rail



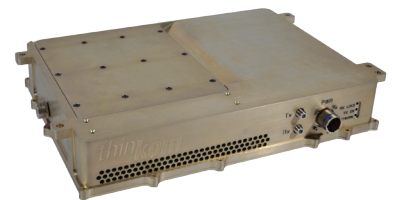
Maritime



Antenna Subsystem



Antenna Control Unit



Modem Unit

ThinKom

Global Connectivity

www.thinkom.com