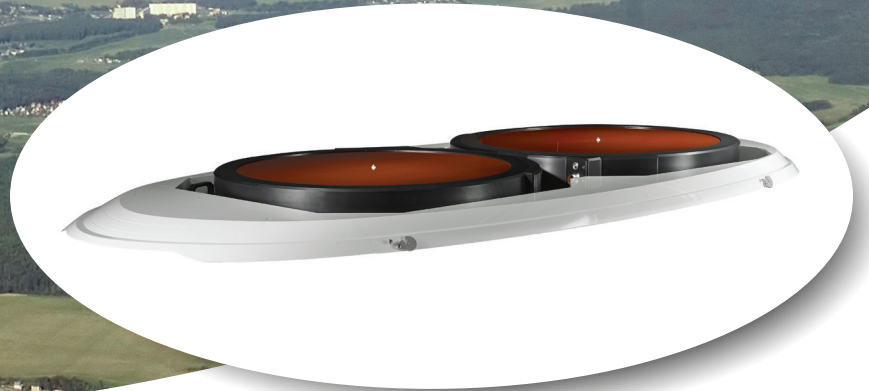
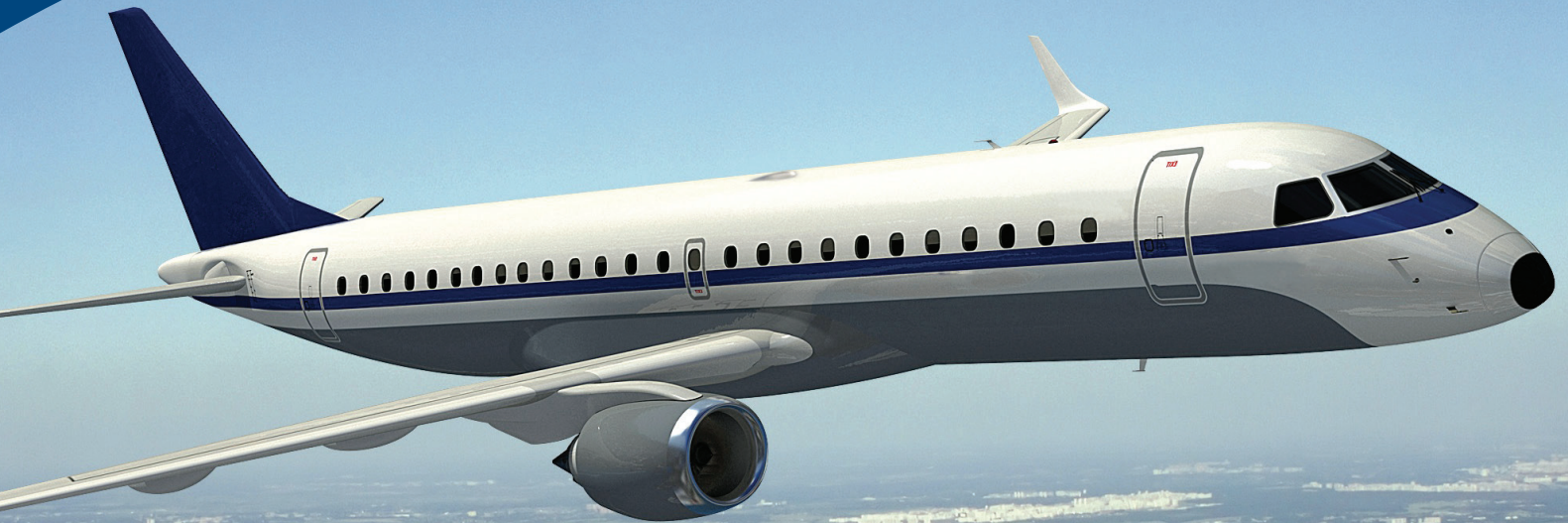


ThinAir® Falcon-Ka2517

Office-in-the-Air Connectivity



ThinKom

Global Connectivity

www.thinkom.com

Uniquely Enabling General Business Aviation and Commercial Air Transport Connectivity 3x-8x More Throughput at 2x-10x the Efficiency, 1/2 the Size and 1/3 the Aerodynamic Drag

ThinKom's agile, *ThinAir® Falcon-Ka2517* antenna provides high throughput (up to 50 Mbps Downlink and 15 Mbps Uplink) and with maximally efficient use of transponder bandwidth (1.5-3 bits/Hz). Our very low profile antenna design enables a similarly low profile conformal radome which reduces fuel costs related to drag by up to 80% and provides flexibility for installation on Business, Regional, Single-aisle and Twin-aisle aircraft. The superior high skew angle and low latitude performance also improves fleet flexibility in equatorial regions. *ThinAir® Falcon-Ka2517* revolutionizes next generation "big pipe" demand for broadband in-flight connectivity using Ka-band High Throughput Satellites.

ThinAir[®] Falcon-Ka2517

General Information (Antenna)

Swept Volume Dimensions: 50" L x 29" W x 3" H
(127cm x 74cm x 8cm)

Transmit Band: 28-31 GHz

Receive Band: 18.3-21.2 GHz

G/T: 14.5 to 17.5 dB/K (12 dB/K at 20° Elev)

EIRP: 47 to 50 dBW (45 dBW at 20° Elev, 12W BUC – up to 65 dBW w/ 400W BUC)

Transmit Power Spectral Density: (per 47 CFR 25.138)
28 to 31 dBW/40 kHz at High Latitudes (to 65° N/S)
28 to 31 dBW/40 kHz PSD over CONUS (83W to 118W)
23 to 31 dBW/40 kHz PSD over Equator (Longitude +/- 35°)

Geo-Plane Beamwidth (Typ): 1.6° Transmit & Receive
(18" H x 26" W Elliptical Dish equivalent)

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

Polarization: Switchable Circular (Co-Pol or Orthogonal-Pol)

Axial Ratio: < 2 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 Rates (Forward Link/Receive): 512 kbps to 50 Mbps

Data Rates (Return Link/Transmit): 512 kbps to 15 Mbps
(up to 300 Mbps at 65 dBW EIRP)

Advantages and Benefits (relative to high profile radome antennas)

- Up to \$75k fuel savings per aircraft per year - 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 8x higher Return Link (Transmit) data rates
- Fuselage-mount compatible with regional, single-aisle & twin-aisle aircraft
- Equivalent performance to 18" H x 26" W Ka-Band Parabolic Dish
- Up to 90% lower transponder cost (\$/Mb)
- Commercial and Government Ka-band
- High-reliability direct-drive positioner (no gears or belts)

Other Applications



Rail



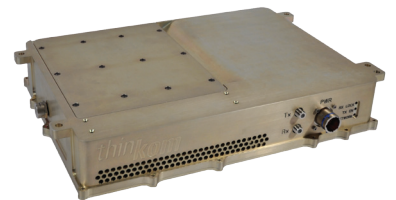
Maritime



Antenna Subsystem



Antenna Control Unit



Modem Unit

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