

thinAir® Ku3020

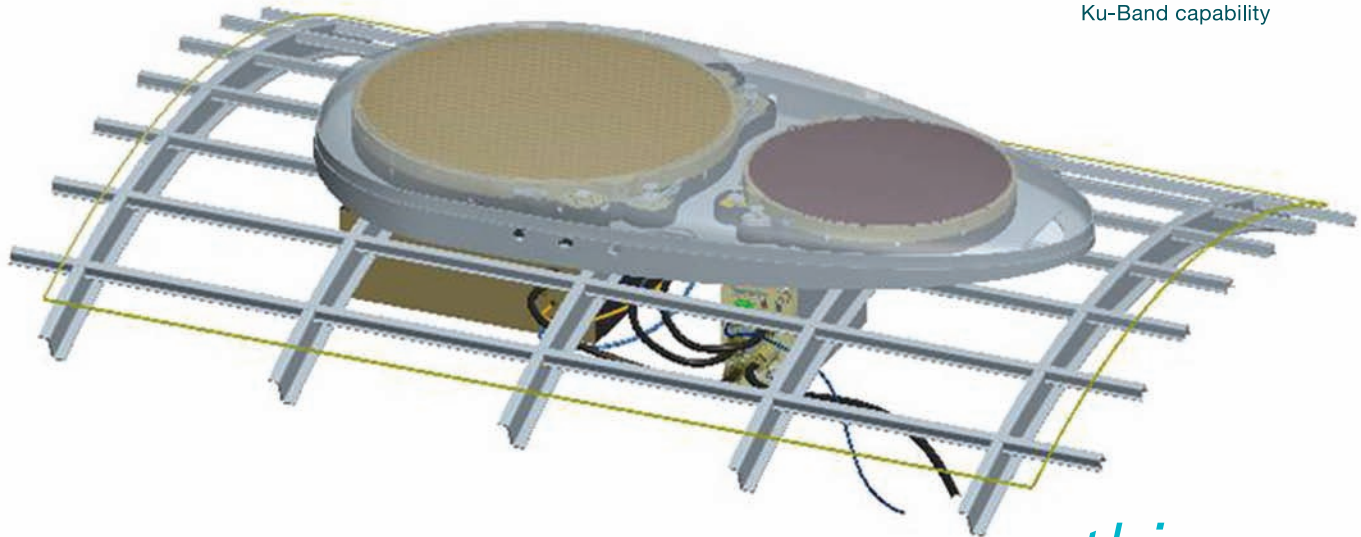
Office-in-the-Air Connectivity...

thinkom is a leading provider of agile, low-profile, high-efficiency antennas and subsystems for airborne applications; thinAir® Ku3020 is a phased array antenna that offers a unique ultra low-profile package that reduces drag and saves fuel costs. The superior equatorial/high skew angle performance also improves fleet flexibility. It is suitable for aircraft that demand a “big pipe” broadband IFE connectivity.

thinkom's thinAir® Ku3020 VICTS antenna technology enables SATCOM to all commercial air transport and regional jets with a high-performance, high-spectrally efficient, high skew angle performance, ultra low-profile, fuselage-mounted terminal.

The thinAir® Ku3020 can provide data rates of up to 20 Mbps from the gateway hub to the aircraft, and up to 3 Mbps from the aircraft to the hub.

Ultra Low-Profile Phased Array Profile



thinAir® Ku3020

Advantages and Benefits

- Ultra-Low Fuselage-Mount “Phased Array” profile (3.5" H)
- Superior Equatorial Performance (high skew angle operation)
- Comparable equipment / installation costs to competing Commercial Ku-Band systems
- Fuselage-Mount compatible with all aircraft
- Tx antenna Equivalent performance to an 88 cm x 36 cm Ku-Band parabolic antenna
- 2x to 8x higher return link data rates than comparable Ku-Band SATCOM antennas
- 50% to 80% lower service costs (\$/MB) than competing Ku-Band SATCOM antennas
- Full International 2-way Ku-Band capability

thinkom
A Revolution in Antennas™

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thinAir® Ku3020

Office-in-the-Air Connectivity...

General Information

Total Weight: 65 lbs
(not including Antenna Controller & BUC)
Size: 56"L x 34"W x 4.5"H (142cm x 86cm x 11.5cm)
Transmit Band: 13.75-14.50 GHz
Receive Band: 10.70-12.75 GHz*
Rx Instantaneous Bandwidth: >300 MHz
Cross Pol Isolation: >30 dB typ (Tx & Rx)
EIRP: 47.5-50.5 dBW** Typ (14.25 GHz, 25W BUC)
G/T: 11 to 14 dB/K** Typ (12.2 GHz, cruise)
Geo-Plane Beamwidth (Tx): 1.5° Typ (30"D dish equivalent)
Geo-Plane Beamwidth (Rx): 2.5° Typ (20"D dish equivalent)
Polarization: Switchable CP (Co or Orthogonal Pol)

Tracking

Azimuth Coverage: 360° continuous
Elevation Coverage: (15°) 25° to 85°
Agility (ARINC 429 NAV): >120°/sec, >300°/sec²
Tracking/Lobing: Mechanical Rx Lobing (Gyro Drift Nulling)

Environmental

Operational Temperature: -55°C to +74°C external
Certification: DO-160E

Voltage / Power

28VDC (350W Peak)

Performance

Data Rate (Forward): 512 kbps to 10 Mbps**/**
Data Rate (Return): 256 kbps to 3 Mbps**/**

Notes:

* With LNA option

** Depending on elevation angle

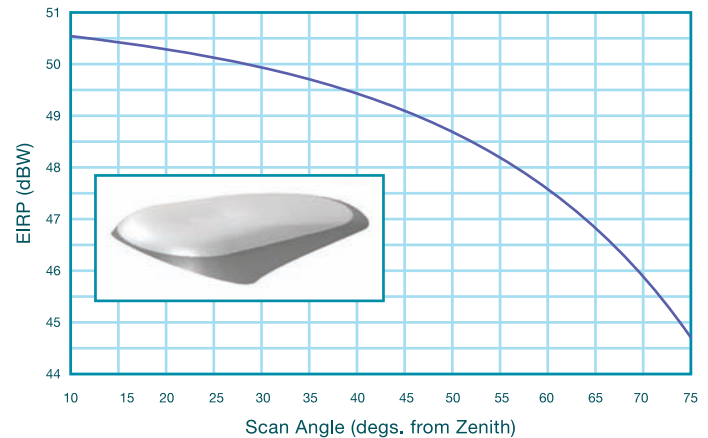
*** Depending on modem/waveform/satellite

**Airborne Broadband
Communication...Anywhere**

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A Revolution in Antennas™

Aeronautical Ku-Band thinAir KU3020 EIRP at 14.25 GHz
(No Radome, 25W Power Amplifier)



Aeronautical Ku-Band thinAir 3020 G/T at 11.95 GHz
(No Radome, Cruise Altitude)

