

ThinSat® Talos

Integrated Tri-Band SATCOM On-the-Move



ThinKom

Global Connectivity

www.thinkom.com

Ultra Low-Profile, High Performance Tri-Band (K/Ka/Q) Integrated Antenna/Terminal Subsystem Provides High Data Rate Satellite Communications for the On-the-Move Tactical Warfighter

ThinKom's ThinSat® Talos Integrated Antenna/Terminal Subsystem provides a high performance system capable of OTM operations for WGS, AEHF, GX, commercial Ka-Band and future satellite constellations. Based on ThinKom's patented VICTS antenna technology, the ThinSat® Talos combines an ultra low-profile Integrated Antenna/Terminal Subsystem design (6" high) that has been ruggedized for the demands of the military environment, optimized for multi-vehicle platform compatibility (wheeled and track vehicles), and built for unparalleled performance.

ThinSat® Talos

General Information (Integrated Antenna/Terminal Subsystem)

Dimensions: 30" L x 30" W x 6" H
(76cm x 76cm x 15cm)

System Weight: 190 lbs (86 kg)

Receive Band (K): 19.2-21.2 GHz

Transmit Band (Ka): 29.5-31.0 GHz

Transmit Band (Q): 43.5-45.5 GHz

G/T (K): 7 dB/K at 20° Elev; 12 dB/K at 45° Elev

EIRP (Ka): 47 dBW at 20° Elev; 52 dBW at 45° Elev (with integrated 50W BUC)

EIRP (Q): 47 dBW at 20° Elev; 52 dBW at 45° Elev (with integrated 60W BUC)

Regulatory: Compliant to MIL-STD-188-164B and 47 CFR 25.138

Polarization: Selectable LHCP or RHCP (K, Ka); Fixed RHCP (Q)

Axial Ratio: 2 dB typical

Max Required Input Power: < 750W

Tracking

Azimuth Coverage: 360° continuous

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

Agility: > 500°/sec, > 500°/sec²

Max Pointing Loss: < 1.0 dB

Environmental

Operational Temperature: -40°F to +131°F (-40°C to +55°C)

Storage Temperature: -58°F to +158°F (-50°C to +70°C)

Environmental Compatibility: MIL-STD-810F

Churchville B Compatible

Performance (40cm - 50cm Dish Equivalent)

Data Rates (Transmit/Receive): > 2 Mbps typical

Advantages and Benefits

- Tri-Band integrated terminal package (includes all K, Ka and Q-Band hardware except for modem)
- On-the-fly electronic switching between Ka and Q-Band operation (No hardware changes)
- Terminal Compatibility: Standard WGS/NCW, AEHF & Designated Commercial Ka-Band Fleets
- Compact footprint (30"x30"), ultra low-profile (< 6")
- Affordable production cost for tactical and strategic deployment
- Near hemispherical operation (to 10° elevation)
- Superior equatorial performance (high skew angle operation)
- Ruggedized: Designed to operate in and withstand harsh tactical environments, including EMI
- Vehicle Compatibility: Various military wheeled and track vehicles (FMTV, JLTV, HMMWV, Stryker & Bradley)



ThinKom

Global Connectivity

www.thinkom.com