

# ThinSat® Talos

Integrated Tri-Band SATCOM On-the-Move



## ThinKom

*Global Connectivity*

### **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<sup>®</sup> 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°/sec<sup>2</sup>

**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" x 30"), 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)



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