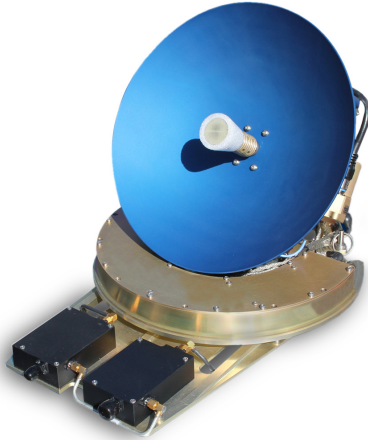


# KaSTREAM® 5000 MK II ANTENNA SYSTEM



Smiths Interconnect, a globally trusted and proven market leader for gate-to-gate in-flight connectivity delivers its latest high performance broadband SatCom terminal.

Designed for applications where size and weight are critical, the KaStream® 5000 MK II Antenna System is network agnostic designed for commercial and military applications. Easily adaptable to most commercially available modems, the KaStream® 5000 MK II offers real-time switchable dual polarization.

The KaStream® 5000 MK II consists of 3 Line Replaceable Units (LRU's): a Satellite Tracking Antenna Assembly (STAA), a Antenna Control Unit (ACU) or a Ka Antenna Power Supply Unit (KPSU), and a commercially available customer-selected modem.

## Satellite Tracking Antenna Assembly (STAA)

- Fully integrated solution combining the RF electronics, antenna aperture, and motion control system in a single LRU
- High efficiency thermal design to maximize operation in the harshest environments

## Antenna Control Unit (ACU)

- Interfaces with aircraft for navigation information
- Provides antenna positioning command and control
- Controls High Power Transceiver (HPT)

## Ka Antenna Power Supply Unit (KPSU)

- Interfaces with aircraft for navigation information

## Modem

- Modem agnostic  
(Contact SII for a full modem integration list)

Next generation  
Ka-broadband antenna  
system for in-flight  
connectivity

## Features and Benefits

- Superior antenna system performance in transmit and receive
  - Maximizes satellite footprint usage, resulting in fewer satellites required for network operation, therefore reducing cost
- Ka-band RF spectrum coverage for commercial and military use
- Real-time switchable dual polarization
- Easily adaptable to most commercially available modems
- Offers maximum flexibility to operate on High-Throughput Satellites (HTS)

## Applications

- Commercial and Military SATCOM
- Beyond line-of-sight UAV command and control applications
- Data Links
- Commercial and Personal Aircraft

## Technical Characteristics

### KaStream® Ka5000 MK II Satellite Tracking Antenna Assembly (STAA)

Operating frequency	19.2 GHz to 21.2 GHz (RX band) 29.0 GHz to 31.0 GHz (TX band)
Polarization	Switchable LHCP/RHCP TX orthogonal to RX
G/T	10.4 dB/k minimum @ 70°C, EL=10° (no radome) 12.3 dB/K typical @ 17°C, EL=30° (no radome)
EIRP	46.5 dBW linear, 49.0 dBW PSAT
Axial ratio	1.0 dB max TX, 1.5 dB max RX
Azimuth range of motion	0° to 360° degrees continuous rotation
Elevation range of motion	0° to 90°
Az/El velocity	60°/30°/s
Az/El/acceleration	60°/60°/s <sup>2</sup>
Az/El position resolution	0.0063°
Tracking accuracy	<0.2° RMS
DC power	28 VDC, 225 W max
Size - STAA (H x L x W)	13.2 in. x 16.4 in. x 9.3 in., (33.5 mm x 41.7 mm x 23.6 mm) swept volume 12.0 in. (30.5 mm ) diameter
Weight - STAA	25 lb (11.34 kg) max

## End Product Markets

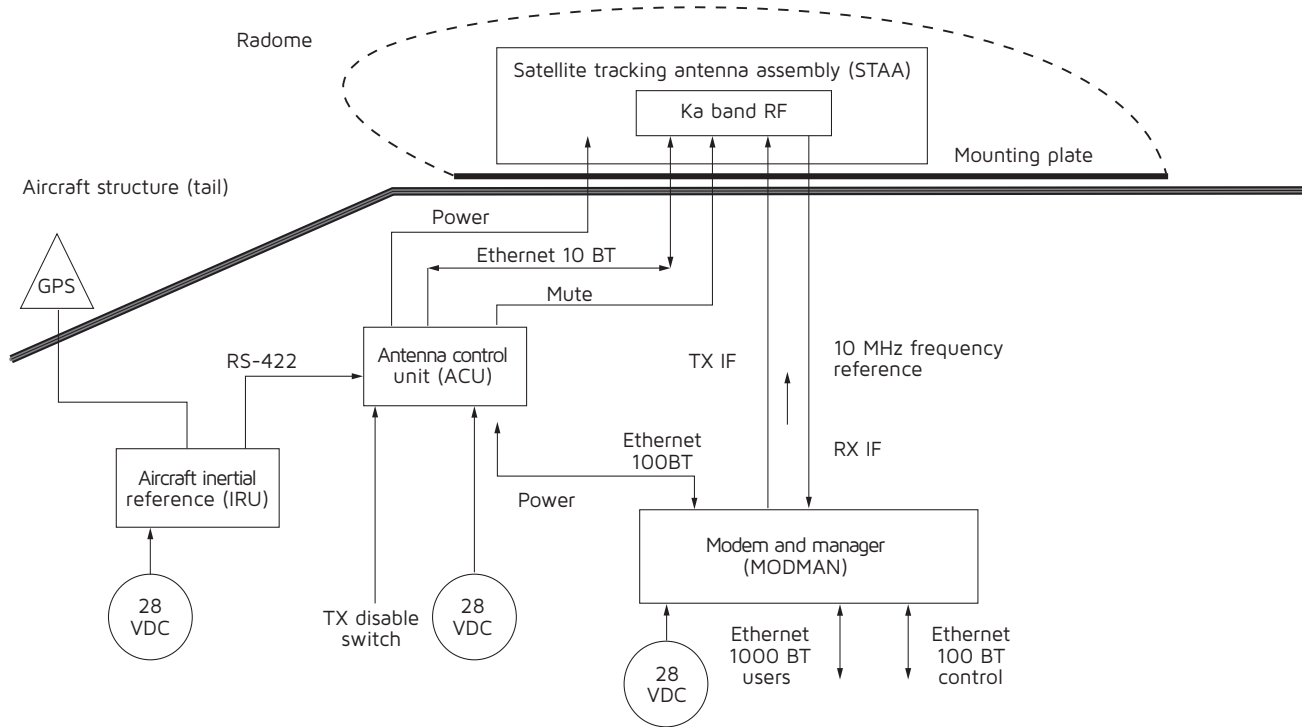


# Technical Characteristics

## Antenna Control Unit (ACU)

Aerospace Tailmount Platform

<b>Power</b>	28 VDC, 10.0 A max (400 W max)
<b>Dimensions (H x L x W)</b>	7.8 in. x 14.27 in. x 4.96 in. (19.82 mm x 36.25 mm x 12.60 mm)
<b>Weight</b>	10.75 lb (4.88 kg) max



# Technical Characteristics

## Ka Antenna Power Supply Unit (KPSU) UAV Platform

<b>Power</b>	18 - 48 VDC, 600 W
<b>Output</b>	28 VDC, 500 W
<b>Dimensions (H x L x W)</b>	7.8 in. x 14.27 in. x 4.96 in. (18.87 mm x 11.99 mm x 2.52 mm)
<b>Weight</b>	10.75 lb (1.52 kg) max

