Innovative Antenna Solutions

KaSTREAM 5000

KuSTREAM 5000

Innovative Antenna Solutions
Ka/KuStream® 5000 ANTENNA SYSTEM

The Industry-leading Ka/Ku broadband antenna system for in-flight connectivity

Features & Benefits

- Industry leading geographical skew angle range
- Enables maximum Ka/Ku-band satellite network data rates
- Superior antenna system performance in transmit and receive
- Maximizes satellite footprint usage, resulting in fewer satellites required for network operation, therefore reducing cost
- Interchangeable Ku and Ka-band antenna platforms (STAA only) for maximum flexibility
- Full Ku-band spectrum coverage for military and commercial use
- Market leader
- Gate to gate connectivity
- Operates on global Ku-band networks and new HTS satellites
- Proven and trusted
- Easily adaptable to most commercially available modems

Integrated 4 LRU solution

Satellite Tracking Antenna Assembly (STAA)
- Fully integrated solution combining the RF electronics, antenna aperture, and motion control system in a single LRU
- Swappable Ku and Ka-band STAA's for maximum flexibility
- 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 HPT

Ka or Ku band RF

Power

Ethernet 100 BT

Mute

10 MHz Frequency Reference

RX IF

TX IF

Ethernet 1000 BT Users

Ethernet 100 BT Control

For more information on this product contact our Thousand Oaks, CA Office +1 805 267 0100 email: info.thousandoaks@smithsinterconnectinc.com
# Technical Characteristics

## Ku Band

<table>
<thead>
<tr>
<th>characteristic</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Operating Frequency</strong></td>
<td>10.7–12.75 GHz RX Band</td>
</tr>
<tr>
<td><strong>Polarization</strong></td>
<td>Linear, switchable VP/HP, TX orthogonal to RX</td>
</tr>
<tr>
<td><strong>G/T</strong></td>
<td>8.8 dB/K</td>
</tr>
<tr>
<td><strong>EIRP</strong></td>
<td>42.7 dBw</td>
</tr>
<tr>
<td><strong>Azimuth Range of Motion</strong></td>
<td>0–360 degrees continuous rotation</td>
</tr>
<tr>
<td><strong>Elevation Range of Motion</strong></td>
<td>0–90 degrees</td>
</tr>
<tr>
<td><strong>Az/El Velocity</strong></td>
<td>&gt;30 degrees/sec</td>
</tr>
<tr>
<td><strong>Az/El/Acceleration</strong></td>
<td>&gt;30 degrees/sec</td>
</tr>
<tr>
<td><strong>Az/El Position Resolution</strong></td>
<td>0.0063 degrees</td>
</tr>
<tr>
<td><strong>Tracking Accuracy</strong></td>
<td>&lt;0.2 degrees RMS</td>
</tr>
<tr>
<td><strong>DC Power</strong></td>
<td>28 VDC, 380W max</td>
</tr>
<tr>
<td><strong>Weight - STAA</strong></td>
<td>25 lbs. max</td>
</tr>
<tr>
<td><strong>Size – STAA</strong></td>
<td>16.4” L x 9.3” W at base, 13.2” H x 12.0” swept diameter</td>
</tr>
</tbody>
</table>

## Ka Band

<table>
<thead>
<tr>
<th>characteristic</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Operating Frequency</strong></td>
<td>19.2–21.2 GHz RX Band</td>
</tr>
<tr>
<td><strong>Polarization</strong></td>
<td>Switchable LHCP/RHCP RX/TX</td>
</tr>
<tr>
<td><strong>G/T</strong></td>
<td>10.4 dB/k minimum</td>
</tr>
<tr>
<td><strong>EIRP</strong></td>
<td>46.5 dBw Linear, 49.0 dBw PSAT</td>
</tr>
<tr>
<td><strong>Axial Ratio</strong></td>
<td>1.0 dB max TX, 1.5 dB max RX</td>
</tr>
<tr>
<td><strong>Azimuth Range of Motion</strong></td>
<td>0–360 degrees continuous rotation</td>
</tr>
<tr>
<td><strong>Elevation Range of Motion</strong></td>
<td>0–90 degrees</td>
</tr>
<tr>
<td><strong>Az/El Velocity</strong></td>
<td>&gt;30 degrees/sec</td>
</tr>
<tr>
<td><strong>Az/El Acceleration</strong></td>
<td>&gt;30 degrees/sec</td>
</tr>
<tr>
<td><strong>Az/El Position Resolution</strong></td>
<td>0.0063 degrees</td>
</tr>
<tr>
<td><strong>Tracking Accuracy</strong></td>
<td>&lt;0.2 degrees RMS</td>
</tr>
<tr>
<td><strong>DC Power</strong></td>
<td>28 VDC, 400W max</td>
</tr>
<tr>
<td><strong>Weight - STAA</strong></td>
<td>25 lbs. max</td>
</tr>
<tr>
<td><strong>Size – STAA</strong></td>
<td>13.2” H x 16.4” L x 9.3” W, swept volume 12.0” diameter</td>
</tr>
</tbody>
</table>

## Antenna Control Unit (ACU)

<table>
<thead>
<tr>
<th>characteristic</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Power</strong></td>
<td>28 VDC, 17.0A max (10.0A nominal)</td>
</tr>
<tr>
<td><strong>Dimensions</strong></td>
<td>7.8 x 4.96 x 14.27 inches (H x W x L)</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>10.75 lbs. max</td>
</tr>
</tbody>
</table>

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