GROWING DEMAND FOR SPEED

Growth of the latest tablets, phones, and other mobile devices with bandwidth-intensive applications has created an explosion of demand for higher speeds whether at home or on-the-go. People want to be connected no matter where they are and 35,000 feet is no exception.

Viasat is changing the way the world communicates by satellite. The Exede® service from Viasat has revolutionized the residential and in-flight internet experience with the highest connection speeds at a competitive price.

Now, the Viasat Global Aero Terminal 5320 brings faster in-flight internet speeds over more of the globe by accessing the best available satellite service on Viasat’s global mobility network.

DUAL-BAND ANTENNA DESIGNED FOR ROAMING BETWEEN KU- AND KA-BAND NETWORKS

This advanced airborne system allows for roaming between Viasat high-capacity Ka- and Ku-band networks and is capable of connection speeds of 70 to 100 Mbps to the aircraft and 2.5 to 20 Mbps from the aircraft at Ka-band. With 12 Mbps to each mobile device, everyone onboard can experience the internet the way they want whether it’s taking care of e-mail or more data intensive applications such as video teleconferencing and streaming media, enjoying a high-speed, consistent level of service.

- Highest quality of service with capacity to deliver exceptional speeds to each seat
- Unmatched internet experience on the world’s highest capacity satellite, Viasat-1, and partner Ka-band satellites
- High-speed Ku-band coverage ensures you continue to get the fastest internet speeds available no matter where you travel

As demand for faster speeds at better economics grows, we are adding more high-capacity coverage starting with Viasat-2, that has 7x the coverage and 2x the bandwidth efficiency of Viasat-1. The Global Aero Terminal 5320 meets the high demand for internet usage today and is scalable to keep pace with future applications that will require even greater bandwidth consumption.
**SPECIFICATIONS**

**ANTENNA**

<table>
<thead>
<tr>
<th>Class</th>
<th>Tx/Rx medium profile dual Ku-/Ka-band airborne antenna</th>
</tr>
</thead>
<tbody>
<tr>
<td>Array Configuration</td>
<td>Suitable for Airbus and Boeing class aircraft</td>
</tr>
<tr>
<td>Ka-band</td>
<td>Waveguide horn array, with electronically switched circular, RHCP/LHCP, cross or co-polarization</td>
</tr>
<tr>
<td>» RF Electronics</td>
<td>Airborne Tx/Rx integrated assemblies (ATRIA) mounted to antenna aperture</td>
</tr>
<tr>
<td>» Rx Frequency</td>
<td>17.7 to 21.2 GHz</td>
</tr>
<tr>
<td>» Tx Frequency</td>
<td>27.5 to 31.0 GHz</td>
</tr>
<tr>
<td>» G/T (dB/K)</td>
<td>13.9 at 19.95 GHz at 35,000 ft (includes radome loss)</td>
</tr>
<tr>
<td>» EIRP (dBW)</td>
<td>47.25 at 31.00 GHz (includes radome loss)</td>
</tr>
<tr>
<td>Ku-band</td>
<td>Waveguide horn array; with linear, electronically switchable cross and co-polarization; polarization tracking</td>
</tr>
<tr>
<td>» RF Electronics</td>
<td>Integrated Tx and Rx assemblies mounted to antenna aperture</td>
</tr>
<tr>
<td>» Rx Frequency</td>
<td>10.95 to 12.75 GHz</td>
</tr>
<tr>
<td>» Tx Frequency</td>
<td>14.0 to 14.5 GHz</td>
</tr>
<tr>
<td>» G/T (dB/K)</td>
<td>11 at 11.85 GHz at 35,000 ft (includes radome loss)</td>
</tr>
<tr>
<td>» EIRP (dBW)</td>
<td>47.0 at 14.25 GHz (includes radome loss)</td>
</tr>
<tr>
<td>Antenna Control</td>
<td>Built-in Antenna Control Unit (ACU) mounted to antenna positioner; includes rate sensors and ruggedized programmable servo-motors (for azimuth over elevation control)</td>
</tr>
<tr>
<td>» Elevation coverage</td>
<td>0° to 80° under normal flight maneuvers, 0° to 90° with limited dynamics</td>
</tr>
<tr>
<td>» Azimuth coverage</td>
<td>360° continuous</td>
</tr>
<tr>
<td>» Swept Diameter</td>
<td>39.25 in.; 99.70 cm</td>
</tr>
<tr>
<td>» Height</td>
<td>11.30 in.; 28.70 cm</td>
</tr>
<tr>
<td>» Weight (Maximum)</td>
<td>&lt;160 lb; &lt;72.6 kg</td>
</tr>
</tbody>
</table>

**Antenna Power Supply**

- Input: 115 VAC, 400 Hz single phase
- Output: 48 VDC/400 W nominal, 500 W maximum
- Dimensions (LxWxH): 11 x 8 x 4 in.; 28 x 21 x 10 cm
- Weight: <11 lb; <5 kg
- Temperature Range
  - Operating: -55° to +70° C
  - Storage: -55° to +85° C
- Navigation Data: ARINC 429 bus

**MODEM**

- Ka-band
  - Return Link: 2.5 to 20 Mbps (typical)
  - Forward Link: 70 to 100 Mbps (typical)
  - Size: 4 MCU ARINC 600 compliant, type 1 connector
  - Weight: 10 lb; 4.5 kg
  - Power Source: +115 VAC input, variable frequency 400 Hz nominal, 100 W maximum, 80 W typical
  - MAC Layer Enhancements: WiMAX mobility protocols satellite beam hand-offs
- Ku-band
  - Return Link: 128 kbps to 8 Mbps
  - Forward Link: 128 kbps to 4 Mbps
  - Size: 4 MCU (or 1/2ATR) with ARINC 600 compliant, type 1 connector
  - Weight: 10 lb; 4.5 kg
  - Power Source: 28 VDC input, 130 W maximum, 100 W nominal

**Baseband Interfaces**

- LAN Interface
  - Data: 1000 BASE-T Ethernet
  - Control: 1000 BASE-T Ethernet
- Aircraft interface: ARINC 429

**INTERFACE CABLES**

- Modem to Antenna: Two IFL cables; each <150 ft ECS 31150 or equivalent loss; DC–2500 MHz

**SUPPORTED NETWORKS**

Viasat global Ku-band and high-capacity Ka-band networks

**IF CONTROLLER**

- Power Input: 28 VDC
- Operating Temperature (in-aircraft equipment): -40° to +70°
- Dimensions: 7.9 x 5.1 x 12.6 in.; (handle adds 1.5 in.); 20.0 x 12.9 x 32.0 cm
- Mounting: Inside fuselage
- Weight: 6.5 lb maximum; 3 kg (8 lb with optional internal power supply)

**RADOME**

- Dimensions (HxWxL): 13 x 42 x 93 in.; 32 x 107 x 235 cm
- Weight: <90 lb; <41 kg

**SUPPORTED AIRCRAFT**

Airbus
- Boeing

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**GLOBAL AERO TERMINAL 5320 RADOME**

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**CONTACT**

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