The Viasat Mobile Terminal 1820 (VMT-1820) is a complete airborne satellite communication terminal with an 18 in. antenna and lightweight equipment delivering broadband IP communications-on-the-move. With this mobile terminal and Viasat’s worldwide network and broadband service, aircraft operators can send live, full-motion high-definition video over the horizon, make secure phone calls, conduct video conferences, access classified and public networks, and perform mission-critical communications while in flight.

Equipped with integrated technologies and robust waveforms, this terminal delivers streaming data rates up to 30* Mbps with a bandwidth-efficient 18 in. antenna. This terminal leverages in-vehicle equipment that has logged hundreds of thousands of flight hours on deployed government aircraft.

True broadband communications-on-the-move is a reality, and made affordable with Viasat’s VMT-1820 terminal and worldwide satellite network.

**MOBILE BROADBAND COMMUNICATIONS FOR LIGHT AIRCRAFT**

- Live HD ISR Video from the Aircraft
- Office-in-the-Sky Connectivity for VIP Transport
- Enroute Video/Voice Conferencing

**AIRCRAFT MOBILE SATCOM AT-A-GLANCE**

**Secure High-Speed Communications**

- Protected IP traffic with optional HAIPE® Type 1 encryption
- Up to 30* Mbps streaming return link
- Up to 60* Mbps shared forward link

**FCC/ITU-Compliant**

- Authorized in over 100 countries
- Mitigates adjacent satellite interference with spread spectrum waveforms
- Optimized capacity with closed loop power control and advanced network management
- DO-160 qualified antenna, antenna control unit, and modem

**Flexible Design for Aircraft Requirements**

- 18 in. antenna mounts on fuselage of aircraft
- Flexible modem installation locations (near or far from antenna)
- Multiple radome options
- Accurate satellite tracking in all mission phases with GPS-aided Inertial Reference Unit (IRU)
- 28 VDC or 120 VAC powered modem options

**Global Network & Services**

- Worldwide broadband SATCOM
- Optimized for mobile applications
- High-capacity regional and enroute coverage
- Annual service plans for predictable budget planning
- Technical support with tiered service levels
- Customizable service plans to meet your mission requirements
### ANTENNA

<table>
<thead>
<tr>
<th>Class</th>
<th>Tail or fuselage mount, parabolic reflector Ku-band Tx/Rx airborne antenna</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aperture</td>
<td>Parabolic reflector, linear horizontal or vertical polarization with tracking</td>
</tr>
<tr>
<td>Transmit Frequency</td>
<td>14.0 to 14.5 GHz</td>
</tr>
<tr>
<td>Receive Frequency</td>
<td>10.95 to 12.75 GHz</td>
</tr>
<tr>
<td>EIRP</td>
<td>46 dBW min.</td>
</tr>
<tr>
<td>G/T</td>
<td>12 dB/K min. for &gt; 11.55 GHz</td>
</tr>
<tr>
<td></td>
<td>11 dB/K min. for &lt; 11.55 GHz</td>
</tr>
<tr>
<td>RF Electronics</td>
<td>Integrated into antenna assembly</td>
</tr>
<tr>
<td>Elevation coverage</td>
<td>5° to 85°</td>
</tr>
<tr>
<td>Azimuth coverage</td>
<td>0° to 360° continuous</td>
</tr>
<tr>
<td>Swept Volume (D x H)</td>
<td>Ø19.0 x 19.3 in.; Ø48.3 x 49.0 cm</td>
</tr>
<tr>
<td>Weight</td>
<td>26.5 lb.; 12.0 kg</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-55 °C to +70 °C</td>
</tr>
</tbody>
</table>

### MODEM

#### Model Number: VMBR-1500

- **Form Factor**: ARINC 600 4 MCU
- **Power Source**: 28 VDC
- **Power Consumption**: 130 W max.
- **Dimensions (L x W x H)**: 14.6 x 4.9 x 7.7 in.; 37.1 x 12.4 x 19.6 cm
- **Weight**: 10 lb.; 4.5 kg
- **Operating Temperature**: -20 °C to +60 °C

#### Model Number: MBR-4020

- **Form Factor**: 19" 1U Rackmount
- **Power Source**: 100 VAC to 240 VAC, 50/60 Hz
- **Power Consumption**: 120 W max.
- **Dimensions (L x W x H)**: 17 x 13.75 x 1.72 in.; 43.18 x 34.93 x 4.37 cm
- **Weight**: 9 lb.; 4.08 kg
- **Operating Temperature**: -30 °C to +60 °C

### INERTIAL REFERENCE UNIT

- **Power Source**: 28 VDC
- **Power Consumption**: 21 W max.
- **Dimensions (L x W x H)**: 7.5 x 7.5 x 6.0 in.; 19.0 x 19.0 x 15.2 cm
- **Weight**: 9.0 lb.; 4.1 kg
- **Operating Temperature**: -32 °C to +60 °C
- **Navigation Data Interface**: ARINC 429

### OPTIONAL FEATURES

- **Encryption**: Type 1 HAIPE® (KG-250X) AES-256 FIPS 140-2
- **Acceleration**: TCP/IP Performance Enhancing Proxy
- **Integrated Router/Video Compression**: Multiple Options

### BASEBAND INTERFACES

- **Data**: 10/100/1000*BASE-T Ethernet
- **Console**: RS-232 and Ethernet

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