

Small Footprint Terminal  
with 18 inch Antenna  
for High Data Rate  
Airborne Communications



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 Ku-band 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 Ku-band 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)
- » 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

## SPECIFICATIONS

### ANTENNA

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

### ANTENNA CONTROL UNIT

» <b>Power Source</b>	28 VDC
» <b>Power Consumption</b>	350 W max.
» <b>Dimensions (L x W x H)</b>	11.0 x 8.0 x 3.4 in.; 28 x 20.3 x 8.6 cm
» <b>Weight</b>	5.5 lb.; 2.5 kg
» <b>Operating Temperature</b>	-55 °C to +70 °C

### BASEBAND INTERFACES

<b>Data</b>	10/100/1000*BASE-T Ethernet
<b>Console</b>	RS-232 and Ethernet

### MODEM OPTIONS

#### Model Number: VMBR-1500

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

#### Model Number: MBR-4020

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

### INERTIAL REFERENCE UNIT

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

### OPTIONAL FEATURES

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



## CONTACT

### SALES

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