

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



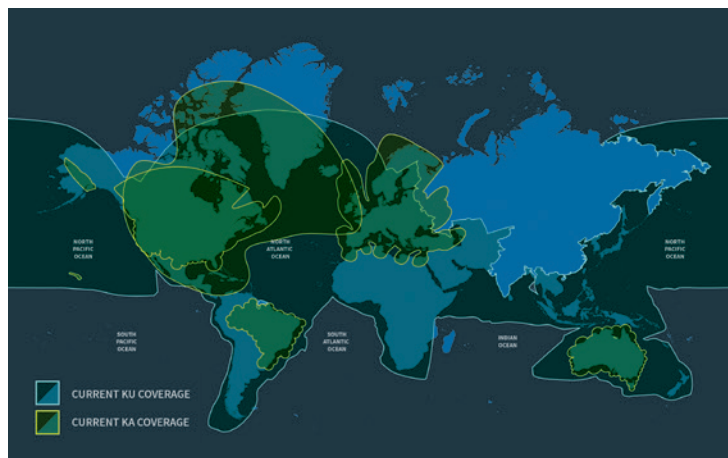
The Viasat Mobile Terminal 1820 (VMT-1820) is a complete airborne satellite communication terminal with an 18 in. antenna and lightweight equipment delivering broadband IP communications-on-the-move. With this mobile terminal and Viasat's worldwide network and broadband service, aircraft operators can 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 10 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 10 Mbps streaming return link
- » 10 to 30 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

SPECIFICATIONS

ANTENNA

Class	Tail or fuselage mount, parabolic reflector Ku-band Tx/Rx airborne antenna
Aperture	Parabolic reflector; linear horizontal or vertical polarization with tracking
Transmit Frequency	14.0 to 14.5 GHz
Receive Frequency	10.95 to 12.75 GHz
EIRP	46 dBW min.
G/T	12 dB/K min. for > 11.55 GHz 11 dB/K min. for < 11.55 GHz
RF Electronics	Integrated into antenna assembly
Elevation coverage	5° to 85°
Azimuth coverage	0° to 360° continuous
Swept Volume (D x H)	Ø19.0 x 19.3 in.; Ø48.3 x 49.0 cm
Weight	26.5 lb.; 12.0 kg
Operating Temperature	-55 °C to +70 °C
Antenna Control Unit	
» Power Source	28 VDC
» Power Consumption	350 W max.
» Dimensions (L x W x H)	11.0 x 8.0 x 3.4 in.; 28 x 20.3 x 8.6 cm
» Weight	5.5 lb.; 2.5 kg
» Operating Temperature	-55 °C to +70 °C

BASEBAND INTERFACES

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

MODEM

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
Form Factor	19" 1U Rackmount
» Power Source	100 VAC to 240 VAC, 50/60 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	-20 °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	8.5 lb.; 3.9 kg
Operating Temperature	-32 °C to +60 °C
Navigation Data Interface	RS-422

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



CONTACT

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