

Small Footprint Terminal
for High Data Rate
Comms-on-the-Move



Arming mobile missions worldwide, the Viasat Mobile Terminal 1220 for light aircraft (VMT-1220LA) is a complete airborne satellite terminal with an ultra small 12 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.

The terminal has logged hundreds of thousands of flight hours on deployed government aircraft such as the King Air, PC-12, De Havilland, and Caravan. In addition to the Ka-band antenna being WGS certified, the VMT-1220LA is FAA and JITC certified for installation and secure network operation.

Equipped with integrated technologies and robust waveforms, this terminal has been proven in-theater to deliver streaming data rates up to 20* Mbps with a 12 in. antenna. True broadband communications-on-the-move is a reality, and made affordable with Viasat's VMT-1220LA terminal and worldwide Ku-band satellite network.

BROADBAND COMMS-ON-THE-MOVE FOR LIGHT AIRCRAFT MISSIONS

- » Intelligence, Surveillance, Reconnaissance
- » Command, Control, Communications (C3)
- » VIP Transport
- » Search and Rescue
- » Electronic Warfare



LIGHT AIRCRAFT MOBILE SATCOM AT-A-GLANCE

Secure High-Speed Communications

- » Up to 20* Mbps streaming return link
- » Up to 45* shared forward link
- » Protected IP traffic with optional HAIPE® Type 1 encryption

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

- » Antenna mounts on tail or 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 Ku SATCOM
- » Can operate over third-party Ka-band satellite networks
- » Optimized for mobile applications
- » High-capacity regional and enroute coverage
- » Annual service plans at fixed monthly costs
- » Technical support with tiered service levels

VMT-1220LA SPECIFICATIONS

	Ku-band	Ka-band
ANTENNA		
Class	Tail or fuselage mount, parabolic reflector Tx/Rx airborne antenna	
Aperture	Parabolic reflector; selectable linear horizontal or vertical polarization	Parabolic reflector; circular polarization, electronically switchable, cross-pol.
Transmit Frequency	14.0 – 14.5 GHz	29.5 – 31.0 GHz
Receive Frequency	10.95 – 12.75 GHz	19.7 – 21.2 GHz
EIRP	42.5 dBW min.	46.5 dBW min.
G/T	9 dB/K min. for > 11.55 GHz 8 dB/K min. for < 11.55 GHz	10.2 dB/K min.
RF Electronics	Integrated into antenna assembly	
Coverage	Elevation: 5° to 85° Azimuth: 0° to 360° continuous	
Swept Volume	Ø12.4 x 13.1 in.; Ø31.5 x 33.3 cm	
Weight	22 lb.; 10 kg	
Operating Temperature	-55 °C to +70 °C	
ANTENNA CONTROL UNIT (ACU)		
Power Source	28 VDC	
Power Consumption	350 W max.	235 W max.
Dimensions (LxWxH)	11.0 x 8.0 x 3.4 in.; 28.0 x 20.3 x 8.6 cm	
Weight	5.5 lb.; 2.5 kg	
Operating Temperature	-55 °C to +70 °C	

BASEBAND INTERFACES

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

MODEM OPTIONS

Model Number: VMBR-1500

» Form Factor	ARINC 600 4 MCU
» Power Source	28 VDC
» Power Consumption	130 W max.
» Dimensions (LxWxH)	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 (LxWxH)	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 (LxWxH)	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

SMALL FOOTPRINT 12 IN. ANTENNA, ACU, MODEM



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