## **Light Aircraft Terminal VMT-1220LA**

Two-Way Broadband Ku or Ka SATCOM-on-the-Move

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



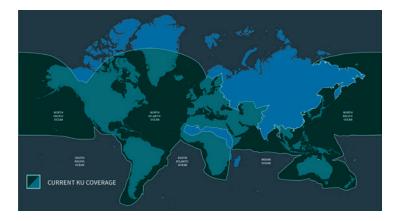
Arming mobile missions worldwide, the Viasat Mobile Terminal 1220 for light aircraft (VMT-1220LA) is a complete airborne satellite terminal with an ultra small 12 in. antenna and lightweight equipment delivering broadband IP communications-on-the-move. With this mobile terminal and Viasat's worldwide 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

### Viasat Light Aircraft Terminal VMT-1220LA

#### **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

ARINC 600 4 MCU » Form Factor

» 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 -20 °C to +60 °C » Operating Temperature

#### 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**

28 VDC Power Source **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**

Type 1 HAIPE® (KG-250X). Encryption

AES-256 FIPS 140-2

TCP/IP Performance Acceleration

**Enhancing Proxy** 

Integrated Router/ Multiple Options

Video Compression

### **SMALL FOOTPRINT 12 IN. ANTENNA, ACU, MODEM**



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