

Light Aircraft Mobile Terminal 1220

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

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



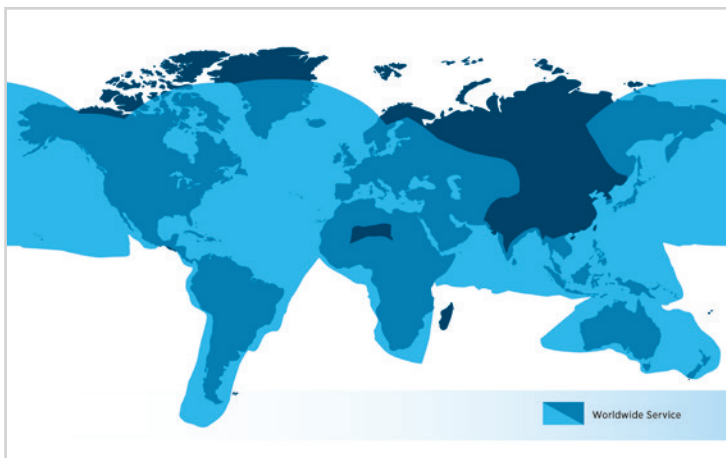
Arming mobile missions worldwide, the ViaSat Mobile Terminal 1220 for light aircraft (VMT-1220LA) is a complete airborne satellite terminal with an ultra small 12-inch antenna and lightweight equipment delivering broadband IP communications-on-the-move. With this mobile terminal and ViaSat's worldwide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

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. The terminal 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 10 Mbps with a 12-inch antenna. True broadband communications-on-the-move is a reality, and made affordable with ViaSat's VMT-1220LA terminal and worldwide satellite network.

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

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



LIGHT AIRCRAFT MOBILE SATCOM AT-A-GLANCE

Secure High-Speed Communications

- » Field-proven 10 Mbps streaming return link (with 12-inch antenna)
- » 10 to 30 Mbps 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
- » Modem can be located any distance 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 at fixed monthly costs
- » Technical support with tiered service levels

VMT-1220LA SPECIFICATIONS

	Ku-band (10 W)	Ku-band (20 W)	Ka-band
OPERATING FREQUENCY			
Transmit	14.0 to 14.5 GHz		29.5 to 31.0 GHz
Receive	11.55 to 12.75 GHz	10.95 to 12.75 GHz	19.7 to 21.2 GHz
MODULATION AND FEC			
Forward/Return Link	Network optimized—Variable Coding, Spreading, and Modulation (VCSM)		
Spread Forward/Return Link	Variable to 150		
FEC	R = 1/3 Turbo or DVB-S2		
Frequency Reuse	Paired Carrier Multiple Access (PCMA)		
TRANSMISSION RATES			
Forward/Return Link	128 kbps to 4 Mbps	128 kbps to 8 Mbps	128 kbps to 10 Mbps
RF/TRACKING PERFORMANCE			
EIRP	39.5 dBW minimum	42.5 dBW minimum	46.5 dBW minimum
G/T	9 dB/K minimum	9 dB/K minimum for >11.55 GHz 8 dB/K minimum for <11.55 GHz	10.2 dB/K minimum
Polarization	Selectable horizontal/vertical linear polarization		Circular LH & RH
Coverage	Azimuth 360° Elevation 5° to 85°		
Tracking Rates	Azimuth 30°/s Elevation 20°/s Polarization 20°/s		Azimuth 30°/s Elevation 20°/s Circular Polarization
Tracking Acceleration	Azimuth 30°/s ² Elevation 30°/s ² Polarization 30°/s ²		Azimuth 30°/s ² Elevation 30°/s ² Circular Polarization
ANTENNA CONTROL UNIT (ACU)			
Power	<220 W @ 28 VDC	<350 W @ 28 VDC	<235 W @ 28 VDC
Operating Temperature	-55° to 70° C		
Storage Temperature	-55° to 85° C		
Dimensions	8 x 11 x 3.4 in.		
Weight	5.5 lb; 2.5 kg	6.5 lb; 2.9 kg	5.5 lb; 2.5 kg

BASEBAND INTERFACES

Data	10/100BASE-T Ethernet
Console	RS-232 and Ethernet (via SSH)

OPTIONAL FEATURES

Encryption	» Type 1 HAIPE® (KG-250) » AES-256 FIPS 140-2
Acceleration	TCP/IP performance enhancing proxy
Router	Commercially available

ENVIRONMENTAL & PHYSICAL CHARACTERISTICS

VR-12 Antenna	
» Power	Supplied by ACU
» Operating Temperature	-55° to 70° C
» Storage Temperature	-55° to 85° C
» Weight	22 lb; 10 kg
ViaSat Mobile Broadband Router (VMBR-1500)	
» Power	<100 W @ 28 VDC
» Operating Temperature	-20° to 60° C
» Storage Temperature	-40° to 85° C
» Dimensions	14.6 x 4.88 x 7.63 in.
» Weight	10 lb; 4.5 kg
Inertial Reference Unit	
» Power	<18 W @ 28 VDC
» Operating Temperature	-46° to 60° C
» Storage Temperature	-46° to 71° C
» Dimensions	7.45 x 7.5 x 4.78 in.
» Weight	8.5 lb; 3.9 kg

SMALL FOOTPRINT 12-INCH ANTENNA, ACU, MODEM



CONTACT

SALES

TEL 888 842 7281 (US Toll Free) EMAIL insidesales@viasat.com WEB www.viasat.com

UNITED STATES Carlsbad, CA and Washington, DC TEL +1 760 476 4755 FAX +1 760 683 6815 EMAIL insidesales@viasat.com

UNITED KINGDOM Wareham, UK TEL +44 0 1929 55 44 00 FAX +44 0 1929 55 25 25 EMAIL sales@viasat.uk.com

AUSTRALIA Canberra TEL +61 0 2 61639200 FAX +61 0 2 61622950 EMAIL gov.australia@viasat.com