TRUE MOBILE BROADBAND FOR ROTARY-WING AIRCRAFT—FIELD-PROVEN

Arming mobile missions worldwide, the VMT-1220HE is a complete airborne satellite terminal with an ultra-small 12 in. antenna and lightweight equipment delivering broadband IP communications-on-the-move to all types of rotary-wing aircraft. With the VMT-1220HE and Viasat's mobile broadband service, helicopter operators can send live, full-motion high-definition video, conduct VTCs, access classified networks, and perform mission-critical communications while in flight. VMT-1220HE has logged thousands of hours on multiple helicopter platforms.

Equipped with integrated technologies, ruggedized modem, robust and patented waveform, plus patent-pending mounting system, the VMT-1220HE provides full-duplex, error-free Ku- and Ka-band satellite transmission through helo blades, regardless of the size and the number of blades, with streaming data rates up to 50 Mbps using ultra-small 12 in. antennas. True broadband communications-on-the-move is a reality, and made affordable with the VMT-1220HE and Viasat's worldwide satellite network.

BROADBAND COMMS-ON-THE-MOVE FOR MULTIPLE MISSIONS

» Intelligence, Surveillance, Reconnaissance (ISR)

» Command, Control, Communications (C3)

» VIP Transport

» Search & Rescue

» Telemedicine

» Maritime Interdiction

» Oil & Gas

MOBILE SATCOM AT-A-GLANCE

Secure High-Speed Communications

» Provides full-duplex, error-free operation through the blades up to 50 Mbps

» Independent of number or size of blades, or coaxial and multi-rotor configurations

» Protected IP traffic with HAIPE® Type 1 or commercial AES-256 encryption

Flexible Design for Aircraft Requirements

» Antenna mounts on tail, boom, hatch, or fuselage of helicopter

» Multiple radome options

» Modem can be located any distance from antenna

Affordable and Scalable Services

» Ku and Ka SATCOM options

» Standard fixed-price monthly plans

» Helicopter capability planned for our existing worldwide network

SPECIFICATIONS

BASEBAND INTERFACES

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

OPTIONAL FEATURES

Encryption	Type 1 HAIPE® (KG-250X) AES-256 FIPS 140-2
Acceleration	TCP/IP Performance Enhancing Proxy
Router	Ruggedized

ENVIRONMENTAL AND PHYSICAL

VR-12 Antenna

» **Power**	Supplied by ACU
» **Operating Temperature**	-55° to 70° C
» **Storage Temperature**	-55° to 85° C
» **Weight**	22 lb.

Antenna Control Unit (ACU)

» **Power** (With Ku-band Antenna)	<175 W @ 28 VDC
» **Power** (With Ka-band Antenna)	<275 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.

Mobile Broadband Router (MBR-4001)

» **Power**	<105 W @ 28 VDC
» **Operating Temperature**	-55 to 55° C
» **Storage Temperature**	-55° to 85° C
» **Dimensions**	13.52 x 4.88 x 7.62 in.
» **Weight**	<19 lb.

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**	9 lb.

Mounting and radome options available

	Ku-band	Ka-band
OPERATING FREQUENCY		
Transmit	14.0 to 14.5 GHz	29.5 to 31.0 GHz
Receive	11.55 to 12.75 GHz (Band 1) 10.95 to 11.7 GHz (Band 2) (Electronically Switchable Bands)	19.7 to 21.2 GHz
RF/TRACKING PERFORMANCE		
EIRP	42.5 dBW Minimum	46.5 dBW Minimum
G/T	9 dB/K > 11.55 GHz 8 dB/K < 11.55 GHz	10.2 dB/K Minimum
Polarization	Linear Horizontal/Vertical	Circular LH & RH
Coverage	Azimuth 360° Elevation 5° to 85°	
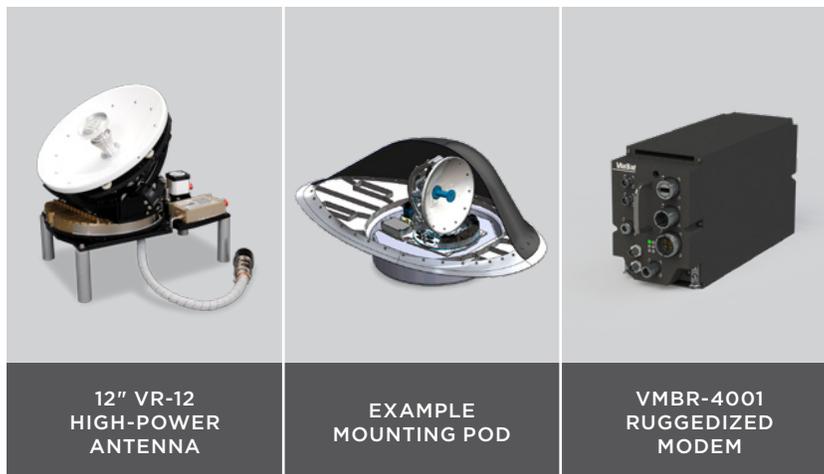
12" VR-12 HIGH-POWER ANTENNA	EXAMPLE MOUNTING POD	VMBR-4001 RUGGEDIZED MODEM