

OFFICE-IN-THE-SKY SHIPSET FOR LARGE-CABIN AIRCRAFT



Limitless Broadband Access From The Moment You Step Onboard

Equip your large-cabin aircraft with the VMT-1500 mobile broadband system and get the broadband experience you have been waiting for with our YonderSM Mobile Broadband and YonderTVSM Entertainment Services. With its high-performance tail mounted VR-12 antenna, the VMT-1500 system provides the lightest, smallest-footprint Ku-band broadband terminal available. Based on our innovative proprietary ArLight[®] technology, this on-board system supports channel speeds of up to 90 Mbit/s from the hub gateway to your aircraft and up to 1024 kbit/s from your aircraft to the hub.

No other system has the capacity and proven technologies to offer the level of services we provide. ViaSat's patented Paired Carrier Multiple Access (PCMA) technology delivers efficient use of the satellite bandwidth. And the ViaSat-patented access technique called Code Reuse Multiple Access (CRMA) ensures that the small-aperture VMT-1500 terminal operates within FCC and ITU regulatory guidelines for adjacent satellite interference.

Yonder Mobile Broadband and YonderTV Entertainment Services

Yonder Mobile Broadband Service provides affordable, two-way broadband data and voice communications on par with typical cable modem and DSL technology found in your office or home. And you can access it all seamlessly on your laptop computer, wireless smart phone or PDA.

- Place and receive cell phone calls just as you would on the ground*
- Browse the web, or send and receive email in real time
- Access your company's network through a secure VPN
- Conduct video conferences

You get uninterrupted service along the routes you fly most often – even over water. In fact, the Yonder mobile broadband service has the largest global coverage network.

When the work's all done, you can tune in to ViaSat's YonderTV, an exclusive airborne entertainment service. Catch up with real-time broadcast channels from your home cable or satellite TV service. Or directly access your home entertainment system to view content from your home video library. Whatever you can watch in your home, you can watch in your home-away-from-home in the sky.

*For mobile phones utilizing GAN or UMA technology

VMT-1500 AT-A-GLANCE

- Affordable, always-on two-way broadband IP access
- Unsurpassed global network coverage, in partnership with KVH
- Supports Internet browsing, email transfers, Voice-Over-IP (VoIP) telephony, VPN access, YonderTV, our exclusive from-home entertainment service & more
- Lightest, smallest-footprint Ku-band broadband satcom terminal
- 90 Mbit/s to the aircraft and 1024 kbit/s from the aircraft
- Plug-and-play connectivity to any public or private IP network
- Mounts permanently on tail of aircraft, with variable distance from antenna to modem to accommodate various aircraft
- Operates from standard aircraft +28 VDC power
- DO-160E certified
- Optional encryption, router/switch for Ethernet and phone line connections, and TCP/HTTP accelerator
- 24/7 hub network availability and monitoring

Take a seat and stay connected no matter what your flight plan

No other mobile broadband service provider delivers more coverage than the ViaSat ArLight Network. And our partnership with KVH Industries ensures your coverage will extend to nearly every corner of the globe by late 2010.

Yonder Mobile Broadband and YonderTV services are available anywhere you fly within the coverage of our ArLight network.



Coverage Map



SPECIFICATIONS

OPERATING FREQUENCIES

Transmit	14.0–14.5 GHz
Receive	11.7–12.75 GHz

MODULATION and FEC

Forward Link Rx	Spread BPSK/QPSK/8PSK/16APSK
Return Link Tx	Spread GMSK
Spread Factors	$4 \leq k \leq 150$ (Ret Tx); $1 \leq k \leq 23$ (FW Rx)
FEC	$R=1/3$ Turbo
Min. Req. Eb/No	1.2 dB (FW Rx); 2.25 (Ret Tx)
Multiple Access	TDM (FW Rx); CRMA (Ret Tx)
Freq. Reuse	Paired Carrier Multiple Access (PCMA)

TRANSMISSION RATES

Return Link Tx	32, 64, 128, 256, 384, 512, 1024 kbit/s burst rates
Forward Link Rx	500 kbit/s to 90 Mbit/s

RF/TRACKING PERFORMANCE

EIRP	37 dBW minimum
G/T	8 dB/K minimum
Polarization	Selectable horizontal/vertical linear polarization
Coverage	360° azimuth; 5°–85° elevation
Tracking	30°/sec min; 40°/sec ² min

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BASEBAND INTERFACES

Data	10/100BaseT Ethernet
Nav	ARINC™ 429 input required
Voice	RJ-11 (option)
Video	NTSC or PAL video input (option)

OPTIONAL FEATURES

Acceleration	TCP/HTTP Performance Enhancing Proxy
Telephony	VoIP or POTS phone connections
Router	Cisco Systems router/switch
Video Compression	MPEG-4 Part 10 (H.264) real-time streaming compression

POWER

Input	+28 VDC, <275 W (w/o options)
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ENVIRONMENTAL and PHYSICAL

Operation Temperature	-55° to +70° C (topside equipment); -20° to +60° C (in-aircraft equipment)
Aircraft Ops	Idling, taxiing, and in full flight
Weight, Total System	32 lbs

YONDERSM

ViaSat