

The U7400-M is a telco grade VSAT satellite modem for professional mesh applications.

Features and Benefits

- Built-in mesh receiver for direct one-hop mesh communications.
- Indoor 19" rack-mountable.
- Layer-2 and Layer-3 support.
- Built-in PEP (Performance Enhancing Proxy) enhancing user experience and conserving satellite bandwidth usage, optimizing the link.
- Encrypted VPN support, allowing traffic protection from VSAT modem to the hub or to enterprise own router (ordering option).
- OpenAMIP antenna interface support for SATCOM on the Move (SOTM) applications.



Typical Applications and Uses

- Enterprise connectivity.
- Single-hop enterprise branch voice connectivity.
- Video conferencing applications.
- Air-traffic control and radar applications.

Specification

Unit Characteristics	
Form Factor	Rack mountable
Installation	▪ Indoor. ▪ Matching variety of outdoor / RF options: C-band, X-band, Ku-band and Ka-band. ▪ OpenAMIP antenna integration, GPS integration for on-the-pause / on-the-move applications.
Typical Applications	▪ IP and Layer-2 trunks. ▪ Mobile on-the-move and on-the-pause applications, video contribution. ▪ Surveillance, government, defense and military. Point-to-point or hub-spoke.
Forward Link / RX	
Technology	DVB TDM Forward Link.
Channel Rate	Up to 500MHz.
Waveform	DVB-S2/S2X ACM, GSE encapsulation, QPSK up to 256APSK LDPC/BCH.
Channel Spacing	5%, 10%, 20%, 25% or 35% channel spacing (roll-off factor).
Terminal IFL Input	F-type 75 ohm, 950 – 2150MHz satellite / band independent.
Return Link / TX	
Technology	▪ Mesh overlay allowing single-hop mesh communications over the same Return Link BW. ▪ MF-TDMA CF-DAMA (Combined Free and Demand Assigned Multiple Access). ▪ Terminal built-in Uplink Power Control (ULPC) and network-wide PowerACM™ link variability mitigation providing support for Ka, Ku and C-band.
Star/Mesh MF-TDMA Channel Rate	64Ksps up to 8192Ksps.
Star/Mesh MF-TDMA Waveform	BPSK, QPSK, 8PSK, 16QAM.
Star/Mesh MF-TDMA Channel Spacing	10%, 15%, 20% or 25% channel spacing (roll-off factor).
Terminal IFL Output	F-type 75 ohm, 950 – 2150MHz satellite / band independent.

IP Services, PEP and QoS

Interfaces	1x 10/100/1000 Mbps Eth RJ-45. 1x out-of-band satellite modem management.
Download Speed	Up to 100Mbps.
Upload Speed	Up to 100Mbps.
Connectivity	- Wireline transparent Layer-2 connectivity. - VLAN and VRF (Virtual Routing and Forwarding) support. - Layer-3 NAT and DHCP server / DHCP relay. RIP routing protocol. VRRP support. - Full multicast support from hub or from behind remote.
Application Optimization	TCP/IP and HTTP acceleration optimizing both star and mesh communications.
QoS	Built in embedded QoS support integrated with Forward and star / mesh Return Link.
Multimedia Support	- VoIP, video-over-IP / video-conferencing Virtual Telephony™ support. - Multimedia QoS support, bandwidth assurance for clear VoIP QoE.
Security	IPSec VPN tunnel strong encryption (availability limited by export control regulations).

Environmental and Mechanical

Dimensions	435 x 45 (1RU) x 315mm (W x H x D)
Weight	3.8Kg
Power	50W (not including RF equipment / BUC power), universal 100-240V AC 50/60Hz power supply; -48V DC power supply option available. 24V DC provided to BUC. 65W available for installation and RF equipment.
Operating Temperature	0 - 50°C, 5% to 90% humidity non-condensing.
Certification	CE, FCC, CSA.

Available Configurations

U7400-M – standard satellite modem.

U7400-EM – satellite modem with VPN encryption option included.

NOTE: The U7400 is also marketed as VR7400.