

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.

| Unit Characteristics                                               |                                                                                                                                                                                                                                                                                                                                                                           |
|--------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Form Factor                                                        | Rack mountable                                                                                                                                                                                                                                                                                                                                                            |
| Installation                                                       | <ul style="list-style-type: none"> <li>Indoor.</li> <li>Matching variety of outdoor / RF options: C-band, X-band, Ku-band and Ka-band.</li> <li>OpenAMIP antenna integration, GPS integration for on-the-pause / on-the-move applications.</li> </ul>                                                                                                                     |
| Typical Applications                                               | <ul style="list-style-type: none"> <li>IP and Layer-2 trunks.</li> <li>Mobile on-the-move and on-the-pause applications, video contribution.</li> <li>Surveillance, government, defense and military. Point-to-point or hub-spoke</li> </ul>                                                                                                                              |
| 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                                                         | <ul style="list-style-type: none"> <li>Mesh overlay allowing single-hop mesh communications over the same Return Link BW.</li> <li>MF-TDMA CF-DAMA (Combined Free and Demand Assigned Multiple Access).</li> <li>Terminal built-in Uplink Power Control (ULPC) and network-wide PowerACM™ link variability mitigation providing support for Ka, Ku and C-band.</li> </ul> |
| 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                                                         | <ul style="list-style-type: none"> <li>1x10/100/1000 Mbps Eth RJ-45.</li> <li>1x out-of-band satellite modem management.</li> </ul>                                                                                                                                                                                                                                       |
| Download Speed                                                     | Up to 100Mbps.                                                                                                                                                                                                                                                                                                                                                            |
| Upload Speed                                                       | Up to 100Mbps.                                                                                                                                                                                                                                                                                                                                                            |
| Connectivity                                                       | <ul style="list-style-type: none"> <li>Wireline transparent Layer-2 connectivity.</li> <li>VLAN and VRF (Virtual Routing and Forwarding) support.</li> <li>Layer-3 NAT and DHCP server / DHCP relay. RIP routing protocol. VRRP support.</li> <li>Full multicast support from hub or from behind remote.</li> </ul>                                                       |
| 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                                                 | <ul style="list-style-type: none"> <li>VoIP, video-over-IP / video-conferencing Virtual Telephony™ support.</li> <li>Multimedia QoS support, bandwidth assurance for clear VoIP QoE.</li> </ul>                                                                                                                                                                           |
| Security                                                           | IPSec VPN tunnel strong encryption (availability limited by export control regulations).                                                                                                                                                                                                                                                                                  |
| Environmental and Mechanical                                       |                                                                                                                                                                                                                                                                                                                                                                           |
| Dimensions                                                         | 435 x 45 (IRU) x 315mm (W x H x D)                                                                                                                                                                                                                                                                                                                                        |
| Weight                                                             | 3.8Kg                                                                                                                                                                                                                                                                                                                                                                     |
| Power                                                              | <ul style="list-style-type: none"> <li>50W (not including RF equipment / BUC power), universal 100-240V AC 50/60Hz power supply; -48V DC power supply option available.</li> <li>24V DC provided to BUC.</li> <li>65W available for installation and RF equipment.</li> </ul>                                                                                             |
| Operating Temperature                                              | 0 – 50°C, 5% to 90% humidity non-condensing.                                                                                                                                                                                                                                                                                                                              |
| Certification                                                      | CE, FCC, CSA                                                                                                                                                                                                                                                                                                                                                              |
| Available Configurations                                           |                                                                                                                                                                                                                                                                                                                                                                           |
| NOTE: The U7400M- Standard Mesh satellite modem                    |                                                                                                                                                                                                                                                                                                                                                                           |
| U7400MV – satellite mesh modem with VPN encryption option included |                                                                                                                                                                                                                                                                                                                                                                           |
| NOTE: The U7400M is also marketed as VR7400M                       |                                                                                                                                                                                                                                                                                                                                                                           |