WU7400 ASAT™ System Outdoor Satellite Modem

The WU7400 is a weatherized outdoor VSAT satellite modem for professional and land / maritime mobile applications.

Features and Benefits

- Full outdoor installation, MF-TDMA / SCPC satellite modem.
- Vast deployment flexibly.
  - Supports hub-less point-to-point deployments as well as ASAT™ System hub-spoke.
  - Start small with point-to-point SCPC links and grow to large hub-spoke MF-TDMA / SCPC network.
- WaveSwitch™ hub-spoke multi-waveform support:
  - Automatic on-the-fly MF-TDMA / SCPC Return Link switching, based on application, traffic density and scheduled triggers.
  - SCPC Return Link dynamic channel adaptation to meet traffic demand while conserving satellite bandwidth.
  - Real-time waveform switching provides real savings for applications seeing drastic traffic density changes such as cellular backhaul and trunk.
- Layer-2 and Layer-3 support.
- Built-in PEP (Performance Enhancing Proxy) enhancing user experience and conserving satellite bandwidth usage, optimizing the link in both in both point-to-point SCPC deployments and in hub-spoke mode.

- Encrypted VPN tunnel 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.
- Allows for all-outdoor land / maritime mobile SATCOM applications.

Typical Applications and Uses

- Mass-population Internet access such as cruise ships.
- Dynamic video-stream contribution applications such as homeland security (HLS) and smart cities.
- Remote-population Internet hotspots.
- Dynamic-throughput high-capacity links.
- Critical communications satellite-as-backup links.
- On the Pause (SOTP) applications.

Specification

Unit Characteristics	
Form Factor	Weatherized outdoor mounting.
Installation	▪ 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	▪ Mass-population Internet access such as cruise ships. ▪ Remote-population Internet hotspots. ▪ Dynamic video-stream contribution applications such as homeland security (HLS) and smart cities.
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	▪ 3D BoD™ Return Link multi-waveform technology:
	  ▪ MF-TDMA CF-DAMA (Combined Free and Demand Assigned Multiple Access).
	  ▪ Point-to-point and hub-spoke DVB-S2 SCPC.
	▪ WaveSwitch™ on-the-fly and automatic waveform switching.
	▪ Terminal built-in Uplink Power Control (ULPC) and network-wide PowerACM™ link variability mitigation providing support for Ka, Ku and C-band.

MF-TDMA Channel Rate	64Ksps up to 8192Ksps.
MF-TDMA Waveform	BPSK, QPSK, 8PSK, 16QAM.
MF-TDMA Channel Spacing	10%, 15%, 20% or 25% channel spacing (roll-off factor).
SCPC Channel Rate	500Ksps up to 25Msps.
SCPC Waveform	DVB-S2 QPSK up to 32APSK LDPC/BCH.
SCPC Channel Spacing	5%, 10%, 20%, 25% or 35% 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.
QoS	Built in embedded QoS support integrated with Forward and Return Link ACM
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	229 x 89 (2RU) x 356mm (W x H x D)
Weight	4.3Kg
Power	▪ 35W (not including BUC power), 24V DC power input, universal 100-240V AC 50/60Hz PSU provided as option. ▪ 24V DC provided to BUC.
Operating Temperature	-40 – +65°C, 5% to 90% humidity non-condensing.
Certification	CE, FCC, CSA.
Available Configurations	
WU7400 – outdoor-weatherized satellite modem.	
WU7400-E – outdoor-weatherized satellite modem with VPN encryption option included.	