

The U7400-C2 is a telco grade VSAT satellite modem for 2G / 3G (E1 interface) cellular backhaul RAN links.

Features and Benefits

- Built-in 2G / 3G A-bis traffic optimization saving about 15% satellite bandwidth.
- SATCOM allows for quick and unlimited cellular coverage deployment anywhere on the globe.
- Indoor 19" rack-mountable.
- 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.
- 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.



Typical Applications and Uses

- Remote-population cellular coverage.
- Cellular backhaul links.
- Critical communications satellite-as-backup links.

Specification

Unit Characteristics	
Form Factor	Rack mountable
Installation	<ul style="list-style-type: none"> ▪ 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	<ul style="list-style-type: none"> ▪ 2G / 3G (E1 interface) cellular backhaul links. ▪ Remote-population cellular coverage. ▪ Critical communications satellite-as-backup cellular RAN links.
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"> 3D BoD™ Return Link multi-waveform technology: <ul style="list-style-type: none"> MF-TDMA CF-DAMA (Combined Free and Demand Assigned Multiple Access). Point-to-point and hub-spoke DVB-S2X 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. Hub-spoke mesh Return Link overlay.
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	<ul style="list-style-type: none"> 1, 2 or 4 E1 interface(s) towards 2G / 3G BTS. 1x out-of-band satellite modem management.
Download Speed	Up to 100Mbps.
Upload Speed	Up to 100Mbps.
Connectivity	A-bis interface towards 2G / 3G BTS.
Application Optimization	2G / 3G A-bis traffic optimization and compression.
QoS	Built in embedded QoS support integrated with Forward and Return Link ACM
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	<ul style="list-style-type: none"> 50W (not including 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-C2	2G / 3G E1 A-bis cellular backhaul satellite modem.
U7400-EC2	2G / 3G E1 A-bis cellular backhaul satellite modem with VPN encryption option included.