

Powerful Internet-access satellite modem/router packed into a compact desktop or versatile outdoor enclosure.

U7700 is a powerful yet compact broadband internet modem/router supporting IP download/upload speeds of 100Mbps/10Mbps respectively. With integrated TCP acceleration and Performance Enhancement Proxy (PEP) Internet surfing will be quick and seamless resulting in high level of user experience satisfaction.

Application and uses

- Mass market broadband Internet access.
- Small Office Home Office (SOHO or Small and Medium Businesses (SMB)
- Rural internet access and community hotspots.
- Cellular Backhaul for thin rural routes

Features and Benefits

- Convenient and attractive desktop enclosure with noiseless fan.
- Operates with most COTS RF BUC/LNBs or transceivers
- DVB-S2X forward link. Highest spectral efficiency via highly granular MODCODs, low roll off rates and Adaptive Coding and Modulation (ACM)
- DVB-RCS2 return channels supporting QPSK-16QAM and up to 5% rolloffs.
- Internet-traffic optimization (Performance Enhancement Proxy) and QoS, enhancing user experience and conserving satellite bandwidth
- Optional : IPsec mode 256AES encryption
- Designed around a System on Chip (SoC) architecture providing the power of Software Defined Radio (SDR) and flexibility of future waveform adaptation and customization



Specifications

Forward Link

Waveform Technology	DVB-S2/S2X ACM, QPSK to 256APSK, all coding and roll off rates
Encapsulation Modes	MPE and/or GSE Encapsulation
Symbol Rate	From 256Ksps to 125Msps (optional 250Msps or 500Msps)
Channel Roll-off and Spacing	5%, 10%, 15%, 20%, 25%
Terminal IF RX Interface	F-type 75 Ohm, 950~2150MHz satellite/band independent, off/13/18VDC off/22KHz selectable matching COTS ODU and wideband LNBS

Return Link

Waveform Technology	MF-TDMA (combined free and demand-assigned multiple access), QPSK, 8PSK, 16QAM
Encapsulation Modes	ATM1/2/4, MPE, and/or RLE Encapsulation
Symbol Rate	From 128Ksps to 6680Ksps,
Channel Roll-off and Spacing	5%, 10%, 15%, 20%, 25%
Link Variation Mitigation	Terminal built-in Uplink Power Control (ULPC) and Return Link ACM/DRA (Dynamic Rate Adaptation)
Tx Power	-30dBm to 0dBm
Terminal IFL TX Interface	F-type 75 Ohm, 950-2400MHz satellite /band independent, off/10MHz/50MHz reference, off/24V DC selectable, matching COTS ODU. Provides up to 36W power to the BUC (i.e. 24VDC 1.5A

Traffic ports and performance

Interfaces	User ports: 1x1000BaseT Ethernet MGMT ports: 1x1000BaseT Ethernet
Download speed	Up to 100Mbps
Upload Speed	Up to 10Mbps
Packet Processing	15kpps with full QOS and PEP enabled
Network Services	<ul style="list-style-type: none"> Support Layer-2 and layer-3 traffic modes at same time Layer 2 VLAN and bridging Layer 3 NAT, DHCP server/relay, IP Routing

QOS and PEP

QOS	Up to 8 flows QOS, based on TOS/DSCP, IP addresses, protocol and ports
Application Optimization	SpaceBridge proprietary L3 Performance Enhancement Protocol (PEP) which accelerates IP TCP flows, compresses streams and significantly reduces return link TCP ACK (improves return link utilization and saves up to >50% return link ACK related bandwidth)
Multimedia	Programmable VoIP, video-over-IP /video-conferencing detection and guaranteed QOS behavior
Security	Optional: Encryption up to AES256 (export controlled)

Indoor Enclosure specs

Form factor	Indoor desktop enclosure
Dimensions (WxHxD)	2 x 7.25 x 5 inches (WxHxD) (51 x 182 x 127 mm)
Weight	0.89 lbs (0.34kg)
Power	<ul style="list-style-type: none"> External universal power supply, 100~240V AC 50~60Hz C6 inlet Consumption: 15W (not including RF equipment / BUC power) 45W available for installation and Rf equipment.
Operating Conditions	32F to 122°F (0°C to 50°C) 10% to 90% humidity, non-condensing
Certifications	CE, FCC, ROHS