

# ALL.SPACE



ALL.SPACE's strategic integration partnership with SpaceBridge secures a fully integrated SpaceBridge 7720-SA board satellite modem enabling dynamic waveform selection and switching between MF-TDMA, ASCPC, or SCPC, optimising satellite resource usage. Compatible with SpaceBridge ASAT™ product line including VSAT Hubs and Terminals for Point-to-Point, Point-to-Multi-Point, Mesh topologies, and SCPC and broadcast modems for GEO and NGSO constellations. The WaveSwitch™ is a key capability due to its multiple waveforms switching, providing the versatility needed to succeed in mobile communications between MFTDMA and SCPC over multiple links. SpaceBrige Systems capabilities were developed to provide exactly the solution for the demand of various On-The-Move, mission-critical, BLoS applications.

## SpaceBridge U7720-SA

### Integrated Board Satellite Modem

U7720-SA (standalone) is a high-performance networking satellite modem/router capable of supporting IP speeds of 100Mbps download and up to 15Mbps upload. U7720 supports industry-standard OpenAMIP, which when coupled with ASAT™ maritime multi-beam support and beam switching technology, provides a very effective, robust, and secure maritime/mobility communication solution.

#### Markets and Applications



Small and Medium Businesses



Maritime/Mobility



Cellular Backhaul for thin rural routes

#### Key Features



DVB-S2X forward link. Highest spectral efficiency via highly granular MODCODs, low roll-off rates and Adaptive Coding and Modulation



DVB-RCS2 return channels supporting QPSK16QAM and up to 5% roll-off



Optional : IPSec mode 256AES encryption



Internet-traffic optimisation (Performance Enhancement Proxy) and QoS, enhancing user experience and conserving satellite bandwidth



OpenAMIP



# SpaceBridge U7720-SA Specifications

## Network Configuration

Network Topology		Receive	Transmit
	DVB-S2 with MF-TDMA returns	DVB-S2/S2X ACM	MF-TDMA (combined free and demand-assigned multiple access)
Modulation		QPSK to 256 APSK	QPSK, 8PSK, 16QAM
Encapsulation Modes		MPE and/or GSE	ATM1/2/4, MPE and/or RLE
Max Rates	Symbol	From 256 Ksps to 125 Msps (optional 250 or 500 Msps)	From 128 Ksps to 6680 Ksps
Channel Roll-off and Spacing		5%, 10%, 15%, 20%, 25%	5%, 10%, 15%, 20%, 25%

## Interfaces

SatCom	Transmit (Out)	F-type 75 Ohm, 950-2400 MHz satellite/band independent, -30dBm to 0dBm power	
	Receive (In)	F-type 75 Ohm, 950-2150 MHz satellite/band independent	
	Receive Reference Port (Out)	F-type 75 Ohm	

Data and M&C	LAN	1 User 1000BaseT/1 MGMT 1000BaseT Ethernet	
Packet Processing		20kpps with full QOS and PEP enabled	
Network Services		Support Layer-2 and layer-3 traffic modes at same times, Layer 2 VLAN and bridging, Layer-3 NAT, DHCP server/relay, IP Routing	
QOS		Up to 8 flows QOS, based on TOS/DSCP, IP addresses, protocol and ports	
Application Optimisation		Proprietary L3 Performance Enhancement Protocol (PEP) which accelerates IP TCP flows, compresses streams and reduces return link TCP ACK	
Security		Optional: Encryption up to AES 256-bit (export controlled)	

## Mechanical / Environmental

Operating Temperature		-18C to +60C
Input Voltage		+24V
Power Consumption		Up to 60 Watts
Compliance		CE, FCC, RoHS

