

EASTAR™ UHP-1000 Broadband Satellite Router

SCPC MCPC STAR MESH

Universal VSAT platform

Satellite communications is a fast deployable and efficient way to connect multiple remote offices into a powerful global corporate network. It is a time-proven choice of global corporations, governmental customers, industrial companies and telecoms. Today, satellite terminals help to solve a number of social tasks, allowing rural areas, educational and health institutions, public authorities and rapid response service units to be connected to the broadband infrastructure.



EASTAR™ UHP-1000

EASTAR™ UHP-1000 satellite router is a universal and all-sufficient tool to deploy various VSAT networks of any topology and size. EASTAR™ satellite router can operate in various modes:

- SCPC modem in a pair with another EASTAR™ router;
- TDM/TDMA HUB of hub-and-spoke networks;
- TDM/TDMA Star Terminal;
- TDM/TDMA Mesh Terminal;
- TDMA Full Mesh station of hub-less network.

Switching between the operation modes is software controlled without need to replace the hardware or even on-site visit.

EASTAR™ networks are very scalable and flexible providing you with the best cost of ownership through all the phases of network development.

All-In-One/All-IP Satellite Router

- Various modes of operation and topologies: SCPC, TDM/SCPC, TDM/TDMA, Half Mesh, Full Mesh
- First DVB-S2 VSAT technology with bandwidth-efficient LDPC coding in TDMA channel
- Innovative TDMA protocol with proven efficiency of 96% in comparison with SCPC channels
- Ultra-low latency VSAT system with round-trip delay about 570 ms for TDMA mode of operations
- Fully operational network in minimal configuration requires just 120 kHz of satellite bandwidth
- Support of VLAN, multi-level QoS, codec-independent handling of real-time traffic
- Built-in adaptive 500-channel traffic manager specially designed for VSAT applications
- Satellite router is capable of receiving signals from two satellites simultaneously
- Web-based Network Management System allowing operating the network from everywhere
- Fast network startup — network is ready for use in just in a minute upon power-up
- Low power consumption allows using satellite terminals with various alternative power sources
- Compatible with majority of C, Ku and Ka-band RF Systems, supplies power and reference signals
- Easy to install and operate hardware, user-friendly software configuration





EASTAR™ UHP-1000 Specifications

Network	
Topologies	«point-to-point», «star», «half mesh», «full mesh»
Carrier modes	SCPC, TDM, TDMA
Scalability	Up to 31 Inroutes per network, up to 7 812 terminals per network (252 per Inroute)
SCPC (TDM) channel	
Data Rate	From 250 kbps (250kSps QPSK 1/2) up to 86 Mbps (32MSps 8PSK 9/10)
Modulation / Coding	QPSK, 8PSK, RSV / LDPC&BCH
Demodulator Performance DVB-S BER < 10 ⁻⁸	FEC 1/2 2/3 3/4 5/6 7/8
	E _b /N ₀ 3.7 4.0 4.6 5.1 5.8
QoS	3-level traffic prioritization, adaptive 500-channels-Traffic Shaper
TDMA channel	
Data Rate	From 133 kbps up to 6.5 Mbps
Modulation / Coding	QPSK, LDPC
Demodulator Performance BER < 10 ⁻⁷	FEC 2/3 5/6
	E _b /N ₀ 4.2 4.8
QoS	3-level traffic prioritization, Committed Information Rate (CIR)
Router	
Performance	96 Mbps or 28 000 pps
Support	DSCP, end-to-end VLAN, RIP, L2 Bridging, CRTP
Management	WWW, Telnet, SNMP, NMS Configuration Manager
Interfaces	
User LAN port	Ethernet 10/100Base-T, RJ-45
Maintenance console	USB, B female
IF Rx	950—2050 MHz (LNB DC – 13.5 V/18 V 0.75 A), F type
IF Tx	950—1550 MHz, –30...–5 dBm, (LO 10 MHz / +5 dBm, BUC DC – 24 V/2 A), F type
Mechanical / Environmental (IDU)	
Power	176—283 VAC, 10 W
Operating temperature	0...+40° C, humidity up to 90%
Size / Weight	147 × 144 × 29 mm / 530 g

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