



# SkyEdge II IP

High Performance Broadband Router VSAT

## IP Router VSAT

SkyEdge II IP is an advanced VSAT platform utilizing latest technologies to enable broadband satcom applications. This VSAT is ideal for customers who consider user experience as a critical factor in service delivery. High modulations are used in combination with advanced turbo and LDPC coding schemes to deliver highest bandwidth efficiency.

The VSAT is based on known Satcom standards DVB-S2 on the outbound and DVB-RCS on the inbound. Also the higher layers are based on standards (e.g. IP, VLAN, SNMP) to enable smooth integration with existing networks and operators.

## Enhanced Capabilities

The SkyEdge II IP provides superior bandwidth efficiency and high availability through the use of DVB-S2 ACM (Adaptive Modulation and Coding) for the outbound path. It supports all the modulations defined in the standard from QPSK and 8PSK to 16APSK/32APSK. Supporting ACM ensures network wide bandwidth efficiency as transmissions are adapted for each VSAT as per local link conditions.

Inbound efficiency is maximized with 8PSK support and DVB-RCS based turbo coding. The VSAT uses ICM technology on the inbound that provides 3 dimensions of adaptivity: TX power, ModCod (coding and modulation) and symbol rate. These combine to ensure high availability with a maximum dynamic range of up to 23dB.

SkyEdge II IP provides a variety of special operational and performance enhancements. Embedded IP, TCP/HTTP acceleration, routing, encryption, compression, VRF and QoS are only part of the extensive IP capabilities ensuring compliance in the most demanding networks. As software is embedded into the VSATs, there is no need for external boxes or installation of software on the customer's PC. The SkyEdge II IP is equipped with an advanced embedded Web user interface for ease of configuration. In addition, automatic over-the-air software updates minimize the need for maintenance visits to remote locations.



## Benefits

- High performance service rates up to 20 /2.8 Mbps
- High availability and efficiency - utilizing DVB-S2 ACM and ICM adaptive inbound
- Feature-rich functionality - optimizing performance of multiple layers with TCP and HTTP acceleration, QoS, VoIP and compression
- Multi-layer QoS support for ensuring highest service levels for enterprise customers



## Technical Specifications

<i>Outbound Carrier</i>	
<b>Standard</b>	DVB-S2 Adaptive Coding and Modulation (ACM)
<b>Carrier Rate</b>	300Ksps - 45Msps (in 1Ksps steps)
<b>Carrier Data Rate</b>	Up to 135 Mbps
<b>VSAT Data Throughput</b>	Up to 20 Mbps UDP, 7.5 Mbps TCP
<b>Modulation</b>	QPSK, 8PSK, 16APSK, 32ASPK
<b>Coding</b>	LDPC and BCH (DVB-S2)
<b>FEC Rate (DVB-S2)</b>	1/4, 1/3, 2/5, 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10
<i>Inbound Carrier</i>	
<b>Access Scheme</b>	MF-TDMA DVB-RCS
<b>Channel Rates</b>	128Ksps-1.536 Msps
<b>VSAT Data Throughput</b>	Up to 2.8 Mbps UDP/TCP
<b>Modulation</b>	QPSK, 8PSK
<b>Coding</b>	Turbo coding FEC 1/2; 2/3; 3/4; 4/5; 6/7
<i>Indoor Unit</i>	
<b>RF Input/Output</b>	Two F connectors, 75 $\Omega$ female
<b>Data Interface</b>	1 x Ethernet 10/100BaseT, RJ-45, Serial console: RJ-45, Half Duplex
<b>Power Supply Options</b>	Autorange 100-240V AC or Autorange 10-59V DC
<b>Power Consumption</b>	6.5W (IDU only)
<i>Enhanced Features</i>	
<b>Enhanced IP features</b>	Multi VRF and VLAN, RIP, VRRP, DHCP, NAT/PAT, IGMP, IP prioritization, ACL, DiffServ, BGP
<b>Other Features</b>	Bandwidth on Demand, TCP and HTTP acceleration, Multi-Level QoS and MPN
<b>Security</b>	AES-128 or AES-256 Encryption
<i>Indoor Unit Mechanical / Environmental Conditions</i>	
<b>Size (WxDxH)</b>	156x56x165 mm
<b>Weight</b>	0.93 Kg
<b>Operating Temperature</b>	0° to +50° C
<b>Storage Temperature</b>	-40° to +70° C
<b>Relative Humidity</b>	Up to 95%
<i>Outdoor Unit</i>	
<b>Antenna</b>	Ku, Ext Ku, C
<b>Operating Temperature</b>	-40° to +60° C
<b>Humidity</b>	Up to 100%
<b>Linear BUC interface</b>	Internal 24V up to 4W BUC; External DC for 6W BUC and higher; Ku, Ext Ku, C
<b>LNB</b>	Standard TVRO type or PLL

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