

SKYEDGE II-C SCORPIO PLUS

VSAT-in-a-box



A SINGLE-UNIT BREAKTHROUGH

SkyEdge II-c Scorpio PLUS is a cutting-edge, fully integrated Ka-band terminal. Scorpio PLUS is a high-speed modem/router with automatically switchable polarity. It unifies in a single weatherproof box all VSAT components, including BUC, LNB, OMT and feed assembly. A single RF cable connects the outdoor Scorpio PLUS to the home network, thus providing a simple demarcation point for improved network diagnostics and increased customer satisfaction.

ENABLING HIGH-SPEED BROADBAND SERVICES

Designed to enable high-speed broadband services, Scorpio PLUS meets the cost efficiencies required by residential customers, IoT, small/medium enterprises (SME) and small/home offices (SOHO). Scorpio PLUS facilitates fast web browsing, video streaming, IPTV, VoIP, and other bandwidth-intensive services.

Scorpio PLUS eliminates the need for an external router due to its support of IP routing features such as DHCP, NAT/PAT and IGMP. Advanced application-based QoS guarantees the performance of real-time applications such as VoIP and video streaming while also supporting other data applications. Scorpio PLUS also supports next-generation IPv6 networking.

To ensure fast web browsing and a high-quality user experience, Scorpio PLUS contains a full set of protocol optimization and application acceleration features.

Scorpio PLUS provides the highest level of transmission security, supporting AES-256 bit link layer encryption with dynamic key rotation to protect all user traffic.

SIMPLE, DO-IT-YOURSELF INSTALLATION AND SERVICE ACTIVATION

Quick and reliable installation and automatic service activation is part of the Scorpio PLUS vision. The process requires no prior VSAT installation skills or technical support.

The outdoor electronics and antenna are designed to simplify the assembly and roof-mounting while shortening the antenna-pointing procedure. The compact, lightweight unit is integrated with an audio device to guide and provide feedback during the antenna-pointing process. The terminal includes an intuitive user interface to assist the user during the installation and service activation process.

BENEFITS

- Innovative, integrated design
- Full Ka band support
- Automatic switchable polarity
- Easily-installable, single-unit Ka-band satellite router
- Clear demarcation between rooftop satellite equipment and home networking
- High-quality VoIP and video
- Simple DIY installation and automatic service activation
- Bi-directional adaptive transmission
- Rich suite of IP features, QOS and acceleration



ENHANCED CENTRAL SERVICE MANAGEMENT INTERFACE FOR ISPS

Scorpio PLUS is part of a complete SkyEdge II-c VSAT ground system that includes an advanced network management system (TotalNMS) and facilitates service management available to ISPs via an electronic B2B interface.

SkyEdge II-c Service Management enables ISPs to manage their services totally independent of the satellite network operator, providing a complete management suite. This includes real-time viewing of the service status, events, alarms and statistics, as well as historic/trend analysis of the service over longer periods.

This system also provides ISPs with an automated and easy-to-use interface for simple creation, activation and management of end-to-end services with a high level of flexibility.

SUPERIOR VSAT TECHNOLOGY

Scorpio PLUS is designed to support the latest high throughput satellites while maximizing performance and improving service availability. The innovative modem/router supports advanced adaptive transmission technologies, DVB-S2X forward and 5D dynamic channel return.

Scorpio PLUS is powered by Wavestream's VSAT technologies, with over a million terminals shipped worldwide.

TECHNICAL SPECIFICATIONS

FORWARD CHANNEL

Standard:

DVB-S2X Adaptive Coding and Modulation (ACM)

Carrier Rate: 1.5Msps-500Msps**Roll-off:** 0.05, 0.1**Modulation:**

QPSK, 8PSK, 16APSK, 32APSK, 64APSK, 256APSK

Coding: LDPC, BCH**FEC:** DVB-S2X FECs

RETURN CHANNEL

Access Scheme:

MF-TDMA, 5D Dynamic Channels

Inbound Rates:

Symbol rate - 128ksps-12Msps

Modulation: BPSK, QPSK, 16QAM**Coding:** LDPC**FEC:**

1/4, 1/3, 2/5, 1/2, 2/3, 3/4, 5/6, 8/9

MODEM INTERFACES

Data Interface:

1 x Ethernet 10/100BaseT RJ-45

IDU-ODU Interface:

Single Coax Cable

Management Interface:

- Web-based local management
- Full FCAPS Management
- Remote software upgrades over the air
- SNMP

ENHANCED FEATURES

IP Features:

IPv4/IPv6, TCP, UDP, ICMP, DHCP, NAT/PAT, DNS Caching, cRTP, VLANs, SIP, DiffServ

Layer-2(*):

Ethernet frame forwarding
802.1p QoS
802.1ad,
VLAN Re-tagging
Point to Point,
Point to Multi-Point

QoS:

Per VSAT and per Managed Group, CIR, MIR, CBR, DiffServ and priority-based queuing, application-based priority

Security:

- AES-256 bit encryption
- ACL Firewall
- x.509 Terminal Authentication

Application Acceleration and Protocol Optimization:

- TCP acceleration
- HTTP web pre-fetch acceleration and compression

ENVIRONMENTAL AND MECHANICAL

Indoor Power Supply:

100V-240V AC Auto Range, 48V DC

50Ws

Operating Temperature:

-40°C to +60°C

Certifications: CE, FCC, EMC

RF SPECIFICATIONS

Transmit Power:

- 34.0dBm (2.5W) typical Psat

Transmit Frequency:

27.5-30.0GHz

Receive Frequency:

17.7-20.2GHz

Polarity: Circular, Automatic Electronically Selected

(*) Future Functionality

ABOUT WAVESTREAM

Wavestream sets the standard in the design and manufacture of next generation high power solid state amplifiers. Wavestream's Family of Ka, Ku and X-band Solid State Power Amplifiers (SSPAs), Block Upconverters (BUCs) and transceivers provide systems integrators with field-proven, high performance solutions designed for ground mobile and fixed, gateway and airborne satellite communication systems worldwide.

These items are subject to the Export Administration Regulations (EAR), 15 C.F.R. Parts 730-774, and may not be exported or transferred to any non-U.S. person, except as authorized by the U. S. Department of Commerce.

CONTACT US

545 West Terrace Drive
San Dimas, California 91773
USA

T. +1 909 599 9080

F. +1 909 599 9082

www.wavestream.com

sales@wavestream.com