

SKYEDGE II-C GEMINI-e

Enterprise High-Speed VSAT



ENABLING HIGH-SPEED BROADBAND SERVICES

SkyEdge II-c Gemini-e is a high-throughput VSAT designed to enable high-speed enterprise broadband Internet services. The Gemini-e VSAT enables fast web browsing, video streaming, IPTV, VoIP, and other bandwidth-intensive services. This solution is ideal for markets such as retail, banking, ATMs, SCADA, M2M and lotteries, as well as USO/USF and government-funded programs aimed to expand broadband connectivity to underserved regions.

Gemini-e includes a full-featured IP router, eliminating the need for an external router through its support of enhanced IP routing features such as DHCP, NAT/PAT, VLANs, routing protocols, IPSEC client and IGMP. Advanced QoS guarantees the performance of real-time applications such as VoIP and video streaming while simultaneously enabling additional data applications. Gemini-e also supports next-generation IPv6 networking.

To ensure fast web browsing and a high-quality user experience, Gemini-e contains a full set of protocol optimization and application acceleration features, including TCP and HTTP protocol acceleration and compression.

Gemini-e provides the highest level of transmission security, supporting X.509 terminal authentication and AES-256 bit link layer encryption with dynamic key rotation to protect all user traffic.

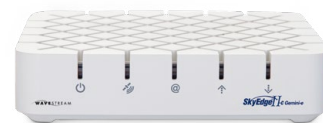
ADVANCED VSAT PLATFORM FOR ENTERPRISE

Based on the latest-generation ARM technology, Gemini-e enables high-speed services while employing full link encryption, TCP and HTTP acceleration. The high speed exhibited by this VSAT platform is ideal for demanding, high-bandwidth enterprise applications and corporate networking.

The terminal includes an intuitive, web-based Graphical User Interface to assist the user during the installation and service activation process.

BENEFITS

- Includes advanced QoS, VLANs and routing protocols supporting enterprise services
- Fast web browsing with web acceleration and compression
- Enables high-quality VoIP and video
- Simple installation and service activation
- Forward and return channel adaptive transmission technologies
- Central monitoring and service management
- Supports C, Ku and Ka bands



ENHANCED CENTRAL SERVICE MANAGEMENT INTERFACE FOR VNOS

Gemini-e is part of a complete VSAT ground system that includes an advanced Network Management System (NMS) and facilitates service management available to VNOs via an electronic B2B interface.

SkyEdge II-c Service Management enables VNOs 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 VNOs 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

Designed to support the latest standard and high throughput satellites, Gemini-e's advanced adaptive transmission technologies maximize performance and improve service availability. Gemini-e is based on Wavestream's VSAT technologies, which power over a million terminals worldwide.

TECHNICAL SPECIFICATIONS

FORWARD CHANNEL

Standard:

DVB-S2 Adaptive Coding and Modulation (ACM)

Carrier Rate:

1.5Msps-67Msps (235Mbps)

Modulation:

QPSK, 8PSK, 16APSK, 32APSK

Coding: LDPC, BCH**FEC:**

1/4, 1/3, 2/5, 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10

RETURN CHANNEL (TDMA)

Access Scheme:

MF-TDMA, Dynamic Channels

Inbound Rates:

Symbol rate - 128Ksps-6Msps

Modulation:

BPSK, QPSK, 8PSK, 16QAM

Coding: TPC

FEC: 1/3, 2/5, 1/2, 2/3, 3/4, 4/5, 6/7

MODEM INTERFACES

RF Input / Output:

- Two female F connectors, 75 Ω

- RF in frequency - 950-2300MHz

- RF out frequency - 950-2300MHz

Data Interfaces:

Ethernet 10/100/1000BaseT

RJ-45, 802.1Q VLAN

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,

IGMPv2, SIP, DiffServ, VLANs,

RIPv2, Static Routes

QoS:

Per VSAT and per Managed

Group, CIR, MIR, CBR, DiffServ

and priority-based queuing,

application-based priority

Security:

- AES-256 bit link encryption

- IPSEC Client

- ACL Firewall

- X.509 Terminal Authentication

Application Acceleration and Protocol Optimization

- TCP acceleration

- HTTP web pre-fetch acceleration and compression

ENVIRONMENTAL AND MECHANICAL

Dimensions:

153x140x35 mm (WxDxH)

Operating Voltage:

24V via external power supply

- 100V-240V AC Auto Range

- 11V - 60V DC Auto Range

Operating Temperature:

0°C to +50°C

Certifications: CE, FCC, EMC

OUTDOOR UNIT (ODU)

Frequency Bands: C, Ku, Ka

Transmit Power:

Via IDU DC insertion up to 4W

BUC

Antenna Size: 0.76m and higher

Operating Temperature:

-40°C to +60°C

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