



SkyEdge II-c GEMINI-4

Integrated 4-Port VSAT

ENABLING HIGH-SPEED BROADBAND SERVICES

SkyEdge II-c Gemini-4 is a high-throughput VSAT designed to enable high-speed enterprise broadband Internet services. The Gemini-4 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-4 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-4 also supports nextgeneration IPv6 networking.

To ensure fast web browsing and a high-quality user experience, Gemini-4 contains a full set of protocol optimization and application acceleration features, including TCP and HTTP protocol acceleration and compression.

Gemini-4 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 ENTERPRISES

Based on the latest-generation ARM technology, Gemini-4 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.

INDIVIDUALLY MANAGED PORTS

The four-port Gb Ethernet LAN eliminates the need for an external switch. Each port can be individually managed, including assigning VLANs, monitoring, and configuring Ethernet link parameters.



Benefits:

- Integrated, managed 4-port GbE LAN switch
- 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-4 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.

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-4Msps, 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
DISEqC
- **Data Interfaces:**
4 x Ethernet 10/100/1000BaseT RJ-45, 802.1q VLAN
1 x Serial Interface RJ-45
- **Management Interface:**
Web-based local management
Full FCAPS management
Remote software upgrades over the air
SNMP

* Future software upgradable

^ Requires selection of appropriate IDU power supply

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-4's advanced adaptive transmission technologies maximize performance and improve service availability. Gemini-4 is based on Gilat's VSAT technologies, which power over a million terminals worldwide.

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 encryption
IPSEC Client
ACL Firewall
X.509 Terminal Authentication
- **Application Acceleration and Protocol Optimization:**
TCP acceleration
HTTP web pre-fetch acceleration and compression
- **Mobility - Antenna Interface:**
Gilat ICD (Serial)
OpenAMIP (IP)

ENVIRONMENTAL AND MECHANICAL

- **Dimensions:** 201 x 185 x 34mm (WxDxH)
- **Operating Voltage:**
- 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
- **Transmitter DC Power:** Via IDU 24 or 48VDC
- **Transmitter RF Power:** up to 12 watt BUC[^]
- **Antenna Size:** 0.76m and higher
- **Operating Temperature:** -40°C to +60°C



To learn more about the SkyEdge II-c Gemini-4,
visit our website, www.sagenet.com, or call 1-866-480-2263.

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