SKYEDGE II-C GEMINI

Enterprise High-Speed VSAT

ENABLING HIGH-SPEED BROADBAND SERVICES

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

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

Gemini 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 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 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's advanced adaptive transmission technologies maximize performance and improve service availability. Gemini is based on Gilat'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:
0ºC to +50ºC
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:
-40ºC to +60ºC

GILAT SATELLITE NETWORKS