SkyEdge® II-c GEMINI
Enterprise High-Speed VSAT

ENABLING HIGH-SPEED BROADBAND SERVICES

Gilat Satellite Network's next generation 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 to expand broadband connectivity to underserved regions.

Gemini includes a full-featured IP router, eliminating the need for an external router through its support for 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 payload 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 ENTERPRISES

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 final installation and service activation process.

Benefits:

- Includes advanced QoS, VLANs and routing protocols supporting enterprise networks
- 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

sageCONNECT.

ENHANCED CENTRAL SERVICE MANAGEMENT INTERFACE

The SkyEdge II-c system, combined with SageNet's Spacenet Satellite Services, offers customers increased flexibility and control over their networks via an advanced Network Management System (NMS) that facilitates service management for shared or dedicated bandwidth.

For Virtual Network Operators, 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 Satellite Networks' 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

- **Access Scheme:** MF-TDMA, Dynamic Channels
- **Inbound Rates:** Symbol rate - 128Ksps-4Msps, 6Msps
- **Modulation:** 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 Interfaces:**
  Web-based local management
  Full FCAPS management
  Remote software upgrades over the air
  SNMP

* Future software upgradable

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

ENVIRONMENTAL AND MECHANICAL

- **Size:** 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
- **Transmitter Power:** via IDU DC insertion up to 4W BUC
- **Antenna Size:** 0.76m and higher
- **Operating Temperature:** -40ºC to +60ºC