SkyEdge® II-c CAPRICORN PRO

Ultra-High-Performance Rack-Mounted Satellite Router

ENABLING HIGH-SPEED BROADBAND SERVICES

SkyEdge II-c Capricorn Pro is a rack-mounted, ultra-high-performance VSAT designed to enable corporate services, 3G/LTE cellular backhauling, IP trunks and mobility services. For IP trunks and mobility, Capricorn Pro delivers acceleration and packet-per-second performances that support hundreds of users per VSAT. For 3G and LTE cellular backhauling, Capricorn Pro includes Gilat's patent pending cellular data acceleration technology that enables full LTE speeds of up to 150Mbps for cellular handheld devices. To reach these high return speeds, Capricorn Pro supports both TDMA and SCPC transmission.

COMPLETE FEATURE SET

The reversible, telco-grade Capricorn Pro can be front-mounted or back-mounted as needed, enabling installers to select the best mounting option based on field conditions and easy access for communications and power lines.

Capricorn Pro is a full-featured IP router that includes all the features of Capricorn-4, such as advanced application-based QoS, VLANs, and next generation IPv6 networking.

To ensure fast running of applications, web browsing and a high-quality user experience, Capricorn Pro contains a full set of protocol optimization and application acceleration features, including TCP, HTTP, and GTP protocol acceleration, compression and embedded web caching technologies.

Capricorn Pro 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 BACKHAULING AND MOBILITY

Based on the latest generation, multi-core ARM technology, Capricorn Pro enables high-speed services up to 200Mbps in the forward direction and 100Mbps in the return direction. The ultra-high speed exhibited by this VSAT platform, combined with built-in TCP and HTTP acceleration technologies, is ideal for vertical markets that demand high bandwidth and high packets-per-second performances such as Cellular Backhaul, ISP PoP Locations, Oil & Gas, Video Contribution and Corporate Networking.

Benefits:

- Up to 200Mbps service for 3G/LTE cellular backhauling, IP trunks and mobility services

- Telco-grade, reversible rack-mounted VSAT

- Integrated, managed 4-port GbE LAN switch

- Built-in acceleration for 3G and LTE cellular data services

- On-demand inbound switchover between TDMA and high-speed SCPC carrier

- Fast web browsing with web acceleration and compression

- Forward and return channel adaptive transmission technologies

- Central monitoring and service management

- C, Ku and Ka band support

ENHANCED CENTRAL SERVICE MANAGEMENT INTERFACE FOR VNOS

Capricorn Pro VSATs are 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, Capricorn Pro's advanced adaptive transmission technologies maximize performance and improve service availability. Capricorn Pro 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, Adaptive Inbound
- **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

RETURN CHANNEL (SCPC)*

- **Standard:** DVB-S2 Adaptive Coding and Modulation (ACM)
- **Carrier Rate:** 1.5Msps-40Msps
- **Modulation:** QPSK, 8PSK, 16APSK
- **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

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 RS232 Interface, RJ-45
  1 x RS485 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

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
  GTP cellular data acceleration

- **Mobility - Antenna Interface:**

  Gilat ICD (Serial)
  OpenAMIP (IP)

ENVIRONMENTAL AND MECHANICAL

- **Rack Mount:** 1 rack unit
- **Operating Voltage:**
  - 100V-240V AC Auto Range
  - 48V DC
- **Operating Temperature:** 0ºC to +50ºC
- **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:** -40ºC to +60ºC

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

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