



SkyEdge® II-c CAPRICORN-4

Ultra-High-Performance VSAT

ENABLING HIGH-SPEED BROADBAND SERVICES

SkyEdge II-c Capricorn-4 is an ultra-high-performance VSAT designed to enable corporate services, 3G/LTE cellular backhauling, IP trunks and mobility services. For IP trunks and mobility, Capricorn-4 delivers acceleration and packet-per-second performances that support hundreds of users per VSAT. For 3G and LTE cellular backhauling, Capricorn-4 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-4 supports both TDMA and SCPC transmission.

FLEXIBILITY x 4

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.

COMPLETE FEATURE SET

Capricorn-4 is a full-featured IP router, with 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-4 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-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 CORPORATE AND ENTERPRISES

Based on the latest generation, multi-core ARM technology, Capricorn-4 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
- 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-4 VSAT 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

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 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, Capricorn-4's advanced adaptive transmission technologies maximize performance and improve service availability. Capricorn-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
 - GTP cellular data acceleration
- **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 Power:** Via IDU 24V or 48V DC Insertion up to 12 W BUC[^]
- **Antenna Size:** 0.76m and higher
- **Operating Temperature:** -40°C to +60°C



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

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