



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 and mobility services. For 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, Mobility services, ISP PoP Locations, Oil & Gas, Video Contribution and Corporate Networking.

BENEFITS

- **Up to 200Mbps service for 3G/LTE cellular backhauling and mobility services**
- **Integrated, managed 4-port GbE LAN switch**
- **Built-in data 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

The 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.

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.

MAXIMUM SPECTRAL EFFICIENCY

Gilat's innovative transmission technologies deliver exceptional performance and space segment efficiencies. Adaptive transmission in the return direction, enables high on-the-move service availability and maximum bandwidth efficiency at any condition – at beam peak, beam edge, at fade and at different traffic demands. This is achieved by adaptive power control and changes to the carrier symbol rate and ModCod per VSAT on a per time-slot basis.

TECHNICAL SPECIFICATIONS

FORWARD CHANNEL	RETURN CHANNEL (SCPC)	ENHANCED FEATURES	ENVIRONMENTAL AND MECHANICAL
<p>Standard: DVB-S2 Adaptive Coding and Modulation (ACM)</p> <p>Carrier Rate: 1.5Msps-67Msps (235Mbps)</p> <p>Modulation: QPSK, 8PSK, 16APSK, 32APSK</p> <p>Coding: LDPC, BCH</p> <p>FEC: 1/4, 1/3, 2/5, 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10</p>	<p>Standard: DVB-S2 Adaptive Coding and Modulation (ACM)</p> <p>Carrier Rate: 1.5Msps - 40Msps</p> <p>Modulation: QPSK, 8PSK, 16APSK</p> <p>Coding: LDPC, BCH</p> <p>FEC: 1/4, 1/3, 2/5, 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10</p> <p>MODEM INTERFACES</p> <p>RF Input / Output:</p> <ul style="list-style-type: none"> - Two female F connectors, 75 Ω - RF in frequency - 950-2300MHz - RF out frequency - 950-2300MHz - DISEqC <p>Data Interfaces:</p> <ul style="list-style-type: none"> - 4 x Ethernet 10/100/1000BaseT RJ-45, 802.1q VLAN - 1 x Serial Interface RJ-45 <p>Management Interface:</p> <ul style="list-style-type: none"> - Web-based local management - Full FCAPS management - Remote software upgrades over the air - SNMP 	<p>IP Features: IPv4/IPv6, TCP, UDP, ICMP, DHCP, NAT/PAT, DNS Caching, cRTP, IGMPv2, SIP, DiffServ, VLANs, RIPv2, Static Routes</p> <p>QoS: Per VSAT and per Managed Group, CIR, MIR, CBR, DiffServ and priority-based queuing, application-based priority</p> <p>Security:</p> <ul style="list-style-type: none"> - AES-256 bit link encryption - IPSEC Client - ACL Firewall - x.509 Terminal Authentication <p>Application Acceleration and Protocol Optimization</p> <ul style="list-style-type: none"> - TCP acceleration - HTTP web pre-fetch acceleration and compression - GTP cellular data acceleration <p>Mobility – Antenna Interface:</p> <ul style="list-style-type: none"> - Gilat ICD (Serial) - OpenAMIP (IP) 	<p>Dimensions: 201 x 176.5 x 36mm (WxDxH)</p> <p>Weight: 0.35 Kg</p> <p>Operating Voltage: - 100V-240V AC Auto Range - 11V - 60V DC Auto Range</p> <p>Operating Temperature: 0°C to +50°C</p> <p>Certifications: CE, FCC, EMC</p> <p>OUTDOOR UNIT (ODU)</p> <p>Frequency Bands: C, Ku, Ka</p> <p>Transmit Power: Via IDU 24V or 48V DC insertion^A</p> <p>Antenna Size: 0.76m and higher</p> <p>Operating Temperature: -40°C to +60°C</p>
<p>RETURN CHANNEL (TDMA)</p> <p>Access Scheme: MF-TDMA, Dynamic Channels</p> <p>Inbound Rates: Symbol rate - 128Ksps-6Msps</p> <p>Modulation: BPSK, QPSK, 8PSK, 16QAM</p> <p>Coding: TPC</p> <p>FEC: 1/3, 2/5, 1/2, 2/3, 3/4, 4/5, 6/7</p>			