



Senetas CS10 Ethernet encryptors are flexible encryption platforms designed as desk top systems that can be integrated into modern Ethernet networks. The units can encrypt either layer 2 (Ethernet) or layer 3 (IPSec) protocols and can be configured for point to point or multipoint operation at speeds of up to 10 Mbps.

Key Features

- Full duplex encryption at up to 10 Mbps
- Certified to Common Criteria EAL4+ security level
- Bump in the wire design for easy installation
- Supports Line or Multipoint (MAC or VLAN based) connections
- Conforms to IEEE802.3 specifications
- Uses the secure AES 256 bit encryption algorithm
- Supports SEED, Aria, Camellia and custom algorithms
- Self synchronising CFB mode minimises traffic disruption
- VLAN, MPLS transparency allowing flexible configuration
- Hands-off automated key management
- Standards based trust model using X.509 certificate authentication

- Centralised CypherManager configuration and management system
- Tamper resistant and tamper evident enclosure
- Interoperable with Senetas CS100 and CN1000 Ethernet encryptors
- Switchable between layer 2 and layer 3 (IPSec) modes. IPSec mode implements ESP tunnel

Overview

The CS10 provides users with flexible encryption that addresses the needs of small to medium sized organisations that have a requirement to transfer sensitive information between branch offices. The units can be used to secure point to point links or used in a meshed network of up to 509 interoperable units.

The unit operates in full duplex-mode and latency varies from 1–5 milliseconds depending on packet size.

Network and Management

CypherManager, Senetas' element manager can be used to configure and manage the CS10 within the network. The unit can operate as a layer 2 Ethernet encryptor or as a layer 3 (IPSec) device. Management connections are via an RJ45 on the rear panel, and in addition a Command Line Interface connection is available via a 9-pin D-Sub RS232 serial connector. The local (protected) and network (unprotected) 10/100Base-T connections are made using CAT5 cables with RJ45 connectors. Support for Ethernet 802.3 and VLAN 802.1Q standards is provided.

Supported Networks

Ethernet II 802.3
Ethernet over MPLS
Carrier Ethernet
VLAN/MPLS transparency
Alternate IPSec mode

Specifications

Cryptography

AES encryption algorithm
128 or 256 bit session keys
CFB or Counter Mode
256 bit master keys
Optional algorithms (SEED, Aria, Camellia, custom)

Key Management

Automatic connection establishment
X.509 certificate authentication
RSA Public key Infrastructure
Periodic automatic key updates
Master and Session keys
Certificate revocation; OCSP, CRL

Performance

Auto-negotiation of line speed
Up to 10Mbps encrypted throughput
Latency 5 milliseconds (typical)

Management

CypherManager element manager
IPv4 and IPv6 management support
Automatic encryptor discovery
SNMPv3 control, SNMPv1 monitoring

Out-of-band and Inband management
Alarm, Event, and Audit logs
SNMP traps and monitoring
RS232 local console (CLI)

Certification

Common Criteria EAL4+ (for layer 2)

Front Panel

LED's for interface, security, temperature, alarms, power.

Rear Panel

RJ45 Local and Network connectors
RJ45 and DE9 Management connectors
Plug pack socket

Installation

Size: 185mm, 42mm, 160mm (WxHxD)
Weight: 630 gram
0° to 40°C operating temperature
0 to 80% RH at 40°C operating

Shipping/Storage

Size: 350mm, 180mm, 280mm, (WxHxD) – 2 units
Weight: 1.2kg (1 unit) – 2.0kg (2 units)
Max temperature: 40°C, 95% RH at 40°C

Physical Security

Tamper proof key and user password storage
Tamper resistant/evident case
Anti probing barriers

Power Requirements

DC Input: 7.5 to 16.5 VDC; 10W
Accepts DC Barrel Plug 11mm x 5.5mm x 21mm (Length, External diameter, Centre diameter)
AC-DC Plug Pack Input:
100 to 240 VAC; 0.5A, 47-63 Hz

Safety

EN 60950-1 (CE)
AS/NZS 60950.1

EMC (Emission and Immunity)

FCC Part 15 Class B
ICES-003 Class B
EN 55022 Class A (CE)
AS/NZS CISPR 22 Class A
EN 61000-3-2 (CE)
EN 61000-3-3 (CE)
EN 61000-6-1 (CE)

Environmental

RoHS Compliant

All specifications are accurate as of the time of printing and are subject to change to meet the ongoing requirements of Senetas and its customers.

