

DATA SHEET

Ethernet Security Gateways

CipherOptics ESG100 and ESG1002

100Mbps and 1Gbps Ethernet Encryption Solutions

PRODUCT SNAPSHOT

- CipherEngine™ enabled for native Layer 2 network-wide encryption
- Up to gigabit wire-speed encryption
- Preserves VLAN services
- Protects any Layer 3 protocol:
 - IPv4, IPv6, IPX and others
- Transparently integrates into any existing Ethernet network

SOLUTION FEATURES AND BENEFITS

- Network-wide encryption
 - Layer 2 encryption for your mesh, multipoint, point-to-point or hybrid Ethernet network links
- Encryption per VLAN ID
 - Cryptographically segment your VLANs
- Full-duplex, Ethernet wire-speed encryption
 - Avoids traffic bottlenecks
- Low microsecond range latency
 - Allows for high performance voice and video or other real-time communications
- Simple and transparent implementation
 - Easy setup, policy definition and network deployment

IMPROVE SECURITY FOR:

- Metro Ethernet
- VPLS networks
- Ethernet private line services
- Ethernet transparent LAN services
- Broadband wireless
- Campus Ethernet



ESG100



ESG1002

Simplified Encryption for Layer 2 Networks

Information is at the core of every organization, and doing business requires sharing that information between people and devices. Industry best practices dictate that information needs to be protected as it is shared. Firewalls, Intrusion Detection Systems (IDS), anti-virus software and other security technologies are all important components of a good security strategy, however, they focus on protecting the network itself. Today's cyber thieves are after your data, not your network.

The CipherOptics Ethernet Security Gateways protect your information as it travels across your entire Ethernet network.

Robust Data Protection

The CipherOptics Ethernet Security Gateways protect Layer 2 networks of all sizes, types and topologies. Engineered with flexible policy management in mind, encryption can be set per VLAN ID or for a range of VLAN IDs, giving the administrator control over what data streams receives encryption. Additional flexibility allows policies to be characterized as clear, drop or encrypt and can be applied to all Ethernet traffic or just the traffic associated with a specific VLAN.

Security Best Practices for Regulatory Compliance

You can now build a robust security infrastructure enabling you to adhere to networking best practices while ensuring your compliance with industry and government regulation such as HIPAA, California SB 1386, Basel II, GLBA, PCI DSS and others.

Ethernet Encryption at Gigabit Speed

CipherOptics ESG1002s are purpose built appliances that provide full-duplex, gigabit speed Layer 2 protection. The CipherOptics ESG100 provides full-duplex protection up to 190Mbps. The CipherOptics Ethernet Security Gateways encrypt any data, regardless of transmission protocol. Both provide high-speed, low latency data protection for your Ethernet traffic.

Investment Protection

With CipherOptics you can be confident that the investment you make today will work for you tomorrow. Our solutions provide the flexibility to scale easily from tactical point-to-point links to strategic network-wide deployments, with our breakthrough policy and key manager, CipherEngine™.



CIPHEROPTICS
www.CipherOptics.com

CipherOptics ESG100/ESG1002 Technical Specifications

Encryption and Integrity

- AES: FIPS 197 (256 bit key), CBC mode
- HMAC-SHA-1-96

Key Management

- Diffie-Hellman group 5
- Pre-shared secrets
- CipherEngine™ Policy & Key Manager
- X.509 v3 digital certificates

Device Management

- Secure management interfaces (CLI and browser)
- Out-of-band management
- Alarm condition detection and reporting
- Secure download of software updates
- Syslog support
- SNMP v2c MIB managed object support
- Audit log
- CipherOptics CipherView™ Device Manager

Network Support

- Ethernet
- VLAN and MPLS tag pass-through
- Jumbo frame support
- Dead peer detection
- Fragmentation/ defragmentation
- Optical loss pass-through (ESG1002 only)
- Q in Q VLAN stacking

Performance

- CipherOptics ESG1002: up to 1.9 Gbps full-duplex gigabit Ethernet with AES
- CipherOptics ESG100: up to 190 Mbps full-duplex Fast Ethernet with AES

Interfaces

CipherOptics ESG1002

- Two full-duplex Gigabit Ethernet ports with SFP interfaces (single mode, multimode, copper)
- Management: 10/100 Ethernet and RS-232

CipherOptics ESG100

- Two full-duplex Fast Ethernet ports
- Management: 10/100 Ethernet and RS-232

Regulatory

- Safety: UL 60950, Third Edition (2000), CAN/CSA-C22.2 No. 60950-00, Third Edition (2000)
- Emissions: FCC part 15 to Class A; EN55022: 1998; FCC CFR Part 15 (SG100), ANSI C63.4: 1992, EN61000-3-2: 1995, EN61000-3-3: 1995, CE Marking-2005/96/CE, VCCI V3/2006.04, BSMI CN-13438:1997
- Immunity: EN55024: 1998; EN61000-4-2: 1995, EN61000-4-3: 1995, EN61000-4-4: 1995, EN61000-4-5: 1995, EN61000-4-6: 1995, EN61000-4-8: 1995, EN61000-4-11: 1995

Environmental

- Operating temperature: 0° to 40° C (32° to 104° F)
- Operating humidity: up to 90% non-condensing
- Operating altitude: -200 to 10,000 feet AMSL
- EU WEEE
- EU RoHS

Physical

- Tamper-evident chassis
- Footprint: 1.75" H x 17" W x 13"D
- Rack mountable in standard 19" rack
- Power: 115-240 VAC, 50/60 Hz, auto-sensing
- Nominal input current 1.0A
- Weight: 8 lbs.

Indicators

- Power
- Alarm
- LCD display for status

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