



# DATA SHEET

## IP Security Gateways

CipherOptics SG100 and SG1002

### 100Mbps through 1Gbps IP Encryption Solutions

#### PRODUCT SNAPSHOT

- Layer 3 network encryption
- Wire-speed AES and 3DES encryption
- 100Mbps through 1Gbps links
- Transparently integrates into any existing network
- FIPS 140-2 Level 2 validated

#### SOLUTION FEATURES AND BENEFITS

- Network-wide data encryption
  - IPSec for your IP core transport or client access network
- Full duplex, wire-speed IPSec encryption
  - Avoids traffic bottlenecks
- Low latency
  - Allows for voice and video applications
- MPLS and VLAN tag support
  - Transparent operation in a service provider or corporate environment
- Simple and transparent implementation
  - Easy setup, policy definition and network installation

#### IMPROVE SECURITY FOR:

- International data transmissions
- Multicarrier networks
- MPLS networks
- Broadband wireless
- Voice and video over IP
- Disaster recovery
- Data replication
- Government SBU data protection



SG100



SG1002

#### Fast, Simple, Transparent

The CipherOptics IP Security Gateways make network-wide encryption simple. They are purpose-built appliances, not multi-purpose devices. No network or router configuration is required. They integrate easily into your existing network without consuming valuable resources. With simple installation and policy set-up, CipherOptics IP Security Gateways can be up and running in minutes, operating transparently to ensure all of your data transmissions are encrypted.

#### Managed by CipherOptics CipherEngine

CipherOptics IP Security Gateways are compatible with CipherOptics CipherEngine™ right out of the box. CipherEngine is an innovative security policy and encryption key management solution enabling scalable network-wide encryption. By providing centralized control of the generation of policies and dynamic distribution of keys, CipherEngine enables organizations to encrypt data transmissions over any type of network without compromising application or network performance.

#### IPSec at Wire-speed

Using IP Security Protocol (IPSec), CipherOptics' family of Security Gateways provides full data encryption without compromising network operations. The CipherOptics SG100 provides full-duplex up to 190Mbps. The CipherOptics SG1002 provides full-duplex up to 1.9Gbps.

#### Security Best Practices For Regulatory Compliance

The family of CipherOptics IP Security Gateways enables organizations to build a robust security infrastructure that adheres 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.

#### 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.



FIPS 140-2 Inside



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### CipherOptics SG100 and SG1002 Technical Specifications

#### IPSEC Transform

- Encapsulated security payload (ESP)

#### Encryption and Integrity

- AES: FIPS 197 (256 bit keys) CBC mode
- 3DES: ANSI X.952 (168 bit keys) CBC mode
- HMAC-SHA-1-96
- HMAC-MD5-96

#### Key Management

- Diffie-Hellman groups 1, 2 and 5
- IKE compatible
- Manual keys
- X.509 v3 digital certificates
- CipherEngine™ Policy & Key Manager

#### IKE Features

- Preshared keys
- RSA authentication
- XAUTH

#### 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
- PMTU
- Link state pass-through

#### Performance

##### *CipherOptics SG1002:*

- Throughput: up to 1.9 Gbps full-duplex Gigabit Ethernet with AES and 3DES

##### *CipherOptics SG100:*

- Throughput: up to 190 Mbps full-duplex Fast Ethernet with AES and 3DES

#### Interfaces

##### *CipherOptics SG1002:*

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

##### *CipherOptics SG100:*

- Two 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: 100–240 VAC @ 10 amps, 50/60 Hz, auto-sensing
- Nominal input current 1.0A
- Weight: 8 lbs.

#### Indicators

- Power
- Alarm
- LCD display for status

#### Certifications

- FIPS 140-2 Level 2 validated
- Common Criteria EAL 2 certified

#### Global Headquarters

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