

SEL-8029 Crypto Module



Protect SONET Links in the Most Rugged Environments



Features and Benefits

WAN SONET Communications Protection

The SEL-8029 Crypto Module protects SONET links in the most rugged environments. Using AES-128/256 technology, the Crypto Module can simultaneously encrypt two independent SONET lines to support network ring topologies. The extremely low-latency and zero-overhead features allow the Crypto Module to be used in time-critical networks. The Crypto Module integrates seamlessly into the SEL ICON™ Integrated Communications Optical Network, simplifying device management and reducing costs.

Low Latency

Less than 1 microsecond of latency per encryption module.

AES Encryption

The Crypto Module supports line SONET encryption, protecting the entire payload section.

Network Security Management

Automatic session key updates can be configured down to hourly key exchanges. Public key technology eliminates the need to store and distribute private keys. Support audits with logging of all user access. Alarm management includes time-stamped logging.

FIPS

Designed to 140-2 Level 2 requirements.

Integrated Solution

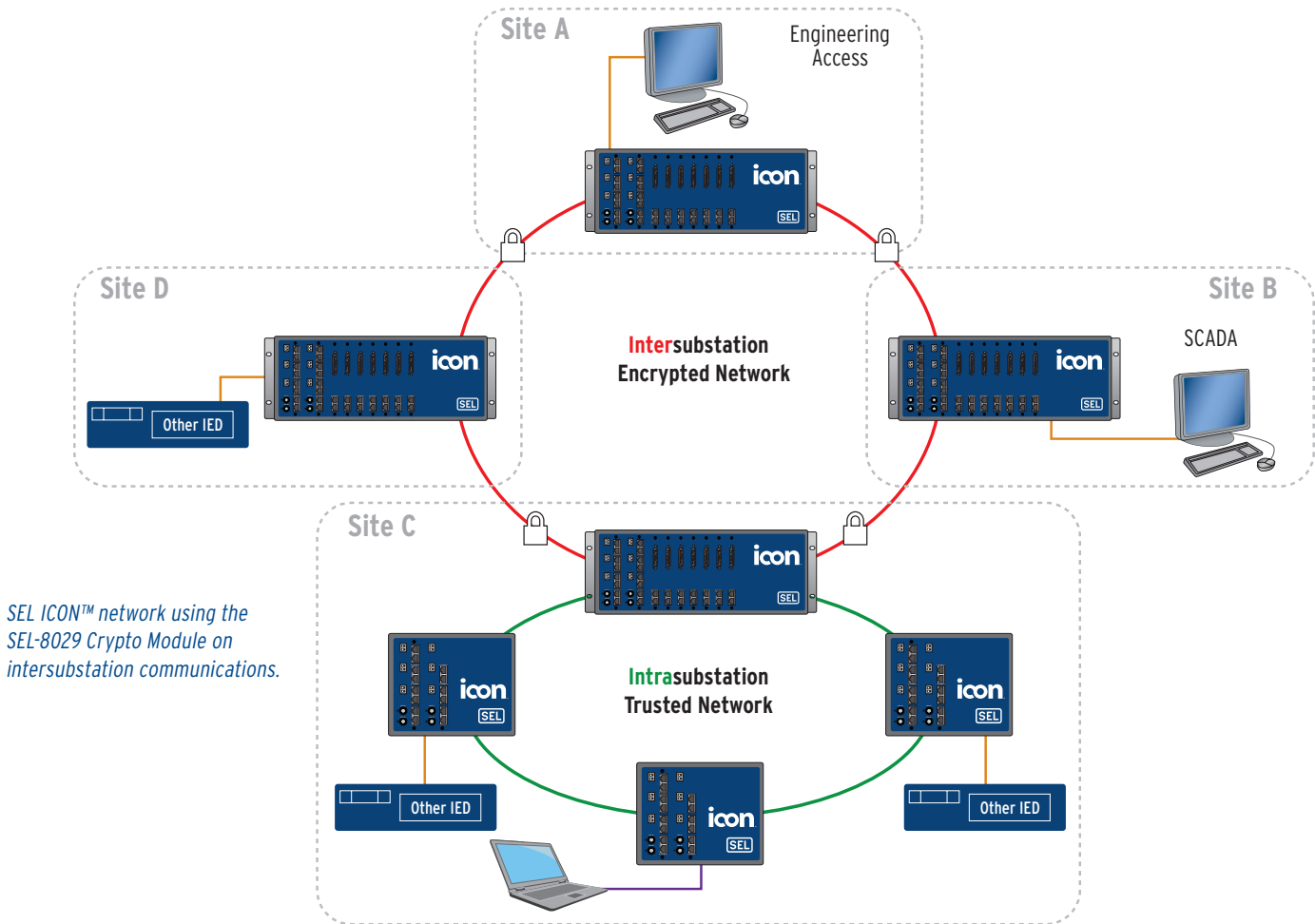
The Crypto Module provides a completely integrated security solution for the SEL ICON.

Ruggedized for Harsh Environments

Withstands vibration, electrical surges, electrostatic discharges, fast transients, and extreme temperatures. Meets or exceeds IEEE 1613 and IEC 61850-3 standards for communications networking devices in electric power substations.

Making Electric Power Safer, More Reliable, and More Economical®

SEL-8029 Crypto Module Application



General Specifications

Cryptographic Protocols

Authentication	DSA (2048-bit)/HMAC (SHA-256)
Encryption	AES-128, AES-256
Key Exchange	Diffie Hellman

Line Ports

Port A	OC-48 (2.5 Gbps)
Port B	OC-48 (2.5 Gbps)

Supported Modes

OC-48 Line Encryption

Latency

Less than 1 microsecond

Resynchronization

Less than 10 milliseconds

Session Management

Automatic session key updates

Public key session exchange: no private key storage or distribution is required

Operating Requirements

Operating Temperature: -20° to +65°C ambient

Storage Temperature: -40° to +85°C

Relative Humidity: 5-95%, noncondensing



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