



Cipher X[®] 7211 Network Security Device



100 Mb/s to 1 Gb/s Full Duplex

Wire Speed Encryption

Layer 2, 3 & 4

Customizable Algorithm

Network Security Device

The Cipher X 7211 Network Security Device is the 100 Mb/s to 1 Gb/s model of the family of TCC Cyber Security Appliances. The Cipher X 7211 is ideally suited for global Ethernet networks with variable performance requirements. It integrates seamlessly into existing networks without degrading performance. Its hardware-based Layer 2, 3 and 4 encryption engines encrypt and decrypt outbound and inbound traffic at full wire speed. Security Policies can be set for encrypting, blocking or passing traffic through.

Cipher X Network Security Family

The Cipher X 7211 is the 100 Mb/s to 1 Gb/s model of the family of TCC Cyber Security Appliances. The Cipher X 7211 brings flexible performance encryption solution to networks that need variable performance. Fully interoperable with the Cipher X 7210 and 7220, the Cipher X family offers network security from 100 Mb/s up to 10 Gb/s.

Seamless Network Overlay

The Cipher X 7211 enables data to securely transit networks over fiber, satellite or microwave, including multicast applications such as secure video conferencing.

The wire speed Cipher X 7211 is a tunnel-less, Layer 2, 3 or 4 solution, which overlays on top of existing or new networks — no network architecture changes are required.

Optimum Flexibility

The Cipher X 7211 is highly flexible, supporting a broad array of network security applications. The Security Policy Manager sets the criteria for the treatment of network traffic based on users' operational requirements. Users can define encryption, blocking or plain pass-through treatment of traffic based on VLAN tags; Source & Destination addresses; Protocol and Port numbers.

Offset variable encryption for both VLAN and Multiprotocol Label Switching (MPLS) frames leaves a variable number of VLAN tags or MPLS labels in the plain and encrypts the data payload which follows.



Scalable Performance

The Cipher X 7211 is a 100 Mb/s to 1 Gb/s Cyber Security Appliance. Used in conjunction with the Cipher X 7210 (100 Mb/s) and 7220 (10 Gb/s) network security appliances, the Cipher X family provides the flexibility and scalability to meet evolving business needs.

Cryptographic Strength

The Cipher X 7211 is a FIPS 140-3 Level 3 designed encryption solution with multiple layers of protection. The AES 256-bit algorithm in Galois Counter Mode (GCM) provides superior-grade encryption and authentication. Ask about our National Algorithm Support Program (NASP) for algorithm customization.

A three-tier symmetric key management architecture integrating the Cipher X 7211 and KEYNET Network Security Manager maximizes network security.

The Cipher X 7211's embedded key vault processor securely manages system security parameters, generates local data encryption keys and ensures cryptographic integrity, while KEYNET Network Security Manager provides security configuration and key management.

Benefits

- 100 Mb/s to 1 Gb/s Full Duplex Wire Speed Encryption
- Layer 2, 3 & 4 Network Security Device
- Native AES-256 Symmetric Key Encryption
- **Customizable National Algorithm Encryption**
- Security Policy management criteria for encrypting, decrypting, blocking or passing-through traffic, based on:
 - VLAN tags
 - Source & Destination addresses
 - Protocol and Port numbers
- Multi-layer key and device management

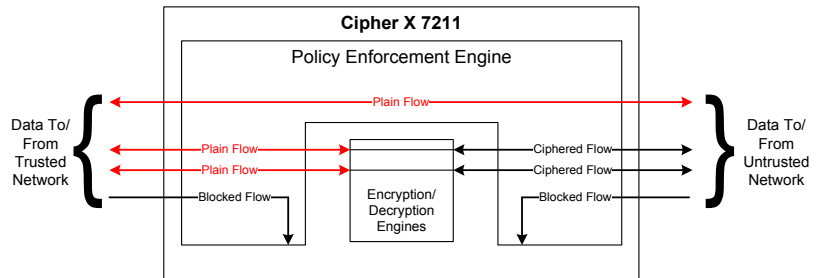


KEYNET Network Security Manager maximizes network security

Cipher X 7211 Network Security Device

Security Policies

CipherONE® Security Policy management allows users to set infinite individual Security Policies for the Cipher X 7211 Policy Enforcement Engine to encrypt, block or pass-through traffic, based on the Ethernet Frame and IP Packet headers information, including VLAN tags; Source & Destination addresses; Protocol and Port numbers. Policies can be Point-to-Point, Global, or Single-Ended to easily secure unicast or multicast traffic.



Technical Specifications

Network

Operates at Layer 2/3/4
 Configurable wire speed performance from 100 Mb/s to 1 Gb/s
 Seamless integration with Ethernet Networks
 Interoperates with Cipher X 7210 and 7220 encryptors
 Tunnel-less encryption solution with latency < 30 µs
 IPv4/IPv6 capable
 Secures point-to-point, point-to-multipoint and multipoint-to-multipoint traffic
 Secures public/private networks using NAT/PAT
 Supports jumbo frames up to 9000 bytes
 Basic firewall function (packet filter)
 Helps protect against denial of service (DoS) attacks

Interfaces

(2) 10/100/1000 BASE-TX and optical SFP ports (Red/Black)
 (1) 10/100/1000 BASE-TX (Management)
 Local serial console port
 SmartModule key fill port

Device Management

Local device control with Command Line Interface
 Centralized management with KEYNET Network Security Manager
 Encrypted, authenticated SNMP management messaging with secure TCC extensions

Data Encryption

AES-256 – standard
 Customizable National Algorithm

Key Management

Symmetric key with three-tier secure key management infrastructure
 Lossless data encryption key change
 SHA-256/512 integrity and authentication

Environmental

Operational Temperature 0°C to +50°C @ 1800m and 85% RH
 Storage Temperature -20°C to +70°C
 Humidity: 20% to 85% RH, non-condensing

Prime Power

Hot-Swappable Dual AC Power Supplies
 100 – 240 VAC, 50 – 60Hz
 Hot-Swappable Dual DC Power Supplies
 -48 VDC

Mounting/Dimensions

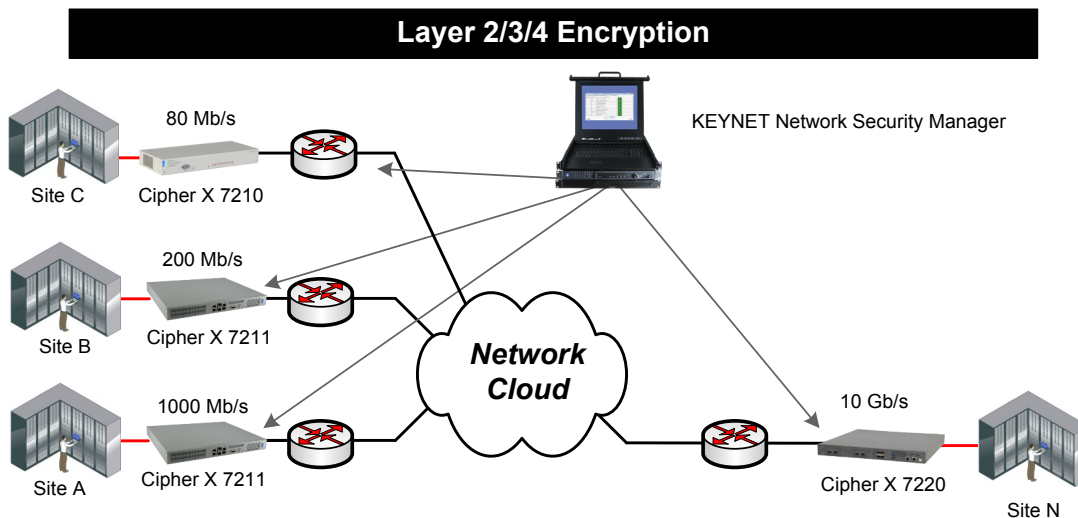
1RU standard 19" rack mountable with removable rack mount ears

Compliance

Designed to FIPS 140-3, Level 3
 FCC Part 15, Class B
 EN/UL 60950-1
 EN55022, EN55024

Miscellaneous

Access control and anti-tamper design



For more than 50 years, Technical Communications Corporation has specialized in superior-grade secure communications systems and customized solutions, supporting our CipherONE® best-in-class criteria, to protect highly sensitive voice, data and video transmitted over a wide range of networks. Government entities, military agencies and corporate enterprises in 115 countries have selected TCC's proven security to protect their communications.