



Multiprotocol Cipher X[®] 7220 Network Security Device



**10 Gb/s Full Duplex
Wire Speed Encryption
Layer 2, 3 & 4
Customizable Algorithm
Multiprotocol
Network Security Device**

The Multiprotocol Cipher X 7220 Network Security Device is the 10 Gb/s model of the family of TCC Cyber Security Appliances. The Cipher X 7220 is ideally suited for global networks with high 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. Its powerful Security Policy Manager sets the criteria for encrypting, blocking or passing traffic through.

Cipher X Network Security Family

The Cipher X 7220 is the 10 Gb/s model of the family of TCC Cyber Security Appliances. The Cipher X 7220 brings a higher performance encryption solution to networks that need multi-Gigabit performance. Fully interoperable with the Cipher X 7210 and 7211, the Cipher X family offers network security from 1 Gb/s up to 10 Gb/s. The Cipher X 7220 has an expansion port to enable security solutions for other network protocols.

Seamless Network Overlay

The Cipher X 7220 enables data to securely transit networks over fiber, satellite or microwave, including multicast applications such as secure video conferencing.

The wire speed Cipher X 7220 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.

Multiprotocol Flexibility

The Cipher X 7220 hosts an available I/O slot to enable other Layer 1 or 2 network security solutions such as SDH or OTN to be deployed. This flexibility enables operators with complex network systems to ease logistics and reduce training costs by using a single platform on multiple networks.

Scalable Performance

The Cipher X 7220 is a 10 Gb/s Cyber Security Appliance. Used in conjunction with the Cipher X 7210 (100 Mb/s) and 7211 (1 Gb/s) network



security appliances, the Cipher X family provides the flexibility and scalability to meet evolving business needs.

Cryptographic Strength

The Cipher X 7220 is a FIPS 140-2 Level 3 designed encryption solution with multiple layers of protection. The AES 256-bit algorithm in Galois Counter Mode 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 7220 and KEYNET Network Security Manager maximizes network security.

The Cipher X 7220'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

- 10 Gb/s Full Duplex Wire Speed Encryption
- Layer 2, 3 & 4 Network Security Device
- Native AES-256 Symmetric Key Encryption
- **Customizable National Algorithm Encryption**
- **Multiprotocol Expansion Capability**
- 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

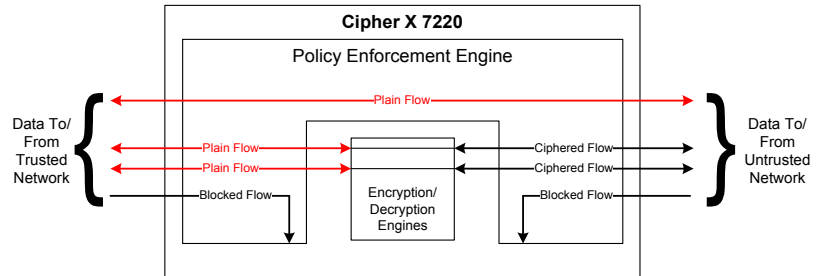


KEYNET Network Security Manager maximizes network security

Multiprotocol Cipher X 7220 Network Security Device

Security Policies

CipherONE® Security Policy management allows users to set infinite individual Security Policies for the Cipher X 7220 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 1 Gb/s to 10 Gb/s
- Seamless integration with Ethernet Networks
- Interoperates with Cipher X 7210 and 7211 encryptors
- Tunnel-less encryption solution
- IPv4/IPv6 capable
- Secures unicast or multicast traffic
- Secures public/private networks using NAT/PAT
- Supports jumbo frames to 9000 bytes
- Basic firewall function (packet filter)
- Helps protect against denial of service attacks
- Extensible to support SDH, OTN, or other networks

Interfaces

- (2) 10 Gb/s 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 IP 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 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
- 100V – 240 VAC, 50 – 60Hz

Mounting/Dimensions

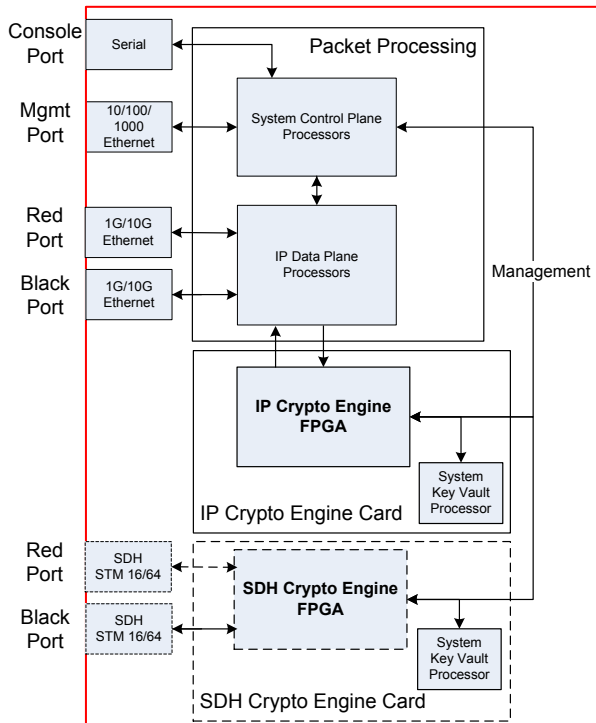
- 1RU standard 19" rack mountable with removable rack mount ears

Compliance

- Designed to FIPS 140-2, 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.



TECHNICAL COMMUNICATIONS CORPORATION

100 Domino Drive, Concord, MA 01742 U.S.A.
 +1-978-287-5100, Online request: www.tccsecure.com/sales
 Fax: +1-978-371-1280, Web: www.tccsecure.com