The Cipher X 7211 provides strategic-level communications security for global IP networks. It integrates seamlessly into existing or new networks without degrading network performance, while the unique combination of flexibility, scalable 1 Gb/s performance and KEYNET IP Manager delivers a robust, cost-effective solution that is easy to deploy, monitor and manage.

**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 tuneless, Layer 3 or 4 solution, which overlays on top of existing or new networks — no network architecture changes or performance degradation.

**Optimum Flexibility**
With a robust security policy engine, the Cipher X 7211 is highly flexible, supporting a broad array of network applications and security requirements.

**Scalable Performance**
Scalable performance from 100 Mb/s to 1 Gb/s without changing hardware, the Cipher X 7211 minimizes the entry cost of deploying a security solution and provides a cost-effective path to meet evolving business needs. Upgrades are licensed and made available on-demand via KEYNET IP Manager. All performance levels interoperate and have identical functionality.

**Cryptographic Strength**
The Cipher X 7211 is a FIPS 140-2 Level 3 designed, hardware-based encryption solution with multiple layers of protection. It comes in a 1RU anti-tamper rack-mountable enclosure. The AES 256-bit algorithm in Galois Counter Mode provides superior-grade encryption and authentication. Optionally, national algorithms can be easily integrated without hardware modification.

A three-tier symmetric key management architecture integrating the Cipher X 7211 and KEYNET IP Manager maximizes network security. The Cipher X 7211’s embedded key vault processor securely manages system parameters, generates local data encryption keys and ensures cryptographic integrity, while KEYNET IP Manager provides secure management communications and key delivery.

**Benefits**
- Strategic-level data protection
- Scalable, interoperable wire-speed performance — 100 Mb/s to 1 Gb/s
- Flexible network configurations and security policies
- AES-256, optional national algorithm
- Multi-layer key and device management
- No network architecture changes or performance degradation
- Cost-effective solution
- Easy to deploy, monitor and manage

User-friendly, automated, trusted key and device management.
KEYNET IP Manager
Centralized and automated key and device management of a Cipher X 7211 secure network is provided by KEYNET IP Manager. KEYNET consists of a Windows 7 rack mount server and 1RU tamper-proof security vault. Multiple layers of protection secure keys at every point in their life cycle with limited human intervention.

KEYNET has user-authenticated, role-based security and it simplifies the provisioning and management of the wide-range of network configurations and security requirements supported by the Cipher X 7211 security policy engine. With KEYNET’s intuitive user interface and automated polling of device alarms and logs, a network expert is not required to manage network security.

Technical Specifications

Network
- Operates at Layer 3/4
- Configurable performance from 100 Mb/s to 1 Gb/s
- Seamless integration with IP Networks
- Tunnelless 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

Interfaces
- (2) UTP 10/100/1000 BASE-TX (Red/Black) or
- (2) 1000 BASE-FX, LX (Red/Black)
- (1) UTP 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 Manager
- Encrypted, authenticated SNMP management messaging with secure TCC extensions

Data Encryption
- AES-256 – standard
- 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:
- Single supply or redundant configurations
- 85V - 264VAC Universal / 45 – 65Hz, 400Hz
- -48VDC (-18VDC to -60VDC)

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
- Architecture designed for 10 Gb/s and above roadmap

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 over 115 countries have selected TCC’s proven security to protect their communications.