VPNCrypt M10

Portable Wireless IP Encryptor with 2-Factor Authentication

VPNCrypt M10 is a portable Virtual Private Network (VPN) Client, a networking device that enables the user to leverage on public Ethernet/IP infrastructure to connect to their backend corporate VPN gateway securely. It employs standard algorithms for data confidentiality and integrity protection as well as Internet Key Exchange (IKE) protocol for keys derivations and authentications.

VPNCrypt M10 has a compact and sleek design, providing convenience and security to users on the move. It is also able to switch between Wired and Wifi connection. This Wifi feature ensures a secure connection link even in public Wifi networks. With a built-in keypad, VPNCrypt M10 is also the first of its kind portable VPN Client that incorporates 2-factor authentication for access control to the device.

Key Features

- Slim and compact
- Supports LAN/Wifi connections
- 30Mbps throughput aggregate
- Supports AES algorithm for data confidentiality
- Supports 10 concurrent IPSec tunnels
- Built-in Keypad to support 2-Factor Authentication
- Able to connect to Public Wifi Network requiring pre-registration
Specifications

Network Interfaces:
- Trusted port: 2 x Ethernet RJ45 10/100 Mbps auto-sensing port
- External port: 1 x Ethernet RJ45 10/100 Mbps auto-sensing port and Wifi port 802.11 b/g/n
- Comes with management interface: 1 x Ethernet RJ45 10/100 Mbps auto-sensing port

Networking Features & Protocols:
- IP Security/Encapsulating Security Protocol
- Support Layer 2 and Layer 3 encryption capability
- IP Compression
- QoS support
- Traffic flow confidentiality

Authentication:
- RSA Public Key Signature (2048 bit)

Key Management:
- Support Internet Key exchange (IKE v2)
- Diffie-Hellman (DH) supports up to 8192 bit
- Elliptic Curve Diffie-Hellman (ECDH) support up to P-521 bit (Optional)
- Group Transport Protection: The device has the option of providing encryption and data integrity

Encryption Algorithm/ Modes:
- AES-CBC (256 bit)

Hash Algorithm:
- HMAC-SHA1
- HMAC-SHA2 (256, 384, 512 bit)

Performance:
- Zero-loss encrypted throughput up to 30Mbps (depending on IP packet size and used encryption mode)
- Support 10 concurrent IPSec tunnels

Physical Characteristics:
- Dimensions: 90mm(W) x 150mm(L) x 19mm(H)

Environmental:
- Storage Temperature: -20°C to 70°C
- Operating Temperature: 0°C to 40°C
- Humidity: Relative 10%-95%, non-condensing

Power Supply:
- Power adaptor: 100 – 240VAC 50/60Hz, 9VDC Output, 2.5A
- Battery Pack: 9VDC, 3600mAH (Optional)

Regulatory:
- EMC/EMI: FCC Part 15 Class B

Optional Feature:
- Supports customized algorithm loading feature
EtherCrypt U2000

High Performance L2 Encryptor

EtherCrypt U2000 is a layer-2 encryptor that protects the transmission of sensitive data over 10Gbps Ethernet and Metro-Ethernet networks. It offers full duplex confidentiality, integrity and replay protections using AES-256 Galois Counter Mode (GCM) encryption algorithm, and is suitable for point-to-point, point-to-multipoint and fully-meshed Ethernet networks.

It can be deployed easily into existing networks without any changes to the network configuration and supports unicast, multicast and broadcast Ethernet traffic. Designed with strictest security standards, EtherCrypt U2000 includes a tamper-resistant chassis, emergency erasure and active zeroization of encryption key. It also incorporates a FIPS 140-2 Level 3 certified secure platform module for secure key storage and cryptographic processing. In addition, it comes with in-built over temperature detection to prevent data centre from overheating.

Key Features

- High-assurance encryptor
- Low overhead line-rate encryption at 10Gbps
- Supports AES-GCM algorithm for data confidentiality, integrity and anti-replay
- Redundant Power Supplies
- Over Temperature Detection
- Emergency Erasure Button
Low overhead line-rate encryption at 10Gbps

- 2 x 10 Gigabit Ethernet ports (Trusted, External) with SFP+ interfaces
- Fiber optic: LC connector, multi-mode/single mode
- Copper: RJ45

Confidentiality, integrity and replay protections with Advanced Encryption Standard (AES-256) Galois Counter Mode (GCM) encryption algorithm

Hardware Random Number Generator (HRNG)

DigiSAFE proprietary Key Management System

- Parameter loading using smartcard

Local console port (9-pin serial port)

SNMP Port: 1 x 10/100 Mbps Ethernet RJ45 for remote monitoring

Tamper resistant chassis

Tamper detection and response (FIPS 140-2 Level 3)

Active zeroization of cryptographic data upon tamper detection

User PIN protected front panel menu

High temperature detection

Emergency erasure button

Storage Temperature: -20ºC to 70ºC

Operating Temperature: 0ºC to 40ºC

Humidity: Relative 10% - 95%, non-condensing

EMC/EMI: FCC Part 15 Class B

Dimension: 420mm (W) x 445mm (D) x 44mm (H)

Weight: <10Kg

Redundant Hot-Swap PSU: 100-240V AC 50/60Hz or 36-72V DC, 150W

Support Ethernet Layer 2 encryption

Support for Jumbo frames up to 8000 bytes

Point-to-point, multipoint-to-multipoint

Audit logging

Alarm detection and reporting

SNMP v2c network management (operates with standard SNMP network management station)

DigiSAFE TrustCrypt – FIPS 140-2 level 3 certified cryptographic module (certificate #1304)

Configuration card for users authentication and cryptographic key parameters

Supports customized algorithm loading feature
EtherCrypt U1000

High Performance L2 Encryptor

EtherCrypt U1000 is a layer-2 encryptor that protects the transmission of sensitive data over 1Gbps Ethernet and Metro-Ethernet networks. It offers full duplex encryption up to 1Gbps using the AES-256 algorithm, and is suitable for point-to-point, point-to-multipoint and fully-meshed Ethernet networks.

It can be easily deployed into existing networks without any changes to the network configuration and supports unicast, multicast and broadcast Ethernet frames. Designed to the strictest security standards, EtherCrypt U1000 includes a tamper-resistant chassis, emergency erasure and active zeroization. It also incorporates a FIPS 140-2 level 3 certified secure platform module – TrustCrypt for secure key storage and cryptographic processing.

Key Features

- High-assurance encryptor
- 1Gbps throughput
- Over Temperature Detection
- Emergency Erasure Button
Deployment
Use Cases

Specifications

Performance
- Full duplex operation at speeds up to 1Gbps

Network Interfaces
- Network: Ethernet II, IEEE 802.3
- Gigabit Ethernet ports with SFP interface (single mode, multi mode and copper)

Cryptography
- AES 256 CFB mode
- Supports customized algorithm

Key Management
- DigiSAFE proprietary key management
- Parameter loading using smartcard
- Automatic and transparent session key negotiation

Device Management
- Local console port (9 pins D serial port)
- 100 Base-T RJ45 Ethernet port – for remote monitoring
- SNMP V2c (operates with standard SNMP network management station)

Physical Security
- Emergency erasure function
- Tamper resistant chassis
- Active zeroization of cryptographic data upon tamper detection.
- User PIN protected Front Panel Menu

Operating Environment
- Operating Temperature: 0°C to 40°C
- Relative Humidity: 0 to 95%
- Storage Temperature: -20°C to 65°C
- Meets FCC Part 15, Class B EMI/RFI requirements

Physical Characteristics
- Tamper resistant chassis
- Tamper detection and response (FIPS 140-2 Level 3)
- Active zeroization of cryptographic data upon tamper detection
- User PIN protected front panel menu
- High temperature detection
- Emergency erasure button

Network Features & Protocols
- Supports Ethernet Layer 2 encryption
- Point-to-point, point-to-multipoint, multipoint-to-multipoint meshed networks
- Unicast, multicast and broadcast Ethernet frames

Security Configuration
- Automated power-up self tests
- Alarm/Audit log messages stored in memory with date and time
- LED indicators for link status monitoring
- Front Panel Menu-driven setup
- Battery Backup of cryptographic variables

Accreditation
- DigiSAFE TrustCrypt – FIPS 140-2 level 3 certified cryptographic module (certificate #1304)

Optional

Key Management System (KMS)
- Windows-based software system for key exchange parameter generation

Smartcard
- Configuration card for user authentication and cryptographic key parameters

Feature
- Supports customized algorithm loading feature
NetCrypt U2000

High Performance IP Encryptor

NetCrypt U2000 is a high performance IP encryptor that enables the user to leverage on public Ethernet/IP infrastructure to connect to multiple sites in a secure manner. NetCrypt U2000 employs AES algorithm for data confidentiality, Secure Hash Algorithm (SHA) for integrity protection as well as Internet Key Exchange (IKE) protocol for keys derivations and authentications. The built-in Firewall performs packet filtering and supports NAT/PAT features.

Supporting up to 800 tunnels with a maximum encrypted throughput of 1Gbps, NetCrypt U2000 is ideal for deployments as a security gateway in a corporate LANs, site-to-site VPN and site-to-site wireless inter-offices connectivity.

With the flexibility to use industry standard Simple Network Management Protocol (SNMP) network management system, NetCrypt U2000 allows local and remote monitoring of devices, and firmware field-upgrading to ease new features introduction, algorithm updates and maintenance.

Key Features

- High-assurance IP encryptor with Firewall capabilities
- 1Gbps throughput aggregate
- IPSec standards-based encryption, authentication, digital certificates and key management
- Supports AES algorithm for data confidentiality
- Supports 800 concurrent IPSec tunnels
- Easy deployment in existing network environment
- 19” rack mountable
### Specifications

<table>
<thead>
<tr>
<th>Network Interfaces</th>
<th>Trusted LAN 1, Trusted LAN 2, External and Management (4 x Gigabit ports):</th>
<th></th>
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<tbody>
<tr>
<td></td>
<td>- Fiber optic: LC connector, multi-mode/single-mode</td>
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<td></td>
<td>- Copper: Ethernet RJ45</td>
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</tr>
<tr>
<td></td>
<td>- Support Layer 2 and Layer 3 encryption capability</td>
<td></td>
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<tr>
<td></td>
<td>- IP Compression</td>
<td></td>
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<tr>
<td></td>
<td>- DoS support</td>
<td></td>
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<tr>
<td></td>
<td>- Traffic flow confidentiality</td>
<td></td>
</tr>
<tr>
<td>High Availability Features</td>
<td>- Failover (Active/Passive mode)</td>
<td></td>
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<td></td>
<td>- Load Balancing (Active/active mode)</td>
<td></td>
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<td></td>
<td>- Priority Based Redundant Secure Nodes</td>
<td></td>
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<tr>
<td>Authentication</td>
<td>- Pre-shared Key</td>
<td></td>
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<tr>
<td></td>
<td>- RSA Public Key Signature (up to 4096 bit)</td>
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</tr>
<tr>
<td>Key Management</td>
<td>- Support Internet Key exchange (IKEv2)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- DH supports up to 8192 bit</td>
<td></td>
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<tr>
<td></td>
<td>- Supports ECDH (up to 512 bit)</td>
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<tr>
<td></td>
<td>- Group Transport Protection. The device has the option of providing encryption and data integrity protection to all key exchange traffic including the initial key exchange traffic</td>
<td></td>
</tr>
<tr>
<td>Encryption Algorithm/ Modes</td>
<td>- AES-CBC (256 bit)</td>
<td></td>
</tr>
<tr>
<td>Hash Algorithm</td>
<td>- HMAC-SHA1</td>
<td></td>
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<tr>
<td></td>
<td>- HMAC-SHA2 (256, 384, 512 bit)</td>
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<tr>
<td>Performance</td>
<td>- Zero-loss encrypted throughput up to 1Gbps, aggregated (depending on IP packet size and used encryption mode)</td>
<td></td>
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<tr>
<td></td>
<td>- Support 800 concurrent IPSec tunnels</td>
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<tr>
<td>Management</td>
<td>Interfaces</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Fiber optic/RJ45 (remote management and local configuration)</td>
<td></td>
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<tr>
<td></td>
<td>- RS232 local console interface</td>
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<tr>
<td></td>
<td>Security/Configuration</td>
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<tr>
<td></td>
<td>- Extensive audit logging</td>
<td></td>
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<tr>
<td></td>
<td>- Alarm detection and logging</td>
<td></td>
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<tr>
<td></td>
<td>- SNMP v2c network management (operates with standard SNMP network management station)</td>
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<td></td>
<td>- Supports up to 3-factor authentication</td>
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<tr>
<td>Security Features</td>
<td>- Tamper-resistant chassis</td>
<td></td>
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<tr>
<td></td>
<td>- Anti-tamper detection and response</td>
<td></td>
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<tr>
<td>Physical Characteristics:</td>
<td>- Dimensions: 44mm(H) x 430mm(W) x 511mm(D)</td>
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<tr>
<td></td>
<td>- Redundant Hot-Swap PSU. 110/240VAC @ 50/60 Hz Auto-ranging</td>
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<tr>
<td></td>
<td>- Power Rating: 300W max</td>
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<td></td>
<td>- Weight: 10 KG</td>
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<tr>
<td>Environmental</td>
<td>- Storage Temperature: -20°C to 70°C</td>
<td></td>
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<tr>
<td></td>
<td>- Operating Temperature: 0°C to 40°C</td>
<td></td>
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<tr>
<td></td>
<td>- Humidity: Relative 95%, non-condensing</td>
<td></td>
</tr>
<tr>
<td>Regulatory</td>
<td>- EMC/EMI: FCC Part 15 Class B</td>
<td></td>
</tr>
<tr>
<td>Optional Feature</td>
<td>- Supports customized algorithm loading feature</td>
<td></td>
</tr>
</tbody>
</table>
NetCrypt U1000

High Performance IP Encryptor

NetCrypt U1000 is a high performance IP encryptor that enables the user to leverage on public Ethernet/IP infrastructure to connect to multiple sites in a secure manner. NetCrypt U1000 employs AES algorithm for data confidentiality, Secure Hash Algorithm (SHA) for integrity protection as well as internet key exchange (IKE) protocol for keys derivations and authentications. The built-in Firewall performs packet filtering and supports NAT/PAT features.

Supporting up to 300 tunnels with a maximum encrypted throughput of 500Mbps, NetCrypt U1000 is ideal for deployments as a security gateway in a corporate LANs, site-to-site VPN and site-to-site wireless inter-offices connectivity.
<table>
<thead>
<tr>
<th>Specifications</th>
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<tbody>
<tr>
<td><strong>Network Interfaces:</strong></td>
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<tr>
<td>- Trusted LAN 1 and Trusted LAN 2 ports: 2 x Ethernet RJ45 10/100/1000 Mbps auto-sensing port</td>
</tr>
<tr>
<td>- External port: 1 x Ethernet RJ45 10/100/1000 Mbps auto-sensing port</td>
</tr>
<tr>
<td><strong>Networking Features &amp; Protocols:</strong></td>
</tr>
<tr>
<td>- IP Security/Encapsulating Security Protocol</td>
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<tr>
<td>- Support Layer 2 and Layer 3 encryption capability</td>
</tr>
<tr>
<td>- IP Compression</td>
</tr>
<tr>
<td>- QoS support</td>
</tr>
<tr>
<td>- Traffic flow confidentiality</td>
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<tr>
<td><strong>High Availability Features:</strong></td>
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<tr>
<td>- Load Balancing (Active/active mode)</td>
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<td>- Priority Based Redundant Secure Nodes</td>
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<td><strong>Authentication:</strong></td>
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<td>- Pre-shared Key</td>
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<tr>
<td>- RSA Public Key Signature (up to 4096 bit)</td>
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<tr>
<td><strong>Key Management:</strong></td>
</tr>
<tr>
<td>- Support Internet Key exchange (IKE v2)</td>
</tr>
<tr>
<td>- DH supports up to 8192 bit</td>
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<tr>
<td>- Supports ECDH (up to P-521 bit)</td>
</tr>
<tr>
<td>- Group Transport Protection: The device has the option of providing encryption and data integrity protection to all key exchange traffic including the initial key exchange traffic</td>
</tr>
<tr>
<td><strong>Encryption Algorithm/ Modes:</strong></td>
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<tr>
<td>- AES-CBC (256 bit)</td>
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<td><strong>Hash Algorithm:</strong></td>
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<td>- HMAC-SHA1</td>
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<tr>
<td>- HMAC-SHA2 (256, 384, 512 bit)</td>
</tr>
<tr>
<td><strong>Performance:</strong></td>
</tr>
<tr>
<td>- Zero-loss encrypted throughput up to 500Mbps (depending on IP packet size and used encryption mode)</td>
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<tr>
<td>- Support 360 concurrent IPSec tunnels</td>
</tr>
<tr>
<td><strong>Management:</strong></td>
</tr>
<tr>
<td>- Interfaces: 10/100/1000 Mbps Ethernet RJ45 (remote management and local configuration)</td>
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<tr>
<td>- RS232 local console interface</td>
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<tr>
<td>- Security/Configuration: Extensive audit logging</td>
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<tr>
<td>- Alarm detection and logging</td>
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<tr>
<td>- SNMP v2c network management (operates with standard SNMP network management station)</td>
</tr>
<tr>
<td>- Supports up to 3-factor authentication</td>
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<tr>
<td><strong>Security Features:</strong></td>
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<tr>
<td>- Tamper-resistant chassis</td>
</tr>
<tr>
<td>- Anti-tamper detection and response</td>
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<tr>
<td><strong>Physical Characteristics:</strong></td>
</tr>
<tr>
<td>- Dimensions: 44mm(H) x 430mm(W) x 505mm(D)</td>
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<tr>
<td>- Power Supply: 110/230VAC @ 50/60 Hz. Auto-ranging</td>
</tr>
<tr>
<td>- Power Rating: 400W max</td>
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<tr>
<td>- Weight: 5.6 KG</td>
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<tr>
<td><strong>Environmental:</strong></td>
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<tr>
<td>- Storage Temperature: -20°C to 70°C</td>
</tr>
<tr>
<td>- Operating Temperature: 0°C to 40°C</td>
</tr>
<tr>
<td>- Humidity: Relative 95%, non-condensing</td>
</tr>
<tr>
<td><strong>Regulatory:</strong></td>
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<tr>
<td>- EMC/EMI: FCC Part 15 Class B</td>
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<tr>
<td><strong>Optional Feature:</strong></td>
</tr>
<tr>
<td>- Supports customized algorithm loading feature</td>
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</tbody>
</table>
NetCrypt S20

Compact & High Performance
IP Encryptor

NetCrypt S20 is a compact IP encryptor that enables the user to leverage on public Ethernet/IP infrastructure to connect to multiple sites in a secure manner. NetCrypt S20 employs AES algorithm for data confidentiality, Secure Hash Algorithm (SHA) for integrity protection as well as internet key exchange (IKE) protocol for keys derivations and authentications. The built-in Firewall performs packet filtering and supports NAT/PAT features.

Supporting up to 50 tunnels with a maximum encrypted throughput of 100Mbps, NetCrypt S20 packs a big punch in a small footprint. It is ideal for deployments as a security gateway in a small office corporate LANs, site-to-site VPN, mobile vehicle and site-to-site wireless inter-offices connectivity.

NetCrypt S20 is interoperable with NetCrypt series of IP encryptor, allowing user to form a secure VPN between the corporate HQ and remote sites/branch offices. With the flexibility to use industry standard Simple Network Management Protocol (SNMP) network management system, NetCrypt S20 allows local and remote monitoring of devices, and firmware field-upgrading to ease new features introduction, algorithm updates and maintenance.

Key Features

- High-assurance IP encryptor with Firewall capabilities.
- 100Mbps throughput aggregate.
- IPSec standards-based encryption, authentication, digital certificates and key management.
- Supports AES algorithm for data confidentiality.
- Supports 50 concurrent IPSec tunnels.
- Easy deployment in existing network with 10/100/1000 Mbps LANs.
- Slim and Compact.
### Specifications

#### Network Interfaces:
- Trusted LAN 1 and Trusted LAN 2 ports: 2 x Ethernet RJ45 10/100/1000 Mbps auto-sensing port
- External port: 1 x Ethernet RJ45 10/100/1000 Mbps auto-sensing port

#### Networking Features & Protocols:
- IP Security/Encapsulating Security Protocol
- Support Layer 2 and Layer 3 encryption capability
- IP Compression
- DoS support
- Traffic flow confidentiality

#### High Availability Features:
- Failover (Active/Passive mode)
- Priority Based Redundant Secure Nodes

#### Authentication:
- Pre-shared Key
- RSA Public Key Signature (up to 4096 bit)

#### Key Management:
- Support Internet Key exchange (IKE v2)
- DH supports up to 8192 bit
- Supports ECDH (up to P-521 bit)
- Group Transport Protection: The device has the option of providing encryption and data integrity protection to all key exchange traffic including the initial key exchange traffic

#### Encryption Algorithm/ Modes:
- AES-CBC (256 bit)

#### Hash Algorithm:
- HMAC-SHA1
- HMAC-SHA2 (256, 384, 512 bit)

#### Performance:
- Zero-loss encrypted throughput up to 100Mbps (depending on IP packet size and used encryption mode)
- Support 50 concurrent IPSec tunnels

#### Management:
- Interfaces:
  10/100/1000 Mbps Ethernet RJ45 (remote management and local configuration)
  RS232 local console interface
- Security/Configuration:
  Extensive audit logging
  Alarm detection and logging
  SNMP v2c network management (operates with standard SNMP network management station)
  - Supports up to 3-factor authentication

#### Security Features:
- Tamper-resistant chassis
- Anti-tamper detection and response

#### Physical Characteristics:
- Dimensions: 30mm(H) x 230mm(W) x 150mm(D)
- Power Supply: External 12VDC, 3.4A, 100-240VAC, 50/60 Hz Adaptor
- Power Rating: 40W max
- Weight: 1.25 KG

#### Environmental:
- Storage Temperature: -20°C to 70°C
- Operating Temperature: 0°C to 40°C
- Humidity: Relative 10% - 95%, non-condensing

#### Regulatory:
- EMC/EMI: FCC Part 15 Class B

#### Optional Feature:
- Supports customized algorithm loading feature
NetCrypt S10 is a small and compact IP encryptor that enables user to leverage on public Ethernet/IP infrastructure to connect to multiple sites in a secure manner.

NetCrypt S10 employs AES algorithm for data confidentiality, Secure Hash Algorithm (SHA) for integrity protection as well as Internet Key Exchange (IKE) protocol for key derivations and authentications. The built-in Firewall performs packet filtering and supports NAT/PAT features.

Supporting up to 20 tunnels with a maximum encrypted throughput of 30Mbps, NetCrypt S10 is ideal for securing video streaming from surveillance camera, securing the SCADA network link, and mobile vehicle wireless inter-offices connectivity.

NetCrypt S10 is interoperable with NetCrypt series of IP encryptor, allowing user to form a secure VPN between the corporate HQ and remote sites/branch offices. With the flexibility to use industry standard Simple Network Management Protocol (SNMP) network management system, NetCrypt S10 allows local and remote monitoring of devices, and firmware field-upgrading to ease new features introduction, algorithm updates and maintenance.

Key Features

- Small and compact.
- 30Mbps throughput aggregate.
- IPSec standards-based encryption, authentication, digital certificates and key management.
- Supports AES algorithm for data confidentiality.
- Supports 20 concurrent IPSec tunnels.
- Easy deployment in existing network with 10/100 Mbps LANs.
## Specifications

### Network Interfaces:
- Trusted port: 1 x Ethernet RJ45 10/100 Mbps auto-sensing port
- External port: 1 x Ethernet RJ45 10/100 Mbps auto-sensing port

### Networking Features & Protocols:
- IP Security/Encapsulating Security Protocol
- Support Layer 2 and Layer 3 encryption capability
- IP Compression
- QoS support
- Traffic flow confidentiality

### Authentication:
- Pre-shared Key
- RSA Public Key Signature (up to 4096 bit)

### Key Management:
- Support Internet Key exchange (IKE v2)
- DH supports up to 8192 bit
- Supports ECDH up to P-521 bit
- Group Transport Protection: The device has the option of providing encryption and data integrity protection to all key exchange traffic including the initial key exchange traffic

### Encryption Algorithm/Modes:
- AES-CBC (256 bit)

### Hash Algorithm:
- HMAC-SHA1
- HMAC-SHA2 (256, 384, 512 bit)

### Performance:
- Zero-loss encrypted throughput up to 30Mbps (depending on IP packet size and used encryption mode)
- Support 20 concurrent IPSec tunnels

### Management:
- Interfaces: 10/100 Mbps Ethernet RJ45 (remote management and local configuration)
- RS232 local console interface (DB9 to RJ45)
- Security/Configuration: Extensive audit logging
- Alarm detection and logging
- SNMP v2c network management (operates with standard SNMP network management station)
- Supports up to 3-factor authentication

### Security Features:
- Tamper-resistant chassis
- Anti-tamper detection and response

### Physical Characteristics:
- Dimensions: 32mm(H) x 130mm(D) x 150mm(W)
- Weight: 700 grams
- Power Supply: External 7.5VDC, 3A, 100-240VAC, 47~63 Hz Adaptor
- Power Rating: 15W max

### Environmental:
- Operating Temperature: 0°C to 45°C
- Storage Temperature: -20°C to 70°C
- Humidity: Relative 95%, non-condensing

### Regulatory:
- EMC/EMI: FCC Part 15 Class B

### Optional Feature:
- Supports customized algorithm loading feature
NetCrypt R100

**Ruggedized High Performance IP Encryptor**

NetCrypt R100 is a ruggedized IP encryptor with operating temperature of up to 55ºC. NetCrypt R100 enables the user to leverage on public Ethernet/IP infrastructure to connect to multiple sites in a secure manner. NetCrypt R100 employs AES algorithm for data confidentiality, Secure Hash Algorithm (SHA) as well as Internet Key Exchange (IKE) protocol for integrity protection and user authentication. The built-in Firewall performs packet filtering and supports NAT/PAT features.

Supporting up to 80 tunnels with a maximum encrypted throughput of 100Mbps, NetCrypt R100 is ideal for deployments as a security gateway in mobile vehicle, outdoor deployment, corporate LANs, site-to-site VPN and site-to-site wireless inter-offices connectivity.

NetCrypt R100 is interoperable with NetCrypt series of IP encryptor, allowing user to form a secure VPN between the corporate HQ and remote sites/branch offices. With the flexibility to use industry standard Simple Network Management Protocol (SNMP) network management system, NetCrypt R100 allows local and remote monitoring of devices, and firmware field-upgrading to ease new features introduction, algorithm updates and maintenance.

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**Key Features**

- High-assurance IP encryptor with firewall capabilities
- 100 Mbps throughput aggregate
- IPSec standards-based encryption, authentication, digital certificates, and key management
- Supports AES algorithm for data confidentiality
- Supports 80 concurrent IPSec tunnels
- Easy deployment in existing network
- Ruggedized and suitable for outdoor deployment

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*Empowering thru' Innovation*
### Specifications

#### Network Interfaces:
- Trusted LAN 1 and Trusted LAN 2 ports: 2 x Ethernet RJ45 10/100/1000Mbps auto-sensing port
- External port: 1 x Ethernet RJ45 10/100/1000Mbps auto-sensing port

#### Networking Features & Protocols:
- IP Security/Encapsulating Security Protocol
- Support Layer 2 and Layer 3 encryption capability
- IP Compression
- QoS support
- Traffic flow confidentiality

#### High Availability Features
- Failover (Active/Passive Mode)
- Load balancing (Active/Active Mode)
- Priority based redundant secure nodes

#### Authentication
- Pre-shared key
- RSA public key signature (up to 4096 bit)

#### Key Management:
- Support Internet Key exchange (IKE v2)
- DH support up to 8192 bit
- Supports ECDH (up to P-521 bit)
- Group Transport Protection: The device has the option of providing encryption and data integrity protection to all key exchange traffic including the initial key exchange traffic

#### Encryption Algorithm/Modes:
- AES-CBC (256 bit)

#### Hash Algorithm:
- HMAC-SHA1
- HMAC-SHA2 (256, 384, 512 bit)

#### Performance:
- Zero-loss encrypted throughput up to 100Mbps (depending on IP packet size and used encryption mode)
- Support 80 concurrent IPSec tunnels

#### Management:
- Interfaces: 10/100/1000 Ethernet RJ45 (remote management and local configuration)
- RS232 local console interface (DB9 to RJ45)

#### Security/Configuration:
- Extensive audit logging
- Alarm detection and logging
- SNMP v2c network management
- Supports up to 3-factor authentication

#### Security Features:
- Tamper-resistant chassis
- Anti-tamper detection and response

#### Physical Characteristics:
- Dimensions: 44mm (H) x 420mm (W) x 285mm (D) (Rack mountable)
- Power Supply: External 18-32VDC, 100-240VAC Adaptor, 2.2A 50/60 Hz (60W nominal)

#### Environmental:
- Operating Temperature: -10°C to +55°C
- Storage Temperature: -20°C to +70°C
- Humidity: 95%, non-condensing

#### Induced (Mechanical) Environment
- Vibration: IEC 61373 Ø1999
- Shock: IEC 60068-2-27 Ø2008

#### Regulatory:
- EMC/EMI: FCC Part 15 Class B

#### Optional Feature:
- Supports customized algorithm loading feature