

HIGH PERFORMANCE SECURITY FOR DATA IN MOTION

The Datacryptor 5000 Series is a family of high-speed data in motion security platforms that deliver high performance encryption at near zero latency. Using advanced connectivity features, the Datacryptor 5000 Series secures data through Ethernet and IPv4/IPv6 Wide Area Networks. Industry-unique throughput optimization techniques ensure up to 95% network efficiency over Metro Carrier Ethernet, IP, cellular, and SATCOM networks. While other solutions merely encrypt data, Datacryptors provide a complete security solution that scales from simple point-to-point to many hundreds of endpoints. Ensuring many years of service, Datacryptors are field upgradeable to protect against new threats and to meet enhancements to security standards and best practices. The Datacryptor 5000 Series is the ultimate low impact, high performance solution for securing data in motion.

► Key Benefits

- Scales to many hundreds of encryptors in meshed architectures
- Throughput optimization yields up to 95% network efficiency
- Flow control and fragmentation ensure packet delivery over diverse networks
- Traffic Flow Security mitigates data analysis and side channel attacks



Thales e-Security

Datacryptor® 5000 Series Data in Motion Security Solutions





DATACRYPTOR® 5000 SERIES

TECHNICAL SPECIFICATIONS

Performance

- Multi-tenant group key encryption (maximum 1000 peers)
- Real-time encryption of the Ethernet payload (IEEE 802.3)
- Encryption independent of packet size and packet content
- Key changes without interruption of traffic
- Latency per device
 - **100 Mbps:** $\leq 40 \mu\text{sec}$
 - **1 Gbps:** $\leq 9 \mu\text{sec}$
 - **10 Gbps:** $\leq 4 \mu\text{sec}$

Key Management

- Ad-hoc device authentication
- Tamper resistant key storage
- Built-in key server for the distribution of group keys
- Automatic time-triggered change of master keys and group keys

Network

- Comparable to E-Line, E-Tree, E-Lan, VPLS, VPWS and other Ethernet services
- Support for Jumbo Frames
- Transparent to VLAN (including Q-in-Q), QoS, MPLS, Fibre Channel over Ethernet (FCoE)

Line Interfaces

- **10 Mbps:** 10Base-T TP RJ45 Full Duplex
- **100 Mbps:** 10/100Base-T TP RJ45 Full-Duplex
- **1 Gbps SFP Modules**
 - 1000Base-T SFP TP RJ45
 - 1000Base-X SFP MM LC (62.5/125 μ)
 - 1000Base-X SFP SM LC (9/125 μ) SR/IR/LR
 - 1000Base-X SFP DWDM/CWDM
- **10 Gbps XFP Modules**
 - 10GBase-R XFP MM LC (62.5/125 μ)
 - 10GBase-R XFP SM LC (9/125 μ)
 - 10GBase-R XFP DWDM/CWDM, tunable DWDM

Conformance

- CE, FCC

Crypto Technology

- AES-GCM 256-bit encryption
- Integrity and replay protection with Galois Counter Mode (GCM)
- Key generation with hardware random source
- Key exchange with Diffie-Hellman ECC algorithm (DH-ECKAS)
- Designed to meet FIPS 140-2 L3 and CC EAL 4**

System Management

- Configuration via serial console (RS-232/V.24) or Secure Shell via out-of-band Ethernet Management Port (RJ-45 10/100BT)
- Integrated monitoring of network status and operation
- Audit and event logging
- Remote monitoring via SNMP (V2c/V3 authpriv)
- Link monitoring via CryptoMon software

Hardware

- **Datacryptor 5100** – up to 100Mbps Compact Design
 - Wall Mountable and 19" Rack Mountable with optional rail and shelf kit accessories
 - H: 1.75"; W: 8.27"; D: 8.66"
 - Weight: 5.8 lbs
 - Chassis: no moving parts
 - Power Supply: 12-30V DC, 90-240V AC, 7W
 - Operating temperature 1°C to 50°C
- **Datacryptor 5200** – up to 100Mbps
 - 19" Rack Mountable, 1u
 - H: 1.75"; W: 17"; D: 9"
 - Weight: 8.8 lbs
 - Redundant Power Supply: 10-240V AC 50-60Hz, 11W
 - Operating temperature 1°C to 40°C
- **Datacryptor 5300** – up to 1Gbps
 - 19" Rack Mountable, 1u
 - H: 1.75"; W: 17"; D: 12.6"
 - Weight: 15.5 lbs
 - Redundant, Hot-Swappable PSU: 110-240V AC 50-60Hz or -48V DC, 115W
 - Operating temperature 1°C to 40°C
- **Datacryptor 5400** – up to 10Gbps
 - 19" Rack Mountable, 2u
 - H: 3.5"; W: 17"; D: 14.6"
 - Redundant, Hot-Swappable PSU: 110-240V AC 50-60Hz or -48V DC, 115W
 - Operating temperature 1°C to 40°C
- **Chassis:** Tamper resistant design
- **Relative humidity:** 10% - 85%, non condensing

* This Datasheet and related documentation are subject to continuous improvement. Thales reserves the right to change documentation without notice.

** Security certifications are performed only against select firmware versions. Consult the certifications section of our website for links to official certificates.

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