

ProtecD@R[®] Embedded Encryptor (DaR-400E)*

Ruggedized Data-at-Rest (DAR) Encryption



Protection for Data-at-Rest

Security for Secret and below

Protection against data compromise

Ruggedized for mobile and tactical applications

Simple remote device management

Overview

Developed for tactical environments, the new General Dynamics ProtecD@R[®] Embedded Data-at-Rest (DAR) Encryptor protects stored information classified Secret and below. Ideal for ruggedized VITA applications and unattended operational environments such as a tactical vehicle or UAV, the ProtecD@R Embedded Encryptor protects data from compromise during overrun or platform loss.

Benefits of ProtecD@R Data-at-Rest Security

- Transparent performance — minimizes read/write latency
- Supports technology growth through media evolution
- Simplified self-generated key management
- Cryptographic key erasure quickly renders stored data unreadable
- Simplified transport/shipping/archiving of encrypted drives

Features at a Glance

- VITA 3U form factor, conductively cooled, low Size, Weight and Power (SWaP)
- Encryption of information Secret and below
- Data protection from compromise during overrun or loss of platform
- Industry standard 1.5 and 3.0 Gbps SATA interfaces
- Remote management and zeroize
- Internal and external disk support
- Low latency

Planned Enhancements

- Support for Multiple Drives
- Unattended Operation

Availability

- Expected to be submitted to NSA for certification April 2011

* NSA certification pending



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Specifications

- Internal data capacity: 60GB SSD
- External drive capacity: no limit
- ECU configured with internal drive sustains:
 - 15.3 MBps write data rate
 - 89.4 MBps read data rate
 - 4765 write IOPS
 - 4977 read IOPS
- Crypto engine (external drive) sustains 187MBps write and 210 MBps read data rates
- Crypto engine latency is less than 1.1 µsec when operating at the 3GBps SATA rate
- Size
 - 0.97”H x 3.9”W x 6.3” D
- Weight
 - <24 ounces
- Environment
 - -40°C to 80°C (operating)
 - -40°C to 85°C (storage)
 - Altitude (non-operational): Pressures from 1,500 feet below sea level to 60,000 feet above sea level
- Rapid decompression (non-operational): 8,000 feet to 40,000 feet in not more than 0.5 seconds
- Shock (operating): MIL-STD-810F 20g 11 milliseconds
- Vibration (operating): MIL-STD-810F one hour 5-2000Hz
- Humidity: Operational at 30C, 95% RH
- Fungus resistance: MIL-KDBK-454B, Guideline 4
- Data Interface
 - 3.0 Gbps SATA revision 2.6 via VITA 46 backplane
- Native Command Queuing (NCQ) Support
- Power
 - 5VDC, 3.3VCD
 - <10 Watts
 - Transport battery module provided
- Cold Start: <30 Seconds
- CIK: Up to six per device, remoted via VITA 46 backplane.
- Zeroize: Front Panel Button and remoted via VITA 46 backplane
- Software Upgradable in the Field

Security

- Implements Suite B Algorithms

* NSA certification pending

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