



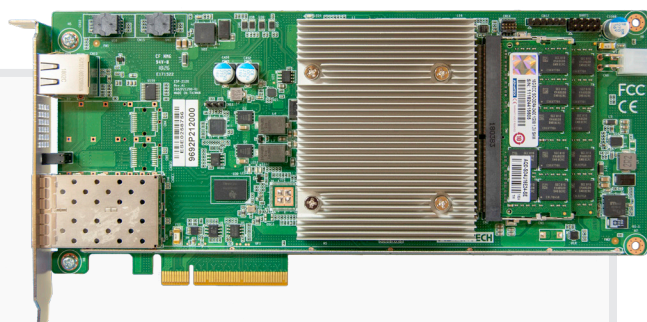
Myricom SIA

A 2x25G SmartNIC with 16 core ARM processor and 8-32GB DDR4 64GB Flash, 65 watt max power consumption, full height, 3/4 length PCIe adapter.

The Myricom® Secure Intelligent Adapter (SIA) SmartNIC can improve server and application performance by offloading a variety of host core-intensive functions.

Key Benefits

- **Enjoy easy installation and configuration:** ARIA SDS orchestrator offers zero touch configuration capabilities; apply per-application policies to each, groups of, or all SIAs.
- **Increase network throughput:** Achieve performance boosts for critical security applications.
- **Avoid server replacement costs and hassles:** Add Myricom SIA to existing infrastructure instead of replacing servers, at 1/10th the cost. This provides additional performance and increased network throughput.
- **Secure encryption keys:** Myricom SIA provides onboard TrustZone to store and serve keys—and keep them safe from a breach.

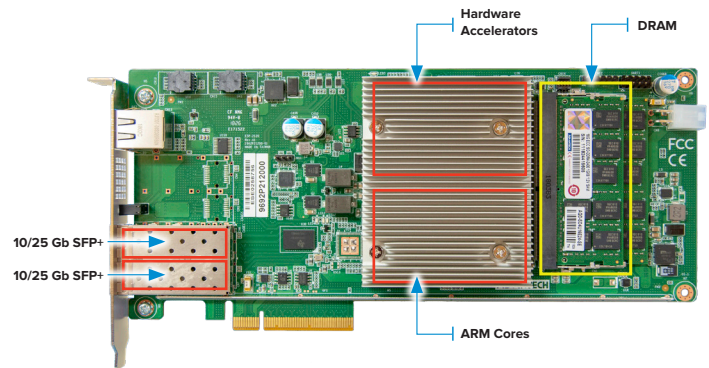


The Myricom SIA can host any of the ARIA Software-Defined Security (SDS) applications including:

- ARIA Packet Intelligence - designed to monitor the network, classify traffic and create NetFlow analytics
- ARIA Key Management Server - full life-cycle encryption key management

The best way to offload server-intensive functions

The Myricom SIA combines the functionality found in a next-generation high-speed network adapter with the programmability of a multi-core ARM processor to provide flexible application-specific feature support. The capabilities of this 10 or 25Gb dual port adapter card opens new possibilities for accurate threat detection and disruption, such as allowing new or existing servers to run security services at 50Gb network wire rates without impacting network performance.



Features and capabilities of the Myricom SIA include:

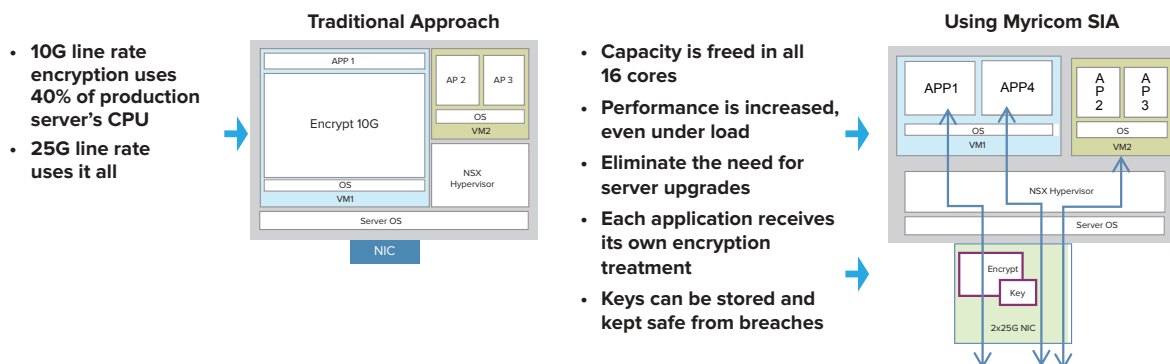
- Line rate packet classification
- Traffic Flow analytics generation
- Deep packet inspection (DPI)
- Deep multi-rule filtering allowing multiple operations on the same data set
- Support for, and the acceleration of, various security functions, such as asymmetrical and a symmetrical encryption

The Myricom SIA also provides a local secure zone of trust to store and run the encryption keys, which is also referred to as TrustZone. This execution environment prevents the exposure of encryption keys in the event that the host server is breached.

A new approach to overcome traditional challenges

One of the biggest benefits of the Myricom SIA is its ability to offload server-intensive operations, such as those found in Internet Protocol security (IPsec) encryption. Consider these potential scenarios:

- At 10G, IPsec could use up to 40% of a 16-core, high-end production server’s CPU.
- Latency of production applications can vary dramatically with encryption load.
- At 25G, IPsec could consume all of a 16-core server’s CPU.
- Offloading these tasks to the NIC frees CPU cycles for improved processing and performance.



Additional advantages

Leveraging the SIA for server offload allows organizations to dramatically reduce costs when adding advanced security applications that are distributed into server infrastructure. This is an advantage over deploying heavy-weight, server-based security applications that compete for server cores, consuming performance and increasing response time when the device is under load.

The programmability of the SIA allows it to take on additional workloads based on evolving security needs. In addition to crypto acceleration (including VPN, storage, encryption, tokenization, and more), many other network and security solutions and services (e.g., firewalls, IDS, DPI, deep rule-based filtering, application routing, reverse proxy, etc.) may be supported.

For organizations that leverage OVS or the VMware NSX architecture, Myricom SIA allows access to specific traffic flows between any VM (intra-server or inter-server) to take advantage of the ARIA security features. OVS or NSX installations leveraging SIA functionality can experience a tenfold improvement in application performance by offloading key functions such as encryption and key management.

SPECIFICATIONS	
Dimensions	4.2" x 9.6"
Bus interface	PCI Express Gen 3, 8 lanes wide
Form factor	PCI Express full height, three quarter length
Electrical power	< 65W
Cooling Requirements	It is required that adapters be installed into servers that provide air flow over the PCIe slots.
Cooling Options	Passive cooling
Operating Temperature	0-50 deg C (250 LFM min at max ambient temperature)
Storage Temperature	-40 to 70 deg C
Storage Humidity	5% to 90% non-condensing
Processor	Network SoC – 16x, 2.0 GHz ARM cores
Hardware Acceleration	Support for, and the acceleration of, various security functions, such as symmetrical and asymmetrical encryption Line rate packet classification Deep packet inspection (DPI) Flow generation
Memory	8-32GB DDR4 64GB Flash
Network Connectivity	Dual SFP+/SFP28 ports; 10 or 25G, 1x1000Base-T - RJ-45
Software Support	Host side Drivers available for Linux (CentOS, RHEL, and Ubuntu) Supports DPDK for Linux (high-performance packet processing)
SW Version supported	ARIA SDS
Security	ARIA Packet Intelligence ARIA KMS ARM TrustZone Secure Boot Secure Key Storage
Throughput	2x10/25Gb/s
WARRANTY AND COMPLIANCE	
Safety	CE and UL
Regulatory approvals, compliance	RoHS (Reduction of Hazardous Substances). EMI and EMC, Class A USA, Canada, and Europe.
Country of Origin	Taiwan

Warranty	One year for hardware defects and 90 days for software defects. 90 days of “getting started” telephone and email support, as well as any software upgrades shipped within that window. Refer to the support datasheet for options extending the hardware warranty.
Ordering Details	<p>25G-PCIE3-8B-2S SIA - Dual 10/25G Security Intelligent Adapter. Includes 32 GB of DDR4 memory.</p> <p>25G-PCIE3-8B-2S-16 SIA - Dual 10/25G Security Intelligent Adapter. Includes 16 GB of DDR4 memory.</p>
Cables and transceivers	Contact your Account/Sales representative for more information on cables and transceivers that are compatible with this adapter.

Contact Us to Schedule a Technical Demonstration or Arrange an Evaluation ✉ ARIAsales@ariacybersecurity.com

ABOUT ARIA CYBERSECURITY SOLUTIONS

ARIA Cybersecurity Solutions recognizes that better, stronger, more effective cybersecurity starts with a smarter approach. Our solutions provide new ways to monitor all internal network traffic, while capturing and feeding the right data to existing security tools to improve threat detection and surgically disrupt intrusions. Customers in a range of industries rely on our solutions each and every day to accelerate incident response, automate breach detection, and protect their most critical assets and applications. With a proven track record supporting the Department of Defense and many intelligence agencies in their war on terror, and an award-winning portfolio of security solutions, ARIA Cybersecurity Solutions is committed to leading the way in cybersecurity success.

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