

Data Reduction and Security Products

OVERVIEW

Chip Down Solutions

9240	40-640Gbps Throughput	Panther II
8204	6.4-102.4Gbps Throughput	Panther I
8201	0.8-12.8Gbps Throughput	Panther I

PCIe Card Solutions

DX2040	40Gbps Throughput	Panther II
DX2040-SX4	30Gbps Throughput	Panther II

MARKET REQUIREMENTS

- Faster dataset delivery
- Accesses to all levels of dataset
- High performance analytics
- Improve workload results with quicker access to larger dataset
- Six 9's reliability
- Expand storage capacity
- Slash capital cost of storage

PANTHER SOLUTION

- 8X lower latency
- 5x increased data throughput
- Fastest response times
- Highest compression ratios
- Data temp transitioning
- Enhanced deduplication hit rates
- Single pass Compression/Encryption/Hash
- Complete Suite B Security
- End-to-end data protection
- Real-time verification
- Software backup on all operations

APPLICATIONS

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| <ul style="list-style-type: none"> ■ Data Reduction <ul style="list-style-type: none"> □ Cloud □ Big Data □ Storage capacity optimization (SCO) □ Web-based application □ Point-to-Point wireless □ Closed network | <ul style="list-style-type: none"> ■ Cryptography <ul style="list-style-type: none"> □ Cloud □ Gateway □ Smart Grids □ VoIP □ SSL/TLS □ IPsec communication □ Firewall WAN □ Wireless backhaul |
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The Need for Data

Around the world, there is an ever-increasing demand to securely store larger and larger amounts of data. Additionally, everyone wants instant access to their data. Today's data storage solutions are faced with the challenge of meeting these demands while increasing workload result accuracy, lowering capital expenditures and improving reliability.

Fastest Data Access

MaxLinear's Panther products deliver the lowest latency, highest throughput compression and security acceleration. Powerful data reduction technology intelligently off-loads the CPU by providing multiple independent parallel transform engines. Each engine provides simultaneous compression, encryption, and hash. Panther opens all tiers of storage, including All-Flash-Array and NVMe, to its full bandwidth potential with no CPU or software limitations.

Optimized Acceleration Architecture

Panther is an ideal solution for large data set applications like data warehouse and big table. Its flexible compression algorithms enable simple data temperature transition, optimizing access latency for hot, warm and cold data. When combined with Panther Class of Service, traffic handling can be prioritized for provisioning, enforcing service agreements or ultra-fast access to hot data reads.

Panther lowers capital storage costs by delivering both improved storage capacity and \$/GB savings. In addition, its single pass execution provides faster dataset delivery enabling high performance analytics with improved workload results. It also offers built-in, end-to-end real-time verification (RTV) of all transforms, assuring data integrity and eliminating data loss.

Panther Series Data Reduction & Security Products

Product	Interface	Throughput	Max Cascaded Throughput	Compression	Packet Acceleration	Authentication / Hash	Public Key	Public Key Performance	Typ Power
9240 (Panther II)	PCIe Gen3 x8	40.0 Gbps	640.0 Gbps	gzip/zlib/Deflate L4, eLZS/LZS	IPsec, IPComp, SSL/TSL	SHA-1/SHA-2	RSA, DSA, DH, ECDSA, ECDH	40.0K (RSA 2Kb) Ops	14.6W
8204 (Panther I)	PCIe Gen1 x4	6.4 Gbps	102.4 Gbps	gzip/zlib/Deflate L1, eLZS/LZS				14.2K (RSA 1Kb) Ops	2.1W
8201 (Panther I)	PCIe Gen1 x4	0.8 Gbps	12.8 Gbps	gzip/zlib/Deflate L1, eLZS/LZS				1.8K (RSA 1Kb) Ops	1.0W
DX2040 (Panther II)	PCIe Gen3 x8	40.0 Gbps	640.0 Gbps	gzip/zlib/Deflate L4, eLZS/LZS				40.0K (RSA 2Kb) Ops	17.0W
DX2040-SX4 (Panther II)	PCIe Gen3 x4 (x8 slot)	30.0 Gbps	480.0 Gbps	gzip/zlib/Deflate L4, eLZS/LZS				40.0K (RSA 2Kb) Ops	17.0W

Data Reduction

- Leading Compression Ratio
- Low Latency
- Deduplication Enabled
- Security for all data types



Cloud, Big Data, Storage capacity optimization (SCO), Web-based application, point to point wireless, and closed network

Cryptography

- Public Key generation, encryption/decryption
- Full Suite B Algorithms (Secret and Top Secret)
- Authentication
- Digital signature generation/validation



Cloud, Gateway, Smart Grids, VoIP, SSL/TLS, IPsec communication, Firewall WAN and Wireless backhaul




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