

Marvell® QLogic® EP2532

Dual Port 8-Gbps Fibre Channel to PCI Express Controller

- Virtualization optimized
- Power optimized
- Reliability, availability, serviceability (RAS) optimized
- Security optimized
- Management optimized
- Fibre Channel 8Gb to PCI Express x8
- 1600 MBps (full-duplex) per port
- 200,000 initiator and target IOPS per port
- Integrated SSRAM
- Small footprint (31mm x 31mm) package
- StarPower™ technology

EP2532 Controller

The EP2532 is a PCI Express to 8Gb Fibre Channel controller. The EP2532 delivers 200,000 initiator and target IOPS and up to 1600-MBps (full-duplex) per port.

Virtualization Optimized

The EP2532 delivers enhanced security, quality of service (QoS), and enables dynamic provisioning. The EP2532 allows multiple logical (virtual) connections to share the same physical port. Each logical connection has its own resources and the ability to be managed independently.

Power Optimized

The EP2532 takes advantage of QLogic StarPower technology, ensuring power efficiency. QLogic StarPower technology offers dynamic and adaptive power management features such as power and bandwidth optimized intelligent PCI Express link training.

RAS Optimized

The EP2532 ensures the highest level of reliability by offering overlapping protection domains (OPD) on both the data and control paths. In addition, the EP2532 enhanced hardware assist firmware tracing (EHAFT) feature provides a comprehensive debug tool to capture firmware and Fibre Channel traces.

Security Optimized

The EP2532 enables SAN-level authentication (Fibre Channel Security Protocols), fabric-level isolation (N_Port ID virtualization), and is capable of end-to-end data integrity (T10).

Management Optimized

The EP2532 is backward compatible with 4Gb and 2Gb speeds. The EP2532's API compatibility with 4Gb products accelerates deployment while ensuring application compatibility.

Investment Protection

For over 20 years, QLogic has been a technological leader with products that address the current needs of customers, yet provide strong investment protection to support emerging technologies and standards. QLogic stands alone in the industry with its product portfolio depth and experience in successfully delivering technological solutions that address the needs of today and tomorrow.

Fibre Channel Specifications

Negotiation

- 8/4/2Gbps auto-negotiation

IOPS

- 200,000 initiator and target IOPS

Class of Service

- 2 and 3

Topology

- FC-AL, FC-AL2, point-to-point, switched fabric

Protocols

- FCP-3-SCSI
- FC-Tape (FCP-2)
- FICON (FC-SB-2)
- FC-VI

PCI Express Interface

Compliance

- *PCI Express Base Specification rev. 2.0*
- *PCI Express Card Electromechanical Specification rev. 2.0*
- *PCI Bus Power Management Interface Specification rev. 1.2*
- *PCI Hot Plug Specification rev. 1.0*

Electrical

- PCIe x8 maximum Gen1 rate
- PCIe x4 maximum Gen2 rate

Controller Specification

Ports

- Dual 8Gbps Fibre Channel

Memory

- Integrated 1-MB per port SSRAM

Input Voltages

- Core: 1.0V
- SerDes: 1.8V
- I/O: 3.3V

Temperature

- 110°C maximum junction temperature

Controller Specification

Airflow

- System-design dependent

Power Consumption

- 4.0 Watts (typical)

Storage Temperature

- -45 to 125°C

RoHS Compliance

- RoHS 6

Packaging

- 31mm x 31mm
- 880-ball (FCBGA)
- Ball pitch 1.0mm

Ordering Information

EP2532

- Ships with a minimum order quantity of 108 devices (27 devices per tray x 4 trays), and increments in a multiple of 27 (1 tray)

Disclaimer

Reasonable efforts have been made to ensure the validity and accuracy of these performance tests. QLogic Corporation is not liable for any error in this published white paper or the results thereof. Variation in results may be a result of change in configuration or in the environment. QLogic specifically disclaims any warranty, expressed or implied, relating to the test results and their accuracy, analysis, completeness or quality.



To deliver the data infrastructure technology that connects the world, we're building solutions on the most powerful foundation: our partnerships with our customers. Trusted by the world's leading technology companies for 25 years, we move, store, process and secure the world's data with semiconductor solutions designed for our customers' current needs and future ambitions. Through a process of deep collaboration and transparency, we're ultimately changing the way tomorrow's enterprise, cloud, automotive, and carrier architectures transform—for the better.

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