

Highlights

- High-reliability PCIe: robust error containment, hot- and surprise-plug controllers per port, end-to-end data integrity protection, ECC protection on RAMs, high-quality, low-power SERDES
- Comprehensive diagnostics and debugging: PCIe generator and analyzer, per-port performance and error counters, multiple loopback modes and real-time eye capture
- Significant power, cost and board space savings with support for:
 - Up to 48 ports, 48 NTBs and 24 virtual switch partitions
 - Flexible x2, x4, x8 and x16 port bifurcation with no restrictions on configuring ports as either upstream or downstream or on mapping ports to NTBs

Peripheral I/O Interfaces

- Up to 11 Two-Wire Interfaces (TWIs) with SMBus support
- Up to 2 SFF-8485-compliant SGPIO ports
- Up to 109 parallel GPIO pins
- Up to 4 UARTs
- JTAG and EJTAG interface

High-Speed I/O

- PCIe Gen3 8 GT/s
- Supports PCIe-compliant link training and manual PHY configuration

Power Management

- Active State Power Management (ASPM)
- Software controlled power management

Chiplink Diagnostic Tools

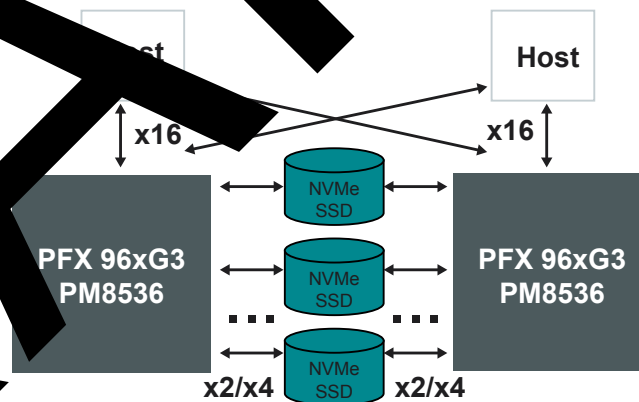
- Extensive debug, diagnostics, configuration and analysis tools with an intuitive GUI
- Access to configuration data, management capabilities and signal integrity analysis (such as real-time eye capture)
- Connects to device over in-band and/or sideband signals (UART, TWI and EJTAG)

Evaluation

The evaluation kit is a device evaluation environment supporting multiple host and SSD interfaces. These kits can be used for evaluation of the Switchtec PCIe Fanout switches. Note that the single lane PCIe switches are populated on the evaluation kit. The following kit is available:

- PM5460-15-100-10-10-SX/PFX/PFX-I/PFX-L 96/80/64xG3 PCIe Switch Evaluation Kit (PMC-2151996)

Example Application



Ordering Information

Product	Lanes	Ports/NTBs	Partitions	Hot-plug Controllers	Package	PFX Ordering No.	PFX-I Ordering No.
96xG3 PCIe Fanout Switch	96	48	24	48	37.5 mm x 37.5 mm	PM8536B-FEI	PM8576B-FEI
80xG3 PCIe Fanout Switch	80	40	20	40	37.5 mm x 37.5 mm	PM8535B-FEI	PM8575B-FEI
64xG3 PCIe Fanout Switch	64	32	16	32	37.5 mm x 37.5 mm	PM8534B-FEI	PM8574B-FEI
48xG3 PCIe Fanout Switch	48	24	12	24	27.0 mm x 27.0 mm	PM8533B-F3EI	PM8573B-F3EI
32xG3 PCIe Fanout Switch	32	16	8	16	27.0 mm x 27.0 mm	PM8532B-F3EI	PM8572B-F3EI
24xG3 PCIe Fanout Switch	24	12	6	12	27.0 mm x 27.0 mm	PM8531B-F3EI	PM8571B-F3EI

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