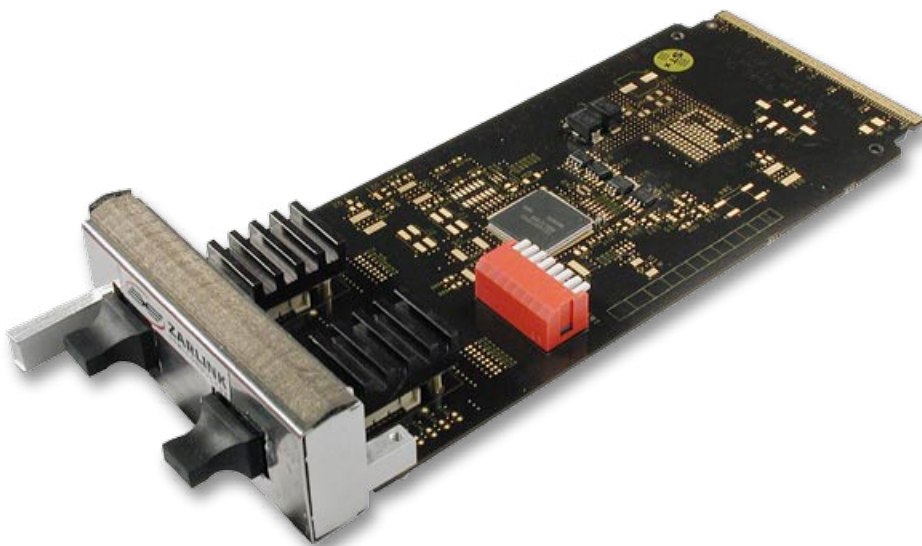


# AMC Optical Extender Card for Serial RapidIO **ZLE60400**

## PRODUCT PREVIEW

The ZLE60400 AMC (advanced mezzanine card) optical extender card for Serial RapidIO provides 25 Gbps of ATCA and microTCA system interconnect in a hot pluggable, standard AMC form factor. The ZLE60400 features Zarlink's ZL60304 four-port optical transceiver technology for electro-optical conversion of the RapidIO electrical signals for transmission up to 100 meters over widely available parallel ribbon fiber. The card delivers up to 25 Gbps of bandwidth across eight individual ports operating at 3.125 Gbps.

The ZLE60400 AMC card supports the extension of RapidIO infrastructures, by providing RapidIO system architects, designers and software developers with an easy-to-use, low-cost solution for proof-of-concept, customer demonstration, and interoperability testing through to final system design.



### **ATCA AMC Reference Design with Zarlink PFOM Technology**

- ➔ ZLE60400 AMC optical extender card integrates two ZL60304 four-port optical transceivers
- ➔ Interoperability with RapidIO
- ➔ 25 Gbps total bandwidth
- ➔ JTAG interface
- ➔ MMC control for IMPI
- ➔ 12 V DC power requirement, local power option for stand-alone operation
- ➔ Half/full height, single-width size AMC slot (180 mm x 74 mm), weighs just 425 g
- ➔ Standard operating temperature of 0° C to 50° C, extended operating temperature available
- ➔ Standards compliance with AMC.0, AMC.1, AMC.4 and RoHS-5

### **ZL60304 Parallel Fiber Optic Module**

- ➔ Four transmit and four receive channels each operating at up to 3.125 Gbps for a maximum throughput of 12.5 Gbps per module
- ➔ Transmission range of 300 meters at 2.5 Gbps and 100 meters at 3.125 Gbps
- ➔ Channel BER of  $10^{-12}$  optimizes data integrity
- ➔ Optical Interconnection
  - widely used parallel optical fiber ribbon
  - based on industry-standard MPO/MTP connectors
- ➔ Industry-leading long-term reliability

### **Customer Support**

The fully populated ZLE60400 AMC optical extender card reference design is available now. Optical fiber ribbon cables are also available at request. For further information please contact Marco Ghisoni (marco.ghisoni@zarlink.com).

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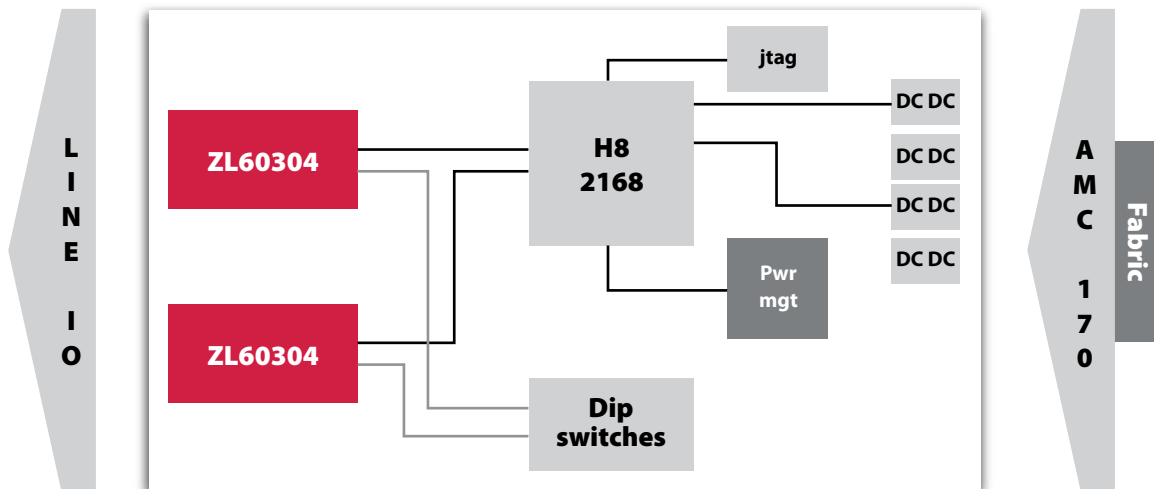
## APPLICATION

The ZLE60400 AMC optical extender card for Serial RapidIO is a turnkey solution that reduces development time, cost and complexity of optically enabled cards used in ATCA and computer centers. Integrating Zarlink's ZL60304 four-channel PFOM (parallel fiber optic module) technology, the reference design provides equipment designers and manufacturers with scalable, high throughput interconnections of beyond 100 meters within and between racks, shelves, and boards.

The ZLE60400 RapidIO optical extender card reference design is a stand-alone solution that can be used with off-the-shelf processing and I/O boards to create proof-of-concept, customer demonstration and interoperability testing systems, and application software development environments. Supporting a high degree of design flexibility, the reference design card interoperates with a range of industry-standard mechanical connectors, including AMC, SMA (SubMiniature version A), HIP (Hardware Interoperability Platform) and 4xIO differential cable connectors.

The ZLE60400 optical extender card reference design integrates Zarlink's ZL60304 parallel fiber optic transceiver. Delivering industry-leading long-term reliability, the ZL60304 is a very high-speed transceiver for parallel fiber applications. This transceiver performs E/O and O/E conversions for data transmission over multimode fiber ribbon. The device provides a cost-effective and power efficient solution for extending the reach of RapidIO based architectures.

The ZL60304 device's transmit section converts parallel electrical input signals via a laser driver and a VCSEL array into parallel optical output signals at a wavelength of 850 nm. The receive section converts parallel optical input signals via a PIN photodiode array and a transimpedance and limiting amplifier, into electrical output signals. The module is fitted with a pluggable industry-standard optical connector for the optical interface.



For more details, contact

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