

Applications

- ▶ Transponders
- ▶ Muxponders
- ▶ Add-Drop Multiplexers
- ▶ Routers
- ▶ Line Cards

Main Features

- ▶ 1 x SFP+ Network Interface
 - ▶ OTU2
 - ▶ OC-192/STM-64
- ▶ 3 x SFP Client Interfaces
 - ▶ OTU1
 - ▶ OC-3/12/48
 - ▶ STM-1/4/16
 - ▶ 1000BASE-X
 - ▶ CPRI up to 4.9 Gbit/s
 - ▶ FC-15/25/50/100/200/400
- ▶ 1 x Management Ethernet
- ▶ 1 x XAUI
- ▶ 1 x PCIe
- ▶ PICMG® AMC.0 R2.0, AMC.1, AMC.2



Available
Q2 2013

PRELIMINARY
(SPEC MAY CHANGE WITHOUT NOTICE)

XS-AMC5 is a highly integrated Multi-Rate Multi-Protocol PHY Advanced Mezzanine Card (AMC) supporting efficient and flexible OTN switching, mapping and multiplexing at ODU0/ODUflex granularity.

XS-AMC5 provides one High-Speed SFP+ interface supporting OTU2 or OC-192/STM-64 and three Lower-Speed SFP interfaces supporting OTU1, OC-3/12/48, STM-1/4/16, Fiber Channel, 100/1000 Ethernet, POS and Constant Bit Rate Clients.

The AMC is controlled from an external processor over a PCI Express interface. Comprehensive software is provided to control and monitor the card.

Compliant with PICMG Advanced Mezzanine Card AMC.0, AMC.1 and AMC.2, XS-AMC5 can be used on AdvancedTCA™, MicroTCA and proprietary platforms.

Ordering Information

XS-AMC5

10G OTN AMC

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XS-AMC5

10G OTN AMC

OTN

- ▶ OTU2 up to 11.32 Gbit/s
- ▶ OTU1
- ▶ ODU0, ODUflex, ODU1, ODU2
- ▶ G.709 FEC
- ▶ G.975.1 I.4 EFEC
- ▶ G.975.1 I.7 EFEC

AMC

- ▶ PICMG® AMC.0 Rev 2, AMC.1 and AMC.2 compliant
- ▶ Single width
- ▶ Mid-size or Full-size
- ▶ Intelligent Platform Management Interface (IPMI)
- ▶ 1 x1000BASE-BX links (AMC.2) towards Switching Fabric (Lane 0)
- ▶ 1 x XAUI (AMC.2) towards Switching Fabric (Lane 8-11)
- ▶ Hot-Swap

MIPS Processor

- ▶ MIPS 4KEm
- ▶ 200 MHz MIPS 32
- ▶ 32 KB Data Cache
- ▶ 32 KB Instruction Cache
- ▶ 256 KB RAM
- ▶ Internal Boot ROM
- ▶ Watchdog Timer
- ▶ Interrupt Controller
- ▶ Two-Wire Interface Controller
- ▶ Runs Proprietary Code handling
 - IEEE 1588v2 (PTP),
 - IEEE 802.3ah (Link OAM),
 - Synchronous Ethernet, ...

Packet Interface (XAUI)

- ▶ XAUI
- ▶ 4 Lanes @ 3.125 Gbps
- ▶ VLAN to ODUk Mapping
- ▶ ODUk to VLAN Mapping

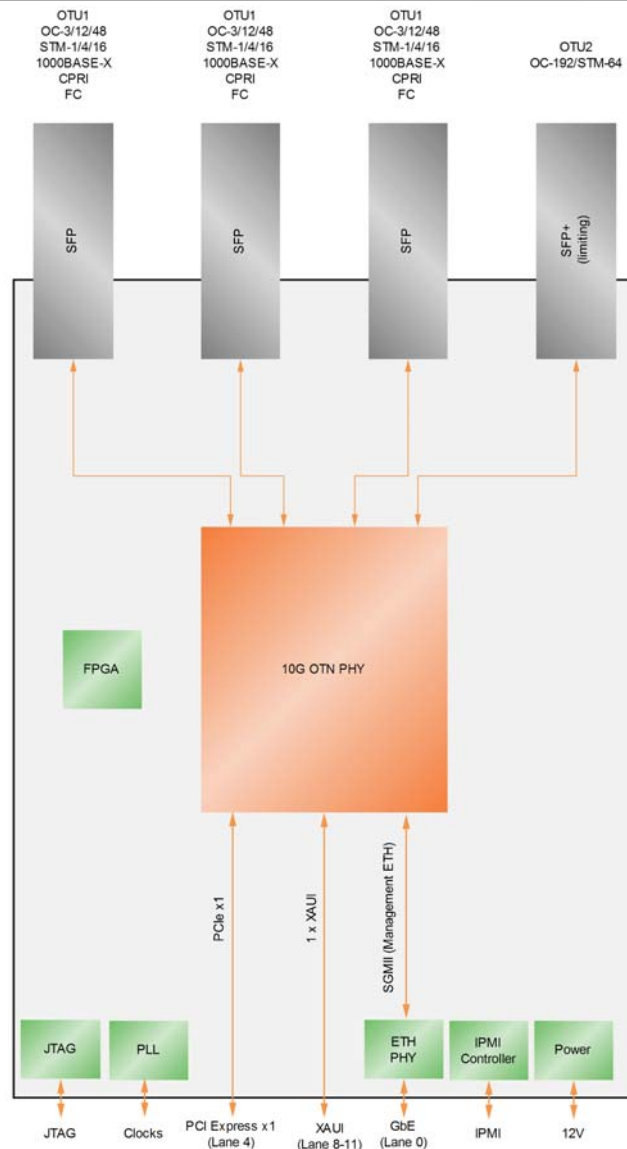
Ethernet

- ▶ 1000BASE-X
- ▶ 100BASE-FX (via SGMII SFP)
- ▶ 802.3 Flow-Control
- ▶ Supports Jumbo Frames
- ▶ Supports Synchronous Ethernet
- ▶ Ethernet OAM

SONET / SDH

- ▶ SONET / SDH Framers
- ▶ STS-1 Granularity Cross-Connect
- ▶ Access to Transport Overhead Bytes

Block Diagram



XALYO SYSTEMS

XS-AMC5

10G OTN AMC

System busses

- PCI Express
 - ▶ Version 1.1
 - ▶ Endpoint
 - ▶ x1 (lane 4)
 - ▶ 2.5 Gbps
 - ▶ Supports Reference Clock (FCLKA)

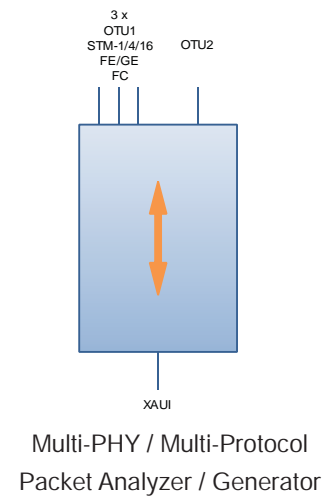
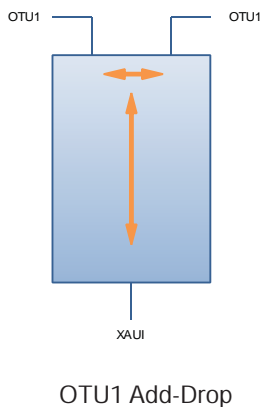
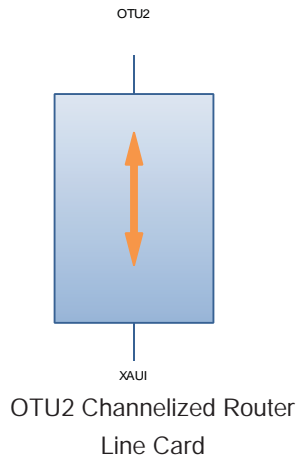
I/O Support

- SFP+
 - ▶ 1 x OTU2, or
 - ▶ 1 x OC-192/STM-64
 - ▶ Limiting SFP+ only
- SFP
 - ▶ 3 x OC-3/12/48
 - ▶ STM-1/4/16
 - ▶ 10/100 Ethernet
 - ▶ POS
 - ▶ FC-12/25/50/100/200/400
 - ▶ CBR up to 5 Gbps

Telecom Clock

- ▶ Reference Clock Output to Backplane (TCLKB)
- ▶ Reference Clock Input from the Backplane (TCLKA: 2 KHz, N x 8 KHz up to 77.76 MHz)

Application Examples



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