

PEX 8111 Key Features

- ◆ Forward and Reverse Modes
- ◆ Low Power Consumption (400mW)
- ◆ Small Footprint
- ◆ 10 x 10mm Fine Pitch BGA Package
- ◆ 13 x 13mm Standard Pitch Package
- ◆ Lead-Free Package Available
- ◆ Supports PCI 32-bit, 33MHz thru 66MHz

PEX 8111 Other Features

- ◆ Completely Integrated PCIe PHY
- ◆ 128-byte Max Payload
- ◆ PCIe Flow Control Buffering
- ◆ 8 Outstanding PCIe Transactions
- ◆ External EEPROM Configuration Option
- ◆ 4 GPIO Pins for Maximum Flexibility
- ◆ 3.3V I/O and Optional 5V Tolerant PCI Bus
- ◆ JTAG
- ◆ Programmable Internal Arbiter
- ◆ Allows for External Arbitration
- ◆ Supports up to 4 PCI Masters
- ◆ Option to Provide PCI Clock
- ◆ Supports PCI and Virtual Interrupts (MSI)

Application:

Single Port DS3/E3 ATM Advanced Mezzanine Card for Telecom Edge Access

PLX Product:

PEX 8111 - x1 PCIe to PCI Bridge

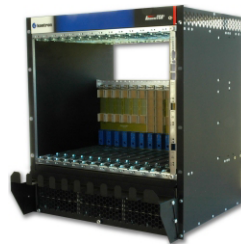
Key Benefit:

Leverage PCI-based Designs into PCI Express

Telecom Systems Move to PCI Express

High availability telecom edge access applications systems have adopted PCI Express (PCIe) to allow systems to deliver high performance, better reliability, smaller size, lower cost and performance scalability into the future. The PCI Industrial Computer Manufacturing Group (PICMG) has

developed the ATCA (Advanced Telecom Computing Architecture) standard, migrating the PCI-based CompactPCI specifications, using PCIe-based I/O standards. One such specification is the AMC.1 (a.k.a. Advanced Mezzanine Card), which is a hot swappable daughter card for ATCA system boards. The AMC.1 specification calls out PCIe as the interconnect standard. Many of the existing cPCI functions are now required in the AMC form factor. This requires the cards to have new I/O interfaces. Redesigning the I/Os on the OC-3 SAR chip to support PCIe is a costly and time-consuming activity, and actually may never happen due to IP required to deploy PCIe.



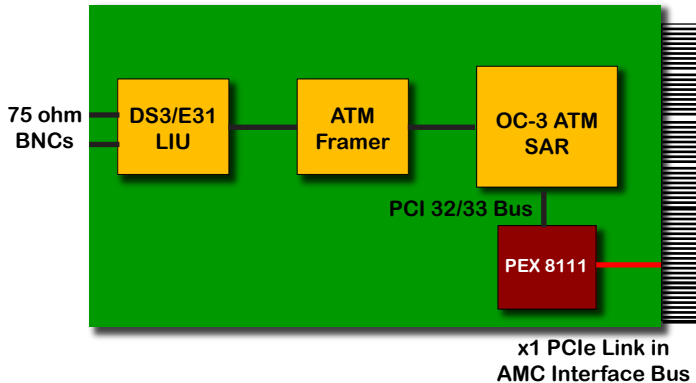
This Transition Calls for a Bridge



The PEX 8111 from PLX provides the transitional silicon solution. It allows the AMC designer to leverage an existing cPCI design, which uses PCI-native silicon, directly into the AMC.1 form factor. The 32-bit PCI-native SAR connects directly to the PEX 8111 PCI bus and is converted into the PCIe protocol with very little impact to power or board space.

AMC Card Gets Into the ExpressLane

Here's a closer look at the design of the AMC Card. It is a single wide, full height, AMC.1 compliant ATM adapter, featuring a front I/O full duplex DS3/E3 interface. This card uses PCIe to communicate with the host processor in an ATCA system. The Segmentation and Reassembly (SAR) segments and reassembles AAL0, AAL3/4, and AAL5 cells. It will manage and pass AAL1, AAL2, and raw cells. This card includes one full duplex DS3/E3 port.



Key Advantages of Using PLX

PLX is the industry's leading supplier of PCI Express I/O interconnect Switches and Bridges. The company is focused on the design and support of silicon in the first wave of PCI Express systems. PLX is also an Executive Member of the PICMG and was a key contributor to the newly released PCI Express AMC.1 specification. The PEX 8111 Bridge has become the de-facto standard for upgrading PCI components and adapter cards to the AMC form factor.

Lead-Free Packaging Available NOW!

The PEX 8111 is available in lead-free, RoHS-compliant versions as well as the traditional leaded packages.

Part Number	Package
PEX 8111-BB66BC	Standard, Leaded BGA Package
PEX 8111-BB66BC F	Lead-Free, RoHS BGA Packaging
PEX 8111-BB66FBC	Fine Pitch, Leaded BGA Package
PEX 8111-BB66FBC F	Fine Pitch, Lead-Free, RoHS BGA Packaging

PLX Advantage Summary

- ◆ The industry's best PCI Express expertise and support
- ◆ Lowest Power (400mW)
- ◆ Smallest Footprint

Design Tools & Documentation: On PLX Public ToolBox:

http://www.plxtech.com/products/pci_express/PEX8111/default.asp

- ◆ Data Book, IBIS Models, App Notes, Product Brief, Hspice Models

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