

## PEX 8111 Key Features

- ◆ Small Package Size
  - 10x10mm Fine-Pitch BGA
  - 13x13mm Easy-Pitch BGA
- ◆ Low Power 400mW design
- ◆ Single (x1) PCI Express Lane
- ◆ 32-bit/66 MHz PCI Interface
- ◆ Large 8KB Internal FIFO

## Other Features

- ◆ Supports Both Forward and Reverse PCI Express Bridging Modes in single chip.
- ◆ Completely integrated PCI Express PHY
- ◆ 128 byte maximum PCI Express payload size
- ◆ PCI Express Flow Control Buffering
- ◆ Eight (8) outstanding PCI Express Transactions
- ◆ External EEPROM configuration option
- ◆ Four (4) GPIO pins for maximum design flexibility
- ◆ 3.3V I/O and 5V tolerant PCI
- ◆ JTAG
- ◆ External arbiter or internal programmable arbitration for up to four bus masters
- ◆ Option to provide PCI clock
- ◆ Supports PCI and Virtual Interrupts (MSI)
- ◆ Lead-free packaging also available

## Application:

***Advanced Mezzanine Card (AdvancedMC™) for PCI Express***

## PLX Product:

***PEX 8111 – PCI Express-to-PCI Bridge***

## Key Benefit:

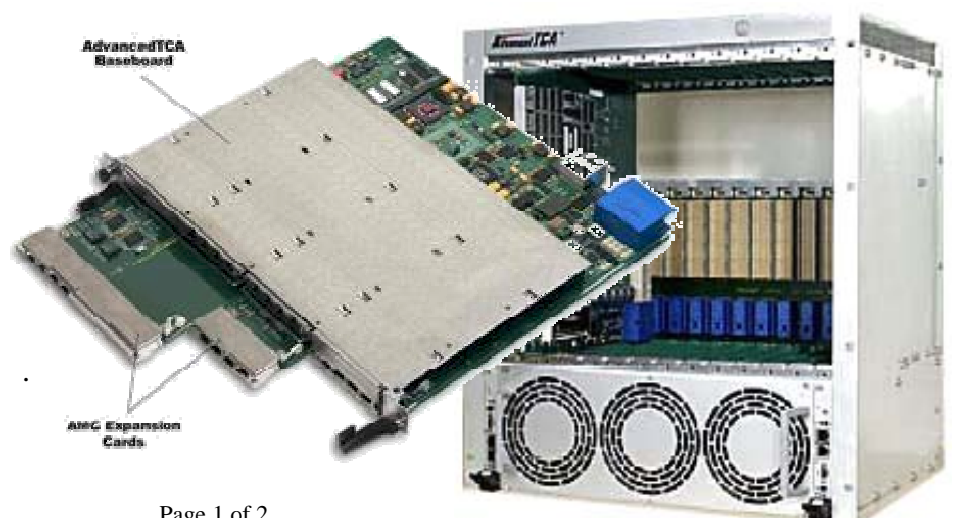
***Easy Upgrade to New AdvancedMC PCI Express Standard (AMC.1)***

## New Add-on Card Standard for PCI Express

The PCI Express standard has been widely adopted by the Computing, Storage, Graphics, Communications, Embedded, Industrial and Consumer markets. One standards body, known as PICMG, with a long history of creating PCI-based specifications, has worked with industry leaders to define a hot-swappable daughter board module for PCI Express known as AMC.1

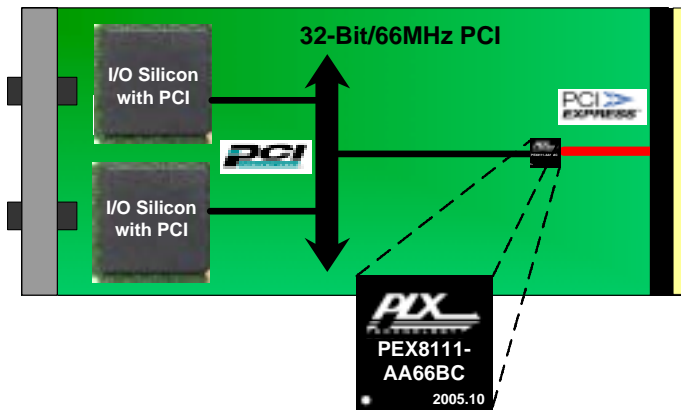
(a.k.a. Advanced Mezzanine Card, AdvancedMC, AMC-dot-one, AMC.1). AMC.1 cards can be designed to support a variety of communications, networking, processor, DSP, Data Acquisition, Storage or other I/O

functions. The cards are intended to interface to an AdvancedTCA™ carrier board or chassis designed to accommodate AMC.1 modules.



## The Key is PCI Express Performance in a Small, Low Power Bridge

The PEX 8111 enables designers to quickly and easily upgrade existing PCI-based cards to the new AdvancedMC PCI Express interface. Whether the legacy product is a standard PCI add-on card, PCI Mezzanine card, or some other form factor, the addition of the PEX 8111 requires only *1 square centimeter* of additional board real estate to convert the PCI interface to the new serial PCI Express. In addition, the bridge typically only draws about 400 milliwatts of additional power.



Enlarged View of PEX 8111 Bridge

## Key Advantage of Using PLX

PLX is the industry's leading supplier of I/O interconnect Switches and Bridges for PCI Express. 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 PCI Industrial Computer Manufacturer's Group (PICMG) and was a key contributor to the newly released AdvancedMC Specification (AMC.1) for PCI Express. The PEX 8111 Bridge has become the de-facto standard for upgrading PCI components and adapter cards to the AdvancedMC PCI Express form factor.

## Test Design Concept Now With Rapid Development Kit

The PEX 8111 Forward Bridge Mode Rapid Development Kit (PEX 8111 RDK-F) provides a quick utility to prove out your design concept. The RDK offers a known, working hardware environment similar to the design of PCI components behind the PCI Express-to-PCI Bridge.

## Additional PLX Advantages

- ◆ Superior PCI Express design expertise and support
- ◆ The PEX 8111 is fully certified by the PCI SIG and is listed on its Integrator's list for PCI Express.
- ◆ PEX 8111 also operates as Reverse Bridge

## Design Tools & Documentation:

On PLX Public ToolBox:

[http://www.plxtech.com/products/pci\\_express/PEX8111/default.asp](http://www.plxtech.com/products/pci_express/PEX8111/default.asp)

- ◆ Data Sheet, Product Brief, IBIS Models, HSPICE Models, BSDL Files

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