



AdvancedTCA<sup>®</sup> Extensions for  
Instrumentation and Test

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**Press Release – For Immediate Release**

## **First AXIe Specifications Released by the AXIe Consortium**

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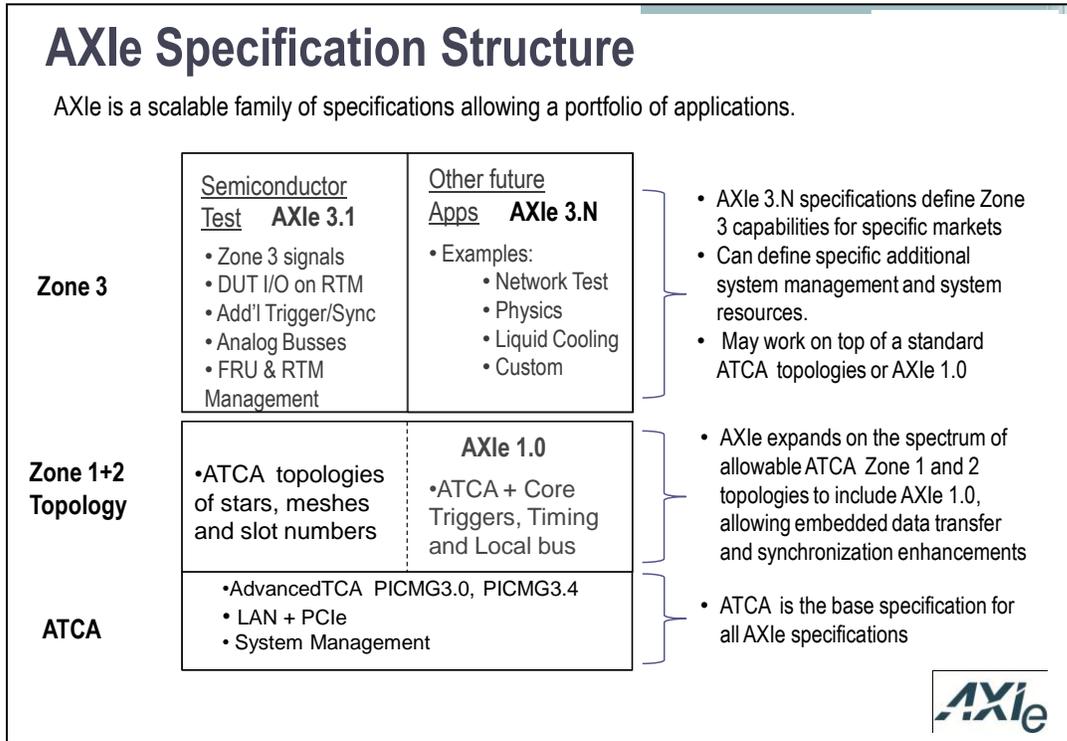
**Niwot, Colorado – July 8, 2010** – Today the AXIe Consortium announced the public release of two specifications, entitled AXIe 1.0 Base Architecture Specification and AXIe 3.1 Semiconductor Test Specification. Both specifications as well as an overview presentation may be downloaded from the AXIe Consortium website at [www.axiestandard.org](http://www.axiestandard.org).

The AXIe Consortium was formed in November 2009 with the purpose of creating a modular instrument standard based in the AdvancedTCA form factor that would serve general purpose instrumentation and semiconductor test. The design of AXIe ensures compatibility with existing standards of PXI, LXI and IVI. “Today marks an important milestone in the test and measurement industry,” said Larry Desjardin, Chairman of the Board of Directors of the AXIe Consortium. “These specifications will enable unprecedented capability and performance for users, all in an industry standard modular form factor open to all vendors. With the release of these specifications, vendors may now develop and deliver AXIe products, knowing that they will be part of a growing ecosystem of compatible chassis, modules and systems.”

Since its formation, the AXIe Consortium has grown to eight members from the instrumentation and industrial computer industries (<http://www.axiestandard.org/members.html>). First products are predicted before the end of 2010 and expected to include backplanes, chassis, system modules, embedded computers, instrument modules and complete systems in general purpose and semiconductor test.

## Technical Overview

The figure below explains the relationship between the different AXIe specifications and AdvancedTCA:



AXIe 1.0 specifies a base architecture for general purpose instrumentation. Applications include design validation of electronic products, electronic functional testing, and high speed data acquisition. The specification leverages AdvancedTCA, but adds a unique Zone 1+2 topology that simultaneously maintains compatibility with current AdvancedTCA processors while adding high performance triggering, synchronization and local bus. AXIe leverages PICMG 3.4 PCIe specification for the data fabric, and also offers a high speed local bus capable of delivering slot to slot transfer rates in excess of 600Gb/s.

By keeping all instrumentation extensions in the Zone 2 area and avoiding Zone 3 access, AXIe 1.0 backplanes may accept AdvancedTCA boards that utilize Zone 3 RTMs (Rear Transition Modules) without conflict. This strategy also enables future definitions of Zone 3 for specific vertical markets and applications. These specifications will be numbered AXIe 3.N.

The very first AXIe 3.N specification is AXIe 3.1. AXIe 3.1 specifies a Zone 3 extension focused at semiconductor test. AXIe 3.1 delivers enhanced timing and triggering capability required by the semiconductor test marketplace, as well as routing of device under test pins through the Zone 3 connector to an RTM that leads to a test head. Being a Zone 3 specification, AXIe 3.1 may be deployed with a standard AdvancedTCA Zone 1+2 topology, or with the AXIe 1.0 topology mentioned above. In the latter case, AXIe 1.0 instruments work with full capability in an AXIe 3.1 system.

The close relationship between AdvancedTCA and AXIe lowers the barrier to entry for vendors who already offer AdvancedTCA products.

## **About the AXIe Consortium**

The founding members of the AXIe Consortium are Aeroflex Corporation, Agilent Technologies Inc., and Test Evolution Corporation. AXIe is a standard based on AdvancedTCA (ATCA) with extensions for instrumentation and test. The mission of the AXIe Consortium is to provide an open standard that creates a robust ecosystem of components, products and systems for general purpose instrumentation and semiconductor test. AXIe leverages existing standards from PXI, LXI and IVI. AXIe promises high scalability and performance that will address a range of platforms from bench top measurements to rack and stack modular to ATE systems.

[AXIe Consortium membership](#) is open to all vendors who agree with the stated goals and intend to provide solutions to the marketplace.

## **Trademarks**

AdvancedTCA and PICMG are registered trademarks of the [PCI Industrial Computer Manufacturers Group \(PICMG\)](#).

PXI, LXI, and IVI are registered trademarks of [PXI Systems Alliance](#), the [LXI Consortium](#), and the [IVI Foundation](#) respectively.

AXIe is a trademark of the AXIe Consortium, Inc. pending approval.

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