



Positronic Industries

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Specification Effort Drives Innovation



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For more than a year, 100 companies worked together to develop the PICMG 3.0 specification, also known as AdvancedTCA. AdvancedTCA is offered as a next-generation open architecture computing platform. Although targeted for telecommunication applications, it is expected that AdvancedTCA will be of interest to a wide variety of industries. AdvancedTCA pushes the envelope regarding current technology while allowing for system upgrades as technology evolves.

One key element in allowing for technology upgrades is power distribution. AdvancedTCA systems deliver negative (-) 48 VDC to front boards. DC to DC converters provide board level power conditioning to support voltage requirements, which will change with the evolution of silicon technology. The connector which interfaces power to front boards, was designed specifically for this application (*see Figures 1 and 2*).

The power connector design revolved around requirements that will be common to many next-generation computing platforms. These include:

- Live insertion and extraction of front boards
- Dual redundant power input
- Trouble free blind mating
- High power through a small package
- Reliability needed for high-availability systems

The connector occupies a defined physical location, referred to as Zone 1, and is dedicated to supplying power to each AdvancedTCA slot.

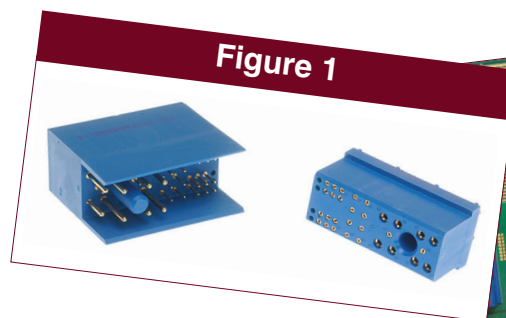


Figure 1

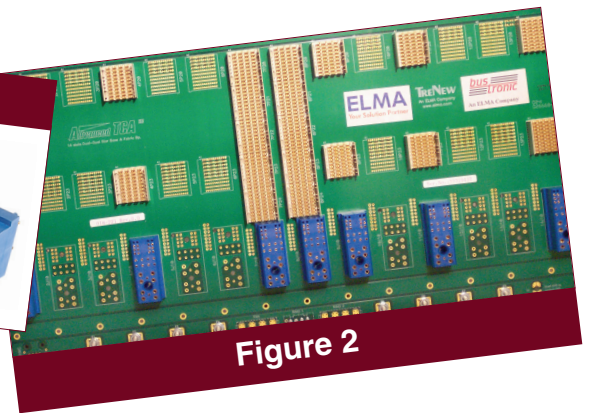


Figure 2