

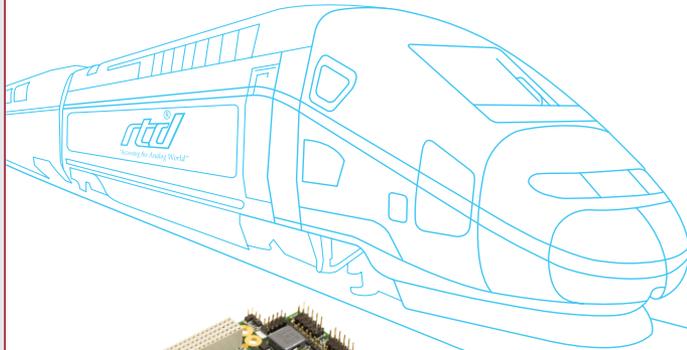


Stackable PCI Express[®] Comes to PC/104

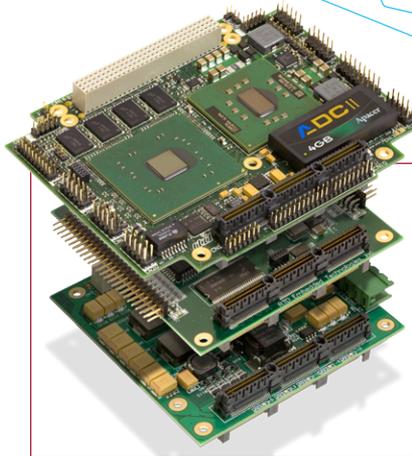


"MIL Value for COTS Prices"

PCIe/104™ & PCI/104-Express™

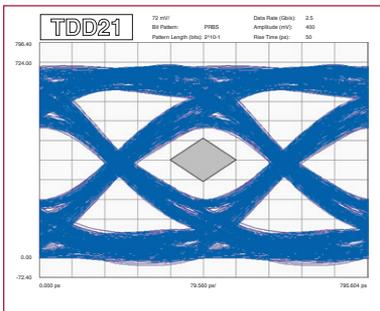


SI Test Stack



PCI/104-Express™ cpuModule,
DataModule and power supply

Catch the **express**™



The key to the stackable PC architecture is the bus, the connector design, and the add-on card interchangeability regardless of the form factor of the CPU module. Achieving this required bringing the new desktop PC standard bus, PCI Express, to stackable PC/104 preserving its up or down stacking, ruggedness, and adaptability with advancing technology.

RTD and Samtec allocated substantial engineering and financial resources to modify the high speed, rugged Q2 connector pair to PC/104's 0.600" (15.24mm) stack height and verify that the mechanical and electrical performance was optimized. Specialized test fixtures were built and system stack heights of up to 12 test boards were assembled to detect any signal degradation while keeping Gen2 PCI Express specification in sight.

Four x1 links have the bandwidth to handle many applications. What do you do if you need more than four x1 devices? How do you meet the requirements of multiple high bandwidth PCI Express devices such as high-end graphics, powerful Virtex FPGA engines, advanced DSP architectures, and 1/10 Gigabit Ethernet to name a few? Therefore, the ability to expand through a x16 PCI Express link is an imperative for stackable PC architectures.

RTD's innovative **expressMate™** modules take advantage of the x16 link to break the current 6 board PCIe/104 and 4 board PCI-104 stack height limits. The expressMate modules use the x16 link to repopulate the x1 links and provide additional x4, x8, and x16 links, add a PCIe-to-PCI bridge, and enable PCIe peer-to-peer communication thereby assuring additional expandability and versatility for PCIe/104 and PCI/104-Express applications.

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