NT5000 CPU Commander™ PXI Board Test and Repair System

- PXI Based emulative board test system for troubleshooting processor based boards.
- Comprehensive 'dead kernel' diagnostics.
- Windows graphical user interface for interactive mode with built-in macro language - no assembly language or programming required.
- Provides high level functions like Boot, Bus Test, RAM Test, ROM Test, Read, Write coupled with powerful macro capabilities to develop complete test procedures with the need for software development.
- Supports mixed signal testing using synchronous cross-trigger bus.
- Includes 16 and 32 bit DLL's for high level programming language support in test systems. (Visual C, Visual Basic, ATEasy™, LabView™, LabWindows/CVI™ etc.)
- Single configuration supports all processor types and speeds.
- High speed logic probe for node diagnostics using logic levels, cyclic redundancy check (CRC), transition count and frequency measurements up to 100 MHz.
- Extensive on-line help and user documentation.
- Priced far below any comparable system on the market.

Navatek Engineering Corp. specializes in advanced PC and PXI bus based digital board testers and troubleshooting tools for processor based boards. The NT5000 CPU Commander™ fits in a single 6U PXI slot and interfaces to the unit under test through one or more ROM sockets or clip-overs. The NT5000 CPU Commander™ monitor program takes control of the UUT and performs high level test functions without the need for assembly or any other programming language. If needed, resident diagnostic code can be executed while the NT5000 CPU Commander™ is connected using its ROM overlay memory.

A Windows graphical user interface is included with built-in functions such as memory read, memory write, I/O read, I/O write which provide full access to the UUT. Higher level functions such as bus diagnos-

tics, memory tests, memory move and copy operations can also be executed with a single command. A built in macro language supports easy development of complex test procedures without the need to learn a programming language. For custom test systems, the NT5000 CPU Commander™ can interface to any programming language capable of supporting DLL's such as Visual C, Visual Basic, ATEasy™, Delphi™, LabView™ and LabWindows/CVI™.
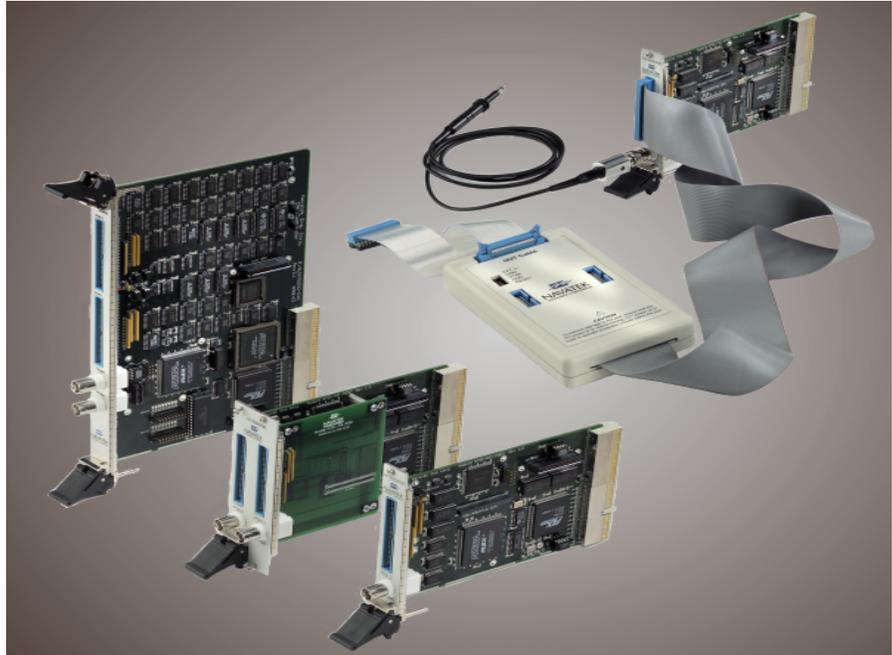
To trouble shoot 'dead kernel' boards, the standard BusTest command will quickly identify any hardware or timing problems occurring on the boot path of the processor. An 8 K deep trace buffer and a user programmable breakpoint further enhance the NT5000 CPU Commander™'s trouble shooting capabilities. Other equipment such as an oscilloscope can be synchronized to any CPU bus cycle using the cross trigger bus. Finally, an optional logic probe is available to probe UUT nodes beyond the kernel. A powerful node test system allows know good responses from a reference UUT to be stored in a library for immediate comparison against the board under test. Selecting a node test automatically invokes the correct stimulus, captures the results and compares them against the reference library. A PASS or FAIL message can be display or further instructions to the operator can be issued, pending the result of each node test.

The NT5000 CPU Commander™ supports all CPU's that boot from external ROM. The boot path width supported can be 8, 16 or 32 bits wide. Both EPROM and FLASH based designs can be supported. A boundary scan interface is provided to integrate other test methods.

If you are still using Fluke 9010, 9100 and 9110 or Summation EMX-10 board tester which are no longer supported, the NT5000 CPU Commander™ provides an affordable and more capable upgrade path.

HOST SYSTEMS SUPPORTED

PXI Chassis with embedded controller running Windows 95/98®, Windows NT and Windows 2000.

PROCESSORS SUPPORTED

All processors that boot from external ROM or Flash.

CONTACT

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