



KEY FEATURES

- ▶ Boots DEAD Motherboards
- ▶ Fully Automated Testing and displays all results on your monitor
- ▶ Detailed System Information
- ▶ Simple and Easy to use
- ▶ Supports multi-processor for complete server diagnostics
- ▶ Performs a series of active diagnostics to detect most system failures.
- ▶ Burn-In
- ▶ Complete diagnostics on a PCI compliant system
- ▶ The best value and the most comprehensive tool

DESCRIPTION

The ELK-PCI-PHD1 is an active test card that is fully automated and displays all results on your monitor. The card is simple to use and fast. Newly released version now supports multi- processor for complete server diagnostics. Unlike POST cards, the ELK-PCI-PHD1 performs a series of active diagnostics to detect most system failures. The ELK-PCI-HD1's design incorporates on-board Flash firmware, memory, and video port, enabling the card to test seemingly "dead" motherboards. The card is capable of running complete diagnostics on a PCI compliant system even if memory, keyboard and video adapters are absent or dead. The ELK-PCI-PHD1 starts by performing a series of diagnostic routines targeting the proper functionality of the PCI Bus. The analysis of the PCI slot includes accurate measurement of the 3.3 volts signal, Header space, PCI Bridge, burst transaction capability and all PCI slot assignments. You may also use the The ELK-PCI-PHD1 to verify the PCI bus signals that meet industry compatibility criteria. The ELK-PCI-PHD1 runs 150 specific motherboard tests in less than five minutes. These tests aggressively test specific features of a motherboard's chipset and other components. The card runs 22 PCI bus/slot, 12 keyboard controller, DMA controller, 23 Interrupt controller, 8 CMOS and Real Time clock, 9 Port B and system signals, 13 critical memory and memory controller, 16 timer controller, 8 graphic and 2 main BIOS socket tests. That's almost 150 tests containing over 1000 individual component tests. The Extended Diagnostic Mode will test most of your peripherals. It contains almost 300 peripheral tests. Using pop-up menu, simply select a test and press enter. You may also select the Burn-in. Some of the tests contained in the Extended mode include: Memory- Base, extended, cache and video; Drives- Hard, Floppy, CD-ROM, DVD, CDRW, ARMD (Zip and LS120), keyboards, I/O ports (USB, serial, modem and parallel), system configuration, monitors, burn-in, and more without the need for disk based software. Now also supports detection of network, sound and PCI modem devices. The comprehensive motherboard testing of the ELK-PCI-PHD1 card combined with the outstanding peripheral testing of the Extended Diagnostics ROM, make the ELK-PCI-PHD1 "the best value and the most comprehensive tool on the market today".

SPECIFICATIONS

Processors	Multi-Processor and Multi-Coprocessor Support : Support for up to 8 CPUs
N/W/Sound/Modem	PCI Network Test, PCI Sound Test, PCI Modem Test
HDD/CD-DVD-ROM	Multi-IDE Hard Drive Support, CD/DVD-ROM Support for non-compliant manufacturers.
Test CD	The Test CDs are now included in the ELK-QT-PRO. The Test CD is used to help diagnose, troubleshoot and load test your PC. A "full" disc so the testing can more precisely determine the transfer rate, seek times, and speed of the drive.
HDD Clean	ELK-QTHD-Clean incorporated into the Extended Mode. ELK-QTHD-Clean is the ultimate Hard Drive data erase tool.
USB Port Testing	New auto detect mode automatically finds all installed ports. The test will also perform an internal and external (using optional ELK-QT-USB controller) modes. During the testing process, it will detail port information and voltage used and modes supported.
Boots DEAD Boards	Ability to boot boards without the need for POST support. ELK-PCI-PHD1 on-board components help initialize system boards that fail to boot and displays on the screen exactly which components have failed or are incompatible.
On-board Firmware	For active and proficient diagnostic testing of system boards. Components are individually tested to detect failures, intermittent errors or incompatibility.
Exhaustive Testing	ELK-PCI-PHD1 hardware and firmware design allows for complete testing of every function on every mother board component. Accuracy and features unmatched by any other product including POST products.
Video Support	On-board video port, allows test results to be viewed on monitor even when systems own video card is dead or missing.
Burn-In	Allows for testing of specific devices for a period of time. Results can be printed and test script can be saved for later use.

Base RAM	Performs numerous different patterns of tests. Also provides graphic display to pinpoint exact location of failure.
Extended RAM	Capable of testing up to two gigabytes of RAM. Users may select the exact starting and ending address with disregard to CMOS settings. Twelve algorithm patterns and graphic mapping identify the exact failing module or chip. Newly improved to test the latest DDR & RDRAM DIMMs.
Cache RAM	True cache RAM testing by determining the existence of Cache RAM and the exact amount (up to 2MB). Multiple pattern algorithms are performed for accurate and reliable testing.
CD-ROM	Provides complete testing for EIDE CD ROMs without the need for loading drivers. Tests are performed using direct hardware interrogation techniques. Drives up to 60 X supported.
Pass/Fail/Skip Indicators	Indicates the results of each test in both normal and extended modes.
Status LED	Indicate whether voltage is within +/- 5 % in addition to monitoring the reset line.
Port Button	Used to monitor the offset addresses when running ELK-PCI-PHD1 in POST mode.
7-Segment Display	Allows monitoring of POST codes when booting and shows diagnostic subtest number that is currently being executed.
PCI Bus Testing	Finally, a simple and cost effective way of testing the PCI bus and its components. It is the only "affordable" hardware device that will actively test the specific PCI components (PCI version only)
Hard Drive	Non-data destructive testing of hard drives. Allows for testing of up to seven drives as well as testing of drive controllers. Complete Floppy drive testing with Cleaning function.
Test Selection	Will automatically run continuous test loops for every motherboard function. Test configuration is available using on-board switches, perfect for complete Burn-In of critical systems.
Flash / ASIC Technology	Uses the latest in Flash EPROM and ASIC chip technology. The card can be upgraded via software, complete upgrade takes less than two minutes. ASICs allow the latest in hardware design for support of the most current systems with highest accuracy and reliability.
Bus / CPU Benchmarking	Accurately measures (results are routed to monitor) speed of Bus Signals for performance and compatibility issues. Precisely measures signals such as: CLK, OSC, BALE, RAM Refresh rate. Works on ANY PC equipped with an Intel, AMD and Cyrix processor using a PCI bus.
Fully Automated	Simply insert the card in the system and power on. The ELK-PCI/PHD1 will run a continuous series of diagnostics without user intervention.
Critical RAM Testing	Tests Critical RAM without using any of the motherboard installed memory. True low memory testing from address 0 to 1024k. Also tests Gate A-20, memory address / data lines, and refresh circuit. (Will display complete test results even without any installed Memory)
I/O Port Monitor	Monitors all I/O ports from 0 to 3FFH, to notify users as to which locations are either used or available. Perfect for resolving I/O conflicts.
Video	Complete testing for video cards. Automatically tests all video modes for driver conflicts. Provides full video RAM testing up to 32MB.
LPT and COM Ports	Tests all serial and parallel ports. Provide pin-level results of failures as well as selection of internal or external testing. Includes; loop-backs for each port.
System Board testing	Continuous loop testing verifies proper operation of CPU, FPU, DMA channels, interrupts, timers, BIOS, keyboard, and other I/O functions.
RTC/CMOS RAM	Tests 7 critical functions of the RTC chip including clock accuracy.
Power Supply	Detects Power Supply problems or fluctuations within 5%. This is especially critical for newer systems that are sensitive to power supply fluctuations.
CPU Failures	Automatically displays power up failures due to Reset or CLK line failures.
Data Logging	All tests results may be routed to a printer.

ORDERING INFORMATION

MODEL	DESCRIPTION
ELK-PCI/PHD1	Professional Hardware Diagnostic Tool-I. complete with the ELK-PCI-PHD1 card, manual, 1 x 25 Pin Parallel Loop-back, 1 x 25 Pin Serial Loop-back, 2 x 9 Pin Serial loop-back plugs, Test CD, anti-static wrist band.

All Specifications within this document are subject to change without notice.



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