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ASSET's New Interposer Opens Test Access to Intel Xeon processors 5500 series and Core i7 processors

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September 28, 2009 -- With **ASSET InterTech, Inc.**'s new LGA1366 interposer, design, test and field repair engineers are able to access the debug port on the Intel Xeon Processor 5500 Series and Core i7 processors, which are based on Intel's new Nehalem microarchitecture, after the processors have been placed on a circuit board.

Cost and size considerations often cause many circuit board manufacturers to either remove the circuitry required to access the processor's debug port or to remove the connectors on the circuit board which would link to this circuitry. ASSET's interposers and top-side adapters overcome this problem for the purposes of the more cost-effective non-intrusive board test technologies such as processor-controlled test (PCT) on ASSET's ScanWorks platform for embedded instrumentation. In addition to providing a lower cost-of-test, non-intrusive board test (NBT) also offers improved test coverage over the older intrusive test technologies such as in-circuit test (ICT).

ASSET's LGA1366 interposer provides a direct interface between the CPU on an assembled circuit board and PCT on the ScanWorks platform. The non-intrusive PCT test technology can apply tests, diagnostics and debug routines to the entire circuit board through the Intel processor without placing physical probes anywhere on the board. Unlike intrusive test technologies like ICT, which require expensive bed-of-nails fixtures for testing circuit boards, PCT on ScanWorks is a non-intrusive technology that relies on software. It tests the electrical integrity of a board and applies functional tests at processor speeds through the CPU's debug port.

The LGA1366 interposer's standard Intel debug port (XDP) header connector allows third-party CPU emulation tools to access the Intel Xeon processor 5500 series and Core i7 processor debug ports, even when a XDP header is not provided on the circuit board.

Reviving dead circuit boards

In addition to the enhanced test coverage that ASSET's interposers and top-side adapters make possible in manufacturing, they can also be applied very effectively in repair operations. Some circuit boards are broken to the point where they cannot launch an operating system (OS) or even the kernel of the OS, the Basic Input/Output System (BIOS). Since most functional test techniques require a running BIOS or OS, traditional functional tests cannot be performed on these circuit boards and they cannot be repaired. ScanWorks' PCT tests do not require an OS or BIOS. As a result, the precise diagnostics of PCT can locate faults and failures on otherwise dead circuit boards. The manufacturer can then repair these boards and recoup some of the costs associated with them.

Availability and Pricing

The LGA1366 interposer is available now from ASSET InterTech and its distributors. Pricing starts at \$2,900.

Go to the [ASSET InterTech, Inc. website](#) to find additional information.

[Please click here to let us know if the above link is broken!](#)

E-mail [ASSET InterTech, Inc.](#) for more information.

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Keywords: embedded system design, PCB design, boundary scan, JTAG, debug, debugging, EDA, EDA tools, electronic design automation, ASSET InterTech,

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