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[Advantech Demos Instant-On SBC](#)



Advantech is previewing an x86 Demo CPU board capable of fully booting in 3 seconds. By utilizing Micron Technology, Inc.'s, SyncFlash® memory, which provides flash memory with the same performance as SDRAM, Advantech engineers are able to bring lightning fast instant-on performance

to an Advantech single board computer running Microsoft Corp.'s newest Windows CE OS. ([more....](#))

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The VIA Eden 400 CPU can operate without a fan at temperatures up to 60° C (140° F) and typically consumes under 14 Watts while supporting numerous peripherals. Add a VIA Twister chip with Integrated Savage4 2D/3D/Video Accelerator, and

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Advantech will participate in the Radiological Society of North America Show (RSNA 2002) in Chicago, Illinois USA December 1-5, 2002. Visit us at Booth #1023! ([read more...](#))



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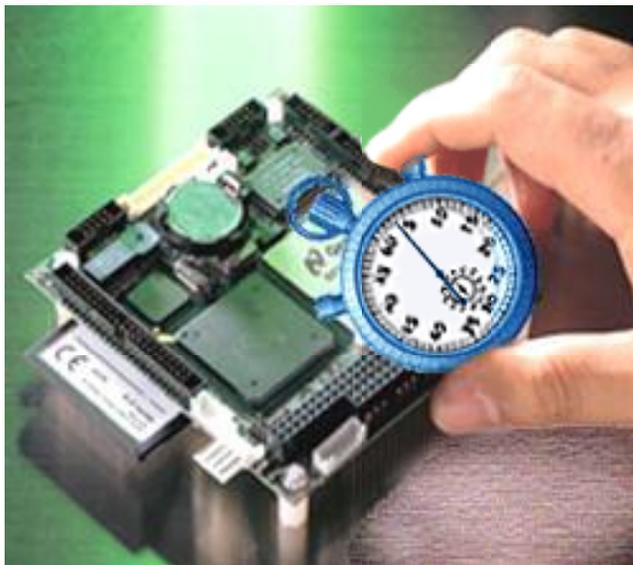
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Prime News

Advantech Demos X86-based Instant-On SBC Using Micron's SyncFlash Memory and Microsoft Windows CE



Advantech is previewing an x86 Demo CPU board capable of fully booting in 3 seconds. By utilizing Micron Technology, Inc.'s, SyncFlash® memory, which provides flash memory with the same performance as SDRAM, Advantech engineers are able to bring lightning fast instant-on performance to an Advantech x86-based (NS Geode™ GX1) single board computer running Microsoft Corp.'s newest Windows CE OS. With production of the new board scheduled for Q1 2003, Advantech has closely followed Micron's product ramp for their SyncFlash memory technology, culminating in this demo board and a new Authorized Systems Integrator (ASI) agreement with Micron Technology, Inc.

Advantech's Embedded Software Solution Division (ESSD) team has been working hard on this Instant-on x86 solution for over a year. "We are very happy with the performance of the newest CPU demo board," said Isaac Hsu, ESSD Product Manager. "We have been reducing startup times of all our x86 board products through a combination of hardware technology, software development, system firmware setup and application specific optimization. This particular combination of GX1 CPU, SyncFlash memory and

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Windows CE OS happens to be our fastest startup time, and we believe the industry's fastest starting x86 board to date."

"Advantech's x86 board is an impressive demonstration of performance," said Jan du Preez, Micron's Vice President of Networking and Communications. "Customers continue to require increased performance and Advantech's x86 board with Micron's SyncFlash memory provides an ideal solution for applications requiring instant on performance. We are excited to be part of this demonstration."

Advantech has seen the growing demand for faster startup time in their Microsoft approved Windows CE Training classes. Partners and customers have many applications that require fast response, such as mission critical military and medical, as well as gaming applications. Automotive, instrumentation and Internet appliances, and other fast recovery applications such as broadcasting, POS, POI and kiosks also benefit tremendously from minimized startup times. Hsu adds, "Technology such as faster CFC read rates, burst-read operation of 133 MHz for SyncFlash memory, and a BIOS ExpressLoader from National Semiconductor specifically for the GX1 CPU, certainly contribute to these gains, but showing customers smarter ways to improve performance matters greatly too. Driver support and configuration, selecting which components are loaded and which can be left out, load order, eliminating functionality not required such as CPU ID and SDMU sizing are examples where we are adding value in our training and product development. It is a big breakthrough when a customer learns how to effectively reduce their Windows CE medical application start time from 25 seconds to 3 seconds."

SyncFlash® Memory Benefits

Understanding the increased importance of flash memory in the portable consumer electronic device market, Micron has given flash more functionality, using a DRAM-like internal architecture.

SyncFlash memory is a non-volatile memory that replaces the traditional flash or ROM typically used to store operating code. It also reduces the need for redundant DRAM because code is not duplicated in DRAM for optimal performance. Instructions are directly executed from flash. SyncFlash memory has a 64-bit data bus that supports burst-read operations at maximum speeds of 133 MHz through a four-bank architecture allowing users to update operating code without interrupting ongoing functions. SyncFlash

memory provides SDRAM (133 MHz) speed performance with the advantages of a non-volatile memory, and is priced comparable to standard flash. Designers benefit from using SyncFlash memory because they can reduce their component count, simplify their layout, and offer lower-cost, higher-performance designs to their customers. SyncFlash memory not only enables designers to simplify their systems by replacing two devices with one, it also surpasses today's highest performing Flash devices and is currently the industry's fastest Flash Memory. For additional information on SyncFlash memory, visit the web site at <http://www.syncflash.com/> .

Advantech's XIP Total Solution

Advantech will soon release a standard Windows CE .NET product bundled with Micron's SyncFlash memory to allow XIP and near instant-on performance on an x86 platform. The solution works seamlessly with previous Windows CE solutions as well, allowing customers to easily migrate from a CompactFlash™ or Disk-on-Chip solution.

Find Out More Today

For the industry's fastest x86 board startup times, reliable 'real-time' responsiveness and Microsoft's newest Windows CE .NET OS integration expertise, contact your local Advantech sales representative for more information, or send an e-mail to epc@advantech.com.

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Announcement

PCI-6871: Hot Graphics with Low Heat

PCI Eden 400 Half-sized CPU card supports VGA, LCD, LVDS, Fast Ethernet, and CompactFlash Card

Features

- Half-sized CPU card with PCI golden finger
- 4X AGP graphics for high performance applications
- Fanless operation at 60°C
- Embedded low power VIA Eden C3 EGBA 400 MHz processor
- 1 onboard RJ-45 connector supports
- 10/100Base-T Ethernet
- FSB 100MHz
- Supports PC/104 bus
- Supports wake on LAN
- Supports wake on Modem
- Supports LCD backlight turn-off function



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Cool System

The VIA Eden processor uses advanced 0.13 μ CMOS technology with 128KB L1 cache memory and 64KB L2 cache memory on die. This board with Eden400 CPU can operate without a fan at temperatures up to 60° C (140° F) and typically consumes under 14 Watts while supporting numerous peripherals. This SBC includes a 4X AGP controller, a PCI Ethernet interface, and 32-bit TTL interface. Its design is based on the half-sized CPU card and supports PCI bus expansion. Other on-board features include an FDD, LPT, 4 USBs, and 2 serial ports. PCI-6871 supports AC97 audio with the addition of the optional PCM-231A-00A1 audio

module.

Hot Graphics

This product uses a VIA Twister chip with Integrated Savage4 2D/3D/Video Accelerator and supports 4X AGP VGA/LCD interface and up to 32 MB frame buffer using system memory.

The PCI-6871 supports one 10/100Mbps Ethernet connection with an onboard RJ-45 connector, and is effective for use as a firewall, VPN, or gateway device.

Availability

Samples will be available November 4th, 2002.

Learn More

To find out how to put the PCI-6871 to work for you, contact your nearest Advantech representative, or visit our website:

<http://www.advantech.com/ecg/>

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Event

RSNA 2002: Radiological Society of North America Show

Advantech will participate in the Radiological Society of North America Show (RSNA 2002) in Chicago, Illinois USA December 1-5, 2002. Come and see how Advantech Embedded Computing helps develop many of today's key innovations in medical/healthcare delivery and administration, including point-of-care computing solutions.



Advantech designs and manufactures both board-level and system-level solutions for medical & healthcare applications. Advantech's medical-grade Panel PCs are all-in-one systems that are compliant with IEC 60601-1 standard, and UL2601-1/FCC Class B certified. Our point-of-care terminals are scalable solutions designed to handle real-time monitoring needs, and are perfect image terminals in PACS & DICOM applications. Our board-level solutions include Biscuit SBCs, Half-sized CPU Cards, Full-sized CPU Cards, PC/104 Modules, Solid State Disks, Embedded Software Solutions, and System On Module.

Visit us at Booth #1023!

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