



TI Suite, Pulse~LINK Booth Set Home Networking Pace at CES

Texas Instruments, the original leader in 1394-equipped networking for the home, and Pulse~LINK, leaders in ultra-wideband connectivity, set the pace for whole-home networking at the International CES in Las Vegas January 8th through 11th.

Texas Instruments presented a five-room whole-home suite featuring high definition connectivity with a single network over 1394 cable, coaxial, and CAT-5 wire, delivering five simultaneous HD streams with full 'trick-play' capabilities in a content-protected arrangement. On display at the Las Vegas Hilton throughout CES, the TI demonstration used a single remote to control all devices via on-screen menus, and also – for the first time – incorporated a Powerline demonstration into the five-room home. The Powerline standard has been adopted for networking throughout the European Union.

TI's five-room suite incorporated new digital products alongside legacy systems in a multiple stream, high-definition network featuring the excellent quality of service required. The demo also incorporated the 1394b equalizer from Ecqologic, which enables the use of CAT5e or CAT6 wiring with a range as high as 80 meters at 500 Mbits/second. Ecqologic has also developed a 1394-coax equalizer.

The High-Definition Audio-Video Networking Alliance defined its 2007 objectives and added several new members to its roster at CES 2007, while reaffirming its commitment to the 1394 standard.

IBM Corporation and Cablevision became the two highest-profile new members of the growing alliance, with both companies citing their interest

Another element in the TI suite was the CWave whole-home interactive HD solution from Pulse~LINK, which was demonstrated in multiple locations throughout CES, including in the TechHome TechZone in the South Hall of the Las Vegas Convention Center.

continued on page 3

IN THIS ISSUE:

- TI Suite, Pulse~LINK Booth Set Home Networking Pace at CES
- HANA Moving Ahead, Announces New Members, 2007 Plans During CES
- CES 2007 Features New 1394-Equipped Products: Many New Drives, Industrial, CE and Audio Systems also Ready Now
- LaCie Ready with Industry's First Bus-Powered Speakers, Using 1394 and Built Around Oxford Semi's OXFW970 Audio IC
- New TA Board Selected for 2007

CES 2007 Features New 1394-Equipped Products; Many New Drives, Industrial, CE and Audio Systems also Ready Now

While CES 2007 didn't deliver any major paradigm-shifting technology, there was a strong group of new products and technology. Introductions at CES included some impressive new media products from **LG Electronics**, notably the company's new Multi-DVD Recorders equipped with FireWire.

LG's RC797T Digital Tuner Super Multi DVD Recorder and VCR combines an ATSC/NTSC/Clear QAM tuner using LG's fifth-generation "VSB" technology to let consumers record a wide variety of sources onto any of the major blank DVD disc formats available. The RC797T addresses the digital TV transition in the U.S. by providing both digital and analog tuning, plus output connections for SD and HD. LG also introduced a Digital Tuner Super Multi DVD Recorder, the DR787T, with an identical feature set minus the integrated VCR.

Other LG Super Multi Recorders at CES included two models with line-in and DV (1394) recording designed for capturing TV programming from digital cable and satellite set-top boxes - or for saving home videos from digital camcorders via a DV (1394) input. These included the DR700N multi-DVD Recorder and the Super Multi DVD Recorder/VCR, the RC700N. Each provides an integrated digital cable and satellite set-top box controller for convenient scheduled television recording with the most popular digital set-top boxes.

Another important 1394-equipped product at CES came from **Sony Electronics**, which introduced the Sony Vaio XL3, a new 1394-equipped media-center PC with a Blu-ray burner, TV Tuner cards, four flash card slots, four USB ports, two FireWire ports, and Ethernet, HDMI, component and S-Video jacks. Prices start at \$3,200.

Prior to CES, **Agere Systems** became the first IC supplier to integrate 1394b with PCI in a single device, its FW643 TrueFIRE 1394b host. The chip's high level of integration makes it possible for PC makers to reduce total silicon and system costs, while also improving PC power management and reducing the distances required to route data, audio and video through PCs. Prices are under \$5 each in production quantities.

More 1394-Equipped Drives from Leaders Worldwide

During the fourth quarter and early first quarter, a new slate of 1394-enabled hard drives reached the market, most of them featuring FW 800.

Other World Computing (OWC) just before MacWorld and CES announced its Mercury Elite-AI Pro Mirror drive - a RAID 1-based external hard disk drive equipped with FireWire 400, FireWire 800 and USB 2.0 inputs. Prices start at \$349.99, with capacities ranging from 250GB to 750GB.

G-Technology introduced G-SAFE, its new line of RAID-protected storage solutions designed specifically for professional digital photographers and equipped with high-speed FireWire 800 and USB 2.0 ports for fast data transfers and universal connectivity to personal computers. List price is \$599.

G-Technology also announced its G-MINI, a companion for Mac mini computers, designed to complement the Mini's look and feel. G-MINI features FireWire 400 and USB 2.0 connectivity and incorporates a 3-port FireWire repeater and a 3-port USB hub. There are various configurations, with prices ranging from \$200 to \$600.

Imega introduced its newest Portable Hard Drive, a 120GB drive with FireWire 400 and USB 2.0. The thin external drive measures 0.5 inches and weighs only 5.8 ounces and provides 120GB capacity. The FireWire 400 interface draws power from the computer so no external AC adapter is required. The drive's 2.5-inch hard drive delivers 5400RPM and features 'Drop Shock' technology. It is available for \$189.95



LG's new RC797T combines a digital tuner, DVD and VCR into one unit, equipped with FireWire.

Also, Imega doubled the size of its MiniMax Desktop Hard Drive -- originally limited to 250GB -- to offer a 500GB version. The new model features three FireWire ports. The 500GB MiniMax is shipping for \$280.

RadTech LLC announced new data storage options -- with FireWire connectivity -- across its Impact and DriveMate product lines. The company's Impact 2.5 and 3.5 inch SATA-based hard disk drive (HDD) enclosures also feature external SATA, FireWire 800 and USB connectivity. Each Impact drive enclosure delivers throughput using the latest I/O bridge chipsets from Oxford Semiconductor Inc. and Initio Corp. Both the non-encrypted and the 64-bit X-Wall hardware encrypted impact systems transfer data as fast as the combination of installed drive and connection bus allows at up to 300 MB/s. All models include built-in FireWire repeaters for chaining other devices. Prices start at \$299.

Apricorn announced further expansion of its EZ Bus Desktop Storage and Backup line with the EZ Bus Desktop FireWire/USB 2.0 Combo, designed for backing up data or adding extra storage to notebook or desktop Macs. The plug-and-play, hot swappable 7,200 rpm hard drive enables users to backup systems and store large files. Additional features include a 6-to-6 pin FireWire cable and a 4-pin to 6-pin FireWire cable.

In addition, Apricorn introduced an 80GB version of its Aegis Mini, a pocket-size hard disk drive that uses either FireWire 400 or USB 2.0. The 80GB model FireWire version costs \$259. Compatible with the Mac and PC, the Aegis Mini comes in 30GB, 60GB and 80GB capacities. The drive is bus-powered, so it requires no external power supply, and the accompanying data cable wraps around the case when not in use.

The DRX-830UL-T from **Sony** -- for use with either PCs or Macs -- provides a FireWire 800 interface along with an 18x writing capability designed to work with 16x DVD-R media. It also can handle dual-layer DVD-R discs. The DRX-830UL-T comes bundled with Nero 7 Essential for Windows and Toast 6 Lite for Mac OS X. It will write DVD=RW, DVD-RAM and CD-R/RW.

In time for MacWorld in San Francisco Jan. 8-11, **Sonnet** unveiled its Allegro™ Express FW400 PCIe card, along with its Tango Express combo FireWire 400/USB 2.0 adapter. The cards add full-bandwidth to powered

continued on page 3

continued from page 3

CES 2007 Features New 1394-Equipped Products...

Micromat announced its Tech Tool Protogo, a \$135 Mac OS X application that turns an old FireWire-compatible iPod into a bootable troubleshooting device for PowerPC or Intel Macs capable of running Mac OS X 10.4 or later. FireWire iPods—from the original iPod through the 4G version, have been able to boot a Mac. Attaching the iPod to a Mac via the FireWire cable is followed by selecting it as the destination for the OS X installer. The OS is installed and booted from the iPod. It works with any utilities, and allows them to troubleshoot all attached Macs.

Alrad Imaging introduced the Advision DCam software for use with FireWire output cameras. The software is simple – users just plug in the camera, load the software and start acquiring images. The software can be used to acquire images from any FireWire (IEEE1394) camera that complies with IIDC digital camera specification. Pricing has not been listed.

New Pro Audio FireWire-enabled Products

The professional audio market continues to benefit from 1394 technology. **TC Group** has introduced its new DICE Junior and DICE Mini FireWire chips for a wide range of applications, with production set to begin in March.

Alesis, a leader in pro-audio products, is shipping the innovative new IO|26 and IO|14 FireWire Audio/MIDI interfaces. Fully compatible with PC and Macintosh computers as well as most DAW software, the IO|26 and IO|14 use DICEII FireWire Audio chips for superior clock stability using DICE II JET™ Jitter Elimination Technology. Audiophile-quality Cirrus converters provide maximum dynamic range on inputs and outputs. The IO|26 and IO|14 also utilize high definition, transformerless microphone preamps with genuine Neutrik™ connectors. MSRP is \$499 for the IO|14 and \$599 for the IO|26.

In advance of Vista's formal release in late January, **MOTU** is shipping a beta release of Vista-compatible drivers for all MOTU FireWire hardware interface products. Users of MOTU's popular audio and MIDI interfaces can now download Vista public beta drivers to run their MOTU hardware with their favorite Vista-compatible audio and MIDI software. All current MOTU hardware products are supported, including FireWire.

At the winter NAMM in Anaheim January 18-21, several companies showcased new products.

Solid State Logic introduced Duende, a 19-inch rack-mount unit that integrates console-grade SSL Channel EQ and Dynamics processing with a digital audio workstation. An on-board DSP, connected to the DAW via FireWire, runs the SSL processing tool kit, relieving the burden on the host computer's CPU.

Tapco announced its Link.FireWire 4x6 portable audio interface. A FireWire recording device for musicians, the Link.FireWire features 4-input/6-output, Dual combo mic/line/instrument inputs, Stereo S/PDIF I/O, front panel control of all I/O, FireWire bus power, ASIO2, WDM, and Core Audio compatibility and a Kensington Lock Port, among others. The device also includes Mackie's Traktion music production software. The Link.FireWire will be available in April 2007 and will cost \$249.99.

M-Audio brought its new FireWire 18/14-18-in/14-out FireWire Audio/MIDI Interface w/ ADAT Lightpipe, equipped with 8 channels of Audio/MIDI Interface w/ ADAT Lightpipe, equipped with 8 channels of ADAT Lightpipe I/O and 8 x 4 analog I/O. Complete with two channels of mic/instrument preamps, this exciting new piece is perfect for project studios that want to

go all digital. The ADAT Lightpipe I/O allows users to bring ADAT tracks into a software studio, and connect directly with other digital gear such as digital mixers and the new Octane preamp. Pricing is set at \$749 with availability by April.

Industrial Cameras

Using FireWire 800 technology, the new FireDragon Series of cameras from **Toshiba Teli** can deliver full-frame images up to 90 fps with resolutions ranging from VGA (640 x 480) to UXGA (1,600 x 1,200). Monochrome output can be set for 8-bit or 10-bit, while color output can be set at RGB 24 bit, with YUV422 or YUV411. Available in 8 models, the cameras include full frame shutter, tetragonal lattice layout of CCD pixels, and built-in color process, with camera CCD sizes of 1/3, 1/2, 1/1.8, or 2/3 inches. Prices start at \$1,200.00.

Hitachi Corporation announced new progressive scan cameras equipped with 1394b. Designed for use in microscopy, machine vision, medical and industrial applications, the KP-FD140F and KP-FD32F cameras are high-resolution single color CCD progressive scan cameras, with the new 1394b interface, which allows direct high speed data transfer between the camera and the PC using a small 8 conductor cable. The 800 Mbps transfer speed permits higher frame rates for high resolution cameras. Multiple cameras can be used simultaneously through the use of a daisy chain connection. Prices start around \$1,400.

Audio Video Supply, Inc. has introduced its FWD line of progressive scan cameras, the first to use 1394b technology, resulting in transfer rates of 800 Mbps or twice that of 1394a or USB 2.0 cameras. The machine vision market is expected to use the new technology to leverage speed. The FWD Series cameras are available in monochrome and color vision versions, extending the advantages of 1394b to almost any machine vision application.

Cables and Connectors

New cable and connector devices and technology also are available. **Electronic Links** has developed a new 1394 over coax cable. It was shown for the first time in the Pulse-LINK booth at CES 2007.

Also at CES, **Kramer Electronics** introduced its 648 FireWire fiber optic repeater for 1394a and 1394b signals. Used in pairs, the 648 extends FireWire cable runs up to 500 meters. The 648 features two bilingual 9-pin FireWire ports and two duplex LC fiber connectors. It transfers at various rates from 100, 200, 400, and 800 Mb/s. Prices start at \$895.

Harting Inc. announced new versions of its Han-Brid industrial hybrid connector range with FireWire interfaces, designed to let users connect computers and peripherals to control cabinets - without compromising the IP rating required for harsh industrial environments. The new Han-Brid FireWire interfaces are based on the industry-proven Han 3A housing, allowing the devices to be directly mounted to a control cabinet so users can directly connect peripheral devices without the need to open the cabinet door.

Upcoming Events:

Q1 Meeting, Jan. 28-31, Kona, Hawaii
CableLabs Winter Conference, March 4-6, Denver
Q2 Meeting, Santa Clara, California