



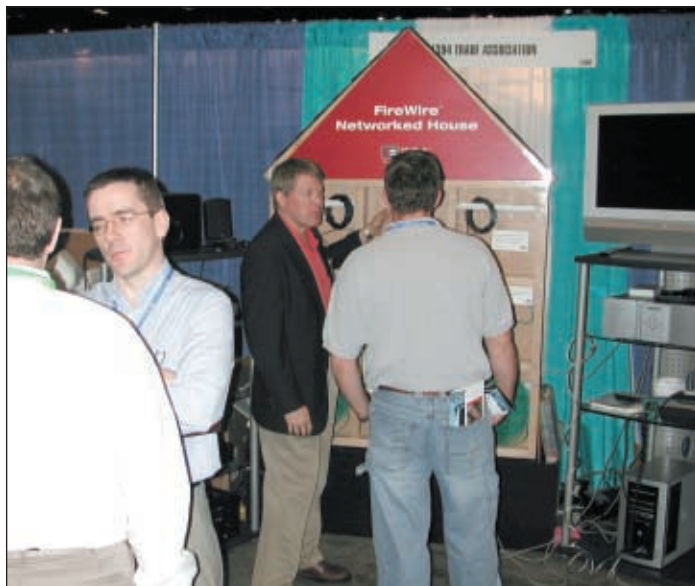
1394 Trade Association Creates Latest Home Entertainment Network for Demonstration at Spring EH Expo in Orlando

The 1394 Trade Association featured the latest and most advanced home entertainment network, moving video and audio over CAT-5 and plastic optical fiber, at the Electronic House Expo in Orlando on March 10-14.

Populated with the latest in HDTV, Digital VHS, computer, storage, and audio equipment from 1394 TA member companies, the home entertainment network demo showcased how FireWire can connect a wide range of different devices over distances up to 100 meters at significant speeds.

"Targeting the installer community our exhibit focused on the 1394 standard's excellence in overcoming the challenge of linking many diverse consumer and computer devices on the network, easily and reliably," says James Snider, executive director of the 1394 Trade Association. "Our demonstration illustrates the significant strides that 1394 has made as the only residential backbone delivering audio and video in a peer-to-peer environment where every device on the network can act as a client or server."

In the network demo, high definition video originates in a pair of D-VHS systems provided by Mitsubishi and JVC, and is delivered over CAT 5 and POF cabling through a master network hub developed by USTec, a leader in advanced home wiring systems. From there, it moves to a Mitsubishi HD5000 digital tuner for display on a plasma or flat panel display. The demonstration also includes file sharing between Sony VAIO and HP Media Center computers, as well as a shared Internet connection between them. It also incorporates whole house audio, using a Pioneer DVD player and receiver.



Declan O'Mahoney, CEO, Firecomms, speaks with Patrick Donnelly, on-Q home, while Lawrence Thorne, U.S. Account Manager, Firecomms, shows an installer the 1394 home network.

1394b Hub Anchors the Network

At the center of the demo is USTec's TP-FH4 FireWire five-port 1394b hub. It is designed to connect four 1394b wall plates using CAT-5 or better cables. The wall plates are powered via the CAT-5 from the hub. The fifth hub port is a bilingual jack used to connect to 1394-enabled equipment located in the cabinet, or to connect two TP-FH4 hubs together to work as an eight-port system.

POF Added to Network Demo

For the first time, Plastic Optical Fiber has been added to the home entertainment network demonstration, by Firecomms, illustrating how easy it is to install and use. Fibers are inserted into basic 1394 connectors, then snapped into place. The TA demonstrated how an installer could see if the link was working simply by checking the red light emitted from the fiber. The TA booth demonstrates POF carrying over 250Mbps over 50 meters.

The TA booth was full of installers all the way up to the end of the three-day show. Several of the installers and companies that viewed the demonstration also expressed an interest in joining the newly formed Residential Backbone Working Group chaired by Declan O'Mahoney.

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CMP TechWeb Predicts Strong Year for 1394

One of the best-read electronics industry web-based publications foresees a strong year for the 1394 standard worldwide. It featured an interview with Executive Director James Snider in late March, highlighting the growth of FireWire in the home entertainment network and other market areas.

"After running in the middle of the pack with several other transmission schemes for a decade, 1394 is poised to break out this year," said TechWeb. "The high-speed technology is about to take its place tying together the pieces in the home theater's move from analog to digital TV. In addition, the technology--also called FireWire and i-Link--is beginning to show up in surprising ways in enterprise applications.

"FireWire is moving, and some really interesting stuff--wireless--is coming later this year, too," said 1394 Trade Association (TA) executive director James Snider in an interview. "We've already shown that 1394 wireless can go through walls with no degradation of the signal."



Snider said more than 1300 separate products now include 1394, ranging from HDD drives and set-top boxes to televisions and DVDs.

The technology has had to hurdle several obstacles along the way. It has beat off competitive threats from DVI, Ethernet, and USB. Hollywood interests, too, tied up the technology for years, as the film industry worried 1394's capability of producing perfect copies of films would cut into profits. The result is a regulation that permits users of devices with 1394 technology to copy material for personal use."

IN-STAT FACTS

The following tidbits are taken from In-Stat/MDR's newest DTV Set & HDTV Services reports:

-High definition TV sets are becoming more common in the US, although few households are actually using them to watch high-definition programming. Most HDTV set owners use their high-priced sets to watch regular analog and standard definition digital programming and the occasional DVD.

-As of January 2004 there were 7 million US households with installed HDTV sets, but only 1.5 million of those households were actually receiving and watching TV shows in HD.

-The average selling price of DTV sets has decreased \$700 in the US over the last four years.

-HDTV service can be delivered by cable TV operators, Direct Broadcast Satellite (DBS) operators, or by terrestrial "over-the-air" broadcasters. In the US, cable operators currently provide service to almost 700,000 households, DBS operators provide service to just under 400,000 HDTV subscriber households, and another 500,000 HDTV households receive and watch terrestrial HD broadcasts.

-While worldwide HDTV set unit shipments increased last year to 5.8 million there were still only four countries (the US, Canada, Japan, and Australia) that offered HDTV services and programming on a widespread basis.

-With the move to high resolution DVD, even households in countries without HDTV broadcasts will have reason to buy a HDTV set.

1394/FireWire/i.LINK Expands into New Plasma Rear Projection HDTV's, Digital Video Recorders, New Generation of Camcorders

FireWire-equipped consumer and computer products for the first quarter, including an impressive list of introductions at the Electronic House Expo in Orlando this March.

LG Electronics (<http://us.lge.com/index.do>) solidified its commitment to the IEEE 1394 standard, introducing the following HDTVs and recorder products.

DU-50PY10 50-inch Plasma Integrated HDTV

DU-42PY10 42-inch Plasma Integrated HDTV

TU-60SZ31 60-inch LCD Integrated HDTV Rear Projection with DVR

DU-52SZ61D 52-inch DLP Integrated HDTV Rear Projection

LGDVDR416 Multi-Format DVD Recorder

LGDVDR313 Multi-Format DVD Recorder

LGHDR416 Multi-Format DVD Recorder/VCR Combination

Integra Systems (www.integrahometheater.com) launched its DTR-10.5 Audio/Video Receiver and Universal DVD Player, while Integra Research (www.integraresearch.com) introduced the RDC-7.1 A/V Receiver and RDV-1.1 High Performance Universal DVD Video Recorder/Player.



The Integra Systems A/V Receiver features replaceable bays so that the consumer can expand the number of FireWire ports to meet their home networking needs.



In addition, Panasonic (www.panasonic.com) announced its new DMR-E100HS DVD Video Recorder/Player. Also, Samsung Electronics (www.samsungusa.com) introduced a full set of camcorders and DVD recorders including:

DVD-R100 DVD Recorder

DVD-VR300 DVD-Recorder/VCR Combo

DVD-HR800 HDD DVD Recorder

SC-D103 2.5-inch LCD Mini-DV Camcorder

SC-D303 Compact Mini-DV Camcorder

SC-D107 3.5-inch LCD Mini-DV Camcorder]

SC-D407 Compact Mini-DV Camcorder

SC-D6040 4.1 MegaPixel Still Mini-DV Camcorder-DuoCam

Also introduced during the first quarter were new FireWire-equipped DVD-RW hard drives from Kanguru Solutions (www.kanguru.com/dvdrw.html) and 1394-enabled DVD-R/RW drives from Plextor (www.plextor.com/english/).

Popular PC Hardware Journal, Tom's Hardware Guide, Puts FireWire to the Test

(Reprinted from Tom's Hardware Guide) In spite of a maximum rate of 400 Mbps for FireWire (S400) and up to 480 Mbps for USB 2.0, USB is trailing behind. Why? The performance disparity hinges on FireWire's application, which offers more robust data transfer overall compared to USB.

USB can only accommodate one external device per PC port, which is why high end PCs have as many as eight USB ports. While it is possible to use a USB hub in order for devices to share USB ports, the performance of this alternative varies widely.

Things are different with FireWire, with all the devices being connected in series forming a logical chain (peer to peer) and where the protocol also permits physical branchings. Thanks to this method, it is possible to span longer stretches. However, if an interconnected device needs to be removed, then it is necessary to interrupt the connection for all the devices that follow in the chain. There is, however, one aspect that FireWire cannot change, either - namely that the existing bandwidth must always be shared by all the devices.



Things are not going to stop at the available 400 Mbps. Accordingly, as far back as in May 2002, the IEEE standard 1394b was adopted, which envisages transfer rates of 800 and 1,600 Mbps (S800 and S1600). We tested the initial configuration.

MEMBER COMPANIES IN THE NEWS

Dolby Adds Tools for FireWire

To reduce time-to-market for its customers, and to ensure interoperability between advanced entertainment products, Dolby Laboratories (www.dolby.com) is developing reference tools to support its audio technologies over FireWire (a.k.a i.LINK and IEEE 1394) networks. Dolby's audio tools for FireWire will employ VividLogic's (www.vivilogic.com) FireBus IEEE software to marshal audio data in a complex network of digital devices. FireBus enables Dolby's tools with the necessary set of IEEE 1394 audio technologies in a home network.

NEW MEMBERS

OrangeWare Software Design

Founded in 2000, OrangeWare specializes in the development of system drivers, device drivers, filter drivers and kernel drivers for new and emerging technologies that include 1394a/b, USB 2.0, 802.11a/b/g, and custom audio and video for both Mac and Windows Environments. OrangeWare's customers include Dell, Intel, VIA, NVIDIA, Gigabyte, Western Digital and many other industry leading companies. OrangeWare is headquartered in Anaheim Hills, California. For more information visit www.orangeware.com.



Alereon

Alereon, Inc., a UWB fabless semiconductor company, is developing and deploying complete UWB solutions for personal area networking applications that comply with the emerging MBOA and wireless USB standards. The company is targeting high-bandwidth, low-power, low-cost solutions to connect wirelessly consumer electronics, computer peripherals, and mobile devices. Alereon is a founding member of WiMedia, a not-for-profit open industry association formed to promote wireless connectivity and interoperability among multimedia devices in a personal area network. Further information is available on the company's website: www.alereon.com.

