

## **Ubicom and Kestrelink Corporation Deliver a New High-Performance Wireless Digital Media Player Reference Design**

*Enables DVD-Grade Quality and Responsiveness to Streamed Video, Pictures and Audio Content for Stand-Alone Devices or Integrated Solutions for OEMs*

**Mountain View, Calif. August 29, 2005** – Ubicom™, Inc., a leading provider of communications processors and software solutions, and Kestrelink™, specializing in high-performance software platforms for wireless networking of multimedia content, today introduced a new, flexible digital media player (DMP) reference design that enables very high-quality and high-performance delivery of multimedia content over 802.11a/g wireless networks. The new KestrelMedia™ DMP platform from Kestrelink enables consumers to access a much broader range of audio and video content for use with their existing audio/video (AV) equipment, freeing the consumer from traditional constraints associated with hard-wired sources or content stored on physical portable media. As a result, consumers can experience videos, music, and digital photos on their TVs and/or stereo systems at DVD or CD quality while accessing this content over their wireless network.

“With the KestrelMedia DMP integrated into their consumer electronics equipment, the customer isn’t even aware that the content is being streamed wirelessly to their networked device,” said Holmes Lundt, President of Kestrelink. “And because they can access all the functionality they’ve come to expect – play, pause, stop, skip, multispeed fast forward or rewind, and menu navigation – with very fast response times and jitter-free video, they are finally free of the constraints of a wired multimedia environment.”

Using UPnP-AV protocols for discovery, control, and management of available servers and content, the DMP works with Windows® Media Connect server from Microsoft® and is designed for future compliance with the Digital Living Network Alliance (DLNA) v1.0 guidelines as the full DLNA certification program is made available, promising compatibility with a much broader range of PC, embedded, and Internet media server technologies.

Ubicom and Kestrelink plan to demonstrate features of the KestrelMedia reference design at the IFA trade show, starting September 2, 2005 in Berlin, Germany, and are participating in the DLNA booth.

The KestrelMedia DMP platform was developed by Kestrelink specifically to exploit Ubicom’s highly-optimized packet-processing architecture. It features a dual-chip processor scheme delivering the needed horsepower for robust networking connectivity and multimedia processing simultaneously to meet the demands of streaming wireless multimedia content. The reference design incorporates the powerful IP3023™ network processor from Ubicom, used in a number of WiFi router, access point (AP), bridge, and client applications targeted for small office/home office (SOHO) use, and an AV

decoder integrated circuit (IC) from ESS Technologies, used in numerous TVs and DVD players worldwide. This combination provides the performance necessary to achieve maximum streaming bit rates over the latest generation of 802.11a/g and even MIMO radio technologies with high quality while still achieving low cost. Using an 802.11g with turbo modes enabled (and not including compression), the IP3023 can achieve real TCP data throughputs greater than 50 Mbps. With current bit rates for these types of applications around 10 Mbps, and the promise of driving MIMO-based WiFi radios at much higher bit rates, the IP3023 has more than enough processing power to meet today's WiFi networking needs with room for future growth.

The Uvicom IP3023 is a multithreaded network processor, providing deterministic behavior ideal for real-time stream handling and software implementations of traditional hardware interfaces. The IP3023 runs drivers and MAC layer wireless functionality in conjunction with Atheros®-based 802.11a/g and MIMO radios. It provides integrated 10/100 Ethernet, with a full TCP/IP and UPnP-AV software stack. To leverage existing work on AV decoder ICs as much as possible, the IP3023 emulates an IDE device interface, and therefore appears as a disk drive to the ESS decoder IC, which decodes a variety of audio, video, and photo formats. These include MP3 and WMA files for audio, JPEG and BMP files for photos and graphics, and MPEG1, MPEG2, MPEG4 SP, DIVX 3.11/4.x/5.x and MJPEG files for video.

### **Other Design Features**

The Ethernet port can act as either a wired connection or, unlike competing solutions, can also act as a bridge for another nearby Ethernet device to be connected through the wireless network. Products such as an Xbox®, Playstation® 2 or TiVo® box with built-in Ethernet can be wirelessly enabled by plugging into the DMP's Ethernet port, saving \$50-\$100 for a separate Ethernet-802.11g bridge.

KestrelMedia also includes significant new features not currently demonstrated in the reference design. For instance, the software incorporates additional compatibility with PC home networking protocols, such as SMB (Server Message Block) for file/print services, and Windows Connect Now (WCN) from Microsoft. WCN is a configuration technology promoted by Microsoft for initial configuration of embedded wireless devices. A USB port built into an embedded wireless device and a dedicated flash unit can be used to pass all wireless network configuration parameters. KestrelMedia supports most mass-storage devices including disk drives and Flash drives, for file storage and media caching.

### **Pricing and Availability**

Digital media player evaluation units using the KestrelMedia DMP platform are available immediately. Interested customers should contact Kestrelink or Uvicom for further information. The evaluation units

include the DMP board and power supply, cables, schematics and user documentation. Pricing for the evaluation units, IP3023 and KestrelMedia software are available upon request.

### **Demonstrations at IFA 2005**

This high-performance DMP reference design will be on display at the IFA 2005 trade show in the Digital Living Network Alliance booth, located in Hall 5.3, Booth 10. The IFA exhibition is in Berlin, Germany, September 2 through September 7, 2005.

### **About Ubicom, Inc.**

Ubicom, Inc. is a leading supplier of communication processor and software platforms that address the needs of the rapidly evolving digital home and small office. Ubicom's StreamEngine technology enables innovative, high quality, high performance wired & wireless networking products & services for broadband applications.

The company provides optimized system-level solutions to OEMs for a wide range of products that deliver consistent quality for real time interactive applications such as VoIP, video, audio & online gaming combined with exceptional coverage in wireless applications. The company's technology is deployed in a variety of areas including wireless routers, access points, VoIP gateways, streaming media devices, print servers and other network devices.

Ubicom's unique multithreaded processor design, real-time operating system, and application-level solutions combine to ensure a high-quality user experience with fast time to market for our customers. Ubicom is a venture-backed, privately held company with corporate headquarters in Mountain View, California. For more information, visit [www.ubicom.com](http://www.ubicom.com).

### **About Kestrelink Corporation**

Kestrelink Corporation develops high-performance software platforms for integrating wireless networking into media-centric devices. Based in Boise, Idaho, USA Kestrelink serves customers in Asia, North America and across Europe. The Company's premier media-networking software platform, KestrelMedia, is currently being integrated into DMPs, FPDs, home theatre gear and other consumer A/V equipment. Learn more about Kestrelink at [www.kestrelink.com](http://www.kestrelink.com).

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