BridgeCo Debuts Two New Media Processors

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More Audio Channels and More Interface Options for Audio Interface System Designers

BridgeCo, a leading provider of digital entertainment networking solutions, announced two new media processors at the NAMM show. The DM1500 is the first media processor IC that can record and mix 128 independent audio channels at a 48KHz sample rate, offering professional and amateur musicians unprecedented flexibility in capturing and creating audio content.

The DM1500 employs a dual-core CPU architecture, highly optimized for DSP and control applications, which provide up to 300MIPS of DSP power. In addition to 1394/FireWire and SP/DIF interfaces that offer users digital connections to a wide array of computers, instruments and playback systems, the DM1500 also incorporates native ADAT/SMUX support and USB 2.0 interfaces. BridgeCo also announced the DM1200, a cost-effective solution for entry-level systems that do not require 1394 capability.

The DM1200 and DM1500 processor ICs come bundled with BridgeCo's BeBoB software stack, which offers system designers a vertically integrated platform to build breakout boxes and other audio interface products. Audio interface systems enable musicians to combine audio inputs from multiple instruments, microphones, sample clips and other audio sources, and transfer them to a computer using a single 1394/Firewire or USB serial interface. Once audio tracks are recorded and stored on a computer, they can be edited, arranged and played-back

to complete a total musical or audio experience.

"BridgeCo's processor architecture and BeBoB software bundle has proven itself the most reliable breakout box platform in the industry," according to Jim Odom, President and CEO of PreSonus Corporation. "With an almost three-fold increase in the number of audio channels, the expansion of I/O options, and the reduction in total system bill-of-materials cost, these next-generation BridgeCo processors surely define the state-of-the-art for audio interfaces today."

"BridgeCo's processor portfolio and bundled BeBoB software are flexible enough to address our entire audio interfaces product line," explained Simon Blackwood, Managing Director of Focusrite Audio. "Using the BridgeCo platform-including its reference designs and comprehensive SDK-makes it easy for Focusrite to quickly develop a complete product line with minimal engineering effort and expedited time-to-market. And that means maximized return-on-investment for our development dollars."

More than twenty audio products from twelve OEMs have been developed based on BridgeCo hardware/software platforms since 2002. BridgeCo's field-tested and market-accepted solutions have enabled products targeted at professional musicians, as well as breakout boxes for the consumer audio market that are priced as low as US$200. Products built on BridgeCo's BeBoB platforms have won numerous awards from leading audio magazines worldwide.

Integration Drives Down System Cost

The second-generation DM1200 and DM1500 processors have an internal low-jitter digital PLL, native ADAT/SMUX support, and on-chip support for cost-effective external SDRAM memory, significantly reducing the bill-of-materials that was required in first-generation audio

interface systems. The integrated PLLs permit multiple clock domains, enhancing system performance by enabling multiple sample rates to be flexibly matched to multiple audio inputs.

The DM1200 and DM1500 are custom engineered for audio interface applications by combining an ARM processor and BridgeCo's proprietary Real Time Media Processor in a single device. By incorporating powerful DSP capabilities, the BridgeCo processors provide low-latency mixing, allowing users to record new tracks while simultaneously playing back previously recorded ones. The highly-integrated DM1200 and DM1500 eliminate the need for multiple processors or expensive general purpose DSP devices, reducing the retail price for systems based on the BridgeCo platform.

An ARM 926EJ and BridgeCo's proprietary real-time media processor provide up to 300MIPS. With triple the processing power of BridgeCo's first-generation media processor, the DM1200 and DM1500 have the enhanced processing headroom to handle nearly three times as many audio inputs and while enabling extensive product customization. With 1394/FireWire capability, DM1500-based systems can also be daisy-chained, permitting several hundred audio inputs and outputs to be combined into a single digital stream. The solution also makes it simple to control product operations, including knobs, LEDs, metering and motor faders, eliminating the need for additional controllers in the system design, reducing the overall system cost.

Comprehensive Software Stack and SDK Accelerate Market Entry

BridgeCo's BeBoB platform includes an RTOS and a comprehensive application software stack that allows BridgeCo's OEM customers to significantly accelerate their time-to-market. The BridgeCo platform

interfaces directly to 1394 PHY chips, and incorporates multiple digital and analog inputs and outputs that connect to microphones, loudspeakers, musical instruments and MIDI devices. BridgeCo's bundled firmware eliminates the need for system OEMs to create or integrate third-party operating systems, middleware, application software or complex drivers, making it possible for BridgeCo customers to achieve rapid market entry. BridgeCo provides comprehensive driver support for both Mac OS X and Windows XP computers.

BridgeCo offers a C++ based Software Developers Kit (SDK) and an intuitive application programming interface (API) that expands flexibility and simplifies the learning curve for OEM customers. OEMs can easily differentiate their products by customizing the user interface and other performance parameters. Third-party software vendors that are experienced with the BeBoB SDK are available to assist OEMs with product development and rapid market entry.

"Over the past three years we've learned a great deal about the unique demands of professional and hobbyist musicians," said BridgeCo's Founder and CTO Christof Heidelberger. "The demand for additional audio channels is insatiable, and the need for flexible interface options is paramount. Our new media processors were designed to keep BridgeCo in the forefront of high quality audio system design. The reception our new devices have received indicates we have hit the right note for both full-featured professional systems and cost-effective consumer products."