

## **Mixel and Northwest Logic Deliver a Unified MIPI Platform Supporting Both CSI-2 and DSI**

*Mixel and Northwest announce the availability of their single source, unified MIPI solution*

**Osaka, Japan — March 7, 2011** — [Mixel](#)<sup>®</sup> Inc., the leader in mobile Mixed-Signal IPs, and [Northwest Logic Inc.](#), a leading provider of high-performance digital IP Cores, today announced the availability of their unified MIPI<sup>®</sup> platform, incorporating the Mixel MIPI D-PHY (Physical Layer) and the Northwest Logic MIPI CSI-2 and DSI Controllers.

Northwest Logic and Mixel first announced their partnership in January 2009, when they introduced their joint MIPI Camera Serial Interface-2 (CSI-2) solution. Since then, the two companies have successfully delivered this solution to multiple customers. This unified solution can be licensed from Mixel, simplifying the customer's business engagement.

Mixel and Northwest Logic have also released a complete MIPI hardware demonstration and development platform. This platform consists of Mixel's MIPI Interface Card, an off-the-shelf FPGA board, third-party MIPI camera and displays, and a complete MIPI reference design, including MIPI Controller Cores from Northwest Logic.

Mixel's MIPI Interface Card is a FPGA Mezzanine Connector (FMC)-based daughter card, which incorporates the Mixel 2<sup>nd</sup> generation D-PHY test chip. The Mixel D-PHY is fully compliant with the MIPI 1.0 D-PHY specifications and is built in a modular fashion using Mixel's Legorithmic<sup>™</sup> approach. The Mixel 2<sup>nd</sup> generation D-PHY IP operates up to 1.5 Gbps in anticipation of the 1.5 version of the D-PHY specifications. The D-PHY IP from Mixel is available in various configurations, is fully characterized, and is available on multiple foundry process nodes. Mixel also provides its customers with the Clock Management Unit IP, incorporating a high performance, low jitter, PLL and timing circuitry.

Northwest Logic provides a complete MIPI reference design for the platform. This reference design includes Northwest Logic's high-performance, easy-to-use MIPI Controller

Cores. Northwest Logic's MIPI Controller Cores support CSI-2 and DSI operation in both transmit and receive directions, all data types and formats, and a variety of user interfaces. The cores are delivered fully integrated and verified with Mixel's D-PHY along with a comprehensive MIPI verification environment.

"Our partnership with Northwest Logic, initiated more than 2 years ago, has been delivering big dividends to our customers," said Ashraf Takla, President and CEO of Mixel, Inc. "This unified platform enables our customers to effortlessly integrate best-of-class, silicon-proven MIPI IP from a *single source*, together with their own RTL, getting to volume production at record time with minimal risk," he added.

"Northwest Logic is excited to partner with Mixel to offer a complete, market-leading MIPI Controller + D-PHY MIPI Solution. The Northwest Logic MIPI Controller Cores and Mixel D-PHY have been fully integrated and validated together, to ensure robust MIPI operation. This integration, along with the comprehensive support provided by Northwest Logic and Mixel, ensure that customers can quickly develop, validate, and bring their MIPI products to market," said Brian Daellenbach, President of Northwest Logic.

The full solution is available for customers to start chip designs today.

## **About Mixel**

Mixel is a leading provider of differentiated mixed-signal IP cores to the semiconductor and electronics industries, with a particular focus on low-power mobile applications. Our silicon-proven IP cores utilize a Legorithmic™ approach and are highly configurable for a wide range of applications. Mixel's mixed-signal IP portfolio includes high-performance Phys, SerDes, Transceivers, PLLs, DLLs, and analog building blocks, which are used in mobile applications, such as MIPI, MDDI, networking, and storage. For more information, contact Mixel at [info@mixel.com](mailto:info@mixel.com) or visit [www.mixel.com](http://www.mixel.com)

## **About Northwest Logic**

Northwest Logic, founded in 1995 and located in Beaverton, Oregon, provides high-performance, silicon-proven, easy-to-use IP cores including high-performance Memory Interface Solution (DDR3, DDR2, DDR, Mobile DDR SDRAM; RLDRAM II), Espresso Solution (PCI Express 3.0, 2.0 and 1.1 cores and drivers), and MIPI Solution (CSI-2, DSI). These solutions support a full range of platforms including ASICs, Structured ASICs and FPGAs. For additional information, visit [www.nwlogic.com](http://www.nwlogic.com) or contact [info@nwlogic.com](mailto:info@nwlogic.com).

## **About MIPI Alliance**

MIPI Alliance is a global, collaborative organization comprised of companies that span the mobile ecosystem and are committed to defining and promoting interface specifications for mobile devices. MIPI Specifications establish standards for hardware and software interfaces which drive new technology and enable faster deployment of new features and services.

MIPI® Alliance is a registered mark of MIPI Alliance, Inc.

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