

<p><b>Spotlight:</b></p> <p><b>Mixel and Northwest Logic Celebrate 28<sup>th</sup> MIPI Design Win</b></p> <p>Northwest Logic and Mixel have been collaborating to provide complete MIPI Controller and PHY solutions for almost 8 years. Recently, the companies were awarded their 28<sup>th</sup> mutual design win. <i>“Mixel is a market leader in MIPI D/C-PHYs with the broadest process support”</i>, stated Ashraf Takla, president of Mixel. <i>“Northwest Logic’s controllers are the perfect complement to Mixel’s PHY with complete CSI-2, DSI and DSI-2 Controller (Tx &amp; Rx) support for both ASICs and FPGA prototyping”</i>, added Brian Daellenbach, president of Northwest Logic. The Mixel/Northwest Logic partnership provides customers with best-in-class MIPI solutions from a feature, performance and flexibility perspective. Please contact <a href="#">Northwest Logic</a> or <a href="#">Mixel</a> for more information. See their <a href="#">2016 MIPI DEVCON Presentation</a> for more information on the impact of higher data rates on MIPI designs.</p>	<p><b>Need more info?</b></p> <p>Fill in an <a href="#">Info Request</a> or <a href="#">Contact Us</a></p>
<p><b>Latest News:</b></p> <p><b>Toshiba Medical Has Utilized Northwest Logic’s IP Cores For More Than 10 Years</b></p> <p>Toshiba Medical Research Institute USA, Inc. (<a href="#">TMRU</a>), one of Toshiba Medical’s four global R&amp;D companies, is responsible for many of the ideas behind the company’s advancements in medical imaging technology. <i>“At Toshiba Medical, we have been working with the Northwest Logic team for over 10 years using multiple IP cores across many FPGA families. We have consistently found NWL IP to be of the highest quality and performance and their customer support to be outstanding. Northwest Logic has been a partner in helping us to develop and deliver numerous world-class medical imaging products to our customers.”</i> said Chris Allen, Manager FPGA/ASIC, Toshiba Medical Research Institute USA, Inc. <a href="#">Click here</a> for more info on Northwest Logic’s PCIe and Memory solutions.</p> <p><b>Northwest Logic Support for Toshiba ASIC &amp; FFSA™</b></p> <p>Toshiba’s FFSA™ is an innovative SoC development platform that provides metal configurable standard cell logic gates, SRAM, high-speed SerDes and flexible I/O capable of meeting the diverse needs of customers. Northwest Logic offers high-performance, silicon-proven PCI Express Solution (PCI Express 4.0, 3.0, 2.1 and 1.1 cores and drivers) and Memory Interface Solution (DDR4/3/2, LPDDR-3/2 SDRAM) for use on Toshiba ASIC &amp; FFSA™ platforms. <i>“These solutions are delivered fully integrated and verified with the built-in Toshiba ASIC &amp; FFSA™ PHYs to provide our customers with complete, pre-packaged IP subsystems. This allows customers to create sophisticated application designs with an accelerated schedule,”</i> said Doug Day, Engineering Fellow System LSI Group, Toshiba America Electronic Components, Inc. For more information on Northwest Logic’s Solutions,</p>	<p><b>Quick Links:</b>  <a href="#">PCI Express Solution</a>  <a href="#">Memory Solution</a>  <a href="#">MIPI Solution</a></p> <p><b>Partner Links:</b>  <a href="#">Mixel D-PHY</a>  <a href="#">Meticom MIPI Chips</a>  <a href="#">Inrevium MIPI Board</a>  <a href="#">SK hynix HBM</a>  <a href="#">Analog Bits PCIe PHY</a></p> <p><b>Northwest Logic is hiring:</b>  <a href="#">Job Opening</a></p> <p><b>Cartoon of the Quarter:</b>  <a href="#">XKCD</a></p> <p><b>Newsletters:</b></p>

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## Northwest Logic's MIPI Controllers Now Support Xilinx Ultrascale+ Devices

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Northwest Logic now offers its MIPI CSI-2 and DSI/DSI-2 controller cores with support for the Xilinx Kintex, Virtex and Zynq Ultrascale+ devices. This includes support for the Xilinx's native D-PHY as well as the Meticom FPGA Bridge chip based D-PHY at rates up to 1500 Gbit/s/lane. "Northwest Logic is an Ultrafast Certified Member of Xilinx Alliance Program. We look forward to enabling Xilinx [Ultrascale+](#) customers with our high quality and easy to use MIPI Controller Cores." said Joe Rodriguez, MIPI Marketing Engineer at Northwest Logic. "We are pleased to see Northwest Logic's continued involvement in the Xilinx Alliance Program" said Girish Malipeddi, Product Manager, Video Solutions. For more information about Northwest Logic's MIPI Controllers, please [visit our product page](#).

## Northwest Logic's PCI Express Solution Supports Intel Programmable Solutions Group (PSG) Stratix-10 Devices

Northwest Logic has started making customer deliveries of its PCI Express® 3.0 compliant solution for the Intel Stratix 10 FPGA device family. Northwest Logic's PCI Express solution consists of the Espresso Controller Core, DMA Cores and Drivers. These cores provide very high-throughput, including support for Intel FPGA's Avalon streaming interface. "Our close collaboration with Intel Programmable Solutions Group (PSG) has enabled us to provide early support for the Stratix 10 devices" said Vinitha Seevaratnam, PCI Express Marketing Engineer at Northwest Logic. For more information on Northwest Logic's PCI Express solution, please [visit](#). "We are pleased to have Northwest Logic, a Platinum member of Intel PSG's Design Solutions Network, expanding the portfolio of available IP for the Intel 14nm Stratix 10 devices." said Sheri Andrew, Senior Manager IP Marketing. For more information on Intel's Stratix 10, please [visit](#).

## Northwest Logic's "Integrating and Testing HBM2 Controller + PHY Solutions" DesignCon 2017 Presentation Now Available

Northwest Logic made a presentation at DesignCon 2017 describing how Northwest Logic fully integrates and verifies its HBM2 Controller Core with a customer-selected HBM2 PHYs such as the Rambus HBM2 PHY. This presentation also describes how the Northwest Logic IP enables a HBM2 memory system including the HBM2 ASIC + Interposer + HBM2 memory device to be fully tested in hardware. The key benefits of the Northwest Logic HBM2 Controller + Rambus HBM2 PHY solution are also summarized. The DesignCon 2017 presentation is available [here](#). Please contact [Northwest Logic](#) or [Rambus](#) for more information.

## Northwest Logic Offers Avery Design's HBM2 Models With Its HBM2 Controller Core

Northwest Logic now offers Avery Design's high-quality HBM2 memory model with its market-leading HBM2 Controller Core. The HBM2 model provides comprehensive HBM2 protocol and timing checking and sophisticated

performance monitoring and debug features. The HBM2 models are part of Avery Design's full family of memory models including DDR4/3/2, LPDDR4/3, LR/R/NV-DIMM support. *"Northwest Logic uses Avery Design's memory models internally as an important complement to the memory vendor models. Because of our positive experience with Avery Design's memory models, Northwest Logic now offers their HBM2 model optionally bundled with our HBM2 Controller Core,"* stated Brian Daellenbach, president of Northwest Logic. Please contact [Northwest Logic](#) or [Avery Design](#) for more information.