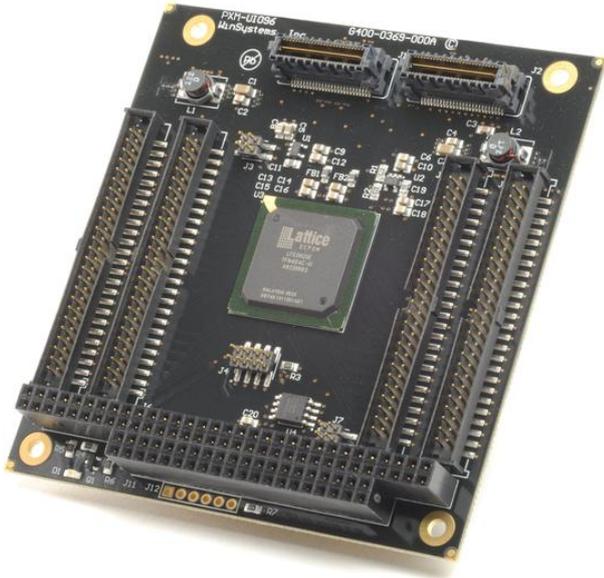


## 96-line PCI Express SUMIT Digital I/O Module



WinSystems announced a SUMIT-ISM compatible 96-line digital I/O module designed for high-speed interfacing. Named the PXM-UIO96-2, it offers PCI Express expansion on a 90 x 96mm PC/104-sized module enabled by the stackable high-speed SUMIT connector. One key feature of this card is its ability to monitor all 96 lines for both rising and falling digital edge transitions, latch them, and then interrupt the host processor notifying it that a change-of-input status has occurred. This is the most efficient way of sensing and signaling the CPU of real-time events without the burden of continuous polling of the digital I/O points.

The PXM-UIO96-2 uses a Lattice Semiconductor ECP2M family FPGA with a superset of two WinSystems' WS16C48 Universal I/O controller cores. It is wired to the PCIe x1 lane of the SUMIT-A connector and automatically selects the first available link. Each I/O line is programmable for input, output, or output with read-back operation. Transition polarity is programmable and enabled on a bit-by-bit basis. Each line's transition is latched so that even short duration pulses will be recognized. Also, each output channel is latched and has an open collector driver (with a pull-up resistor) capable of sinking 12mA of current. This allows direct interface with optically-isolated digital signal conditioning modules such as WinSystems ISM-TRM-ISO-IN and ISM-TRM-ISO-OUT for high-density, real-world I/O support.

The PXM-UIO96-2 supports Linux, Windows, and other x86-compatible real-time operating systems. Free drivers are available from the WinSystems' website.

This board will operate over the industrial temperature range from -40°C to +85°C. It is RoHS compliant.

The PXM-UIO96-2 includes the SUMIT (Stackable Unified Module Interconnect

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Published on Wireless Design & Development (<http://www.wirelessdesignmag.com>)

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Technology ) connector that was developed and standardized by the Small Form Factor Special Interest Group (SFF-SIG: [www.sff-sig.org](http://www.sff-sig.org)). SUMIT is an electromechanical connectorization specification that enables stacking of common serial and legacy chipset expansion buses on PC/104 and other form factor's I/O modules for next generation embedded systems products.

[www.winsystems.com](http://www.winsystems.com) [1]

August 15, 2012

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