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Marvell Introduces Industry's First Commercially Available Ethernet Transceivers Fully Optimized for 2.5Gbps and 5Gbps Data Rates over Cat5e Cables

The new 88E2010/40 Ethernet transceivers complement a range of Marvell switches for campus applications, supporting 4 to 48 NBASE-T ports

SANTA CLARA, Calif. and LAS VEGAS, April 25, 2016 /PRNewswire/ -- Marvell (NASDAQ:MRVL), a world leader in storage, cloud infrastructure, Internet of Things (IoT), connectivity and multimedia semiconductor solutions, today announced the Marvell® Alaska® 88E2010/40 family of Ethernet transceivers, the industry's first commercially available Ethernet transceivers fully optimized for 2.5Gbps and 5Gbps data rates over Cat5e cables. Providing a cost efficient, small form factor and low power dissipation, the Alaska 88E2010/40 Ethernet transceivers enable the utilization of the most common types of installed Cat5e Ethernet cabling for applications including 802.11ac Access Point uplinks, switches, servers, workstations and high-end PCs. The Alaska 88E2010/40 Ethernet transceivers are designed to be compliant with the emerging IEEE 802.3bz standard and the NBASE-T Alliance specification for 2.5Gbps and 5Gbps data rates over Cat5e cables. The new Marvell Alaska 88E2010/40 Ethernet transceivers further extend Marvell's Alaska product suite and currently are being sampled by global customers.

To provide a seamless system solution, the Alaska 88E2010/40 Ethernet transceivers can be kitted with Marvell's broad range of switches, which span the range from basic Layer 2 functionality to models containing full Enterprise Class Virtualization and Layer 3+ features. These switches support anywhere from 4 to 48 NBASE-T ports, have the ability to stack with 40GbE and 100GbE uplinks and are provided with application software in turn-key packaged solutions.

"Marvell's Alaska 88E2010/40 Ethernet transceivers are optimized to enable 2.5Gbps and 5Gbps uplink data rates in SMB and enterprise environments over existing Cat5e cabling, saving the cost of rewiring the installed base," said Michael Zimmerman, Vice President and General Manager, Connectivity, Storage and Infrastructure (CSI) BU at Marvell Semiconductor, Inc. "Marvell's Alaska 88E2010/40 technology was custom designed to provide one of the lowest power dissipation rates in one of the smallest form factors on the market to power enterprise switching and application processor solutions at a very cost effective price. They perfectly pair with Marvell's complete family of switch silicon products, which provide comprehensive support for 4 to 48 ports of NBASE-T 2.5Gbps and 5Gbps Ethernet."

The Alaska 88E2010/40 devices use Marvell's advanced Digital Signal Processing (DSP) technology to enable the repurposing of low-cost Cat5e Ethernet cables for data rates as high as 5Gbps. The devices support Category 6 (screened or unscreened), Category 6a (augmented) and Category 7 type cables, as well as Category 5e type cables for distances up to 100m. The devices support a variety of host interfaces (2500BASE-X, 5000BASE-R, SGMII), as well as 10G host interfaces such as USXGMII interface and XFI/RXAUI with Rate-Matching. The transceiver family also features full backward compatibility with lower-speed legacy Ethernet (1000/100/10Mbps) on the line side.

The Alaska 88E2010/40 Ethernet transceivers also incorporate the Marvell advanced Virtual Cable Tester® technology for cable fault detection and proactive cable performance monitoring. With advanced DSP technology, the transceivers can proactively monitor the performance of a cable and determine cable length and type, in addition to detecting opens and shorts and reporting the location of a fault.

The robust Alaska 88E2010/40 family of Ethernet transceivers includes:

- Compliance with the NBASE-T Alliance specifications for 2.5Gbps and 5Gbps modes
- Energy Efficient Ethernet (EEE) IEEE 802.3az for all supported data rates
- Bit error rate (BER) better than 10^{-15}
- Demonstrated reach of over 170m on Cat5e for 2.5Gbps and over 115m for 5G mode
- Integrated Marvell Virtual Cable Tester technology
- Management Data Clock (MDC) and Management Data Input/Output (MDIO) management interface
- Industry-leading lowest power consumption
- Precision Time Protocol (PTP) and Media Access Control Security (MACsec) functions in the 88E2010 and 88E2040 devices

The Marvell Alaska product family will be showcased at the NBASE-T Alliance booth (No. 936) at Interop Las Vegas, May 2-6, 2016 at the Mandalay Bay Convention Center in Las Vegas. For further information about Marvell's 88E2010/40 and the rest of the Marvell Alaska family of Ethernet transceivers, visit: http://www.marvell.com/transceivers/.

About Marvell

Marvell (NASDAQ: MRVL) is a global leader in providing complete silicon solutions. From storage to cloud infrastructure, Internet of Things (IoT), connectivity and multimedia, Marvell's diverse product portfolio aligns complete platform designs with industry-leading performance, security, reliability and efficiency. At the core of the world's most powerful consumer, network and enterprise systems, Marvell empowers partners and their customers to always stand at the forefront of innovation, performance and mass appeal. By providing people around the world with mobility and ease of access to services adding value to their social, personal and work lives, Marvell is committed to enhancing the human experience.

For more information, please visit www.Marvell.com.

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To view the original version on PR Newswire, visit:http://www.prnewswire.com/news-releases/marvell-introduces-industrys-first-commercially-available-ethernet-transceivers-fully-optimized-for-25gbps-and-5gbps-data-rates-over-cat5e-cables-300256391.html

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