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Microsemi Collaborates with China Telecom to Deliver Optimized OTN Solution for 5G

DIGI-G5 Delivers Nanosecond Timing Accuracy, 1 Microsecond Level Latency and Enables Hard Network Slicing via Integrated OTN Switch Fabric

ALISO VIEJO, Calif., June 13, 2018 /PRNewswire/ -- **Microsemi Corporation**, a wholly owned subsidiary of Microchip Technology Inc. (Nasdaq: MCHP), today announced its collaboration with China Telecom Beijing Research Institute to define and develop next-generation optical transport solutions to meet the stringent requirements of 5G. China Telecom is leading the Next-Generation Optical Transport Network Forum (NGOF) consortium formed to drive industry collaboration and technological innovations to define converged optical transport network (OTN) which meet the needs of 5G deployments. As part of this collaboration, Microsemi is bringing to market the DIGI-G5, the newest member of its award-winning DIGI OTN processors, supporting new 5G optimized architecture that enables the stringent synchronization, latency and network slicing requirements being placed on optical networks to support 5G deployments.

5G's variety of use cases will impose new requirements like network slicing, stringent latency and timing synchronization on the underlying optical transport networks. With 25G, 50G and 100Gbps port rates planned for 5G remote radio heads, the traffic flow from the radio to the mobile edge will dramatically increase. With the promise of up to 50x lower end-to-end latency, the optical transport network will play a critical role in enabling ultrareliable low latency communication (uRLLC) applications such as autonomous vehicles. New

architectures leveraging hard traffic isolation will further enhance the business opportunities network slicing is set to bring for mobile operators.

"China Telecom plans to be the pioneer in both 5G commercial service and 400G OTN network commercial deployments. A mobile-optimized converged metro, multiservice and cloud-based OTN transport network is critical to both initiatives," said Zhang Chengliang, vice president, China Telecom Beijing Research Institute. "The availability of Microsemi's DIGI-G5 will help the industry deliver a new generation of OTN equipment to enable the 5G era."

DIGI-G5 Enables the 5G Era

In response to the 5G challenges, Microsemi's new 5G optimized architecture of the DIGI-G5 reduces the total latency for single hop close to 1 microsecond. In addition, the DIGI-G5 integrates close to two terabits of on-chip ODUk switching for hard traffic isolation and grooming in support of network slicing. With original equipment manufacturers looking to upgrade their platforms to meet Precision Time Protocol's (PTP's) Class C requirements, the DIGI-G5 delivers best-in-class nanosecond level time stamping accuracy and provides mechanisms to carry critical timing information over the OTN network.

"As a market leader in OTN processors powering packet optical transport networks world-wide, we are focusing our investments to enable service providers to leverage economy of scale and realize operational efficiencies by extending OTN from their metro networks to the access as the packet optical topology for 5G transport," said Babak Samimi, vice president and business unit manager for Microsemi's Communications business unit. "As a founding member of NGOF along with China Telecom, Microsemi is innovating and optimizing OTN for mobile applications and DIGI-G5 is bringing together the critical pieces like synchronization, latency, and network slicing needed for 5G."

Microsemi's DIGI-G5 offers differentiating features and innovations to support the 5G era:

- New OTN 3.0 rates, enabling flexible (FlexO) and fractional 100G+ transmission
- Comprehensive Ethernet support including 25GE, 50GE and 100GbE
- Close to 1 microsecond datapath latency
- Supports hard traffic isolation and slicing over OTN
- High precision nanosecond level IEEE 1588 PTP timestamping accuracy
- Integrated G.HAO bandwidth-on-demand processing for OTN switching networks closer to the access

Product Availability

Microsemi's new DIGI-G5 will be sampling in the second calendar quarter of 2018. For more information, visit www.microsemi.com/digi-g5 or email sales.support@microsemi.com. For more information about Microsemi's overall OTN product portfolio visit https://www.microsemi.com/product-directory/optical-networking/3659-otn.

About NGOF

More information can be found at http://ngof.net/index.html**.**

About Microsemi's Product Portfolio for Communications

Microsemi is a premier supplier of semiconductor, system and services differentiated by performance, power reliability and security. Microsemi enables customers to build solutions in a range of applications including Ethernet switches, 100G Ethernet and OTN, cellular infrastructure including LTE-Advanced and 5G, small cells, microwave and millimeter wave systems, Wi-Fi access points, XGS PON or NGPON2 based converged wireline access, broadband gateways including fiber/PON, G.fast and DOCSIS3.1, and home/on-premise security/surveillance. Microsemi's communications portfolio includes high accuracy timing and synchronization including IEEE1588 PTP and NTP servers, software and components; low jitter PLL and high fan-out buffers, enterprise and carrier Ethernet switches and PHYs, voice and audio intelligence including AEC and ASR, lowest power FPGAs with high security and reliability; PCI Express Switches, OTN PHYs and processors, optical drivers, integrated Wi-Fi front-end modules (FEM) and power-efficient and multi-standard power-over-Ethernet (PoE) ICs and systems, and G.hn, G.fast and xDSL line drivers. For more information, visit https://www.microsemi.com/applications/communications.

About Microsemi

Microsemi Corporation, a wholly owned subsidiary Microchip Technology Inc. (Nasdaq: MCHP), offers a comprehensive portfolio of semiconductor and system solutions for communications, defense & security, aerospace and industrial markets. Products include high-performance and radiation-hardened analog mixed-signal integrated circuits, FPGAs, SoCs and ASICs; power management products; timing and synchronization devices and precise time solutions, setting the world's standard for time; voice processing devices; RF solutions; discrete components; enterprise storage and communication solutions, security technologies and scalable anti-tamper products; Ethernet solutions; Power-over-Ethernet ICs and midspans; as well as custom design capabilities and services. Microsemi is headquartered in Aliso Viejo, Calif., and has approximately 4,800 employees globally. Learn more at www.microsemi.com.

"Safe Harbor" Statement under the Private Securities Litigation Reform Act of 1995: Any statements set forth in this news release that are not entirely historical and factual in nature, including without limitation statements related to its collaboration with China Telecom Beijing Research Institute to define and develop next-generation optical transport solutions to meet the stringent requirements of 5G, and its potential effects on future business, are forward-looking statements. These forward-looking statements are based on our current expectations and are inherently subject to risks and uncertainties that could cause actual results to differ materially from those expressed in the forward-looking statements. The potential risks and uncertainties include, but are not limited to, such factors as rapidly changing technology and product obsolescence, potential cost increases, variations in customer order preferences, weakness or competitive pricing environment of the marketplace, uncertain demand for and acceptance of the company's products, adverse circumstances in any of our end markets, results of in-process or planned development or marketing and promotional campaigns, difficulties foreseeing future demand, potential non-realization of expected orders or non-realization of backlog, product returns, product liability, and other potential unexpected business and economic conditions or adverse changes in current or expected industry conditions, difficulties and costs of protecting patents and other proprietary rights, inventory obsolescence and difficulties regarding customer qualification of products. In addition to these factors and any other factors mentioned elsewhere in this

news release, the reader should refer as well to the factors, uncertainties or risks identified in the company's most recent Form 10-K and all subsequent Form 10-Q reports filed by Microsemi with the SEC. Additional risk factors may be identified from time to time in Microsemi's future filings. The forward-looking statements included in this release speak only as of the date hereof, and Microsemi does not undertake any obligation to update these forward-looking statements to reflect subsequent events or circumstances.

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