April 23, 2026

New Plug-In Timing Module Delivers Precise, Reliable Synchronization for Data Centers and 5G Networks to Meet the Demands of AI and Next-Generation Connectivity

Microchip's MD-990-0011-B timing module redefines the role of timing in transformative markets, making it possible for customers to seamlessly integrate advanced synchronization at any stage of development

CHANDLER, Ariz., April 23, 2026 (GLOBE NEWSWIRE) -- As data centers and 5G networks become the backbone of AI-driven innovation and digital transformation, the need for precise, resilient timing solutions has never been more critical. Timing is not just a technical requirement, but rather a strategic enabler for high-performance, scalable infrastructure. Microchip Technology **(Nasdaq: MCHP)** today announces its **MD-990-0011-B family of plug-in timing modules**, delivering turnkey, high-precision synchronization for data center servers and 5G virtualized Radio Access Networks (vRAN).

Developed in collaboration with Intel, the MD-990-0011-B timing module is designed for seamless compatibility with Intel® Xeon® 6 SoC-powered server platforms, supporting both OEMs and ODMs in building future-ready systems. By leveraging Intel's foundational vRAN architecture, the module enables robust, low-latency time synchronization, which is essential for distributed AI workloads and real-time applications.

Engineered for the reliability and scalability required by cloud infrastructure, virtualization and high-availability deployments, the MD-990-0011-B supports automatic source selection and locking across Global Navigation Satellite Systems (GNSS), Synchronous Ethernet (SyncE) and Precision Time Protocol (PTP). This flexibility supports continuous, accurate timing even as network demands evolve.

"Timing is the invisible force that guides the world's most transformative technologies. With the MD-990-0011-B timing modules, Microchip enables designers to address timing requirements proactively, whether at the outset or during upgrades," said Randy Brudzinski, corporate vice president of Microchip's frequency and time systems business unit. "Our plug-in solution eliminates the complexity of custom timing circuits, providing integration and reliability, accelerating innovation and reducing time-to-market for data centers and 5G networks."

"Microchip's MD-990-0011-B Timing Module aligns with Intel's commitment to enable next-generation infrastructure by providing scalable, high-performance platforms that are ready for the demands of 5G, AI and cloud computing," said Mike Merluzzi, GM of radio access networks at Intel Corporation. "By simplifying timing integration and enhancing reliability on

Intel Xeon 6 SoC-powered platforms, we're helping customers accelerate innovation and deployment."

Delivering exceptional precision in time and frequency accuracy, along with robust holdover capabilities, the MD-990-0011-B timing modules are available in two variants. The MD-990-0011-BC01 offers 8-hours of holdover performance, while the MD-990-0011-BA01 offers 4-hours of holdover performance. These timing modules consolidate several of Microchip's advanced technologies into a single, highly integrated solution. Key components include:

- **Synchronous Ethernet (SyncE) Synthesizer (ZL80132B):** Features two independent Digital Phase-Locked Loop (DPLL) channels for flexible and resilient synchronization
- **Oven Controlled Crystal Oscillators (OCXOs, OX-22x):** Engineered to provide up to 8-hours of holdover, ensuring stable timing during GNSS outages or network disruptions
- **MCP9808 Temperature Sensor** supporting enhanced, environmental monitor, 24LC024 EEPROM implementing board configuration and **VC-820** for low jitter performance

By unifying these critical timing components into a single plug-in module, the MD-990-0011-B streamlines server architecture, reduces design complexity and simplifies the supply chain. Its modular design enables rapid installation and simplified maintenance, minimizing downtime and facilitating effortless upgrades, key advantages for dynamic data center and 5G network environments.

With over 75 years of timing experience, Microchip offers a comprehensive clock and timing portfolio. The company's frequency and timing products range from small plug-in timing server cards to multi-rack national time scale systems. As a primary contributor to the world's time, Microchip's timing solutions are trusted, reliable and resilient. For more information, visit Microchip's Clock and Timing Systems **web page**.

Pricing and Availability

The MD-990-0011-BA01 and the MD-990-0011-BC01 are now available in production quantities. You can **purchase** directly from Microchip or contact a Microchip **sales representative or authorized worldwide distributor**.

Resources

High-res images available through Flickr or editorial contact (feel free to publish):

- Application image: **www.flickr.com/photos/microchiptechnology/55091198450/sizes/l**

About Microchip Technology:
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