

## FOR IMMEDIATE RELEASE

# Epson and Microsemi Team Up to Deliver Compliant Network Synchronization Solutions for IEEE 1588-2008 and SyncE for Use in the Rapidly Expanding Packet Network Infrastructure

### TOKYO, Japan and ALISO VIEJO, Calif. -May 9th, 2016 -

**Seiko Epson Corporation** (TSE: 6724, "Epson"), the world leader in quartz crystal technology (1), and **Microsemi Corporation** (Nasdaq: MSCC), a leading provider of semiconductor solutions differentiated by power, security, reliability and performance, today announced their joint development of compliant network synchronization solutions, with Epson's TG7050EAN high frequency high stability temperature compensated crystal oscillator (TCXO) supporting Microsemi's ZL30722 IEEE-1588 and Synchronous Ethernet (SyncE) packet Eclock network synchronizer.

Epson's TG7050EAN TCXO provides short-term stability to support IEEE-1588 Precision Time Protocol (PTP) and Stratum3-compliant holdover for protection. It is unique in offering both high frequency and high stability, with margin to industry maximum time interval error (MTIE) and time deviation (TDEV) specifications to ensure reliable operation under real-world conditions such as rapid airflow and temperature changes.

"Epson is committed to developing network synchronization solutions," said Masayuki Kitamura, chief operating officer of Epson's Microdevices Operations Division. "The superior wander characteristics of our TG7050EAN enable dependable IEEE-1588 synchronization in congested networks. Working with Microsemi allows us to solve synchronization problems for the latest packet networks, including small cells and mobile backhaul."

Microsemi's ZL30722 is ideal for a wide range of applications, including small cell routers and switches, broadband access, carrier Ethernet equipment and wireless equipment such as base stations and backhaul equipment, as well as smart grids and synchrophasors. The device provides SyncE/IEEE-1588 synchronization with excellent jitter performance of 0.25 pico seconds (ps) root mean square (rms).

"As our customers rely on our deep expertise in timing and synchronization to provide proven, standards-compliant timing solutions, working with a company like Epson brings great value to Microsemi, as it enables us to offer a complete IEEE-1588 and SyncE-compliant solution and further enhances our diverse product offerings," said Maamoun Seido, vice president and business unit manager of Microsemi's timing products. "This collaboration not only helps provide our customers with standards-compliance assurance, but it also allows them to create a dependable solution for real-world network conditions."

Together the TG7050EAN and ZL30722 comply with ITU-T G.813, G.823, G.824, G.8261, G.8262 and G.8263, providing the frequency accuracy and phase synchronization required by multiple wireless and wireline protocols and supporting new ITU-T packet clock drafts and recommendations. The TG7050EAN is now sampling and joins Epson's TG-5500 TCXO and other Epson timing devices qualified for use with Microsemi's family of synchronization integrated circuits (ICs).

#### About Epson

Epson is a global technology leader dedicated to connecting people, things and information with its original efficient, compact and precision technologies. With a lineup that ranges from inkjet printers and digital printing systems to 3LCD projectors, smart glasses, sensing systems and industrial robots, the company is focused on driving innovations and exceeding customer expectations in inkjet, visual communications, wearables and robotics.

Led by the Japan-based Seiko Epson Corporation, the Epson Group comprises more than 67,000 employees in 90 companies around the world, and is proud of its contributions to the communities in which it operates and its ongoing efforts to reduce environmental impacts. http://global.epson.com/

#### About Microsemi

Microsemi Corporation (Nasdaq: MSCC) offers a comprehensive portfolio of semiconductor and system solutions for aerospace & defense, communications, data center 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

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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.

1 #1 market share in crystals & oscillators according to CS&A 2015 market report.

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