

# Epson introduces new differential output crystal oscillator

March 26 2014

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Differential Output Crystal Oscillator.

Seiko Epson Corporation, the world leader in quartz crystal technology, today introduces availability of the SG7050EBN, a next-generation differential-output crystal oscillator that achieves extremely low phase jitter.

Available over a frequency range of 100 MHz to 175 MHz, the SG7050EBN achieves 65 fs phase jitter. This performance is suitable for 10-, 40-, and 100-Gigabit Ethernet interconnect used in datacenters and central offices. The SG7050EBN will be used in wired [networking equipment](#), both carrier and enterprise, such as high-end routers and switches.

The SG7050EBN achieves 65 fs phase jitter using an oscillator IC specifically designed for low noise and a high-frequency fundamental (HFF) AT-cut crystal fabricated using Epson's proprietary QMEMS process. Epson's HFF crystal technology is more reliable than legacy 3rd overtone crystals which are commonly used for these frequencies.

Epson also intends to address the diverse range of differential output formats used in networking equipment through the gradual release of new products supporting HCSL and LVDS standards. Committed to improving the design freedom of its customers, Epson's product lineup also features products in the highly compact 5032 (5.0 x 3.2 x 1.0 mm) package.

Moving forward, Epson will leverage its unique technological strengths in crystal microfabrication and semiconductors to provide customers with device solutions that are safe, easy to use, and dependable.

Provided by Epson

Citation: Epson introduces new differential output crystal oscillator (2014, March 26) retrieved 23 May 2024 from <https://phys.org/news/2014-03-epson-differential-output-crystal-oscillator.html>

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