The TInker's Toolbox - Piyush Sevalia of SiTime on MEMS Timing Devices

Hosted by Alix Paultre, the Tinker's Toolbox is the Advantage Design Group's web-based interview show where we talk about the latest technology, components, and design issues for the electronic design engineering community.

In today's podcast we talk to Piyush Sevalia, VP Marketing of SiTime, on timing issues in general and their MEMS timing devices in particular. Their “Encore” platform is presented as the industry’s highest performance Silicon MEMS timing solution. The platform offers excellent stability, phase noise, jitter and aging performance and enables MEMS-based OCXO, TCXO and VCXO products for Telecom, Networking, Wireless and Storage applications.

Right-click to download the podcast [1]

Here is a link to the podcast in case the play button is not visible: SiTime Interview [1]

Here is a link to a presentation on the product family: SiTime Presentation [2]

Here is the press release on the products:

SiTime Corporation, the leader in MEMS-based silicon timing solutions, today introduced their “Encore” platform, the industry’s highest performance Silicon MEMS timing solution. This revolutionary platform offers excellent stability, phase

noise, jitter and aging performance and enables MEMS-based OCXO, TCXO and VCXO products for Telecom, Networking, Wireless and Storage applications. Like all of SiTime's oscillator offerings, Encore [3] also offers pin compatibility with existing quartz-based solutions, the best flexibility and lead time, the smallest size, and the highest reliability.

"SiTime has used its Silicon MEMS technology and programmable analog expertise to deliver the best price-performance timing solutions that are available today," said Rajesh Vashist, CEO of SiTime. "We believe that the Encore platform changes the game significantly as it forms an inflection point in the adoption of MEMS-based silicon timing solutions. These products offer the compelling benefits of silicon – flexibility, size, power and lead time – and enable customers to completely eliminate quartz from their systems."

Performance on the Encore platform includes:

- ± 0.5 PPM frequency stability.
- 650 femtoseconds of integrated RMS random phase jitter, measured over 12 kHz to 20 MHz. With this performance, Encore-based products are an excellent fit for Telecom, Networking, Wireless and Storage applications.
- 200 femtoseconds of integrated RMS random phase jitter, using the FibreChannel 8.5Gbps jitter mask.
- The widest pull range, up to ± 1600 PPM, on VCXOs.

SiTime is currently sampling the Encore chips to customers. For more information, please visit http://www.sitime.com/products/Encore [3].

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[1] http://www.ecnmag.com/sites/ecnmag.com/files/legacyfiles/ECN/Multimedia/Audio/2011/08/sitime.MP3
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[3] http://www.sitime.com/products/Encore