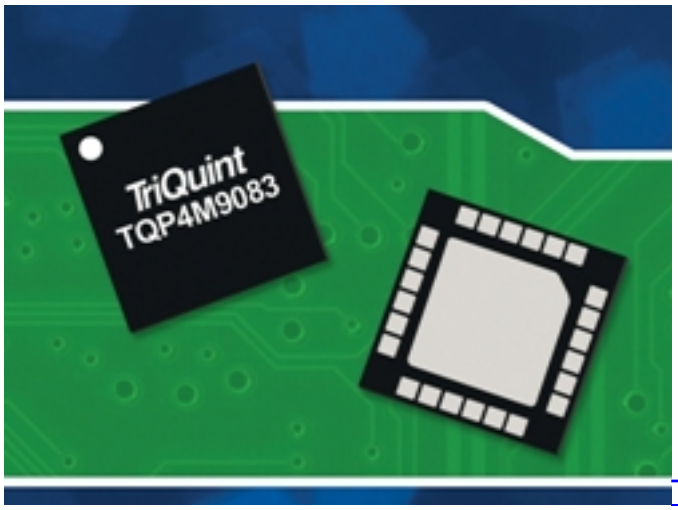
New High-Speed DSA Provides High Performance for BTS & Test Applications



TriQuint Semiconductor, Inc. [1] has released a new 7-bit digital step attenuator (DSA) that delivers the low insertion loss, high speed, linearity and and advanced, fine-grain resolution required by designers of base station transceivers, test equipment and many other similar applications.

The TQP4M9083 provides up to 31.75dB of attenuation in 0.25-dB steps and operates from 400 MHz to 3.5 GHz. The TQP4M9083 uses a TTL / CMOS-compatible serial peripheral interface (SPI) controller for changing attenuation states; this maintains high attenuation accuracy over frequency and temperature. Switching speed is 118 n/s, input third-order intercept (IIP3) is +55dBm, and insertion loss is 1.5dB at 2 GHz.

TriQuint's new attenuator provides upgraded resolution with a 0.25dB step size, which is a finer gradation compared to other standard 6-bit DSAs; these products typically offer 0.5dB steps, including TriQuint's own TQP4M9072. Seeking constant improvement, the TQP4M9083 solution is offered with finer step gradation in the same 24-pin, 4x4mm QFN package and pin-out as the TQP4M9072. This provides more choices for system gain control. The TQP4M9083 is designed to be robust, meeting stringent Class 1C HBM (up to 2 kV) electrostatic discharge (ESD) requirements.

www.triquint.com [1]

Posted by Sara Cohen, Editorial Intern

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[1] http://www.triquint.com/