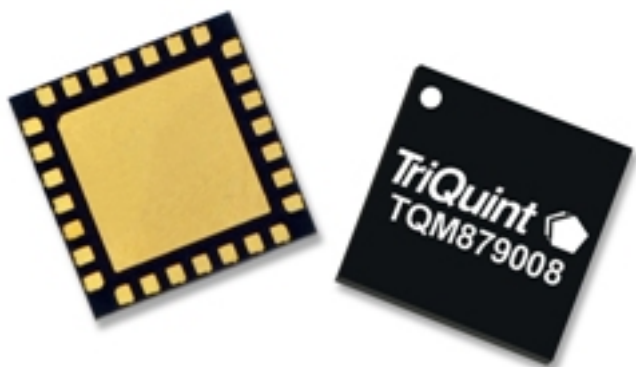


TriQuint Integrated DVGAs Reduce BOMs, Improve Performance

New Integrated DVGAs Deliver SMT Convenience for 3G / 4G / BTS / PtP Applications



[TriQuint Semiconductor](#) [1] has released two compact, digitally-controlled variable gain amplifiers (DVGAs) that integrate key functionality and can reduce BOM (bill of material) part counts. These high-performance solutions provide receiver or transmitter gain control in base station transceivers, repeaters, point-to-point microwave radios, and satellite communications terminals. They are also an excellent choice for any application that requires automatic gain control to increase system dynamic range.

The [TQM829007](#) [2] operates from 600 to 1000 MHz while the [TQM879008](#) [3] operates from 1.5 to 2.7 GHz. Both are highly-integrated modules that simplify circuit design by combining all required components within leadless 6x6mm, industry-standard SMT packages. The modules include gain blocks, a highly-linear amplifier, matching components, bias chokes and blocking capacitors, as well as a digitally-controlled, 6-bit attenuator that varies amplifier gain in 0.5 dB steps (across a 31.5 dB range) via a serial programming interface (SPI). The new DVGAs operate over a temperature range of -40° to +85° C and have a minimum MTTF of 1,000 years at a mounting temperature of +85° C.

Today's transceivers require the highest possible levels of functional integration with high performance to cost-effectively simplify RF design and manufacturing. The TQM829007 and TQM879008 are designed to achieve this goal, eliminating the need for commonly-used external components found in discrete designs to provide a complete gain-control solution optimized for best performance. They are also pin-compatible with TriQuint's TQM879006 DVGA that covers 1.4 to 2.7 GHz and provides 31dB of gain control, +25.4dBm RF output and a 1.5dB noise figure.

The TQM829007 complements other TriQuint devices with similar performance at key cellular frequencies including the TQM879006 (1.4-2.7 GHz) and TQM879008 (1.5-2.7 GHz.)

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The new TQM829007 and TQM879008 are in production. Fully-assembled evaluation fixtures (including a USB control board and related software) are available. Contact [TriQuint](#) [4] for product details or go to www.triquint.com/sales [5] to locate a sales representative or distributor closest to you. Please visit our website for product updates and to [register for TriQuint's quarterly newsletter](#) [6].

Posted by Ron M. Seidel, Editorial Intern

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Links:

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

[2] <http://www.triquint.com/products/p/TQM829007>

[3] <http://www.triquint.com/products/p/TQM879008>

[4] [mailto:info-](mailto:info-networks@tqs.com?subject=TQM829007-TQM879008%20Product%20Inquiry)

[networks@tqs.com?subject=TQM829007-TQM879008%20Product%20Inquiry](mailto:info-networks@tqs.com?subject=TQM829007-TQM879008%20Product%20Inquiry)

[5] <http://www.triquint.com/sales>

[6] <http://visitor.constantcontact.com/manage/optin/ea?v=0010opz9ylv185Hslrijf175A%3D%3D>