



New Avago Technologies Variable Gain Amplifier Modules Deliver Best-In-Class Linearity for Cellular Base Stations

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Compact, Low-Power Solution Simplifies Design Time and Saves PCB Space Compared to Traditional Discrete-Based Approach

SAN JOSE, Calif. & SINGAPORE, Sep 27, 2011 (BUSINESS WIRE) -- Avago Technologies (Nasdaq:[AVGO](#)), a leading supplier of analog interface components for communications, industrial and consumer applications, today announced a high-linearity variable gain amplifier (VGA) module for base transceiver station (BTS) applications. The new small-footprint [ALM-81224](#) VGA module replaces existing discrete solutions, providing significant board space savings and shortening design cycle time. Operating in a broad frequency band from 1450 to 2750 MHz, the module addresses cellular BTS automatic gain control (AGC) and temperature compensation circuitry applications.

The ALM-81224 VGA module's best-in-class linearity performance provides the ability to distinguish between wanted and spurious signals that are closely spaced. Available in a compact 6.0 by 6.0 by 1.0 mm package, the module offers low current consumption of 383 mA. The module's input is fully-matched to 50 Ohms and output match can be tuned for optimal performance at a particular frequency band within the operation range, minimizing the need for external matching components and making the solution easy to use.

"With BTS manufacturers faced with the challenges of shortened design cycle time and board space constraints, our new VGA module addresses the need for an easy-to-use, compact solution that offers robust and reliable RF performance," said James Wilson, director of marketing for wireless products at Avago.

The ALM-81224 module leverages the company's proprietary 0.25 um GaAs Enhancement-mode pHEMT process to achieve robust RF performance. It delivers high dynamic range of 38 dB under 0 to 3.3V control voltage. Using a single DC voltage input pin to achieve gain control, the module provides a high maximum gain of 23.8 dB typical.

Additional ALM-81224 Product Features

- High Linearity at low bias current
- High linearity performance: +16.5 dBm at -65 dBc ACLR using dual-carrier W-CDMA input signal
- Low Noise Figure of 2 dB at maximum gain and 16 dB at minimum gain
- Built-in attenuator with monotonic response

U.S. Pricing and Availability

The ALM-81224 VGA module ships in a 24-pin MCOB package and is priced at \$6.25 each in 10,000 piece quantities. Samples and production quantities are available now through the Avago direct sales channel and via worldwide distribution partners.

About Avago Technologies

Avago Technologies is a leading supplier of analog interface components for communications, industrial and consumer applications. By leveraging its core competencies in III-V compound and silicon semiconductor design and processing, the company provides an extensive range of analog, mixed signal and optoelectronics components and subsystems to approximately 40,000 end customers. Backed by strong customer service support, the company's products serve four diverse end markets: wireless communications, wired infrastructure, industrial and automotive electronics, and consumer and computing peripherals. Avago has a global employee presence and heritage of technical innovation dating back nearly 50 years to its Hewlett-Packard roots. Information about Avago is available on the Web at <http://www.avagotech.com>.

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