Avago Technologies Releases Family of Four High Performance SOT-89 Power Amplifier Gain Blocks for Cellular Infrastructure

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High Linearity, High Gain, Superior Gain Flatness in Industry Standard SOT-89 Package

SAN JOSE, Calif. & SINGAPORE, Aug 17, 2010 (BUSINESS WIRE) --

Avago Technologies (Nasdaq: AVGO), a leading supplier of analog interface components for communications, industrial and consumer applications, today announced four new Gain Block solutions that feature high linearity, high gain, excellent gain flatness and low power dissipation. The performance gains of the MGA-31189 and MGA-31289 0.25 watt and MGA-31389 and MGA-31489 0.10 watt Gain Blocks are made possible by Avago's proprietary, 0.25 um GaAs Enhancement-mode pHEMT semiconductor process.

Avago's newest power amplifier family is optimized for frequency in order to deliver better performance across major cellular frequency bands. A common footprint and PCB layout allows a single design to support multiple frequencies and geographic markets with a choice of output power. The devices feature high gain which can reduce the total number of RF stages needed.

The MGA-31189 and MGA-31389 serve applications from 50 MHz to 2.0 GHz and the MGA-31289 and MGA-31489 from 1.5 GHz to 3.0 GHz, thus the MGA-31x89 series covers all the major cellular bands -- GSM, CDMA, and UMTS -- plus next generation LTE bands.

The family offers a choice of power levels in each pair of frequency-optimized devices, and these devices are designed with a common package footprint and pin-out and a single PCB design supports multiple frequency bands. This simplifies the PCB layout and overall design for system engineers developing new LTE band infrastructure.

Available in the compact, industry standard SOT-89 package, the new Avago MGA-31x89 0.25 watt and 0.10 watt gain block power amplifiers can also replace existing market solutions as a pin-to-pin, drop-in replacement offering better linearity and power performance.

MGA-31189 and MGA-31389 Key Features (Typical values at 900 MHz)

- Superior Linearity Figure of Merit[1] (LFOM): 14.5 dB (MGA-31189), 13.3 dB (MGA-31389)
- High output third-order intercept-point: 42 dBm (MGA-31189), 38.6 dBm (MGA-31389)
- High Gain: 21 dB gain (MGA-31189), 21.3 dB (MGA-31389)
- Gain flatness over a 100 MHz bandwidth: 0.1 dB (MGA-31189), 0.14 dB (MGA-31389)
- Low Noise Figure: 2 dB (MGA-31189), 2 dB (MGA-31389)
- High output power at 1 dB gain compression (P1dB): 24 dBm (MGA-31189), 22.2 dBm (MGA-31389)
- Low quiescent current at with single 5 V supply: 111 mA (MGA-31189), 73 mA (MGA-31389)

MGA-31289 and MGA-31489 Key Features (Typical values at 1900 MHz)

- Superior Linearity Figure of Merit[1] (LFOM): 14 dB (MGA-31289), 11.9 dB (MGA-31489)
- High output third-order intercept-point: 41.8 dBm (MGA-31289), 37.2 dBm (MGA-31489)
- High Gain: 18.7 dB gain (MGA-31289), 21.3 dB (MGA-31489)
- Gain flatness over a 100 MHz bandwidth: 0.1 dB (MGA-31289), 0.15 dB (MGA-31489)
- Low Noise Figure: 2 dB (MGA-31289), 2.1 dB (MGA-31489)
- High output power at 1 dB gain compression (P1dB): 23.6 dBm (MGA-31289), 21.5 dBm (MGA-31489)
- Low quiescent current at with single 5 V supply: 124 mA (MGA-31189), 71 mA (MGA-31389)

Packaging

The MGA-31189, MGA-31289, MGA-31389, and MGA-31489 are available in a RoHS compliant, halogen-free, SOT-89 plastic package with dimensions of 4.5 x 4.1 x 1.5 mm.

U.S. Pricing and Availability

Avago's 0.25 W MGA-31189 and MGA-31289 high gain power amplifiers are priced at $1.98 each in 10,000 piece quantities. Avago's 0.10 W MGA-31389 and MGA-31489 high gain power amplifiers are priced at $1.52 each in 10,000 piece quantities. Samples, a demonstration board and

production quantities are available now through Avago's direct sales channel and worldwide distribution partners. More information about Avago's isolation amplifiers can be found at http://www.avagotech.com/.

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 www.avagotech.com

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Note

1.LFOM=Linearity Figure of Merit. Essentially the third-order intercept-point divided by DC bias power.

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