



Avago Technologies Releases MultiMode 3x3 Power Amplifier Modules

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Longer Handset Talk Time and Excellent Coupler Directivity

SAN JOSE, Calif. & SINGAPORE, May 04, 2010 (BUSINESS WIRE) --Avago Technologies (Nasdaq:AVGO), a leading supplier of analog interface components for communications, industrial and consumer applications, today announced ten new compact UMTS Power Amplifier Modules that maximize handset talk time and extend battery life. UMTS Bands 1, 2, 4, 5 and 8 are supported.

"In the ACPM-500x and the ACPM-520x series, we have incorporated our tier-one customer requirements for an integrated directional coupler, multi-mode power control, low current, and high PAE (power added efficiency)," said James Wilson, Marketing Director of Avago Technologies. "The directional coupler is a real cost saving feature for all handset makers, and the improved efficiency will give most users longer talk time."

The ACPM-500x PAMs (Power Amplifier Modules) are designed to meet the requirements of MultiMode applications including UMTS (universal mobile telecommunication system), CDMA (code division multiple access) and LTE (long term evolution).

The ACPM-520x PAMs are optimized to maximize the PAE at maximum RF powers by adjusting maximum output powers. These modules are intended to meet UMTS specifications. With multiple product lines, customers have the flexibility to choose the right products for their application.

All of the PAMs benefit from Avago's fifth generation CoolPAM(TM) technology that lowers quiescent current to 3.0 mA typically and adds a switchless active bypass mode for higher PAE at low output power levels. High efficiency at low power output has become an important design parameter for handset manufacturers since in urban and suburban areas with good cellular coverage handsets usually transmit at low power. The PAMs feature PAE of 12-20% of maximum output power in bypass mode and 20-25% of maximum output power in mid-power mode, representing improvements over existing power amplifiers in the market. CoolPAM technology enables mobile handset designers to extend the usage time without an increase of battery capacity.

All ACPM-500x and the ACPM-520x UMTS power amplifiers include a 20 dB directional coupler. The high directivity makes precise power control possible. For multi-band handsets, the internal directional coupling and isolation ports are available for daisy chaining. This simplifies system printed circuit board (PCB) layout.

The new power amplifiers are manufactured on advanced InGaP HBT (hetero-junction Bipolar Transistor) MMIC (microwave monolithic integrated circuit) technology with proven state-of-the-art reliability, temperature stability and ruggedness.

UMTS Handset and Data Card Markets

The ACPM-500x power amplifiers series targets all OEMs and ODMS in the UMTS, CDMA and LTE handset and data card markets.

The UMTS Forum¹ reported recently that there are more than 500 million 3G/UMTS subscriptions worldwide, representing 10% of global mobile customers.

Key Features

- Integrated directional coupler with 20 dB directivity
 - Coupling and isolation ports externally available
 - Daisy chain capability for dual band handsets
- Three power control modes: bypass, mid-power and high power
- High PAE with low output power for maximum talk time
 - 12-20% of maximum power in bypass mode
 - 20-25% of maximum power in mid-power mode
- Very low quiescent current: 3.0 mA typical
- Meets stringent UMTS, CMDA and LTE linearity requirements
- Internally matched 50 Ω RF input and output ports
 - Compact design by reducing external components
- Power-down mode: less than 5 uA current drain

Packaging and Temperature Range

The PAMs are available in a compact 10-pin surface mount module with a 3 mm by 3 mm footprint. Thin package heights (0.9 mm typical for the ACPM-500x and 1 mm typical for the ACPM-520x) support slim handset designs. The devices are lead-free and RoHS compliant. All devices have a -20°C to +85°C case operating temperature range.

U.S. Pricing and Availability

Avago's ACPM-500x/520x UMTS power amplifiers are priced beginning at \$0.95 in 10,000 piece quantities. Samples and production quantities are available now through Avago's direct sales channel and 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 40 years to its Hewlett-Packard roots. Information about Avago is available on the Web at www.avagotech.com

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Safe Harbor Statement

This announcement and supporting materials may contain forward-looking statements which address our expected future business and financial performance. These forward looking statements are based on current expectations, estimates, forecasts and projections of future Company or industry performance based on management's judgment, beliefs, current trends and market conditions, and involve risks and uncertainties that may cause actual results to differ materially from those contained in the forward-looking statements. Accordingly, we caution you not to place undue reliance on these statements. Avago Technologies Limited's Quarterly Report on Form 10-Q, filed with the U.S. Securities and Exchange Commission ("SEC") and other filings with the SEC (which you may obtain for free at the SEC's website at <http://www.sec.gov>) discuss some of the important risk factors that may affect our business, results of operations, and financial condition.

¹ Source: UMTS Forum. "Annual Report 2009 and Directions for 2010"
http://www.umts-forum.org/component/option.com_docman/task.doc_download/gid.2205/Itemid.208/

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