



## Avago Technologies Delivers Industry's First Precision Optical Isolation Amplifiers Optimized for Voltage Sensing

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### Simplify the Design of Motor Drives and Renewable Energy Systems With the First Optical Isolation Amplifier That Offers a 1 GOhm Input Impedance and a 2-V Input Range

SAN JOSE, Calif. and SINGAPORE, July 10, 2012 (GLOBE NEWSWIRE) -- Avago Technologies (Nasdaq:AVGO), a leading supplier of components for industrial, automotive, and renewable energy applications, today announced the availability of a new family of optically-isolated voltage sensors. This family is the industry's first series of optical isolation amplifiers based on sigma-delta modulation that is specifically optimized for voltage sensing. Targeted for applications such as sensing voltages in electronic power conversion systems commonly found in motor drives, switching power supplies and renewable energy systems, as well as sensor interfaces such as NTC thermistor isolation in IGBT modules, the ACPL-C87B, C87A, and C870 provide designers with a 2-V input range and high 1 GOhm input impedance.

For general applications, the ACPL-C87A ( $\pm 1\%$  gain tolerance) and the ACPL-C870 ( $\pm 3\%$  gain tolerance) are recommended. For high-precision applications such as renewable energy inverters where it is important to accurately track the fluctuating (due to changing sun conditions) DC bus voltage and for high-performance servo and motor drives, the ACPL-C87B ( $\pm 0.5\%$  gain tolerance) can be used. The voltage sensors features a 1V/V unity gain with low gain drift of  $-35\text{ppm}/^\circ\text{C}$  and non-linearity is kept to within 0.1% max. The voltage sensors include an active-high shutdown pin which reduces the IDD1 current to only 15 Micro Amps during standby, which makes the sensors well-suited for battery-powered and other power-sensitive applications.

"This new family of optically-isolated voltage sensors has a high 1 GOhm input impedance, which simplifies the resistor network design by allowing higher-value resistors to be used to scale the voltage," explains Lee Kheng Jam, Marketing Director for Optocoupler products at Avago. "As a result, it reduces loading power losses, thus achieving better system efficiency."

Avago Technologies' Optical Isolation Amplifiers have been using advanced Sigma-Delta modulation technology and chopper-stabilized amplifiers to provide accurate, safe, and reliable current and voltage sensing for over 2 decades in motor drives and power converters. Differential outputs on the new devices provide unequaled isolation-mode noise rejection, low offsets, high gain accuracy and stability, and a wide signal bandwidth of 100 kHz.

The built-in reinforced safety insulation and high CMR (common mode rejection) performance prevents erroneous voltage measurements and ensures reliable operation in a noisy environment. The optically-isolated voltage sensors have a 15 kV/Micro Seconds common-mode transient immunity. Safety approvals include CSA and IEC/EN/DIN EN60747-5-5 with a VIORM of 1230 Vpeak. Additionally, the sensors are UL recognized with 5000 Vrms for 1 minute per UL1577.

The ACPL-C87x voltage sensors are housed in stretched 8-lead SO-8 plastic packages with 8mm creepage and clearance that meet worldwide regulatory safety standards. The sensors also have a wide operating temperature range of  $-40$  to  $+105$   $^\circ\text{C}$ .

Samples and production quantities are available now through Avago's direct sales channel and worldwide distribution partners. More information about Avago's isolation amplifier and isolation products can be found at [www.avagotech.com/optocoupler](http://www.avagotech.com/optocoupler).

#### About Avago Technologies

Avago Technologies is a leading supplier of analog interface components for wireless, wireline, and industrial 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. Avago has a global employee presence and heritage of technical innovation dating back 50 years to its Hewlett-Packard roots. Information about Avago is available on the Web at [www.avagotech.com](http://www.avagotech.com).

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