



## Broadcom Announces Industry's Most Efficient and Robust Current Sensing Optocoupler Solution for Servo Drives and Motors

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### New Optically Isolated Sigma-Delta Modulator Eliminates 75% of Shunt Resistor's Power Losses

SAN JOSE, Calif. and SINGAPORE, Aug. 31, 2016 (GLOBE NEWSWIRE) -- Broadcom Limited (NASDAQ:AVGO), a leading designer, developer and global supplier of a broad range of analog and digital semiconductor connectivity solutions, today announced a new optically isolated sigma-delta modulator device, the Avago ACPL-C799, designed for a wide range of industrial applications including servo drives and motors. The new device features a low differential input range of +/-50 mV allowing designers to reduce power dissipation across a current-sensing shunt resistor in servo drive and motor applications.

Compared to previous generation products with an input range of +/-200 mV, the ACPL-C799 enables the use of a smaller shunt resistor with one-quarter the value, thereby eliminating 75 percent (75%) of shunt resistor's power losses. Despite the reduced input voltage range, the device delivers superb SNR, ENOB and offset drift performance, enabling a high precision motor control in space constrained, high temperature environments.

#### Product Highlights

- +/-50mV linear input range
  - Low power dissipation across shunt resistor
  - Extended range of current measurements
- High performance 1-bit, 2<sup>nd</sup> order sigma-delta modulator
  - 77dB SNR typical
  - 16-bit resolution with no missing codes (12-bit ENOB)
  - 1.3µV/°C maximum offset drift over temperature
  - 10MHz internal clock
- Robust optical isolation and insulation
  - 25kV/µs minimum common mode transient immunity (CMTI)
  - Wide creepage and clearance of 8.3 mm meeting stringent system level safety regulation
  - High reinforced insulation voltage of  $V_{IORM} = 1414 V_{PEAK}$  for reliable fail-safe protection in high voltage applications
  - Safety approvals from CSA, UL and IEC enabling fast system level safety clearance and time to market.
- Compact stretched SO-8 package
- Operating temperature from -40 °C to +105 °C

"Driven by strong growth in industrial automation, more and more servo designers are looking for a highly efficient, robust current sensing solution that will serve many servo drive models and motors at different current levels," said Tze Siang Chong, vice president and general manager of the Isolation Products Division at Broadcom. "Expanding upon Broadcom's market-leading optically isolated current sensing portfolio, the ACPL-C799 is the latest addition that enables higher efficiency through shunt resistor size reduction while delivering improved performance with unparalleled robustness."

#### Availability

Samples and production quantities of the ACPL-C799 are now available through the Broadcom direct sales channel and via worldwide distribution partners. Please contact your local Broadcom sales representative for pricing.

Further information on the ACPL-C799 is available online at

<http://www.avagotech.com/products/optocouplers/industrial-plastic/isolation-amplifiers-modulators/sigma-delta-modulators/acpl-c799>

#### About Broadcom Limited

Broadcom Limited is a leading designer, developer and global supplier of a broad range of analog and digital semiconductor connectivity solutions. Broadcom Limited's extensive product portfolio serves four primary end markets: wired infrastructure, wireless communications, enterprise storage and industrial & other. Applications for our products in these end markets include: data center networking, home connectivity, broadband access, telecommunications equipment, smartphones and base stations, data center servers and storage, factory automation, power generation and alternative energy systems, and displays. For more information, go to [www.broadcom.com](http://www.broadcom.com).

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