

Allegro MicroSystems Introduces High-Bandwidth Current Sensors Incorporating XtremeSense™ TMR Technology

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New current sensors utilizing Allegro's patented XtremeSense™ TMR technology represent the first products launched since the company's acquisition of Crocus Technologies

MANCHESTER, N.H., Sept. 11, 2024 (GLOBE NEWSWIRE) -- **Allegro MicroSystems, Inc.** ("Allegro") (Nasdaq: ALGM), a global leader in power and sensing solutions for motion control and energy efficient systems, announced today two new **XtremeSense™ TMR** sensors that streamline high power density designs, provide space and cost savings while improving energy efficiency. Allegro's latest solutions, **CT455** and **CT456**, offer high-bandwidth and low noise that enable precise current measurements for AI data center and automotive powertrain applications.

Today's prevalent market applications use current sensor modules that are bulky, intrusive and inefficient. As a result, these solutions often lack desired accuracy and resolution, and are prone to potential system failures. These issues can create major design complexities for engineers that often lead to increased cost and longer production time.

Allegro's new current sensors, using XtremeSense TMR technology, address many of the challenges engineers face by providing superior magnetic sensitivity, low power consumption and a compact size compared to other solutions. The CT455 sensor supports two standard field ranges, allowing it to sense and translate magnetic fields into a linear analog output voltage, while the CT456 supports a preprogrammed 6 mT field range. Unlike other market solutions, our newest TMR sensors offer distinct advantages, as they are designed to enable smaller, more efficient, high-accuracy current measurements on PCB or Busbar applications from 80 A up to above 800 A, depending on the configuration, with the best performance advantages in the 80-200 A range.

“The release of the CT455 and CT456 sensors marks an important milestone for Allegro as the first TMR products launched since the acquisition of Crocus,” said Ram Sathappan, Sr. Director, Global Marketing & Applications at Allegro MicroSystems. “Our newest current sensors utilizing Allegro’s XtremeSense TMR technology represent a huge leap forward for high bandwidth current sensing and monitoring, reinforcing our ongoing commitment towards driving broader adoption of TMR technology. As a smaller, more efficient solution, our new TMR current sensors provide significant benefits over existing market solutions and technologies that our customers have been looking for.”

Unlike traditional high-power current sensors, Allegro’s newest TMR sensors offer a contactless, non-intrusive solution that delivers 1 MHz bandwidth and a 300 ns response time to enable faster power conversion. For those seeking to maximize power while minimizing footprint, the compact design, enhanced reliability, and efficiency improvements of Allegro’s latest sensors make them an ideal choice, providing the following key benefits:

- Preset magnetic field range of ± 6 mT supports high current measurements
- Low-noise performance improves measurement sensitivity
- Optimized for rapid changes in voltage over time (high dv/dt)
- Compact 8-pin SOIC and TSSOP package options

To learn more about Allegro’s latest sensors or purchase samples, please visit:

CT455 - www.allegromicro.com/en/CT455

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Evaluation boards are also available.

CT455 Evaluation Board	CTD455-BB-48B5
CT456 Evaluation Board	CTD456-BB-06B5

About Allegro MicroSystems

Allegro MicroSystems, Inc. is leveraging more than three decades of expertise in magnetic sensing and power ICs, to propel automotive, clean energy and industrial automation forward with solutions that enhance efficiency, performance and sustainability. Allegro’s commitment to quality drives transformation across industries,

reinforcing our status as a pioneer in "automotive grade" technology and a partner in our customers' success. For additional information, please visit <https://www.allegromicro.com/en/>.

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