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Crocus Technology Launches First True Z-axis TMR Sensor Delivering Unparalleled Performance for Next-Gen Position and Current Sensing Applications

Milpitas, CA., May 04, 2023 — Crocus Technology, a leading provider of TMR sensors, today announced the release of the CT130, a 1-D linear TMR sensor that is sensitive in the Z axis. The CT130 is a revolutionary product that provides unparalleled temperature stability, high accuracy and precision for position and current sensing applications.

The CT130 from Crocus Technology is the world's first true TMR sensor with Z-axis sensitivity, providing the same axis of sensitivity as Hall solutions. The CT130 is a Hall-compatible TMR sensor with all the benefits of TMR, such as higher SNR, better temperature stability, high linearity, low power consumption, and better cost based on more compact designs.

How CT130 Stacks Up

Crocus CT130 Compared to GaAs, InAs and InSb Hall Sensors



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The CT130 sensor features a planar monolithic chip design. It is not vertically mounted and does not require a flux concentrator, resulting in a small vertical footprint with standard packaging. This innovative design eliminates hysteresis or the need for a reset function, making it a more efficient and reliable solution. With the CT130, Crocus has specifically engineered the sense and fixed layers to discern an out-of-plane magnetic field – making the CT130 a 'true' TMR z-axis sensor.

With the CT130, customers will no longer have to make mechanical axis-orientation design changes to switch from a Hall-based position sensor design, making it easy and cost-effective for customer design changes to benefit from TMR performance advantages.

The CT130 is engineered for 1-D linear sensing in the Z axis and is compatible with Crocus Technology's standard manufacturing process, making it suitable for high-volume applications. The CT130 also supports a wide operating voltage range of 1.0 V to 5.5 V, making it an ideal choice for various applications.

In position sensors, the axis of sensitivity is critical as customers' systems are already built with magnets placed in specific locations to trigger the sensor. When a customer approaches Crocus with design issues related to temperature or performance, currently, they are required to change their mechanical design to accommodate the new sensor, which can be a significant hurdle. The CT130 solves this issue by allowing customers to switch from a Hall-based position sensor design to Crocus CT130 without making substantial changes to their designs, which makes it a more cost-effective option than Hall.

Current sensors enable passive measurement of current without interrupting the circuit by placing them close to the conductor of interest. These sensors have a wide range of applications, including commutating brushless motors, measuring wheel, crank, and transmission speeds, detecting objects for automated functions such as door closing and window lifting and various current sensing applications such as leakage or residual current sensing or inverter designs for electric vehicles.







In applications requiring optical stabilization, such as camera modules, the CT130's high sensitivity, lower power consumption, lower temp drift, and no hysteresis will provide optimal performance over legacy Hall technology. Another benefit is the CT130's fast response time, which significantly improves lens adjustment speed, thereby improving image stabilization in handheld devices.

"CT130 is a technological leap in TMR technology," said President and CEO Zack Deiri. "It enables TMR performance with the axis of sensitivity of Hall, reduces friction for customer design change, and is a more capable replacement for Hall-element sensor designs in position and current sensing."

"The CT130 is a testament to Crocus's continued TMR innovation," added Deiri. "It delivers high linearity, low power, and better cost in a more compact design, making it a game-changer for current and position sensing applications."









Availability and Pricing

Fore more information availability and pricing please visit email:

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About Crocus Technology

Crocus Technology is a global leader in providing advanced TMR sensor technology solutions to leading designers and manufacturers of industrial, automotive and consumer electronics. We are the developer of XtremeSense TMR advanced sensor technology that provides the highest sensitivity, the lowest power consumption and smallest size by comparison to other dated magnetic technologies such as Hall, AMR and GMR.

Founded in 2006, we are a privately held, VC-backed company. With over 300 patents issued and more than 150 pending, Crocus Technology is a global leader in the advanced TMR sensor market.

We are headquartered in Milpitas, California, with an R&D facility in Grenoble, France. <u>https://www.crocus-technology.com</u>.

About Macnica ATD Europe GmbH, (former Macnica GmbH)

Macnica's ATD Europe GmbH, (former Macnica GmbH), was originally established in the UK in 2006, and moved to Germany in July 2008, to increase efficacy of its service for European customers.

By it's acquisition of the Munich based company Scantec Mikroelektronik in 2014 Macnica Europe formed a powerful semiconductor distribution with headquarter in Ingolstadt and offices in Munich, Regensburg, Milton Keynes (UK) and Warsaw offering an attractive and competitive portfolio of highly sophisticated devices.







Macnica provides end to end support from design-in to production through its global service network to its customers, regardless of the final destination of the product shipment to customers' manufacturing locations.

About Macnica ATD Europe S.A.S.

Founded in 1990 as ATD Electronique, Macnica ATD Europe headquarter offers innovative components dedicated to imaging applications for the European market. Its product portfolio includes: image sensors (CCD, CMOS, InGaAs, Thermal etc.), optics, interface circuits, FPGA & IPs, imaging processors, cables and OLED microdisplays.

It also covers development tools and design services enabling fast and efficient realization of new high-performance camera systems for markets such as machine vision, medical, life sciences, surveillance, automotive and others. After the acquisition of the company by Macnica Inc. as of October 1, 2020 the company operates under the name Macnica ATD Europe.

About Macnica, Inc.

Macnica was established in 1972 as a semiconductor distribution company headquartered in Yokohama, Japan, and has over 85 sales offices worldwide in eastern Asia, Europe and the USA. Total number of employees is over 3,900 and its consolidated revenue for fiscal 2021 was approximately US\$ 7.6 B.

Macnica is famous for having an excellent engineering team of more than 900 application support engineers, IC designers and software developers with strong focus on providing technical support for its customers including custom design services. Macnica is continuing to extend its presence globally by having successful partners in strategic areas in the electronics market.



