

# Crocus Technology Unveils its 2<sup>nd</sup> Generation TMR Linear Sensor with Unparalleled Temperature Stability

*The CT100 is a unique TMR magnetic sensor with industry-leading performance*

Santa Clara, California, March 19, 2019 – Crocus Technology Inc., a leading supplier of disruptive Tunnel Magneto-Resistance (TMR) sensors, today announces the CT100 device, an advanced, high-performance linear (1D) magnetic sensor based on Crocus' patented and unique TMR-based technology. The CT100 has best-in-class performance across a wide temperature range coupled with an extremely low linearity error, low hysteresis, and low noise which enables it to address many consumer, industrial and automotive applications and markets. The CT100 outperforms competitors' xMR or Hall-based linear magnetic sensor technology available today in terms of performance, deviation over temperature, current consumption, and overall robustness. The CT100 does not require any expensive flux guides or concentrators, chopping circuits or set/reset pulses and operates over a wide magnetic field range.

Crocus's revolutionary Magnetic Logic Unit™ (MLU™) TMR technology is implemented into the CT100 with a single full-bridge magnetic resistor network which delivers high gain and high accuracy. The CT100 senses the presence of a magnetic field (whether from a magnet or a field generated by a current carrying conductor); and outputs a differential signal with a linearity error that is less than  $\pm 0.5\%$  over a magnetic field range from -20 mT to +20 mT with negligible hysteresis and extremely low noise. The robust device operates from -40°C to +150°C and yields a predictable temperature coefficient of sensitivity (TCS) of less than 300 ppm/°C and a temperature coefficient of offset (TCO) which does not exceed 3  $\mu\text{V/V}/^\circ\text{C}$  across a supply voltage range from 1.0 V to 5.5 V.

“The CT100 utilizes Crocus' state-of-the-art MLU TMR technology to produce a magnetic sensor with high linearity, unparalleled temperature stability and magnetic robustness to address a wide range of demanding applications ranging from AC or DC contactless current sensing with high isolation, thereby, replacing current transformers and shunt resistors, to highly precise linear position sensing. The CT100 with its high frequency response, minimal power consumption and small form factor, enables simple and creative system designs in applications such as IoT, drones, electric motor controls, power monitoring, and many other consumer, industrial and automotive applications” states Zack Deiri, CEO of Crocus Technology. “Many applications today demand performance but not at the expense of large deviations due to temperature fluctuation which impacts system performance and safety. The CT100, a discrete TMR sensor with ESD protection, offers superior performance to our competitors' fully integrated and highly compensated solutions in terms of accuracy and robustness over field and temperature.”

The CT100 is a perfect fit for products such as current and field sensors, fuse current monitors, IoT smart devices, electric motors, magnetic card readers, window/door sensors and mobile electronics where excellent linearity performance and thermal stability is a must.

The CT100 is available in a 6-lead SOT23 package, and in an ultra-low profile and small form factor 6-lead DFN package and wafer/KGD (Known-Good-Die). Samples and evaluation boards are currently available, and production is targeted for early Q3 2019.

## **About Crocus Technology**

Crocus Technology develops and supplies magnetic sensors and embedded memory solutions based on its patented TMR sensor technology, the Magnetic Logic Unit™ (MLU™). Crocus' magnetic sensors bring significant advantages to industrial and consumer electronic applications requiring high sensitivity, stable temperature performance, low power and low cost. Crocus is headquartered in Santa Clara, California and has offices in Grenoble, France and Beijing and Shenzhen, China. For more information, please visit <http://www.crocus-technology.com>.

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