

The Future of Sensing: XtremeSense™ TMR Technology

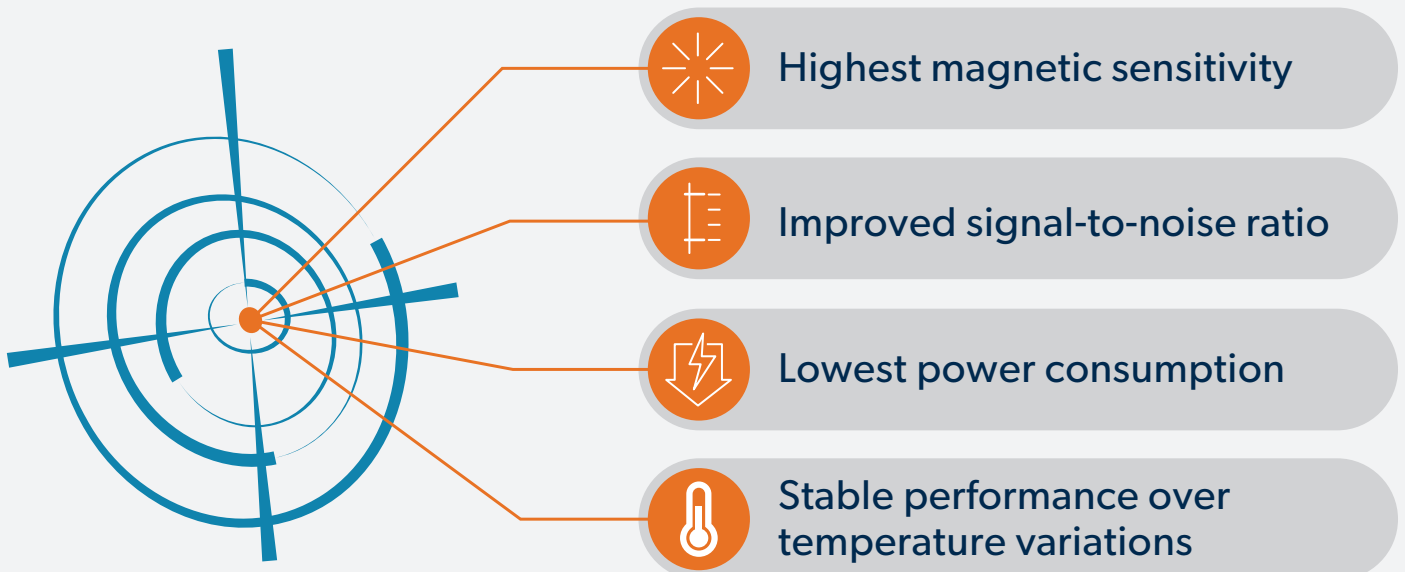
Revolutionary advances in
magnetic sensor capabilities

Allegro's XtremeSense™ TMR technology (Tunnel Magnetoresistance) provides the highest magnetic sensitivity, the lowest power consumption, stability over temperature variations and the smallest size by comparison to other magnetic technologies such as Hall, AMR, and GMR. Accelerating various applications from renewable energy systems, xEV, and connected consumer devices, Allegro's XtremeSense™ TMR technology enables current and position sensors to achieve industry-leading performance figures and cost levels.

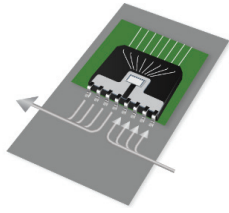
Allegro XtremeSense™ TMR technology provides:

1. **Efficient power conversion:** Accurately measures the full dynamic range and provides a cleaner signal.
2. **Adoption of wide bandgap transistors:** Utilize wide bandgap transistors such as GAN and SiC, which require high bandwidth current sensors, without sacrificing accuracy and resolution.
3. **Reduce energy footprint:** Delivers the lowest power consumption in any magnetic sensing product category.

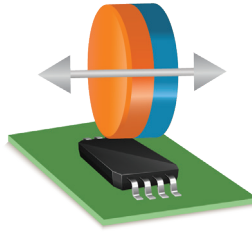
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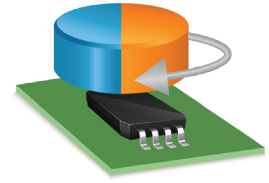
XtremeSense™ TMR technology is an ideal fit for high growth automotive, industrial and consumer applications requiring greater accuracy and speed.



Current Sensor



Position Sensor



Angle Sensor

Key Products and Solution for TMR Applications

Product Portfolio	XtremeSense Product	Key Description
Current Sensors (0 - 50A)	CT110	High Linearity/High Resolution Contact Current Sensor
	CT415	TMR Current Sensor with Ultra-Low Noise and <1% Total Error
	CT416	
	CT417	
	CT418	
	CT425	
	CT426	TMR Current Sensor with Ultra-Low Noise and <0.7% Total Error
	CT427	
	CT428	
	CT430	
	CT431	TMR Current Sensor with Ultra-Low Noise, <0.7% Total Error and Common-Mode Field Rejection in SOICW-16 Package
	CT432	
	CT433	
Current Sensors (0 - >1000A)	CT220	High Linearity, High-Resolution TMR Contactless Current Sensor in Miniature Form Factor
	CT455	1 MHz Bandwidth Contactless Current Sensor with programmable gain and offset
	CT456	
Switches and Latches	CT8111	Integrated Unipolar TMR Switch
	CT8112	
	CT8122	Integrated Bipolar TMR Switch/Latch
	CT8131	Integrated Omnipolar TMR Switch
	CT8132	
Position Sensor	CT8150	Ominipolar TMR Analog Sensor with Dual Analog and Digital Output Operation Capability
	CT8152	
	CT100	1D TMR Linear Sensor with Analog Differential Outputs
	CT310	2D TMR Angle Sensor with Sine/Cosine Outputs

