

# MDT Announces High-performance TMR Magnetic Sensors with Ultra-high Sensitivity at 200mV/V/Oe

TMR Sensor Technology Offers Outstanding Performance with Record-high Sensitivity and Low-power for Precision Measurement in Industrial Sensor Applications



English▼



MultiDimension Technology Co., Ltd. Logo



SAN JOSE, Calif. and ZHANGJIAGANG, Jiangsu, China, April 27, 2015 /PRNewswire/ -- MultiDimension Technology (<http://www.multidimensiontech.com/>) Co., Ltd. (MDT) announced the TMR29xx and TMR27xx series, a new lineup of high-performance Tunneling Magnetoresistance (TMR) linear magnetic field sensors ([http://www.dowaytech.com/en/sensor/linear\\_sensors.html](http://www.dowaytech.com/en/sensor/linear_sensors.html)) with ultra-high sensitivity exceeding 200mV/V/Oe, along with low power consumption and low noise. They are best suited for high-precision or battery-powered high-end industrial sensor applications including weak magnetic field measurement, current sensing, metal object detection, and non-destructive testing (NDT).

"MDT's new high-performance TMR magnetic sensors set the industry's sensitivity record for all semiconductor-based magnetic sensor technologies, including Hall Effect, AMR (Anisotropic Magnetoresistance) and GMR (Giant Magnetoresistance). This leading-edge technical

advancement is only made possible with MDT's patented and unique TMR magnetic sensor design and fabrication know-how. Our TMR29xx series will offer new alternatives for high performance sensors to users of performance-critical applications, with good signal-to-noise, reduced complexity and cost of the analog front-end circuit, lower power consumption, smaller size, and enhanced durability, compared to Hall Effect, AMR, GMR, and GMI (Giant Magnetoimpedance) sensors," said Dr. James G. Deak, Co-Founder and CTO of MultiDimension Technology. "With our comprehensive product and service options, including standard packaged devices, wafers or bare-dice, custom designs, foundry service, and IP licensing, we are fully committed to offer the best suitable products or services for our customers."

The TMR29xx/TMR27xx series are in-plane TMR linear magnetic field sensors with most advanced performance metrics. Along with the existing TMR21xx series (prior MMLPxx series) and TMR25xx series (Z-axis linear magnetic field sensors), MDT offers a wide-ranging product portfolio for a variety of industrial and commercial sensor applications including current sensing, position and speed sensing, security monitoring, vehicle detection, e-compass, NDT, motor and fan control, and etc.

### **Key Features**

- TMR29xx custom design: sensitivity at 200mV/V/Oe, ultra-low power in microAmperes
- TMR2905 (<http://www.dowaytech.com/en/1401.html>) : ultra-high sensitivity up to 60mV/V/Oe, low-power at 10-50microAmperes (@1V), low noise at 1-5nT/rtHz (@1Hz)
- TMR2922 (<http://www.dowaytech.com/en/1402.html>) : high sensitivity at 15mV/V/Oe, low-power at 10microAmperes (@1V), low noise at 1nT/rtHz (@1Hz)
- TMR2701/2703/2704/2705: high sensitivity at 10-20mV/V/Oe, low-power below 10microAmperes (@1V), low noise at 10-20nT/rtHz (@1Hz)
- TMR27xx custom design: sensitivity, noise and power can be customized upon request

### **About MDT**

MultiDimension Technology was founded in 2010 in Zhangjiagang, Jiangsu Province, China, with branch offices in Shanghai and San Jose, Calif., USA. MDT has developed a unique intellectual property portfolio, and state-of-the-art manufacturing capabilities that can support volume production of high-performance, low-cost TMR magnetic sensors to satisfy the most demanding application needs. Led by its core management team of elite experts and veterans in magnetic sensor technology and engineering services, MDT is committed to creating added value for its customers and ensuring their success. For more information about MDT please visit <http://www.multidimensiontech.com> (<http://www.multidimensiontech.com/>).

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