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Document Updates

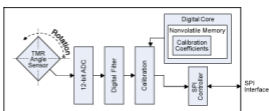
[IL01x-Series Low-Power isolator datasheet](#) adds the IL011 and IL015 configurations.

[ADL-Series Nanopower digital sensor datasheet](#) with new power consumption specs.

Smart TMR Angle Sensor

The ASR002-10E is the world's first Smart TMR Angle Sensor, combining a Tunneling Magnetoresistance (TMR) sensor element with elegant digital signal processing.

A high-speed SPI interface provides access to the sensor data, as well as user-programmable parameters:



The ASR002-10E provides an extraordinary combination of speed and precision. Key features include:

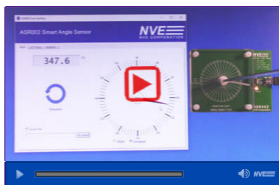
- Factory calibrated
- 0.1° resolution
- ±0.2° repeatability
- Robust 60 to 200 Oe magnetic field operating range
- Fast 12.5 kSps sample rate
- Flexible 2.2V to 3.6V supply range
- Low 4 mA typical supply current
- Wide -40°C to +125°C operating range
- Ultraminiature 2.5 x 2.5 x 0.8 mm TDFN package

[Download the ASR002 Datasheet >](#)

The [ASR002-10E sensor](#) and [AG954-07 Evaluation Kit](#) are [in stock](#) for immediate delivery.

Buy Online
\$9.95 shipping

Here's a demonstration of the evaluation kit:



Year in Review

2018 new product highlights included:

GMR Smart Magnetometer

The new SM124-10E Smart Magnetometer combines a versatile GMR sensor element with digital signal processing. Single-byte (eight-bit) digital data provides a slick, easy-to-use interface, and its unique architecture eliminates the need for any commands.



It features an I²C interface and a digital output with programmable thresholds. Unlike awkward, old-fashioned Hall-effect sensors, GMR is sensitive in-plane for optimal current sensing and easy mechanical interfaces.

TMR Smart Magnetometer Sensor

The new SM324-10E combines an ultra-precise TMR sensor element with sophisticated three-byte (24-bit) digital signal processing.



Like the GMR version (above), this part has an I²C interface plus a digital output with programmable thresholds. And like GMR, TMR is sensitive in-plane for ease of use.

AAL024 Noncontact Current Sensor

The AAL024-10E combines small size, high sensitivity, and cross-axis sensitivity for an ideal current-over-trace sensor.



It provides 3.6 mV/V/Oe typical magnetic sensitivity over a 1.5 to 10.5 Oe linear range. It is inherently omnipolar for AC or DC measurements, and comes in an ultraminiature 2.5 mm x 2.5 mm x 0.8 mm TDFN6.



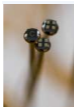
AAL024 Evaluation Board

Four AAL024 sensors (see above) in four different circuit board configurations. The 2" x 2" board provides isolated AC or DC measurement of currents up to 5 amps. Sensitivity is as high as to 60 mV/V/A typ, or 300 mV/A with a 5V supply.



40 Mbps QSOP RS-485 Transceiver

The world's fastest isolated RS-485 transceivers are now also the world's smallest. The new IL3685-1E is an ultrahigh-speed isolated transceiver in NVE's ultraminiature, low thermal resistance QSOP-16 package.



Ridiculously Low Power Sensors

We've further tightened the already ridiculously low power consumption specifications of ADL-Series Nanopower Magnetic Switches. Power consumption is as low as 72 nW, so they will run nearly forever on a single lithium coin cell. ADL sensors are also NVE's smallest parts at just 1.1 mm x 1.1 mm x 0.35 mm.

ADL021 Nanopower Sensor Mini Eval Board

The AG040B is a 0.25 x 1.57 inch demo board with the ultralow-power, ultraminiature ADL021 magnetic switch (see above). Powered by a coin cell (included), the quiescent power is so low the battery will last indefinitely. An LED indicates when the sensor is activated; a miniature bar magnet is included.



Low-Power Isolators

With a typical total quiescent current of just 0.3 mA per channel, the new IL01x-Series low-power isolators draw one-fourth the power of our flagship products. The new isolators also feature 10 Mbps data rates, 2.5 kV isolation, and 44000-year barrier life.



Conferences



NVE researchers authored a paper that will be presented at the **Joint MMM-Intermag Conference**, January 14 through January 18, 2019 in Washington, DC. The prestigious conference is only

convened every three years.