

World's smallest true system-on-chip magnetic rotary encoder with 10-bit resolution

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Austriamicrosystems AG, a leading global developer and manufacturer of high performance analog and analog intensive mixed signal microchips (ICs) for the industrial, medical, communications and automotive markets, once more demonstrates its design competence and technological leadership in analog and mixed signal semiconductors. It has launched several new products that offer innovative solutions for a broad range of everyday applications. The AS5040 is the world's smallest magnetic rotary encoder IC with 10-bit resolution and multiple outputs.

Using a contactless technology based on magnetic field sensing Hall elements, this highly integrated encoder IC is able to detect 1,024 positions in a full 360-degree turn of a small magnet placed above or below the device. It offers significant advantages over optical encoder technologies where dust or other particles can severely impact the function and accuracy of the encoder.

The AS5040 is a true system-on-chip integrating sensing components, analog front-end and digital signal processing in a single robust device measuring only 5.2x6.3 mm. It is an ideal solution for a host of industrial applications including motion control, robotics, DC motor control and power tools and a range of automotive applications such as steering wheel position sensing, headlight control and transmission control.

Franz Faschinger, head of the Automotive and Industry & Medical

business units at austriamicrosystems AG, states: "The AS5040 offers important technological benefits for a variety of applications. We are already seeing very strong interest from customers for this highly innovative product."

In addition, austriamicrosystems has released two new Standard Linear products, the AS1100 LED driver and the AS1500 family of digital potentiometers. Standard Linear products allow customers to efficiently design solutions for a broad spectrum of applications serving as building blocks in electronic devices. With an expected market size of \$14.6 billion in 2005 according to WSTS1), Standard Linear is a strategic focus area for austriamicrosystems as these products address a wide range of customers and end applications. Moreover, Standard Linear products can be marketed via distributors in addition to direct sales efforts.

The AS1100 is a universal LED driver for seven segment numeric displays of up to eight digits with analog and digital brightness control and a 64-bit memory for LED settings. Typical applications include LED matrix displays, bar-graph displays, panel meters and industrial controllers. The AS1100 is a showcase for austriamicrosystems' outstanding capabilities in low power electronics. It offers significantly lower power consumption than its closest competitor in the market, outperforming the competition by a factor of 3x on shutdown current and more than 10x on operating current.

The AS1500 family of digital potentiometers has been designed for use in applications where a resistor value must be changed automatically by a microprocessor. This makes the AS1500 family ideal for volume controls in consumer electronics such as TV sets and audio systems and applications that require programmable filters or power supply adjustment. It can also be used as a substitute for mechanical potentiometers. The AS1500 family is available in four different resistor

values and offers several advantages over analog potentiometers including better resolution, immunity from vibrations, shock and mechanical abrasion, and a small form factor of only 5x4 mm.

More information at www.austriamicrosystems.com/

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