



Avago Technologies Debuts World's Smallest USB Optical Mouse Sensor System-on-Chip

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Highly-Integrated, Programmable Devices Reduce Costs and Simplify Design and Manufacturing; Deliver High-Speed Motion Detection for Smooth Tracking

SAN JOSE, Calif. & SINGAPORE, Dec 08, 2010 (BUSINESS WIRE) --

Avago Technologies (NASDAQ:[AVGO](#)), a leading supplier of analog interface components for communications, industrial and consumer applications, today announced an optical sensor system-on-chip (SoC) with the market's smallest pin-count for mice, trackballs and other human interface devices. The compact, highly-integrated [ADNS-2700](#) LED-based sensors eliminate the need for an external microcontroller and require the use of fewer passive components, delivering ease-of-design and lower overall system costs.

The ADNS-2700 sensor contains an Image Acquisition System (IAS), a Digital Signal Processor (DSP) and a USB stream output in a small-footprint 8-pin dual in-line package (DIP). With an integrated oscillator and pull-up resistor, the device further reduces external component count. The sensors do not require precision optical alignment, facilitating high-volume assembly. On-chip One-Time-Programming memory enables designers to program their own product and vendor identification information and to select the resolution setting and sensor orientation without any need for a software driver, providing streamlined customization. The ADNS-2700 optical sensors provide precise, high-speed tracking for mice with best-in-class motion detection of up to 30 inches per second (ips) and 8g acceleration detection. The programmable resolution ranges from 250 up to 1250 counts per inch (cpi) for highly accurate, sensitive navigation.

"The integration and ease-of-design of the ADNS-2700 SoC offers a cost-effective solution for basic mouse applications while delivering the excellent tracking performance, reliability and manufacturability that Avago sensors are known for," said Angeline Khoo, marketing manager for mouse sensor products at Avago. "The introduction of this small form factor SoC for entry-level corded mice, along with our low-power optical sensor solutions for wireless mice, highlights the breadth of Avago's industry-leading portfolio of navigation sensors for human interface devices." In a related announcement, Avago today introduced the [ADNS-2080](#) and [ADNS-3000](#) optical sensors that enable over a year of battery life for wireless mice using a single AA battery.

Optical Navigation Technology

The sensors measure changes in position by optically acquiring sequential surface images and mathematically determining the direction and magnitude of movement from the changes in the images. The DSP automatically processes images from the IAS to determine the direction and distance of motion. It then generates the relative displacement values and converts this to USB motion data, freeing designers from dealing with source code or firmware.

Avago pioneered the optical navigation technology found in many mice used throughout the world today. To date, Avago has shipped over a billion optical navigation sensors to a wide range of global customers.

U.S. Pricing and Availability

The ADNS-2700 optical sensors are priced under \$0.75 each for quantities of 1,000 units. Samples and production quantities are available now through the Avago direct sales channel and via worldwide distribution partners. Avago also offers the [ADNK-2700](#) sample kit and the ADNK-2703 reference design kit with a sample optical mouse and a design guide with supporting documentation.

About Avago Technologies

Avago Technologies is a leading supplier of analog interface components for communications, industrial and consumer applications. By leveraging its core competencies in III-V compound and silicon semiconductor design and processing, the company provides an extensive range of analog, mixed signal and optoelectronics components and subsystems to approximately 40,000 end customers. Backed by strong customer service support, the company's products serve four diverse end markets: wireless communications, wired infrastructure, industrial and automotive electronics, and consumer and computing peripherals. Avago has a global employee presence and heritage of technical innovation dating back nearly 50 years to its Hewlett-Packard roots. Information about Avago is available on the Web at www.avagotech.com.

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