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Industry's Lowest-Power Vehicle Access Solution for Smart Keys and Wearables

Devices Feature Open Immobilizer Protocol for Interoperability and Low Frequency Vector Techniques for Man-in-the-Middle Counterattack Strategies

CHANDLER, Ariz., Nov. 8, 2016 /PRNewswire/ -- **(Electronica)** -- The industry's lowest-power Passive Entry/Passive Start (PEPS) solution is now available from Microchip Technology Inc. (NASDAQ: MCHP), a leading provider of microcontroller, mixed-signal, analog and Flash-IP solutions. Microchip's **ATA5700** and **ATA5702** are primarily intended for use in battery-powered applications such as smart keys (i.e. PEPS) and complementary car access via mobile devices, smartphones and wearables where the power consumption is one of the key requirements.

Key benefits of the new devices include ultra-low power consumption, outstanding key localization accuracy and unique built-in counter relay ("man-in-the-middle") attack protection measures. Car theft based on relay attacks of vehicles equipped with a PEPS system is becoming one of the top security concerns of automakers. The two new devices have a unique built-in Low Frequency (LF) vector calculation unit that allows customers to implement effective relay attack countermeasures at no additional cost.

The new devices also feature excellent low frequency sensitivity, enabling convenience features such as customized welcome lighting upon approaching the vehicle or automatic "walk-away locking" of the vehicle – in a range up to 10 meters. The power consumption for this "always on feature" is industry leading, tripling the battery lifetime in the highest sensitivity mode.

The devices offer the highest key localization accuracy in the market, which is critical to accurately distinguish whether a key fob is located inside or outside the vehicle and to comply with accuracy requirements of insurance companies. In addition, the devices contain

an open-source, zero-cost license immobilizer protocol based on AES-128 that enables interoperability, allowing large-volume customers to deploy second sourcing strategies.

"The fast-growing passive entry market is driven by an increased customer demand for convenience features — hands-free entry, hands-free locking or even personalized welcome lighting," said Matthias Kaestner, vice president of Microchip's Automotive business unit. "As these devices become more and more prevalent, the need for enhanced security to prevent car theft is vital, and Microchip provides what our customers need."

Both the ATA5700 and ATA5702 feature a 3D immobilizer, 3D high-sensitivity LF receivers, digital processing unit, 128-bit crypto engine, LF vector calculation unit and a microcontroller. The ATA5702 is enhanced with a built-in RF transmitter fractional Phase-Locked Loop (PLL) to ensure a robust Ultra-High Frequency (UHF) link that is highly immune to jammers and disturbers.

See our product demonstration by visiting us in Hall A4 stand 578 at Electronica, November 8-11.

Development Support
To facilitate evaluation and development, Microchip offers Atmel Studio 7 for software development for 8-bit AVR® microcontrollers, and the ATAK51004-v2 evaluation kit for product evaluation.

Pricing and Availability
The ATA5700 and ATA5702 are in production today and available now starting at $3.00 in 10K quantities. Both devices come in the 5 x 7 mm QFN package with wettable flanks. For additional information, contact any Microchip sales representative or authorized worldwide distributor, or visit **www.atmel.com/devices/ATA5700.aspx**.

Resources
High-res images available through Flickr or editorial contact below (feel free to publish):

- Chip Graphic: **www.flickr.com/photos/microchiptechnology/30037222603/sizes/l**

About Microchip Technology
Microchip Technology Inc. (NASDAQ: MCHP) is a leading provider of microcontroller, mixed-signal, analog and Flash-IP solutions, providing low-risk product development, lower total system cost and faster time to market for thousands of diverse customer applications worldwide. Headquartered in Chandler, Arizona, Microchip offers outstanding technical support along with dependable delivery and quality. For more information, visit the Microchip website at **www.microchip.com**.

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