

New boosted NFC tag front end from ams enables secure payment transactions on μ SD and μ SIM cards

Featuring Active Boost technology and other unique enhancements, the AS3922 achieves reliable reader-tag communication in the hostile mobile phone environment with no need for an external booster antenna

Unterpremstaetten, Austria (March 6, 2013) - ams AG (SIX: AMS), a leading worldwide designer and manufacturer of high-performance analog ICs for consumer & communications, industrial & medical, and automotive applications, today announces the release of the AS3922, a tag analog front end (AFE) which enables the operation of NFC on μ SD, μ SIM, SIM and other space-constrained carrier devices.

Featuring Active Boost technology from ams, the AS3922 emulates an ISO14443A/B tag through active transmission of the tag's response in synch with the reader's carrier field. This overcomes the difficulties with using conventional passive load modulation in a μ SD or μ SIM card, a device with a very small antenna and – in a mobile phone – operating in a harsh environment. The use of an AS3922 AFE provides for tag-to-reader communication at coupling factors one order of magnitude lower than is possible using conventional methods.

The general introduction of the AS3922, which can interface to any Dual Interface Secure Environment, enables the development of a new generation of contactless payments accessories hosted on a μ SD, μ SIM or SIM card. Mobile phone network operators, banks and others will be able to provide customers with a contactless payment technology card suitable for the many mobile phones that have no NFC (Near Field Communications) capability.

As well as offering Active Boost functionality, the AS3922 also features antenna auto tuning (AAT) technology, Q factor adjustment, and a low-impedance output driver with adjustable output power.

The AS3922 complies with the ISO14443A and B standards for tag emulation, supporting data rates up to 106kb/s. It also supports FeliCa at data rates up to 212kb/s.

The AS3922 provides an Analog Contactless Bridge (ACLB) interface for communication with a secure element and a Digital Secure Environment Interface which supports NFC CLF, DCLB and NFC-WI interfaces.

Mark Dickson, Senior Marketing Manager (Wireless) of ams, said: "Previous SIM or μ SD card-based NFC products needed an external booster antenna, which is not user friendly or robust due

to its extended antenna. Active Boost technology from ams changes the game because it enables NFC to become a 'plug and play' function for any device with a μ SD, SD or SIM card slot."

Price & Availability

The AS3922 is in volume production now. Its price is available on request from ams.

Technical Support

A demonstration board for evaluating the AS3922 is available on request from ams. For more information about the AS3922, please visit www.ams.com/RF-Products/RFID/AS3922.

About ams

ams develops and manufactures high-performance analog semiconductors that solve its customers' most challenging problems with innovative solutions. ams' products are aimed at applications which require extreme precision, accuracy, dynamic range, sensitivity, and ultra-low power consumption. ams' product range includes sensors, sensor interfaces, power management ICs and wireless ICs for customers in the consumer, industrial, medical, mobile communications and automotive markets.

With headquarters in Austria, ams employs over 1,300 people globally and serves more than 7,800 customers worldwide. ams is the new name of austriamicrosystems, following the 2011 acquisition of optical sensor company TAOS Inc. ams is listed on the SIX Swiss stock exchange (ticker symbol: AMS). More information about ams can be found at www.ams.com.

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