**FEIG
ELECTRONIC**

FEIG Electronic Releases New Firmware to Support NXP MIFARE DESFire EV2 and NTAG 424 DNA with the Most Advanced Encryption for Contactless Identification

FEIG ELECTRONIC, a leading global supplier of radio frequency identification (RFID) readers and antennas, with fifty years of industry experience, announces the release of firmware version V.01.05.00 for their CPR74 NFC reader module to support high-level, cryptographic encryption functions of NXP® Semiconductor's MIFARE® DESFire® EV2 and NTAG® 424 DNA product protocols.

Version V01.05.00 adds to the long list of transponders directly supported in the CPR74 which now includes MIFARE DESFire EV2, MIFARE DESFire Light and NTAG 424 DNA Authentication Chips; contactless IC's that are designed for solution developers and system operators building reliable, secure, interoperable and scalable contactless solutions.

The CPR74 is a small, board-level OEM reader module measuring 50mm by 68mm. It's designed for embedded integration into terminals, kiosks, vending machines, turnstiles, and other devices that target smart card solutions in identity, access, loyalty, and micro-payment applications, in transport schemes and smart secure product tagging applications.

The module outputs 450 milliwatts of RF energy providing greater reading distances compared to a typical low power NFC reader. MIFARE DESFire EV2 offers an improved operating distance and when combined with the power output of the CPR74, creates the best in class reading distance. Because the MIFARE DESFire chip becomes energized at a greater distance from the reader, command execution times begin milliseconds faster improving transaction speed. Additionally, FEIG's API Command Queue further improves transaction time; allowing multiple APDU commands to be issued to the reader in a single command packet. The module then executes the series and returns a status of the execution. This technique eliminates the latency associated with issuing single APDU, providing the best in class transaction time making the CPR74 the most capable and flexible NFC reader available in the market.

"We have feedback from our customers who tested the CPR74 and found that the transaction speed was twice as fast reading MiFARE DESFire cards and three times faster reading other MIFARE

transponders, in comparison to a competitive card reader," said Klaus Schoeke, Vice President of Technical Sales for FEIG ELECTRONIC.

All cryptographic functions established in the secure messaging scheme of the MIFARE DESFire EV2 and NTAG 424 DNA are performed by the CPR74 firmware making application development for the card reader much faster and more straightforward since the developer is not required to have an understanding of the lowest level functions of the protocol's challenges, authentication, and encryption.

The CPR74 has an integrated onboard antenna as well as an external remote antenna port that is multiplexed with the onboard antenna. The antenna functionality is configurable and may be used as addressable individual read points.

The CPR74 reader supports the complete range of MIFARE IC's as well as the new NTAG 424 DNA line. NTAG 424 DNA is an attack resistant, certified chip platform, providing AES-128 cryptographic operation for security and privacy in NFC smart product applications, to fight against counterfeiting and grey market activities. In addition, the NTAG 424 DNA TagTamper variant is used to detect product tampering. The CPR74 also supports the recently introduced MIFARE DESFire Light, a next-generation lightweight version of the MIFARE DESFire family that simplifies the introduction of single application contactless services.

The MIFARE DESFire EV2 IC fulfills the requirements for fast and highly secure data transmission, flexible memory organization and is interoperable with existing contactless infrastructures. "Future MIFARE IC releases will incorporate the advanced encryption standard," said Martin Liebl, senior director product management smart mobility and retail at NXP Semiconductors. "FEIG customers' are able to 'future proof' their RFID enabled products and extend their product life cycle through FEIG's firmware releases that extend support to the latest silicon releases brought to market by NXP."

Companies that use the CPR74 as their card reader platform are able to update existing deployments of the FEIG module simply to the latest silicon releases offered in the market. The firmware is available for download at no charge to FEIG customers.

Smartrac Technology Group, a global leader of RFID products and IoT solutions further commented: "We are keen to use FEIG's CPR74 for DESFire EV2 authentication in order to provide secure keys, encode memory and lock access in NXP's NTAG 424 DNA chips, supporting our portfolio of secure authentication RFID inlays and tags," said Sebastian Zeidler, Senior Subject Matter Expert at

Smartrac. "For customers seeking to migrate to a high level of security, FEIG ELECTRONIC is a great choice because of its speed and high capability to support a large number of protocols."

About FEIG ELECTRONIC

FEIG ELECTRONIC GmbH, a leading global supplier of RFID readers and antennas, is one of the few suppliers worldwide offering RFID readers and antennas for all standard operating frequencies: LF (125 kHz), HF (13.56 MHz), UHF (860-960 MHz). A trusted pioneer in RFID with more than 50 years of industry experience, FEIG ELECTRONIC delivers unrivaled data collection, authentication, and identification solutions, as well as secure contactless payment systems. Readers from FEIG ELECTRONIC, which are available for plug-in, desktop and handheld applications, support next-generation contactless credit cards, debit cards, smart cards, NFC and access control credentials to enable fast, accurate, reliable and secure transactions. For more information, visit: www.feig.de/en

About Smartrac

Smartrac is a global market leader in RFID products and IoT solutions, providing both ready-made and customized offerings. We make products smart, and enable businesses to digitize, identify, authenticate, track and complement products and solutions. Our portfolio is used in a wide array of applications such as animal identification, automation, automotive, brand experience, industry, library and media management, laundry, logistics, retail, supply chain management and many more. Leveraging our global Research & Development Centers, production and sales network, and IoT solutions platform Smart Cosmos®, we embed intelligence into physical products, empowering the ecosystem of connected things. Smartrac has its registered headquarters in Amsterdam, the Netherlands. For more information, visit www.smartrac-group.com, follow Smartrac on Twitter or sign up for a quarterly newsletter.