## SEGGER emSecure puts an end to cloning embedded devices.
## Introducing RSA encryption for embedded systems

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SEGGER emSecure is the first digital signature software package designed specifically for embedded systems. The emSecure module provides a selection of easy-to-use functions which allows the developer to easily add a digital signature to a product. The module includes an implementation of the RSA public-key cryptosystem and everything else which is needed for digitally signing data.

emSecure will generate keys, as well as sign messages and verify signatures, based on asymmetric encryption (RSA) and discrete logarithms (DSA).

emSecure can be used to authenticate firmware if the digital signature includes the unique ID of the microcontroller:  No more cloning!

It can also ensure secure firmware updates for any kind of embedded device.  This is critical on devices such as election machines, financial applications and other applications requiring secure licenses, serial numbers or sensitive data.

Based on RSA asymmetric encryption with two keys, it cannot be broken by reverse engineering. The source code has been designed and created, from the ground up, for embedded systems with no GPL or other open source license.

The emSecure Digital Signature module comes with everything needed, as source code, to generate the private and public keys, generate probable and provable primes, calculate secure hashes, encrypt and decrypt messages and create and verify digital signatures.

All parts of the package conform to the appropriate FIPS 186-4 specifications issued by NIST.

More information on emSecure is available at: http://segger.com/emlib-emsecure.html


### About emLib

The SEGGER emLib is a collection of complex, hardware independent algorithms. These algorithms are free from third party licenses. The code follows strict and efficient coding standards resulting in easy to use code, which is optimized for the lowest resource usage and highest performance.

More information on emLib is available at: http://segger.com/emlib.html

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### About SEGGER

**SEGGER Microcontroller** develops and distributes hardware and software development tools as well as software components for embedded systems. An "embedded system" is one in which a microprocessor and associated components are incorporated into a device helping to accomplish difficult and complex tasks in products such as cell phones, medical instruments, instrument clusters, measurement instruments, satellite radios, digital cameras etc.

SEGGER was founded in 1997, is privately held, and is growing steadily. Based in Hilden with distributors in all continents and a local office in Massachusetts, SEGGER offers its full product range worldwide.

SEGGER software products include: embOS (RTOS), emWin (GUI), emFile (File System), emUSB (USB host and device stack) and embOS/IP (TCP/IP stack). With the experience in programming efficiently on embedded systems, SEGGER created highly integrated, cost-

effective programming and development tools, such as the Flasher (stand-alone flash programmer) and the industry leading J-Link/J-Trace emulator.

SEGGER cuts software development time for embedded applications by offering affordable, high quality, flexible and easy-to-use tools and software components allowing developers to focus on their applications. Find out more at http://segger.com.

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