



## Press Release

### **FIRST STRONG SECURITY SOLUTION FOR RFID**

**SecureRF Debuts World's First Linear-based Security Solution for Passive and Active RFID Chips and Readers.**

Westport, Conn., Oct. 27 – SecureRF Corporation has developed the world's first commercial-strength security solutions to address both passive and active radio frequency identification (RFID) tags. Its solution is several thousand times more efficient than any currently available commercial security system and can address other resource-constrained environments including smart cards and wireless devices. Initial target markets for SecureRF include applications for the Departments of Defense and Homeland Security, and high value supply chains.

“Our world-class team of mathematician-cryptographers has developed the only linear-based security methods that provide a complete solution to protect both passive and active RFID tags,” said Louis Parks, president and CEO of SecureRF. “Our first filed patent includes our foundational Algebraic Eraser™ that uniquely cloaks and then erases components of our process making it very hard to attack.”

“Effective security within simple processing environments like RFID is one of the great challenges to the cryptographic community,” said Tim Dierks, former CTO of Certicom and board member of SecureRF. “SecureRF has a unique solution that makes it possible to secure high value supply chains such as pharmaceutical and high risk environments found in defense and homeland security using current reader and tag technology.

“Security is the white elephant in the room for anyone considering RFID as a means to enhance the integrity of high value or sensitive supply chains,” continued Dierks. “Developers and end-users of RFID-based solutions recognize the need for effective security within their applications, but until now, there has not been a practical and workable solution.”

Many commercial markets are turning to RFID technology to help improve the security and proficiency of their supply chains and the pharmaceutical sector is one of the strongest early-adopters – and for good reason. Recent statistics from the U.S. Food and Drug Administration state that as much as 10 percent of medications globally could be counterfeit

with the World Health Organization stating the value of counterfeit drugs at more than \$32 billion. Pharmaceutical manufacturers and distributors are looking to RFID to close the gaps in their supply chains and ensure product safety. However, until now there has been no way available to secure the RFID tag itself from spoofing and repurposing by counterfeiters. “The opportunity for SecureRF and its potential clients is truly enormous,” concluded Parks. “With SecureRF, the pharmaceutical industry can ensure the integrity of their supply chains and enhance the safety and wellbeing of their patients by giving the RFID tag itself an active role in authenticating and repudiating the participants.”

## **Mathematical Foundations**

The company can provide a complete solution that includes authentication, protection, and repudiation of both the readers and tags. All methods run in linear time and employ highly non-linear operations in a non-commutative infinite monoid making for extremely high security, very low power consumption, and a small footprint critical to fitting on a passive RFID tag.

In order to work within the space and time constraints of a low resource environment the SecureRF team developed the ground breaking concept of the Algebraic Eraser, the engine within the SecureRF protocol. The Algebraic Eraser uniquely combines abstract algebraic methods with number theoretic techniques. Algebraic security of payload messages or exchanged keys is arguably the most important notion of security. It means that an adversary restricted to algebraic operations can never get the entire considered object into its knowledge set- ensuring strong security. In contrast, most current commercial security methods are only number theoretic (i.e. use factoring and primes) however there are a few security protocols that are algebraic in nature.

## **About SecureRF**

SecureRF Corporation has developed the world’s first linear-based security solution initially targeting passive and active RFID tags and readers. Its solutions are based on the Algebraic Eraser™, SecureRF’s breakthrough technology, and can also address the growing security concerns around the use of high performance wireless networks and other resource-constrained devices. SecureRF’s methods are thousands of times more efficient than any commercially available security protocol, and it is suitable for use where power, time, and footprint are constrained. SecureRF solutions can be delivered as a software toolkit, gates for a chip, or even a chip itself, addressing a wide range of applications and environments. More information about SecureRF can be found on its Web site at [www.securerf.com](http://www.securerf.com).

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Note to editors:

Please visit the following sites for more information:

<http://www.fda.gov/oc/initiatives/counterfeit/qa.html> for FDA statistics on percentage of drugs counterfeit worldwide

<http://www.who.int/mediacentre/factsheets/fs275/en/> for World Health Organization reference on value of counterfeit drugs (Fact Sheet 275, Nov. 2003)

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