

ELLIPTIC AND IMPINJ COLLABORATION BOLSTERS SYSTEM-ON-CHIP DIGITAL CONTENT PROTECTION

August 20, 2007 – Ottawa, Canada and Seattle, Washington: Elliptic Semiconductor, Inc., and Impinj, Inc., today announced an agreement to collaboratively develop a secure, standards-based system-on-chip (SoC) reference architecture for content protection applications such as digital rights management (DRM) and conditional access. The reference architecture integrates Elliptic’s embedded security module (ESM) and Impinj’s AEON® multi-time programmable nonvolatile memory (NVM) core to counteract embedded system threats such as reverse chip engineering and cryptographic algorithm security breaches.

Guiding principles for the reference architecture include:

- Utilize security technologies that have been validated through extensive testing with real-world applications by the National Institute of Science and Technology (NIST), the American National Standards Organization (ANSI) and the National Security Agency (NSA).
- Leverage logic based NVM for storage of embedded, on-chip secrets and root-of-trust.
- Define a security boundary within the SoC that ensures that only fully validated software processes and local hardware resources can access secret keying material.

“In today’s consumer electronics products, hardware IC features play little role in protecting copyrighted content,” said ABI Research Principal Analyst Steve Wilson in a recent report entitled “Secure Processors for Consumer Electronics - From Zero to 60 Million in Six Years.” “Popular digital rights management schemes that depend on secure software implementations such as Windows DRM, Fairplay, and AACS are routinely targeted and hacked. However, processor companies are enhancing their architectures and embracing security features that will simplify secure software implementations and make it much more difficult to copy and share protected content.”

The planned reference architecture integrates Impinj’s AEON® family of multi-time programmable (MTP) logic NVM cores used to embed keys and secure boot code into designs, with Elliptic’s



Embedded security you can trust



embedded security module (ESM) that defines a security boundary inside the SoC based on sound design practices similar to FIPS-140 security products. Additional architecture features include high-performance symmetric encryption through the advanced encryption standard (AES), hashing through SHA-256, mutual authentication through RSA sign and verify algorithms and the Diffie-Hellman key agreement protocol all coordinated through the on-chip secrets stored in AEON/MTP.

For more information, visit the Elliptic website online at www.ellipticsemi.com or Impinj website online at www.impinj.com/aeon.

About Elliptic

Ranked as the fastest growing security IP provider by Gartner, Elliptic Semiconductor Inc. provides semiconductor intellectual property (IP) cores and software for secure communications ranging from low power to multi-gigabit per second implementations. Elliptic SIP cores enable system-on-chip designers to efficiently balance power, performance and silicon area in complex security-based systems. Demanding customers in markets such as implantable devices, wireless, storage, content distribution and high performance communications trust Elliptic IP cores.

About Impinj

Impinj, Inc. is a semiconductor and RFID company whose patented Self-Adaptive Silicon® technology enables its two synergistic business lines: high-performance RFID products and semiconductor intellectual property (IP). A leading contributor to the RFID standards for high-volume supply-chain applications worldwide, Impinj leverages its technical expertise and industry partnerships to deliver the GrandPrix™ solution, comprising tags, readers, software and systems integration to offer RFID that just works™. Impinj's innovative IP products, core to the company's RFID tags, are licensed to leading semiconductor companies worldwide, allowing them to seamlessly integrate crucial nonvolatile memory (NVM) alongside analog and digital functionality on a single chip. Impinj's IP products include the popular AEON® family of embeddable cores, which provides rewriteable NVM technology in logic CMOS manufacturing. For more information, visit www.impinj.com.



Embedded security you can trust



Editorial Contacts:

Al Hawtin

Elliptic Semiconductor, Inc.

613 254-5456 X102

ahawtin@ellipticsemi.com

Lynda Kaye

Mango Communications for Impinj, Inc.

650-799-2888

lynda@mangocommunications.com