

Features

- FIPS 180-1 compliant SHA-1
- >500 Mbps performance
- Higher performance available
- 32-bit data input port
- Full width message digest output
- Portable to any technology library
- Easy integration into any SoC design

Benefits

- Full-width data ports maximize performance, minimize latency
- Fast delivery for accelerated time to profit

Applications

- Encrypted data storage
- Secure communications
- Secure processing
- IPsec acceleration
- E-commerce
- VPN
- Financial Transactions



SHA1-A100 **Secure Hash 1**

The Athena Group delivers the Secure Hash 1 (SHA-1) as a semiconductor intellectual property (IP) core. Athena's SHA1-A100 SHA-1 core complements Athena's leading-edge TeraFire public key (PK) cryptography accelerators. Whether your application demands SHA-1 performance or the power savings of a dedicated core, Athena's SHA1-A100 core delivers. The SHA1-A100 is compliant with FIPS 180-1 and can accept data input rates greater than 500 Mbps.

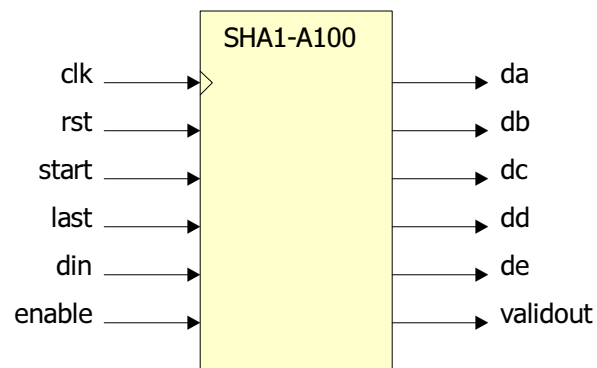


Figure 1: Block Diagram of SHA1-A100

Product Description

The SHA1-A100, shown in Figure 1, is a fully synchronous design and features a 32-bit data input port, and full width message digest output for maximum throughput and minimum latency. A data valid output is provided to simplify retrieval of the message digest.

Each SHA1-A100 core is delivered as a firm core optimized to any customer-specified library. The package includes the core, verification suites, timing and simulation models, and documentation.

Athena's IP cores are designed for efficient implementation and rapid delivery. The company's proprietary, wholly automated implementation and verification methodology produces synchronous, testable IP cores of the highest quality. All Athena IP cores achieve a score of 95% or better on the OpenMore scale of IP reusability.

About The Athena Group, Inc.

The Athena Group, Inc. of Gainesville, Florida licenses high-performance DSP technology that delivers breakthrough performance, reduced area, and lower power consumption in a broad range of SoC products. Athena's proprietary technology powers leading edge applications such as secure e-commerce, wireless communications, and video compression. In addition to their high-value application level solutions, Athena also produces a full line of fundamental DSP functions suitable for SoC integration.

Athena was founded in 1986 and is privately held.



The Athena Group, Inc.
5522 NW 43rd Street, Suite B
Gainesville, FL 32653

Phone: (352) 371-2567
Toll-free: (800) 741-7440
Fax: (352) 373-5182
www.athena-group.com

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