Techno Mathematical Co.,Ltd.

Algorithm Specialist TMC

AES

Powered by original computing algorithm “DMNA” based on mathematical methods

1 Abstract

TMC’s AES encryption / decryption IP core is validated by "NIST CAVP".
It processes at high speed, so it can be used high-speed LAN systems and other fields.

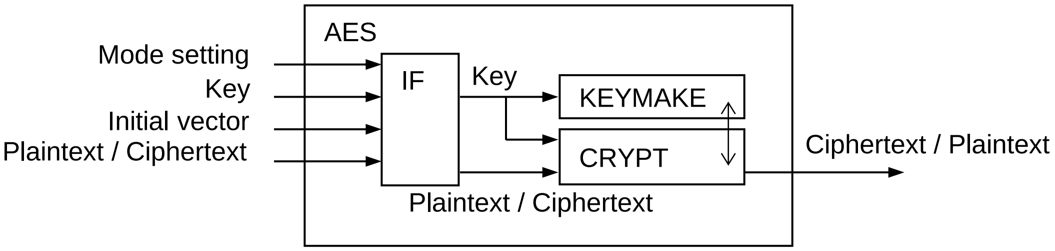
2 Features

Super high speed operation

- Process one round in one clock
- Processing power 1 Gbps(Operating frequency is 100 MHz)
- Implementable on FPGA

AES DMNA

3 Block Diagram



4 Specifications

Cryptographic Standards	Compliant with NIST FIPS PUB 197
Certification	NIST AES Algorithm Validation Cert. #3875
Encryption Mode	ECB/CBC/OFB/CFB1/CFB8/CFB128 (CTR mode : optional)
Bit Length	Plaintext: 128 bits, Ciphertext: 128 bits, Key length: 128/192/256 bits
Throughput	1 round/clock (Ex.) 1Gbps at key length:128bit, frequency:100 MHz. *The maximum operating frequency depends on process technology / FPGA etc..

Note Specifications are subject to change without notice

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