

AES-T2600

- Trojan Description

- The Trojan trigger is a 4-bit asynchronous counter inserted into the AES-128 block cipher. The counter is increased by 1 after each successive encryption if the value of a predetermined signal (`s3[122]` within the `aes_128` module) is 1. The Trojan is active when the fourth bit of the counter is high. When triggered, the Trojan attacks encryption by flipping the least significant bit of the existing encrypted output.

- Trojan Taxonomy

- Insertion phase: Design
- Abstraction level: Register transfer level
- Activation mechanism: Both physical-condition and time-based
- Effect: Change functionality
- Physical characteristic: Functional