

# s38417-T100

## 🔑 Trojan description

- 🔑 The Trojan trigger is a comparator with activation probability of  $1.4243e-70$ . The Trojan gains control over an internal signal after activation.

## 🔑 Trojan taxonomy

- 🔑 Insertion phase: Design
- 🔑 Abstraction level: gate level
- 🔑 Activation mechanism: Internally conditionally triggered
- 🔑 Effects: Change Functionality, Denial of Service
- 🔑 Location: Processor
- 🔑 Physical characteristics: Functional

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```
// Trigger -----  
NOR2X0 Trojan1 (.IN1(n3065), .IN2(n3016), .QN(Tj_OUT1));  
NOR2X0 Trojan2 (.IN1(n3023), .IN2(n3000), .QN(Tj_OUT2));  
NOR2X0 Trojan3 (.IN1(n3008), .IN2(n3068), .QN(Tj_OUT3));  
NOR2X0 Trojan4 (.IN1(n3128), .IN2(n3036), .QN(Tj_OUT4));  
AND4X1 Trojan1234_NOT (.IN1(Tj_OUT1), .IN2(Tj_OUT1), .IN3(Tj_OUT3), .IN4(Tj_OUT4), .Q(Tj_OUT1234));  
NOR2X0 Trojan5 (.IN1(n3758), .IN2(n3788), .QN(Tj_OUT5));  
NOR2X0 Trojan6 (.IN1(n3751), .IN2(n3749), .QN(Tj_OUT6));  
NOR2X0 Trojan7 (.IN1(n2792), .IN2(n2632), .QN(Tj_OUT7));  
NOR2X0 Trojan8 (.IN1(n2351), .IN2(n2430), .QN(Tj_OUT8));  
AND4X1 Trojan5678_NOT (.IN1(Tj_OUT5), .IN2(Tj_OUT6), .IN3(Tj_OUT7), .IN4(Tj_OUT8), .Q(Tj_OUT5678));  
AND2X1 Trojan_CLK_NOT (.IN1(Tj_OUT1234), .IN2(Tj_OUT5678), .Q(Tj_Trigger) );  
  
// Payload -----  
OR2X1 Trojan_Payload (.IN1(Tj_Trigger), .IN2(n4263), .Q(n4263_Tj_Payload));
```

**Please send your concerns/questions to**

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