

s38417-T200

🔑 Trojan description

- 🔑 The Trojan trigger is a comparator with activation probability of $1.6616e-44$. The Trojan payload propagates erroneous values over four internal signals.

🔑 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(n2459), .IN2(n2309), .QN(Tj_OUT1));  
NOR2X0 Trojan2 (.IN1(n2237), .IN2(n2279), .QN(Tj_OUT2));  
NOR2X0 Trojan3 (.IN1(n2381), .IN2(n2207), .QN(Tj_OUT3));  
NOR2X0 Trojan4 (.IN1(n2542), .IN2(n2489), .QN(Tj_OUT4));  
AND4X1 Trojan1234 (.IN1(Tj_OUT1), .IN2(Tj_OUT1), .IN3(Tj_OUT3), .IN4(Tj_OUT4), .Q(Tj_OUT1234));  
OR2X1 Trojan5 (.IN1(n3260), .IN2(n3301), .Q(Tj_OUT5));  
OR2X1 Trojan6 (.IN1(n3380), .IN2(n3341), .Q(Tj_OUT6));  
OR2X1 Trojan7 (.IN1(n3374), .IN2(n3293), .Q(Tj_OUT7));  
OR2X1 Trojan8 (.IN1(n3334), .IN2(n1591), .Q(Tj_OUT8));  
AND4X1 Trojan5678 (.IN1(Tj_OUT5), .IN2(Tj_OUT6), .IN3(Tj_OUT7), .IN4(Tj_OUT8), .Q(Tj_OUT5678));  
AND2X1 Trojan_Trigger (.IN1(Tj_OUT1234), .IN2(Tj_OUT5678), .Q(Tj_Trigger) );  
  
// Payload -----  
OR2X1 Trojan_Payload_1 (.IN1(Tj_Trigger), .IN2(n4149), .Q(n4149_Tj_Payload));  
OR2X1 Trojan_Payload_2 (.IN1(Tj_Trigger), .IN2(n4161), .Q(n4161_Tj_Payload));  
OR2X1 Trojan_Payload_3 (.IN1(Tj_Trigger), .IN2(n4160), .Q(n4160_Tj_Payload));  
OR2X1 Trojan_Payload_4 (.IN1(Tj_Trigger), .IN2(n4122), .Q(n4122_Tj_Payload));
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Please send your concerns/questions to

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