s35932-T200

Trojan description

The Trojan trigger is a comparator which only gets activated in the functional mode. After activation, it bypasses four gates of the main design by applying a corresponding dominant input value.

Trojan taxonomy

Insertion phase: Design

─Abstraction level: gate level

Activation mechanism: Internally conditionally triggered

Effects: Denial of Service

Location: Processor

Physical characteristics: Functional



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// Trigger -----
NOR2X0 Trojan1 (.IN1(WX3442), .IN2(WX5974), .QN(Tj_OUT1));
NOR2X0 Trojan2 (.IN1(WX806), .IN2(WX782), .QN(Tj_OUT2));
NOR2X0 Trojan3 (.IN1(WX11632), .IN2(WX3102), .QN(Tj_OUT3));
NOR2X0 Trojan4 (.IN1(WX5964), .IN2(WX3324), .QN(Tj_OUT4));
AND4X1 Trojan1234_NOT (.IN1(Tj_OUT1), .IN2(Tj_OUT1), .IN3(Tj_OUT3), .IN4(Tj_OUT4), .Q(Tj_OUT1234));
NOR2X0 Trojan5 (.IN1(WX8634), .IN2(WX3330), .QN(Tj_OUT5));
NOR2X0 Trojan6 (.IN1(WX3126), .IN2(WX3110), .QN(Tj_OUT6));
NOR2X0 Trojan7 (.IN1(WX862), .IN2(WX7227), .QN(Tj_OUT7));
NOR2X0 Trojan8 (.IN1(WX11616), .IN2(WX10862), .QN(Tj_OUT8));
AND4X1 Trojan5678 NOT (.IN1(Tj OUT5), .IN2(Tj OUT6), .IN3(Tj OUT7), .IN4(Tj OUT8), .Q(Tj OUT5678));
INVX0 INVtest_se ( .IN(test_se), .QN(test_se_NOT) );
AND3X1 Trojan Trigger (.IN1(Tj OUT1234), .IN2(Tj OUT5678), .IN3(test se NOT), .Q(Tj Trigger));
// Payload -----
NOR3X0 U5548 ( .IN1(n3866), .IN2(n4602), .IN3(Tj_Trigger), .QN(WX8266) );
NOR3X0 U5566 ( .IN1(n3884), .IN2(n4634), .IN3(Tj_Trigger), .QN(WX6999) );
NOR3X0 U6740 (.IN1(n2381), .IN2(n4539), .IN3(Tj Trigger), .QN(WX7783));
NOR3X0 U6802 ( .IN1(n2599), .IN2(n4546), .IN3(Tj_Trigger), .QN(WX6484) );
```



Please send your concerns/questions to

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