s38584-T100

- Trojan description
  - The Trojan trigger is a comparator whose inputs are supplied by nets from unused QN pins of scan flip-flops. The Trojan is only active in the functional mode by observing test enable signal. The Trojan payload propagates erroneous values over an internal signal.

- 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----------------------
AND2X1 Trojan1 (.IN1(Tj_TriggerIN1), .IN2(Tj_TriggerIN2), .Q(Tj_OUT1));
AND2X1 Trojan2 (.IN1(Tj_TriggerIN3), .IN2(Tj_TriggerIN4), .Q(Tj_OUT2));
AND2X1 Trojan3 (.IN1(Tj_TriggerIN5), .IN2(Tj_TriggerIN6), .Q(Tj_OUT3));
AND2X1 Trojan4 (.IN1(Tj_TriggerIN7), .IN2(Tj_TriggerIN8), .Q(Tj_OUT4));
NOR4X0 Trojan1234_NOT (.IN1(Tj_OUT1), .IN2(Tj_OUT1), .IN3(Tj_OUT3), .IN4(Tj_OUT4), .QN(Tj_OUT1234));
AND2X1 Trojan5 (.IN1(Tj_TriggerIN9), .IN2(Tj_TriggerIN10), .Q(Tj_OUT5));
INVX0 NOT_test_se ( .IN(test_se), .QN(test_se_NOT) );
AND3X1 Trojan_Trigger ( .IN1(Tj_OUT1234), .IN2(Tj_OUT5), .IN3(test_se_NOT), .Q(Tj_Trigger) );

//Payload----------------------
OR2X1 Trojan_Payload (.IN1(Tj_Trigger), .IN2(g34028), .Q(g34028_Tj_Payload));
```

Please send your concerns/questions to

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