

Testing Leakage on Edges without a Probe present

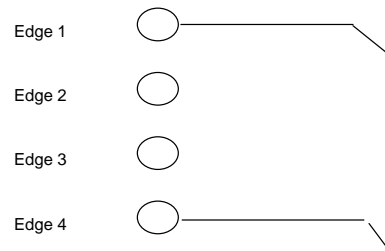
I. The Purpose of this Application Note is to describe how to program a Test Program file to test all edges whether a Probe is connected to them or not.

A. When would you want to do this?

1. You have edges with no Probes connected to them but are part of the reference file
2. Used edges with no probes connected to them when the Relay wiper is open.
3. Testing of Edges when closing the relay Ganges Edges to the specified Edge

B. How do you do this?

1. Edges with Non-Exist Probes:

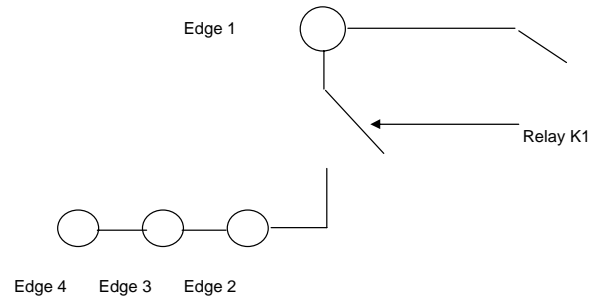


Programming Example:

Edge	Trace	Number	Name	Die	ProbeFlags	PadPosX	PadPosY	Remarks
1	1	1	1	1	1	-2024.4	-7452.4	
2	2	2	2	2	1 e_NoExist	0	0	
3	3	3	3	3	1 e_NoExist	0	0	
4	4	4	4	4	1	-1999	-6667.5	

The Flag e_NoExists specifies that there is no probe attached to this edge. The system will then check to verify that it is not found using either vision or electrical testing, a 'N/F' or Not Found will cause it to display as passing. Leakage will be checked as well as per normal Testing procedures. The XY coordinates can be anything as long as there is not a probe or other object in that location.

2. Edges with Non Existant Probes Unless the Relay is closed and Ganged Edges



You will test for leakage on these Noexist Ganged Edges with the Relays set to Off for Edge 1*

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{CARD INF *** Probe Information ***
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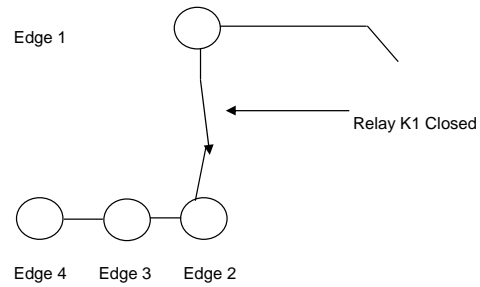
Edge	Trace	Number	Name	Die	ProbeFlags	PadPosX	PadPosY	Remarks	RelaysOff	RelaysOn
1	1	1			1	-2024.4	-7452.4		K1	
2	2				1 e_NoExist	0	0			

```
{Card Info *** Ganged Edge Information ***
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Edge	GangedEdges
2	3;4

In the example above we again Program Edge 2 as a Noexist, give it fictional XY Coordinates.
 We also specify that Edge 1 be tested with the RELAY OFF so we can do a separate Leakage Test on Edges 2,3,4
 Also we make a Ganged Edge Statement to tell the system that 3 and 4 are connected to Edge 2 so leakage will be tested correctly.

3. Leaking Testing of an Edge that when the Relay is closed it is connected to other Edges *



*** Probe Information ***										
Edge	Trace	Number	Name	Die	ProbeFlag	PadPosX	PadPosY	Remarks	RelaysOff	RelaysOn
1	1				1	-2024.4	-7452.4			K1

*** Ganged Edge Information ***	
Edge	GangedEdges
1	2;3;4

This Method will correctly test Edge 1 and its ganged edges 2,3 and 4

* Note: If testing of the card with both the Relay On and the Relay Off for Edge 1 is desired TWO Test Program Files Must be created

The Advantage to testing with the Relays OFF is that it ensures the relay correctly opens and that the individual Edges have no leakage between them. To Verify the Relay closes and all Edges are seen Wire Check can be tested with the Relay ON to verify this operation