



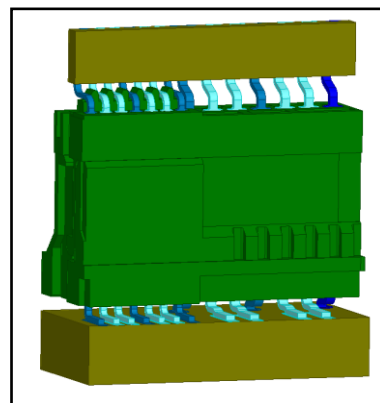
# ELECTRICAL MODEL DOCUMENTATION

## MODEL SUMMARY

S-parameter model of SAS straddle mount plug mated with SAS standard height hybrid receptacle connector. The model generated includes board effects.

SAS plug includes solder pad size of 0.8mm x 2.46mm for Port 1 and 0.55mm x 2.46mm for Port 2 on FR4 board thickness of 1.0mm.

SAS receptacle includes via hole with diameter of 0.8mm and solder pad size of 0.6mm x 2.65mm for Port 1 and 0.5mm x 2.65mm for Port 2 on FR4 board thickness of 3.0mm.



## APPLICABLE PART NUMBERS:

784590001, 878390011, 878390017, 878390018, 878390019, 878390039

<b>MODEL NAME :</b> spm78459_87839_revA_wp.s16p	
<b>MODEL TYPE:</b> SPM	<b>STRUCTURE:</b> Assembly
<b>MODEL SOURCE:</b> Simulation	<b>VALIDATION:</b> No
<b>NUMBER OF PORTS:</b> 16	<b>MAXIMUM FREQUENCY:</b> 15 GHz

**DISCLAIMERS:** Information contained in this document is simulated. Molex Incorporated does not guarantee the performance of the final product to the information provided in this document.

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The user is responsible for verifying the results of their use of this information, and assumes all risk of doing or not doing so. Use of the electronic file evidences user's agreement to the above terms.

Any charts or schematics in this report are only for general reference. The schematic allows the user to configure a similar simulation circuit in any simulation tool. The resulting charts provided allow a comparison of results to the Molex simulation using the stated schematic.

<b>REVISION:</b>  <b>A</b>	<b>ECN INFORMATION:</b> <b>EC No: S2011-1074</b> <b>DATE: 2011/06/23</b>	<b>TITLE:</b> <b>SAS Str. Mt. Plug Mated With</b> <b>SAS Standard Height Hybrid Receptacle Connector</b> <b>78459-0001 Mated With 87839-00**</b> <b>MOLEX CONFIDENTIAL</b>	<b>SHEET No.</b>  <b>1 of 5</b>
<b>DOCUMENT NUMBER:</b> <b>EE-87839-002</b>	<b>CREATED / REVISED BY:</b> <b>HELVY 2011/06/23</b>	<b>CHECKED BY:</b> <b>CMWONG 2011/06/24</b>	<b>APPROVED BY:</b> <b>ACHEAH 2011/06/24</b>



# ELECTRICAL MODEL DOCUMENTATION

## CONDUCTOR TO PORT MAPPING TABLE

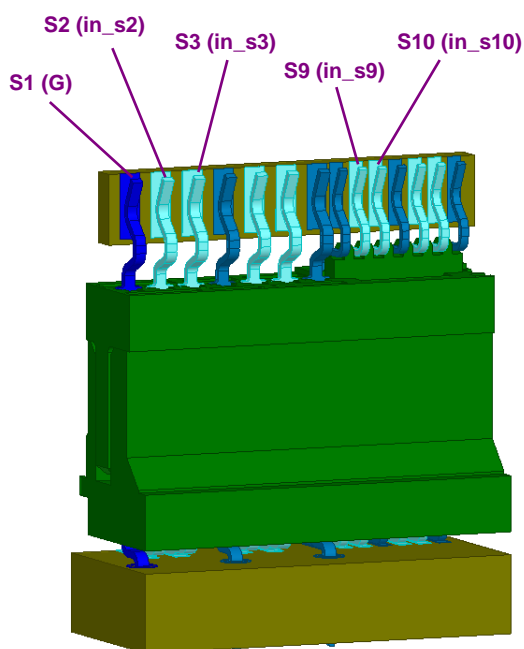
### SIGNAL PATHS

Conductor	Ports
2	in_s2, out_s2
3	in_s3, out_s3
5	in_s5, out_s5
6	in_s6, out_s6
9	in_s9, out_s9
10	in_s10, out_s10
12	in_s12, out_s12
13	in_s13, out_s13

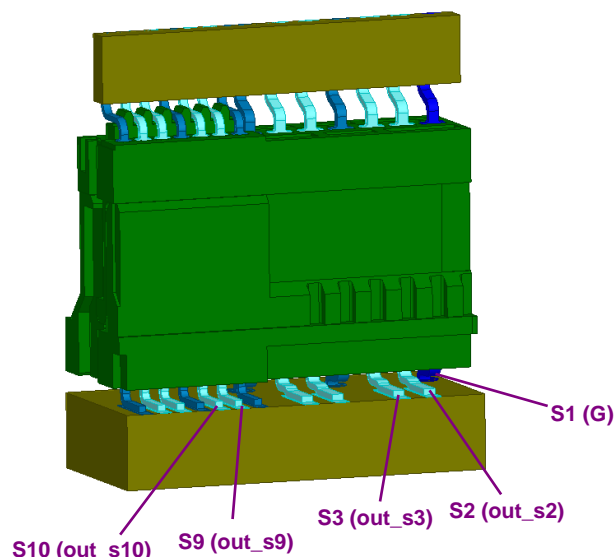
### PRE-DEFINED RETURN PATHS

Conductor	Label
1	G
4	G
7	G
8	G
11	G
14	G

## PART ILLUSTRATIONS



View A



View B

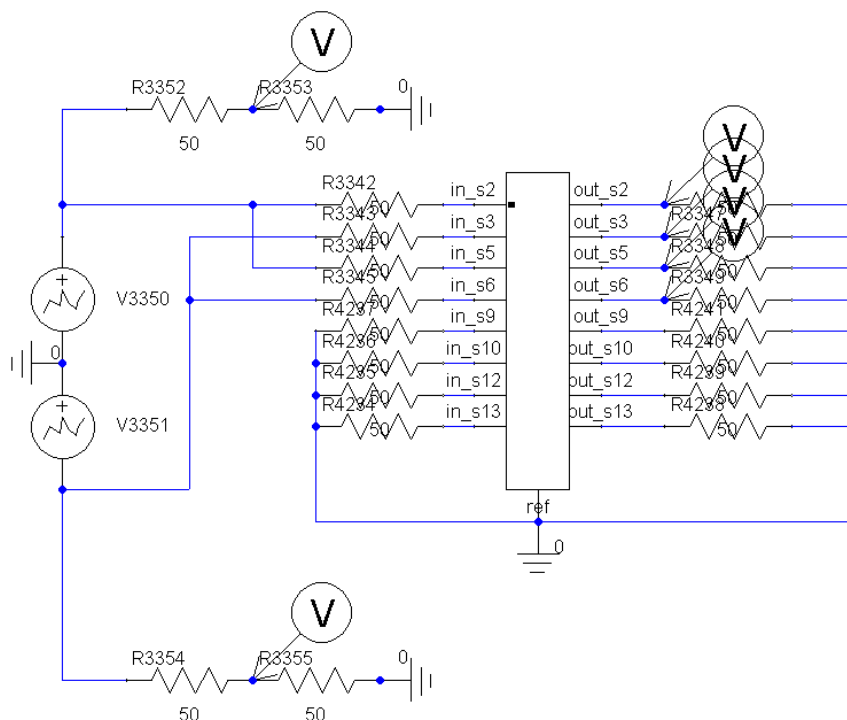
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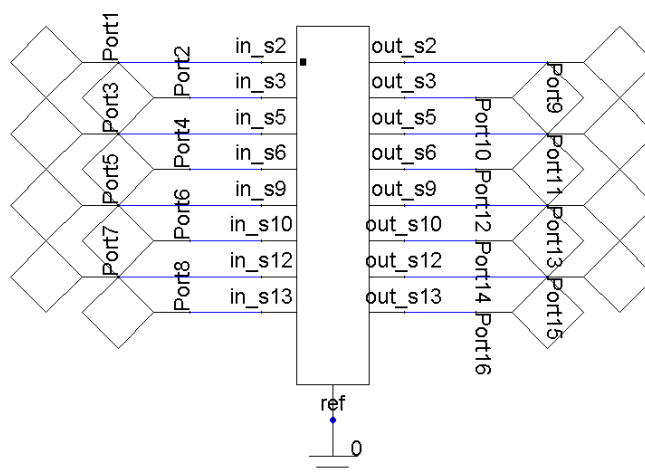
# ELECTRICAL MODEL DOCUMENTATION

## REFERENCE SCHEMATICS

### Time Domain Schematic



### Frequency Domain Schematic



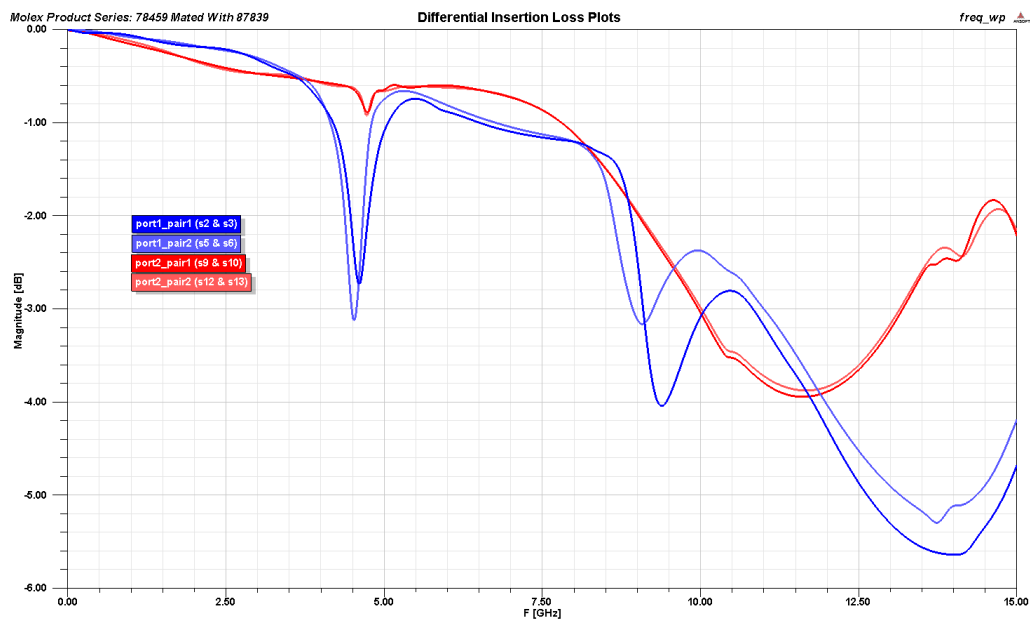
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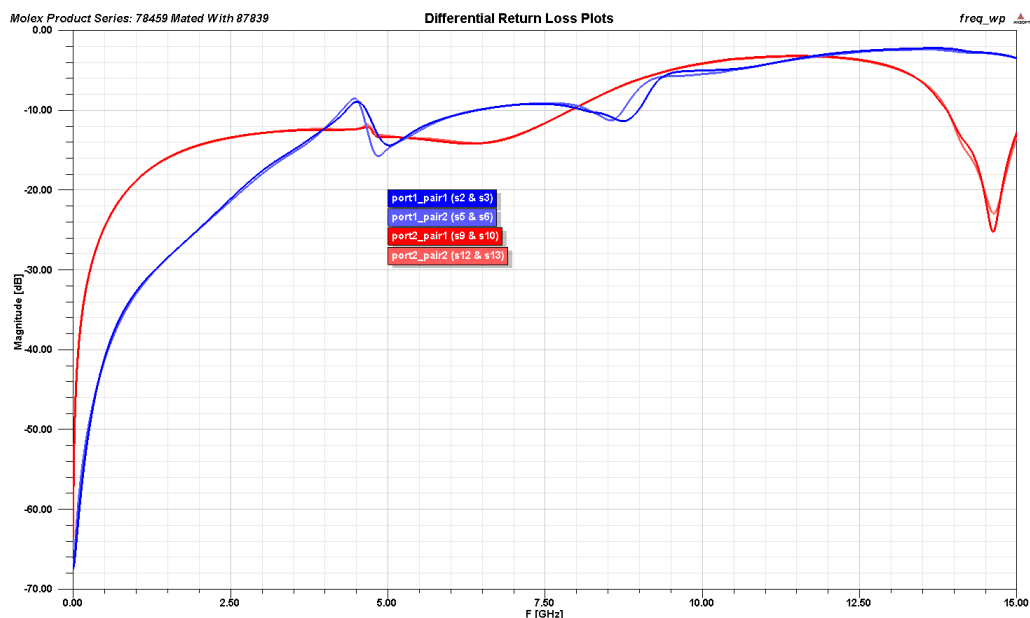
# ELECTRICAL MODEL DOCUMENTATION

## REFERENCE RESULTS

### Insertion Loss



### Return Loss

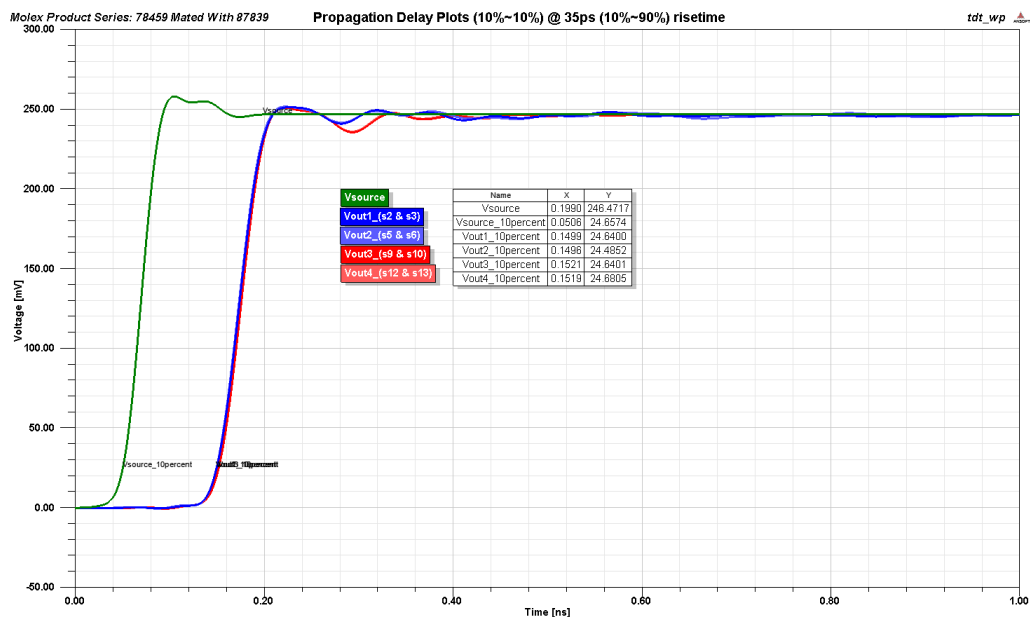


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# ELECTRICAL MODEL DOCUMENTATION

## Time Domain Response



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