

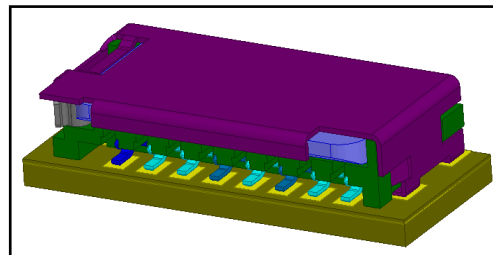


ELECTRICAL MODEL DOCUMENTATION

MODEL SUMMARY

S-parameter model of 2.30mm height micro secure digital surface mount mated connector. The model generated includes board effects.

Motherboard includes micro-strip of 0.3mm x 0.1778mm with stack height of 0.1mm and solder pad diameter of 1.0mm x 0.7mm with FR4 board thickness of 0.8mm.



SD card constructed on polycarbonate has a finished board thickness of 0.7mm. It includes micro-strip of 0.1mm x 0.9mm with stack height of 0.374mm, and gold fingers of 3.6mm x 0.9mm without ground reference under these pads.

APPLICABLE PART NUMBERS:

475710001, 475710101, 475712001

| | |
|--|---|
| MODEL FILENAME: SP-47571-001_revA.s12p | MODEL FORMAT: Touchstone (*.sNp) |
| MODEL TYPE: S-parameter | DATA FORMAT: Magnitude/Phase |
| MODEL BASIS: Analytical 3D Field Solution | MODEL SOURCE: Ansys HFSS ver. 15.0.0 |
| BANDWIDTH: DC – 10 GHz | RESOLUTION: 10 MHz Steps |
| REFERENCE: 50 ohms | NUMBER OF POINTS: 1001 (1000 + 1 DC) |
| NUMBER OF PORTS : 12 Single-Ended | VALIDATION: No |

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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.

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|--|--|--|---|
| REVISION: A | ECN INFORMATION: EC No: S2014-1243 DATE: 2014/06/13 | TITLE: 2.30mm Height Micro Secure Digital Surface Mount Mated Connector 47571-**01 Mated MOLEX CONFIDENTIAL | SHEET No. 1 of 5 |
| DOCUMENT NUMBER: EE-47571-001 | CREATED / REVISED BY: HELVY 2014/06/13 | CHECKED BY: CMWONG 2014/06/13 | APPROVED BY: WTCHUA 2014/06/13 |



ELECTRICAL MODEL DOCUMENTATION

TERMINAL TO MODEL PORT MAPPING TABLE

AVAILABLE MODEL SIGNAL PATHS

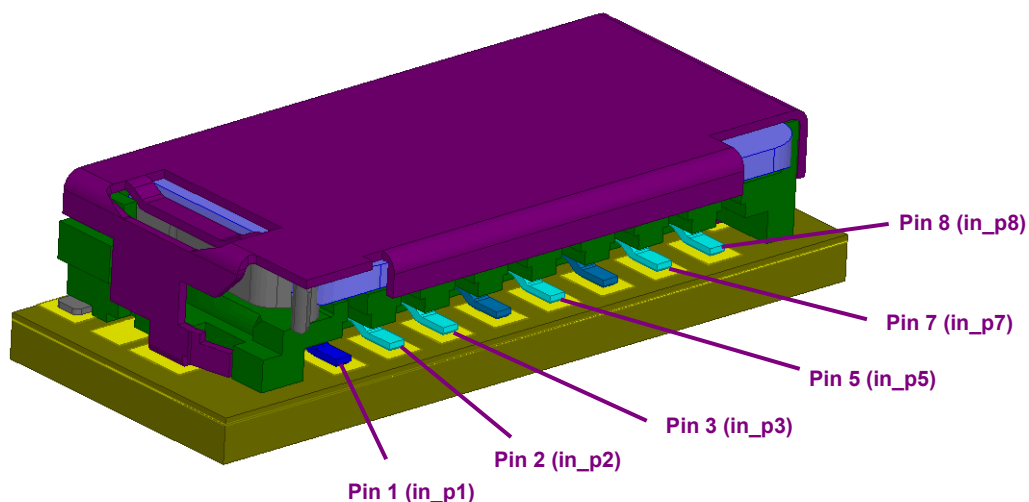
| TERMINAL | INPUT PORT (RECEPTACLE SIDE) | DESCRIPTION | OUTPUT PORT (SD CARD SIDE) | DESCRIPTION |
|----------|---------------------------------|-------------|-------------------------------|-------------|
| P1 | 1 | in_p1 | 7 | out_p1 |
| P2 | 2 | in_p2 | 8 | out_p2 |
| P3 | 3 | in_p3 | 9 | out_p3 |
| P5 | 4 | in_p5 | 10 | out_p5 |
| P7 | 5 | in_p7 | 11 | out_p7 |
| P8 | 6 | in_p8 | 12 | out_p8 |

PRE-DEFINED MODEL RETURN PATHS

| TERMINAL | DESCRIPTION |
|----------|-------------|
| P4 | G |
| P6 | G |

PART ILLUSTRATIONS

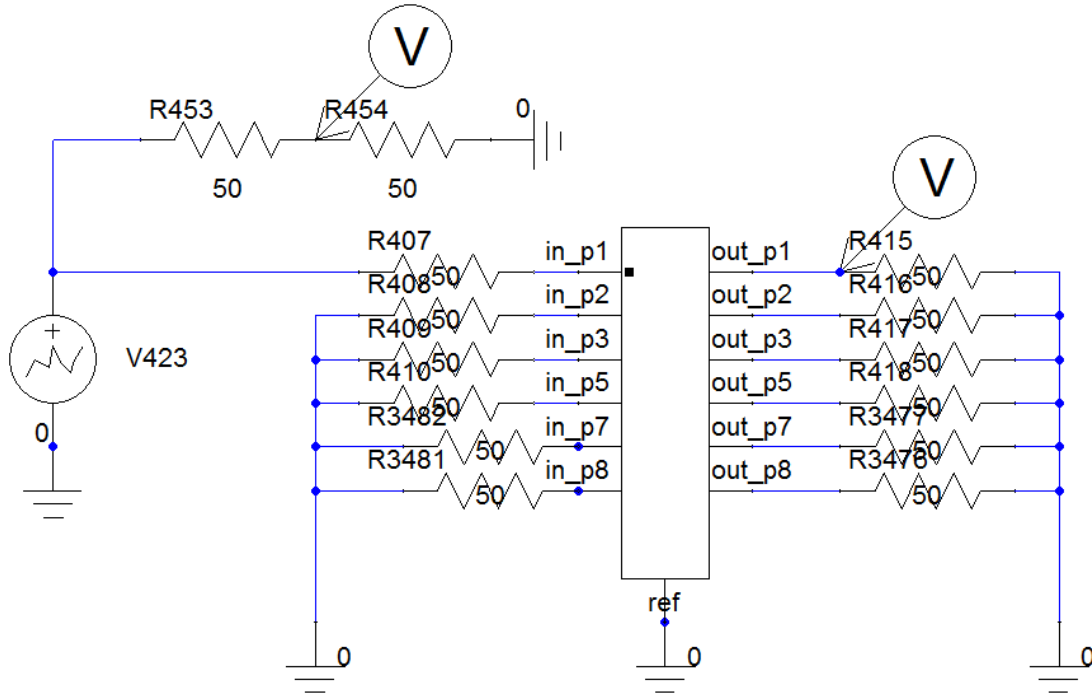
Connector (Receptacle View)



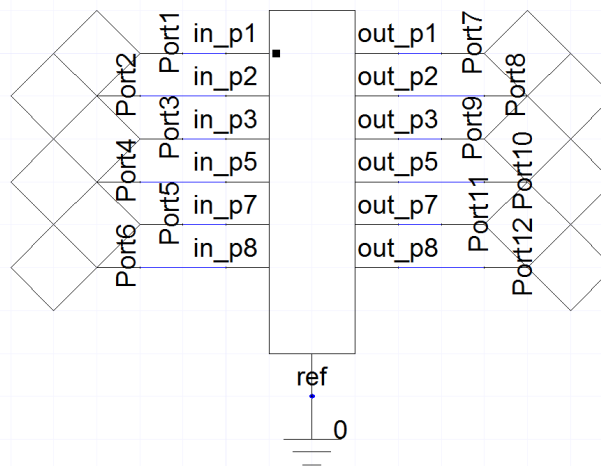
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| REVISION: A | ECN INFORMATION: EC No: S2014-1243 DATE: 2014/06/13 | TITLE: 2.30mm Height Micro Secure Digital Surface Mount Mated Connector 47571-**01 Mated MOLEX CONFIDENTIAL | SHEET No. 2 of 5 |
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REFERENCE SCHEMATICS

Time Domain Schematic



Frequency Domain Schematic



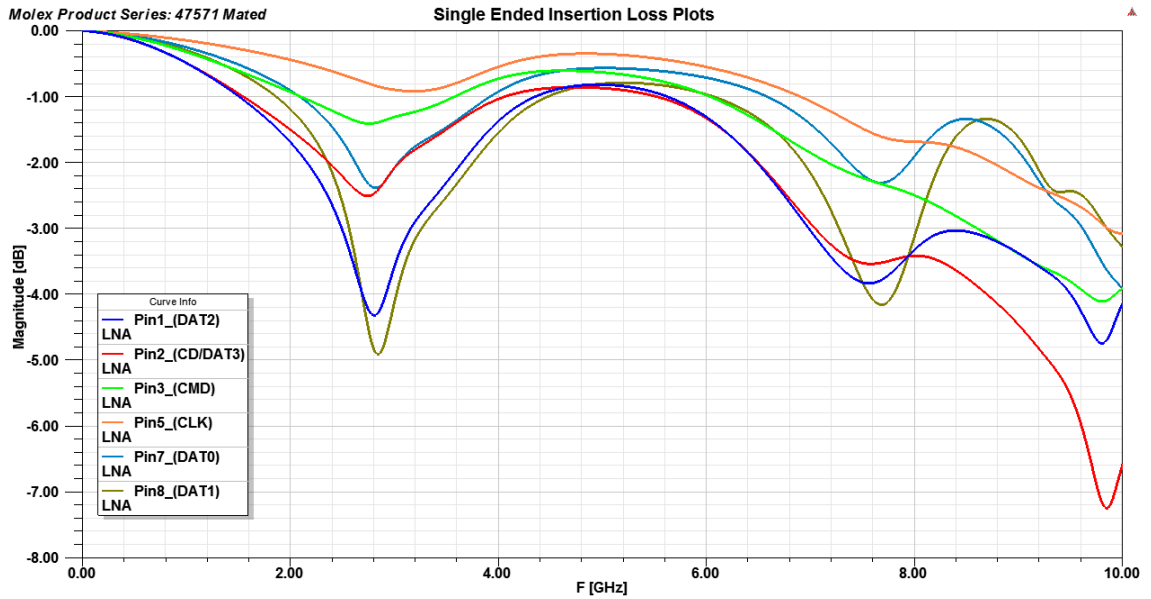
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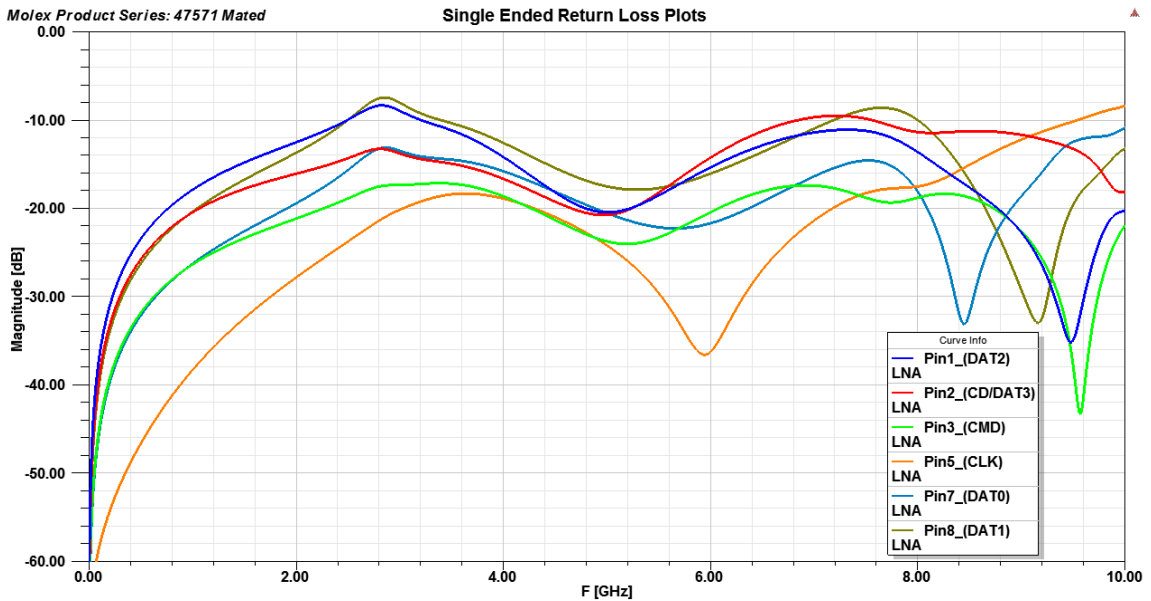
ELECTRICAL MODEL DOCUMENTATION

REFERENCE RESULTS

Insertion Loss



Return Loss



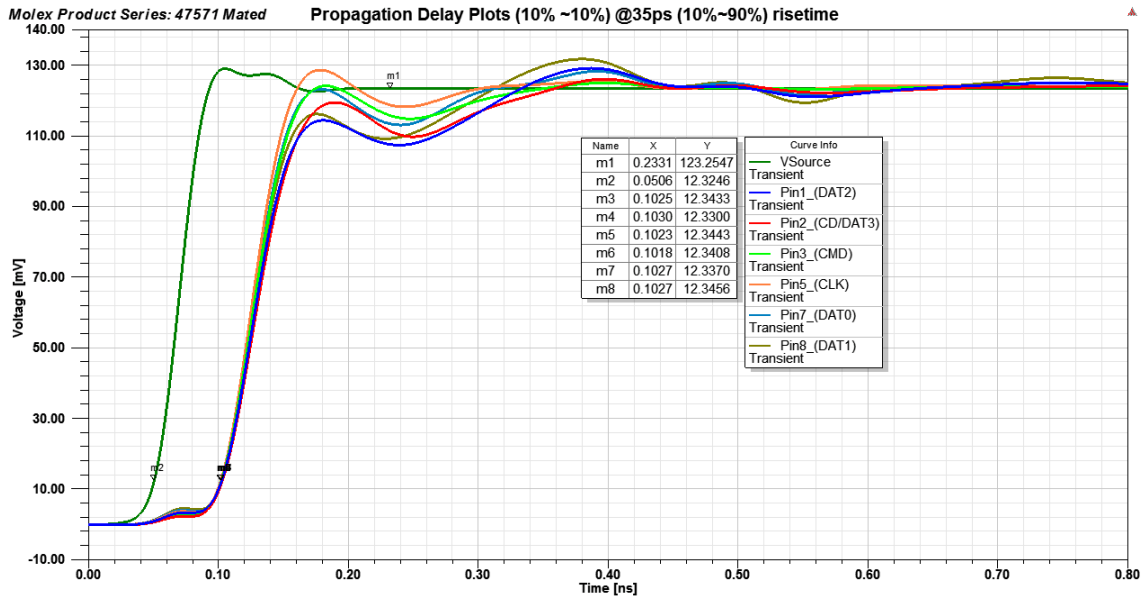
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ELECTRICAL MODEL DOCUMENTATION

REFERENCE RESULTS

Time Domain Response



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|---|---|---|--|
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