

# molex® ELECTRICAL MODEL DOCUMENTATION

## MODEL SUMMARY

This electrical documentation is for 10G 1M 30AWG , 10G 3M 28AWG, 10G 5M 26AWG, and 10G 7M 24AWG, SFP+ cable assemblies mated at both ends to Molex SFP+ evaluation boards.

The evaluation board and cable assemblies were measured using an Agilent N5230A Vector Network Analyzer in the frequency domain. The frequency range of the data is from 0.01 GHz to 20 GHz in 5 MHz steps.

The measured data S4P files for each cable includes the SFP+ evaluation board trace attenuation for both boards. The "SP-76931-3090 Rev A 2X Thru.s4p" file may be used to determine the combined attenuation of both evaluation boards used during collection of the measured data S4P files (sometimes referred to as a 2X thru).

Further information regarding this cable assembly series and other related Molex cable assemblies can be found at <http://www.molex.com>.

**APPLICABLE PART NUMBERS:** 74752 series (Cable Assembly)  
**1M 30 AWG:** 74752-1101  
**3M 28 AWG:** 74752-2301  
**5M 26 AWG:** 74752-3501  
**7M 24 AWG:** 74752-4701  
 76931-3090 Rev A (Evaluation Board)

<b>MODEL TYPE:</b> S-parameter	<b>MODEL FORMAT:</b> Touchstone (*.sNp)
<b>NUMBER OF CHANNELS:</b> 8 differential	<b>DATA FORMAT:</b> Magnitude/Angle
<b>MODEL BASIS:</b> Measured data	<b>VNA:</b> Agilent N5230A
<b>BANDWIDTH:</b> 0.01 GHz - 20 GHz	<b>RESOLUTION:</b> 5 MHz
<b>REFERENCE:</b> 50 ohms	<b>NUMBER OF POINTS:</b> 3999
<b>MODEL FILENAMES:</b> (part number.s4p) <b>1M 30 AWG:</b> SP-74752-1101.s4p <b>3M 28 AWG:</b> SP-74752-2301.s4p <b>5M 26 AWG:</b> SP-74752-3501.s4p <b>7M 24 AWG:</b> SP-74752-4701.s4p	

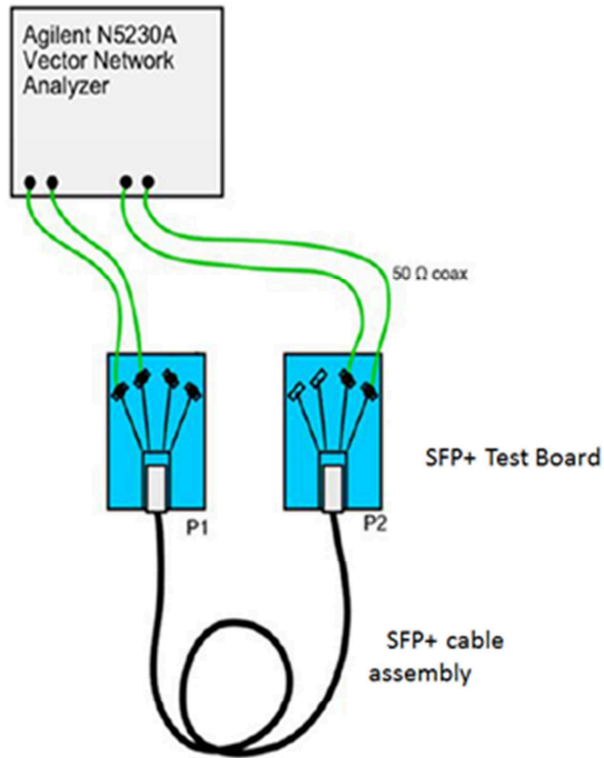
**DISCLAIMERS:** Information contained in this document is obtained from randomly selected general market cables. Molex Incorporated does not guarantee the performance of the final product to the information provided in this document.

Molex does not represent, warrant or guarantee the accuracy of the information, expressly disclaims all warranties including the implied warranties of merchantability and fitness for particular purpose and shall not be liable for any damages whatsoever arising from use of, or inability to use, the information contained in this document or accompanying electronic file.

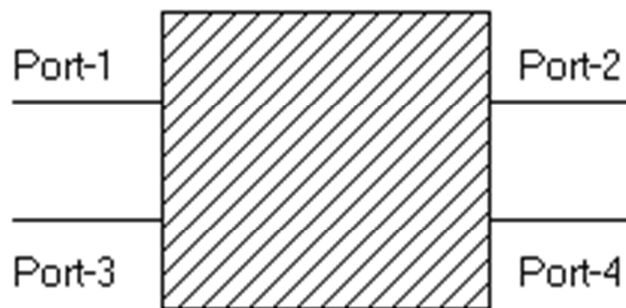
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<u>REVISION:</u> <b>B</b>	<u>DATE:</u> 2012 / 12 / 28	<u>TITLE:</u> <b>10 G 74752 series SFP+ Mated Cable Assembly</b>	<u>SHEET No.</u> <b>1 of 6</b>
<u>DOCUMENT NUMBER:</u> <b>1497-74752</b>	<u>CREATED / REVISED BY:</u> <b>JSHEPPARD</b>	<u>CHECKED BY:</u> <b>MBUGG</b>	<u>APPROVED BY:</u> <b>KLLOYD</b>

## S DOMAIN SETUP



## PORT MAPPING

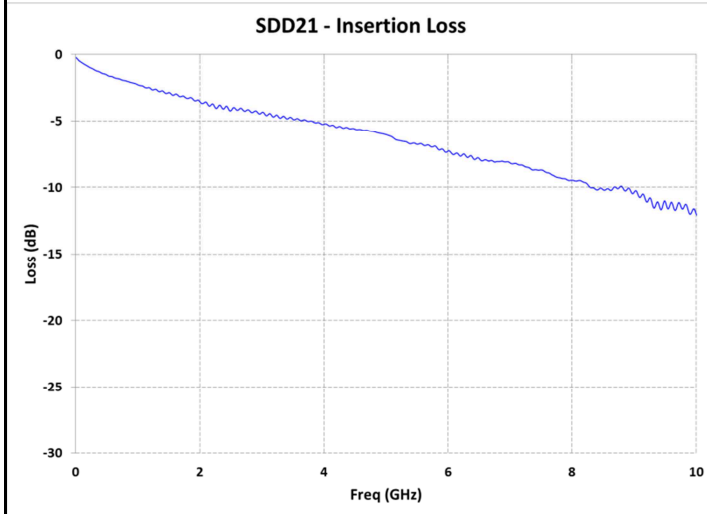


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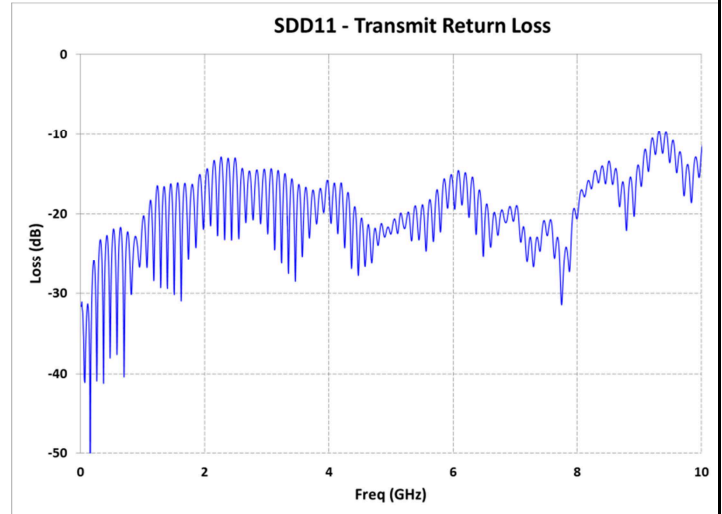
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## 1M 30 AWG: 74752-1101

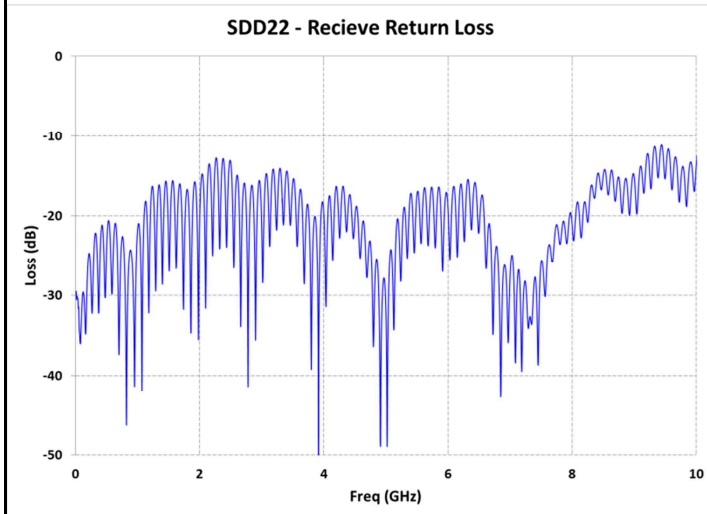
Differential Insertion Loss



Transmit Differential Return Loss



Receive Differential Return Loss



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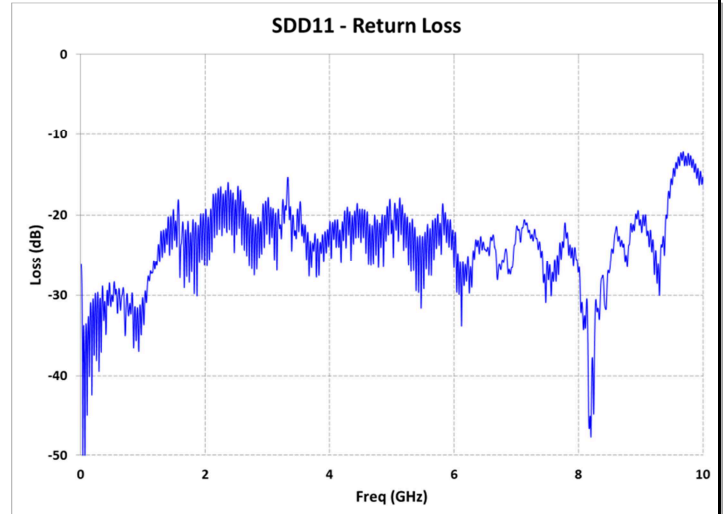
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## 3M 28 AWG: 74752-2301

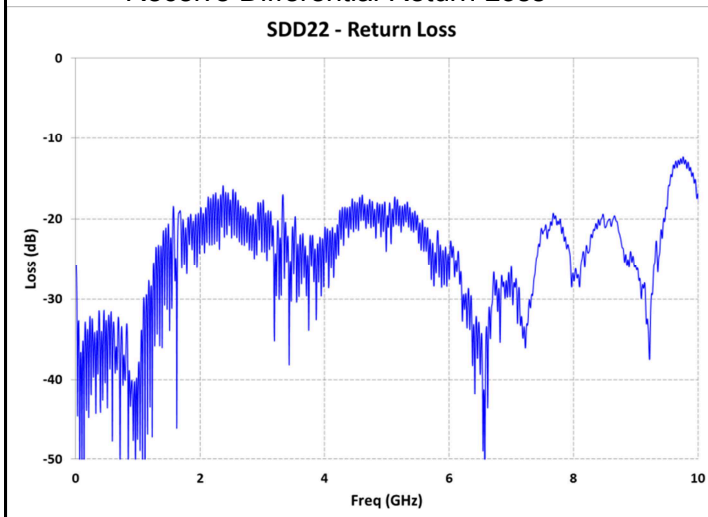
Differential Insertion Loss



Transmit Differential Return Loss



Receive Differential Return Loss

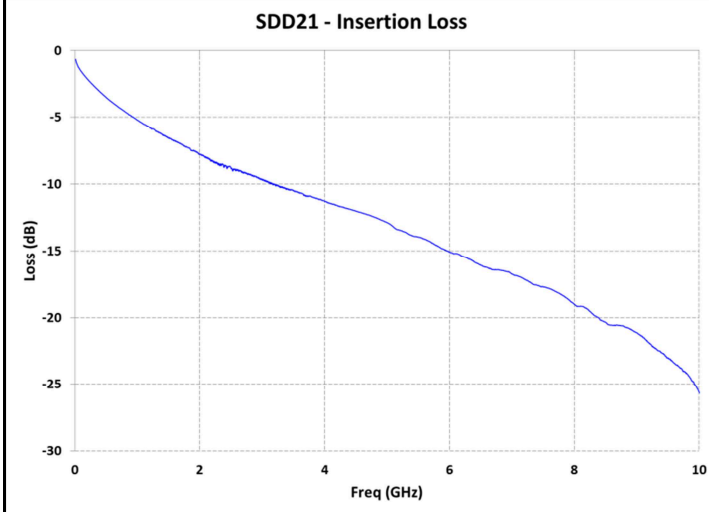


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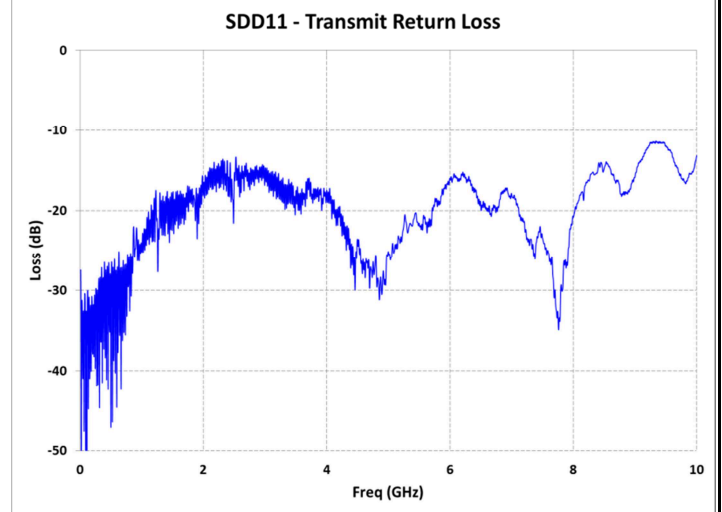
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## 5M 26 AWG: 74752-3501

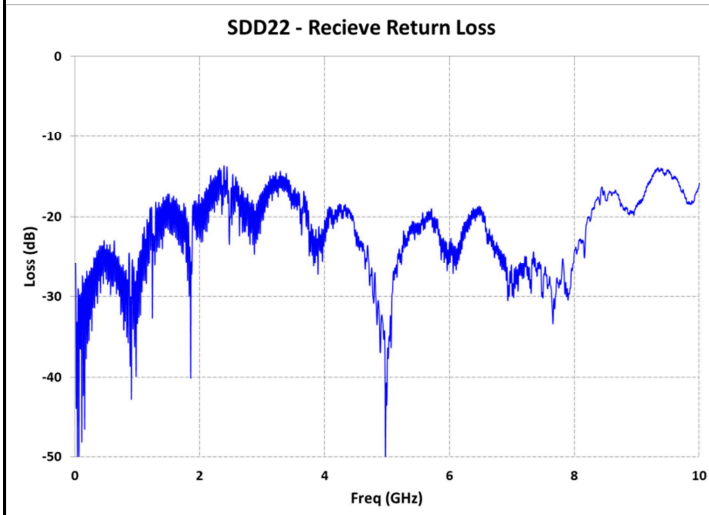
Differential Insertion Loss



Transmit Differential Return Loss



Receive Differential Return Loss

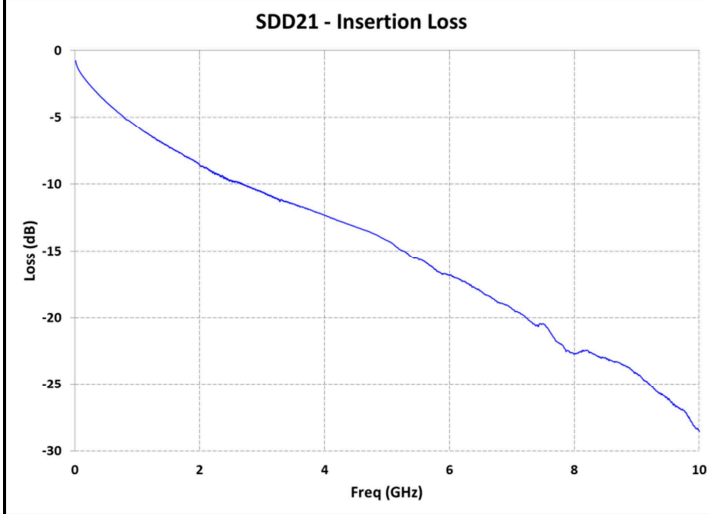


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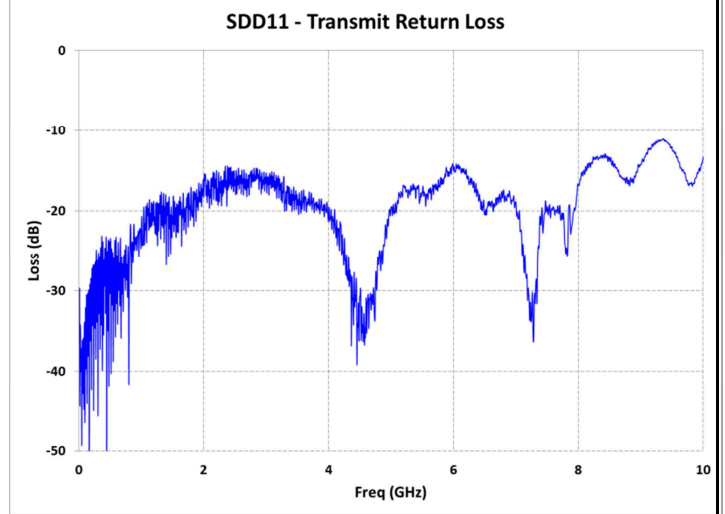
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## 7M 24 AWG: 74752-4701

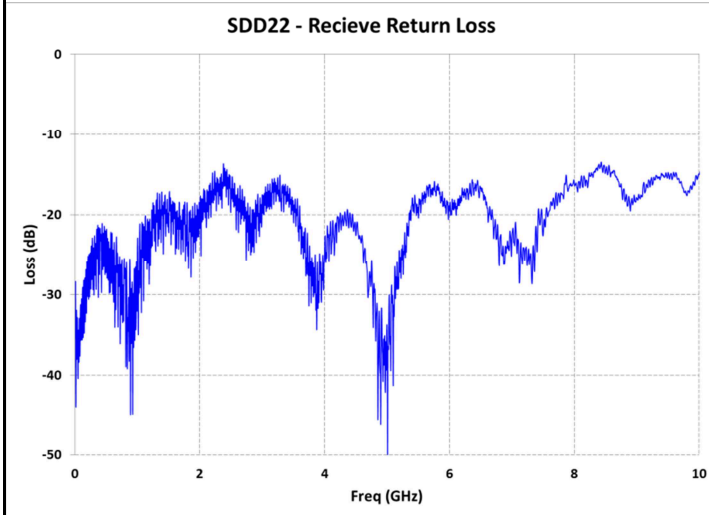
Differential Insertion Loss



Transmit Differential Return Loss



Receive Differential Return Loss



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