

Electrical Models

(Based on Empirical Measurements)

i-Pass 26-circuit
for SAS



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Disclaimer: Molex does not guarantee the performance of the final product to the information provided in this document.

I. Model Description

Model Type:	Touchstone (S-Parameter)
Bandwidth:	50MHz to 20GHz
Rise-time:	25ps (20-80%) is the maximum recommended rise time for sources when using these models in time-domain simulations
Ports:	(Motherboard) Port 1 through to Port 2 (Motherboard) (Motherboard) Port 3 through to Port 4 (Motherboard)
Model Basis:	Empirical Measurements
Equipment:	Agilent E8364B PNA series network analyzer Agilent N4421B s-parameter test set
Calibration:	SOLT 50MHz to 20GHz, 10 MHz step
Data acquisition:	Agilent Physical Layer Test System (PLTS) version 3.01 Molex 26-circuit External iPass™ Test Fixture (PCB 73931-2540)

Model Description:

The models provide for simulating pairs B5-B6 to A5-A6, with the crosstalk combinations to the adjacent pair, B2-B3. These models are of corresponding terminals on the Molex iPass™ connector and associated cable conductors.

Data representing cable assemblies of length one-half, one, three and six meters, with four inches of printed circuit board trace, is included.

The reference plane for the models is located at the SMA connectors.

Filenames:	iPass_10meter_24AWG_IL.s4p (through measurement) iPass_10meter_24AWG_NE.s4p (near-end crosstalk) iPass_10meter_24AWG_FE.s4p (far-end crosstalk)
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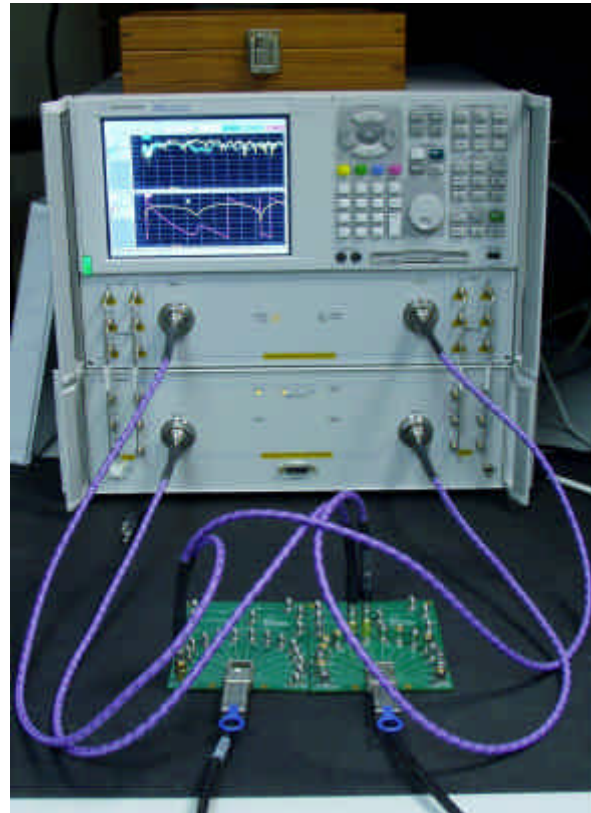


Figure 1. Agilent 8364B/4122 PNA and iPass cable assembly test fixtures

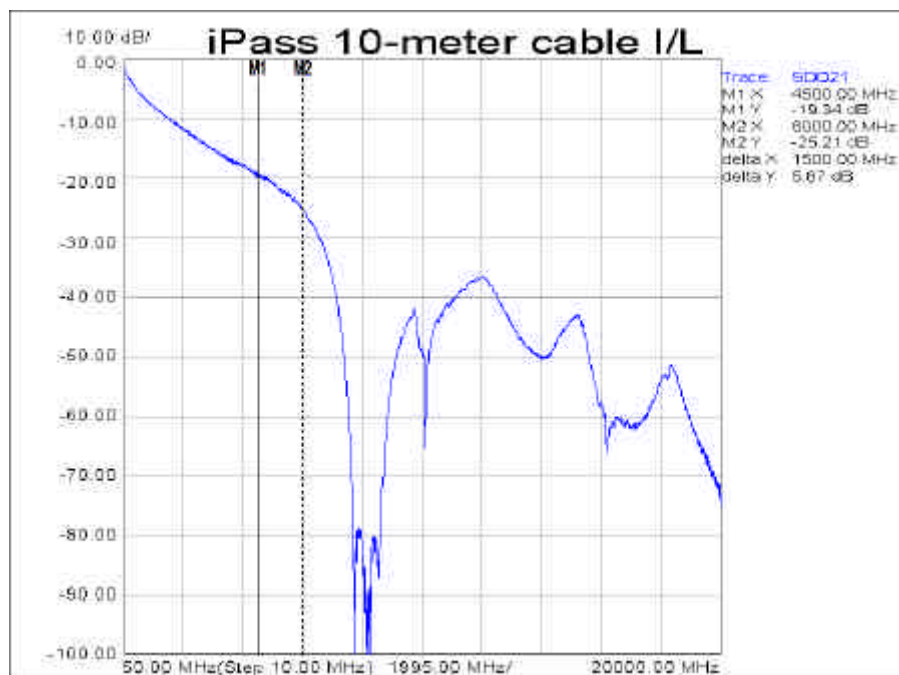


Figure 2. Differential cable insertion losses