



APPLICATION NOTE

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**APPLICATION NOTE
GLENAIR ALPHALINK INTERPOSER S-PARAMETER MODELS**

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1211 AIRWAY, GLENDALE, CALIFORNIA 91201

**APPLICATION NOTE
ALPHALINK INTERPOSER S-PARAMETER MODELS**

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REVISION HISTORY

REV	DATE	REVISED PAGES	AUTHOR	REVISIONS
A	11/28/2023		L. Blackwell	Initial Release

Disclaimer

Glenair, Inc makes no warranties, either expressed or implied, with respect to the circuit behavioral models described herein, including the warranties of merchantability or fitness for a particular purpose. The model is provided solely on an "as is" basis. The entire risk as to its quality and performance is with the customer.

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1.0 Purpose

This document describes the AlphaLink Interposer electrical behavioral models.

2.0 Referenced Documents

Document Number/Name	Description
GT-19-150	Interposer High Speed Test Report
171-383	Glenair AlphaLink Interposer
171-383-1000	AlphaLink, Interposer, PCB Layouts

Table 1. Reference Documents

3.0 Responsibility

This document is the responsibility of the Glenair High-Speed Datalink Group.

4.0 AlphaLink Interposer S-Parameters

4.1 Configurations

The S-parameter models were obtained through testing an AlphaLink Interposer connector (part number 171-383-AA6X20). The resulting models consist of S-parameters in Touchstone formatted files. Refer to Glenair Test Report GT-19-150 for detailed testing information. The following table delineates the three tested configurations and the resulting Touchstone files.

Configuration	Touchstone File
GSGSG-edge	ALI_GSGSG-edge.s4p
GSGSG-mid	ALI_GSGSG-mid.s4p
GSSG-edge	ALI_GSSG-edge.s4p
GSSG-mid	ALI_GSSG-mid.s4p
DIAG-mid	ALI_DIAG-mid.s4p
GSGS-corner	ALI_GSGS-corner.s4p
GSS-corner	ALI_GSS-corner.s4p

Table 2. Test Configuration to Touchstone File Mapping

4.2 AlphaLink Interposer S-parameter Model Package

The following files are supplied as attachments to this document.

1. Test report GT-19-150
2. Touchstone file ALI_GSGSG-edge.s4p
3. Touchstone file ALI_GSGSG-mid.s4p
4. Touchstone file ALI_GSSG-edge.s4p
5. Touchstone file ALI_GSSG-mid.s4p
6. Touchstone file ALI_DIAG-mid.s4p
7. Touchstone file ALI_GSGS-corner.s4p
8. Touchstone file ALI_GSS-corner.s4p

4.3 Port Assignments

The Touchstone files utilize the following port assignments:

