



**APPLICATION NOTE**

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**APPLICATION NOTE  
VERSALINK BRIDGE S-PARAMETER MODELS**

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1211 AIRWAY, GLENDALE, CALIFORNIA 91201

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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 VersaLink Bridge electrical behavioral models.

## 2.0 Referenced Documents

Document Number/Name	Description
GT-21-475	VersaLink Bridge High Speed Test Report
853-064	VersaLink Bridge Bayonet Plug Connector Drawing
853-065	VersaLink Bridge Straight Bayonet Jack Connector Drawing
853-067	VersaLink Bridge Right-angle Bayonet Jack Connector Drawing
VLB_STRAIGHT.S4P	Straight VersaLink Touchstone File
VLB_RIGHT_ANGLE.S4P	Right Angle Touchstone File

**Table 1. Reference Documents**

## 3.0 Responsibility

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

## 4.0 VersaLink Bridge S-Parameters

### 4.1 Configurations

The S-parameter models were obtained through testing PCB mounted VersaLink connectors (853-065 and 853-067) mated with a VersaLink cable assembly (853-0364). The electrical effects of the test PCB and test cabling were de-embedded from the models. Refer to Glenair Test Report GT-21-475 for detailed testing information. The resulting models consist of S-parameters in Touchstone formatted files. The following table delineates the two tested configurations and the resulting Touchstone files.

Configuration	Touchstone File
Straight	VLB_STRAIGHT.S4P
Right-angle	VLB_RIGHT_ANGLE.S4P

**Table 2. Test Configuration to Touchstone File Mapping**

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## 4.2 VersaLink Bridge S-parameter Model Package

The following files are supplied as attachments to this document.

1. Touchstone file VLB\_STRAIGHT.S4P
2. Touchstone file VLB\_RIGHT\_ANGLE.S4P

## 4.3 Port Assignments

The Touchstone files utilize the following port assignments:

