



APPLICATION NOTE

Cage Code: 06324	Document Description APPLICATION NOTE EL OCHITO BLUE S-PARAMETER MODELS	Document #: AN0025 Revision: D Page 1 of 6
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**APPLICATION NOTE
EL OCHITO BLUE S-PARAMETER MODELS**

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CODE NUMBER 06324	SIZE A		REV. D
SCALE N/A			

Cage Code: 06324	Document Description APPLICATION NOTE EL OCHITO BLUE S-PARAMETER MODELS	Document #: AN0025 Revision: D Page 2 of 6
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REVISION HISTORY

REV	DATE	REVISED PAGES	AUTHOR	REVISIONS
A	11/29/2023		L. Blackwell	Initial Release
B	4/17/2024		L. Blackwell	Consolidated Sections 4.1 and 4.2 with updated parameter table
C	5/21/2024		L. Blackwell	Updated touchtone links of table 2
D	2/13/2025		L. Blackwell	Updated pair length verbiage per DCN104354

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Cage Code: 06324	Document Description APPLICATION NOTE EL OCHITO BLUE S-PARAMETER MODELS	Document #: AN0025 Revision: D Page 3 of 6
-------------------------	---	--

Table of Contents

1.0	Purpose	4
2.0	Referenced Documents	4
3.0	Responsibility	4
4.0	El Ochito Blue S-Parameters.....	5
4.1	Configurations	5
4.2	Port Assignments.....	6

Cage Code: 06324	Document Description APPLICATION NOTE EL OCHITO BLUE S-PARAMETER MODELS	Document #: AN0025 Revision: D Page 4 of 6
---------------------	---	--

1.0 Purpose

This document describes the El Ochito Blue, board connector to board connector and cable to cable, electrical behavioral models.

2.0 Referenced Documents

Document Number/Name	Description
GT-23-192	El Ochito Blue High Speed Test Report
792-001	Datalink Plug Connector Drawing, Socket Contacts, Series 792
792-002	Datalink Receptacle Connector Drawing, Pin Contacts, Series 792
792-005	Vertical PCB Mount Plug Connector Drawing, El Ochito Socket Contacts, Series 792
792-006	Vertical PCB Mount Receptacle Connector Drawing, El Ochito Pin Contacts, Series 792
792-009	Right Angle PCB Mount Plug Connector Drawing, El Ochito Socket Contacts, Series 792
792-010	Right Angle PCB Mount Receptacle Connector Drawing, El Ochito Pin Contacts, Series 792

Table 1. Reference Documents

3.0 Responsibility

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

Cage Code: 06324	Document Description APPLICATION NOTE EL OCHITO BLUE S-PARAMETER MODELS	Document #: AN0025 Revision: D Page 5 of 6
---------------------	---	--

4.0 El Ochito Blue S-Parameters

4.1 Configurations

The S-parameter models were obtained through testing PCB mounted straight connectors (part numbers 792-006PA-1P1MNNAB and 792-005SA-1P1MNAB) and PCB mounted right angle connectors (part numbers (792-010PA-1P1MENAB and 792-009SA-1P1MNAB). The test cable assemblies were also tested that consisted of a Series 792 plug connector, part number 792-001SA-1W1MN, with 858-049 contacts, and a Series 792 receptacle connector, part number 792-002PA-1W1MNN, with 858-050 contacts. The electrical effects of the test PCB and test cabling were de-embedded from the models. Refer to Glenair Test Report GT-23-192 for detailed testing information. The resulting models consist of S-parameters in Touchstone formatted files. The following table delineates the tested configurations and the resulting Touchstone files.

Configuration	Touchstone File
Straight PCB to Straight PCB	El Ochito Blue ST to ST.s4p
Right-angle PCB to Right-angle PCB (short pair)	El Ochito Blue RA to RA (short pair).s4p
Right-angle PCB to Right-angle PCB (long pair)	El Ochito Blue RA to RA (long pair).s4p
Cable Assembly to Cable Assembly	El Ochito Blue CA to CA.s4p
Right-angle PCB to Straight PCB (short pair)	El Ochito Blue RA to ST (short pair).s4p
Right-angle PCB to Straight PCB (long pair)	El Ochito Blue RA to ST (long pair).s4p
Straight PCB to Cable Assembly	El Ochito Blue ST to CA.s4p
Right-angle PCB to Cable Assembly (short pair)	El Ochito Blue RA to CA (short pair).s4p
Right-angle PCB to Cable Assembly (long pair)	El Ochito Blue RA to CA (long pair).s4p

Table 2. Test Configuration to Touchstone File Mapping

There are two files in the table above associated with each right-angle configuration. Due to the physical layout of the right-angle connector, pair positions 1/2 and 7/8 are longer than pair positions 3/4 and 5/6.

In addition to direct downloadable links from the table above, the files of Table 2 are supplied as attachments to this document.

Cage Code: 06324	Document Description APPLICATION NOTE EL OCHITO BLUE S-PARAMETER MODELS	Document #: AN0025 Revision: D Page 6 of 6
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4.2 Port Assignments

The Touchstone files utilize the following port assignments:

