



APPLICATION NOTE

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**APPLICATION NOTE
EL OCHITO BLUE S-PARAMETER MODELS**

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REVISION HISTORY

REV	DATE	REVISED PAGES	AUTHOR	REVISIONS
A	11/29/2023		L. Blackwell	Initial Release

Disclaimer

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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-23-047	El Ochito Red 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.

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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 Position 1-2, 7-8.s4p
Right-angle PCB to Right-angle PCB (long pair)	El Ochito Blue RA to RA Position 5-6.s4p
Cable Assembly to Cable Assembly	El Ochito Blue CA to CA.s4p
Right-angle PCB to Straight PCB	El Ochito Blue RA to ST.s4p
Straight PCB to Right-angle PCB	El Ochito Blue ST to RA.s4p
Straight PCB to Cable Assembly	El Ochito Blue ST to CA.s4p

Table 2. Test Configuration to Touchstone File Mapping

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4.2 S-parameter Model Package

The following files are supplied as attachments to this document.

1. El Ochito Blue ST to ST.s4p
2. El Ochito Blue RA to RA Position 1-2, 7-8.s4p
3. El Ochito Blue RA to RA Position 5-6.s4p
4. El Ochito Blue CA to CA.s4p
5. El Ochito Blue ST to RA.s4p
6. El Ochito Blue RA to ST.s4p
7. El Ochito Blue ST to CA.s4p

4.3 Port Assignments

The Touchstone files utilize the following port assignments:

