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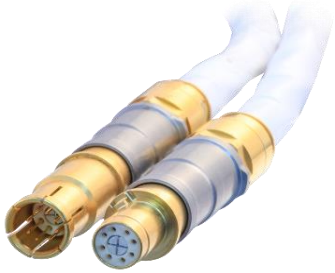
TEST REPORT ABSTRACT
FOR
El OCHITO® OCTAXIAL CONTACTS
HIGH IMPACT SHOCK

REPORT NO. GT-22-184 ABSTRACT

El Ochito White
Cable Assembly

El Ochito Blue
Cable Assembly



El Ochito Type II
Cable Assembly

PREPARED BY: _____ DATE: 9/28/2023
Name

UPDATED BY: _____ DATE: _____

1.0 Product Description/Application

High speed, harsh environment El Ochito® octaxial contacts are suitable for aircraft avionics, weapons systems, satellites, radars, communications equipment and other aerospace/defense gear. El Ochito® contacts are optimized for 40G Ethernet, SuperSpeed USB, and other multi-gigabit datalink protocols including HDMI, DisplayPort, and SATA.

1.1 Purpose

Testing was performed on El Ochito White, Blue, and Type II contacts to determine their ability to survive high impact shock per MIL-S-901.

1.2 Scope

This report summarizes the mechanical and electrical testing of El Ochito White mated pairs, El Ochito Blue mated pairs, and El Ochito Type II mated pairs. The information in this report was obtained from tests conducted by Glenair, Inc. and Environmental Associates, Inc. The documents listed below are on file at Glenair and are available upon request.

Applicable Test Reports		
Test Report Number	Provider	Date Tested
GT-22-184	Glenair, Inc.	11 November, 2022
44834-0826948	Environmental Associates, Inc.	11 November, 2022

1.3 Conclusion

El Ochito White, Blue, and Type II contacts have been shown to be capable of meeting performance requirements of MIL-S-901.

1.4 Test Specimen

Test Sample Description		
Description	Part Number	
El Ochito White	Pin Contact	Socket Contact
	858-003-02F	858-004-02F
	Cable Assembly CAT 6A Ethernet	
	8571-0004	
El Ochito Blue	Pin Contact	Socket Contact
	858-028-02F	858-029-02F
	Cable Assembly USB 3.0	
	8572-0024	
El Ochito Type II	Pin Contact	Socket Contact
	858-005-04	858-006-04
	Cable Assembly CAT 6A Ethernet	
	8571-0004	
SuperNine Connector	233-217	
Strain Relief Backshell	620HS090	

1.5 Inspection Procedure

All tests were performed with the test specimen at standard laboratory conditions and within procedural parameters as defined below.

1. Ambient room temperature: 25°C ± 10°C (77°F ± 18°F)
2. Relative humidity: Room ambient up to 90% relative
3. Barometric pressure: Prevailing room conditions

2.0 Qualification Test Summary

Qualification Test Summary				
Test Description	Abstract Reference	Results		
		White	Blue	Type II
Examination of product	3.1	PASS	PASS	PASS
Electrical Performance 10GBase-T (White) USB 3.0 (Blue)	3.2	PASS	PASS	PASS
Mechanical Shock High Impact	3.3	PASS	PASS	PASS

3.0 Qualification Testing Details

3.1 **Visual Examination of Assemblies**

Connector assemblies inspected and verified that all El Ochito cable assemblies were secure and in the correct cavity.

3.2 **Electrical Performance**

3.2.1 Test Method

El Ochito White: Cable assemblies tested against 10GBase-T channel requirements using a Fluke Networks DSX-5000.

El Ochito Blue: Cable assemblies shall be tested against USB 3.0 using a Total Phase tester.

3.2.2 Requirement

The test unit must not exhibit discontinuities during testing.

3.2.3 Results

PASS. PN 858-003, 858-004 (El Ochito White), 858-028, 858-029 (El Ochito Blue), 858-005, and 858-006 (El Ochito Type II) did not exhibit discontinuities.

3.2.4 Test Anomalies/Deviations

N/A

3.3 High Impact Shock

3.3.1 Test Method

Mated connector pairs tested on mounting fixture in accordance with MIL-S-901, grade A, lightweight. Cables supported on a stationary frame in such a manner to provide a free flexing length between the frame and the fixture of not less than 36 inches. A test current of 100 milliamperes maximum applied and the mated pair continuously monitored for microsecond discontinuities per EIA-364-46. Each wire and the shield monitored individually.

3.3.2 Requirement

The mated connector pairs must not disengage, back off the coupling mechanism, or exhibit evidence of cracking, breaking, or loosening of the parts.

3.3.3 Results

PASS. PN 858-003, 858-004 (El Ochito White), 858-028, 858-029 (El Ochito Blue), 858-005, and 858-006 (El Ochito Type II) did not exhibit disengagement or physical damage during or post-testing.

3.3.4 Test Anomalies/Deviations

N/A