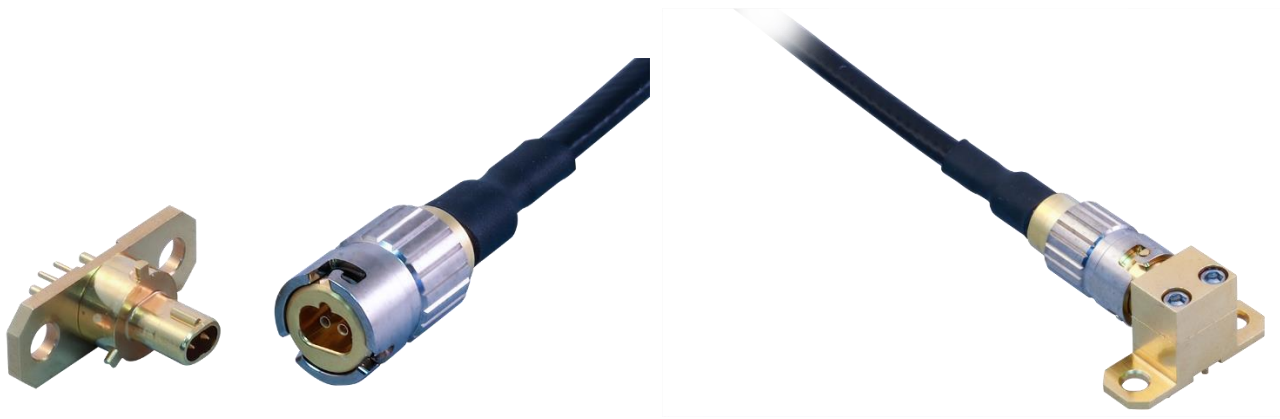




Glenair, Inc. 1211 Air Way, Glendale, CA 91201
Tel: (818) 247-6000 Fax: (818) 247-7240

**QUALIFICATION TEST REPORT ABSTRACT
FOR
GLENAIR
VERSALINK™ BRIDGE WITH BAYONET COUPLING
P/N 853-064, 853-065, & 853-067**

REPORT NO. GT-21-442 ABSTRACT



VersaLink Bridge

PREPARED BY:  DATE: 01/12/2022
Meghan Taylor

UPDATED BY: _____ DATE: _____

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**QUALIFICATION TEST REPORT
ABSTRACT**

Glenair VersaLink™ Bridge
with bayonet coupling

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1.0 Product Description/Application

The Glenair VersaLink™ Bridge is a high density, micro-form factor twinax connector/jumper assembly used to bridge the gap between point A and point B on the board (such as between two SML integrated circuit chips) with better signal integrity than native board traces can deliver. VersaLink Bridge is equally capable of dramatically reducing insertion loss and signal latencies for data traffic between an ASIC and the I/O.

1.1 Purpose

Testing was performed on 853-064, 853-065, and 853-067 VersaLink™ Bridge parts to determine their ruggedness and conformance to the performance requirements of MIL-DTL-83513.

1.2 Scope

This report summarizes mechanical and electrical qualification testing and results thereof in accordance with QTP-936. The information in this report was obtained from tests conducted by Vertical Laboratories LLC and Glenair Inc. The documents listed below are on file at Glenair and available upon request.

Applicable Test Reports		
Test Report Number	Provider	Date Tested
21151R1MCV3	Vertical Labs	09/14/2021
GT-21-442	Glenair Inc.	10/12/2021

1.3 Conclusion

Glenair VersaLink™ Bridge with bayonet coupling has been shown to be capable of meeting performance requirements of MIL-DTL-83513.

1.4 Test Specimen

Test Sample Description	
Description	Part Number
Cable Assembly, Bayonet VersaLink™ Bridge	GHS4-853-0002-AN1-60
Plug, Straight, Socket, Bayonet, VersaLink™ Bridge	853-064
Jack, Board, Pin, Vertical, Bayonet, VersaLink™ Bridge	853-065
Jack, Board, Pin, Right-Angle, Bayonet, VersaLink™ Bridge	853-067

1.5 Inspection Procedure

All tests were performed with the test specimens 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



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2.0 Qualification Test Summary

Qualification Test Summary		
Test Description	Abstract Reference	Results
Examination of product	3.1	Pass
Temperature Shock, -65°C to +125°C	3.2	Pass
Sine Vibration, 20g	3.3	Pass
Mechanical Shock, 50g	3.4	Pass
Mating Durability, 500 cycles	3.5	Pass
Contact Resistance	3.6	Pass

3.0 Qualification Testing Details

3.1 **Visual and mechanical examination**

Specimen submitted for testing was representative of standard production lots. Specimen was assembled at Glenair and accepted by Glenair Quality Assurance prior to submittal for testing.

3.2 **Temperature Shock, -65°C to +125°C**

3.2.1 Test Method

EIA-364-32, Method A, Condition III
Steps 2 and 4: 2 minutes maximum duration

3.2.2 Requirement

No blistering, peeling, flaking, or separation of plating or other damage detrimental to the operation of the connector.

3.2.3 Results

PASS. PN 853-067-G-.080 (SN S1 and S2), 853-065-G-.080 (SN S1 and S2), and GHS4-853-0002 (SN 001, 002, 003, 004) did not exhibit physical degradation.

3.2.4 Test Anomalies/Deviations

N/A

3.3 **Sine Vibration, 20g**

3.3.1 Test Method

EIA-364-46, Condition IV
Test current of 100 milliamperes maximum applied and mated pair continuously monitored for 1 microsecond discontinuities.

3.3.2 Requirement

No disengagement of the mated connectors, backing off, the coupling mechanism, evidence of cracking, breaking, or loosening of parts.

3.3.3 Results

PASS. PN 853-067-G-.080 (SN S1 and S2), 853-065-G-.080 (SN S1 and S2), and GHS4-853-0002 (SN 001, 002, 003, 004) did not exhibit physical degradation.

3.3.4 Test Anomalies/Deviations

N/A



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3.4 Mechanical Shock, 50g

3.4.1 Test Method

EIA-364-27, Condition E

Test current of 100 milliamperes maximum applied and mated pair continuously monitored for 1 microsecond discontinuities.

3.4.2 Requirement

No disengagement of mated connectors, backing off the coupling mechanism, evidence of cracking, breaking, or loosening of parts.

3.4.3 Results

PASS. P/N 853-067-G-.080 (SN S1 and S2), 853-065-G-.080 (SN S1 and S2), and GHS4-853-0002 (SN 001, 002, 003, 004) did not exhibit physical degradation.

3.4.4 Test Anomalies/Deviations

N/A

3.5 Mating Durability, 500 cycles

3.5.1 Test Method

Pairs of jacks and plus mated and unmated 500 times.

3.5.2 Requirement

No signs of defects detrimental to operation after testing.

3.5.3 Results

PASS. PN 853-067-G-.080 (SN S1 and S2), 853-065-G-.080 (SN S1 and S2), and GHS4-853-0002 (SN 001, 002, 003, 004) did not exhibit physical degradation.

3.5.4 Test Anomalies/Deviations

N/A

3.6 Contact Resistance

3.6.1 Test Method

M83513, paragraph 3.5.6

3.6.2 Requirement

Maximum allowed voltage drop is 80mV across each mated contact pair not including allowable wire resistance of flying leads.

3.6.3 Results

PASS. PN 853-067-G-.080 (SN S1 and S2), 853-065-G-.080 (SN S1 and S2), and GHS4-853-0002 (SN 001, 002, 003, 004) did not exhibit physical degradation.

3.6.4 Test Anomalies/Deviations

N/A