Sliver Cable and Connector Assemblies, 124 POSN

1. SCOPE

1.1. Content

This specification defines the performance, testing, and quality requirements for Sliver cable assemblies and Sliver Connector assemblies.

1.2. Qualification

When tests are performed on the subject product line, procedures specified in Figure 1 shall be used. All inspections shall be performed using the applicable inspection plan and product drawing.

1.3. Qualification Test Results

Successful qualification testing on the subject product line has not been completed. The Qualification Test Report number will be issued upon successful qualification testing.

2. APPLICABLE DOCUMENTS AND FORMS

The following documents and forms constitute a part of this specification to the extent specified herein. Unless otherwise indicated, the latest edition of the document applies.

2.1. TE Documents

- 108-32107: Product Specification, Sliver Connectors
- 501-134066: Qualification Test Report, Sliver Connectors
- 108-32115: Product Specification, Sliver cable assembly, Platformed Product
- 501-152044: Qualification Test Report

2.2. Forms

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2.3. Industry Documents

- EIA-364 “Electrical Connector/Socket Test Procedure Including Environmental Classification”

2.4. Reference Document

- 109-197 Test Specification (TE Test Specification vs EIA and IEC Test Methods)

3. REQUIREMENTS

3.1. Design and Construction

Product shall be of the design, construction, materials and physical dimensions specified on the applicable product drawing.

3.2. Ratings

Voltage	Current	Temperature
3.3VDC per contact	N/A, signal transmission only	0*C to 80*C*

*Note: Cable needs to be confirmed that it meets this temperature requirement, via testing, prior to this note regarding temperature requirement being valid.

3.3. Test Requirements and Procedures Summary

Unless otherwise specified, all tests shall be performed at ambient environmental conditions.

	Requirement	**Procedure**
Initial Examination of Product	Meets requirement of product drawing	EIA 364-18 Visual and dimensional (c of c) inspection per product drawing
Final Examination	Meets Visual Requirements	EIA 364-18 Visual Inspection
	ELECTRICIAL	
Electrical testing;	No change in continuity	Cirris test for opens and shorts, on terminated positions
	MECHANICAL	
Latch Retention	35N minimum	EIA 364-98, applied specified load to mated cable assembly with receptacle, hold for minimum of 60 seconds.
Durability	100 cycles	EIA-364-9, mate and un-mate sliver cable assembly with receptacle
Pull Tab dis-engagement force	25N maximum	EIA-364-13, Set up and use an appropriate load cell in the Instron to determine pull tab dis-engagement force.
Over-mold retention force with housing	40N minimum	EIA 364-98, Applied specified load to straight cable plug connector and hold for minimum of 60 seconds.
	ENVIRONMENTAL	
Thermal Shock	See note	EIA 364-32, Test condition VII; subject cable assemblies to 10 cycles between -40*C and 75*C.
Temperature Life	See note	EIA 364-17, Method A; Subject cables to 75*C for 250 hours
85C/RH85 test	See note	Customer spec"H005293 REV A" 85C/RH85 for 500 hours.

Figure 1

NOTE
Shall meet visual requirements, show no physical damage, and meet requirements of additional tests as specified in the Product Qualification and Requalification Test Sequence shown in Figure 2.

3.4. Product Qualification and Requalification Test Sequence

Validation test sequence

Test or Examination	Test Group			
	1	2	3	4
Initial examination of the product	1	1	1	1
Pull Tab dis-engagement Force	2, 4			2, 4
Durability Testing	3			3
Over-mold retention force		2		
Latch retention		4		5
Electrical Testing		3,5		
85C/RH85 test			3	
Final examination of the product	5	6	5	6

Figure 2

Specimens shall be selected at random from current production and a sample size of 3 cables will be used for each test group.

NOTE

(a) See paragraph regarding qualification testing below.

(b) Numbers indicate sequence in which tests are performed.

3.5. Quality Assurance Provisions

Qualification Testing

A. Specimen selection
Specimens shall be prepared in accordance with applicable instruction sheets and shall be selected at random from current production. A sample size of 5 cables will be used for each test group.

B. Test sequence
Qualification inspection shall be verified by testing specimens as specified in Fig 2.

Acceptance
Acceptance is based on verification that the product meets the requirements of Fig 1. Failures attributed to equipment, test set up, or operator deficiencies shall not disqualify the product. If product failure occurs, corrective action shall be taken and specimens re-submitted for qualification. Testing to confirm corrective action is required before re-submittal.

Quality Conformance Inspection
This applicable quality inspection plan shall specify the sampling acceptable quality level to be used. Dimensional and functional requirements shall be in accordance with the applicable product drawing and this specification.