Sliver Cable Assembly, Platformed Product – Design Objectives

1. SCOPE

1.1. Content

This specification defines the performance, testing, and quality requirements for Sliver cable 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-TBD: Qualification Test Report (TBD)
- 2821638-x; 50 posn, STR to R/A, 10G cable, 85 ohms
- 2821740-x; 50 posn STR to R/A, 25G cable, 85 ohms
- 2821749-x; 50 posn STR to R/A, 10G cable, 100 ohms
- 2821752-x; 50 posn, STR to R/A, 25G cable, 100 ohms
- 2821639-x; 74 posn, STR to R/A, 10G cable, 85 ohms
- 2821746-x; 74 posn, STR to R/A, 25G cable, 85 ohms
- 2821755-x; 74 posn, STR to R/A, 10G cable, 100 ohms
- 2821758-x; 74 posn, STR to R/A, 25G cable, 100 ohms

- Above cable assembly P/N's are representative of all platformed products, but are not the only cable assembly P/N's that this specification applies to.

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.

TEST DESCRIPTION	REQUIREMENT	PROCEDURE
Initial examination of product	Meets requirements of product drawing.	
Final examination of product	Meets visual requirements.	
ELECTRICAL		
High Speed Test	**TBD**	**EIA 364-108**
MECHANICAL		
Latch Retention	**35N [7.8lbs] Min**	**Applied specific load to engaged/mated straight cable plug connector and held for a 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**

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

TEST OR EXAMINATION	TEST GROUP (a)							
	1	2	3	4	5	6	7	8
	TEST SEQUENCE (b)							
Initial examination of product	1	1	1	1	1	1	1	1
High Speed Test	2,4	2,5						
Latch Retention	3							
Thermal Cycling		3						
Temperature Life		4						
Final examination of product	5	6	2	2	2	2	2	2

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.

3.6.