



PERIODIC INSPECTION

**GROUP B INSPECTION OF TE S03-03-R, S03-08-R, SO63-3-01,
S03-03-R-9035 SOLDERSLEEVE SHIELD TERMINATOR PER
SAE-AS83519C SPECIFICATION**

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REVISIONS

Edition	Date	Pages	Purpose	Author
A	25-October-19	-	Initial Release	Arnell Rey

1. GENERAL

1.1. Objective

The objective is to validate the performance of TE S03-03-R, S03-08-R, SO63-3-01, S03-03-R-9035 SolderSleeve Shield Terminator to periodic inspection for Group B in accordance with SAE AS83519/3 specification. Group B inspection per SAE AS83519 shall be perform within a 12 months period to comply to QPL.

1.2. Applicable Documents

1.2.1. Specifications

Military Documents

- | | |
|---------------|---|
| MIL-STD-202 | Test Methods for Electronic and Electrical Component Parts. Revision G, February 8, 2002 |
| SAE AS83519C | ® Shield Termination, Solder Style, Insulated, Heat-Shrinkable, Environment Resistant General Specification For |
| SAE AS83519/3 | ® Shield Termination, Solder Style, Insulated, Heat-Shrinkable, Environment Resistant with Pre-Installed Braid, Class 1, Non-ROHS |

TE Connectivity Documents

- | | |
|---------------|--|
| S03-01/-05-R | SolderSleeve Devices Shield Termination with Pre-Installed Braid |
| S03-06/-10-R | SolderSleeve Devices Shield Termination with Braid |
| S03-0X-R-9035 | SolderSleeve Device Shield Termination with Braid |
| SO63-XX-01 | SolderSleeve Devices Shield Termination with Braid |

1.3. Test Specimen

The test articles used for validation are production parts that are made with splices selected from inspection lots which have passed Group A Inspection.

Table 1 – Test Article Descriptions

Test Specimen	Part Number	Lot #	Min size Cable	Max Size Cable	Qty
S03-03-R	676516-000	0219700084	M27500-18TG1T14	M27500-20SB3T23	16
S03-08-R	587725-000	0219463884	M27500-18TG1T14	M27500-20SB3T23	16
SO63-3-01	740072-000	0219660533	M27500-18TG1T14	M27500-20SB3T23	16
S03-03-R-9035	048673-000	5821760	M27500-18TG1T14	M27500-20SB3T23	16

The SolderSleeve Shield Terminator were installed to M27500 cable. Each specimen was approximately 12-inch long. Rest of S03 and SO63 family are qualified by similarity.

Sample Sets	Cable Size	Heat Source Type
A	Maximum	Infrared
B		Convection
C	Minimum	Infrared
D		Convection

1.4. Test Facilities

Testing documented in test groups was performed at the following test facilities:

TE Connectivity
6801 Kaiser Drive
Fremont, CA 94555

2. CONCLUSIONS

TE Connectivity’s S03-03-R, S03-08-R, SO63-3-01, S03-03-R-9035 installed into M27500 cables has met or exceeded the requirements as specified in SAE AS83519/3 paragraph 3.2. All the test articles described on this test report did not show any evidence of damage that may potentially have an impact on required product performance.

3. QUALIFICATION TESTING

3.1. Test Conditions

Unless otherwise specified herein, all testing was performed at ambient temperature, pressure, and humidity as specified in general requirements of SAE AS83519C and MIL-STD-202 Specifications.

3.2. Test Methods

Each specimen was tested for Voltage Drop and Air Pressure Test.

3.2.1. Air Pressure Test:

Air Pressure Test shall be performed by applying air pressure source to both ends of the test specimen without a ground braid. The specimens shall be submerged in room temperature water at a depth of 1 inch minimum. 2.5 to 3.0 PSIG and a regulated air pressure shall be applied to both ends of the specimen or one end with the other end sealed off. Observation shall be made for any air leakage for at least 5 minutes.

3.2.2. Voltage Drop:

- Test Point: Voltage drop was measured by exposing the ground lead and the cable shield on opposite sides of the termination at a point ½ inch from the center of the termination.
- Measurement: The millivolt drop through the assemblies shall be measured while a current of 1 amp is being applied

4. TEST RESULTS SUMMARY

Testing Sequence and Results Summary Table

Group Test	Test Sequence	Requirement	Sample Size	Result
I	Voltage Drop	Voltage Drop < 4 mV	8 samples per size	Pass
II	Air Pressure Test	SAE AS83519/3 paragraph 3.2	8 samples per size	



**Validation
Test Report**

Test Report Number: 501-32451

Revision: A

Revision Date: 25-October-19

5. TEST RESULTS

Group I

Test Equipment	ID	Calibration Date	Calibration Due Date
4300B	PMC 0052	01/17/2019	01/17/2020

Specimen	Sample Number	Voltage drop (mV)	Allowable Voltage Drop (mV)	Result
S03-03-R M83519/3-3	I-03-1A	0.82	< 4 mV	Pass
	I-03-2B	0.86	< 4 mV	Pass
	I-03-3C	0.98	< 4 mV	Pass
	I-03-4D	1.03	< 4 mV	Pass
	I-03-5A	0.76	< 4 mV	Pass
	I-03-6B	0.83	< 4 mV	Pass
	I-03-7C	1.15	< 4 mV	Pass
	I-03-8D	1.22	< 4 mV	Pass
S03-08-R M8359/3-8	I-08-1A	0.76	< 4 mV	Pass
	I-08-2B	0.77	< 4 mV	Pass
	I-08-3C	0.88	< 4 mV	Pass
	I-08-4D	0.95	< 4 mV	Pass
	I-08-5A	0.65	< 4 mV	Pass
	I-08-6B	0.67	< 4 mV	Pass
	I-08-7C	0.94	< 4 mV	Pass
	I-08-8D	0.83	< 4 mV	Pass
S063-3-01 M83519/3-13	I-13-1A	0.85	< 4 mV	Pass
	I-13-2B	1.13	< 4 mV	Pass
	I-13-3C	0.82	< 4 mV	Pass
	I-13-4D	0.79	< 4 mV	Pass
	I-13-5A	0.62	< 4 mV	Pass
	I-13-6B	0.79	< 4 mV	Pass
	I-13-7C	0.87	< 4 mV	Pass
	I-13-8D	0.94	< 4 mV	Pass
S03-03-R-9035 M83519/3-18	I-18-1A	0.56	< 4 mV	Pass
	I-18-2B	0.67	< 4 mV	Pass
	I-18-3C	0.70	< 4 mV	Pass
	I-18-4D	0.71	< 4 mV	Pass
	I-18-5A	0.63	< 4 mV	Pass
	I-18-6B	0.61	< 4 mV	Pass
	I-18-7C	0.84	< 4 mV	Pass
	I-18-8D	0.81	< 4 mV	Pass



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Test Report Number: 501-32451

Revision: A

Revision Date: 25-October-19

Group II

Test Equipment	ID	Calibration Date	Calibration Due Date
AD-3050 Seal Test EQ-NC	PMC 2589	08/07/2019	08/07/2020

Specimen	Sample Number	PSIG	Time Expose	Result
S03-03-R M83519/3-3	II-03-1A	3	5 min	Pass
	II-03-2B	3	5 min	Pass
	II-03-3C	3	5 min	Pass
	II-03-4D	3	5 min	Pass
	II-03-5A	3	5 min	Pass
	II-03-6B	3	5 min	Pass
	II-03-7C	3	5 min	Pass
	II-03-8D	3	5 min	Pass
S03-08-R M8359/3-8	II-08-1A	3	5 min	Pass
	II-08-2B	3	5 min	Pass
	II-08-3C	3	5 min	Pass
	II-08-4D	3	5 min	Pass
	II-08-5A	3	5 min	Pass
	II-08-6B	3	5 min	Pass
	II-08-7C	3	5 min	Pass
	II-08-8D	3	5 min	Pass
SO63-3-01 M83519/3-13	II-13-1A	3	5 min	Pass
	II-13-2B	3	5 min	Pass
	II-13-3C	3	5 min	Pass
	II-13-4D	3	5 min	Pass
	II-13-5A	3	5 min	Pass
	II-13-6B	3	5 min	Pass
	II-13-7C	3	5 min	Pass
	II-13-8D	3	5 min	Pass
S03-03-R-9035 M83519/3-18	II-18-1A	3	5 min	Pass
	II-18-2B	3	5 min	Pass
	II-18-3C	3	5 min	Pass
	II-18-4D	3	5 min	Pass
	II-18-5A	3	5 min	Pass
	II-18-6B	3	5 min	Pass
	II-18-7C	3	5 min	Pass
	II-18-8D	3	5 min	Pass