



CLUSTER CONNECTORS, .090" dia PIN.

1. INTRODUCTION

1.1 Purpose

Testing was performed on CLUSTER CONNECTORS, .090" dia PIN. to determine its conformance related to the requirements of product specification 108-20033 Rev. D.

1.2 Scope

This specification covers performance, test and quality requirements for CLUSTER CONNECTORS, .090" dia PIN. Testing was performed at TE Connectivity Shanghai Electrical Test Laboratory (Building ID 554) on 2020/04/20. The associated test number is TP-20-00575.

1.3 Conclusion

Based on the test results, all samples meet the requirement according to customer requirement based on 108-20033 Rev. D. The results in this report only effect on the sampling specimens.

1.4 Test Specimens

Specimens with the following part numbers were used for test:

| Test Group | Part No. | Description | Qty. (pcs) | Comments |
|------------|----------|----------------|------------|----------------------|
| 2 | 62131-3 | CLSTR PIN RCPT | 12 | mating with 284406-3 |
| | 62131-6 | CLSTR PIN RCPT | 12 | mating with 284406-3 |

1.5 Test Sequence

| Test Item | Test Group |
|------------------------------|---------------|
| | Test Sequence |
| Contact Insertion Force | 1 |
| Contact Extraction Force | 4 |
| Impulse voltage | 2 |
| Dielectric Voltage Withstand | 3 |

Note: a). Test group defined per customer requirement.
b). Numbers indicate sequence in which tests are performed.

1.6 Environmental Conditions

Unless otherwise stated, the following environmental conditions prevailed during testing:

Temperature: 15°C to 35°C
Relative Humidity: 25% to 75%

2. TEST PROCEDUES

2.1. Contact Insertion Force

Measure the force required to insert contact into housing.

Requirements: No judgement required.

Test Method: 108-20033 Rev. D



Fig. 1 Contact Insertion Force test setup

2.2. Contact Extraction Force

Apply an axial load to crimped contacts in housing by gripping the wire.

Requirement: No judgement required.

Test Method: 108-20033 Rev. D

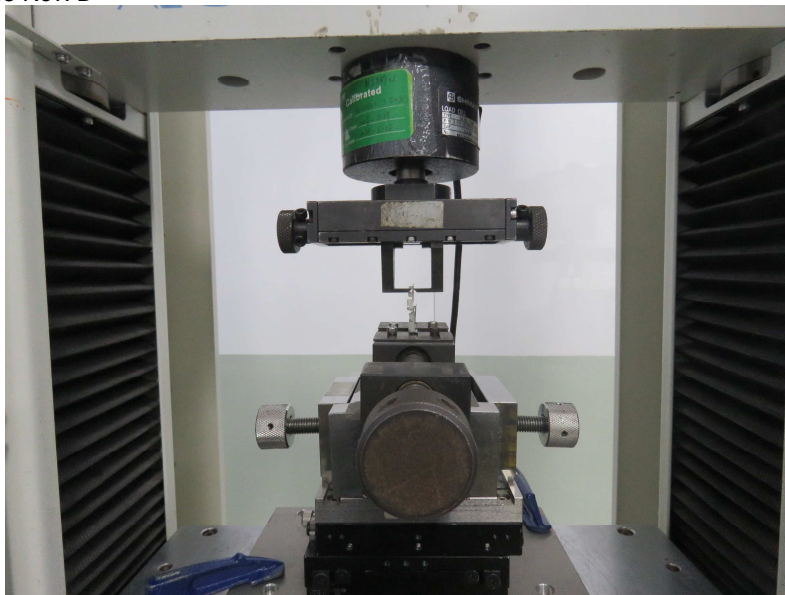


Fig. 2 Contact Extraction Force test setup

2.3. Impulse voltage

Test between two terminals of mated samples, covering all combinations. 3000 V max.

Requirement: No breakdown or flashover

Test Method: 108-20033 Rev. D

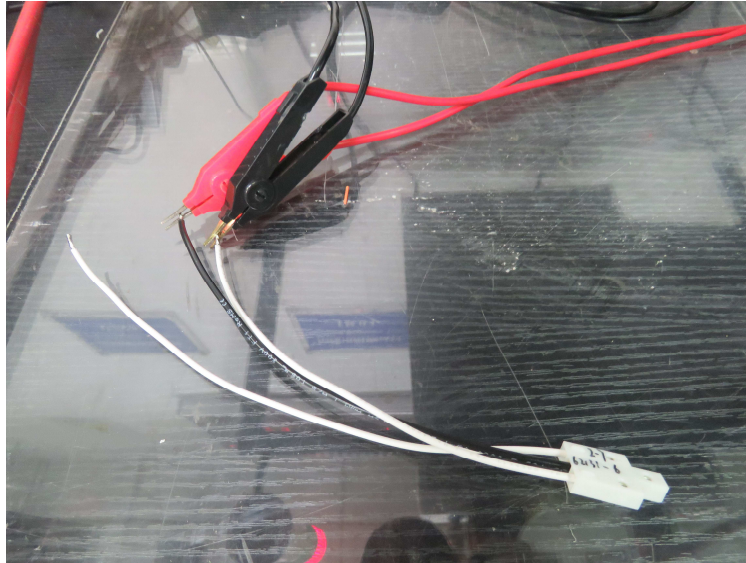


Fig. 3 Impulse voltage and Dielectric Voltage Withstand test setup

2.4. Dielectric Voltage Withstand

2700 V max. AC at sea level. 1 second hold. Test between adjacent terminals of mated samples.

Requirement: No breakdown or flashover.

Test Method: 108-20033 Rev. D

3. SUMMARY OF TEST

| Group | SN | Test Item | Description | Qty | Test Result | | | | Requirement | Conclusion |
|-------|----|------------------------------|-------------|-----|---------------------------|------|------|------|--------------|------------|
| | | | | | Max | Min | Avg | Unit | | |
| 1 | 1 | Contact Insertion Force | 62131-3 | 12 | 6.2 | 5.4 | 5.7 | N | No judgement | |
| | | | 62131-6 | 12 | 4.8 | 3.9 | 4.4 | N | No judgement | |
| | 2 | Impulse voltage | 62131-3 | 12 | No breakdown or flashover | | | | See 2.3 | Meet spec. |
| | | | 62131-6 | 12 | No breakdown or flashover | | | | See 2.3 | Meet spec. |
| | 3 | Dielectric Voltage Withstand | 62131-3 | 12 | No breakdown or flashover | | | | See 2.4 | Meet spec. |
| | | | 62131-6 | 12 | No breakdown or flashover | | | | See 2.4 | Meet spec. |
| | 4 | Contact Extraction Force | 62131-3 | 12 | 36.7 | 21.8 | 28.3 | N | No judgement | |
| | | | 62131-6 | 12 | 42.9 | 23.2 | 29.3 | N | No judgement | |



4. VALIDATION

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2021-01-08

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