

### **Product Change Notification**

## **TE Connectivity**

**Product Change Notification:** P-23-024296 PCN Date: 21-MAR-23

TE would like to inform you of the following change(s) to the listed TE Connectivity Product. In case of any further questions about this change(s), please contact your TE Connectivity Sales Engineer. Affected part, drawing and/or specification numbers are listed on the attached sheet(s).

**General Product Description:** 

CMC 64P 2050008 Family seal

#### **Description of Changes**

Due to supply demand, 2050008 Family Seal dual source material

Other attachments:

**PV TEST** 

CMC 64P MATERIAL

| Reason | for | Changes: |
|--------|-----|----------|
|--------|-----|----------|

Document clarification. The long purchase cycle of raw materials leads to a shortage of materials in production. In order to avoid the shortage of supply, a new material has been added. The new material has passed the PV test and meets the functional requirements.

| Estimated Dates:                       |  |
|--|--|
| Last Order Date (Obsolete Parts Only): | First Date To Ship (Changed Parts Only):             |
|  | 21-JUN-2023  |
| Last Ship Date (Obsolete Parts Only):  | Last Date for Mixed Shipments: (Changed Parts Only): |
|  | No Mixed Shipments                                   |

#### Part Number(s) being Modified:

| Part Number      | Part Discontinued per PCN | Customer<br>Drawing | Customer Part<br>Number | Alias Part<br>Number(s) | Substitute Part<br>Number | Substitute Alias Part<br>Number(s) | Description Of<br>Difference |
|------------------|---------------------------|---------------------|-------------------------|-------------------------|---------------------------|------------------------------------|------------------------------|
| <u>2050036-1</u> | NO                        |                     |                         |                         |                           |                                    |                              |

#### Part Number(s) being Modified:

| Part<br>Number | Part Discontinued per PCN | Customer<br>Drawing | Customer Part<br>Number | Alias Part<br>Number(s) | Substitute Part<br>Number | Substitute Alias Part<br>Number(s) | Description Of<br>Difference |
|----------------|---------------------------|---------------------|-------------------------|-------------------------|---------------------------|------------------------------------|------------------------------|
| 2050036-1      | NO                        |                     |                         |                         |                           |                                    |                              |



# **TEST REPORT**

Product Description: PACKAGE COMPONENTS LIST

64POS.MIXED REC.HOUSING

**P/N:** 2050036-1

Test Type: Support Plant

Requested By: Jay Han

**Customer Information:** General

Released Date: 2023/2/2

| Prepared By | Checked By | Approved By            |
|-------------|------------|------------------------|
| Nicole Deng | Iron Zhu   | Rabet Mas<br>(Manager) |



### **Table of Contents**

| Test Re | esults Overview                | 3  |
|---------|--------------------------------|----|
| 1. Ge   | eneral Information             | 4  |
| 1.1.    | Test Purpose                   | 4  |
| 1.2.    | Test Specifications& Standards | 4  |
| 1.3.    | Test Sample Information        | 4  |
| 1.4.    | Test Equipment List            | 5  |
| 1.5.    | Additional Information         | 5  |
| 2. Te   | st Description                 | 6  |
| 2.1.    | Group 1: Thermal shock         | 6  |
| 2.1     | I.1. Visual Inspection         | 6  |
| 2.1     | I.2. Pressure/Vacuum Leak      | 7  |
| 2.1     | I.3. Thermal Shock             | 8  |
| 2.2.    | Group 2: Humidity Steady State | 9  |
| 2.2     | 2.1. Visual Inspection         | 9  |
| 2.2     | 2.2. Pressure/Vacuum Leak      | 10 |
| 2 2     | 2. Cold resistance test        | 11 |



Rev. A

#### **Test Results Overview**

| Group                             | Sequence | Test Item             | Sample Qty | Results |
|-----------------------------------|----------|-----------------------|------------|---------|
|                                   | 1,5      | Visual Examination    | 5          | ✓       |
| Group 1: Thermal shock            | 2,4      | Pressure/Vacuum Leak  | 5          | ✓       |
|                                   | 3        | Thermal shock         | 5          | Δ       |
|                                   | 1,5      | Visual Examination    | 5          | ✓       |
| Group 2: Humidity Steady<br>State | 2,4      | Pressure/Vacuum Leak  | 5          | ✓       |
|                                   | 3        | Humidity Steady State | 5          | Δ       |

**Conclusion: Passed** 

**Remark.** 1.2.3... in blank means test sequence, ✓ – passed / X – failed / – – not performed / △ – Reference &Value determination.



1. General Information

#### 1.1. Test Purpose

The purpose of test is to confirm the performance of PACKAGE COMPONENTS LIST 64POS.MIXED REC.HOUSING.

### 1.2. Test Specifications & Standards

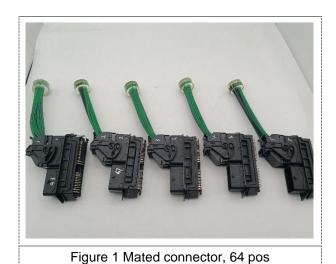
108-101130 Rev. B and test plan P22-904070-13, Rev. A

#### 1.3. Test Sample Information

The following product model numbers have been validated through testing or analysis.

The requester is accountable for the correctness of the sample list.

| Part<br>Number | Rev. | Description  | Sample<br>Qty | Material  | Wire<br>Cross | Production<br>Date | Remark |
|----------------|------|--|---------------|-----------|---------------|--------------------|--------|
| 2050036-1      | Α    | 64P ECU PLUG CONNECTOR                                     | 20            | ASSY      | -             | 2021/10/12         | -      |
| 638652-2       | В    | RECEPT,1.5MM,TIN 18-20AWG<br>RD=1                          | 320           | CuNiSi    | -             | 2021/10/4          | -      |
| 968221-1       | С    | MQS0,63 Sn rec CB unseal. 0,5-0,75                         | 2240          | CuNiSi    | -             | 2021/10/4          | 1      |
| 2377247-1      | А    | CMC 112WAY HEADER ASSEMBLY                                 | 20            | ASSY      | -             | 2021/10/4          | -      |
| 2050008-1      | C2   | FAMILY SEAL FOR 64P MQS<br>CONNECTOR(DUAL SOURCE<br>STUDY) | 20            | MF9425/30 | -             | 2022/7/9           | -      |



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1.4. Test Equipment List

| Equipment Name                        | Model No.        | Lab Equipment No. | Calibration Due Date |
|---------------------------------------|------------------|-------------------|----------------------|
| Air tightness test equipment          | /                | SZE2-019          | 2023/11/22           |
| Thermal Shock Chamber                 | ESPEC TSD-101-W  | SZE0-005          | 2023/05/09           |
| Rapid temperature change test chamber | ESPEC GFS-800-10 | SZE0-045          | 2023/05/31           |

#### 1.5. Additional Information

1.5.1. Customer special requirements:

N/A

**1.5.2. Tested Period**: 2022/11/21 to 2022/12/15

1.5.3. Environmental Condition

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

Temperature: 23±5°C, Relative Humidity: 30%-70%.

1.5.4. Requestor Information:

Name: Jay Han

Email: <u>Jay.han@te.com</u>

1.5.5. Sample Received date: 2022/10/15



Rev. A

### 2. Test Description

#### 2.1. Group 1: Thermal shock

#### 2.1.1. Visual Inspection

- Test Method

Visually examine each test specimen of testing.

- Test Specification

108-101130 Rev. B 3.6.1

- Acceptance Criteria

No corrosion, discoloration, cracks, etc.

#### - Test Data

| Samples                     | Initial                             | Final                               |
|-----------------------------|-------------------------------------|-------------------------------------|
| S-001 ~ S-005 <sup>2)</sup> | No corrosion, discoloration, cracks | No corrosion, discoloration, cracks |

Table 1 visual inspection

2) "S' represent the sample No. of "P22-904070-13".

- Test Result

#### 2.1.2. Pressure/Vacuum Leak

#### -Test Method

Insert a tube into the seal in the open cavity in each connector. Completely submerse connectors into the water. Slowly increase the air pressure of the regulated pressure source in each sample. Air pressure is 49kPa(initial) or 28kPa(after environment test) and hold for 15s. Then switch the regulated source from pressure to vacuum and slowly apply appropriate vacuum to -49kPa(initial) or -28kPa(after environment test) and hold for 15s.

#### -Test Specification

108-101130 Rev. B 3.6.18

#### -Acceptance Criteria

No water entry and no bubble

#### -Test Photo





Figure 2 Set up

Figure 3 After pressure/vacuum, final

#### -Test data

| Samples | Description                   |                               |  |  |  |
|---------|-------------------------------|-------------------------------|--|--|--|
| Samples | Initial                       | Final                         |  |  |  |
| S-001   | No water entry and no bubbles | No water entry and no bubbles |  |  |  |
| S-002   | No water entry and no bubbles | No water entry and no bubbles |  |  |  |
| S-003   | No water entry and no bubbles | No water entry and no bubbles |  |  |  |
| S-004   | No water entry and no bubbles | No water entry and no bubbles |  |  |  |
| S-005   | No water entry and no bubbles | No water entry and no bubbles |  |  |  |

Table 2 Pressure/vacuum leak

#### -Test Result



#### 2.1.3. Thermal Shock

#### -Test Method

Mated connector

-40℃/30min.

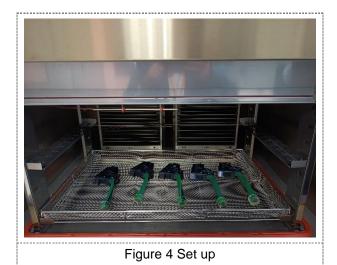
125℃/30min.

Repeat 100cycles.

#### -Test Specification

108-101130 Rev. B 3.6.15

#### -Test Photo



-Test Result

Condition



Rev. A

### 2.2. Group 2: Humidity Steady State

#### 2.2.1. Visual Inspection

- Test Method

Visually examine each test specimen of testing.

- Test Specification

108-101130 Rev. B 3.6.1

- Acceptance Criteria

No corrosion, discoloration, cracks, etc.

#### - Test Data

| Samples                     | Initial                             | Final                               |   |
|-----------------------------|-------------------------------------|-------------------------------------|---|
| S-006 ~ S-010 <sup>2)</sup> | No corrosion, discoloration, cracks | No corrosion, discoloration, cracks | Ì |

Table 3 visual inspection

2) "S' represent the sample No. of " P22-904070-13".

- Test Result

#### 2.2.2. Pressure/Vacuum Leak

#### -Test Method

Insert a tube into the seal in the open cavity in each connector. Completely submerse connectors into the water. Slowly increase the air pressure of the regulated pressure source in each sample. Air pressure is 49kPa(initial) or 28kPa(after environment test) and hold for 15s. Then switch the regulated source from pressure to vacuum and slowly apply appropriate vacuum to -49kPa(initial) or -28kPa(after environment test) and hold for 15s.

#### -Test Specification

108-101130 Rev. B 3.6.18

#### -Acceptance Criteria

No water entry and no bubble

#### -Test Photo





Figure 5 Set up

Figure 6 After pressure/vacuum, final

#### -Test data

| Samples | Description                   |                               |  |
|---------|-------------------------------|-------------------------------|--|
|         | Initial                       | Final                         |  |
| S-006   | No water entry and no bubbles | No water entry and no bubbles |  |
| S-007   | No water entry and no bubbles | No water entry and no bubbles |  |
| S-008   | No water entry and no bubbles | No water entry and no bubbles |  |
| S-009   | No water entry and no bubbles | No water entry and no bubbles |  |
| S-010   | No water entry and no bubbles | No water entry and no bubbles |  |

Table 4 Pressure/vacuum leak

#### -Test Result



Rev. A

#### 2.2.3. Humidity Steady State

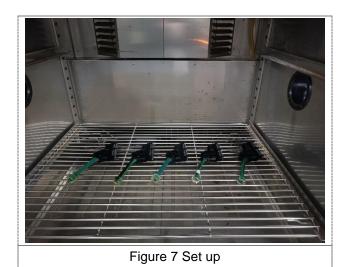
-Test Method

Mated connector, 90~95% R.H.,60°C,96hours

-Test Specification

108-101130 Rev. B 3.6.13

-Test Photo



-Test Result

Condition



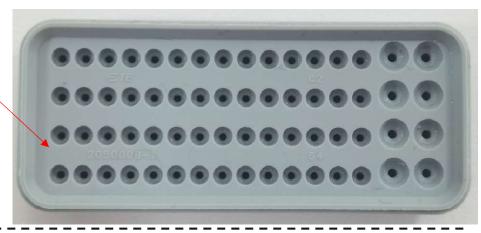
Rev. A

### **Document History**

| Rev | Date     | Author      | Description      | Remark |
|-----|----------|-------------|------------------|--------|
| Α   | 2023/2/2 | Nicole Deng | Initial Released | -      |
|     |          |             |                  |        |

## CMC 64P Family seal dual source material

换料前 Family seal



换料后Family seal



### Summary:

- 1. CMC 64P Family seal dual source,功能测试OK,外观稍有色差,PN字 体大小有差异
- 2. 涉及成品料号: x-2050036-x; x-2050004-x; x-2421119-x; x-2421112-x

