

## PRODUCT / PROCESS CHANGE NOTIFICATION

### Generic Announcement

**PCN#2508001** • DATE: 5<sup>th</sup> August, 2025

**PCN Subject: Change Assembly Site for Package DFN1006-2L Products.**

• **PCN Change Category:**

- ☒ **Material**
                    
 ☐ **Process**
                    
 ☐ **Data sheet / Specification**  
☐ **Reliability**  
☒ **Others (     Change Assembly Site     )**

• **Description of Change Purpose or Reason:**

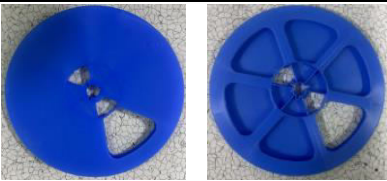
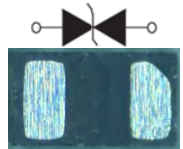
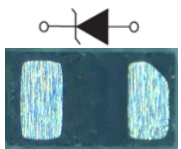
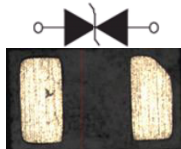
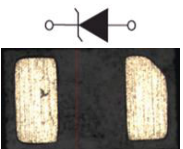
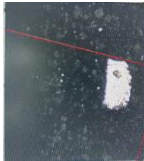
In order to respond to customer requirements, PANJIT will transfer the production of DFN1006-2L products from Carsem Semiconductor (Suzhou) Co., Ltd. to PANJIT Semiconductor (Xuzhou) Co., Ltd. (located in Jiangsu Province, China).

PANJIT Semiconductor (Xuzhou) Co., Ltd. has developed mature production capabilities for DFN1006-2L products, which will enhance our supply and service capabilities. Products manufactured at PANJIT Semiconductor (Xuzhou) Co., Ltd. are form, fit, and function compatible with those from the currently qualified sites.

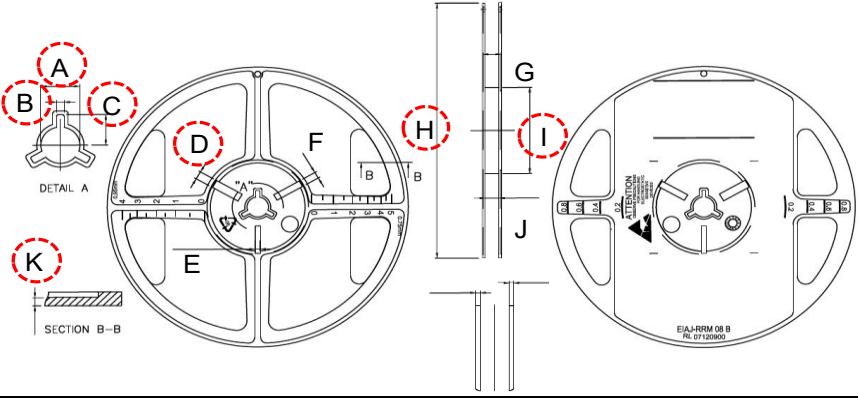
As part of the qualification process for PANJIT Semiconductor (Xuzhou) Co., Ltd., suppliers of key materials used in production, including the lead frame, die attach, wire, carrier tape, and ending tape, have also been qualified to ensure consistent quality and performance. For more details, please refer to the change information below.

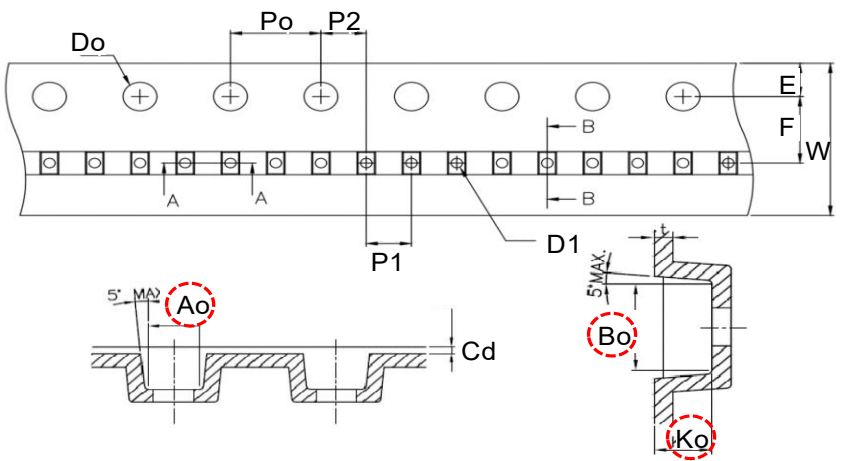
We recommend that you acknowledge receipt of this notification within 30 days of this PCN date. If you require samples for further evaluation, please feel free to contact your local sales representative and make a request. We are always pleased to serve you at any time.

● **Change Information:**

| Comparison               |                               |                           | From (Current)                                                                                                                                                                               | Change to (New)                                                                                                                                                                                                |
|--------------------------|-------------------------------|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Assembly Site            |                               |                           | Carsem Semiconductor (Suzhou) Co., Ltd.                                                                                                                                                      | PANJIT Semiconductor (Xuzhou) Co., Ltd.                                                                                                                                                                        |
| Production Site Location |                               |                           | Suzhou, China                                                                                                                                                                                | Xuzhou, China                                                                                                                                                                                                  |
| Package                  |                               |                           | DFN1006-2L                                                                                                                                                                                   |                                                                                                                                                                                                                |
| Packing                  |                               |                           | 10 kpcs / reel                                                                                                                                                                               |                                                                                                                                                                                                                |
| Material                 | Lead Frame                    | Material                  | Copper (NiPdAu plated)                                                                                                                                                                       |                                                                                                                                                                                                                |
|                          | Die Attach (Epoxy)            | Product Name              | 8008CSM                                                                                                                                                                                      | DA-5002BG-6                                                                                                                                                                                                    |
|                          | Wire                          | Material / Diameter (mil) | Au / 0.7<br>Au / 0.8                                                                                                                                                                         | PdAuCu / 0.8                                                                                                                                                                                                   |
|                          | Ending Tape                   | Material                  | Polyester                                                                                                                                                                                    | Paper                                                                                                                                                                                                          |
|                          |                               | Color                     | White                                                                                                                                                                                        | Yellow                                                                                                                                                                                                         |
|                          | Blue Anti-Static Plastic Reel |                           |                                                                                                            |                                                                                                                             |
| Form                     | Marking Format                |                           |                         |  <br>Add bar "-" for new assembly site |
|                          | Bottom View                   |                           |  <br>Lead color: Gold |  <br>Lead color: Gold                |
|                          | Side View                     |                           |                                                                                                           |                                                                                                                           |
|                          |                               |                           |                                                                                                                                                                                              |                                                                                                                                                                                                                |

● **Change Information:**

| Comparison    | From (Current)                                                                     | Change to (New)                         |
|---------------|------------------------------------------------------------------------------------|-----------------------------------------|
| Assembly Site | Carsem Semiconductor (Suzhou) Co., Ltd.                                            | PANJIT Semiconductor (Xuzhou) Co., Ltd. |
| Package       | DFN1006-2L                                                                         |                                         |
| Reel (7")     |  |                                         |
| Symbol (mm)   | Dimension                                                                          |                                         |
| A             | 13.1±0.2                                                                           | 13±0.2                                  |
| B             | 1.1±0.2                                                                            | 2±0.5                                   |
| C             | 16.84±0.2                                                                          | 11                                      |
| D             | 4.2±0.5                                                                            | 5±0.5                                   |
| H             | 180±2                                                                              | 178±1.0                                 |
| I             | 60±1                                                                               | 59.5±1.0                                |
| K             | 1.25                                                                               | 1.2                                     |

| Comparison    | From (Current)                                                                       | Change to (New)                         |
|---------------|--------------------------------------------------------------------------------------|-----------------------------------------|
| Assembly Site | Carsem Semiconductor (Suzhou) Co., Ltd.                                              | PANJIT Semiconductor (Xuzhou) Co., Ltd. |
| Package       | DFN1006-2L                                                                           |                                         |
| Carrier Tape  |  |                                         |
| Symbol (mm)   | Dimension                                                                            |                                         |
| Ao            | 0.65±0.04                                                                            | 0.69±0.05                               |
| Bo            | 1.05±0.04                                                                            | 1.19±0.05                               |
| Ko            | 0.61±0.04                                                                            | 0.63±0.05                               |

- **Verification /Qualification Data:**

The electrical characterization and high reliability testing have been completed on representative part numbers to ensure there is no change to device functionality or electrical specifications in the datasheet. There will be no change to the Form, Fit, or Function of products affected.

- **Affected Product Type:**

| Wire Material | Wire Diameter (mil) | Function: ESD Protection |            |            |
|---------------|---------------------|--------------------------|------------|------------|
| Au            | 0.7                 | PEC3202M1Q               | PEC3203M1Q | PEC3205M1Q |
| Wire Material | Wire Diameter (mil) | Function: ESD Protection |            |            |
| Au            | 0.8                 | PEC3112M1Q               | PE3212M1Q  |            |

- **Effective Date : 5<sup>th</sup> November, 2025**

➤ **The reliability test results are summarized below:**

Product reliability test result: PASS

| No. | DESCRIPTION                                               | TEST CONDITION                                                                                          | DURATION        | FAILURE RATE |                |
|-----|-----------------------------------------------------------|---------------------------------------------------------------------------------------------------------|-----------------|--------------|----------------|
| 1   | High Temperature Reverse Bias (HTRB)                      | $T_j = T_j \text{ max}$ , $V = 80\% V_R$ ,<br>DC supply                                                 | 1000<br>HOURS   | 0/77<br>PCS  | 3 Lots<br>Pass |
| 2   | Temperature Cycling (TCT)                                 | $T_a = -55^\circ\text{C} \sim +150^\circ\text{C}$ ( 2 cycles / Hour )                                   | 1000<br>CYCLES  | 0/77<br>PCS  | 3 Lots<br>Pass |
| 3   | Autoclave (AC)                                            | $T_a = 121^\circ\text{C}$ , $P = 15\text{psig}$ , 100%RH                                                | 96<br>HOURS     | 0/77<br>PCS  | 3 Lots<br>Pass |
| 4   | Intermittent Operational Life (IOL)                       | $\Delta T_j \geq 100^\circ\text{C}$<br>Power On: 120 sec<br>Power Off: 120 sec                          | 15000<br>CYCLES | 0/77<br>PCS  | 3 Lots<br>Pass |
| 5   | Resistance to Solder Heat (RSH)                           | Temperature of solder pot = $260 \pm 5/-0^\circ\text{C}$<br>Time for dipping in solder = $10 \pm 1$ Sec | 1 CYCLE         | 0/30<br>PCS  | 3 Lots<br>Pass |
| 6   | Solderability (SD)                                        | Temperature of solder pot = $245 \pm 5^\circ\text{C}$<br>Time for dipping in solder = $5 \pm 0.5$ Sec   | 1 CYCLE         | 0/10<br>PCS  | 3 Lots<br>Pass |
| 7   | High Humidity High Temp. Reverse Bias(H <sup>3</sup> TRB) | $T_a = 85^\circ\text{C} \pm 2^\circ\text{C}$ RH = 85% $\pm 5\%$<br>$V = 80\% V_R$<br>DC Supply          | 1000<br>HOURS   | 0/77<br>PCS  | 3 Lots<br>Pass |
| 8   | Highly Accelerated Stress Test (HAST)                     | $T_a = 130^\circ\text{C}$ , 85%RH, $80\% V_R$                                                           | 96<br>HOURS     | 0/77<br>PCS  | 3 Lots<br>Pass |

• **ELECTRICAL CHARACTERISTICS SUMMARY:**

There is no change to the product electrical specifications.

• **SAMPLES REQUEST :**

Contact your local PANJIT sales representative.

• **TECHNICAL CONTACT :**

E-mail: jwchen@panjit.com.tw

• **FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:**

Contact your local PANJIT sales representative.

• **ADDITIONAL RELIABILITY :**

Contact your local PANJIT sales representative.

• **CHANGED PART IDENTIFICATION :**

The tracking of 1<sup>st</sup> delivery after change can be identified by production lot number. Please contact your local sales for tracking lot number.

Please refer to below Lot number rule:

Lot number: **5N24XXXXX**.

1st digit "5" denotes Year 2025.

2nd digit "N" denotes November.

3rd and 4th digits denote Day.

Lot number: **5 N 2 4 X X X X X**

1st digit "5" denotes Year 2025.

2nd digit "N" denotes November.

3rd and 4th digits denote Day.

Denotes the production serial number.

## Customer Acknowledgement Form

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(To be filled out by the customer and returned to HQBU of PANJIT)

The indicated Customer Notification letter was received and acknowledged by the undersigned authority.

Company Name : \_\_\_\_\_

Customer Name : \_\_\_\_\_ (Signature) Date : \_\_\_\_\_

PCN Number : PCN#2508001

Approval for the Product/Process change: ☐Yes ☐No

Comments/Additional requests:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Thanks for your attention to this matter. Please return your acknowledgment form to our local PANJIT sales representative.

Please note that no objection within 30 days upon receiving this notification will be deemed as accepted and agreed with this Process Change Notification.

| Function | Type       | Package    | 料號(5類)(Carsem)      | MBU3料號(5類)          |
|----------|------------|------------|---------------------|---------------------|
| TVS/ESD  | PEC3112M1Q | DFN1006-2L | PEC3112M1Q_R1_00001 | PEC3112M1Q_R1_00501 |
| TVS/ESD  | PEC3202M1Q | DFN1006-2L | PEC3202M1Q_R1_00201 | PEC3202M1Q_R1_00501 |
| TVS/ESD  | PEC3203M1Q | DFN1006-2L | PEC3203M1Q_R1_00201 | PEC3203M1Q_R1_00501 |
| TVS/ESD  | PEC3205M1Q | DFN1006-2L | PEC3205M1Q_R1_00201 | PEC3205M1Q_R1_00501 |
| TVS/ESD  | PE3212M1Q  | DFN1006-2L | PE3212M1Q_R1_00001  | PE3212M1Q_R1_00501  |