



## Product Change Notification: CAAN-12VBDC355

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**Date:**

06-Feb-2026

**Product Category:**

General Purpose Fpgas

**Notification Subject:**

CCB 7754 Initial Notice: Qualification of ASEM as a new assembly site for selected A3P1000, A3P125, A3P250, A3P400, A3P600, A3P600L, A3PE3000, A3PE3000L, M1A3P1000, M1A3P250, M1A3P400, M1A3P600, M1A3PE3000 and M1A3PE3000L device families available in 208L MQFP (28X28X3.4mm) package.

**Affected CPNs:**

[CAAN-12VBDC355\\_Affected\\_CPN\\_02062026.pdf](#)

[CAAN-12VBDC355\\_Affected\\_CPN\\_02062026.csv](#)

**PCN Status:** Initial Notification

**PCN Type:** Manufacturing Change

**Microchip Parts Affected:** Please open one of the files found in the Affected CPNs section.

Note: For your convenience Microchip includes identical files in two formats (.pdf and .xls)

**Description of Change:** Qualification of ASEM as a new assembly site for selected A3P1000, A3P125, A3P250, A3P400, A3P600, A3P600L, A3PE3000, A3PE3000L, M1A3P1000, M1A3P250, M1A3P400, M1A3P600, M1A3PE3000 and M1A3PE3000L device families available in 208L MQFP (28X28X3.4mm) package.

**Pre and Post Summary Changes:**

|               | Pre Change                                                | Post Change                    | Change<br>(Yes/No) |
|---------------|-----------------------------------------------------------|--------------------------------|--------------------|
| Assembly Site | Amkor Technology<br>Philippine (P1/P2),<br>INC.<br>(ANAP) | ASE Group - Malaysia<br>(ASEM) | Yes                |

|                                  |                                                |        |        |     |
|----------------------------------|------------------------------------------------|--------|--------|-----|
| <b>Wire Material</b>             | Au                                             | CuPd*  | Au     | Yes |
| <b>Die Attach Material</b>       | 3230                                           |        | 8143   | Yes |
| <b>Molding Compound Material</b> | G700M                                          | G700Q* | G631SM | Yes |
| <b>Lead-Frame Material</b>       | C7025                                          | C194** | C7025  | Yes |
| <b>Lead-Frame Paddle Size</b>    | See Pre and Post Change Summary for Comparison |        |        |     |
| <b>Lead-Frame Design</b>         | See Pre and Post Change Summary for Comparison |        |        |     |

\*Note1: Affects only A3P125, A3P250 and M1A3P250 device families.

\*\*Note2: Affects only A3P125, A3P400 and M1A3P400 device families.

**Impacts to Datasheet:** None

**Change Impact:** None

**Reason for Change:** To improve on-time delivery performance by qualifying ASEM as a new assembly site.

**Change Implementation Status:** In Progress

**Estimated Qualification Completion Date:** August 2026

**Note:** Please be advised the qualification completion times may be extended because of unforeseen business conditions however implementation will not occur until after qualification has completed and a final PCN has been issued. The final PCN will include the qualification report and estimated first ship date. Also note that after the estimated first ship date guided in the final PCN customers may receive pre and post change parts.

**Timetable Summary:**

|                                 | August 2025 |    |    |    |    | > | August 2026 |    |    |    |    |
|---------------------------------|-------------|----|----|----|----|---|-------------|----|----|----|----|
| Work Week                       | 31          | 32 | 33 | 34 | 35 |   | 32          | 33 | 34 | 35 | 36 |
| <b>Initial PCN Issue Date</b>   |             |    | x  |    |    |   |             |    |    |    |    |
| <b>Qual Report Availability</b> |             |    |    |    |    |   |             | x  |    |    |    |
| <b>Final PCN Issue Date</b>     |             |    |    |    |    |   |             | x  |    |    |    |

**Method to Identify Change:** Traceability Code

**Qualification Plan:** Please open the attachments included with this PCN labeled as PCN\_#\_Qual\_Plan.

**Revision History:** August 15, 2025: Issued initial notification.

February 06, 2026: Re-issued the initial notification. Revised the affected parts list to add A3PE3000L-1PQG208IX45 and M1A3P600-PQG208IX402 catalog part number (CPN). Added the “Change (Yes/No)” column to the Pre- and Post-Change Summary table. Updated the molding compound material from "G700LY" to "G631SM" in the Pre- and Post-Change table and the Qualification Plan. Revised the estimated qualification completion date from May 2026 to August 2026.

**Note:** The change described in this PCN does not alter Microchip's current regulatory compliance regarding the material content of the applicable product.

**Attachments:**

**[PCN\\_CAAN-12VBDC355\\_Pre and Post Change Summary.pdf](#)**

**[PCN\\_CAAN-12VBDC355\\_Qualification Plan.pdf](#)**

Please contact your local [Microchip sales office](#) with questions or concerns regarding this notification.

**Terms and Conditions:**

If you wish to receive Microchip PCNs via email please register for our PCN email service at our [PCN home page](#) select register then fill in the required fields. You will find instructions about registering for Microchips PCN email service in the [PCN FAQ](#) section.

If you wish to change your PCN profile, including opt out, please go to the [PCN home page](#) select login and sign into your myMicrochip account. Select a profile option from the left navigation bar and make the applicable selections.

Affected Catalog Part Numbers (CPN):

A3PE3000L-PQG208IX6

A3PE3000-PQG208

A3PE3000-PQG208I

A3P1000-2PQG208

A3P1000-2PQG208I

A3P1000-PQG208

A3P1000-PQG208I

A3P1000-PQG208M

A3P1000-PQG208X538

A3P1000-PQG208YM

A3P125-1PQG208

A3P125-1PQG208I

A3P125-2PQG208

A3P125-2PQG208I

A3P125-PQG208

A3P125-PQG208I

A3P125-PQG208IX538

A3P125-PQG208PS53

A3P250-1PQG208

A3P250-2PQG208

A3P250-2PQG208I

A3PE3000L-1PQG208IX3

A3PE3000L-1PQG208IX6

A3PE3000L-PQG208

A3PE3000L-PQG208I

A3PE3000L-PQG208IX167

M1A3P600-PQG208IX402

A3PE3000L-1PQG208IX45

A3PE3000-PQG208IX538

A3P250-PQG208

A3P250-PQG208I

A3P250-PQG208X53

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CAAN-12VBDC355 - CCB 7754 Initial Notice: Qualification of ASEM as a new assembly site for selected A3P1000, A3P125, A3P250, A3P400, A3P600, A3P600L, A3PE3000, A3PE3000L, M1A3P1000, M1A3P250, M1A3P400, M1A3P600, M1A3PE3000 and M1A3PE3000L device families available in 208L MQFP (28X28X3.4mm) package.

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A3P400-1PQG208

A3P400-1PQG208I

A3P400-1PQG208IX3

A3P400-2PQG208

A3P400-2PQG208I

A3P400-PQG208

A3P400-PQG208I

A3P400-PQG208IX218

A3P400-PQG208X538

A3P600-1PQG208

A3P600-1PQG208I

A3P600-1PQG208IDX402

A3P600-2PQG208

A3P600-2PQG208I

A3P600L-1PQG208IDX402

A3P600-PQG208

A3P600-PQG208I

A3P600-PQG208M

A3PE3000-1PQG208

A3PE3000-1PQG208I

A3PE3000-1PQG208IX507

A3PE3000-2PQG208

A3PE3000-2PQG208I

A3PE3000L-1PQG208

A3PE3000L-1PQG208I

A3PE3000L-1PQG208IX167

A3PE3000L-1PQG208IX259

M1A3P1000-PQG208M

M1A3P250-1PQG208

M1A3P250-1PQG208I

M1A3P250-2PQG208

M1A3P250-2PQG208I

M1A3P250-PQG208

M1A3P250-PQG208I

M1A3P400-1PQG208

M1A3P400-1PQG208I

M1A3P400-2PQG208  
M1A3P400-2PQG208I  
M1A3P400-PQG208  
M1A3P400-PQG208I  
M1A3P600-1PQG208  
M1A3P600-1PQG208I  
M1A3P600-2PQG208  
M1A3P600-2PQG208I  
M1A3P600-PQG208  
M1A3P600-PQG208I  
M1A3P600-PQG208IX259  
M1A3PE3000-1PQG208  
M1A3PE3000-1PQG208I  
M1A3PE3000-2PQG208  
M1A3PE3000-2PQG208I  
M1A3PE3000L-1PQG208  
M1A3PE3000L-1PQG208I  
M1A3PE3000L-PQG208  
M1A3PE3000L-PQG208I  
A3PE3000-PQG208X3  
M1A3P1000-1PQG208  
M1A3P1000-1PQG208I  
M1A3P1000-1PQG208M  
M1A3P1000-2PQG208  
M1A3P1000-2PQG208I  
M1A3P1000-PQG208  
M1A3P1000-PQG208I  
M1A3PE3000-PQG208  
M1A3PE3000-PQG208I  
A3P1000-1PQG208  
A3P1000-1PQG208I  
A3P1000-1PQG208IX167  
A3P1000-1PQG208M  
A3P1000-1PQG208X538

# CCB 7754

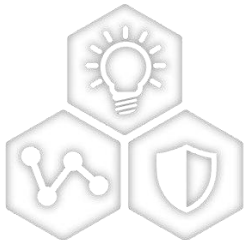
## Pre and Post Change Summary

### PCN #: CAAN-12VBDC355



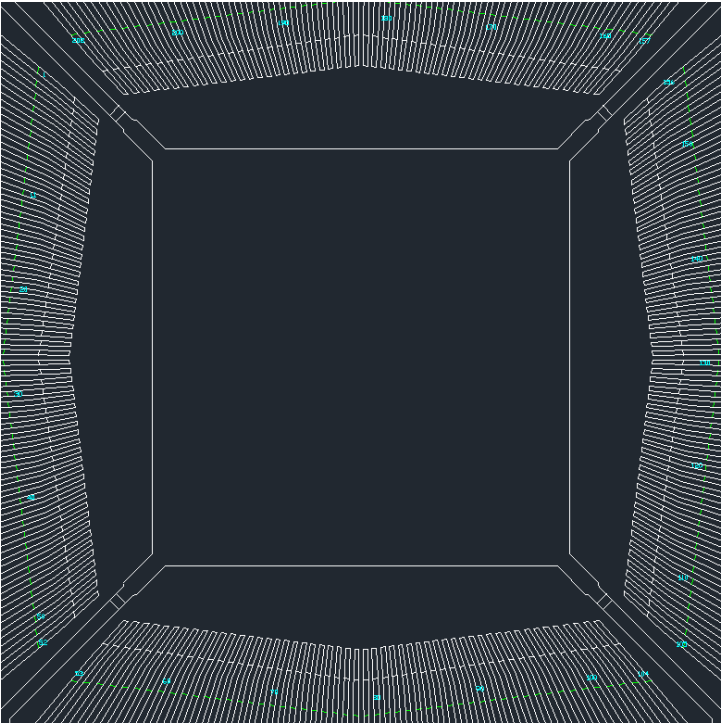
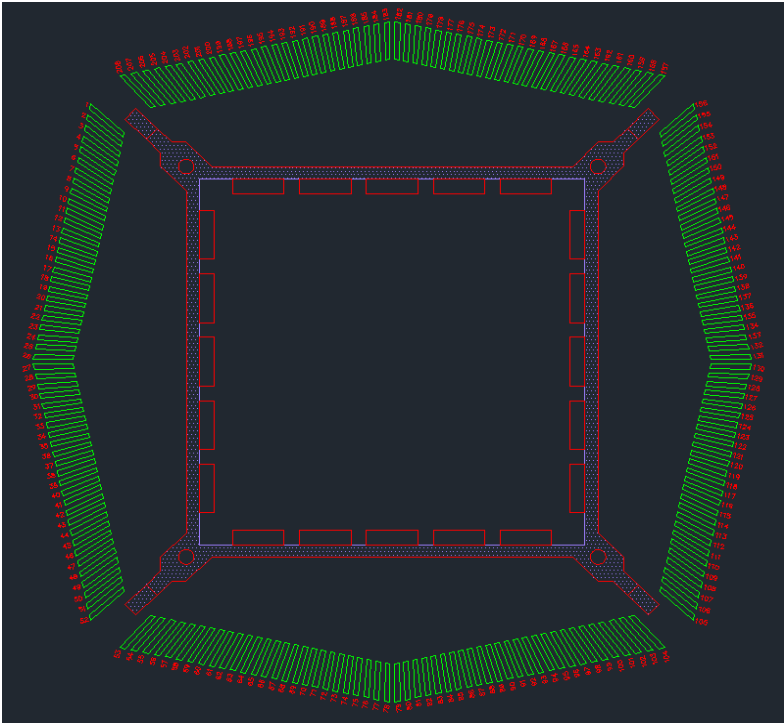
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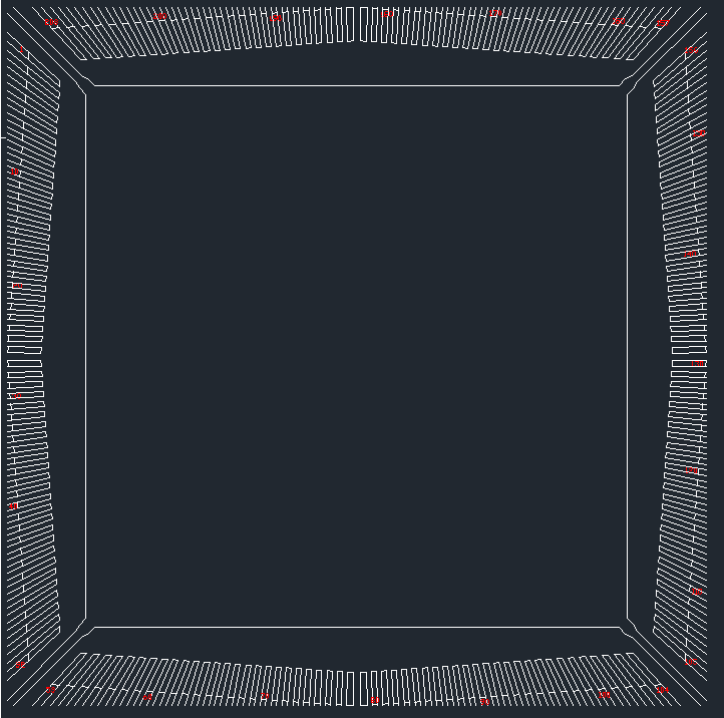
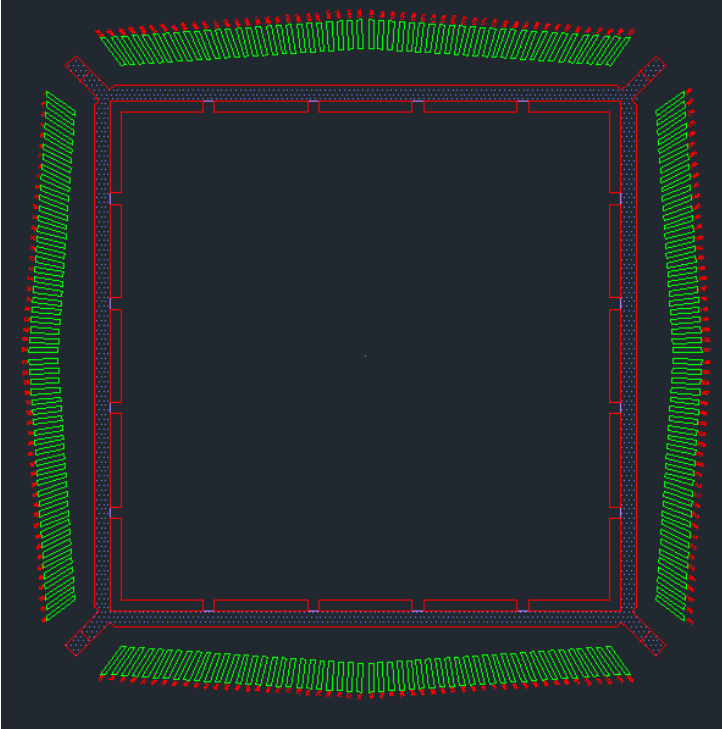
# Lead Frame Comparison (A3P1000 and M1A3P1000 device families)

| ANAP                                                                                                                                                                                                                                                                                                                                                                                                    | ASEM                                                                                                                                                                                                                                                                                                                                                                                      |       |                        |                |                                                                                                                                   |                     |       |                        |                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|------------------------|----------------|-----------------------------------------------------------------------------------------------------------------------------------|---------------------|-------|------------------------|----------------|
|  A top-down schematic of the ANAP lead frame. It features a central square cavity surrounded by a thick lead frame. The frame has four trapezoidal paddles extending outwards. Numerous fine lines represent wire bonds connecting the pads on the paddles. The entire assembly is enclosed in a rectangular border. |  A top-down schematic of the ASEM lead frame. It has a similar layout to the ANAP but with a more compact design. The central cavity is smaller, and the lead frame paddles are narrower. The wire bond pattern is also visible, showing a different arrangement of connections compared to the ANAP. |       |                        |                |                                                                                                                                   |                     |       |                        |                |
| <table><tr><td>Lead-Frame Material</td><td>C7025</td></tr><tr><td>Lead-Frame Paddle Size</td><td>315 X 315 mils</td></tr></table>                                                                                                                                                                                                                                                                       | Lead-Frame Material                                                                                                                                                                                                                                                                                                                                                                       | C7025 | Lead-Frame Paddle Size | 315 X 315 mils | <table><tr><td>Lead-Frame Material</td><td>C7025</td></tr><tr><td>Lead-Frame Paddle Size</td><td>272 x 272 mils</td></tr></table> | Lead-Frame Material | C7025 | Lead-Frame Paddle Size | 272 x 272 mils |
| Lead-Frame Material                                                                                                                                                                                                                                                                                                                                                                                     | C7025                                                                                                                                                                                                                                                                                                                                                                                     |       |                        |                |                                                                                                                                   |                     |       |                        |                |
| Lead-Frame Paddle Size                                                                                                                                                                                                                                                                                                                                                                                  | 315 X 315 mils                                                                                                                                                                                                                                                                                                                                                                            |       |                        |                |                                                                                                                                   |                     |       |                        |                |
| Lead-Frame Material                                                                                                                                                                                                                                                                                                                                                                                     | C7025                                                                                                                                                                                                                                                                                                                                                                                     |       |                        |                |                                                                                                                                   |                     |       |                        |                |
| Lead-Frame Paddle Size                                                                                                                                                                                                                                                                                                                                                                                  | 272 x 272 mils                                                                                                                                                                                                                                                                                                                                                                            |       |                        |                |                                                                                                                                   |                     |       |                        |                |

*Note: Not to scale*

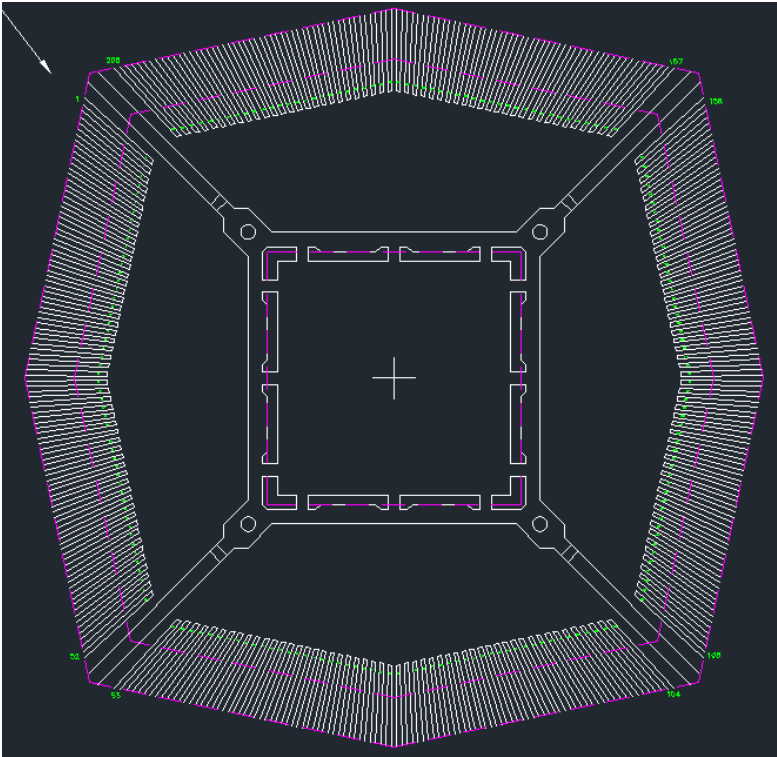
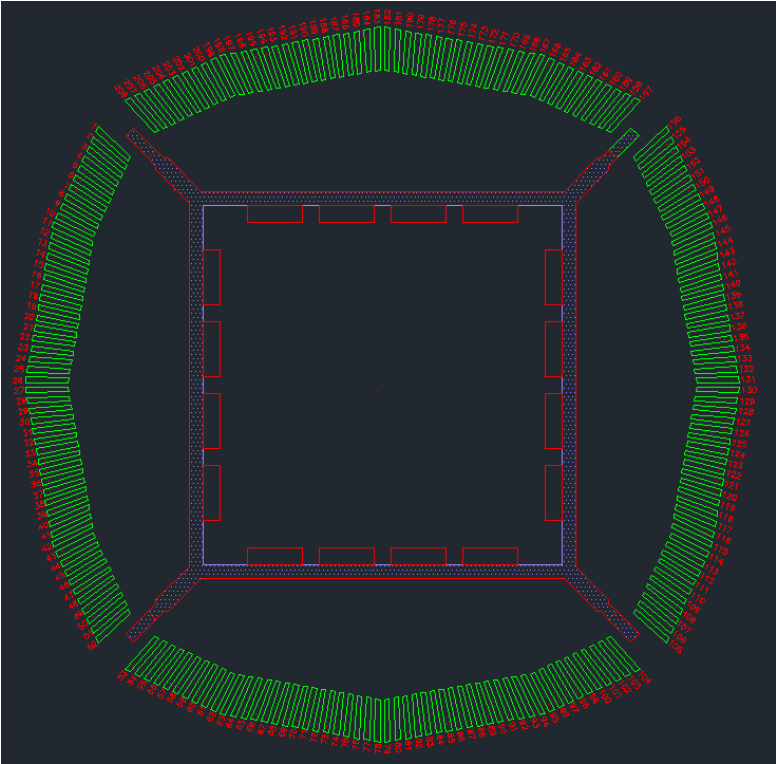


# Lead Frame Comparison (A3PE3000, A3PE3000L, M1A3PE3000 and M1A3PE3000L device families)

| ANAP                                                                                                                              | ASEM                                                                                 |       |                        |                |                                                                                                                                   |                     |       |                        |                |
|-----------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|-------|------------------------|----------------|-----------------------------------------------------------------------------------------------------------------------------------|---------------------|-------|------------------------|----------------|
|                                                |  |       |                        |                |                                                                                                                                   |                     |       |                        |                |
| <table><tr><td>Lead-Frame Material</td><td>C7025</td></tr><tr><td>Lead-Frame Paddle Size</td><td>512 X 512 mils</td></tr></table> | Lead-Frame Material                                                                  | C7025 | Lead-Frame Paddle Size | 512 X 512 mils | <table><tr><td>Lead-Frame Material</td><td>C7025</td></tr><tr><td>Lead-Frame Paddle Size</td><td>510 x 510 mils</td></tr></table> | Lead-Frame Material | C7025 | Lead-Frame Paddle Size | 510 x 510 mils |
| Lead-Frame Material                                                                                                               | C7025                                                                                |       |                        |                |                                                                                                                                   |                     |       |                        |                |
| Lead-Frame Paddle Size                                                                                                            | 512 X 512 mils                                                                       |       |                        |                |                                                                                                                                   |                     |       |                        |                |
| Lead-Frame Material                                                                                                               | C7025                                                                                |       |                        |                |                                                                                                                                   |                     |       |                        |                |
| Lead-Frame Paddle Size                                                                                                            | 510 x 510 mils                                                                       |       |                        |                |                                                                                                                                   |                     |       |                        |                |

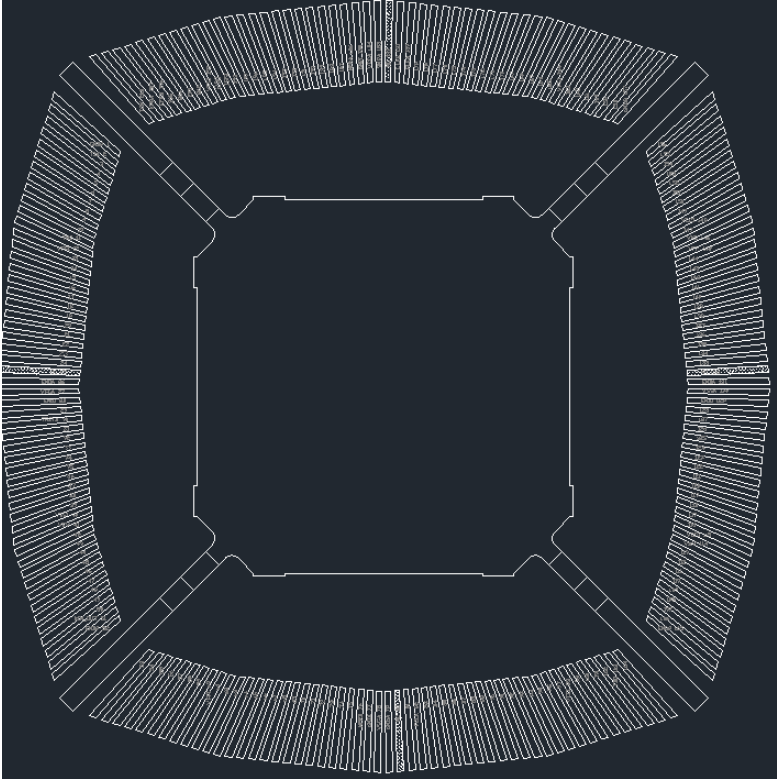
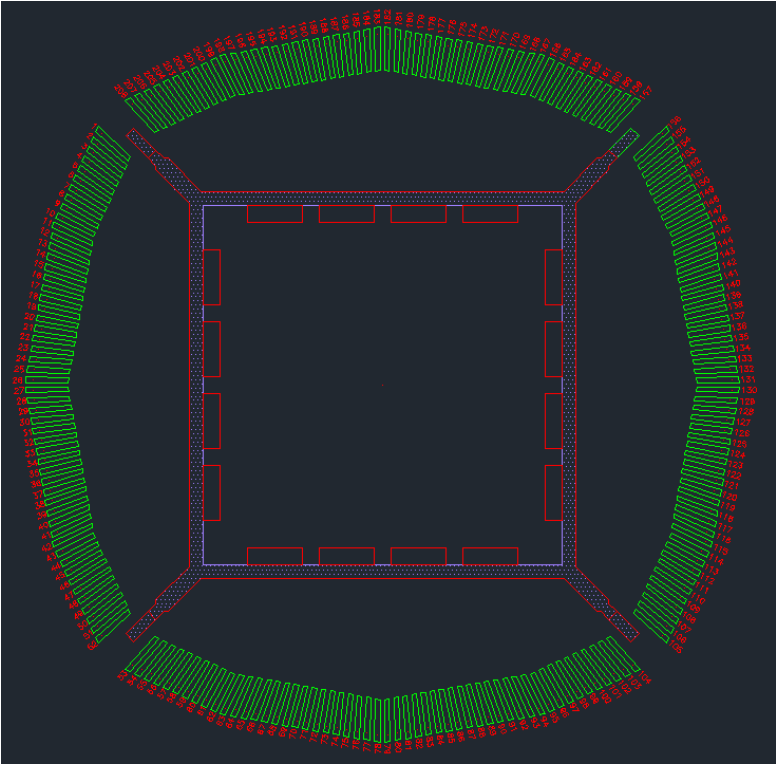
*Note: Not to scale*

# Lead Frame Comparison (A3P125 device family)

| ANAP                                                                                                                             | ASEM                                                                                 |      |                        |                |                                                                                                                                   |                     |       |                        |                |
|----------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|------|------------------------|----------------|-----------------------------------------------------------------------------------------------------------------------------------|---------------------|-------|------------------------|----------------|
|                                               |  |      |                        |                |                                                                                                                                   |                     |       |                        |                |
| <table><tr><td>Lead-Frame Material</td><td>C194</td></tr><tr><td>Lead-Frame Paddle Size</td><td>189 X 189 mils</td></tr></table> | Lead-Frame Material                                                                  | C194 | Lead-Frame Paddle Size | 189 X 189 mils | <table><tr><td>Lead-Frame Material</td><td>C7025</td></tr><tr><td>Lead-Frame Paddle Size</td><td>232 X 232 mils</td></tr></table> | Lead-Frame Material | C7025 | Lead-Frame Paddle Size | 232 X 232 mils |
| Lead-Frame Material                                                                                                              | C194                                                                                 |      |                        |                |                                                                                                                                   |                     |       |                        |                |
| Lead-Frame Paddle Size                                                                                                           | 189 X 189 mils                                                                       |      |                        |                |                                                                                                                                   |                     |       |                        |                |
| Lead-Frame Material                                                                                                              | C7025                                                                                |      |                        |                |                                                                                                                                   |                     |       |                        |                |
| Lead-Frame Paddle Size                                                                                                           | 232 X 232 mils                                                                       |      |                        |                |                                                                                                                                   |                     |       |                        |                |

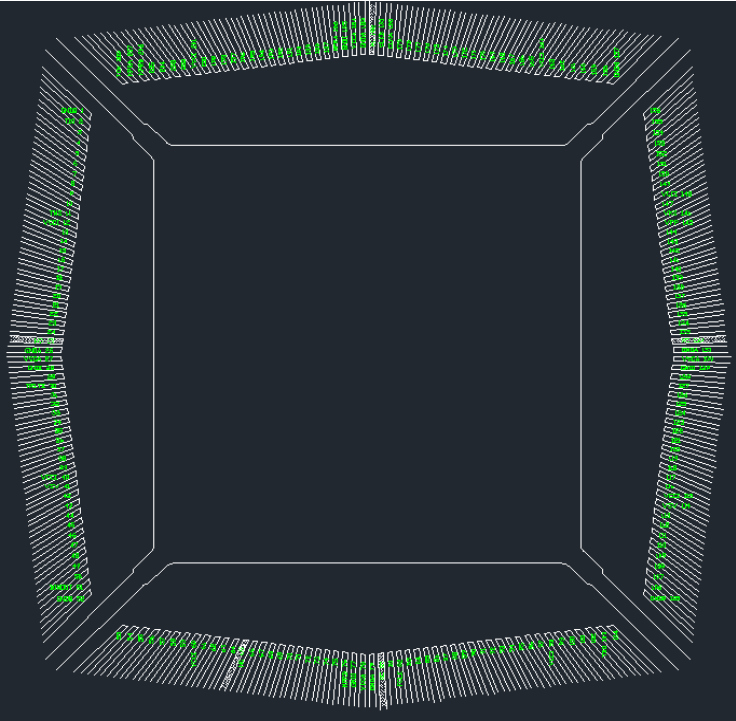
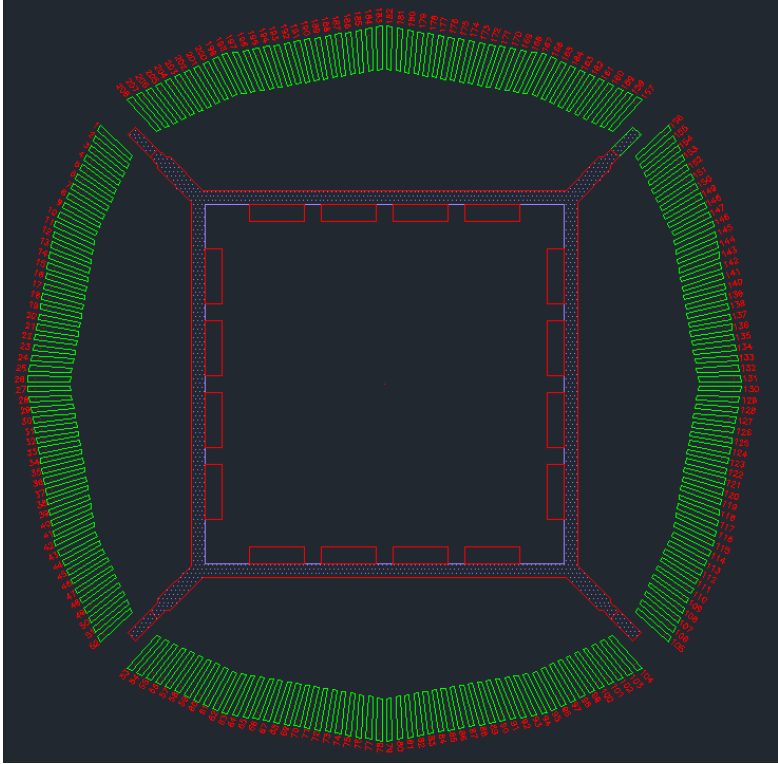
*Note: Not to scale*

# Lead Frame Comparison (A3P250 and M1A3P250 device families)

| ANAP                                                                                                                              | ASEM                                                                                 |       |                        |                |                                                                                                                                   |                     |       |                        |                |
|-----------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|-------|------------------------|----------------|-----------------------------------------------------------------------------------------------------------------------------------|---------------------|-------|------------------------|----------------|
|                                                |  |       |                        |                |                                                                                                                                   |                     |       |                        |                |
| <table><tr><td>Lead-Frame Material</td><td>C7025</td></tr><tr><td>Lead-Frame Paddle Size</td><td>236 X 236 mils</td></tr></table> | Lead-Frame Material                                                                  | C7025 | Lead-Frame Paddle Size | 236 X 236 mils | <table><tr><td>Lead-Frame Material</td><td>C7025</td></tr><tr><td>Lead-Frame Paddle Size</td><td>232 X 232 mils</td></tr></table> | Lead-Frame Material | C7025 | Lead-Frame Paddle Size | 232 X 232 mils |
| Lead-Frame Material                                                                                                               | C7025                                                                                |       |                        |                |                                                                                                                                   |                     |       |                        |                |
| Lead-Frame Paddle Size                                                                                                            | 236 X 236 mils                                                                       |       |                        |                |                                                                                                                                   |                     |       |                        |                |
| Lead-Frame Material                                                                                                               | C7025                                                                                |       |                        |                |                                                                                                                                   |                     |       |                        |                |
| Lead-Frame Paddle Size                                                                                                            | 232 X 232 mils                                                                       |       |                        |                |                                                                                                                                   |                     |       |                        |                |

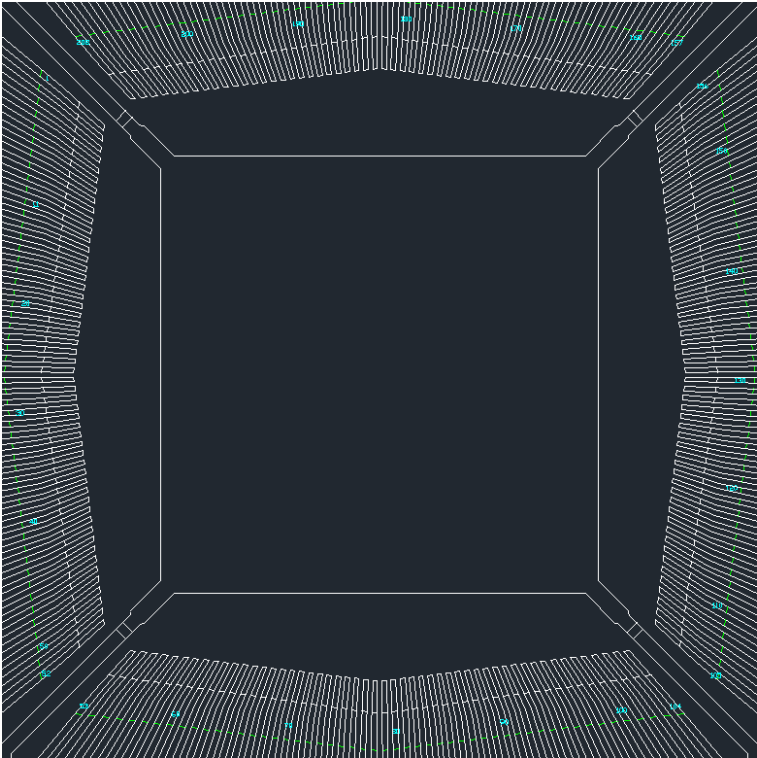
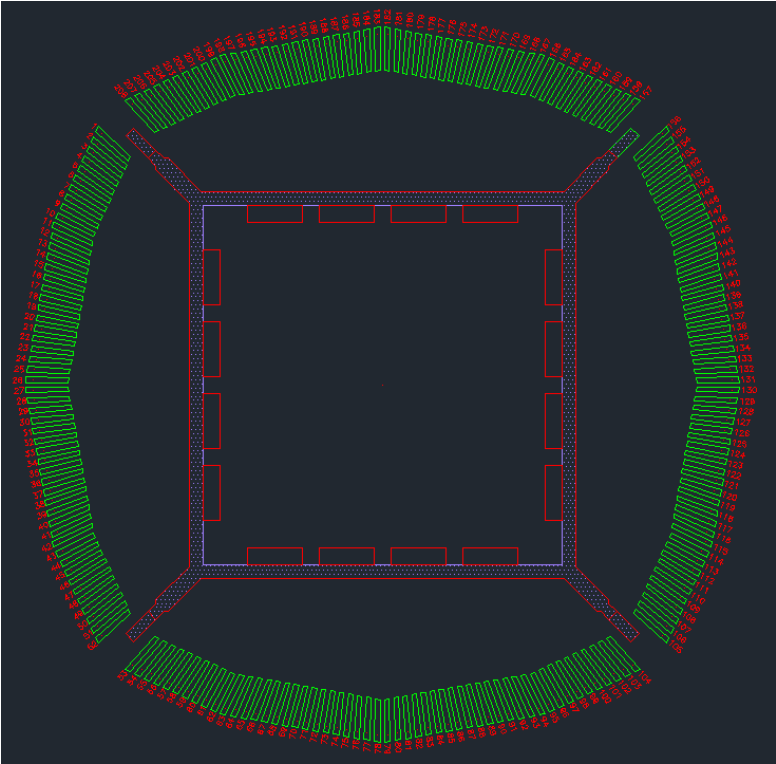
*Note: Not to scale*

# Lead Frame Comparison (A3P400 and M1A3P400 device families)

| ANAP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | ASEM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |      |                        |                |                                                                                                                                   |                     |       |                        |                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------------------------|----------------|-----------------------------------------------------------------------------------------------------------------------------------|---------------------|-------|------------------------|----------------|
|  <p>A top-down diagram of the ANAP lead frame. It shows a square frame with rounded corners. The frame is composed of a central square area surrounded by a border. The border is made of many small, rectangular paddles. The paddles are arranged in a grid pattern, with the outermost layer being the largest and the innermost layer being the smallest. The paddles are colored green and red, indicating different materials or finishes.</p> |  <p>A top-down diagram of the ASEM lead frame. It shows a square frame with rounded corners. The frame is composed of a central square area surrounded by a border. The border is made of many small, rectangular paddles. The paddles are arranged in a grid pattern, with the outermost layer being the largest and the innermost layer being the smallest. The paddles are colored green and red, indicating different materials or finishes.</p> |      |                        |                |                                                                                                                                   |                     |       |                        |                |
| <table><tr><td>Lead-Frame Material</td><td>C194</td></tr><tr><td>Lead-Frame Paddle Size</td><td>315 X 315 mils</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                        | Lead-Frame Material                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | C194 | Lead-Frame Paddle Size | 315 X 315 mils | <table><tr><td>Lead-Frame Material</td><td>C7025</td></tr><tr><td>Lead-Frame Paddle Size</td><td>232 X 232 mils</td></tr></table> | Lead-Frame Material | C7025 | Lead-Frame Paddle Size | 232 X 232 mils |
| Lead-Frame Material                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | C194                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |      |                        |                |                                                                                                                                   |                     |       |                        |                |
| Lead-Frame Paddle Size                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 315 X 315 mils                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |      |                        |                |                                                                                                                                   |                     |       |                        |                |
| Lead-Frame Material                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | C7025                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |      |                        |                |                                                                                                                                   |                     |       |                        |                |
| Lead-Frame Paddle Size                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 232 X 232 mils                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |      |                        |                |                                                                                                                                   |                     |       |                        |                |

*Note: Not to scale*

# Lead Frame Comparison (A3P600, A3P600L and M1A3P600 device families)

| ANAP                                                                                                                              | ASEM                                                                                 |       |                        |                |                                                                                                                                   |                     |       |                        |                |
|-----------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|-------|------------------------|----------------|-----------------------------------------------------------------------------------------------------------------------------------|---------------------|-------|------------------------|----------------|
|                                                |  |       |                        |                |                                                                                                                                   |                     |       |                        |                |
| <table><tr><td>Lead-Frame Material</td><td>C7025</td></tr><tr><td>Lead-Frame Paddle Size</td><td>315 X 315 mils</td></tr></table> | Lead-Frame Material                                                                  | C7025 | Lead-Frame Paddle Size | 315 X 315 mils | <table><tr><td>Lead-Frame Material</td><td>C7025</td></tr><tr><td>Lead-Frame Paddle Size</td><td>232 X 232 mils</td></tr></table> | Lead-Frame Material | C7025 | Lead-Frame Paddle Size | 232 X 232 mils |
| Lead-Frame Material                                                                                                               | C7025                                                                                |       |                        |                |                                                                                                                                   |                     |       |                        |                |
| Lead-Frame Paddle Size                                                                                                            | 315 X 315 mils                                                                       |       |                        |                |                                                                                                                                   |                     |       |                        |                |
| Lead-Frame Material                                                                                                               | C7025                                                                                |       |                        |                |                                                                                                                                   |                     |       |                        |                |
| Lead-Frame Paddle Size                                                                                                            | 232 X 232 mils                                                                       |       |                        |                |                                                                                                                                   |                     |       |                        |                |

*Note: Not to scale*



**MICROCHIP**

## **QUALIFICATION PLAN SUMMARY**

**PCN#: CAAN-12VBDC355**

**Date:  
January 30, 2026**

**Qualification of ASEM as a new assembly site for selected  
A3P1000, A3P125, A3P250, A3P400, A3P600, A3P600L, A3PE3000,  
A3PE3000L, M1A3P1000, M1A3P250, M1A3P400, M1A3P600,  
M1A3PE3000 and M1A3PE3000L device families available in 208L  
MQFP (28X28X3.4mm) package.**

Purpose: Qualification of ASEM as a new assembly site for selected A3P1000, A3P125, A3P250, A3P400, A3P600, A3P600L, A3PE3000, A3PE3000L, M1A3P1000, M1A3P250, M1A3P400, M1A3P600, M1A3PE3000 and M1A3PE3000L device families available in 208L MQFP (28X28X3.4mm) package.

CCB No.: 7754

|                   |                                          |                                                    |
|-------------------|------------------------------------------|----------------------------------------------------|
| <u>Misc.</u>      | Assembly site                            | ASEM                                               |
|                   | MP Code (MPC)                            | XU028 MPC                                          |
|                   | Part Number (CPN)                        | See CPN List                                       |
|                   | MSL information                          | 3                                                  |
|                   | Assembly Shipping Media (T/R, Tube/Tray) | Tray                                               |
|                   | Base Quantity Multiple (BQM)             | 24                                                 |
|                   | Reliability Site                         | MTAI                                               |
| <u>Lead-Frame</u> | Paddle size                              | 510 x 510 mils<br>272 x 272 mils<br>232 X 232 mils |
|                   | Material                                 | C7025                                              |
|                   | DAP Surface Prep                         | Double Ring                                        |
|                   | Treatment                                | Non Rough                                          |
|                   | Process                                  | Etched                                             |
|                   | Lead-lock                                | Yes<br>(Locking Hole & Half Etched Dimple)         |
|                   | Part Number                              | 1022L8912100<br>1022L8922100<br>1022L8942100       |
|                   | Lead Plating                             | Matte SN                                           |
|                   | Strip Size                               | 250x78mm                                           |
|                   | Strip Density                            | 12                                                 |
| <u>Bond Wire</u>  | Material                                 | Au                                                 |
| <u>Die Attach</u> | Part Number                              | 8143                                               |
|                   | Conductive                               | Yes                                                |
| <u>MC</u>         | Part Number                              | G631SM                                             |
| <u>PKG</u>        | Package Type                             | MQFP                                               |
|                   | Pin/Ball Count                           | 208                                                |
|                   | PKG width/size                           | 28X28X3.4mm                                        |

| Test Name                                            | Conditions                                                                                                                                                                                                                                      | Sample Size                                               | Min. Qty of Spares per Lot (should be properly marked) | Qty of Lots | Total Units | Fail Accept Qty     | Est. Dur. Days | ATE Test Site | REL Test Site | Special Instructions                                                                                                                                                                                                          |
|------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|--------------------------------------------------------|-------------|-------------|---------------------|----------------|---------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Standard Pb-free Solderability                       | J-STD-002D ; Perform 8 hour steam aging for Matte tin finish and 1 hour steam aging for NiPdAu finish prior to testing.<br><br>Standard Pb-free: Matte tin/ NiPdAu finish, SAC solder, wetting temp 245°C for both SMD & through hole packages. | 22                                                        | 5                                                      | 1           | 27          | > 95% lead coverage | 5              |               |               | Standard Pb-free solderability is the requirement.<br><br>SnPb solderability (backward solderability- SMD reflow soldering) is required for any plating related changes and highly recommended for other package BOM changes. |
| Wire Bond Pull - WBP                                 | Mil. Std. 883-2011                                                                                                                                                                                                                              | 5                                                         | 0                                                      | 1           | 5           | 0 fails after TC    | 5              |               |               | 30 bonds from a min. 5 devices.                                                                                                                                                                                               |
| Wire Bond Shear - WBS                                | CDF-AEC-Q100-001                                                                                                                                                                                                                                | 5                                                         | 0                                                      | 1           | 5           | 0                   | 5              |               |               | 30 bonds from a min. 5 devices.                                                                                                                                                                                               |
| Wire Sweep                                           |                                                                                                                                                                                                                                                 |                                                           |                                                        |             |             |                     |                |               |               | Required for any reduction in wire bond thickness.                                                                                                                                                                            |
| Physical Dimensions                                  | Measure per JESD22 B100 and B108                                                                                                                                                                                                                | 10                                                        | 0                                                      | 3           | 30          | 0                   | 5              |               |               |                                                                                                                                                                                                                               |
| External Visual                                      | Mil. Std. 883-2009/2010                                                                                                                                                                                                                         | All devices prior to submission for qualification testing | 0                                                      | 3           | ALL         | 0                   | 5              |               |               |                                                                                                                                                                                                                               |
| HTSL (High Temp Storage Life)                        | JESD22-A103. +175 C for 504 hours or 150°C for 1008 hrs.<br><br>Electrical test pre and post stress at +25C and hot temp (85°C).                                                                                                                | 45                                                        | 5                                                      | 1           | 50          | 0                   | 10             | MTAI          | MTAI          |                                                                                                                                                                                                                               |
| Preconditioning - Required for surface mount devices | JESD22-A113. +150°C Bake for 24 hours, moisture loading requirements per MSL level + 3X reflow at peak reflow temperature per Jedec-STD-020E for package type; Electrical test pre and post stress at +25°C.<br><br>MSL3/245°C                  | 231                                                       | 15                                                     | 3           | 738         | 0                   | 15             | MTAI          | MTAI          | Spares should be properly identified.<br>77 parts from each lot to be used for HAST, uHAST, Temp Cycle test.                                                                                                                  |
| UHAST                                                | JESD22-A118. +130°C/85% RH for 96 hrs or +110°C/85% RH for 264 hrs.<br><br>Electrical test pre and post stress at +25°C                                                                                                                         | 77                                                        | 5                                                      | 3           | 246         | 0                   | 10             | MTAI          | MTAI          | Spares should be properly identified.<br>Use the parts which have gone through Pre-conditioning.                                                                                                                              |
| Temp Cycle                                           | JESD22-A104. -65°C to +150°C for 500 cycles.<br><br>Electrical test pre and post stress at hot temp (85°C).; 3 gram force WBP, on 5 devices from 1 lot, test following Temp Cycle stress.                                                       | 77                                                        | 5                                                      | 3           | 246         | 0                   | 15             | MTAI          | MTAI          | Spares should be properly identified.<br>Use the parts which have gone through Pre-conditioning.                                                                                                                              |