



Product Change Notification / NTDO-23HTHI228

Date:

27-Jan-2023

Product Category:

Linear Op Amps

PCN Type:

Manufacturing Change

Notification Subject:

CCB 6113 Initial Notice: Qualification of MTAI as an additional assembly site for MCP6031T-E/OT, MCP6051T-E/OT, MCP6061T-E/OT and MCP6071T-E/OT catalog part numbers (CPN) available in 5L SOT-23 package.

Affected CPNs:

[NTDO-23HTHI228_Affected_CPN_01272023.pdf](#)

[NTDO-23HTHI228_Affected_CPN_01272023.csv](#)

Notification Text:

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 MTAI as an additional assembly site for MCP6031T-E/OT, MCP6051T-E/OT, MCP6061T-E/OT and MCP6071T-E/OT catalog part numbers (CPN) available in 5L SOT-23 package.

Pre and Post Change Summary:

| | | Pre Change | Post Change | |
|----------------------------|-------------------------|---|--|--|
| Assembly Site | | UTAC Thai Limited (UTL-1) LTD. (NSEB) | UTAC Thai Limited (UTL-1) LTD. (NSEB) | Microchip Technology Thailand (HQ) (MTAI) |
| Wire Material | | Au | Au | Au |
| Die Attach Material | | 8006NS | 8006NS | 8006NS |
| Mold Compound | | G600 | G600 | G600 |
| Lead frame | Material | C194 | C194 | CDA194* |
| | DAP Surface Prep | Ag | Ag | Ag-selective |
| | Treatment | No | No | Roughening |

Note: *C194, A194 or CDA194 Lead frame material are the same, it is just a MCHP internal labelling difference.

Impacts to Data Sheet:None

Change Impact:None

Reason for Change:To improve productivity by qualifying MTAI as an additional assembly site.

Change Implementation Status:In Progress

Estimated Qualification Completion Date:March 2023

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.

Time Table Summary:

| | | | |
|--|--------------|---|------------|
| | January 2023 | > | March 2023 |
|--|--------------|---|------------|

| Workweek | 1 | 2 | 3 | 4 | 5 | | 9 | 10 | 11 | 12 | 13 |
|--------------------------|---|---|---|---|---|--|---|----|----|----|----|
| Initial PCN Issue Date | | | | x | | | | | | | |
| Qual Report Availability | | | | | | | | | | | x |
| Final PCN Issue Date | | | | | | | | | | | x |

Method to Identify Change:Traceability code

Qualification Plan:Please open the attachments included with this PCN labeled as PCN_#_Qual_Plan.

Revision History:January 27, 2023: Issued initial notification.

The change described in this PCN does not alter Microchip’s current regulatory compliance regarding the material content of the applicable products.

Attachments:

[PCN_NTDO-23HTHI228_Pre and Post Change Summary.pdf](#)
[PCN_NTDO-23HTHI228_Qual_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)

MCP6031T-E/OT

MCP6051T-E/OT

MCP6061T-E/OT

MCP6071T-E/OT



QUALIFICATION PLAN SUMMARY

PCN#: NTDO-23HTHI228

Date
January 19, 2023

**Qualification of MTAI as an additional assembly site for
MCP6031T-E/OT, MCP6051T-E/OT, MCP6061T-E/OT and
MCP6071T-E/OT catalog part numbers (CPN) available in 5L
SOT-23 package**

Purpose: Qualification of MTAI as an additional assembly site for MCP6031T-E/OT, MCP6051T-E/OT, MCP6061T-E/OT and MCP6071T-E/OT catalog part numbers (CPN) available in 5L SOT-23 package.

CCB: 6113

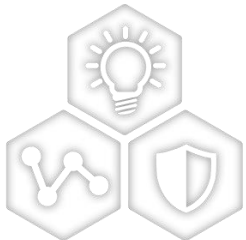
| | |
|---|------------------|
| Assembly site | MTAI |
| BD Number | BD-001247 -01 |
| MP Code (MPC) | A7CJ1YP6XVA1 |
| Part Number (CPN) | MCP6031T-E/OTVAO |
| MSL information | MSL1 |
| Assembly Shipping Media (T/R, Tube/Tray) | T/R |
| Base Quantity Multiple (BQM) | 3000 |
| Reliability Site | MTAI |
| Paddle size | 60x46 |
| Material | CDA194 |
| DAP Surface Prep | Ag-Selective |
| Treatment | Roughening |
| Process | Etched |
| Lead-lock | No |
| Part Number | 10100504 |
| Lead Plating | Matte tin |
| Material | Au |
| Part Number | 8006NS |
| Conductive | Yes |
| Part Number | G600 |
| PKG Type | SOT-23 |
| Pin/Ball Count | 5 |

| 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 hours of steam aging for Matte tin finish and 1 hour steam aging for NiPdAu finish prior to testing. 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 | MTAI | MTAI | |
| Wire Bond Pull - WBP | Mil. Std. 883-2011 | 5 | 0 | 1 | 5 | - | 5 | MTAI | MTAI | 30 bonds from a min. 5 devices. |
| Wire Bond Shear - WBS | CDF-AEC-Q100-001 | 5 | 0 | 1 | 5 | - | 5 | MTAI | MTAI | 30 bonds from a min. 5 devices. |
| Physical Dimensions | Measure per JESD22 B100 and B108 | 10 | 0 | 3 | 30 | - | 5 | MTAI | MTAI | |
| External Visual | Mil. Std. 883-2009/2010 | All devices prior to submission for qualification testing | 0 | 3 | ALL | 0 | 5 | MTAI | MTAI | |
| HTSL (High Temp Storage Life) | JESD22-A103 +175°C | 45 | 5 | 1 | 50 | 0 | 21 - 83 | MTAI | MTAI | Spares should be properly identified. |
| Preconditioning - Required for surface mount devices | J-STD-020JESD22-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. MSL-1 @ 260°C | 231 | 15 | 3 | 738 | 0 | 15 | MTAI | MTAI | Spares should be properly identified. 77 parts from each lot to be used for HAST, uHAST, Temp Cycle test. |
| HAST | JESD22-A101 or A110 +130°C/85% RH for 96 hrs | 77 | 5 | 3 | 246 | 0 | 10 - 14 | MTAI | MTAI | Spares should be properly identified. Use the parts which have gone through Pre-conditioning. |
| UHAST | JESD22-A102, A118, or A101 +130°C/85% RH for 96 hrs | 77 | 5 | 3 | 246 | 0 | 10 | MTAI | MTAI | Spares should be properly identified. Use the parts which have gone through Pre-conditioning. |
| Temp Cycle | JESD22-A104 and Appendix 3 -65°C to +150°C | 77 | 5 | 3 | 246 | 0 | 15 - 60 | MTAI | MTAI | Spares should be properly identified. Use the parts which have gone through Pre-conditioning. |

CCB#: 6113
Pre and Post Change Summary
PCN #: NTDO-23HTHI228

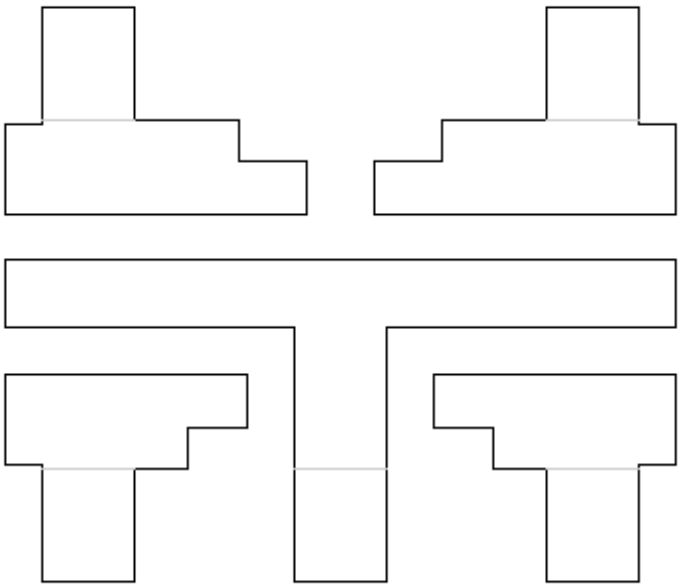
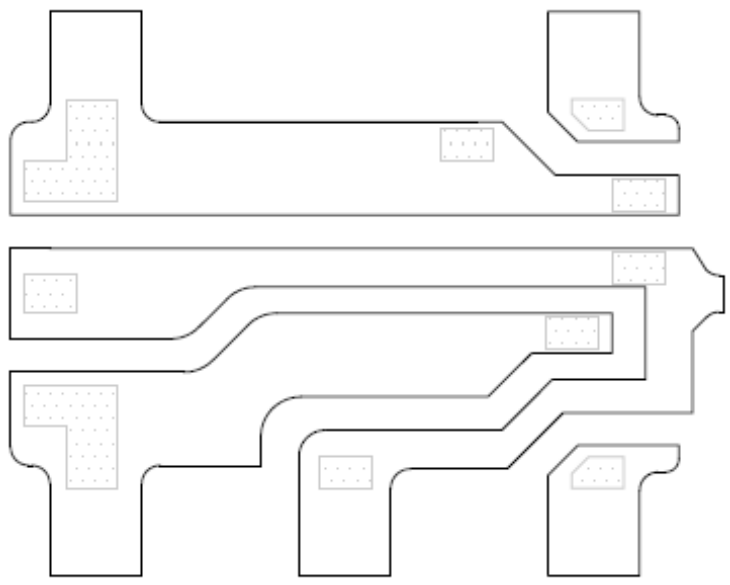


A Leading Provider of Smart, Connected and Secure Embedded Control Solutions



SMART | CONNECTED | SECURE

Lead Frame Comparison

| NSEB | | MTAI | |
|--|------|--|--------------|
|  <p>The NSEB diagrams show three lead frame configurations. The top two are simple leaded packages with four leads each. The bottom one is a more complex package with eight leads. All leads are rectangular and have a flat top surface.</p> | |  <p>The MTAI diagrams show three lead frame configurations. The top one is a simple leaded package with four leads. The middle one is a more complex package with eight leads. The bottom one is a complex package with eight leads, similar to the NSEB version but with a different lead profile. The leads have a textured, roughened top surface.</p> | |
| Material* | C194 | Material* | CDA194 |
| DAP Surface Prep | Ag | DAP Surface Prep | Ag-selective |
| Treatment | No | Treatment | Roughening |

Note: *C194, A194 or CDA194 Lead frame material are the same, it is just a MCHP internal labelling difference.