## Product Change Notification / BLAS-15MFGB667

### Date:

16-Aug-2023

### Product Category:

Simple and Complex Programmable Logic

### PCN Type:

Manufacturing Change

### Notification Subject:

CCB 6478 Initial Notice: Qualification of NSEB as an additional assembly site for selected ATF22LV10C, ATF22LV10CQZ, ATF22V10C, ATF22V10CQZ, ATF750CL and ATF750LVC device families available in 24L TSSOP (4.4mm) package.

### Affected CPNs:

BLAS-15MFGB667_Affected_CPN_08162023.pdf
BLAS-15MFGB667_Affected_CPN_08162023.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 NSEB as an additional assembly site for selected ATF22LV10C, ATF22LV10CQZ, ATF22V10C, ATF22V10CQZ, ATF750CL and ATF750LVC device families available in 24L TSSOP (4.4mm) package.

**Pre and Post Change Summary:**

| | Pre Change | Post Change | |
|---|---|---|---|
| Assembly Site | Lingsen Precision Industries, LTD.<br><br>(LPI) | Lingsen Precision Industries, LTD.<br><br>(LPI) | UTAC Thai Limited<br><br>(UTL-2)<br><br>(NSEB) |
| Wire Material | Au | Au | Au |
| Die Attach Material | CRM-1033BF | CRM-1033BF | 8200T |
| Molding Compound Material | G700 | G700 | G605L |
| Lead-Frame Material | C7025 | C7025 | C7025 |
| Lead-Frame Paddle Size | 118 x 217 mils | 118 x 217 mils | 118 x 217 mils |
| Lead-Frame Drawing | See attached Pre and Post Change Comparison. | | |

**Impacts to Data Sheet:**None

**Change Impact:**None

**Reason for Change:**To improve on-time delivery performance by qualifying NSEB as an additional assembly site.

**Change Implementation Status:**In Progress

**Estimated Qualification Completion Date:**December 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:**

| | August 2023 | | | | | > | December 2023 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Workweek | 31 | 32 | 33 | 34 | 35 | | 48 | 49 | 50 | 51 | 52 | 53 |
| Initial PCN Issue Date | | | x | | | | | | | | | |
| Qual Report Availability | | | | | | | | | | | x | |
| Final PCN Issue | | | | | | | | | | | x | |

| Date | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|

**Method to Identify Change:** Traceability code

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

**Revision History:**
August 16, 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_BLAS-15MFGB667 Qual_Plan.pdf
PCN_BLAS-15MFGB667 Pre and Post Change_Summary.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)

ATF22LV10C-10XU
ATF22LV10CQZ-30XU
ATF22LV10CQZ-30XU-T
ATF22V10C-10XU
ATF22V10CQZ-20XU
ATF22V10CQZ-20XU-044
ATF750CL-15XU
ATF750LVC-15XU

# QUALIFICATION PLAN SUMMARY

## PCN #: BLAS-15MFGB667

**Date:**
**August 3, 2023**

**Qualification of NSEB as an additional assembly site for selected ATF22LV10C, ATF22LV10CQZ, ATF22V10C, ATF22V10CQZ, ATF750CL and ATF750LVC device families available in 24L TSSOP (4.4mm) package.**

**Purpose:** **Qualification of NSEB as an additional assembly site for selected ATF22LV10C, ATF22LV10CQZ, ATF22V10C, ATF22V10CQZ, ATF750CL and ATF750LVC device families available in 24L TSSOP (4.4mm) package.**

**CCB #:** **6478**

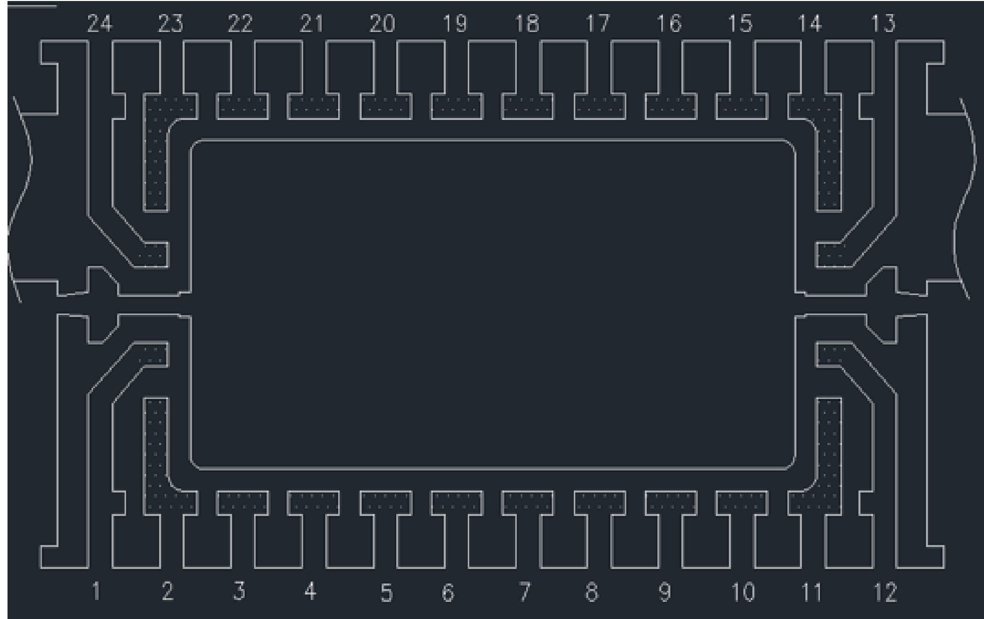
| Category | Item | Value |
|---|---|---|
| Misc. | Assembly site | NSEB |
| | BD Number | BD-001628-01 |
| | MP Code (MPC) | 197117NSBC02 |
| | Part Number (CPN) | ATF750CL-15XU |
| | MSL information | MSL 2 |
| | Assembly Shipping Media (T/R, Tube/Tray) | Tube |
| | Base Quantity Multiple (BQM) | 62 units/tube |
| | Reliability Site | MPHIL |
| Lead-Frame | Paddle size | 118x217 |
| | Material | C7025 |
| | DAP Surface Prep | Spot Plating |
| | Treatment | Non-Rough |
| | Process | Etched |
| | Lead-lock | No |
| | Part Number | FI0058 |
| | Lead Plating | Matte Tin |
| | Strip Size | 50.8x210 mm |
| | Strip Density | 70 |
| Bond Wire | Material | Au |
| Die Attach | Part Number | 8200T |
| | Conductive | Yes |
| MC | Part Number | G605L |
| PKG | Package Type | TSSOP |
| | Pin/Ball Count | 24 |
| | PKG width/size | 4.4mm |

| 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 | | MPHIL | 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 | | MPHIL | 30 bonds from a min. 5 devices. |
| Wire Bond Shear - WBS | CDF-AEC-Q100-001 | 5 | 0 | 1 | 5 | | 5 | | MPHIL | 30 bonds from a min. 5 devices. |
| Wire Sweep | | | | | | | | | MPHIL | Required for any reduction in wire bond thickness. |
| Physical Dimmensions | Measure per JESD22 B100 and B108 | 10 | 0 | 3 | 30 | | 5 | | MPHIL | |
| External Visual | Mil. Std. 883-2009/2010 | All devices prior to submission for qualification testing | 0 | 3 | ALL | 0 | 5 | | MPHIL | |
| 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>MSL2/260 | 231 | 15 | 3 | 738 | 0 | 15 | MPHIL | MPHIL | Spares should be properly identified.<br>77 parts from each lot to be used for HAST, uHAST, Temp Cycle test. |
| HAST | JESD22-A110. +130°C/85% RH for 96 hours or 110°C/85%RH for 264 hours.<br><br>Electrical test pre and post stress at +25°C and hot temp (85°C). | 77 | 5 | 3 | 246 | 0 | 10 | MPHIL | MPHIL | Spares should be properly identified.<br>Use the parts which have gone through Pre-conditioning. |
| 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 | MPHIL | MPHIL | 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 | MPHIL | MPHIL | Spares should be properly identified.<br>Use the parts which have gone through Pre-conditioning. |

# CCB 6478
# Pre and Post Change Summary
# PCN# BLAS-15MFGB667

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

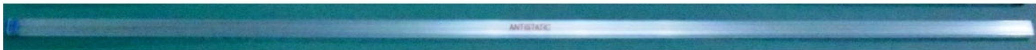
# LEAD FRAME COMPARISON

| LPI | NSEB |
|---|---|
|   | |
| *Note: Not to scale* | *Note: Not to scale* |



MICROCHIP

# TUBE COMPARISON

| LPI | NSEB |
|---|---|
|  | |
| *Note: Not to scale* | *Note: Not to scale* |

**LPI**

| | |
|---|---|
| **Tube Length (mm)** | 515+/-1.5 |
| **Tube Width (mm)** | 8.45+0.05/-0.07 |
| **Tube Opening (mm)** | 6.9+0.15 |
| **Tube Thickness (mm)** | 3.0+/-0.15 |

**NSEB**

| | |
|---|---|
| **Tube Length (mm)** | max: 509.27<br>min: 506.73 |
| **Tube Width (mm)** | 7.92 max |
| **Tube Opening (mm)** | 6.93+/-0.076 |
| **Tube Thickness (mm)** | 3.12 max |



MICROCHIP