

# **Product Change Notification - KSRA-24HJEE206**

Date:

30 Jun 2020

**Product Category:** 

Simple and Complex Programmable Logic

**Affected CPNs:** 



#### **Notification subject:**

CCB 4254 Initial Notice: Qualification of GTK as a new assembly site for selected Atmel products available in 24L SPDIP (.300in) package.

#### **Notification text:**

**PCN Status:** 

Initial notification

**PCN Type:** 

Manufacturing Change

#### **Microchip Parts Affected:**

Please open one of the icons found in the Affected CPNs section above.

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

### **Description of Change:**

Qualification of GTK as a new assembly site for selected Atmel products available in 24L SPDIP (.300in) package.

# **Pre Change:**

Assembled at LPI using CRM-1033BF die attach, and G600 molding compound material

#### **Post Change:**

Assembled at LPI using EN-4900GC die attach, and G631M molding compound material

**Pre and Post Change Summary:** 

|                           |                    | Pre Change  | Post Change                      |  |  |  |  |
|---------------------------|--------------------|---|----------------------------------|--|--|--|--|
| Asseml                    | oly Site           | Lingsen Precision Industries,<br>LTD. (LPI)                   | Greatek Electronic Inc.<br>(GTK) |  |  |  |  |
| Wire m                    |                    | Au  | Au                               |  |  |  |  |
| Die attach                |                    | CRM-1033BF  | EN-4900GC                        |  |  |  |  |
| Molding compound material |                    | G600  | G631M                            |  |  |  |  |
| Lead frame material       |                    | A194  | A194                             |  |  |  |  |
|                           | Tube Color         | Clear   | Clear                            |  |  |  |  |
| Doolsing Modice           | Plug Color         | Green/White   | Blue/White                       |  |  |  |  |
| Packing Media:<br>Tube    | Tube<br>Dimensions | Minor dimensional changes. See pre and post change comparison |                                  |  |  |  |  |

#### Impacts to Data Sheet:

None

**Change Impact:** 

None

# **Reason for Change:**

To improve on-time delivery performance by qualifying GTK as a new assembly site

#### **Change Implementation Status:**

In Progress

#### **Estimated Qualification Completion Date:**

November 2020



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:**

|                          |    | Ju | ne 20 | 20 |    |   | November 2020 |    |    |    |    |  |
|--------------------------|----|----|-------|----|----|---|---------------|----|----|----|----|--|
| Workweek                 | 23 | 24 | 25    | 26 | 27 | > | 45            | 46 | 47 | 48 | 49 |  |
| Initial PCN Issue Date   |    |    |       | Х  |    |   |               |    |    |    |    |  |
| Qual Report Availability |    |    |       |    |    |   |               |    |    |    | Χ  |  |
| Final PCN Issue Date     |    |    |       |    |    |   |               |    |    |    | Х  |  |

#### Method to Identify Change:

Traceability code

**Qualification Plan:** 

Please open the attachments included with this PCN labeled as PCN # Qual Plan.

**Revision History:** 

June 30, 2020: 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.

#### Attachment(s):

PCN KSRA-24HJEE206 Packing Pre and Post Change.pdf PCN KSRA-24HJEE206 Qual Plan.pdf

Please contact your local <u>Microchip sales office</u> with questions or concerns regarding this notification.

#### **Terms and Conditions:**

If you wish to <u>receive Microchip PCNs via email</u> please register for our PCN email service at our <u>PCN home page</u> select register then fill in the required fields. You will find instructions about registering for Microchips PCN email service in the <u>PCN FAQ</u> section.

If you wish to <u>change your PCN profile</u>, <u>including opt out</u>, please go to the <u>PCN home page</u> select login and sign into your myMicrochip account. Select a profile option from the left navigation bar and make the applicable selections.

KSRA-24HJEE206 - CCB 4254 Initial Notice: Qualification of GTK as a new assembly site for selected Atmel products available in 24L SPDIP (.300in) package.

Affected Catalog Part Numbers (CPN)

ATF750C-7PX

ATF750LVC-15PU

ATF750CL-15PU

ATF750C-10PU

ATF22V10C-7PX

ATF22V10C-10PU

ATF22LV10C-10PU

ATF22V10C-15PU

ATF22V10CQZ-20PU

ATF22LV10CQZ-30PU

Date: Monday, June 29, 2020

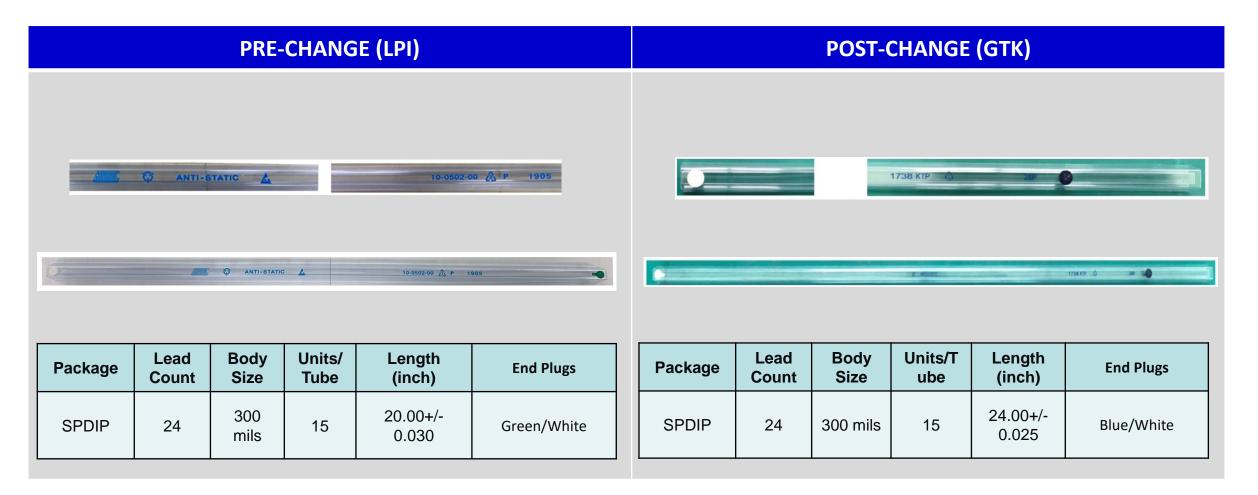
# CCB 4254 Pre and Post Change Summary PCN#: KSRA-24HJEE206



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# **Packing Information (Tube Comparison)**







# **QUALIFICATION PLAN SUMMARY**

PCN# KSRA-24HJEE206

Date: May 28, 2020

Qualification of GTK as a new assembly site for selected Atmel products available in 24L SPDIP (.300in) package.

Purpose: Qualification of GTK as a new assembly site for selected Atmel products available in 24L SPDIP (.300in) package.

| in 24L      | SPDIP (.300in) package.                  |                            |  |  |  |  |  |
|-------------|--|----------------------------|--|--|--|--|--|
|             | Assembly site                            | GTK                        |  |  |  |  |  |
|             | MP Code (MPC)                            | 197117JDBC02               |  |  |  |  |  |
|             | Part Number (CPN)                        | ATF750CL-15PU              |  |  |  |  |  |
|             | MSL information                          | NA                         |  |  |  |  |  |
| Misc.       | Assembly Shipping Media (T/R, Tube/Tray) | Tube<br>(GTK 41-01002-001) |  |  |  |  |  |
|             | Base Quantity Multiple (BQM)             | 15                         |  |  |  |  |  |
|             | Reliability Site                         | MPHIL                      |  |  |  |  |  |
|             | CCB No                                   | 4254                       |  |  |  |  |  |
|             | Paddle size                              | 160 x160                   |  |  |  |  |  |
|             | Material                                 | A194                       |  |  |  |  |  |
|             | DAP Surface Prep                         | Spot Plating               |  |  |  |  |  |
|             | Treatment                                | None                       |  |  |  |  |  |
| Lead-Frame  | Process                                  | Stamped                    |  |  |  |  |  |
| Leau-Frame  | Lead-lock                                | Yes                        |  |  |  |  |  |
|             | Part Number                              | 11-0124K-002               |  |  |  |  |  |
|             | Lead Plating                             | Matte Sn                   |  |  |  |  |  |
|             | Strip Size (mm)                          | 10X1                       |  |  |  |  |  |
|             | Strip Density                            | 10 ea/strip                |  |  |  |  |  |
| Bond Wire   | Material                                 | Au                         |  |  |  |  |  |
| Die Attach  | Part Number                              | EN-4900GC                  |  |  |  |  |  |
| Die Attacii | Conductive                               | Yes                        |  |  |  |  |  |
| MC          | Part Number                              | G631M                      |  |  |  |  |  |
|             | PKG Type                                 | SPDIP                      |  |  |  |  |  |
| PKG         | Pin/Ball Count                           | 24                         |  |  |  |  |  |
|             | PKG width/size                           | 300 mils                   |  |  |  |  |  |

| Test Name  | Conditions   | Sample Size   | Min. Qty of<br>Spares<br>per Lot<br>(should be<br>properly<br>marked) | Qty<br>of<br>Lots | Total<br>Units | Fail Accept<br>Qty                   | Est.<br>Dur.<br>Days | ATE<br>Test<br>Site | REL<br>Test<br>Site | Special Instructions   |
|--|--|---|---|-------------------|----------------|--------------------------------------|----------------------|---------------------|---------------------|--|
| Standard Pb-free<br>Solderability                          | J-STD-002D; Perform 8 hour 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<br>coverage               | 5                    | MPHIL               | MPHIL               | Standard Pb-free solderability is the requirement. 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<br>TC                  | 5                    | MPHIL               | MPHIL               | 30 bonds from a min. 5 devices.  |
| Wire Bond Shear - WBS                                      | CDF-AEC-Q100-001   | 5   | 0   | 1                 | 5              |                                      | 5                    | MPHIL               | MPHIL               | 30 bonds from a min. 5 devices.  |
| Physical Dimensions  | Measure per JESD22 B100 and B108   | 10  | 0   | 3                 | 30             |                                      | 5                    | MPHIL               | MPHIL               |  |
| Lead Integrity   | JESD22 B105  | 5   | 0   | 1                 | 5              | 0 (No lead<br>breakage or<br>cracks) | 5                    | MPHIL               | MPHIL               | 10 leads from each of 5 parts.  Not required for SMD, only required for through-hole.  |
| External Visual  | Mil. Std. 883-2009/2010  | All devices prior to submission for qualification testing | 0   | 3                 | ALL            | 0                                    | 5                    | MPHIL               | MPHIL               |  |
| Preconditioning -<br>Required for surface<br>mount devices | +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.  | 231   | 15  | 3                 | 738            | 0                                    | 15                   | MPHIL               | MPHIL               | Spares should be properly identified.<br>77 parts from each lot to be used for<br>HAST, uHAST, Temp Cycle test.  |
| HAST   | +130°C/85% RH for 96 hours<br>Electrical test pre and post stress at<br>+25°C  | 77  | 5   | 3                 | 246            | 0                                    | 10                   | MPHIL               | MPHIL               | Spares should be properly identified. Use the parts which have gone through Pre-conditioning.  |
| UHAST  | +130°C/85% RH for 96 hrs<br>Electrical test pre and post stress at<br>+25°C  | 77  | 5   | 3                 | 246            | 0                                    | 10                   | MPHIL               | MPHIL               | Spares should be properly identified. Use the parts which have gone through Pre-conditioning.  |
| Temp Cycle   | -65°C to +150°C for 500 cycles. Electrical test pre and post stress at room temp; 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. Use the parts which have gone through Pre-conditioning.  |