

Product Change Notification - KSRA-24QPZA419

Date:

27 Mar 2020

Product Category:

8-bit Microcontrollers; Capacitive Touch Sensors

Affected CPNs:



Notification subject:

CCB 3976 Final Notice: Qualification of Global Foundries Fab 3/5 (GF35) fabrication site for the selected products of CAP12XX device families

Notification text:

PCN Status:

Final 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 Global Foundries Fab 3/5 (GF35) fabrication site for the selected products of CAP12XX device families

Pre Change:

Fabricated at Global Foundries, Singapore (Fab 3E) / GF3E using 8 inch wafers.

Post Change:

Fabricated at Global Foundries, Singapore (Fab 3/5) / GF35 using 8 inch wafers.

Pre and Post Change Summary:

| | Pre Change | Post Change |
|-----------------------|---------------------------|----------------------------|
| | Global Foundries, | Global Foundries, |
| Fab Site | | |
| | Singapore (Fab 3E) / GF3E | Singapore (Fab 3/5) / GF35 |
| Wafer Size | 8 inch | 8 inch |
| Quality Certification | ISO/TS16949 | ISO/TS16949 |
| Design / Lay-Out | No Change | No Change |
| Die Size | No Change | No Change |

Impacts to Data Sheet:

None

Change Impact:

None

Reason for Change:

To improve on time delivery performance by qualifying Global Foundries Fab 3/5 (GF35) Fabrication site

Change Implementation Status:

In Progress

Estimated First Ship Date:

January 30, 2020 (date code: 2005)

NOTE: Please be advised that after the estimated first ship date customers may receive pre and post change parts.

Time Table Summary:



| | | Octo | ber | 2019 | | | Dec | emk | er 2 | 019 | | Janı | uary 2 | 2020 | |
|------------------------|----|------|-----|------|----|---|-----|-----|------|-----|----|------|--------|------|----------|
| Workweek | 40 | 41 | 42 | 43 | 44 | > | 49 | 50 | 51 | 52 | 01 | 02 | 03 | 04 | 05 |
| Initial PCN Issue Date | | | | X | | | | | | | | | | | |
| Qual Report | | | | | | | Χ | | | | | | | | |
| Availability | | | | | | | ^ | | | | | | | | |
| Final PCN Issue Date | | | | | | | X | | | | | | | | |
| Estimated | | | | | | | | | | | | | | | V |
| Implementation Date | | | | | | | | | | | | | | | ^ |

Method to Identify Change:

Traceability code

Qualification Report:

Please open the attachments included with this PCN labeled as PCN_#_Qual_Report.

Revision History:

October 25, 2019: Issued initial notification.

December 05, 2019: Issued final notification. Attached the Qualification Report. Provided estimated first ship date to be on January 30, 2020

March 27, 2020: Re-issued final notification to update the qualification report to include reference qualification report from CCB 3834. Updated the Affected CPN list to remove CPN CAP1298-2-A4-TR. This CPN was EOL due to no activity in more than 3 years.

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-24QPZA419_Qual__Report.pdf

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

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If you wish to <u>change your PCN profile, 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-24QPZA419 - CCB 3976 Final Notice: Qualification of Global Foundries Fab 3/5 (GF35) fabrication site for the selected products of CAP12XX device families

Affected Catalog Part Numbers (CPN)

CAP1293-1-SN

CAP1203-1-SN

CAP1206-1-SL

CAP1208-1-SL

CAP1296-1-SL

CAP1298-1-SL

CAP1293-1-AC3-TR

CAP1203-1-AC3-TR

CAP1206-1-AIA-TR

CAP1296-1-AIA-TR

CAP1293-1-SN-TR

CAP1293-2-SN-TR

CAP1203-1-SN-TR

CAP1203-2-SN-TR

CAP1206-1-SL-TR

CAP1206-2-SL-TR

CAP1208-1-SL-TR

CAP1208-2-SL-TR

CAP1296-1-SL-TR

CAP1298-1-SL-TR

CAP1298-2-SL-TR

CAP1208-1-A4-TR

CAP1298-1-A4-TR

CAP1208-2-A4-TR



QUALIFICATION REPORT SUMMARY

PCN#: KSRA-24QPZA419

Date: November 22, 2019

Qualification of Global Foundries Fab 3/5 (GF35) fabrication site for the selected products of CAP12XX device families

Purpose: Qualification of Global Foundries Fab 3/5 (GF35) fabrication site for the selected products of CAP12XX device families

CCB No.: 3976

| Test / Evaluation | Test Conditions / Parameters | Result |
|---|--|--------|
| WAT (Wafer Acceptance Test) | Compare WAT distribution of 5 wafers/mask 3 lots - one from each mask. (15 wafers in total) | PASSED |
| Test Yield and Electrical Distribution | Compare Final Test Yield and Electrical Distribution of 5 wafers/mask 3 lots – one from each mask. (15 wafers in total) | PASSED |

Note: This Qualification will be QBS to products that were qualified and have been running at FAB 35

Reference qual data from CCB 3834:

| Test Description | Test Method and Conditions | Pass Criteria | Results |
|---|--|-----------------------------|---------|
| HTOL High Temperature Operating Life Test | JESD22- A108, 1 lot 77pcs HTOL 1008hrs 125C | 77 units 1008 Hrs @ 125C | Pass |
| ELFR Early Life Failure Rate | JESD74 1 lot 800pcs ELFR 48hrs 125C | 800 units 48 HRS @ 125C | Pass |
| ESD-HBM Human-Body Model | JESD22-A114 R= 1500 Ohms C= 100 pF 1X +/- Voltage | 2KV | Pass |
| ESD-MM Machine model | JESD22A115 R=0 Ohm, C=200 pF +/- Voltage | 200V | Pass |

| Test Description | Test Method and Conditions | Pass Criteria | Results |
|-----------------------------|-------------------------------|---------------------------------------|---------|
| ESD-CDM Charge device model | JESD22-C101 1X +/- Voltage | 500V all Pins and 750V corner pins | Pass |
| Latch up | JESD78 TA = +25°C | +/-100ma | Pass |