12500 TI Boulevard, MS 8640, Dallas, Texas 75243

**PCN# 20240905000.1**
**Qualification of UMC-F12 as additional Fab site for select LBC9 devices**
**Change Notification / Sample Request**

**Date:** September 05, 2024
**To:** MOUSER PCN

Dear Customer:

This is an announcement of a change to a device that is currently offered by Texas Instruments. The details of this change are on the following pages.

Texas Instruments requires acknowledgement of receipt of this notification within **30** days of the date of this notice. Lack of acknowledgement of this notice within 30 days constitutes acceptance and approval of this change. If samples or additional data are required, requests must be received within **30 days** of this notification.

The changes discussed within this PCN will not take effect any earlier than the proposed first ship date on Page 3 of this notification, unless customer agreement has been reached on an earlier implementation of the change.

This notice does not change the end-of-life status of any product. Should product affected be on a previously issued product withdrawal/discontinuance notice, this notification does not extend the life of that product or change the life time buy offering/discontinuance plan.

For questions regarding this notice or to provide acknowledgement of this PCN, you may contact your local Field Sales Representative or the change management team.

For sample requests or sample related questions, contact your local Field Sales Representative.

Sincerely,

Change Management Team
SC Business Services

**20240905000.1**
**Attachment: 1**

## Products Affected:

The devices listed on this page are a subset of the complete list of affected devices. According to our records, you have recently purchased these devices. The corresponding customer part number is also listed, if available.

| DEVICE | CUSTOMER PART NUMBER |
|---|---|
| BQ25672RQMR | NULL |
| BQ25792RQMR | NULL |
| BQ25798RQMR | NULL |
| TPS25751DREFR | NULL |
| TPS25751SRSMR | NULL |

Technical details of this Product Change follow on the next page(s).

| | | | |
|---|---|---|---|
| **PCN Number:** | 20240905000.1 | **PCN Date:** | September 05, 2024 |
| **Title:** | Qualification of UMC-F12 as additional Fab site for select LBC9 devices | | |
| **Customer Contact:** | Change Management Team | **Dept:** | Quality Services |
| **Proposed 1st Ship Date:** | December 04, 2024 | **Sample requests accepted until:** | October 05, 2024* |

***Sample requests received after October 05, 2024 will not be supported.**

**Change Type:**

| | | | | | |
|---|---|---|---|---|---|
| ☐ | Assembly Site | ☐ | Design | ☐ | Wafer Bump Material |
| ☐ | Assembly Process | ☐ | Data Sheet | ☐ | Wafer Bump Process |
| ☐ | Assembly Materials | ☐ | Part number change | ☒ | Wafer Fab Site |
| ☐ | Mechanical Specification | ☐ | Test Site | ☐ | Wafer Fab Material |
| ☒ | Packing/Shipping/Labeling | ☐ | Test Process | ☐ | Wafer Fab Process |

## PCN Details

**Description of Change:**

Texas Instruments is pleased to announce the addition of UMC-F12 as an additional Wafer Fab site option for the products listed in the "Product Affected" section of this document.

| Current Fab Site | | | Additional Fab Site | | |
|---|---|---|---|---|---|
| **Current Fab Site** | **Process** | **Wafer Diameter** | **Additional Fab Site** | **Process** | **Wafer Diameter** |
| RFAB | LBC9 | 300 mm | UMC-F12 | LBC9 | 300 mm |

Qual details are provided in the Qual Data Section.

**Reason for Change:**

Continuity of Supply

**Anticipated impact on Form, Fit, Function, Quality or Reliability (positive / negative):**

None

**Changes to product identification resulting from this PCN:**

**Fab Site Information:**

| Chip Site | Chip Site Origin Code (20L) | Chip Site Country Code (21L) | Chip Site City |
|---|---|---|---|
| RFAB | RFB | USA | Richardson |
| **UMC-F12** | **F12** | **TWN** | **Tainan** |

Sample product shipping label (not actual product label):


**Product Affected:**

| | | |
|---|---|---|
| BQ25672RQMR | BQ25792RQMR | BQ25798RQMR |
| TPS25751DREFR | TPS25751SRSMR | |

**Qualification Results**

**Data Displayed as: Number of lots / Total sample size / Total failed**

| Type | # | Test Name | Condition | Duration | Qual Device: BQ25792RQMR | QBS Reference: BQ25792RQMR |
|---|---|---|---|---|---|---|
| HAST | A2 | Biased HAST | 130C/85%RH | 96 Hours | - | 3/231/0 |
| UHAST | A3 | Unbiased HAST | 130C/85%RH | 96 Hours | - | 3/231/0 |
| TC | A4 | Temperature Cycle | -55C/125C | 700 Cycles | 1/77/0 | 3/231/0 |
| HTSL | A6 | High Temperature Storage Life | 170C | 420 Hours | - | 3/231/0 |
| HTOL | B1 | Life Test | 125C | 1000 Hours | 1/77/0 | 3/231/0 |
| PD | C4 | Physical Dimensions | (per mechanical drawing) | - | - | 3/15/0 |
| ESD | E2 | ESD CDM | - | 1500 Volts | 1/3/0 | 1/3/0 |
| ESD | E2 | ESD HBM | - | 4000 Volts | 1/3/0 | 1/3/0 |
| LU | E4 | Latch-Up | Per JESD78 | - | 1/6/0 | 1/3/0 |
| CHAR | E5 | Electrical Characterization | Min, Typ, Max Temp | - | - | 1/30/0 |
| FTY | E6 | Final Test Yield | - | - | 1/1/0 | - |

- QBS: Qual By Similarity
- Qual Device BQ25792RQMR is qualified at MSL2 260C

- Preconditioning was performed for Autoclave, Unbiased HAST, THB/Biased HAST, Temperature Cycle, Thermal Shock, and HTSL, as applicable
- The following are equivalent HTOL options based on an activation energy of 0.7eV : 125C/1k Hours, 140C/480 Hours, 150C/300 Hours, and 155C/240 Hours
- The following are equivalent HTSL options based on an activation energy of 0.7eV : 150C/1k Hours, and 170C/420 Hours
- The following are equivalent Temp Cycle options per JESD47 : -55C/125C/700 Cycles and -65C/150C/500 Cycles

Quality and Environmental data is available at TI's external Web site: http://www.ti.com/

**Green/Pb-free Status:**

Qualified Pb-Free(SMT) and Green

TI Qualification ID: R-CHG-2108-035

**Qualification Results**

**Data Displayed as: Number of lots / Total sample size / Total failed**

| Type | # | Test Name | Condition | Duration | Qual Device: BQ25798RQMR | QBS Package/Process/Product Reference: BQ25792RQMR | QBS Package/Process/Product Reference: BQ25792RQMR | QBS Process Reference: CD3253DB0YCHR |
|---|---|---|---|---|---|---|---|---|
| HAST | A2 | Biased HAST | 130C/85%RH | 96 Hours | - | - | 3/231/0 | - |
| UHAST | A3 | Unbiased HAST | 130C/85%RH | 96 Hours | - | - | 3/231/0 | - |
| TC | A4 | Temperature Cycle | -55C/125C | 700 Cycles | - | 1/77/0 | 3/231/0 | - |
| HTSL | A6 | High Temperature Storage Life | 170C | 420 Hours | - | - | 3/231/0 | - |
| HTOL | B1 | Life Test | 125C | 1000 Hours | - | 1/77/0 | 3/231/0 | 3/231/0 |
| ELFR | B2 | ELFR | 125C | 48 Hours | | | | 3/3000/0 |
| SD | C3 | PB Solderability | Precondition w.155C Dry Bake (4 hrs +/- 15 minutes); PB Solder; | - | - | - | 1/22/0 | - |

| Type | # | Test Name | Condition | Duration | Qual Device: BQ25798RQMR | QBS Package/Process/Product Reference: BQ25792RQMR | QBS Package/Process/Product Reference: BQ25792RQMR | QBS Process Reference: CD3253DB0YCHR |
|---|---|---|---|---|---|---|---|---|
| SD | C3 | PB-Free Solderability | Precondition w.155C Dry Bake (4 hrs +/- 15 minutes); PB-Free Solder; | - | - | - | 3/66/0 | - |
| PD | C4 | Physical Dimensions | (per mechanical drawing) | - | - | - | 3/15/0 | - |
| ESD | E2 | ESD CDM | - | 250 Volts | 1/3/0 | - | - | - |
| ESD | E2 | ESD HBM | - | 1000 Volts | 1/3/0 | - | - | - |
| LU | E4 | Latch-Up | Per JESD78 | - | 1/6/0 | - | - | - |
| CHAR | E5 | Electrical Characterization | Per Datasheet Parameters | - | 1/30/0 | - | - | - |
| FTY | E6 | Final Test Yield | - | - | 1/PASS | - | - | - |

- QBS: Qual By Similarity
- Qual Device BQ25798RQMR is qualified at MSL2 260C

- Preconditioning was performed for Autoclave, Unbiased HAST, THB/Biased HAST, Temperature Cycle, Thermal Shock, and HTSL, as applicable
- The following are equivalent HTOL options based on an activation energy of 0.7eV : 125C/1k Hours, 140C/480 Hours, 150C/300 Hours, and 155C/240 Hours
- The following are equivalent HTSL options based on an activation energy of 0.7eV : 150C/1k Hours, and 170C/420 Hours
- The following are equivalent Temp Cycle options per JESD47 : -55C/125C/700 Cycles and -65C/150C/500 Cycles

Quality and Environmental data is available at TI's external Web site: http://www.ti.com/

TI Qualification ID: R-CHG-2108-003

**Qualification Results**

**Data Displayed as: Number of lots / Total sample size / Total failed**

| Type | # | Test Name | Condition | Duration | Qual Device: TPS65992SBGRSMR | Qual Device: TPS65992SBGRSMR | Qual Device: TPS65992EBGRSMR | Qual Device: TPS65992EBGRSMR | Qual Device: TPS65992DBGREFR | Qual Device: TPS65992DBGREFR | QBS Reference: PTPS65992SA0CRSMR | QBS Reference: PTPS65992SADRSMR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HAST | A2 | Biased HAST | 110C/85%RH | 264 Hours | - | - | - | - | - | - | 1/77/0 | - |
| HAST | A2 | Biased HAST | 130C/85%RH | 96 Hours | - | - | - | - | - | - | - | - |
| UHAST | A3 | Autoclave | 121C/15psig | 96 Hours | - | - | - | - | - | - | 1/77/0 | - |
| UHAST | A3 | Unbiased HAST | 130C/85%RH | 96 Hours | - | - | - | - | - | - | - | - |
| TC | A4 | Temperature Cycle | -55C/125C | 700 Cycles | - | - | - | - | - | - | - | - |
| TC | A4 | Temperature Cycle | -65C/150C | 500 Cycles | - | - | - | - | - | - | 1/77/0 | - |
| HTSL | A6 | High Temperature Storage Life | 170C | 420 Hours | - | - | - | - | - | - | 1/77/0 | - |
| HTSL | A6 | High Temperature Storage Life | 175C | 420 Hours | - | - | - | - | - | - | - | - |
| HTOL | B1 | Life Test | 125C | 1000 Hours | - | - | - | - | - | - | 2/154/0 | 1/77/0 |
| ELFR | B2 | Early Life Failure Rate | 125C | 48 Hours | - | - | - | - | - | - | 2/1600/0 | 1/800/0 |
| SD | C3 | PB Solderability | Precondition w.155C Dry Bake (4 hrs +/- 15 minutes); PB Solder; | - | - | - | - | - | - | - | - | - |
| SD | C3 | PB-Free Solderability | Precondition w.155C Dry Bake (4 hrs +/- 15 minutes); PB-Free Solder; | - | - | - | - | - | - | - | - | - |
| PD | C4 | Physical Dimensions | (per mechanical drawing) | - | - | - | - | - | - | - | - | - |

| Type | # | Test Name | Condition | Duration | Qual Device: TPS65992SBGRSMR | Qual Device: TPS65992SBGRSMR | Qual Device: TPS65992EBGRSMR | Qual Device: TPS65992EBGRSMR | Qual Device: TPS65992DBGREFR | Qual Device: TPS65992DBGREFR | QBS Reference: PTPS65992SA0CRSMR | QBS Reference: PTPS65992SADRSMR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ESD | E2 | ESD CDM | - | 1000 Volts | - | - | - | - | - | - | - | - |
| ESD | E2 | ESD CDM | - | 1500 Volts | - | - | - | - | - | - | - | 1/3/0 |
| ESD | E2 | ESD HBM | - | 1500 Volts | - | - | - | - | - | - | - | 1/3/0 |
| ESD | E2 | ESD HBM | - | 2500 Volts | - | - | - | - | - | - | - | - |
| ESD | E2 | ESD HBM | - | 4000 Volts | - | - | - | - | - | - | - | - |
| LU | E4 | Latch-Up | Per JESD78 | - | - | - | - | - | - | - | - | 1/3/0 |
| CHAR | E5 | Electrical Characterization | Per Datasheet Parameters | - | 1/30/0 | - | - | - | - | - | - | - |
| FTY | E6 | Final Test Yield | - | - | 1/1/0 | 1/1/0 | 1/1/0 | 1/1/0 | 1/1/0 | 1/1/0 | - | - |

- QBS: Qual By Similarity
- Qual Device TPS65992SBGRSMR is qualified at MSL2 260C
- Qual Device TPS65992SBGRSMR is qualified at MSL2 260C
- Qual Device TPS65992EBGRSMR is qualified at MSL2 260C
- Qual Device TPS65992EBGRSMR is qualified at MSL2 260C
- Qual Device TPS65992DBGREFR is qualified at MSL2 260C
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- The following are equivalent HTSL options based on an activation energy of 0.7eV : 150C/1k Hours, and 170C/420 Hours
- The following are equivalent Temp Cycle options per JESD47 : -55C/125C/700 Cycles and -65C/150C/500 Cycles

Quality and Environmental data is available at TI's external Web site: http://www.ti.com/

TI Qualification ID: R-CHG-2301-010

For questions regarding this notice, e-mails can be sent to the Change Management team or your local Field Sales Representative.