# 2609161851 Alternate Substrate Supplier Qualification For BGM121/3 and WFM200S

**PCN Issue Date:** Sep 16, 2026 **Effective Date:** Dec 22, 2026

**PCN Type:** Assembly

## Description of Change

Silicon Labs is pleased to announce the successful qualification of additional substrate supplier Korea Chemical Corporation (KCC) for 56-SiP_LGA-6.5X6.5 (BGM121/3) & 58-SiP_LGA-6.5X6.5 (WFM200S) package devices. This change applies to SIP module package assembled at ASEKR (Advanced Semiconductor Engineering Inc., Korea).

There is no change in dimensions as same substrate design is being used.

As of the effective date of the PCN, Silicon Labs will continue to fulfil orders with the parts built with either one of the qualified substrates (DDE or KCC).

## Software Impact Description

None.

## Reason for Change

Supply continuity and manufacturing optimization.

## Impact on Form, Fit, Function, Quality, Reliability

No impact on Form, Fit, Function, Quality, Reliability.

## Product Identification

```
Existing Part #
BGM121A256V2
BGM121A256V2R
BGM121N256V2
BGM121N256V2R
BGM123A256V2
BGM123A256V2R
BGM123N256V2
BGM123N256V2R
WFM200S022XNA3
WFM200S022XNA3R
WFM200S022XNN3
WFM200S022XNN3R
WFM200SS22XNA3
WFM200SS22XNA3R
WFM200SS22XNN3
WFM200SS22XNN3R
```

**Last Date of Unchanged Product:** Dec 22, 2026

## Qualification Samples

Available upon request

## Customer Response

Lack of acknowledgment of the PCN within 30 days constitutes acceptance of the change,Ref. JEDEC-J-STD-046.

To request further data or inquire about this notification, please contact your Silicon Labs sales representative. A list of Silicon Labs sales representatives is available at https://www.silabs.com.

Customers may approve early PCN acceptance by emailing approval, along with PCN # to PCN@silabs.com

## User Registration

Register today to create your account on Silabs.com. Your personalized profile allows you to receive technical document updates, new product announcements, “how-to” and design documents, product change notices (PCN) and other valuable content available only to registered users.

## Qualification Data

See Appendix

## BGM121_123 Qualification report

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| Part Rev A, TSMC Fabrication, ASEKr Assembly except as noted | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Test Name** | **Test Condition** | **Qualification** | **Lot ID or Start** | **Fail/Pass or End** | **Notes** | **Summary** | **Status** |
| **Test Group A – Accelerated Environment Stress Tests** | | | | | | | |
| THB | JA101<br>85°C, 85%RH<br>Vcc=3.8V, 1000 hours | 3 lots, N=>25 | Q044388<br>Q044229<br>Q044230 | 0/26<br>0/26<br>0/26 | 1, 4<br>1, 4<br>1, 4 | 3 lots<br>0/78 | Pass |
| Temp Cycle | JA104<br>Cond B: -55°C to 125°C<br>700 cycles | 3 lots, N=>25 | Q044381<br>Q044382<br>Q044225<br>Q053415<br>Q053416<br>Q053417 | 0/25<br>0/25<br>0/25<br>0/25<br>0/25<br>0/25 | 1, 4<br>1, 4<br>1, 4<br>1, 5<br>1, 5<br>1, 5 | 6 lots<br>0/150 | Pass |
| HTSL | JA103<br>150°C, 1000hr | 3 lots, N=>25 | Q044399<br>Q044400<br>Q044227 | 0/25<br>0/25<br>0/25 | 1<br>1<br>1, 4 | 3 lots<br>0/75 | Pass |
| **Test Group B – Accelerated Lifetime Simulation Tests** | | | | | | | |
| HTOL | JA108<br>$T_J \geq 125°C$, Dynamic<br>Vcc=3.8V, 1000 hours | 3 lots, N=>77 | Q038136<br>Q038102<br>Q037998<br>Q037622 | 0/80<br>0/53<br>0/78<br>0/79 | 2<br>2<br>2<br>2 | 4 lots<br>0/290 | Pass |
| LTOL | JA108<br>$T_A$ = -10°C, Dynamic<br>Vcc=3.8V, 1000 hours | 1 lot, N=>32 | Q037624 | 0/40 | 2 | 1 lot<br>0/40 | Pass |
| ELFR | JA108<br>$T_J \geq 125°C$, Dynamic<br>Vcc=3.8V, 48 hours | 3 lots, N=>500 | Q038755<br>Q037570<br>Q037999<br>Q038137 | 0/501<br>0/508<br>0/507<br>0/505 | 2<br>2<br>2<br>2 | 4 lots<br>0/2021 | Pass |
| NVM Endurance, Retention and Operating Life | JA117<br>25°C<br>500 hours | 3 lots, N=>39 | Q038147 | 0/40 | 2 | 3 lots<br>0/120 | Pass |
| NVM Endurance, Retention and Operating Life | JA117<br>125°C<br>1000 hours | 3 lots, N=>39 | Q038066<br>Q038028<br>Q038024<br>Q037652 | 0/40<br>0/40<br>1/39<br>0/40 | 2<br>2<br>2, 3<br>2 | 4 lots<br>1/159 | Pass |
| Test Group E – Electrical Verification | | | | | | | |
| ESD-HBM | JS-001 | 1 lot, N=>3 | Q040933 | | 2 | 2 kV | Class 2 |
| ESD-CDM | JESD22-C101 | 1 lot, N=>3 | Q040932<br>Q053311 | | 2<br>5 | 500 V<br>500 V | Class II |

Approved by: Kelvin Lee

Prepared on : 2-Sep-26

**BGM121_Product_Qualification_Report_1.png**

## BGM121_123 Qualification report

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| Part Rev A, TSMC Fabrication, ASEKr Assembly except as noted | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Test Name** | **Test Condition** | **Qualification** | **Lot ID or Start** | **Fail/Pass or End** | **Notes** | **Summary** | **Status** |
| Latch Up | JESD78<br>±200mA<br>Overvoltage = 2.85V | 1 lot, N=>3 | Q040936 | 125 °C | 2 | | Pass |

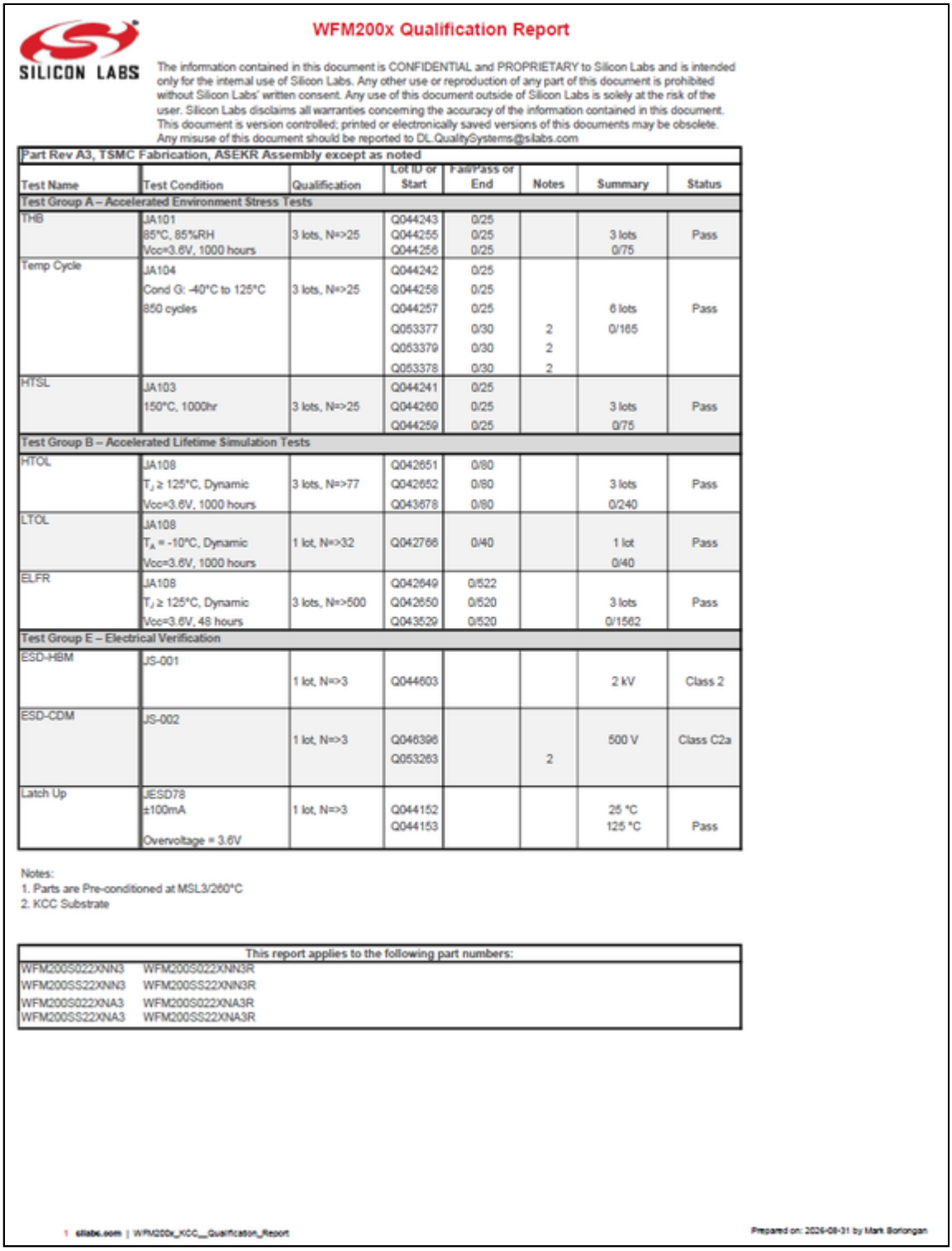
Notes:
1. Parts are Pre-conditioned at MSL3/260°C
2. Leveraged die family qualification data
3. Failure analysis on the failure was inconclusive. An additional 40 units were stressed from the same wafer lot (Q038028) to reduce the LTPD% below the requirment. LTPD% = 5.76 at 90% confidence with 0 fails and a sample size =40.
4. Leveraged package family qualification data
5. KCC Substrate

| This report applies to the following part numbers: | | | | |
|---|---|---|---|---|
| BGM121A256V1 | BGM121A256V1R | BGM121A256V2 | BGM121A256V2R | BGM123A256V1 |
| BGM123A256V1R | BGM123A256V2 | BGM123A256V2R | | |
| BGM121N256V1 | BGM121N256V1R | BGM121N256V2 | BGM121N256V2R | BGM123N256V1 |
| BGM123N256V1R | BGM123N256V2 | BGM123N256V2R | | |

Approved by: Kelvin Lee

Prepared on : 2-Sep-26

**BGM121_Product_Qualification_Report_2.png**



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## WFM200x Qualification Report

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**Part Rev A3, TSMC Fabrication, ASEKR Assembly except as noted**

| Test Name | Test Condition | Qualification | Lot ID or Start | Fail/Pass or End | Notes | Summary | Status |
|---|---|---|---|---|---|---|---|
| **Test Group A – Accelerated Environment Stress Tests** | | | | | | | |
| THB | JA101<br>85°C, 85%RH<br>Vcc=3.6V, 1000 hours | 3 lots, N=>25 | Q044243<br>Q044255<br>Q044256 | 0/25<br>0/25<br>0/25 | | 3 lots<br>0/75 | Pass |
| Temp Cycle | JA104<br>Cond G: -40°C to 125°C<br>850 cycles | 3 lots, N=>25 | Q044242<br>Q044258<br>Q044257<br>Q053377<br>Q053379<br>Q053378 | 0/25<br>0/25<br>0/25<br>0/30<br>0/30<br>0/30 | <br><br><br>2<br>2<br>2 | <br><br>6 lots<br>0/165 | Pass |
| HTSL | JA103<br>150°C, 1000hr | 3 lots, N=>25 | Q044241<br>Q044260<br>Q044259 | 0/25<br>0/25<br>0/25 | | 3 lots<br>0/75 | Pass |
| **Test Group B – Accelerated Lifetime Simulation Tests** | | | | | | | |
| HTOL | JA108<br>$T_J \geq 125°C$, Dynamic<br>Vcc=3.6V, 1000 hours | 3 lots, N=>77 | Q042651<br>Q042652<br>Q043678 | 0/80<br>0/80<br>0/80 | | 3 lots<br>0/240 | Pass |
| LTOL | JA108<br>$T_A = -10°C$, Dynamic<br>Vcc=3.6V, 1000 hours | 1 lot, N=>32 | Q042766 | 0/40 | | 1 lot<br>0/40 | Pass |
| ELFR | JA108<br>$T_J \geq 125°C$, Dynamic<br>Vcc=3.6V, 48 hours | 3 lots, N=>500 | Q042649<br>Q042650<br>Q043529 | 0/522<br>0/520<br>0/520 | | 3 lots<br>0/1562 | Pass |
| **Test Group E – Electrical Verification** | | | | | | | |
| ESD-HBM | JS-001 | 1 lot, N=>3 | Q044603 | | | 2 kV | Class 2 |
| ESD-CDM | JS-002 | 1 lot, N=>3 | Q046396<br>Q053263 | | <br>2 | 500 V | Class C2a |
| Latch Up | JESD78<br>±100mA<br><br>Overvoltage = 3.6V | 1 lot, N=>3 | Q044152<br>Q044153 | | | 25 °C<br>125 °C | Pass |

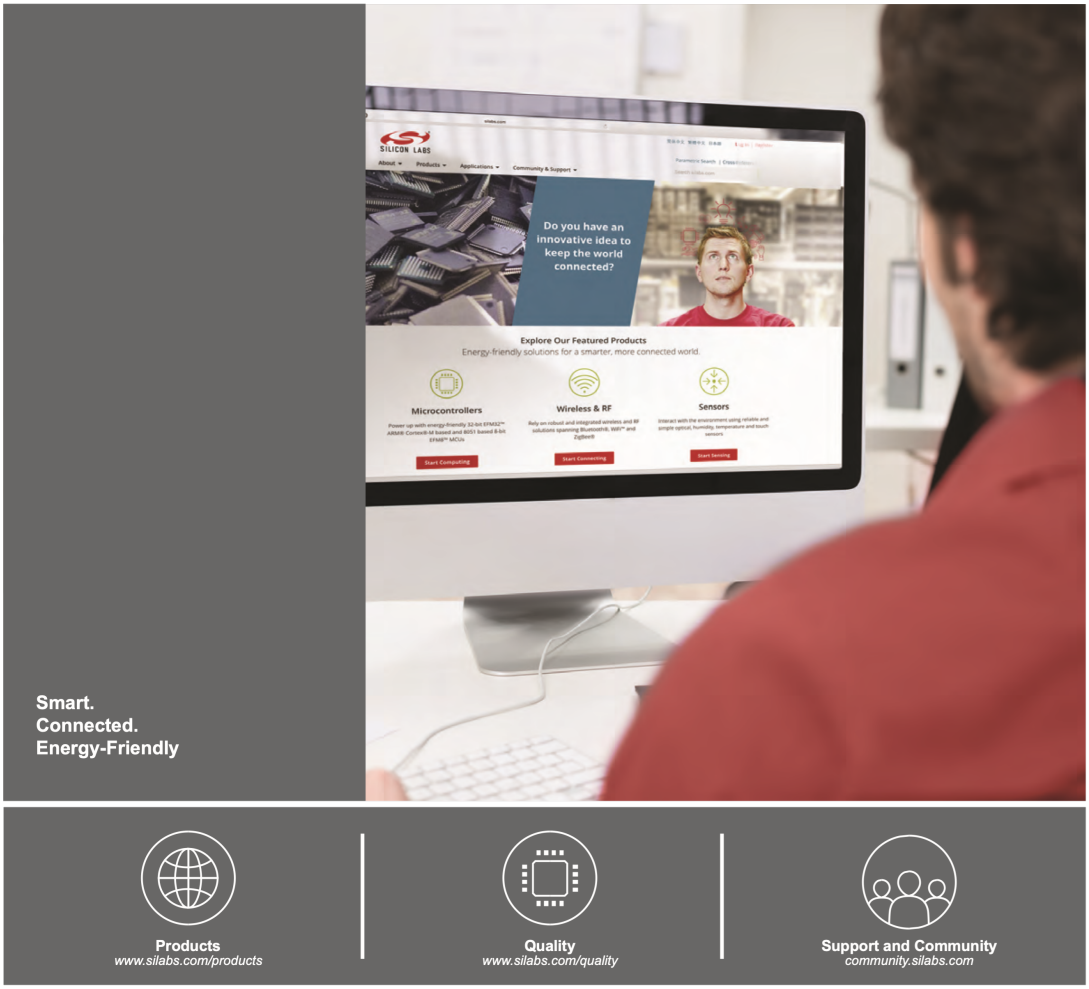
Notes:
1. Parts are Pre-conditioned at MSL3/260°C
2. KCC Substrate

| This report applies to the following part numbers: | |
|---|---|
| WFM200S022XNN3 | WFM200S022XNN3R |
| WFM200SS22XNN3 | WFM200SS22XNN3R |
| WFM200S022XNA3 | WFM200S022XNA3R |
| WFM200SS22XNA3 | WFM200SS22XNA3R |



Prepared on: 2026-08-31 by Mark Borlongan

**WFM200x_KCC__Qualification_Report.png**




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