

Microsemi Corporation

February 21, 2018, revised August 3, 2018

Product/Process Change Notification No: 160361

Change Classification: Minor

Subject: Halogen-free substrate introduction at ASEK revision 3

Description of Change:

Microsemi is migrating to a halogen-free substrate on all of the BGA products assembled at ASE, Kaohsiung, Taiwan (ASEK). ASEK is currently a qualified assembly site for Microsemi.

Substrate materials (core/prepreg) will be changed accordingly.

| | Discontinued Materials | Recommended Materials |
|-----------|------------------------|-----------------------|
| Substrate | CCL-HL832EX | CCL-HL832NX |

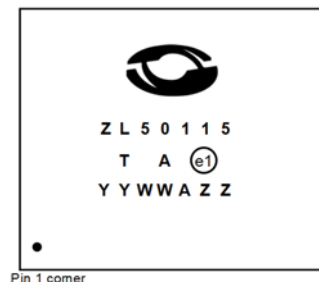
Reason for Change:

Mitsubishi Glass Company (MGC) has stopped production of halogen containing material.

Product Identification:

Customers will be able to identify product with the new substrate by the date code in the device marking. The first four characters in the third line of the device marking are the date code. They are represented by YYWW in the image below. The first date code of release of new substrate is indicated for each product in the Products Affected by this Change table.

Example Product Mark – where datecode is represented by YYWW



Application Impact:

There is no impact to the customers' applications since there are no changes to form, fit, function, or product reliability as a result of this change.

Products Affected by this Change:

| Package | Body Size | Pin Count | Ordering Part Number | Date Code |
|---------|-----------|-----------|----------------------|-----------|
| PBGA | 23x23 | 324 | ZL50116GAG2 | 1826 |
| PBGA | 23x23 | 324 | ZL50117GAG2 | 1826 |
| PBGA | 23x23 | 324 | ZL50118GAG2 | 1826 |
| LBGA | 17x17 | 208 | ZL50232GDG2 | 1817 |
| PBGA | 19x19 | 324 | ZL50075GAG2 | 1828 |
| PBGA | 17x17 | 256 | ZL50015GAG2 | 1816 |
| PBGA | 17x17 | 256 | ZL50016GAG2 | 1816 |
| PBGA | 17x17 | 256 | ZL50018GAG2 | 1816 |
| PBGA | 17x17 | 256 | ZL50019GAG2 | 1816 |
| PBGA | 17x17 | 256 | ZL50020GAG2 | 1816 |
| PBGA | 17x17 | 256 | ZL50022GAG2 | 1816 |
| PBGA | 17x17 | 256 | ZL50023GAG2 | 1816 |
| LBGA | 13x13 | 144 | ZL50011GDG2 | 1901 |
| LBGA | 13x13 | 144 | ZL50012GDG2 | 1901 |
| LBGA | 13x13 | 144 | ZL50010GDG2 | 1901 |
| PBGA | 35x35 | 552 | ZL50110GAG2 | 1901 |
| PBGA | 35x35 | 552 | ZL50111GAG2 | 1901 |
| PBGA | 35x35 | 552 | ZL50112GAG2 | 1901 |
| PBGA | 35x35 | 552 | ZL50114GAG2 | 1901 |
| PBGA | 27x27 | 272 | MT90869AG2 | 1821 |
| PBGA | 27x27 | 272 | ZL80007GAG2 | 1821 |



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Production Shipment Schedule:

Product assembled with the halogen-free material is planned to ship no sooner than May 22, 2018, unless customer waives the 90-day notification period.

During a transition period, customers may see shipments of either revision while the inventory of halogen-containing substrates is depleted.

Qualification Data:

The Qualification Report accompanies this PCN.

Samples Availability:

Samples are available upon request.

Please contact your local Microsemi representative to place sample orders. Note: there may be a significant lead-time on some samples due to substrate availability and inventory.

Revision History:

Changes in revision 3, August 3, 2018

Revision 3 includes changes in the Product Identification section, and additional detail in the Products Affected by this Change section. There will be not be a change to revision code mark on the product. The changes will be tracked by date code of introduction. An additional column showing the Date Code of introduction for each of the affected parts is now included in the table of products affected.

Changes in revision 2, May 21, 2018

The first revision of this notification was published in February 2018. It incorrectly labeled the substrate part numbers in the Description of Change paragraph table as “Mold Compound”. That line of the table describes the change to materials which affects only substrate, so the line is now labeled “Substrate” in Revision 2.

Contact Information:

Communication Product Group
Microsemi Corporation
PCN@microsemi.com

Any projected dates in this PCN are based on the most current product information at the time this PCN is being issued, but they may change due to unforeseen circumstances. For the latest schedule and any other information, please contact your local Microsemi Sales Office, the factory contact shown above, or your local distributor.

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CHANGE APPROVAL SUPPLEMENT

Customer Acknowledgement / Approval for Product/Process Change Notification No: 160361

Microsemi Corporation intends to implement this change 90 days after this notification. Acknowledgement of your company's acceptance of this change is requested per contractual agreement. Response within 30 days is required.

Accepted

Rejected

Signature

Date

Name

Title

Please enter rationale for rejection, if applicable: _____

