

PRODUCT/PROCESS CHANGE NOTIFICATION

PCN MMS-MIC/08/3939 Notification Date 08/07/2008

Qualification of Amkor (Korea) as an additional assembly site for lead free devices in TQFP 14x14 package

Table 1. Change Implementation Schedule

| Forecasted implementation date for change | 05-Nov-2008 |
|---|-------------|
| Forecasted availabillity date of samples for customer | 15-Sep-2008 |
| Forecasted date for STMicroelectronics change Qualification Plan results availability | 31-Jul-2008 |
| Estimated date of changed product first shipment | 06-Nov-2008 |

Table 2. Change Identification

| Product Identification (Product Family/Commercial Product) | All part numbers in TQFP 14x14 package |
|---|---|
| Type of change | Package assembly location change |
| Reason for change | Need for improved production flexibility |
| Description of the change | MCD is pleased to announce the qualification of Amkor (Korea) assembly site for our lead free devices in TQFP 14x14. Successful completion of the qualification plan as shown page 5 will allow for production of the affected devices. There are no changes to the devices design or part number as a result of this change. |
| Product Line(s) and/or Part Number(s) | See attached |
| Description of the Qualification Plan | See attached |
| Change Product Identification | Country of Origin : Korea |
| Manufacturing Location(s) | |

Table 3. List of Attachments

| Customer Part numbers list | |
|----------------------------|--|
| Qualification Plan results | |

| Customer Acknowledgement of Receipt | PCN MMS-MIC/08/3939 |
|---|------------------------------|
| Please sign and return to STMicroelectronics Sales Office | Notification Date 08/07/2008 |
| Qualification Plan Denied | Name: |
| Qualification Plan Approved | Title: |
| | Company: |
| 🗖 Change Denied | Date: |
| Change Approved | Signature: |
| Remark | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| · ····· | |
| | |

| Name | Function |
|------------------------|----------------------------|
| Hamard, Patrice | Division Marketing Manager |
| Nicholas, Jimmy Edward | Division Product Manager |
| Hannebert, Jean-Pierre | Division Q.A. Manager |

DOCUMENT APPROVAL



Qualification Certificate

REPORT NUMBER: MMS-MCD_QA07-015

QUALIFICATION TYPE: PACKAGE QUALIFICATION

QUALIFICATION IDENTIFICATION

The purpose is to confirm the good reliability of the devices processed in the following conditions:

- Assembly site location: AMKOR ANAM ATK1
- Package: LQFP 14x14

CONCLUSION

This qualification was performed in accordance with the General Product Qualification Procedure (STMicroelectronics specification SOP2610).

The QFP 14x14 package passed qualification testing and the production is now authorized.

CERTIFIED by:

Gisèle SEUBE Microcontroller Division QA Dept.

Date: April 17th, 2007

Please Read Carefully:

Information in this document is provided solely in connection with ST products. STMicroelectronics NV and its subsidiaries("ST") reserve the right to make changes, corrections, modifications or improvements, to this document, and the products and services described herein at any time, without notice.

All ST products are sold pursuant to ST's terms and conditions of sale.

Purchasers are solely responsible for the choice, selection and use of the ST products and services described herein, and ST assumes no liability whatsoever relating to the choice, selection or use of the ST products and services described herein.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted under this document. If any part of this document refers to any third party products or services it shall not be deemed a license grant by ST for the use of such third party products or services, or any intellectual property contained therein or considered as a warranty covering the use in any manner whatsoever of such third party products or services or services or any intellectual property contained therein.

UNLESS OTHERWISE SET FORTH IN ST'S TERMS AND CONDITIONS OF SALE ST DISCLAIMS ANY EXPRESS OR IMPLIED WARRANTY WITH RESPECT TO THE USE AND/OR SALE OF ST PRODUCTS INCLUDING WITHOUT LIMITATION IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE (AND THEIR EQUIVALENTS UNDER THE LAWS OF ANY JURISDICTION), OR INFRINGEMENT OF ANY PATENT, COPYRIGHT OR OTHER INTELLECTUAL PROPERTY RIGHT.

UNLESS EXPRESSLY APPROVED IN WRITING BY AN AUTHORIZED ST REPRESENTATIVE, ST PRODUCTS ARE NOT RECOMMENDED, AUTHORIZED OR WARRANTED FOR USE IN MILITARY, AIR CRAFT, SPACE, LIFE SAVING, OR LIFE SUSTAINING APPLICATIONS, NOR IN PRODUCTS OR SYSTEMS WHERE FAILURE OR MALFUNCTION MAY RESULT IN PERSONAL INJURY, DEATH, OR SEVERE PROPERTY OR ENVIRONMENTAL DAMAGE. ST PRODUCTS WHICH ARE NOT SPECIFIED AS "AUTOMOTIVE GRADE" MAY ONLY BE USED IN AUTOMOTIVE APPLICATIONS AT USER'S OWN RISK.

Resale of ST products with provisions different from the statements and/or technical features set forth in this document shall immediately void any warranty granted by ST for the ST product or service described herein and shall not create or extend in any manner whatsoever, any liability of ST.

ST and the ST logo are trademarks or registered trademarks of ST in various countries.

Information in this document supersedes and replaces all information previously supplied.

The ST logo is a registered trademark of STMicroelectronics. All other names are the property of their respective owners

© 2008 STMicroelectronics - All rights reserved.

STMicroelectronics group of companies

Australia - Belgium - Brazil - Canada - China - Czech Republic - Finland - France - Germany - Hong Kong - India - Israel - Italy - Japan -Malaysia - Malta - Morroco - Singapore - Spain - Sweden - Switzerland - United Kingdom - United States of America

www.st.com