



**PRODUCT AND PROCESS CHANGE NOTIFICATION**  
Generic Copy

**ISSUE DATE:** 16-Jun-2014  
**NOTIFICATION:** 16251  
**TITLE:** Qualification of An Additional Assembly Site (KLM) for MPC8548 Rev. 3 (a.k.a. Rev D)  
**EFFECTIVE DATE:** 14-Sep-2014

**DEVICE(S)**

MPN
MPC8543ECPXAQGD
MPC8543ECVJAQGD
MPC8543EVTANGD
MPC8543VJANGD
MPC8543VTANGD
MPC8545EVJANGD
MPC8545EVJATGD
MPC8545EVTATGD
MPC8545PXAQGD
MPC8545PXATGD
MPC8545VJAQGD
MPC8545VJATGD
MPC8545VTAQGD
MPC8545VTATGD
MPC8547ECPXAQGD
MPC8547ECVJAQGD
MPC8547EPXAQGD
MPC8547EPXAUJD
MPC8547EVJAQGD
MPC8547EVJATGD
MPC8547EVJAUJD
MPC8547EVTAQGD
MPC8547EVTATGD
MPC8547EVTAUJD
MPC8547VJATGD
MPC8547VTATGD
MPC8547VTAUJD
MPC8548CVJAQGD
MPC8548CVJAUJD
MPC8548CVTAQGD
MPC8548CVTAUJD
MPC8548ECPXAQGD
MPC8548ECPXAUJD
MPC8548ECVJAQGD
MPC8548ECVJAUJD
MPC8548ECVTAQGD
MPC8548ECVTAUJD
MPC8548EPXAQGD
MPC8548EPXAUJD
MPC8548EPXAVHD
MPC8548EVJAQGD
MPC8548EVJAUJD
MPC8548EVJAVHD
MPC8548EVTAQGD

MPC8548EVTAUJD
MPC8548EVTAVHD
MPC8548PXAQGD
MPC8548PXATGD
MPC8548PXAUJD
MPC8548VJAQGD
MPC8548VJATGD
MPC8548VJAUJD
MPC8548VJAVHD
MPC8548VTAQGD
MPC8548VTATGD
MPC8548VTAUJD
MPC8548VTAVHD

### **AFFECTED CHANGE CATEGORIES**

- ASSEMBLY SITE

### **DESCRIPTION OF CHANGE**

Freescale's KLM assembly site has been qualified to assemble MPC8548 Rev. 3 (a.k.a. Rev D) product family to ensure supply. The device was previously qualified for assembly in ASE-Kaohsiung (ASE-KH).

Table 1: Comparison of Manufacturing Attributes

Product Families	Current Assembly Site	Additional Assembly Site	Current Assy Site Substrate Supplier	Additional Site Substrate Supplier	Current Assy Site Lid	Additional Assy Site Lid	Current Assy Site Underfill	Additional Assy Site Underfill
8548 Rev. D	ASE-KH	FSL KLM	C; M	C; M	Stamped	Stamped	A	C

The substrate suppliers and lids used to assemble MPC8548 Rev. D are identical at both assembly sites.

To order qualified samples, place the letter "K" in front of the standard part number prefix. For example, if the standard part number begins with the prefix "MPC" the orderable part number will begin with "KMPC." Similarly, if the standard part number begins with the prefix "SCS" the orderable part number will begin with "KSCS." The part numbers received will be marked with your standard production part number. Please contact customer support for ordering instructions if you need assistance.

Part ID	Rev
MPC8548VTAUJD	Rev D
MPC8548EVTAUJD	Rev D
MPC8548VTAQGD	Rev D
MPC8548EVTAQGD	Rev D
MPC8548EPXAUJD	Rev D
MPC8545EPXANGD	Rev D
MPC8545PXATGD	Rev D
MPC8548EVTAVHD	Rev D
MPC8548PXAQGD	Rev D
MPC8548PXAUJD	Rev D
MPC8548ECVTAUJD	Rev D
MPC8548ECPXAQGD	Rev D

At the expiration of the PCN the customer will receive product from either ASE-KH or the Freescale-KLM assembly site.

### **REASON FOR CHANGE**

This assembly site qualification is for supply assurance.

**ANTICIPATED IMPACT OF PRODUCT CHANGE(FORM, FIT, FUNCTION, OR RELIABILITY)**

There is no impact to form, fit, function or reliability.

According to JEDEC Standard JESD46, lack of acknowledgement of this PCN within 30 days will be considered acceptance of change. To request further data or inquire about the notification, please enter a [Service Request](#).

For sample inquiries - please go to [www.freescale.com](http://www.freescale.com)

**QUAL DATA AVAILABILITY DATE:** 13-May-2014

**QUALIFICATION STATUS:** COMPLETED

**QUALIFICATION PLAN:**

See the attached reliability data summary for MPC8548 Rev. 3 (a.k.a. Rev D).

**RELIABILITY DATA SUMMARY:**

The reliability data for MPC8548 Rev. 3 (a.k.a. Rev. D) assembly in Freescale's KLM assembly site is attached to this notification. This device uses a FCPBGA 783 29SQ package.

MPC8572 was the qualification vehicle. This device has been in high volume manufacturing in Freescale's KLM assembly site since mid-Y2013 when it was transferred along with MPC8533/36 (FCPBGA 783 29SQ) from ASE-KH. MPC8572 was the qualification vehicle because it has the largest die in the largest package (FCPBGA 1023 33SQ).

	Device	MPC8572 (Qual Vehicle)	MPC8535/36 (QBS)	MPC8533/44 (QBS)	MPC 8548 Rev. D (QBS)
General Information	Product Change Notice	15579	15579	15579	16132
	Hi Vol Manufacturing in KLM Started	July 2013	July 2013	July 2013	Q3 2014
	Assembly Site	Freescale - KLM	Freescale - KLM	Freescale - KLM	Freescale - KLM
	Package	FCPBGA 1023 33SQ	FCPBGA 783 29SQ	FCPBGA 783 29SQ	FCPBGA 783 29SQ
	Substrate Suppliers	C; M	C; M	C; M	C; M
	Underfill	C	C	C	C
	C4 Wafer Bump Type	Leaded	Leaded	Leaded	Leaded
Reliability	PC	THB; uHAST; TC	TC	TC	TC
	MSL 3	245°C	260°C	260°C	260°C
	MSL CZ	Completed - Passed	Completed - Passed	Completed - Passed	Completed - Passed
	THB (85°C/85% RH/1008 hours)	Completed - Passed	QBS to MPC8572	QBS to MPC8572	QBS to MPC8572
	uHAST (110°C/85% RH/264 hours)	Completed - Passed	QBS to MPC8572	QBS to MPC8572	QBS to MPC8572
	TC (-55°C to 125°C ; 1000 cycles)	Completed - Passed	Completed - Passed	Completed - Passed	Completed - Passed
	HTSL (150°C; 1000 hours)	Completed - Passed	QBS to MPC8572	QBS to MPC8572	QBS to MPC8572

QBS = "Qualification by Similarity"

**ELECTRICAL CHARACTERISTIC SUMMARY:**

Electrical characterization was not required for these qualifications.

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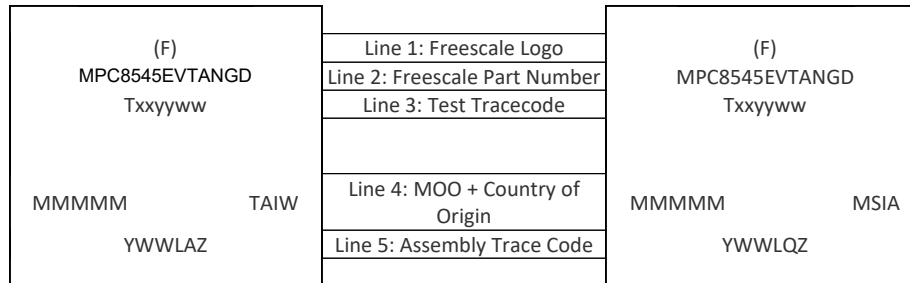
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**CHANGED PART IDENTIFICATION:**

The assembly site location will be reflected in the lower right hand corner of the part's marking. "TAIW" will be replaced with "MSIA" as shown below.

Current Assembly Site Marking: ASE-KH  
KLM

Second Assembly Site Marking: Freescale



**SAMPLE AVAILABILITY DATE:** 21-May-2014

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**ATTACHMENT(S):**

External attachment(s) FOR this notification can be viewed AT:

[16251\\_PCN\\_16251\\_Qual\\_Report\\_8548.pdf](#)

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