



## PRODUCT AND PROCESS CHANGE NOTIFICATION

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**ISSUE DATE:** 10-Feb-2014  
**NOTIFICATION:** 16041  
**TITLE:** KINETIS MK12D/MK22D ADDING NEW MASK SET  
**EFFECTIVE DATE:** 11-May-2014

### DEVICE(S)

MPN
MK12DN512VLH5
MK12DN512VLK5
MK12DN512VMC5
MK12DX128VLF5
MK12DX128VLH5
MK12DX128VLK5
MK12DX128VMC5
MK12DX256VLF5
MK12DX256VLH5
MK12DX256VLK5
MK12DX256VMC5
MK22DN512VLH5
MK22DN512VLK5
MK22DN512VMC5
MK22DX128VLF5
MK22DX128VLH5
MK22DX128VLK5
MK22DX128VMC5
MK22DX256VLF5
MK22DX256VLH5
MK22DX256VLK5
MK22DX256VMC5
PK12DN512VLH5
PK12DX256VLF5
PK22DN512VLH5
PK22DN512VLK5
PK22DN512VMC5
PK22DX256VLF5
PK22DX256VLH5

PK22DX256VLK5
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PK22DX256VMC5
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## **AFFECTED CHANGE CATEGORIES**

- ERRATA
- MASK SET REV (SAME FAB SITE)

## **DESCRIPTION OF CHANGE**

Freescale Semiconductor is pleased to announce the qualification of new 0N62J mask set for Kinetis MK12D and MK22D 50 MHz series. With enhancements made on this new mask set, several errata fixes have been implemented. The errata documentation is attached to this notification.

The following errata were fixed with 0N62J:

Errata_ID	Errata Title
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e5751	FTFx: Launching the Read 1's Section command (RD1SEC) on an entire flash block results in access error (ACCER).
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e5706	FTFx: MCU security is inadvertently enabled (secured) if a mass erase is executed when the flash blocks/halves are swapped. This issue only affects applications that use the flash swap feature.
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e5499	MCG: A reset or interrupt request due to a PLL loss of lock (LOL) condition will not occur asynchronously.
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e4590	MCG: Transitioning from VLPS to VLPR low power modes while in BLPI clock mode is not supported.
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e6665	Operating requirements: Limitation of the device operating range
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e6348	PMC: Incorrect reset source indication when waking up from VLLS0 mode.
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e5472	SMC: Mode transition VLPR->VLLS0 (POR disabled)->RUN, will cause POR & LVD.
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e5952	SMC: Wakeup via the LLWU from LLS/VLLS to RUN to VLPR incorrectly triggers an immediate wakeup from the next low power mode entry
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e5928	USBOTG: USBx_USBTRC0[USBRESET] bit does not operate as expected in all cases
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The following errata were added for 0N62J and 1N89E:

e6990	CJTAG: Possible incorrect TAP state machine advance during Check Packet. A software workaround exists.
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The K12 errata posted at: [http://www.freescale.com/webapp/sps/site/prod\\_summary.jsp?code=K12\\_50&nodeId=01624698C9DE2DDD8B&fpp=1&tab=Documentation\\_Tab](http://www.freescale.com/webapp/sps/site/prod_summary.jsp?code=K12_50&nodeId=01624698C9DE2DDD8B&fpp=1&tab=Documentation_Tab)

The K22 errata posted at: [http://www.freescale.com/webapp/sps/site/prod\\_summary.jsp?code=K22\\_50&nodeId=01624698C9DE2DDDA7&fpp=1&tab=Documentation\\_Tab](http://www.freescale.com/webapp/sps/site/prod_summary.jsp?code=K22_50&nodeId=01624698C9DE2DDDA7&fpp=1&tab=Documentation_Tab)

Available sample parts:

MK21DX256AVMC5

MK21DN512AVMC5

MK11DN512AVMC5

MK12DN512VMC5  
MK22DN512VMC5

### **REASON FOR CHANGE**

The release and implementation of this 0N62J new maskset is to fix several known design errata for 1N89E mask set.

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

No change to form, fit, function or reliability other than the stated errata fixes.

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Freescale will consider specific conditions of acceptance of this change submitted within 30 days of receipt of this notice on a case by case basis. 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)

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**QUAL DATA AVAILABILITY DATE:** 16-Jan-2014

**QUALIFICATION STATUS:** COMPLETED

### **QUALIFICATION PLAN:**

Refer to attached qualification plan/report.

### **RELIABILITY DATA SUMMARY:**

Refer to attached qualification report.

### **ELECTRICAL CHARACTERISTIC SUMMARY:**

No impact.

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### **CHANGED PART IDENTIFICATION:**

There is no change to the orderable part number; however, part marking for mask set information will be expanded to include both 1N89E and 0N62J as options.

**SAMPLE AVAILABILITY DATE:** 23-Jan-2014

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**ATTACHMENT(S):**

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

[16041\\_KINETIS\\_0N62J.pdf](#)

[16041\\_K20\\_512\\_2\\_0\\_Design\\_Change\\_Qual\\_Results.pdf](#)

[16041\\_KINETIS\\_1N89E.pdf](#)

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