

April 11, 2011

Revision History

PCN#	Issue Date	Description
02A-11	February 25, 2011	Initial release.
02C-11	April 11, 2011	Supersedes PCN#02A-11. ispMACH 4A3-64/64 products have been added to the affected device list (Exhibit A).

**Subject: PCN# 02C-11 (Revision to PCN#02A-11, Issued on February 25, 2011)
 Notification of Intent to Utilize an Alternate Qualified Mask Set and Foundry and/or an
 Alternate Qualified Material Set for the ispMACH 4A3-64/64, ispMACH 4A3-128/64,
 ispMACH 4A5-128/64 and MACH4-128N/64 Products**

Dear Lattice Customers:

In accordance with our Product Change Notification (PCN) policy, Lattice is providing this 90-day notification of our intent to utilize an alternate qualified mask set and foundry and/or an alternate qualified material set for the ispMACH[®] 4A3-64/64, ispMACH 4A3-128/64, ispMACH4A5-128/64 and MACH[®]4-128N/64 products.

CHANGE DESCRIPTION

Change 1: Alternate Qualified Mask Set and Foundry

Currently, the M4A3-64/64, M4A3-128/64, M4A5-128/64 and M4-128N/64 devices are fabricated at United Microelectronics Corporation (UMC) Taiwan using Lattice’s EE8 E²CMOS[®] process technology. In an effort to expand our fabrication capacity for these popular products, Lattice will now use Seiko Sakata foundry as well. Seiko Sakata has been a high volume foundry for Lattice products for over 10 years. There have been no changes made to device form, fit or function.

Change 2: Alternate Qualified Material Set

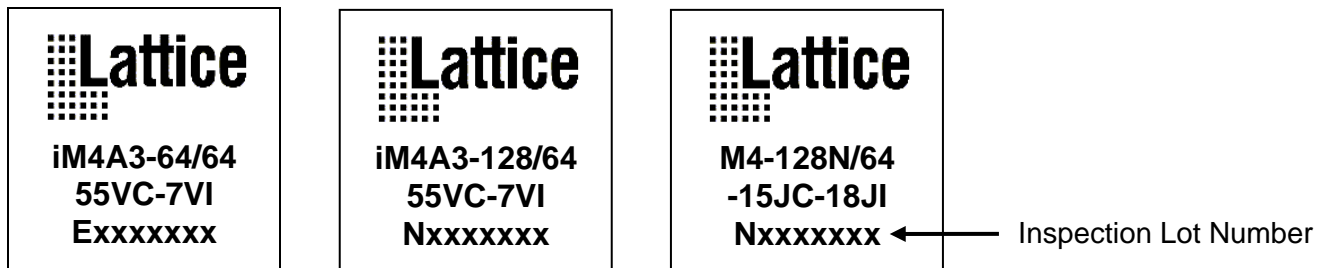
The Malaysian facility of Advanced Semiconductor Engineering (ASE) is changing the bond wire diameter for the M4A3-64/64, M4A3-128/64 and M4A5-128/64 100-pin Thin Quad Flat Pack (TQFP) products. The bond wire diameter will change from 1.2mil to 0.8mil.

AFFECTED DEVICES

The Ordering Part Numbers (OPNs) affected by these changes are listed in the Exhibit A. This PCN also affects any custom devices (i.e. factory programmed, special test, tape & reel, non-standard speed grade, etc), which are derived from any of the devices listed.

DEVICE IDENTIFICATION

Devices with this new alternate qualified mask set (Change 1) can be identified by the first alpha character of the Inspection Lot Number, which is marked on the topside of the device. Inspection lot numbers are also marked on the label ("Mark Code" field) on the outside of the inventory box as well as on the anti-static, moisture barrier bag within. See device topside marking examples below.



The products built on the new mask set can be identified by the leading alpha characters of the inspection lot number listed in the table below.

Product	Leading Alpha of Inspection Lot Number
M4A3-64/64	E
M4A3-128/64	N
M4A5-128/64	N
M4-128N/64	N

DATA SHEET SPECIFICATIONS

These changes have no impact on the device data sheet parameters, ESD, quality and reliability of the products.

DEVICE CHARACTERIZATION REPORT

A device characterization report is available [here](#).

QUALIFICATION DATA

Reliability testing for the qualification of the alternate qualified mask set and the alternate qualified material set is complete. A summary of the qualification data is available [here](#).

CONVERSION TIMING

Conversion timing for this PCN is 90 days from the date of this Notice. Should samples be required to complete evaluation of this PCN, such sample request must be received no later than 30 days after the date of this Notice (See Conversion Timing Summary Below for specific dates).

CONVERSION TIMING – SUMMARY

Products	M4A3-128/64, M4A5-128/64, M4-128N/64	M4A3-64/64
Sample Request Cut-off Date	March 25, 2011	May 11, 2011
PCN Expiration Date	May 27, 2011	July 11, 2011

RESPONSE

In accordance with JESD46-C, this change is deemed accepted by the customer if no acknowledgement is received within 30 days from this Notice.

Lattice PCNs are available on the [Lattice website](#). Please sign up to receive e-mail PCN alerts by registering [here](#). If you already have a Lattice web account and wish to receive PCN alerts, you can do so by logging into your account and making edits to your subscription options.

CONTACT

If you have any questions or require additional information, please contact pcn@latticesemi.com.

Sincerely,

Lattice Semiconductor PCN Administration

EXHIBIT "A" – Affected Device List

Product Line	Ordering Part Number	Package	Alternate Qualified Mask Set	Alternate Qualified Material Set
M4A3-64	M4A3-64/64-55VC	100-TQFP	Yes	Yes
	M4A3-64/64-7VC			
	M4A3-64/64-10VC			
	M4A3-64/64-7VI			
	M4A3-64/64-10VI			
	M4A3-64/64-12VI			
	M4A3-64/64-55VNC	Pb-Free 100-TQFP		
	M4A3-64/64-7VNC			
	M4A3-64/64-10VNC			
	M4A3-64/64-7VNI			
	M4A3-64/64-10VNI			
	M4A3-64/64-12VNI			
M4A3-128	M4A3-128/64-55VC	100-TQFP	Yes	Yes
	M4A3-128/64-7VC			
	M4A3-128/64-10VC			
	M4A3-128/64-7VI			
	M4A3-128/64-10VI			
	M4A3-128/64-12VI			
	M4A3-128/64-55VNC	Pb-Free 100-TQFP		
	M4A3-128/64-7VNC			
	M4A3-128/64-10VNC			
	M4A3-128/64-7VNI			
	M4A3-128/64-10VNI			
	M4A3-128/64-12VNI			
	M4A3-128/64-55CAC	100-caBGA		No
	M4A3-128/64-7CAC			
	M4A3-128/64-10CAC			
	M4A3-128/64-7CAI			
	M4A3-128/64-10CAI			
	M4A3-128/64-12CAI			
	M4A3-128/64-55YC	100-PQFP		
	M4A3-128/64-7YC			
	M4A3-128/64-10YC			
M4A3-128/64-7YI				
M4A3-128/64-10YI				
M4A3-128/64-12YI				
M4A5-128	M4A5-128/64-55VC	100-TQFP	Yes	Yes
	M4A5-128/64-7VC			
	M4A5-128/64-10VC			
	M4A5-128/64-7VI			
	M4A5-128/64-10VI			
	M4A5-128/64-12VI			
	M4A5-128/64-55VNC	Pb-Free 100-TQFP		
	M4A5-128/64-7VNC			
	M4A5-128/64-10VNC			
	M4A5-128/64-7VNI			
	M4A5-128/64-10VNI			
	M4A5-128/64-12VNI			
	M4A5-128/64-55YC	100-PQFP		No
	M4A5-128/64-7YC			
	M4A5-128/64-10YC			
	M4A5-128/64-7YI			
	M4A5-128/64-10YI			
	M4A5-128/64-12YI			
	M4A5-128/64-55YNC	Pb-Free 100-PQFP		
	M4A5-128/64-7YNC			
	M4A5-128/64-10YNC			
M4A5-128/64-7YNI				
M4A5-128/64-10YNI				
M4A5-128/64-12YNI				

Note: This PCN also affects any custom devices (i.e. factory programmed, special test, tape & reel, non-standard speed grade, etc.), which are derived from any of the devices listed above.

EXHIBIT "A" – Affected Device List (Cont'd)

Product Line	Ordering Part Number	Package	Alternate Qualified Mask Set	Alternate Qualified Material Set
M4-128N	M4-128N/64-7JC	84-PLCC	Yes	No
	M4-128N/64-10JC			
	M4-128N/64-12JC			
	M4-128N/64-15JC			
	M4-128N/64-10JI			
	M4-128N/64-12JI			
	M4-128N/64-14JI			
	M4-128N/64-18JI			

Note: This PCN also affects any custom devices (i.e. factory programmed, special test, tape & reel, non-standard speed grade, etc.), which are derived from any of the devices listed above.