August 21, 2009

Subject: PCN# 14A-09, 90-Day Notification of Intent to Utilize an Alternate Qualified Assembly Site and Alternate Qualified Material Set for the MachXO 324-ftBGA Devices

Dear Lattice Customers:

Lattice is providing this 90-day notification of our intent to utilize an alternate qualified assembly site and an alternate qualified material set for the MachXO™ 324-ball Fine Pitch Thin Ball Grid Array (ftBGA) devices.

The Malaysian facility of Advanced Semiconductor Engineering (ASE) has been a primary source of Lattice devices for many years, including the MachXO 256-ball ftBGA package devices. In an effort to expand manufacturing capacity, Lattice will now use ASE Malaysia for the MachXO 324-ftBGA devices. ASE Malaysia utilizes industry standard raw material, assembly and test processes. This material set meets all external package dimensions, footprint and specifications as published on the Lattice website (www.latticesemi.com).

AFFECTED DEVICES

The affected devices are listed in Exhibit A.

ALTERNATE QUALIFIED MATERIAL SET

The complete material set is described in Exhibit B.

QUALIFICATION DATA

Reliability testing for the qualification of these ASE Malaysia manufactured devices is complete. A summary of the qualification data is available here.

DATA SHEET SPECIFICATIONS

This PCN has no impact on any data sheet specifications.

PCN TIMING

Initial MachXO 324-ftBGA products with this new material set from ASE Malaysia will ship no earlier than November 13, 2009. Should samples be required to complete evaluation of this PCN, such sample requests must be received **no later than September 21, 2009** (30 days after the date of this Notice).

PCN TIMING – SUMMARY

- **Sample Request Cut-off Date: September 21, 2009**
- **PCN Expiration Date: November 20, 2009**

RESPONSE

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

Note: Be sure to sign up for PCN "Web Alerts" (See PCN#13A-09 for details) and receive all future Lattice PCNs via e-mail!

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

Device Family	Product Line	Ordering Part Number	Package Type
MachXO	**LCMXO2280C**	LCMXO2280C-5FT324C	324-ftBGA
		LCMXO2280C-4FT324C	
		LCMXO2280C-3FT324C	
		LCMXO2280C-4FT324I	
		LCMXO2280C-3FT324I	
		LCMXO2280C-5FTN324C	324-ftBGA Pb-Free
		LCMXO2280C-4FTN324C	
		LCMXO2280C-3FTN324C	
		LCMXO2280C-4FTN324I	
		LCMXO2280C-3FTN324I	
	LCMXO2280E	LCMXO2280E-5FT324C	324-ftBGA
		LCMXO2280E-4FT324C	
		LCMXO2280E-3FT324C	
		LCMXO2280E-4FT324I	
		LCMXO2280E-3FT324I	
		LCMXO2280E-5FTN324C	324-ftBGA Pb-Free
		LCMXO2280E-4FTN324C	
		LCMXO2280E-3FTN324C	
		LCMXO2280E-4FTN324I	
		LCMXO2280E-3FTN324I	

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

EXHIBIT “B” – ASE Malaysia Alternate Qualified Material Set

Package Type		Current					Alternate Qualified				
		Assembly Site	Material Set				Assembly Site	Material Set			
			Die Attach	Mold Compound	Wire	Solder Ball		Die Attach	Mold Compound	Wire	Solder Ball
324-ftBGA	Standard	Amkor Philippines	Ablebond 2300 Series	G770 Series	Au (Gold)	SnPb	ASE Malaysia	Ablebond 2100 Series	G770 Series	Au (Gold)	SnPb
	Pb-Free					SnAgCu					SnAgCu