



September 7, 2010

**Subject: PCN# 13A-10, Notification of Intent to Discontinue Select Mature Devices**

Dear Lattice Customer,

In accordance with our Product Change Notification (PCN) policy, Lattice is providing this notification of our intent to discontinue select mature devices. One of Lattice's fabrication partners is closing one of its facilities during 2011. This fab closure will affect several select mature product families including GAL<sup>®</sup>, ispLSI<sup>®</sup> 1000, ispPAC<sup>®</sup>-POWR1208 and ispPAC-POWR1208P1 products.

As a number of these product families still enjoy moderate customer demand, our intention is to support a longer than usual Last-Time-Ship (LTS) window through the end of 2014. Our desire is to provide supplies of these products to our customers for the next four years to help minimize the customer impact.

**AFFECTED PRODUCTS**

The Ordering Part Numbers (OPNs) affected by this PCN, along with the recommended replacement alternatives, are listed in the Exhibit "A" (also available in an Excel spreadsheet [here](#)). This PCN also affects any custom devices (i.e. factory programmed, special test, tape and reel, non-standard speed grade and package, etc.), which are derived from any of the devices listed in the table.

Lattice recommends the ispMACH<sup>®</sup> 4000V products as replacements for the GAL devices; however, they are not voltage compatible and require a 3.3V power supply. For a 5V core voltage compatible alternative, the mature ispMACH<sup>®</sup> 4A5 devices can be used.

For additional information on replacing the ispPAC-POWR1208/P1 devices, please refer to Product Bulletin #1346, available [here](#).

**DISCONTINUANCE TIMING**

Customers will have 6 months to place a last time buy (LTB) order for these devices. All LTB orders for these devices will be non-cancelable and non-returnable. All LTB orders must be placed no later than March 7, 2011 (6 months after the date of this notice); however, Lattice is willing to schedule and ship LTB orders over a four year time period. Orders placed by March 7, 2011 will be supported at the current price for shipments through the end of 2014. Lattice will use commercially reasonable efforts to accept orders received after March 7, 2011; however, Lattice does not guarantee that orders received after March 7, 2011 can be accepted.

## **DISCONTINUANCE TIMING - SUMMARY**

- **Last Time Buy Order Date:** **March 7, 2011**
- **Last Shipment Date:** **December 31, 2014**

## **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.

**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](mailto:pcn@latticesemi.com).

Sincerely,

Lattice Semiconductor PCN Administration

## EXHIBIT A – Discontinued Device and Recommended Alternative List

| Discontinued Device |                      |                    | Recommended Replacement Alternatives |                    |                      |                    |
|---------------------|----------------------|--------------------|--------------------------------------|--------------------|----------------------|--------------------|
| Product Line        | Ordering Part Number | Package Type       | Option #1                            |                    | Option #2            |                    |
|                     |                      |                    | Ordering Part Number                 | Package Type       | Ordering Part Number | Package Type       |
| GAL16V8D            | GAL16V8D-7LP         | 20-PDIP            | LC4032V-75T48C                       | 48-TQFP            | M4A5-32/32-7VC48     | 48-TQFP            |
|                     | GAL16V8D-10LP        |                    | LC4032V-75T48C                       |                    | M4A5-32/32-10VC48    |                    |
|                     | GAL16V8D-15LP        |                    | LC4032V-75T48C                       |                    | M4A5-32/32-10VC48    |                    |
|                     | GAL16V8D-25LP        |                    | LC4032V-75T48C                       |                    | M4A5-32/32-10VC48    |                    |
|                     | GAL16V8D-10LPI       |                    | LC4032V-75T48I                       |                    | M4A5-32/32-10VI48    |                    |
|                     | GAL16V8D-15LPI       |                    | LC4032V-75T48I                       |                    | M4A5-32/32-12VI48    |                    |
|                     | GAL16V8D-25LPI       |                    | LC4032V-75T48I                       |                    | M4A5-32/32-12VI48    |                    |
|                     | GAL16V8D-10QP        |                    | LC4032V-75T48C                       |                    | M4A5-32/32-10VC48    |                    |
|                     | GAL16V8D-15QP        |                    | LC4032V-75T48C                       |                    | M4A5-32/32-10VC48    |                    |
|                     | GAL16V8D-25QP        |                    | LC4032V-75T48C                       |                    | M4A5-32/32-10VC48    |                    |
|                     | GAL16V8D-20QPI       |                    | LC4032V-75T48I                       |                    | M4A5-32/32-12VI48    |                    |
|                     | GAL16V8D-25QPI       |                    | LC4032V-75T48I                       |                    | M4A5-32/32-12VI48    |                    |
|                     | GAL16V8D-7LPN        | Pb-Free<br>20-PDIP | LC4032V-75TN48C                      | Pb-Free<br>48-TQFP | M4A5-32/32-7NVC48    | Pb-Free<br>48-TQFP |
|                     | GAL16V8D-10LPN       |                    | LC4032V-75TN48C                      |                    | M4A5-32/32-10VNC48   |                    |
|                     | GAL16V8D-15LPN       |                    | LC4032V-75TN48C                      |                    | M4A5-32/32-10VNC48   |                    |
|                     | GAL16V8D-25LPN       |                    | LC4032V-75TN48C                      |                    | M4A5-32/32-10VNC48   |                    |
|                     | GAL16V8D-10LPNI      |                    | LC4032V-75TN48I                      |                    | M4A5-32/32-10VNI48   |                    |
|                     | GAL16V8D-15LPNI      |                    | LC4032V-75TN48I                      |                    | M4A5-32/32-12VNI48   |                    |
|                     | GAL16V8D-25LPNI      |                    | LC4032V-75TN48I                      |                    | M4A5-32/32-12VNI48   |                    |
|                     | GAL16V8D-10QPN       |                    | LC4032V-75TN48C                      |                    | M4A5-32/32-10VNC48   |                    |
|                     | GAL16V8D-15QPN       |                    | LC4032V-75TN48C                      |                    | M4A5-32/32-10VNC48   |                    |
|                     | GAL16V8D-25QPN       |                    | LC4032V-75TN48C                      |                    | M4A5-32/32-10VNC48   |                    |
|                     | GAL16V8D-20QPN       |                    | LC4032V-75TN48I                      |                    | M4A5-32/32-12VNI48   |                    |
|                     | GAL16V8D-25QPN       |                    | LC4032V-75TN48I                      |                    | M4A5-32/32-12VNI48   |                    |
|                     | GAL16V8D-5LJ         | 20-PLCC            | LC4032V-5T48C                        | 48-TQFP            | M4A5-32/32-5VC48     | 48-TQFP            |
|                     | GAL16V8D-7LJ         |                    | LC4032V-75T48C                       |                    | M4A5-32/32-7VC48     |                    |
|                     | GAL16V8D-10LJ        |                    | LC4032V-75T48C                       |                    | M4A5-32/32-10VC48    |                    |
|                     | GAL16V8D-15LJ        |                    | LC4032V-75T48C                       |                    | M4A5-32/32-10VC48    |                    |
|                     | GAL16V8D-25LJ        |                    | LC4032V-75T48C                       |                    | M4A5-32/32-10VC48    |                    |
|                     | GAL16V8D-10LJI       |                    | LC4032V-75T48I                       |                    | M4A5-32/32-10VI48    |                    |
|                     | GAL16V8D-15LJI       |                    | LC4032V-75T48I                       |                    | M4A5-32/32-12VI48    |                    |
|                     | GAL16V8D-25LJI       |                    | LC4032V-75T48I                       |                    | M4A5-32/32-12VI48    |                    |
|                     | GAL16V8D-10QJ        |                    | LC4032V-75T48C                       |                    | M4A5-32/32-10VC48    |                    |
|                     | GAL16V8D-15QJ        |                    | LC4032V-75T48C                       |                    | M4A5-32/32-10VC48    |                    |
|                     | GAL16V8D-25QJ        |                    | LC4032V-75T48C                       |                    | M4A5-32/32-10VC48    |                    |
|                     | GAL16V8D-20QJI       |                    | LC4032V-75T48I                       |                    | M4A5-32/32-12VI48    |                    |
|                     | GAL16V8D-25QJI       |                    | LC4032V-75T48I                       |                    | M4A5-32/32-12VI48    |                    |
|                     | GAL16V8D-5LJN        | Pb-Free<br>20-PLCC | LC4032V-5TN48C                       | Pb-Free<br>48-TQFP | M4A5-32/32-5VNC48    | Pb-Free<br>48-TQFP |
|                     | GAL16V8D-7LJN        |                    | LC4032V-75TN48C                      |                    | M4A5-32/32-7VNC48    |                    |
|                     | GAL16V8D-10LJN       |                    | LC4032V-75TN48C                      |                    | M4A5-32/32-10VNC48   |                    |
|                     | GAL16V8D-15LJN       |                    | LC4032V-75TN48C                      |                    | M4A5-32/32-10VNC48   |                    |
|                     | GAL16V8D-25LJN       |                    | LC4032V-75TN48C                      |                    | M4A5-32/32-10VNC48   |                    |
|                     | GAL16V8D-10LJNI      |                    | LC4032V-75TN48I                      |                    | M4A5-32/32-10VNI48   |                    |
|                     | GAL16V8D-15LJNI      |                    | LC4032V-75TN48I                      |                    | M4A5-32/32-12VNI48   |                    |
|                     | GAL16V8D-25LJNI      |                    | LC4032V-75TN48I                      |                    | M4A5-32/32-12VNI48   |                    |
|                     | GAL16V8D-10QJN       |                    | LC4032V-75TN48C                      |                    | M4A5-32/32-10VNC48   |                    |
|                     | GAL16V8D-15QJN       |                    | LC4032V-75TN48C                      |                    | M4A5-32/32-10VNC48   |                    |
|                     | GAL16V8D-25QJN       |                    | LC4032V-75TN48C                      |                    | M4A5-32/32-10VNC48   |                    |
|                     | GAL16V8D-20QJNI      |                    | LC4032V-75TN48I                      |                    | M4A5-32/32-12VNI48   |                    |
|                     | GAL16V8D-25QJNI      |                    | LC4032V-75TN48I                      |                    | M4A5-32/32-12VNI48   |                    |
| GAL18V10B           | GAL18V10B-10LP       | 20-PDIP            | LC4032V-75T48C                       | 48-TQFP            | M4A5-32/32-10VC48    | 48-TQFP            |
|                     | GAL18V10B-15LP       |                    | LC4032V-75T48C                       |                    | M4A5-32/32-10VC48    |                    |
|                     | GAL18V10B-20LP       |                    | LC4032V-75T48C                       |                    | M4A5-32/32-10VC48    |                    |
|                     | GAL18V10B-10LJ       | 20-PLCC            | LC4032V-75T48C                       |                    | M4A5-32/32-10VC48    |                    |
|                     | GAL18V10B-15LJ       |                    | LC4032V-75T48C                       |                    | M4A5-32/32-10VC48    |                    |
| GAL20V8B            | GAL20V8B-15LP        | 24-PDIP            | LC4032V-75T48C                       | 48-TQFP            | M4A5-32/32-10VC48    | 48-TQFP            |
|                     | GAL20V8B-25LP        |                    | LC4032V-75T48C                       |                    | M4A5-32/32-10VC48    |                    |
|                     | GAL20V8B-25LPI       |                    | LC4032V-75T48I                       |                    | M4A5-32/32-12VI48    |                    |
|                     | GAL20V8B-15QP        |                    | LC4032V-75T48C                       |                    | M4A5-32/32-10VC48    |                    |
|                     | GAL20V8B-25QP        |                    | LC4032V-75T48C                       |                    | M4A5-32/32-10VC48    |                    |
|                     | GAL20V8B-25QPI       | Pb-Free<br>24-PDIP | LC4032V-75T48I                       | Pb-Free<br>48-TQFP | M4A5-32/32-12VI48    | Pb-Free<br>48-TQFP |
|                     | GAL20V8B-15LPN       |                    | LC4032V-75TN48C                      |                    | M4A5-32/32-10VNC48   |                    |
|                     | GAL20V8B-25LPN       |                    | LC4032V-75TN48C                      |                    | M4A5-32/32-10VNC48   |                    |
|                     | GAL20V8B-25LPNI      |                    | LC4032V-75TN48I                      |                    | M4A5-32/32-12VNI48   |                    |
|                     | GAL20V8B-15QPN       |                    | LC4032V-75TN48C                      |                    | M4A5-32/32-10VNC48   |                    |
|                     | GAL20V8B-25QPN       | 28-PLCC            | LC4032V-75TN48C                      | 48-TQFP            | M4A5-32/32-10VNC48   | 48-TQFP            |
|                     | GAL20V8B-25QPN       |                    | LC4032V-75TN48C                      |                    | M4A5-32/32-10VNC48   |                    |
|                     | GAL20V8B-15LJ        |                    | LC4032V-75T48C                       |                    | M4A5-32/32-10VC48    |                    |
|                     | GAL20V8B-25LJ        |                    | LC4032V-75T48C                       |                    | M4A5-32/32-10VC48    |                    |
|                     | GAL20V8B-25LJI       |                    | LC4032V-75T48I                       |                    | M4A5-32/32-12VI48    |                    |
|                     | GAL20V8B-15QJ        | Pb-Free<br>28-PLCC | LC4032V-75T48C                       | Pb-Free<br>48-TQFP | M4A5-32/32-10VNC48   | Pb-Free<br>48-TQFP |
|                     | GAL20V8B-25QJ        |                    | LC4032V-75T48C                       |                    | M4A5-32/32-10VNC48   |                    |
|                     | GAL20V8B-25QJI       |                    | LC4032V-75T48I                       |                    | M4A5-32/32-12VI48    |                    |
|                     | GAL20V8B-15LJN       |                    | LC4032V-75TN48C                      |                    | M4A5-32/32-10VNC48   |                    |
|                     | GAL20V8B-25LJN       |                    | LC4032V-75TN48C                      |                    | M4A5-32/32-10VNC48   |                    |
|                     | GAL20V8B-25LJNI      |                    | LC4032V-75TN48I                      |                    | M4A5-32/32-12VNI48   |                    |
|                     | GAL20V8B-15QJN       |                    | LC4032V-75TN48C                      |                    | M4A5-32/32-10VNC48   |                    |
|                     | GAL20V8B-25QJN       |                    | LC4032V-75TN48C                      |                    | M4A5-32/32-10VNC48   |                    |
|                     | GAL20V8B-25QJNI      |                    | LC4032V-75TN48I                      |                    | M4A5-32/32-12VNI48   |                    |

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

**EXHIBIT A – Discontinued Device and Recommended Alternative List(Cont'd)**

| Discontinued Device |                      |                    | Recommended Replacement Alternatives |                    |                        |                    |
|---------------------|----------------------|--------------------|--------------------------------------|--------------------|------------------------|--------------------|
| Product Line        | Ordering Part Number | Package Type       | Option #1                            |                    | Option #2              |                    |
|                     |                      |                    | Ordering Part Number                 | Package Type       | Ordering Part Number   | Package Type       |
| GAL20V8C            | GAL20V8C-7LJ         | 28-PLCC            | LC4032V-75T48C                       | 48-TQFP            | M4A5-32/32-7VC48       | 48-TQFP            |
|                     | GAL20V8C-10LJ        |                    | LC4032V-75T48C                       |                    | M4A5-32/32-10VC48      |                    |
|                     | GAL20V8C-10LJI       |                    | LC4032V-75T48I                       |                    | M4A5-32/32-10VI48      |                    |
|                     | GAL20V8C-7LJN        | Pb-Free<br>28-PLCC | LC4032V-75TN48C                      | Pb-Free<br>48-TQFP | M4A5-32/32-7VNC48      | Pb-Free<br>48-TQFP |
|                     | GAL20V8C-10LJN       |                    | LC4032V-75TN48C                      |                    | M4A5-32/32-10VNC48     |                    |
|                     | GAL20V8C-10LJNI      |                    | LC4032V-75TN48I                      |                    | M4A5-32/32-10VNC48     |                    |
| GAL22V10D           | GAL22V10D-10LP       | 24-PDIP            | LC4032V-75T48C                       | 48-TQFP            | M4A5-32/32-10VC48      | 48-TQFP            |
|                     | GAL22V10D-15LP       |                    | LC4032V-75T48C                       |                    | M4A5-32/32-10VC48      |                    |
|                     | GAL22V10D-25LP       |                    | LC4032V-75T48C                       |                    | M4A5-32/32-10VC48      |                    |
|                     | GAL22V10D-10LPI      |                    | LC4032V-75T48I                       |                    | M4A5-32/32-10VI48      |                    |
|                     | GAL22V10D-15LPI      |                    | LC4032V-75T48I                       |                    | M4A5-32/32-12VI48      |                    |
|                     | GAL22V10D-20LPI      |                    | LC4032V-75T48I                       |                    | M4A5-32/32-12VI48      |                    |
|                     | GAL22V10D-25LPI      |                    | LC4032V-75T48I                       |                    | M4A5-32/32-12VI48      |                    |
|                     | GAL22V10D-10QP       |                    | LC4032V-75T48C                       |                    | M4A5-32/32-10VC48      |                    |
|                     | GAL22V10D-15QP       |                    | LC4032V-75T48C                       |                    | M4A5-32/32-10VC48      |                    |
|                     | GAL22V10D-25QP       |                    | LC4032V-75T48C                       |                    | M4A5-32/32-10VC48      |                    |
|                     | GAL22V10D-10LPN      | Pb-Free<br>24-PDIP | LC4032V-75TN48C                      | Pb-Free<br>48-TQFP | M4A5-32/32-10VNC48     | Pb-Free<br>48-TQFP |
|                     | GAL22V10D-15LPN      |                    | LC4032V-75TN48C                      |                    | M4A5-32/32-10VNC48     |                    |
|                     | GAL22V10D-25LPN      |                    | LC4032V-75TN48C                      |                    | M4A5-32/32-10VNC48     |                    |
|                     | GAL22V10D-10LPNI     |                    | LC4032V-75TN48I                      |                    | M4A5-32/32-10VNC48     |                    |
|                     | GAL22V10D-15LPNI     |                    | LC4032V-75TN48I                      |                    | M4A5-32/32-12VNI48     |                    |
|                     | GAL22V10D-20LPNI     |                    | LC4032V-75TN48I                      |                    | M4A5-32/32-12VNI48     |                    |
|                     | GAL22V10D-25LPNI     |                    | LC4032V-75TN48I                      |                    | M4A5-32/32-12VNI48     |                    |
|                     | GAL22V10D-10QPN      |                    | LC4032V-75TN48C                      |                    | M4A5-32/32-10VNC48     |                    |
|                     | GAL22V10D-15QPN      |                    | LC4032V-75TN48C                      |                    | M4A5-32/32-10VNC48     |                    |
|                     | GAL22V10D-25QPN      |                    | LC4032V-75TN48C                      |                    | M4A5-32/32-10VNC48     |                    |
|                     | GAL22V10D-5LJ        | 28-PLCC            | LC4032V-5T48C                        | 48-TQFP            | M4A5-32/32-5VC48       | 48-TQFP            |
|                     | GAL22V10D-7LJ        |                    | LC4032V-75T48C                       |                    | M4A5-32/32-7VC48       |                    |
|                     | GAL22V10D-10LJ       |                    | LC4032V-75T48C                       |                    | M4A5-32/32-10VC48      |                    |
|                     | GAL22V10D-15LJ       |                    | LC4032V-75T48C                       |                    | M4A5-32/32-10VC48      |                    |
|                     | GAL22V10D-25LJ       |                    | LC4032V-75T48C                       |                    | M4A5-32/32-10VC48      |                    |
|                     | GAL22V10D-15LJI      |                    | LC4032V-75T48I                       |                    | M4A5-32/32-12VI48      |                    |
|                     | GAL22V10D-20LJI      |                    | LC4032V-75T48I                       |                    | M4A5-32/32-12VI48      |                    |
|                     | GAL22V10D-25LJI      |                    | LC4032V-75T48I                       |                    | M4A5-32/32-12VI48      |                    |
|                     | GAL22V10D-10QJ       |                    | LC4032V-75T48C                       |                    | M4A5-32/32-10VC48      |                    |
|                     | GAL22V10D-15QJ       |                    | LC4032V-75T48C                       |                    | M4A5-32/32-10VC48      |                    |
|                     | GAL22V10D-25QJ       |                    | LC4032V-75T48C                       |                    | M4A5-32/32-10VC48      |                    |
|                     | GAL22V10D-5LJN       | Pb-Free<br>28-PLCC | LC4032V-5TN48C                       | Pb-Free<br>48-TQFP | M4A5-32/32-5VNC48      | Pb-Free<br>48-TQFP |
|                     | GAL22V10D-7LJN       |                    | LC4032V-75TN48C                      |                    | M4A5-32/32-7VNC48      |                    |
|                     | GAL22V10D-10LJN      |                    | LC4032V-75TN48C                      |                    | M4A5-32/32-10VNC48     |                    |
|                     | GAL22V10D-15LJN      |                    | LC4032V-75TN48C                      |                    | M4A5-32/32-10VNC48     |                    |
|                     | GAL22V10D-25LJN      |                    | LC4032V-75TN48C                      |                    | M4A5-32/32-10VNC48     |                    |
|                     | GAL22V10D-15LJNI     |                    | LC4032V-75TN48I                      |                    | M4A5-32/32-12VNI48     |                    |
|                     | GAL22V10D-20LJNI     |                    | LC4032V-75TN48I                      |                    | M4A5-32/32-12VNI48     |                    |
|                     | GAL22V10D-25LJNI     |                    | LC4032V-75TN48I                      |                    | M4A5-32/32-12VNI48     |                    |
|                     | GAL22V10D-10QJN      |                    | LC4032V-75TN48C                      |                    | M4A5-32/32-10VNC48     |                    |
|                     | GAL22V10D-15QJN      |                    | LC4032V-75TN48C                      |                    | M4A5-32/32-10VNC48     |                    |
|                     | GAL22V10D-25QJN      |                    | LC4032V-75TN48C                      |                    | M4A5-32/32-10VNC48     |                    |
| GAL26CV12B          | GAL26CV12B-10LJ      | 28-PLCC            | LC4032V-75T48C                       | 48-TQFP            | M4A5-32/32-10VC48      | 48-TQFP            |
|                     | GAL26CV12B-15LJ      |                    | LC4032V-75T48C                       |                    | M4A5-32/32-10VC48      |                    |
|                     | GAL26CV12B-20LJ      |                    | LC4032V-75T48C                       |                    | M4A5-32/32-10VC48      |                    |
|                     | GAL26CV12B-15LJI     |                    | LC4032V-75T48I                       |                    | M4A5-32/32-12VI48      |                    |
|                     | GAL26CV12B-20LJI     |                    | LC4032V-75T48I                       |                    | M4A5-32/32-12VI48      |                    |
| GAL26CV12C          | GAL26CV12C-7LJ       | 28-PLCC            | LC4032V-75T48C                       | 48-TQFP            | M4A5-32/32-7VC48       | 48-TQFP            |
|                     | GAL26CV12C-10LJI     |                    | LC4032V-75T48I                       |                    | M4A5-32/32-10VC48      |                    |
| GAL26V12C           | GAL26V12C-7LJ        | 28-PLCC            | LC4032V-75T48C                       | 48-TQFP            | M4A5-32/32-7VC48       | 48-TQFP            |
|                     | GAL26V12C-10LJ       |                    | LC4032V-75T48C                       |                    | M4A5-32/32-10VC48      |                    |
|                     | GAL26V12C-15LJ       |                    | LC4032V-75T48C                       |                    | M4A5-32/32-10VC48      |                    |
|                     | GAL26V12C-20LJ       |                    | LC4032V-75T48C                       |                    | M4A5-32/32-10VC48      |                    |
|                     | GAL26V12C-10LJI      |                    | LC4032V-75T48I                       |                    | M4A5-32/32-10VI48      |                    |
|                     | GAL26V12C-15LJI      |                    | LC4032V-75T48I                       |                    | M4A5-32/32-12VI48      |                    |
|                     | GAL26V12C-20LJI      |                    | LC4032V-75T48I                       |                    | M4A5-32/32-12VI48      |                    |
| ispLSI 1016         | ispLSI 1016-60LJ     | 44-PLCC            | LC4064V-75T48C                       | 48-TQFP            | ispLSI 1016EA-100LJ44  | 44-PLCC            |
|                     | ispLSI 1016-80LJ     |                    | LC4064V-75T48C                       |                    | ispLSI 1016EA-100LJ44  |                    |
|                     | ispLSI 1016-90LJ     |                    | LC4064V-75T48C                       |                    | ispLSI 1016EA-100LJ44  |                    |
|                     | ispLSI 1016-110LJ    |                    | LC4064V-75T48C                       |                    | ispLSI 1016EA-100LJ44  |                    |
|                     | ispLSI 1016-60LJI    | 44-TQFP            | LC4064V-75T48I                       | 48-TQFP            | ispLSI 1016EA-100LJ44  | 44-TQFP            |
|                     | ispLSI 1016-60LT44   |                    | LC4064V-75T48C                       |                    | ispLSI 1016EA-100LT44  |                    |
|                     | ispLSI 1016-80LT44   |                    | LC4064V-75T48C                       |                    | ispLSI 1016EA-100LT44  |                    |
|                     | ispLSI 1016-90LT44   |                    | LC4064V-75T48C                       |                    | ispLSI 1016EA-100LT44  |                    |
| ispLSI 1032         | ispLSI 1032-60LT     | 100-TQFP           | LC4128V-75T100C                      | 100-TQFP           | ispLSI 1032EA-100LT100 | 100-TQFP           |
|                     | ispLSI 1032-80LT     |                    | LC4128V-75T100C                      |                    | ispLSI 1032EA-100LT100 |                    |
|                     | ispLSI 1032-90LT     |                    | LC4128V-75T100C                      |                    | ispLSI 1032EA-100LT100 |                    |
|                     | ispLSI 1032-60LTI    |                    | LC4128V-75T100I                      |                    | ispLSI 1032EA-100LT100 |                    |
|                     | ispLSI 1032-60LJI    |                    | LC4128V-75T100C                      |                    | ispLSI 1032EA-100LT100 |                    |
|                     | ispLSI 1032-80LJ     | 84-PLCC            | LC4128V-75T100C                      | 100-TQFP           | ispLSI 1032EA-100LT100 | 100-TQFP           |
|                     | ispLSI 1032-90LJ     |                    | LC4128V-75T100C                      |                    | ispLSI 1032EA-100LT100 |                    |
|                     | ispLSI 1032-60LJI    |                    | LC4128V-75T100I                      |                    | ispLSI 1032EA-100LT100 |                    |
|                     | ispLSI 1032-60LTI    |                    | LC4128V-75T100I                      |                    | ispLSI 1032EA-100LT100 |                    |
|                     | ispLSI 1032-60LTI    |                    | LC4128V-75T100I                      |                    | ispLSI 1032EA-100LT100 |                    |

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

**EXHIBIT A – Discontinued Device and Recommended Alternative List (Cont'd)**

| Discontinued Device |                           |                    | Recommended Replacement Alternatives |                    |                          |                    |
|---------------------|---------------------------|--------------------|--------------------------------------|--------------------|--------------------------|--------------------|
| Product Line        | Ordering Part Number      | Package Type       | Option #1                            |                    | Option #2                |                    |
|                     |                           |                    | Ordering Part Number                 | Package Type       | Ordering Part Number     | Package Type       |
| ispLSI 1048         | ispLSI 1048-50LQ          | 120-PQFP           | LC4256V-75T144C                      | 144-TQFP           | ispLSI 1048EA-100LQ128   | 128-PQFP           |
|                     | ispLSI 1048-70LQ          |                    | LC4256V-75T144C                      |                    | ispLSI 1048EA-100LQ128   |                    |
|                     | ispLSI 1048-80LQ          |                    | LC4256V-75T144C                      |                    | ispLSI 1048EA-100LQ128   |                    |
|                     | ispLSI 1048-50LQI         |                    | LC4256V-75T144I                      |                    | ispLSI 1048EA-100LQ128   |                    |
| ispLSI 1048C        | ispLSI 1048C-50LQ         | 128-PQFP           | LC4256V-75T144C                      | 144-TQFP           | ispLSI 1048EA-100LQ128   | 128-PQFP           |
|                     | ispLSI 1048C-70LQ         |                    | LC4256V-75T144C                      |                    | ispLSI 1048EA-100LQ128   |                    |
|                     | ispLSI 1048C-50LQI        |                    | LC4256V-75T144I                      |                    | ispLSI 1048EA-100LQ128   |                    |
| ispPAC-POWR1208     | ispPAC-POWR1208-01T44I    | 44-TQFP            | ispPAC-POWR1014-01T48I               | 48-TQFP            | ispPAC-POWR1014A-01T48I  | 48-TQFP            |
|                     | ispPAC-POWR1208-01T44E    |                    | ispPAC-POWR1014-01T48I               |                    | ispPAC-POWR1014A-01T48I  |                    |
|                     | ispPAC-POWR1208-01TN44I   | Pb-Free            | ispPAC-POWR1014-01TN48I              | Pb-Free            | ispPAC-POWR1014A-01TN48I | Pb-Free            |
|                     | ispPAC-POWR1208-01TN44E   | 44-TQFP            | ispPAC-POWR1014-01TN48I              | 48-TQFP            | ispPAC-POWR1014A-01TN48I | 48-TQFP            |
| ispPAC-POWR1208P1   | ispPAC-POWR1208P1-01T44I  | 44-TQFP            | ispPAC-POWR1014-01T48I               | 48-TQFP            | ispPAC-POWR1014A-01T48I  | 48-TQFP            |
|                     | ispPAC-POWR1208P1-01TN44I | Pb-Free<br>44-TQFP | ispPAC-POWR1014-01TN48I              | Pb-Free<br>48-TQFP | ispPAC-POWR1014A-01TN48I | Pb-Free<br>48-TQFP |

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