

Microsemi Corporation: 3417

December 1, 2017

Product/Process Change Notification No: 3417

Change Classification: Major; Design; Transition; Manufacturing Location

Subject

VSC8504XKS-01, VSC8504XKS-04, VSC8552XKS-01, VSC8552XKS-04 Design Update and Alternate Substrate Supplier

Description of Change

A silicon design change has been implemented for the products listed in this notification. The silicon design has changed from revision D to E. As a result of this transition, the following changes apply:

- The revision D devices will be discontinued with a last order date of June 1, 2018 and a last shipment date of December 1, 2018.
- All devices scheduled for shipment after June 1, 2018 must be booked as non-cancelable non-returnable (NCNR). Acceptance of last-time-buy orders is subject to product availability and done at the discretion of Microsemi Corporation. Every effort will be made to fulfill these orders. Pricing and minimum order quantities (MOQ) for the affected devices may change at Microsemi's discretion.
- The complete transition to the revision E devices will occur once the inventory of revision D devices has been depleted.

The ordering part numbers for revision E are listed in the following table.

Current Revision (D)	New Revision (E)
VSC8504XKS-01	VSC8504XKS-02
VSC8504XKS-04	VSC8504XKS-05
VSC8552XKS-01	VSC8552XKS-02
VSC8552XKS-04	VSC8552XKS-05

In addition, Microsemi has qualified Nan Ya PCB Corporation as an alternate substrate supplier for the revision E devices listed. The material set remains the same. Microsemi will also continue to use the current substrate suppliers, ASE and Amkor. Customers may receive devices from any of these suppliers, possibly in the same sales order.

Reason for Change

Microsemi has implemented design changes to address design considerations for Energy Efficient Ethernet (EEE) performance.

The addition of the new substrate supplier helps Microsemi to ensure continuity of supply for these devices.

Application Impact

To maintain software backwards compatibility, the device revision number in bits 3:0 (REV_ID) at register 3 is unchanged from revision D. In revision E, an extended device revision identification has been added at general purpose register 30G (Ext REV ID). Customers are encouraged to ensure that these changes have no impact on customer application software.

Microsemi performed software backward compatibility testing of revision E in systems running an application stack compiled with various recent PHY API releases that support revision D. While no compatibility failures were observed, Microsemi highly recommends that customers migrate to the latest API release, version 4.67.03, for optimal device performance.

Method of Identifying Changed Product

Revision E devices are identified by the appropriate device markings listed in the previous table. In addition, software may identify the device revision using general purpose register 30G.

Traceability of devices using Nan Ya substrate is available upon request.

Products Affected by this Change

VSC8504XKS-01, VSC8504XKS-04, VSC8552XKS-01, VSC8552XKS-04

Production Shipment Schedule

Revision E is qualified for production shipments.

Qualification Data

The revision E datasheets, qualification reports, and material composition declarations are available on the Microsemi web site at www.microsemi.com.

Samples Availability

Samples of revision E with Nan Ya substrate are available now.

Contact Information

If you have further questions related to this topic, contact Microsemi's technical support at ENT.quality@microsemi.com.

Regards,

Microsemi Corporation

Any projected dates in this PCN are based on the most current product information at the time this PCN is being issued, but they may change due to unforeseen circumstances. For the latest schedule and any other information, please contact your local Microsemi Sales Office, the factory contact shown above, or your local distributor.

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