# Manual Update Sheet

# Tiva™ C Series TM4C123x Microcontrollers MicroStar Junior™ BGA Discontinued and Redesigned



#### **ABSTRACT**

This document should be used in conjuction with the device data sheet and describes the updated package designator for the indicated devices.

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## **Trademarks**

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# 1 Package Redesign Details

## **Explanation**

The devices in the MicroStar Junior<sup>™</sup> BGA packaging were redesigned using a laminate nfBGA package. This nfBGA package offers data sheet-equivalent electrical performance. It is also footprint equivalent to the MicroStar Junior BGA. For more details, please refer to this nfBGA Packaging Application Report.

When referencing the device data sheet, use the new package designator in place of the discontinued package designator throughout the document.

The orderable addendum at the end of the device data sheet will reflect the new package designator.

See the following page or the end of the device data sheet for the updated nfBGA package drawing.

Table 1-1. Package Designator

Old Package Designator	New Package Designator
ZRB	NMR

#### **Reason for Discontinuance**

Due to an equipment End-Of-Life notice from our substrate supplier, we are phasing out certain MicroStar BGA™ and MicroStar Junior BGA packaging devices and offering a Last Time Buy.

These devices have now been converted to an nfBGA package.

### **Devices Affected**

The following table describes the devices affected, the old and new package designators, and references to the device data sheet.

Table 1-2. Devices and Nomenclature

Device	Discontinued MicroStar Junior BGA Device <sup>(1)</sup>	Redesigned Laminate nfBGA Device <sup>(1)</sup>	Device Data Sheet
TM4C123BH6x	TM4C123BH6ZRBI	TM4C123BH6NMRI	SPMS370
	TM4C123BH6ZRBI7	TM4C123BH6NMRI7	
	TM4C123BH6ZRBI7R	TM4C123BH6NMRI7R	
	TM4C123BH6ZRBIR	TM4C123BH6NMRIR	
TM4C123GH6x	TM4C123GH6ZRBI	TM4C123GH6NMRI	SPMS378
	TM4C123GH6ZRBI7	TM4C123GH6NMRI7	
	TM4C123GH6ZRBI7R	TM4C123GH6NMRI7R	
	TM4C123GH6ZRBIR	TM4C123GH6NMRIR	
	TM4C123GH6ZRBT	TM4C123GH6NMRT	
	TM4C123GH6ZRBT7	TM4C123GH6NMRT7	
	TM4C123GH6ZRBT7R	TM4C123GH6NMRT7R	

<sup>(1)</sup> Discontinued and redesigned devices are pin-for-pin compatible.

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