



Product Change Notification Form

PCN #: LMI-PCN-060007	Rev: A	Issue Date:	8-Oct-06
Type of Change: Level 1		Effective Date:	30-Nov-06

Reason for Change:

A new all mask layer revision of the LM3S315 (RevC0) was generated to correct RevB errata, implement a new ARM Cortex-M3 release and include several new design features.

Detailed Description of changes:

1. The ARM Cortex-M3 core has been updated to revision r1p0. Please refer to the Cortex-M3 Technical Reference Manual and Cortex-M3 errata for details.
2. Results of reads and writes to reserved memory space outside of the peripheral 4K memory blocks returns a bus fault in RevC0. In previous revisions, this behavior was indeterminate. Refer to the Memory Map section of the device datasheet for details.
3. Access to peripherals whose clocks are not enabled by setting the appropriate bit(s) in the RCGCn registers return a bus fault. In previous versions, this behavior was indeterminate. Refer to the System Control section of the device datasheet for details.
4. The internal oscillator (IOSC) and main oscillator (MOSC) can be independently powered down.
5. The eFlash array is preloaded with a one-time-use serial flash programming utility that uses either the UART0 or the SSI interface. This utility can be used to download initial user code to the eFlash memory array. If this utility is not used, user must perform a mass erase prior to programming the eFlash array. Refer to Appendix A in the device datasheet for details.
6. A new user register, Deep-Sleep Clock Configuration (DSLPCCLKCFG), was added to provide the capability to automatically switch from the main oscillator (MOSC) to the internal oscillator (IOSC) when entering Deep-Sleep mode. Refer to the System Control section of the device datasheet for details.
7. The ADC module includes new optional hardware averaging feature that oversamples raw data conversions for improved ADC noise immunity. This feature is disabled by default. Refer to the Analog-to-Digital Converter section of the device datasheet for details.
8. Electrical specifications for the ADC have been updated. Please refer to the updated specifications INL, DNL, Offset and Gain in the Electrical Specifications of the device Datasheet.

Products Affected:

Old Part Number	Description	Qualification P/N	New Part Number
LM3S315-IQN25B5X	Microcontroller	N/A	LM3S315-IQN25C0X

Forecasted Key Milestones:

Milestone	Date
Samples Available	13-Oct-06
Qualification Report Available	24-Nov-06
Production Release	*30-Nov-06

(*) The date of "First Availability of Post-Conversion Product" is determined by the projected depletion of inventory at the time of the PCN publication. The depletion of inventory may be impacted by fluctuating supply and demand; therefore, although customers should be prepared to receive the Post-Converted products on this date, we will continue to ship the pre-converted products until the inventory has been depleted.

Recommended Action: Accept PCN

Reference Documents / Attachments: N/A

Should you have any issues with the timeline or content of this change, please contact the representative listed below within 10 days. No response will be deemed as customer's acceptance of the change and the change will be implemented pursuant to the key milestones set forth in this PCN.

For questions, concerns, or comments please direct all correspondence to: customer.service@luminarymicro.com

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