PRODUCT BULLETIN Generic Copy

ISSUE DATE:	08-Apr-2013
NOTIFICATION:	15588
TITLE:	KINETIS K SERIES 72 MHZ ERRATA UPDATE
EFFECTIVE DATE:	09-Apr-2013

DEVICE(S)

MPN
/K10DX128VLH7
/K10DX128VLK7
/K10DX128VLK7R
/K10DX128VLL7
/K10DX128VMC7
/K10DX256VLH7
/K10DX256VLK7
/K10DX256VLK7R
/K10DX256VLL7
/K10DX256VMC7
/K10DX64VLH7
/K10DX64VLK7
/K10DX64VLK7R
/K10DX64VMC7
/K20DX128VLH7
/K20DX128VLK7
/K20DX128VLL7
/K20DX128VMC7
/K20DX256VLH7
/K20DX256VLK7
/K20DX256VLL7
MK20DX256VMC7
MK20DX64VLH7
/K20DX64VLK7
MK20DX64VMC7
MK30DX128VLH7
MK30DX128VLK7

MK30DX128VLL7
MK30DX128VMC7
MK30DX256VLH7
MK30DX256VLK7
MK30DX256VLL7
MK30DX256VMC7
MK30DX64VLH7
MK30DX64VLK7
MK30DX64VLK7R
MK30DX64VMC7
MK40DX128VLH7
MK40DX128VLK7
MK40DX128VLL7
MK40DX128VMC7
MK40DX256VLH7
MK40DX256VLK7
MK40DX256VLL7
MK40DX256VMC7
MK40DX64VLH7
MK40DX64VLK7
MK40DX64VMC7
MK50DX128CLH7
MK50DX128CLH7R
MK50DX128CLK7
MK50DX128CLL7
MK50DX128CMC7
MK50DX256CLK7
MK50DX256CLL7
MK50DX256CMC7
MK51DX128CLH7
MK51DX128CLK7
MK51DX128CMC7
MK51DX256CLK7
MK51DX256CLL7
MK51DX256CMC7

AFFECTED CHANGE CATEGORIES DEVICE SPECIFICATION / ERRATA

Page 2 of 5

DESCRIPTION OF CHANGE

The Kinetis K Series 72 MHz (1N36B and 2N36B mask sets) errata documentation has been updated to include additional errata that have been identified and remove errata that have been fixed.

On the freescale.com website, the errata document for the 1N36B mask set will be updated at:

http://cache.freescale.com/files/microcontrollers/doc/errata/KINETIS72MHZ 1N36B.pdf

and a new errata document for the 2N36B mask set will be located at:

http://cache.freescale.com/files/microcontrollers/doc/errata/KINETIS72MHZ_2N36B.pdf

New Errata

Updates to the 1N36B mask set include the addition of eight new errata. Workarounds are available in the Errata Report. These new errata include:

e5751: FTFx: Launching the Read 1's Section command (RD1SEC) on an entire flash block results in access error (ACCER)

e4710: FTM: FTMx_PWMLOAD register does not support 8-/16-bit accesses

e5666: PMC: Maximum current consumption in VLPR, VLPW, VLPS, LLS and VLLS modes may be higher than data sheet specification

e5667: PMC: When used as an input to ADC or CMP modules, the PMC bandgap 1-V voltage reference is not available in VLPx or VLLSx modes

e5130: SAI: Under certain conditions, the CPU cannot reenter STOP mode via an asynchronous interrupt wakeup event

e5952: SMC: Wakeup via the LLWU from LLS/VLLS to RUN to VLPR incorrectly triggers an immediate wakeup from the next low power mode entry

e5704: UART: TC bit in UARTx_S1 register is set before the last character is sent out in ISO7816 T=0 mode

e5928: USBOTG: USBx_USBTRC0[USBRESET] bit does not operate as expected in all cases

Fixed Errata

The following errata that apply to 1N36B have been fixed and qualified on the new 2N36B mask set:

e2793: I2C: MCU does not wake as expected from STOP or VLPS mode on subsequent address matches if previous address is mismatched

e4482: PMC: STOP mode recovery unstable

e4638: PMC: VLLSx mode current draw at cold can exceed maximum specification at cold

e4949: Reset and Boot: Device may not exit the power on reset (POR) event correctly with fast ramp-up slew rates

e3964: When debug is active a wakeup from STOP or VLPS with interrupt causes a hard fault interrupt

Modified Errata

The following errata e4647 on the 1N36B maskset:

e4647: UART: Flow control timing issue can result in loss of characters if FIFO is not enabled

has been rewritten and its errata number changed to e2582 on the 2N36B mask set:

e2582: UART: Flow control timing issue can result in loss of characters

REASON FOR CHANGE

The errata documentation for Kinetis K Series 72 MHz devices has been updated.

ANTICIPATED IMPACT OF PRODUCT CHANGE(FORM, FIT, FUNCTION, OR RELIABILITY)

There have been no changes made to the current production device. The errata describe existing conditions identified on current production devices. There are potential hardware and/or software implications to customers.

NOTE:

THE CHANGE(S) SPECIFIED IN THIS NOTIFICATION WILL BE IMPLEMENTED ON THE EFFECTIVE DATE LISTED ABOVE. To request further data or inquire about the notification, please enter a <u>Service Request</u>

For sample inquiries - please go to www.freescale.com

QUAL DATA AVAILABILITY DATE: 22-Mar-2013

QUALIFICATION STATUS: COMPLETED

QUALIFICATION PLAN:

N/A

RELIABILITY DATA SUMMARY:

N/A

ELECTRICAL CHARACTERISTIC SUMMARY:

N/A

CHANGED PART IDENTIFICATION:

N/A

ATTACHMENT(S):

External attachment(s) FOR this notification can be viewed AT: <u>15588 KINETIS72MHZ 1N36B.pdf</u> <u>15588 KINETIS72MHZ 2N36B.pdf</u>