

Mask Set Errata for Mask 1N40H

Introduction

This report applies to mask 1N40H for these products:

- KINETIS_L

Errata ID	Errata Title
6396	sLCD: LCD_GCR[RVTRIM] bits are in reverse order

e6396: sLCD: LCD_GCR[RVTRIM] bits are in reverse order

Errata type: Errata

Description: The four bits of LCD_GCR[RVTRIM] are in reverse order, in such a way that the LSB corresponds to bit 27 and the MSB corresponds to bit 24 of the LCD_GCR. The RVTRIM adjustment from lower voltage to higher voltage does not follow a linear increase in the LCD_GCR[RVTRIM] value. The RVTRIM adjustment should follow this sequence:

0,8,4,12,2,10,6,14,1,9,5,13,3,7,11,15

to achieve a linear increase from lower voltage to higher voltage.

The reset value of this field is still 8, which corresponds to a low voltage value of the VIREG.

Workaround: You can use a lookup table with the correct order of RVTRIM values for a linear change on the VIREG voltage (contrast). If planning to use a user-selectable contrast, a memory buffer is required to keep track of the logic value of the RVTRIM. When required to increase or decrease the contrast of the LCD, the buffer pointer should be increased or decreased accordingly and the corresponding value from the lookup table should be written to the LCD_GCR[RVTRIM].

To avoid a low voltage on VIREG after reset, LCD_GCR[RVTRIM] must be updated during the LCD initialization routine.





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