

Mask Set Errata for Mask 1N10D

Introduction

This report applies to mask 1N10D for these products:

- MPC5604E

Errata ID	Errata Title
5865	Video Encoder output buffer access is stalled

e5865: Video Encoder output buffer access is stalled

Errata type: Errata

Description: The Video Encoder output buffer gets locked and stalls an ongoing Cross-bar system bus access, if a concurrent event, Cross-bar system bus read access to the Video Encoder output together with one of the Video Encoder events: End of Image, Start of Image, or Alarm event occurs. As the Video Encoder output buffer shares the same Cross-bar system bus port as the FLASH memory, flash memory access is also stalled.

Since the access is locked, Fast Ethernet Controller will not be able to read out data from the Video Encoder output buffer causing an ongoing Ethernet transmit to be aborted and not finished due to a data underrun.

Workaround: The Video Encoder output buffer lock recovers when Video Encoder does a write access to its output buffer in the even cycle.

Dependency on the Video Encoder mode:

- Continuous encoding (VE_MODE[AUTOCLR_GO]=0)

The lock resolves with the next Video Encoder write occurring on an even cycle.

All read accesses should be finished before the next Video Encoder event.



After EOI from the JPEG encoder, delay the start of read from the output buffer and Alarm Interrupt is programmed such that it does not occur while the image header is getting written. This will ensure that the JPEG encoder gets sufficient time to write header information to the output buffer. The JPEG header writes of the new frame will unlock the bus for Cross-bar system bus read.

b) SW Triggered GO bit (VE_MODE[AUTOCLR_GO]=1)

To start write accesses the SW needs to trigger the VE_MODE[AUTOCLR_GO] bit.

Flash memory is not available during the Cross-bar system bus access to the Video Encoder output buffer access is stalled which cause that no software can be executed. In this case VE_MODE[AUTOCLR_GO] bit is not triggered and the lock does not resolve.

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