Release Notes
CX23418 Firmware

CONTENTS

Introduction

This document contains the release notes for CX23418 Firmware. The following sections describe the release in detail and provide late-breaking or other information that supplements the main documentation. The CX23418 firmware component consists of three sub modules, which are Audio module, MPEG encoder module and the Video Decoder module.

Minimum System Requirements

- CX23418 based PCI Card

Disclaimer

This is an early access release for wide evaluation and usage. Your feedback is important to us; please help us make this the best product possible. Keep in mind that we are continuing to work on this product and things may change in the future.

Release Overview
Product Release Information

Product:	CX23418 Firmware for CX23418-22ZZ
Version Information	Video encoder Firmware : Version 0.74.000 Audio encoder Firmware : Version 0.18.000
Release Date	3/15/2007

What's New?

- No new features added except for bug fixes

Resolved Issues

ID	TYPE	Summary	Fix
26676	DEFECT	The motion compensation parameter is over the search range of the cx23418 encoded stream	This was related to the code out of alignment, and the Optimization needs to change to level 2 (best code)
27398	CODE IMPROVEMENT	Restructure the VIM module in the MiniMe firmware.	Cleaned up the VIM module and removed the dead code. Long term test was run for more than 48hrs

Known Problems and Workarounds

ID	Type	Summary	Workarounds

History
Version 0.0.73.0 (2/15/2007)

ID	TYPE	Summary	Fix
27385	DEFECT	The Mpeg Video and Audio Firmware Version are not correct when testing with DVB-T	This problem was related to the restructure of the MDL module. The MDL module was not initialized when DVBT/TS first started running right after the driver installed or resumed from Sleep/Hibernate. The firmware has modified to ensure the MDL module initialized for both streams.

Version 0.0.72.0 (2/08/2007)

ID	TYPE	Summary	Fix
23019	DEFECT	Firmware needs to read ME_REG_ADDR_DSP_SRAM_ACCESS register twice to get the correct value.	The firmware has been double checked to ensure it reads this register twice when getting the value. Found one place in the meHandle module where it reads this register once, and it is now corrected. Tested with Raptor XHD for 4 days
26676	DEFECT	The motion compensation parameter is over the search range of the cx23418 encoded stream	Correct the motion vectors that are out of range in memory

Version 0.0.71.0 (12/29/2006)
- Update release. Refer to 0.70.000 release notes for fixes

Version 0.0.70.0 (12/27/2006)
- Update release. Refer to 0.69.000 release notes for fixes

Version 0.0.69.0 (12/27/2006)

ID	TYPE	Summary	Fix
26876	DEFECT	Analog path "Loss of Signal" during live TV on CX23418 based board	The root cause of LOS was related to the synchronization in the Mailbox between the firmware and the driver. To resolve this issue, the firmware has been modified to improve the synchronization

Version 0.0.68.0 (11/21/2006)
- No bug fixes in this release. Except that this was made a public release. All the fixes where done on 0.67.000

Version 0.0.67.0 (11/17/2006)

ID	TYPE	Summary	Fix
26547	DEFECT	missing API CPU_CMD_TS_ERROR_PAC KET_PASS_THROUGH	Added the missing API CPU_CMD_TS_ERROR_ PACKET_PASS_THROU GH

Version 0.0.66.0 (11/17/2006)

ID	TYPE	Summary	Fix
25389	FEATURE ENHANCEMENT	Need to have Firmware API to enable or disable 3D Comb filtering in Minime	API added back and enabled , (removed from the previous. build because of firmware stability issue)
25736	FEATURE ENHANCEMENT	Change the default MUX to GPIO2 input	Add Back the GPIO2 API, instability fixed Change the firmware inside main routine to modify the GPIO register to default to input. It does not affect Raptor because drivers call the API to reset the mux according to our hardware
25868	FEATURE ENHANCEMENT	Ignore bad TS packet detection on CX23418	Changed TSP (pinky) code to allow packets with TEI bit set to either get flushed or pass through via API. Changed video FW and added and API to command the TSP to pass through or flush TS packets with the TEI bit set. Modified TS file and set every 20th TS packet of a certain PID to have the TEI bit set. Analyzed file dumps to determine if packets were either flushed or passes depending upon API setting

Version 0.0.65.0 (10/20/2006)

ID	TYPE	Summary	Fix
25210	FEATURE ENHANCEMENT	Need to be able to set the TS port in both Serial and Parallel mode	Added the TS INPUT API into the firmware Fixed in FW
25389	FEATURE ENHANCEMENT	Need to have Firmware API to enable or disable 3D Comb filtering in Minime	API added back and enabled , (removed from the previous. build because of firmware stability issue)
25736	FEATURE ENHANCEMENT	Change the default MUX to GPIO2 input	Add Back the GPIO2 API, instability fixed Change the firmware inside main routine to modify the GPIO register to default to input. It does not affect Raptor because drivers call the API to reset the mux according to our hardware
25868	FEATURE ENHANCEMENT	Ignore bad TS packet detection on CX23418	Changed TSP (pinky) code to allow packets with TEI bit set to either get flushed or pass through via API. Changed video FW and added and API to command the TSP to pass through or flush TS packets with the TEI bit set. Modified TS file and set every 20th TS packet of a certain PID to have the TEI bit set. Analyzed file dumps to determine if packets were either flushed or passes depending upon API setting

Version 0.0.64.0 (10/18/2006)

ID	TYPE	Summary	Fix
25944	DEFECT	Windows MCE stops after ~3Hours with No Signal message	Perform code cleanup back to Version 0.0.60.0, add nops before the main routine

Version 0.0.63.0 (Internal Build)
- Internal Test Release

Version 0.0.62.0 (Internal Build)
- Internal Test Release

Version 0.0.61.0 (September 15th 2006)

ID	TYPE	Summary	Fix
25736	DEFECT	Change the default MUX to GPIO2 input.	Change the firmware inside main routine to modify the GPIO register to default to input

Version 0.0.60.0 (August 31st 2006)

ID	TYPE	Summary	Fix
25213	CODE CHANGE	CX23418 power consumption increases (Customer Request)	Added a Firmware API to set the GPIO MUX for GPIO Input, GPIO Output or to AVO.

Version 0.0.59.0 (August 31st 2006)
- Internal Test Release

Version 0.0.58.0 (June 21st 2006)

ID	TYPE	Summary	Fix
24584	DEFECT	VBI slicing code of the Mako block in MiniMe sometimes provides wrong index into data buffer.	In the module vimvbihandler.c, the logic is fixed to use the field bit to place the VBI data in the correct place in the CC array.