1/3-Inch CMOS Digital Image Sensor

MT9M034

Silicon Revision 3 Errata

For the latest data sheet, refer to Aptina's Web site: www.aptina.com

Introduction

This errata shows the known issues to date for Aptina 's MT9M034 silicon revision 3 (Rev3). This errata is provided for customer information at this time. Any permanent changes will be incorporated into the next revision of the data sheet.

Known Issues and Workaround

Table 1: Known Issues and Workarounds

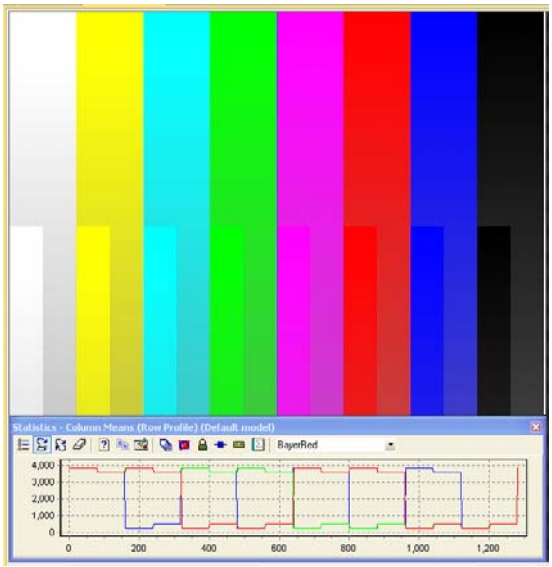
Issue#	Title Description Workaround	Details
1	Title	Fade-to-gray digital test pattern is different from the previous version.
	Description	The rectangular vertical bars in the fade-to-gray digital test pattern look like the image shown. 
	Workaround	No workaround.
2	Title	Pixel value for solid color test pattern
	Description	When the solid color test pattern mode is enabled and value of 0 is programmed for all color planes, the sensor outputs value of 2 for all color planes.
	Workaround	No workaround.

Table 1: Known Issues and Workarounds (continued)

Issue#	Title Description Workaround	Details
3	Title	HiVCM driver output impedance not within specification
	Description	The HiVCM driver output impedance is higher (200-250 ohms) than specification (40-100 ohms)
	Workaround	No workaround. This will be fixed in MP silicon.
4	Title	Clipped bits in companded data when using exposure ratios other than T1/T2 = 16x and T2/T3 = 16x
	Description	When using companded output in combination with certain exposure ratios digital gain needs to be set to a fixed value
	Workaround	Table 2 provides the proper digital gain setting for each T1/T2 and T2/T3 ratio

Table 2: Digital Gain Setting for Each T1/T2 and T2/T3Ratio

T1/T2 Ratio	T2/T3 Ratio	Setting for Digital Gain Register (0x305E Context A or 0x30C4 Context B)
4	4	0x02h
4	8	0x04h
4	16	0x08h
8	4	0x04h
8	8	0x08h
8	16	0x10h
16	4	0x08h
16	8	0x10h
16	16	Any legal value

Revision History

Rev. A 10/28/10

- Initial release

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