

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

| lssue# | Title Description Workaround | Details | | |
|--------|------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| | Title | Fade-to-gray digital test pattern is different from the previous version. | | |
| 1 | Description | The rectangular vertical bars in the fade-to-gray digital test pattern look like the image shown. | | |
| | Workaround | No workaround. | | |
| | Title | Pixel value for solid color test pattern | | |
| 2 | 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. | | |

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Table 1: Known Issues and Workarounds (continued)

| lssue# | Title Description Workaround | Details | |
|--------|------------------------------------|-----------------------------------------------------------------------------------------------------------------------|--|
| | Title | HiVCM driver output impedance not within specification | |
| 3 | 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. | |
| | Title | Clipped bits in companded data when using exposure ratios other than T1/T2 = 16x and T2/T3 = 16x | |
| 4 | 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 | |
|--------|--|
|--------|--|

• Initial release

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