



1/5-Inch 1.3Mp CMOS Digital Image Sensor

MT9M019 Silicon Revision 2 Errata

Introduction

This errata summarizes known issues to date for Micron's MT9M019 Silicon Revision 2 (Rev2). This errata is provided for customer information at this time, and customers are not required to respond to this document. Any permanent changes will be incorporated into the next revision of the data sheet.

Table 1 summarizes known issues in the current silicon revision with work arounds.

Table 1: Known Issues and Work Arounds

Issue #	Title Description Work Around	Details
1	Title	Memory failures.
	Description	Image artifacts caused by failure in the sequential access memory (SAM).
	Work Around	Artifacts may be reduced by higher VDD (2.1V).
2	Title	Pixels not saturated with increased integration time.
	Description	With gains at 1X, the pixels cannot be saturated by increased integration time.
	Work Around	Increase minimum gain for any channel to 1.5X. In the SMIA set of registers, the associated register value for 1.5X gain is 0x000C.
3	Title	Unstable black level.
	Description	The black level might be unstable when the integration time changes significantly.
	Work Around	For significant integration time changes, take two steps (one large and one small) instead of one large step. For example, to jump from 50 row-time to 500 row-time, take an intermediate jump to 499 row-time.

Table 2 summarizes the changes from the previous silicon revision to the current silicon revision.

Table 2: Changes from Silicon Rev 1

Item #	Change Description
1	Issue # 1 in silicon Rev 1 errata—color mixing issue has been fixed by design modification in Rev 2 silicon.
2	Issue # 2 in silicon Rev 1 errata—column drop issue has been fixed by design modification in Rev 2 silicon.
3	Issue # 3 in silicon Rev 1 errata—false synchronization code protection issue has been fixed by design modification in Rev 2 silicon.



MT9M019: 1/5-Inch 1.3-Mp Digital Image Sensor ERRATA Document Change History

Document Change History

Document Version	Date	Change to Document
A	9/13/06	Initial release



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