



Technical Note

MT9P012—Optimized Register Settings

Introduction

This technical note provides register settings used to correct for the column band sometimes seen in very bright light condition. It also provides optimized register settings for the MT9P012 sensor.

Column Band

A dark band is occasionally seen across the height of the image when a bright light like the sun is directed to the bottom of the sensor array, as shown in Figure 1. This effect can be mitigated effectively by setting register bit field R0x308A[6] to 0x0000.

Figure 1 and Figure 2 on page 2 illustrate the column band effect.

Figure 1: Column Band In Image with R0x308A[6] = 1 (Default)

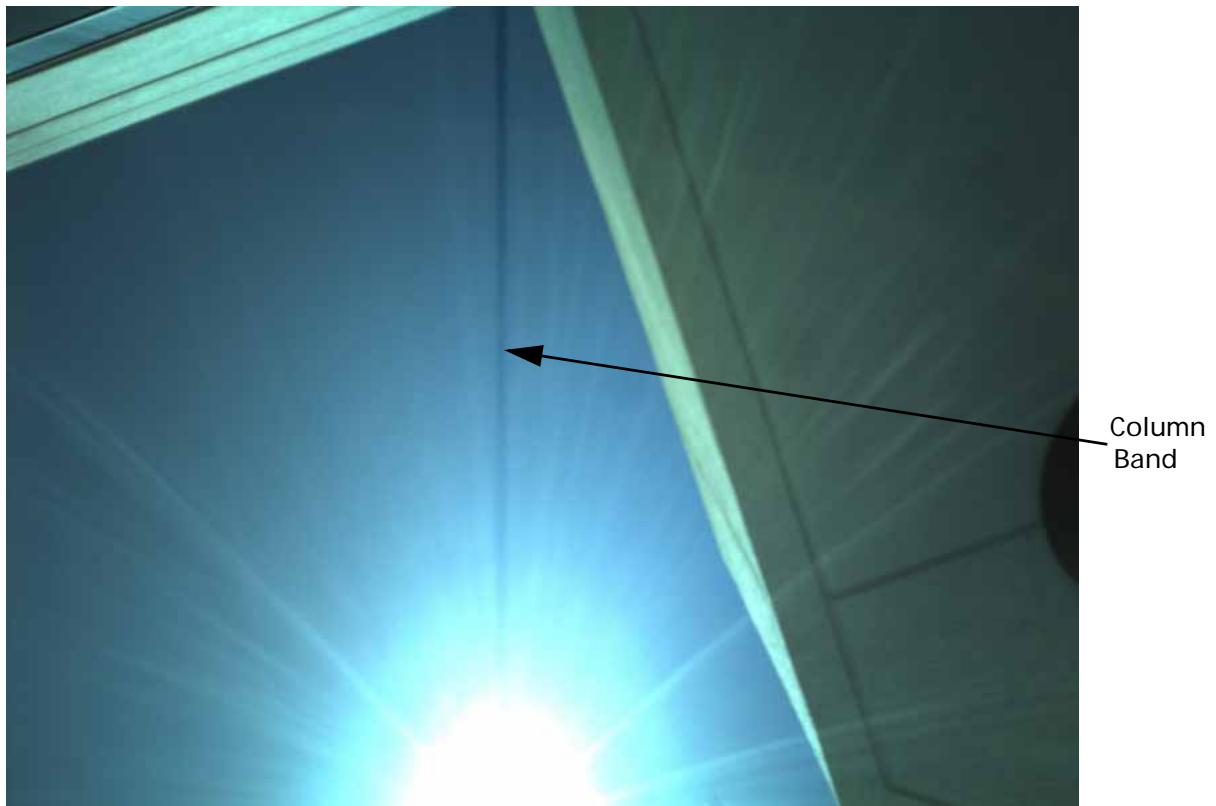




Figure 2: Column Band Eliminated with R0x308A[6] = 0





Register Optimization

Table 1: Optimized REV1 to REV2 Register Default Changes

Register Name	Address	REV2 Default	REV1 Default
Reserved	0x3088	0x6FFB	0x6FF0
Reserved	0x308E	0x2020	0x1616
Reserved	0x309E	0x4400	0x6500
Reserved	0x30D4	0x9080	0x8080
Reserved	0x30EA	0x3F06	0x3F03
Reserved	0x3126	0x00FF	0xE302
Reserved	0x3154	0x1482	0x1481
Reserved	0x3158	0x97C7	0x0000
Reserved	0x315A	0x97C6	0x0000
global_rst_end	0x3162	0x074C	0x0050
global_shutter_start	0x3164	0x0756	0x0078
global_read_start	0x3166	0x0760	0x00A0
Reserved	0x316E	0x8488	0x8400
Reserved	0x3172	0x0003	0x0000



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Revision History

Rev. A	8/13/2007
• Initial release	