



1/6-Inch 720P High-Definition (HD) System-On-A-Chip (SOC) Digital Image Sensor

MT9M114 Data Sheet Addendum

For more information, refer to the data sheet on Aptina's Web site: www.aplina.com

Introduction

This document supplements Aptina's MT9M114 data sheet by updating the CRA and recommended IRCF (Infra-Red Cut filter) to be used. The standard CMOS digital image sensor data sheet should be referenced for a complete description of this 1/6-inch HD image sensor. The specifications contained in this addendum supersede the specifications listed in the referenced CMOS digital image sensor data sheet.

CRA Specification

This addendum describes an updated CRA.

Table 1: Ordering Information

| Part Number | Description |
|--------------------------|---------------------------|
| MT9M114D00STCZ K24BC1 AS | AS die |
| MT9M114D00STCZ K24BC1 ES | ES die |
| MT9M114D00STCZ K24BC1 | MP die |
| MT9M114EBLSTCZ AS | CSP AS |
| MT9M114EBLSTCZ ES | CSP ES |
| MT9M114EBLSTCZ | CSP MP |
| MT9M114PACSTCZH ES | Camera Head Board PBGA 27 |
| MT9M114PACSTCZD ES | Camera demo kit PBGA27 |



Table 2: Chief Ray Angle

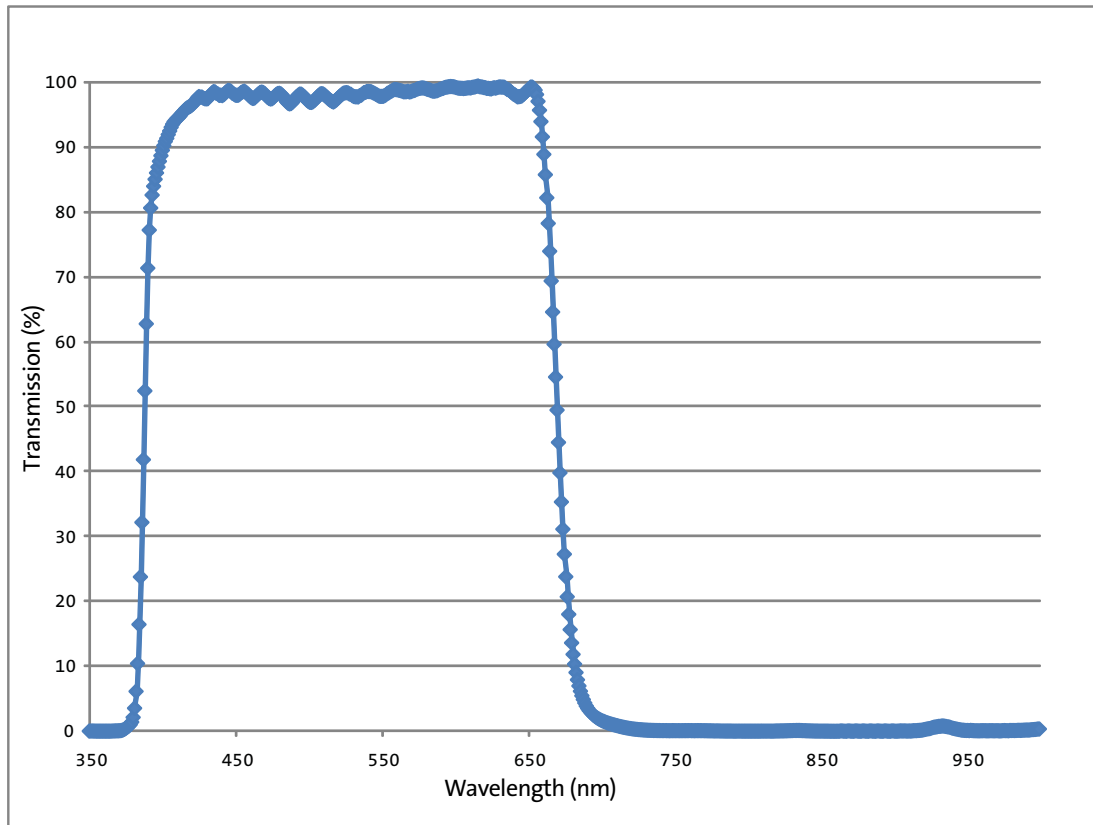
| | Image Height | | CRA |
|-----|--------------|-------|-------|
| | (%) | (mm) | (deg) |
| | 0 | 0 | 0 |
| | 5 | 0.076 | 2.51 |
| | 10 | 0.152 | 4.98 |
| | 15 | 0.228 | 7.44 |
| | 20 | 0.304 | 9.89 |
| | 25 | 0.380 | 12.32 |
| | 30 | 0.456 | 14.68 |
| | 35 | 0.532 | 16.94 |
| | 40 | 0.608 | 19.08 |
| | 45 | 0.684 | 21.03 |
| | 50 | 0.760 | 22.78 |
| | 55 | 0.836 | 24.28 |
| | 60 | 0.912 | 25.52 |
| | 65 | 0.988 | 26.49 |
| | 70 | 1.064 | 27.16 |
| | 75 | 1.140 | 27.57 |
| | 80 | 1.216 | 27.70 |
| | 85 | 1.292 | 27.60 |
| | 90 | 1.368 | 27.29 |
| | 95 | 1.444 | 26.81 |
| 100 | 1.520 | 26.20 | |



ICRF Specification

Aptina recommends that a 670nm IRCF is used with MT9M114; the tolerance on the IRCF should be +/-5nm. Figure 1 shows a typical 670nm IRCF response.

Figure 1: Typical 670nm IRCF Response





Revision History

| | |
|-------------------|---------|
| Rev. A | 6/10/10 |
| • Initial release | |

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Advance: This data sheet contains initial descriptions of products still under development.