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| | | |
| Optical Format | | 1/2.9-inch 8 MP (16:9) |
| Active Pixels | | 3840 x 2160 |
| Pixel Size | | 1.4 μm Back Side Illuminated (BSI), |
| Chief Ray Angle (CRA) | | 11 \checkmark , 35 \checkmark |
| Color Filter Array | | RGB Bayer, RGB-IR, Monochrome |
| Input Clock Frequency | | 6-48 MHz |
| Interface | | 4-lane MIPI (1- and 2-lane supported) using D-PHY; Max data rate: 1.5 Gbps/lane |
| ADC Resolution | | 10-bits, on die |
| Gain Control: Gain Table | | Linear Mode: 0–53.6 dB total (Analog 0–27.3 dB, Digital 0–26.3 dB) |
| Subsampling | | Subsampling: Skipping (RGB, Mono), Binning (RGB), Summing (Mono) (Note 2) |
| Temperature Sensor | | 10-bit, controlled by two-wire serial I/F |
| Frame Rate | Full Size, Linear Mode | 60 fps (MIPIx4), 30 fps (MIPIx2) |
| Compression | | DPCM: 10–8 |
| 3D Support | | Frame rate and exposure synchronization |
| Supply Voltage | Analog, Pixel | 2.8 V (2.7 V < V_{supply} < 2.9 V) |
| | I/O | 1.8 V (1.7 V < V_{supply} < 1.9 V) |
| | PLL, MIPIphy | 1.05 V (1 V < V_{supply} < 1.1 V) |
| Power Consumption | | 190 mW (Typical condition) at 8M and 60 fps |
| Responsivity | | 17.3 ke-/lux-sec (Clear in Mono) 8.0 ke-/lux-sec (Green in RGB-IR) 8.7 ke-/lux-sec (Green in RGB) |

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| Native | 4K Linear Full Res | 3840 x 2160 | 60 |
| Native | 4K Linear Full Res, Lower Frame Rate | 3840 x 2160 | 30 |
| SLP Native | 4K Linear Full Res, Lowest Power | 3840 x 2160 | 1 |
| LI Native | 4K 2-exp LI-HDR | 3840 x 2160 | 30 |
| eDR Native | 4K eDR | 3840 x 2160 | 30 |
| Max Frame Rate | Crop Linear for Max Fps | 1650 x 1650 | 90 |
| Bin2 | 2 MP Linear | 1920 x 1080 | 120 |
| Bin4 | 0.5 MP Linear | 960 x 540 | 1 |
| WOM Bin4 | Wake On Motion w/ Streaming | 960 x 540 | 1 |

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| eDR Native | 4K eDR | 3840 x 2160 | 30 |

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| AR0830CSSC11SMKA1-CP | 8 MP 1/2.9" CMOS Image sensor RGB 11 \checkmark CRA | CSP with Protective Film |
| AR0830CSSC11SMKA1-CP2 | 8 MP 1/2.9" CMOS Image sensor RGB 11 \checkmark CRA | CSP with Protective Film Low MOQ |
| AR0830CSSC11SMKAH3-GEVB | 8 MP 1/2.9" CMOS Image sensor RGB 11 \checkmark CRA | Demo3 Headboard |

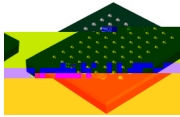
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| | | |
| AR0830CSSM11SMKA1-CP | 8 MP 1/2.9" CMOS Image sensor Mono 11 \checkmark CRA | CSP with Protective Film |
| AR0830CSSM11SMKA1-CP2 | 8 MP 1/2.9" CMOS Image sensor Mono 11 \checkmark CRA | CSP with Protective Film Low MOQ |
| AR0830CSSM11SMKAH3-GEVB | 8 MP 1/2.9" CMOS Image sensor Mono 11 \checkmark CRA | Demo3 Headboard |

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| | | |
| AR0830CSSH11SMKA1-CP | 8 MP 1/2.9" CMOS Image sensor RGBIR 11 \checkmark CRA | CSP with Protective Film |
| AR0830CSSH11SMKA1-CP2 | 8 MP 1/2.9" CMOS Image sensor RGBIR 11 \checkmark CRA | CSP with Protective Film Low MOQ |
| AR0830CSSH11SMKAH3-GEVB | 8 MP 1/2.9" CMOS Image sensor RGBIR 11 \checkmark CRA | Demo3 Headboard |

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| AR0830CSSC35SMKA1-CP | 8 MP 1/2.9" CMOS Image sensor RGB 35 \checkmark CRA | CSP with Protective Film |
| AR0830CSSC35SMKA1-CP2 | 8 MP 1/2.9" CMOS Image sensor RGB 35 \checkmark CRA | CSP with Protective Film Low MOQ |
| AR0830CSSC35SMKAH3-GEVB | 8 MP 1/2.9" CMOS Image sensor RGB 35 \checkmark CRA | Demo3 Headboard |

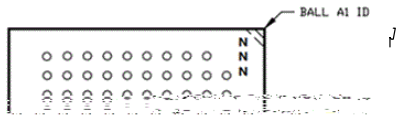
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| | | |
| AR0830CSSH35SMKA1-CP | 8 MP 1/2.9" CMOS Image sensor RGBIR 35 \checkmark CRA | CSP with Protective Film |
| AR0830CSSH35SMKA1-CP2 | 8 MP 1/2.9" CMOS Image sensor RGBIR 35 \checkmark CRA | CSP with Protective Film Low MOQ |
| AR0830CSSH35SMKAH3-GEVB | 8 MP 1/2.9" CMOS Image sensor RGBIR 35 \checkmark CRA | Demo Headboard |

3. Refer to AR0830 Die Data Sheet for Die Part Numbers & Ordering Information.



ODCSP59 6.41x3.91x0.63, 0.50P
CASE 570AY
ISSUE O

DATE 15 NOV 2023



RECOMMENDED MOUNTING FOOTPRINT*

*FOR ADDITIONAL INFORMATION ON OUR PB-FREE

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