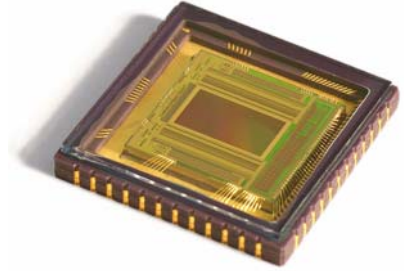


High-Resolution, High-Frame-Rate CMOS Digital Imaging Sensors

1.3 Mpixel to 5 Mpixel Resolution Sensors for High-Definition Video and Still Imaging



Introducing AltaChrome 4T HD Technology — Up to 12-Bit Output in Progressive Scan

The AltaChrome™ family of high-definition CMOS imaging sensors delivers the latest technological advancements from AltaSens, including patented AltaChrome 4T pixels, patent-pending BitsDReam™ technology, 12-bit still images, and, as always, native progressive readout.

Our next-generation imaging System-on-Chip (iSoC) technology uniquely provides up to 12 bits (or more) per pixel to produce high-quality HD video and still images at the highest frame rate, lowest power consumption, and lowest random noise currently available. AltaChrome sensors are supported by a patent-pending 20-bit signal-processing engine that is fully compatible with Electronic Image Stabilization (EIS) functionality.

For capturing high-contrast scenes with unprecedented fidelity, AltaSens' patented BitsDReam technology provides high definition, high dynamic range (HD2R™) imaging while maintaining superb image quality and spontaneity of image capture. AltaChrome sensors seamlessly support disparate applications at full performance.

To support the most demanding applications for high-definition consumer products, AltaSens has introduced a new generation of AltaChrome technology which provides improved low-light response, higher sensitivity, and stronger over-light response. The first AltaChrome products to include these next-generation process and design improvements are the A3370E2-4T and A3372E2-4T image sensors. The "E" in their product names indicates that these sensors contain the new, enhanced technology.

AltaChrome Family of Image Sensors

Model	Optical Format	CFA	Pixel Pitch (µm)	Effective Pixel Array (H x V)	Effective Pixels (Mpixels)	Maximum Frame Rate at Full Resolution (fps)	Readout Formats	BitsDReam Support (HD2R)	High-Definition Applications					
									Broadcast	Professional	Digital Camcorder	Medical Industrial	Videoconferencing	Security Surveillance
A3370E2-4T	1/3" (16:9)	Mono	2.7	1984 x 1112	2.2	60	• 1080p60	◆		◆	◆	◆		
A3372E2-4T	1/3" (16:9)	RGB	2.7	1984 x 1112	2.2	60	• 1080p60 • EIS 720p60	◆			◆	◆	◆	◆

ProCamHD 3T Tapered-Reset HD Technology — 12-Bit Output in Progressive Scan

The ProCamHD™ family of high-performance CMOS-based image sensors provides high sensitivity and dynamic range at low power consumption for all segments of the high-definition camera market. AltaSens' Tapered-Reset technology is a patented imaging System-on-chip (iSoC) architectural solution, implementing kTC-noise suppression that delivers unprecedented high-definition video quality and exposure latitude. AltaSens' iSoC designs provide precise 12-bit digitization supported by native 12-bit signal processing, as well as advanced features such as pixel binning and proprietary fixed pattern noise (FPN) reduction technology to yield high data rates and superior video performance. ProCamHD sensors are currently shipping in volume to power many next-generation HD products in the Broadcast, Professional, and Videoconferencing markets.

ProCamHD Family of Image Sensors

Model	Optical Format	CFA	Pixel Pitch (µm)	Effective Pixel Array (H x V)	Effective Pixels (Mpix)	Maximum Frame Rate at Full Resolution (fps)	Readout Formats	High-Definition Applications						
								Broadcast	Professional	Digital Camcorder	Medical Industrial	Videoconferencing	Security Surveillance	
P2460-3T	1/3" (16:9) 1/2.8" (4:3)	Mono	3.9	1312 x 1032	1.3	48	<ul style="list-style-type: none"> 720p60 SMPTE 274M compliant 		◆	◆	◆			
P2462-3T	1/3" (16:9) 1/2.8" (4:3)	RGB	3.9	1312 x 1032	1.3	48	<ul style="list-style-type: none"> SXGAp48 720p60 			◆	◆	◆	◆	
P3570-3T	2/3" (16:9)	Mono	5	2112 x 1188	2.5	72	<ul style="list-style-type: none"> 1080i60 with line mixing 1080p60 720p120 	◆						
P4560-3T	2/3" (16:9)	Mono	5	2112 x 1188	2.5	72	<ul style="list-style-type: none"> 1080p60 720p120 		◆		◆			
P4562-3T	2/3" (16:9)	RGB	5	2112 x 1188	2.5	72	<ul style="list-style-type: none"> 1080p60 720p120 		◆		◆	◆	◆	

All AltaSens image sensors are compliant with the Restriction of Hazardous Substances (RoHS) directive, and all sensor packages are lead-free.

AltaChrome iSoC sensor features and specifications are subject to change without notice.

AltaChrome iSoCs, like other integrated circuits, are susceptible to damage by electrostatic discharge (ESD), which may damage or degrade a sensor's overall performance.

AltaSens, AltaChrome, BitsDReam, HD2R, and ProCamHD are trademarks of AltaSens, Inc.

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