CYPRESS PRODUCT SELECTOR GUIDE
IMAGE SENSORS
APRIL 2009

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CYPRESS
P E R F O R M

IMAGE SENSORS

CUSTOM IMAGE SENSORS

We provide complete development services, including sensor design, silicon prototyping, package design, assembly flow setup, test system development, full electro-optical characterization, qualification, and turn-key manufacturing support for all custom designs.

Key Applications: Multimegapixel digital photography ,large area sensors (w/and w/o stitching), ultra high speed imaging, machine vision imaging, linear and 2D barcode imaging, medical x-ray imaging, single chip camera integration, radiation hardened CMOS image sensors for space and nuclear use.

STANDARD IMAGE SENSORS

Cypress's standard image sensors include the IBIS4, IBIS5, LUPA, and STAR products. All IBIS4 sensors use 3-transistor pixels and employ a rolling electronic shutter.

Key Applications: High speed imaging, medical imaging, biometry, machine vision, bar code, traffic monitoring

Part Number	Status	Application	Features	Frame Rate	Optical Format	Pixel Size	Resolution	Supply Voltage	Color	Package
IBIS4										
IBIS4-14000 CYII4SM014KAA-GEC CYII4SM014KAA-GWC	Active	Biometry, Machine Vision, Instrumentation, Document Scanning, Medical, Digital Photography	Rolling Shutter, Windowing, On-Chip FPN Correction, SPI, Double Slope	3 fps	35 mm	8 µm x 8 µm	3048 x 4560	3.3 V	Monochrome	49 PGA
IBIS4-6600 CYII4SC6600AB-QDC CYII4SM6600AB-QDC CYII4SM6600AB-QWC	Active	Biometry, Machine Vision, Instrumentation, Document Scanning, Medical, Digital Photography	Rolling Shutter, Windowing, On-Chip FPN Correction, SPI, Double Slope	5 fps	2/3 inch	3.4 µm x 3.4 µm	2210 x 3002	2.5 V	Monochrome & Color RGB	68 LCC
IBIS5										
IBIS5-B-1300 CYII5SM1300AB-QDC CYII5SM1300AB-QWC CYII5SC1300AB-QDC CYII5FM1300AB-QDC CYII5FM1300AB-QWC	Active	Machine Vision, Automation, Inspection, NIR Light Detection	Rolling/Snapshot Shutter, windowing, subsampling, on-chip FPN, SPI/Parallel	27 fps	2/3 inch	6.7 µm x 6.7 µm	1280 x 1024	3.3 V to 4.5 V	Monochrome & Color RGB	84 LCC
LUPA										
LUPA-300 CYIL1SE0300AA-QDC CYIL1SM0300AA-QDC CYIL1SM0300AA-QWC	Active	Machine Vision, Motion Analysis, Scientific High-Speed Image Analysis	Triggered & Pipelined Sync Shutter, Windowing, SPI, Multiple Slope	250 fps	1/2 inch	9.9 µm x 9.9 µm	640 x 480	3.3V	Monochrome & Color RGB	48 LCC
LUPA-1300-2 CYIL2SM1300AA-GWCES CYIL2SM1300AA-GZDC CYIL2SC1300AA-GZDC	Sampling	Machine Vision, Motion Analysis, Scientific High-Speed Image Analysis	Pipelined Snapshot Shutter, Windowing, SPI, Double Slope, LVDS outputs	500 fps	1 inch	14 µm x 14 µm	1280 x 1024	5V	Monochrome & Color RGB	168 µPGA
LUPA-4000 CYIL1SM4000AA-GDC CYIL1SM4000AA-GWC CYIL1SC4000AA-GDCES	Active	Machine Vision, Traffic Monitoring, License Plate Capture	Pipelined Snapshot Shutter, Windowing, SPI, Double Slope	15 fps	1 inch F-mount	12 µm x 12 µm	2048 x 2048	2.5V to 3.3V	Monochrome & Color RGB	127 PGA
LUPA-3000 CYIL1SN3000AA-BDCES CYIL1SE3000AA-BDCES	Sampling	High Speed Machine Vision, ITS, Holographic Data Storage, Motion Analysis, Medical Imaging, Industrial Imaging	Pipelined Snapshot Shutter, dual slope, SPI, LVDS outputs, Windowing	485 fps	1 inch	8 µm x 8 µm	1696 x 1710	2.5 V	Monochrome & Color RGB	399 BGA

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Part Number	Status	Application	Features	Frame Rate	Optical Format	Pixel Size	Resolution	Supply Voltage	Color	Package
STAR										
STAR-1000 CYIS1SM1000AA-HQC CYIS1SM1000AA-HHC CYIS1SM1000AA-HHCS	Active	Satellite Optical Altitude, Comm Sensors, Spacecraft Visual monitors, Nuclear, Radiation environments, Space Science, Planetary Imaging, Particle Detection Systems, Rover Vision Systems, Lander Camera, Startrackers, Sun Sensors, Optical Docking Systems, Visual Monitoring	Rolling Shutter, dual slope, windowing, SPI	11 fps	1 inch to 33 mm	15 µm x 15 µm	1024 x 1024	5V	Monochrome	84 JLCC
STAR-250 CYIS1SM0250AA-HQC CYIS1SM0250AA-HHC CYIS1SM0250AA-HHCS	Active	Satellite Optical Altitude, Comm Sensors, Spacecraft Visual monitors, Nuclear, Radiation environments, Space Science, Planetary Imaging, Particle Detection Systems, Rover Vision Systems, Lander Camera, Startrackers, Sun Sensors, Optical Docking Systems, Visual Monitoring	Rolling Shutter, dual slope, windowing, SPI	29 fps	1 inch to 33 mm	25 µm x 25 µm	512 x 512	5V	Monochrome	84 JLCC
HAS-2 CYIH1SM1000AA-HHC CYIH1SM1000AA-HHCS	Active	Satellite Optical Altitude, Comm Sensors, Spacecraft Visual monitors, Nuclear, Radiation environments, Space Science, Planetary Imaging, Particle Detection Systems, Rover Vision Systems, Lander Camera, Startrackers, Sun Sensors, Optical Docking Systems, Visual Monitoring	Rolling Shutter, dual slope, windowing, SPI	9 fps	1 inch to 33 mm	18 µm x 18 µm	1024 x 1024	3.3V	Monochrome	84 JLCC

Part Number Key

"-"	Package	PB-free	Glass		Temp	SPEC	
	H	JLCC	Z	D	D263	C	S	space qualified
	Q	LCC		E	D263 AR			
	G	PGA		H	BK7G18 AR			
	B	BGA		Q	Quartz			
				W	Windowless			

CONTACT US

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Cypress delivers high-performance, mixed-signal, programmable solutions that provide customers with rapid time-to-market and exceptional system value. Cypress offerings include the PSoC Programmable System-on-Chip, USB controllers, general-purpose programmable clocks, and memories. Cypress also offers wired and wireless connectivity solutions ranging from its CyFi Low-Power RF solution, to West Bridge and EZ-USB FX2LP controllers that enhance connectivity and performance in multimedia handsets. Cypress serves numerous markets, including consumer, computation, data communications, automotive and industrial. Cypress trades on the NYSE under the ticker symbol CY. Visit Cypress online at **www.cypress.com**.

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