JENOPTIK

CCD Color Imaging Modules

The excellent color reproduction of the Jenoptik CCD board-level cameras offers highest image quality for system integrators requiring outstanding performance for applications in industry, life science and security.

Easy to integrate

- Software development kit (SDK)
- WIN/ MAC/ Linux
- LabView driver
- ActiveX Control
- IEEE 1394a FireWire

Benefits

- Perfect color reproduction
- ROI
- High frame rates
- Binning
- Dynamic grey scale leveling
- Low-level noise electronics

Digital Imaging

CCD Color Imaging Modules

Specifications

Imaging module type	IM 3.3	IM 5.0	IM 7.1
Image sensor	1/2˝ CCD	2/3˝ CCD	1/2.5˝ CCD
Sensor type	SONY ICX252	SONY ICX282	SONY ICX629
Sensor size [H x V]	8.10 mm x 6.64 mm	9.74 mm x 7.96 mm	5.71 mm x 4.29 mm
Active pixels [H x V]	2080 x 1542 pixel	2580 x 1944 pixel	3072 x 2304 pixel
Digitization	12 Bit	12 Bit	12 Bit
Color/ Monochrome	Color	Color	Color
Sensor resolution [max]	2080 x 1542 pixel [3.3 Mpix]	2580 × 1944 pixel [5.0 Mpix]	3072 × 2304 pixel [7.1 Mpix]
Pixel size	3.45 µm²	3.4 µm²	1.86 µm²
Pixel clock	12 MHz	12 MHz / 18 MHz	32 MHz
ROI	Arbitrary position and size		
Dynamic range	61 dB	61 dB | 60 dB	60 dB
Read out noise [typica]	3 LSB (RMS)	4 LSB (RMS)	4 LSB (RMS)
Exposure times	500 µs ... 180 s	400 µs ... 180 s	200 µs ... 5 s
Analog gain	1x ... 8x	1x ... 8x	1x ... 16x
Max. frame rate [image size]	18 fps [1024 x 770 pixel]	9 fps [1290 x 972 pixel]	11 fps [1228 x 920 pixel]
Image resolution Binning	1x1 ... 5x5	1x1 ... 5x5	2x, 4x
Cooling	optional	optional	no
Digital interface	IEEE1394a FireWire	IEEE1394a FireWire	IEEE1394a FireWire
Optical connection	C-Mount (0.5× TV pref.)	C-Mount (0.63× TV pref.)	C-Mount (0.5× TV pref.)
IR –cut –of filter	Standard: IR-cut-off filter integrated in C-mount | Optional: clear glass		
Trigger In/ Out	Synchronization with external devices; configurable via control software		
Voltage supply	FireWire powered	FireWire powered	FireWire powered
Power consumption	approx. 4 W	approx. 6 W	approx. 6 W
Dimensions sensor board	51 mm x 51 mm [with C-Mount]		
Dimensions interface board	70 mm x 75 mm		
Cable lenght	127 mm [sensor - interface board]		
Ambient conditions	Temperature: +5 °C ... +55 °C / Humidity: 5 % ... 80 %, not condensing		
Stock conditions	Temperature: -20 ... +70 °C		
Weight	approx. 270 g [with C-Mount]		
Software	Software Development Kit (SDK) [PC/ MAC/ Linux], ActiveX Control, LabView		
Hardware requirements	PC: MS WIN 2000/ XP/ Vista | Mac: OS X 10.4 or higher 3 GHz CPU, 1 GB RAM, 64 MB graphics, USB 2.0 or Firewire a		

It is our policy to constantly improve the design and specifications. Accordingly, the details represented herein cannot be regarded as final and binding.

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