

❖ AD-o80 CL

2 CCD Multi-spectral camera

C3 Camera Suite
Unlimited
Digital
Switchability



- Multi-spectral 2-channel CCD camera
- Advanced series 2 x 1/3" progressive scan camera
- Simultaneously captures Visible and Near-IR through the same optical path
- 1024 (h) x 768 (v) active pixels per channel
- 4.65 μm square pixels
- 30 frames/second with full resolution
- Increased frame rate with partial scan
- Programmable exposure from 20 μs to 33ms
- Pre-select and Pulse width trigger modes
- LVAL Synchronous/-asynchronous operation (auto-detect)
- Auto-iris lens video output allows a wider range of light
- RGB 24-bit or Raw Bayer 10 or 8-bit output for visible
- 10 or 8-bit output for Near-IR
- Setup by Windows NT/2000/XP via serial communication

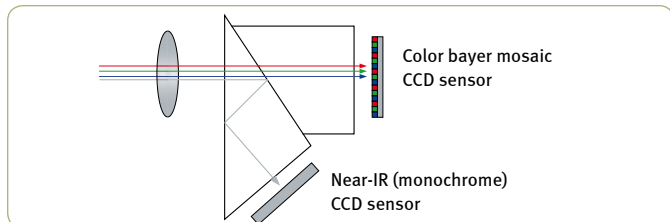
CAMERA
Link



Specifications for AD-o8o CL

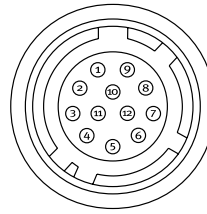
Specifications		AD-o8o CL
Sensor	Visible Near-IR	1/3" color Bayer mosaic IT CCD 1/3" Monochrome interline transfer CCD
Pixel Clock		33.75 MHz
Frame rate full frame		30 frames/sec.
Active area		4.76 (h) x 3.57 (v) mm
Cell size		4.65 (h) x 4.65 (v) μm
Active pixels		1024 (h) x 768 (v)
Color visible		Raw Bayer output, or RGB 24-bit
Read-out modes		
	Full	1024 (h) x 768 (v) 30 fps
	1/2 partial scan	1024 (h) x 384 (v) 48 fps
	1/4 partial scan	1024 (h) x 192 (v) 68 fps
	1/8 partial scan	1024 (h) x 96 (v) 86 fps
Sensitivity	Visible	1.4 Lux (On sensor, max. gain, shutter off, 50% video)
Sensitivity	Near-IR	0,1μW/cm ² at 800nm (On sensor, max. gain, shutter off, 50% video)
S/N ratio		>54dB (Gain 0 dB, shutter off)
Video output	Visible Near-IR	24-bits RGB or raw Bayer output 8 or 10 bit
Auto-iris lens video		0.7 Vp-p
Gain		-3dB to +12dB
Synchronization		Int. X-tal or ext. trigger
Inputs	Camera Link TTL	Ext. trigger, LVDS, (CC 1) Ext. Trigger 4V ±2V
Outputs	Camera Link TTL	Clk., FVAL, LVAL, Data, EEN XEEN
Trigger modes		Pre Select, Pulse Width
Electronic shutter		
Pre-set shutter		1/30 to 1/50,000 sec. in 12 steps
Programmable exposure		0.5L to 792L (1LVAL unit)
Pulse Width Control		1,5L to 60 frames
White balance		Only for RGB 24-bits output Gain range: -3dB to +6dB Manual: 3000K to 6500K One-push: 3000K to 6500K
Knee function		For 24-bit output (visible) Near-IR 8 or 10 bit Knee point, Knee slope
Control interface		Camera Link
Functions controlled by serial communication		Gain, shutter, trigger modes, read-out modes, bit depth
Indicators on rear panel		LED for power and trigger input
Operating Temperature		-5°C to +45°C
Humidity (operation)		20 - 80% non-condensing
Storage temp./humidity		-25°C to +60°C / 20 to 80%
Vibration		3 G (15Hz to 200 Hz XYZ)
Shock		50G
Regulations		CE (EN 61000-6-2, EN-61000-6-3), FCC part 15 class B, RoHS/WEEE
Power		12V DC ± 10%. 4 W
Lens mount		C-mount (use 3CCD type with no IR filter, Max 4.0 mm thread)
Dimensions (H x W x L)		55(H) x 55(W) x 80(D) mm
Weight		400 g

2CCD Prism



Connector pin-out

DC In / Trigger



HIROSE HR10A-10R-12PB-01

- | | | |
|-----|----|-----------------------------|
| Pin | 1 | Ground |
| | 2 | +12V DC |
| | 3 | Ground |
| | 4 | Auto Iris lens video output |
| | 5 | Ground |
| | 6 | XEEN 1 out |
| | 7 | XEEN 2 out |
| | 8 | Ground |
| | 9 | Not used |
| | 10 | Trigger 1 in |
| | 11 | Trigger 2 in |
| | 12 | Ground |

Camera Link Interface

26 pin MDR connector 3M 10226-1A10JL

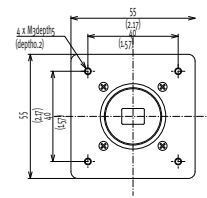


- | Pin | Signal | Function | |
|-----|--------|-----------|-------------|
| 1 | 14 | GND | |
| 2 | 15 | -/+Tx0 | CL Data |
| 3 | 16 | -/+Tx1 | CL Data |
| 4 | 17 | -/+Tx2 | CL Data |
| 5 | 18 | -/+Txclk | CL clk |
| 6 | 19 | -/+Tx3 | CL Data |
| 7 | 20 | +/-SerTC | Serial in* |
| 8 | 21 | +/-SerTFG | Serial out* |
| 9 | 22 | CC1-/CC1+ | Ext. trig* |
| 10 | 23 | CC2+/CC2- | Not used |
| 11 | 24 | CC3-/CC3+ | Not used |
| 12 | 25 | CC4+/CC4- | Not used |
| 13 | 26 | GND | |

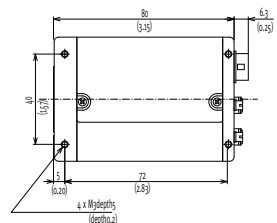
Camera Link medium configuration.
*) Camera Link

Dimensions

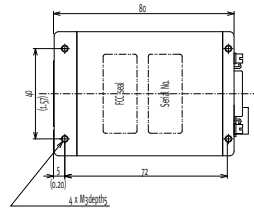
Front view



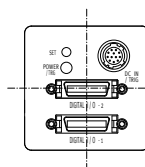
Side view



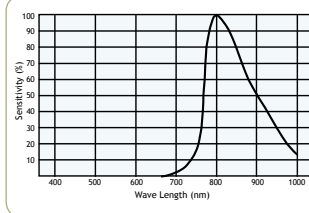
Bottom view



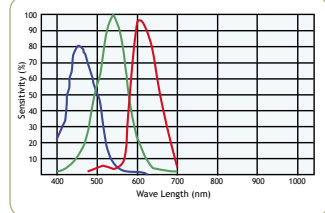
Rear view



Near-IR Response AD-o8o CL



Visible Response AD-o8o CL



Ordering Information

AD-o8oCL Digital 2CCD Progressive Scan Multi-Spectral Camera

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