

❖ AD-o80 CL

2 CCD Multi-spectral camera

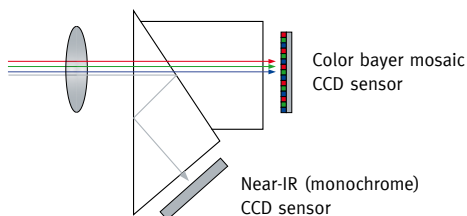


- **Multi-spectral 2-channel CCD camera**
- **Advanced series 2 x 1/3" progressive scan camera**
- **Simultaneously captures Visible and Near-IR through the same optical path**
- **1024 (h) x 768 (v) active pixels per channel**
- **4.65 μm square pixels**
- **30 frames/second with full resolution**
- **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**

Specifications for AD-o8o CL

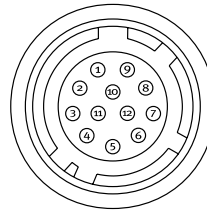
Specifications		AD-o8o CL
Sensor	Visible Near-IR	1/3" color Bayer mosaic IT CCD 1/3" Monochrome interline transfer CCD
Pixel Clock		33.75 MHz
Frame rate full frame		30 frames/sec.
Active area		4.76 (h) x 3.57 (v) mm
Cell size		4.65 (h) x 4.65 (v) μm
Active pixels		1024 (h) x 768 (v)
Color visible		Raw 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/cm2 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
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

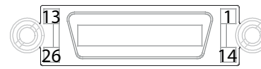


HIROSE HR10A-10R-12PB-01

Pin	Signal
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

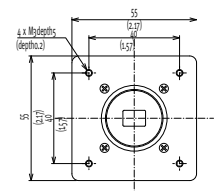


Pin	Signal	Function	
1	14	GND	
2	15	+/-Tx0	CL Data
3	16	+/-Tx1	CL Data
4	17	+/-Tx2	CL Data
5	18	+/-Txclk	CL clk
6	19	+/-Tx3	CL Data
7	20	SerTC+/SerTC-	Serial in*
8	21	SerTFG+/SerTFG-	Serial out*
9	22	CC1-/CC1+	Ext. trig*
10	23	CC2-/CC2+	Not used
11	24	CC3-/CC3+	Not used
12	25	CC4-/CC4+	Not used
13	26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

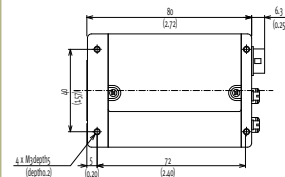
Camera Link medium configuration.
*) Camera Link

Dimensions

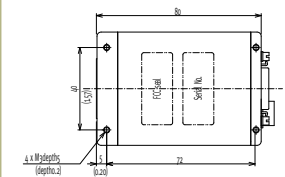
Front view



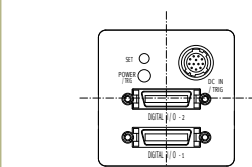
Side view



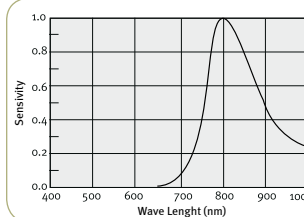
Bottom view



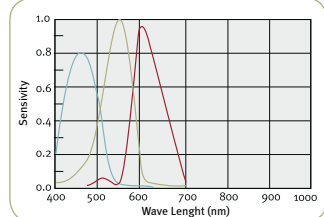
Rear view



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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