

❖ AD-080 CL

2 CCD Multi-spectral camera

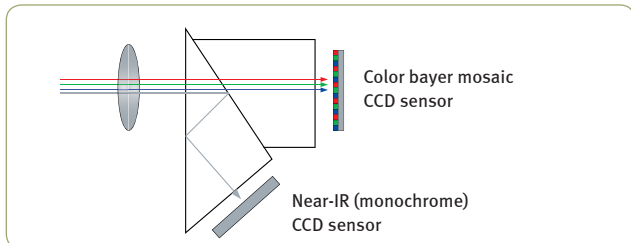


- *Multi-spectral 2-channel CCD camera*
- *Advanced series 2 x 1/3" progressive scan camera*
- *Simultaneously captures Visible and Near-IR through the same optical path*
- *1024 (h) x 768 (v) active pixels per channel*
- *4.65 μm square pixels*
- *30 frames/second with full resolution*
- *Increased 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-080 CL

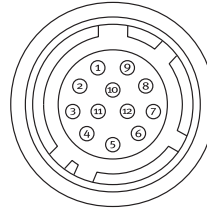
Specifications		AD-080 CL
Sensor	Visible Near-IR	1/3" color Bayer mosaic IT CCD 1/3" Monochrome interline transfer CCD
Pixel Clock		33.75 MHz
Frame rate full frame		30 frames/sec.
Active area		4.76 (h) x 3.57 (v) mm
Cell size		4.65 (h) x 4.65 (v) μ m
Active pixels		1024 (h) x 768 (v)
Color visible		Raw Bayer output, or RGB 24-bit
Read-out modes	Full 1/2 partial scan 1/4 partial scan 1/8 partial scan	1024 (h) x 768 (v) 30 fps 1024 (h) x 384 (v) 48 fps 1024 (h) x 192 (v) 68 fps 1024 (h) x 96 (v) 86 fps
Sensitivity	Visible	1.4 Lux (On sensor, max. gain, shutter off, 50% video)
Sensitivity	Near-IR	0.1 μ W/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 \pm 2V
Outputs	Camera Link TTL	Clk., FVAL, LVAL, Data, EEN XEEN
Trigger modes		Pre Select, Pulse Width
Electronic shutter	Pre-set shutter Programmable exposure Pulse Width Control	1/30 to 1/50,000 sec. in 12 steps 0.5L to 792L (1LVAL unit) 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 \pm 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 10226-1A10L

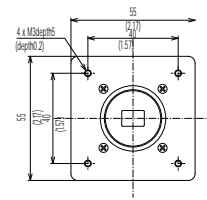


Pin	Signal	Function
1	14	GND
2	15	+/-Tx0
3	16	+/-Tx1
4	17	+/-Tx2
5	18	+/-Txclk
6	19	+/-Tx3
7	20	SerTC+/SerTC-
8	21	SerTFG+/SerTFG-
9	22	CC1-/CC1+
10	23	CC2-/CC2-
11	24	CC3-/CC3+
12	25	CC4-/CC4-
13	26	GND

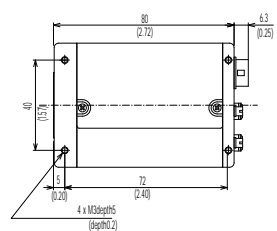
Camera Link medium configuration.
*) Camera Link

Dimensions

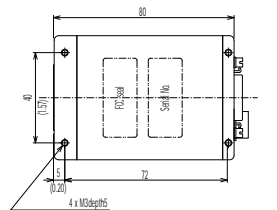
Front view



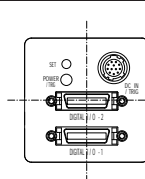
Side view



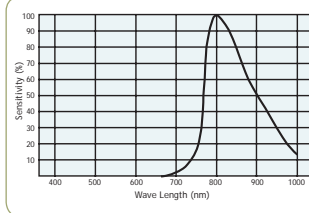
Bottom view



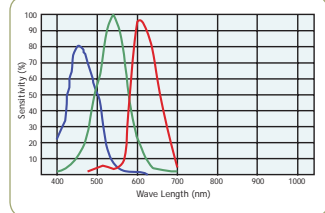
Rear view



Near-IR Response AD-080 CL



Visible Response AD-080 CL



Ordering Information

AD-080CL Digital 2CCD Progressive Scan Multi-Spectral Camera

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