

❖ AM-800 CL/AB-800 CL

8-megapixel Progressive Scan

 **Camera Suite**
Unlimited
Digital
Switchability



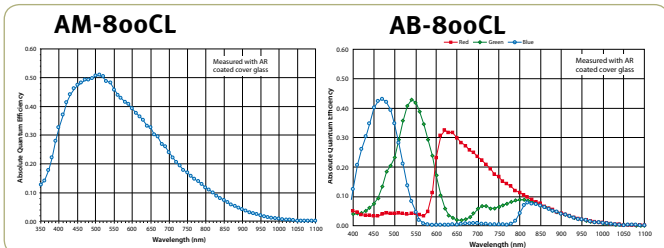
- 8-megapixel 4/3-type progressive scan CCD
- 3296 (h) x 2472 (v) pixel resolution
- 5.5 μ m x 5.5 μ m square pixels
- 17 fps at full resolution (8.5 fps for RGB output)
- Programmable exposure to 1/100,000 sec. (10 μ s)
- Auto shutter and auto iris control
- Manual or auto gain control from -3 dB to +24 dB (0 to +24 dB for color)
- User programmable partial scanning
- Vertical and horizontal binning (monochrome only)
- 256-point look-up table (LUT) for gamma control
- Pixel blemish and flat-field compensation
- Camera Link interface with 8, 10, or 12-bit monochrome/Bayer output or 8-bit RGB
- Supports F-mount or C-mount lenses (F-mount pictured)

CAMERA
Link

Specifications for AM-800 CL/AB-800 CL

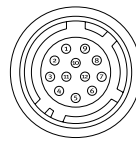
Specifications	AM-800 CL/AB-800 CL
Sensor	4/3" progressive scan CCD (KAI-o8050)
Pixel Clock	40 MHz
Frame rate, full frame	17 frames/sec.
Active area	18.13 mm (h) x 13.60 mm (v), 22.66 mm diagonal
Cell size	5.5 μm (h) x 5.5 μm (v)
Active pixels	3296 (h) x 2472 (v)
Read-out modes	Full In-camera interpolation Variable partial scan Any start line, any height, in 1L steps
Variable partial scan (RGB) Binning (HxV)	Any start line, any height, in 2L steps 1 x 2, 2 x 1, 2 x 2 (monochrome only)
Sensitivity (AM-800CL)	0.04 Lux (On sensor, max. gain, f1.4, 50% video, 3200K, IR Cut CM500S)
Sensitivity (AB-800CL)	0.06 Lux (On sensor, max. gain, f1.4, 50% green, 4600K)
S/N ratio	>57 dB. (0 dB gain)
Video signal output	Camera Link 8-bit/10-bit/12-bit (monochrome, Bayer) Camera Link 8-bit (RGB), 80 MHz pixel clock
Auto-iris lens video	0.7Vp-p, with 0.3V horiz. sync
Gain	Monochrome: Manual/automatic -3 dB to +24 dB Color: Manual/automatic 0 dB to +24 dB
White balance (AB-800CL)	Manual or one-push auto (3200K to 9000K)
Gamma	0.45 to 1.0 or 256-point LUT
Synchronization	Internal
Inputs	Camera Link, TTL/75 Ω
Outputs	Camera Link: LVAL, FVAL, DVAL, EEN, XEEN TTL (Hirose 12-pin)
Acquisition modes	Continuous, single frame, multi-frame (to 15 frames)
Trigger modes	Timed (EPS), trigger width (PWC), trigger controlled, edge dump (RCT), PIV
Electronic shutter	Timed/PWC exposure: 10 μs to 2 sec in 1 μs steps Auto shutter: 1/17 to 1/100,000 sec. Exposure sequence: Up to 16 different settings
Pre-processing functions	Flat field compensation, pixel blemish compensation, 3 x 3 color interpolation (AB-800CL only)
Control interface	Camera Link serial communication
Operating temperature	-5° C to +50° C
Humidity (operation)	20 - 80% non-condensing
Storage temp./humidity	-25° C to 60° C / 20% - 80% non-condensing
Vibration	10G (20 Hz to 200 Hz XYZ)
Shock	70 G
Regulations	CE (EN 61000-6-2, EN 61000-6-3), FCC part 15 class B, RoHS/WEEE
Power	12V to 24V DC ± 10%. 7.8W typical (full frame @ 12V)
Lens mount	F-mount or C-mount
Dimensions (H x W x L)	F-mount: 55 mm x 55 mm x 98 mm C-mount: 55 mm x 55 mm x 69 mm
Weight	F-mount: 340 g C-mount: 280 g

Spectral Response



Connector pin-out

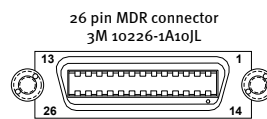
DC In / Trigger



HIROSE HR10A-10R-12PB-01

Pin	Signal
1	Ground
2	+12V - +24V DC In
3	Ground
4	Iris video Out
5	Ground
6	NC
7	NC
8	Ground
9	XEEN Out (TTL)
10	Ext. Trigger In (TTL)
11	+12V - +24V DC In
12	Ground

Camera Link Interface

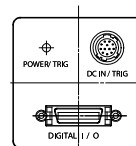


Port 1 (24bit/30bit/36bit)
8bit (RGB)

Pin	Signal	Function	
1	14	GND	
2	15	-/+ TX0	CL Data out
3	16	-/+ TX1	CL Data out
4	17	-/+ TX2	CL Data out
5	18	-/+ TXclk	CL Clk
6	19	-/+ TX3	CL Data out
7	20	+/- RXD input	
8	21	-/+ TXD output	
9	22	-/+ Trig input*	
10	23	NC	
11	24	NC	
12	25	NC	
13	26	GND	

* Selectable via Camera Link or Hirose 12-pin by internal switch. Factory default is trigger via Camera Link.

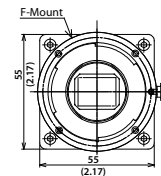
Rear view (both models)



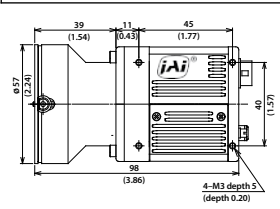
Dimensions

F-Mount

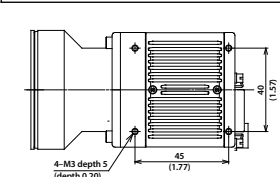
Front view



Side view

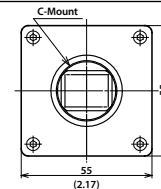


Bottom view

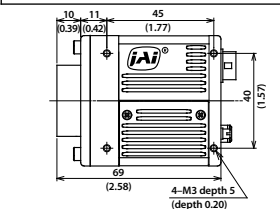


C-Mount

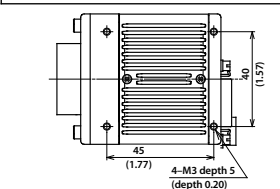
Front view



Side view



Bottom view



Ordering Information

AM-800CL-F	Monochrome progressive scan camera with F-mount
AM-800CL-C	Monochrome progressive scan camera with C-mount
AB-800CL-F	Color progressive scan camera with F-mount
AB-800CL-C	Color progressive scan camera with C-mount

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