

❖ **AM-800 CL/AB-800 CL**
8-megapixel Progressive Scan

C3 Camera Suite
Unlimited
Digital
Switchability



PRELIMINARY

- 8-megapixel 4/3-type progressive scan CCD
- 3296 (h) x 2472 (v) pixel resolution
- 5.5µm x 5.5 µm square pixels
- 17 fps at full resolution (8.5 fps for RGB output)
- Programmable exposure to 1/100,000 sec. (10 µs)
- 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)

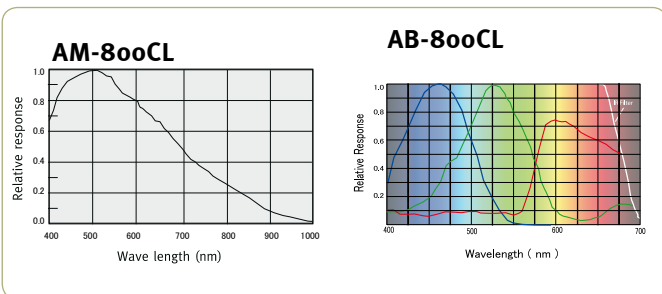


Specifications for AM-800CL/AB-800CL

PRELIMINARY

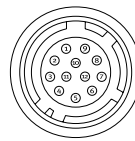
Specifications	AM-800CL/AB-800CL
Sensor	4/3" progressive scan CCD (KAI-o8050)
Pixel Clock	40 MHz
Frame rate, full frame	17 frames/sec.
Active area	18.13 mm (h) x 13.60 mm (v), 22.66 mm diagonal
Cell size	5.5 μm (h) x 5.5 μm (v)
Active pixels	3296 (h) x 2472 (v)
Read-out modes	Full 3296 (h) x 2472 (v) 17 fps Variable partial scan Any start line, any height, in 1L steps Variable partial scan (RGB) Any start line, any height, in 2L steps Binning (HxV) 1 x 2, 2 x 1, 2 x 2 (monochrome only)
Sensitivity (AM-800CL)	0.1 Lux (On sensor, max. gain, 50% video)
Sensitivity (AB-800CL)	1.0 Lux (On sensor, max. gain, 50% green)
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 TTL (Hirose 12-pin) XEEN
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 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

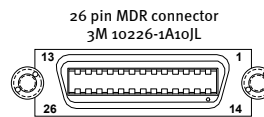
DC In / Trigger



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

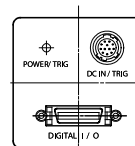


Port 1 (24bit/30bit/36bit)
8bit (RGB)

- | 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)



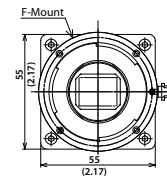
Ordering Information

- | | |
|------------|---|
| 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 |

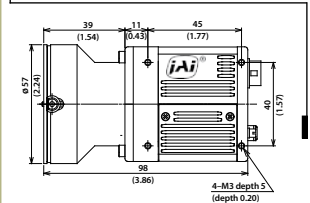
Dimensions

F-Mount

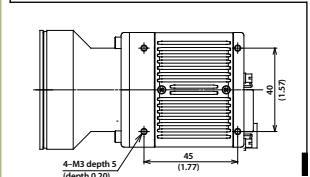
Front view



Side view

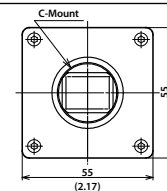


Bottom view

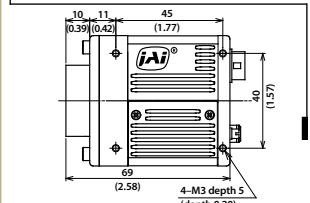


C-Mount

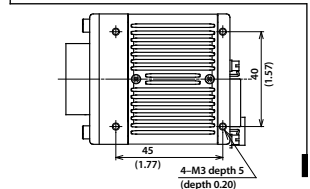
Front view



Side view



Bottom view



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