

## ❖ AM-200 CL/AB-200 CL

2-megapixel Progressive Scan

 **Camera Suite**  
Unlimited  
Digital  
Switchability



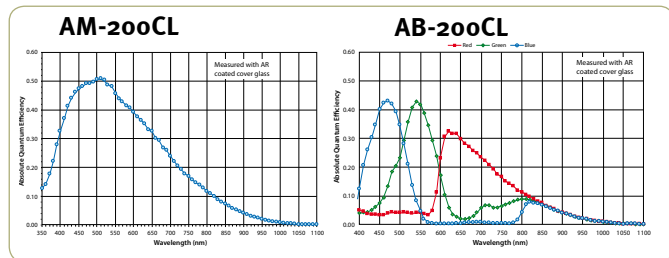
- 2-megapixel 2/3-inch progressive scan CCD
- 1600 (h) x 1200 (v) pixel resolution
- 5.5 $\mu$ m x 5.5 $\mu$ m square pixels
- 68 fps at full resolution (34 fps for RGB output)
- Programmable exposure to 1/100,000 sec. (10  $\mu$ s)
- Manual or auto gain control from -3 dB to +24 dB (0 to +24 dB for 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 C-mount lenses



# Specifications for AM-200 CL/AB-200 CL

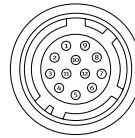
Specifications	AM-200 CL/AB-200 CL
Sensor	2/3" progressive scan CCD (KAI-02050)
Pixel Clock	40 MHz
Frame rate, full frame	68 frames/sec.
Active area	8.8 mm (h) x 6.6 mm (v), 11 mm diagonal
Cell size	5.5 μm (h) x 5.5 μm (v)
Active pixels	1600 (h) x 1200 (v)
Horizontal output freq.	41.58 KHz (1H = 24.05 μs, 80 MHz clock)
Read-out modes	Full 1600 (h) x 1200 (v) 68 fps
In-camera interpolation	1600 (h) x 1200 (v) 34 fps (AB-200CL)
Variable partial scan	Any start line, any height, in 1L steps
Binning (HxV)	Any start line, any height, in 2L steps 1 x 2, 2 x 1, 2 x 2 (monochrome only)
Sensitivity (AM-200CL)	0.23 Lux (On sensor, max. gain, 50% video)
Sensitivity (AB-200CL)	0.45 Lux (On sensor, max. gain, 50% green, IR cut filter)
S/N ratio	>55 dB. (0 dB gain)
Video signal output (80 MHz data clock)	Camera Link 8-bit/10-bit/12-bit (monochrome, Bayer) Camera Link 8-bit (RGB)
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-200CL)	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
Trigger modes	Timed (EPS), trigger width (PWC), edge dump (RCT), PIV, sequence (up to 16X)
Electronic shutter	Timed/PWC exposure 10 μs to 2 sec in 1 μs steps Auto shutter 1/95 to 1/10,000 sec. Exposure sequence Up to 16 different settings
Pre-processing functions	Flat field compensation, pixel blemish compensation, 3 x 3 color interpolation (AB-200CL 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	C-mount
Dimensions (H x W x L)	C-mount 55 mm x 55 mm x 69 mm
Weight	C-mount 265 g

## Spectral Response



## Connector pin-out

### DC In / Trigger

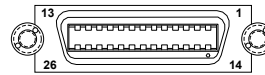


HIROSE HR10A-10R-12PB-01

- | 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

26 pin MDR connector  
3M 10226-1A10JL



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

Pin	Signal	Function
1	14	GND
2	15	-/+ TX0
3	16	-/+ TX1
4	17	-/+ TX2
5	18	-/+ TXclk
6	19	-/+ TX3
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.

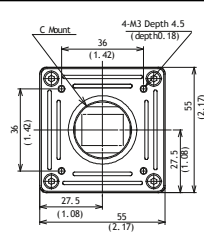
## Ordering Information

- |            |                                                 |
|------------|-------------------------------------------------|
| AM-200CL-C | Monochrome progressive scan camera with C-mount |
| AB-200CL-C | Color progressive scan camera with C-mount      |

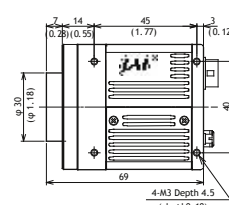
## Dimensions

### C-Mount

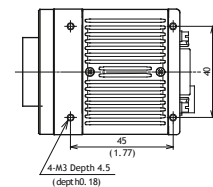
#### Front view



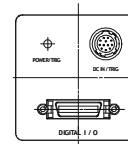
#### Side view



#### Bottom view



#### Rear view



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