AM-201 CL/AB-201 CL

2-megapixel Progressive Scan

C3 Camera Suite
Unlimited
Digital
Switchability

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- *2-megapixel 2/3-inch progressive scan CCD*
- *1920 (h) x 1080 (v) pixel resolution (HD format)*
- *5.5µm x 5.5 µm square pixels*
- *64 fps at full resolution (32 fps for RGB output)*
- *Programmable exposure to 1/100,000 sec. (10 µs)*
- *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*

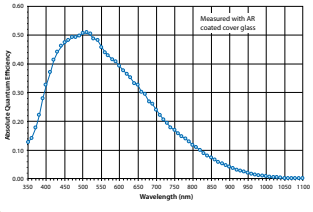
CAMERA Link

Specifications for AM-201 CL/AB-201 CL

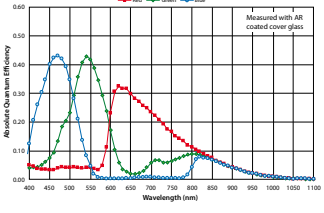
Specifications	AM-201 CL/AB-201 CL
Sensor	2/3" progressive scan CCD (KAI-02150)
Pixel Clock	40 MHz
Frame rate, full frame	64 frames/sec.
Active area	10.56 mm (h) x 5. 94 mm (v), 12.12 mm diagonal
Cell size	5.5 µm (h) x 5.5 µm (v)
Active pixels	1920 (h) x 1080 (v)
Horizontal output freq.	34.6 KHz (1H = 28.875 µs, 80 MHz clock)
Read-out modes Full In-camera interpolation Variable partial scan Variable partial scan (RGB) Binning (HxV)	1920 (h) x 1080 (v) 64 fps 1920 (h) x 1080 (v) 32 fps (AB-201CL) Any start line, any height, in 1L steps Any start line, any height, in 2L steps 1 x 2, 2 x 1, 2 x 2 (monochrome only)
Sensitivity (AM-201CL)	0.21 Lux (On sensor, max. gain, 50% video)
Sensitivity (AB-201CL)	0.42 Lux (On sensor, max. gain, 50% green)
S/N ratio	>57 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 Color	Manual/automatic -3 dB to +24 dB Manual/automatic 0 dB to + 24 dB
White balance (AB-201CL)	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 TTL (Hirose 12-pin)	LVAL, FVAL, DVAL, EEN XEEN
Trigger modes	Timed (EPS), trigger width (PWC), edge dump (RCT), PIV, sequence (up to 16X)
Electronic shutter Timed/PWC exposure Auto shutter Exposure sequence	 10 µs to 2 sec in 1 µs steps 1/95 to 1/10,000 sec. Up to 16 different settings
Pre-processing functions	Flat field compensation, pixel blemish compensation, 3 x 3 color interpolation (AB-201CL 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	280 g

Spectral Response

AM-201CL

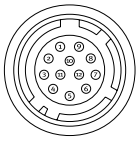


AB-201CL



Connector pin-out

DC In / Trigger

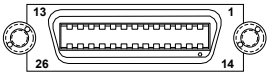


HIROSE HR10A-10R-12PB-01

Pin		
	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)

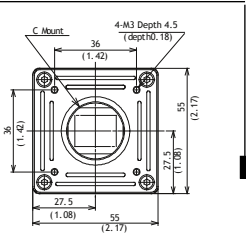
Pin		Signal	Function
1	14	GND	
2	15	-/+ TXo	CL Data out
3	16	-/+ TX1	CL Data out
4	17	-/+ TX2	CL Data out
5	18	-/+ TXclk	CL Clk
6	19	-/+ TX3	CL Data out
7	20	+/- RXD input	
8	21	-/+ TXD output	
9	22	-/+ Trig input*	
10	23	NC	
11	24	NC	
12	25	NC	
13	26	GND	

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

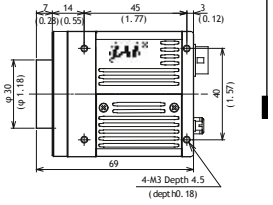
Dimensions

C-Mount

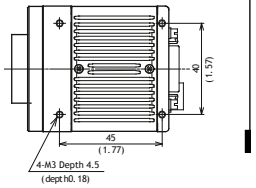
Front view



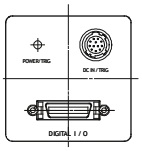
Side view



Bottom view



Rear view



Ordering Information

AM-201CL-C	Monochrome progressive scan camera with C-mount
AB-201CL-C	Color progressive scan camera with C-mount

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