

## ➤ CM-030 PMCL-RH Progressive Scan

**C3** Camera Suite  
Unlimited  
Digital  
Switchability



- *Compact series 1/3" progressive scan camera*
- *Monochrome camera - Remote head with 2m cable*
- *659 (h) x 494 (v) active pixels*
- *7.4  $\mu\text{m}$  square pixels*
- *120 frames/second with external trigger and full resolution*
- *Increased frame rate with vertical binning and partial scan (Up to 504 fps)*
- *Exposure time from 32.48 $\mu\text{s}$  to 2 sec. using Pulse Width Control*
- *Programmable exposure from 32.48 $\mu\text{s}$  to 8.299 ms by 1 LVAL (16.24 $\mu\text{s}$ ) increments*
- *Pre-select, Pulse width and Pre-select with Smear Less trigger modes*
- *LVAL-synchronous/-asynchronous operation (auto-detect)*
- *PoCL (Power over CL) standard compliant*
- *10 or 8-bit output*
- *Setup by Windows NT/2000/XP via serial communication*

**CAMERA  
Link**  
(Mini Camera Link)

[www.jai.com](http://www.jai.com)



See the possibilities

# Specifications for CM-030 PMCL-RH

Specifications	CM-030 PMCL-RH
Sensor	1/3" progressive scan CCD
Pixel clock	58 MHz
Frame rate full frame	120 frames/second (511 lines/frame)
Active area	4.9 mm (h) x 3.7 mm (v)
Cell size	7.4 mm (h) x 7.4 mm (v)
Active pixels	659 (h) x 494 (v)
Read-out modes	
Full	659 (h) x 494 (v) 120.491 fps.
1/2 partial scan	659 (h) x 246 (v) 216.80 fps.
1/4 partial scan	659 (h) x 122 (v) 349.83 fps.
1/8 partial scan	659 (h) x 60 (v) 504.72 fps.
2/3 partial scan	659 (h) x 328 (v) 172.95 fps.
Vertical binning	659 (h) x 247 (v) 193.88 fps.
Region-of-interest (ROI)	659 (h) x 494 (v) 120.491 fps.
Sensitivity	0.3 Lux (On sensor, max gain, shutter off, 50% video)
S/N ratio	>50dB (0 dB gain)
Video output	Camera Link, 8-bit or 10-bit
Auto iris lens video output	0.7 Vp-p
Gain	Manual/Automatic Range -3 to 24 dB
Synchronization	Int. X-tal or ext. trigger
Inputs	Camera Link TTL Ext. trigger, LVDS (CC 1) Ext. trigger 4V ±2V
Outputs	Camera Link TTL Clk., FVAL, LVAL, Data, EEN XEEN
Trigger modes	Pre-select, Pulse Width, and Pre-select
Electronic shutter	
Pre-set shutter	1/120 to 1/30,000 in 9 steps
Programmable exposure (PE)	2L (32.48µs) to 511L (8.299ms)
Pulse Width	32.48µs to 2 sec.
Control interface	Mini-CL serial communication
Functions controlled via serial communication	Shutter, Trigger mode, Readout mode, Trigger Polarity, Black level, Gain,
Indicators on rear panel	LED for power and trigger input
Operating temperature	-5°C to +45°C
Humidity (operation)	20 - 90% non-condensing
Storage temp./humidity	-25°C to +60°C/20% to 90%
Vibration	10G (20Hz to 200Hz XYZ)
Shock	70G
Regulations	CE (EN 61000-6-2, EN-61000-6-3), FCC part 15 class B, RoHS/WEEE
Power	12V DC +/-10%. <0.3A
Lens mount	φ 17mm Exclusive mount
Dimensions (H x W x L)	Head φ17 x 46mm (φ x D) with 2m cable CCU 44 x 29 x 66 mm (H x W x D)
Weight	Head with 2m cable 120g, CCU 120g

## Ordering Information

CM-030 PMCL-RH Monochrome Progressive Scan Camera

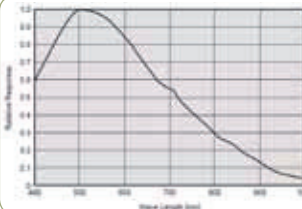
## Connector pin-out



Pin	Signal	Function	
1	14	DC +12V/GND	—
2	15	-/+ Tx0	CL Data
3	16	-/+ Tx1	CL Data
4	17	-/+ Tx2	CL Data
5	18	-/+ Txclk	CL clk
6	19	-/+ Tx3	CL Data
7	20	+/- SerTC	Serial in
8	21	-/+ SerTFG	Serial out
9	22	CC1-/CC1+	Ext. trig*
10	23	CC2+/CC2-	Not used
11	24	CC3-/CC3+	Not used
12	25	CC4+/CC4-	Not used
13	26	GND/DC +12V	—

For PoCL version pins 1 and 26 are used for +12V  
\* In Mini-CL or 12-pin Hirose

## Spectral Response



## Dimensions

