



❖ 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 μm 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 μs to 2 sec. using Pulse Width Control*
- *Programmable exposure from 32.48 μs to 8.299 ms by 1 LVAL (16.24 μs) 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)



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	<table border="0"> <tr> <td>Full</td> <td>659 (h) x 494 (v)</td> <td>120.491 fps.</td> </tr> <tr> <td>1/2 partial scan</td> <td>659 (h) x 246 (v)</td> <td>216.80 fps.</td> </tr> <tr> <td>1/4 partial scan</td> <td>659 (h) x 122 (v)</td> <td>349.83 fps.</td> </tr> <tr> <td>1/8 partial scan</td> <td>659 (h) x 60 (v)</td> <td>504.72 fps.</td> </tr> <tr> <td>2/3 partial scan</td> <td>659 (h) x 328 (v)</td> <td>172.95 fps.</td> </tr> <tr> <td>Vertical binning</td> <td>659 (h) x 247 (v)</td> <td>193.88 fps.</td> </tr> <tr> <td>Region-of-interest (ROI)</td> <td>659 (h) x 494 (v)</td> <td>120.491 fps.</td> </tr> </table>	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.
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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																					
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Trigger modes	Pre-select, Pulse Width, and Pre-select																					
Electronic shutter	Pre-set shutter																					
Programmable exposure (PE)	1/120 to 1/30,000 in 9 steps																					
Pulse Width	2L (32.48µs) to 511L (8.299ms) 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

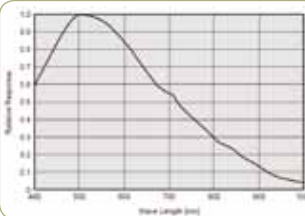
Connector pin-out



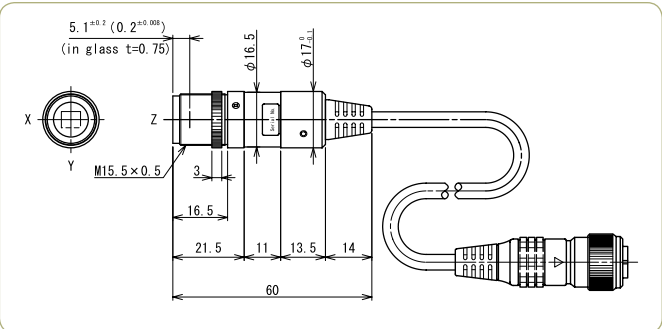
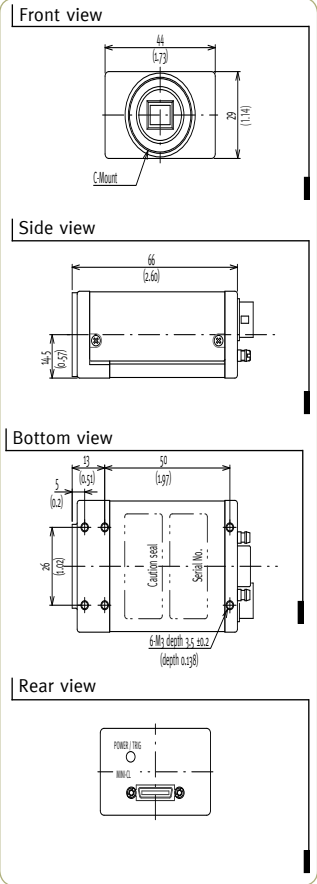
Pin	Signal	Function	
1	14	DC +12V/GND	—
2	15	-/+ Tx0	CL Data
3	16	-/+ Tx1	CL Data
4	17	-/+ Tx2	CL Data
5	18	-/+ Txclk	CL clk
6	19	-/+ Tx3	CL Data
7	20	+/- SerTC	Serial in
8	21	-/+ SerTFG	Serial out
9	22	CC1-/CC1+	Ext. trig*
10	23	CC2-/CC2+	Not used
11	24	CC3-/CC3+	Not used
12	25	CC4-/CC4+	Not used
13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



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