

FALCON EM285 CL

Digital Monochrome EMCCD camera

1004 x 1002 • 30Hz • 16 bit • 



DATA SHEET

Key Features and Benefits

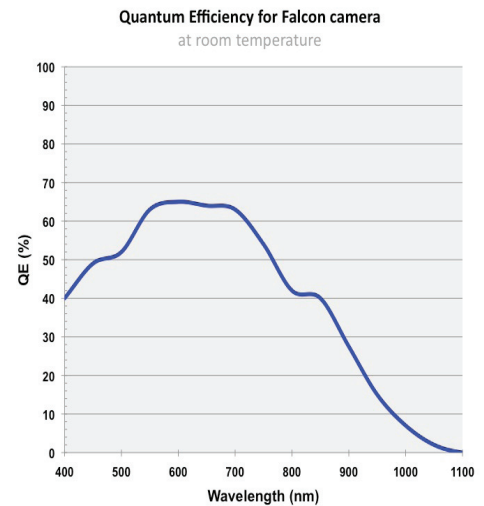
- ✓ **1004 x 1002 EMCCD sensor.** Enables optimum image resolution in low light imaging applications
- ✓ **B/W EMCCD technology.** Enables high sensitivity imaging with up to 1000x on-chip gain
- ✓ **16 bit CameraLink output.** Provides wide dynamic range
- ✓ **65% QE from Virtual Phase sensor.** Optimum Photon collection
- ✓ **No Image intensifier.** Optimum B/W image sharpness in ALL light conditions
- ✓ **Full Frame Transfer.** No mechanical shutter required, vibration-less CCD readout
- ✓ **Realtime Imaging.** Optimum image sharpness in ALL light conditions
- ✓ **XCAP software compatible.** Ready-to-Run powerful Image Analysis Software

Specification for FALCON EM285 CL

Sensor	Texas Instruments TC285SPD
Sensor Type	2/3" Full Frame Transfer Impacttron
Active Pixel	1004 x 1002
Pixel Size	8µm x 8µm
Active Area	8mm x 8mm
Full Well Capacity	30000 electrons
Shift Register Well Depth	80000 electrons
Non Linearity	< 1%
Readout noise	< 1 electrons with EM gain ON < 27 electrons with EM gain OFF
Dynamic Range	65 dB
Frame Rate	30Hz
Digital Output Format	16 bit CameraLink (base configuration)
Peak Quantum Efficiency	65% @ 600nm
Spectral response	350 - 1100nm
Readout mode	Progressive scan
Cooling	-20°C with ambient air @ +20°C
Antiblooming protection	Yes
Lens Mount	C mount
Synchronisation	Trigger IN and OUT - TTL compatible
Power Supply	12V DC ±10%
Total power consumption	< 15W
Operating case temperature	-20°C to +55°C
Storage Temperature	-30°C to +85°C
Dimensions	109mm x 76mm x 76mm
Weight (no lens)	< 550g

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Quantum Efficiency



Sample Applications

Raptor's EMCCD camera cores are ideally suited for cutting edge low light imaging application such as:

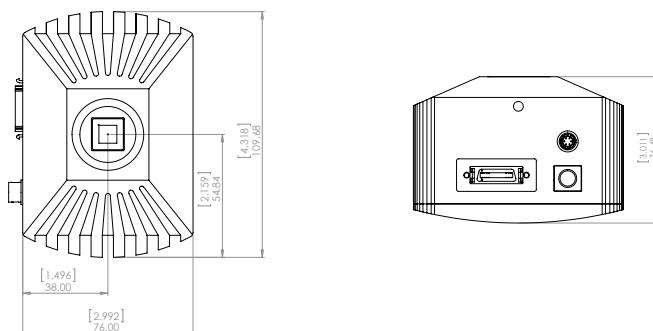
- Hyperspectral Imaging
- X-ray imaging
- Astronomy
- Adaptive Optics
- Fluorescence Imaging
- General Low light Imaging

Dimensions

Unit: [inch] mm

Power connector on camera: Hirose HR10-7R-4P

Cable connector (socket): Hirose HR10-7P-4S



Ordering Information

Camera

Falcon EM285 digital B/W camera	FA285-CL
Falcon Power Supply cable kit	RPL-FA-CBL

Optional Accessories

Epix base CL card	RPL-EPIX-EB1
Epix base Notebook CL card	RPL-EPIX-ECB1-54
EPIX XCAP Ltd software	RPL-XCAP-LTD
MicroManager Driver	RPL-MM-D
CameraLink Cable, 2m ¹	RPL-CL-CBL-2M
Optical Visible lenses ²	RPL-xx-xxxx

Note: ¹ Longer CL cable available

² Please consult us to check our range of lenses

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