

Falcon **BLUE** EMCCD

Digital Monochrome Scientific Frame Transfer EMCCD



Key Features and Benefits

Ultra low noise readout for improved image quality!

- **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
- **UV Transmission with a Fused Silica window.**
Offering transmission down to 180nm
- **16 bit CameraLink output.**
Provides wide dynamic range
- **65% QE from Virtual Phase sensor.**
Optimum Photon collection
- **Frame Transfer.**
No mechanical shutter required, vibration-less CCD readout

Resolution Readout 1004 x 1002

Read Out Noise <1e Noise

Digital Output Format 30Hz

CameraLink 16 bit



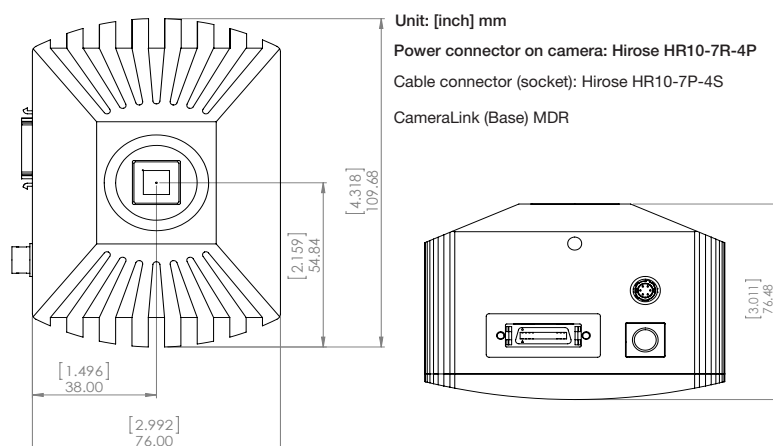
..... Capturing Tomorrow

Specification for Falcon BLUE EM285 CL

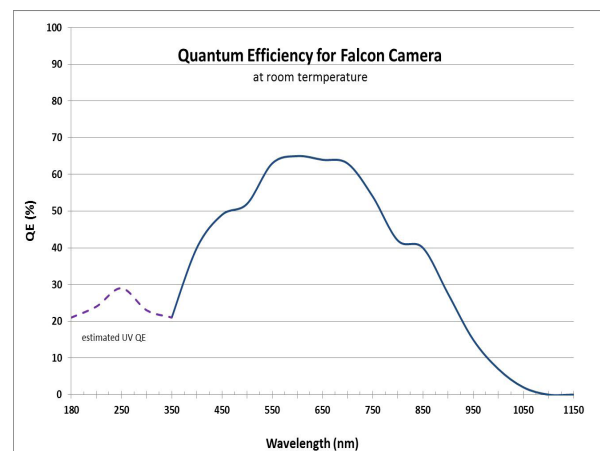
Sensor	Texas Instruments TC285SPD
Sensor Type	2/3" Frame Transfer Impacttron
Active Pixel	1004 x 1002
Pixel Size	8µm x 8µm
Active Area	8mm x 8mm
Full Well Capacity	30,000 electrons
Shift Register Well Depth	80,000 electrons
Non Linearity	< 1%
Readout noise	< 1 electrons with EM gain ON < 27 electrons with EM gain OFF
Dynamic Range	89 dB
Frame Rate	30Hz
Dark Current	< 1e / pix / sec
Digital Output Format	16 bit CameraLink (base configuration)
Peak Quantum Efficiency	65% @ 530nm, 24% @ 200nm
Spectral response	180 - 1100nm
Cooling	-20°C with ambient air @ +20°C
Binning	1x1, 2x2, 3x3, 4x4, 5x5
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 temperature¹	-20°C to +55°C
Storage Temperature	-30°C to +85°C
Dimensions	109mm x 76mm x 76mm
Weight (no lens)	< 650g

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Note 1: Extended operating temperature range on request.

Dimensions



Quantum Efficiency



Sample Applications

- Adaptive Optics and Astronomy
- Bio & Chemi-luminescence
- Calcium signaling
- Fluorescence imaging / spectroscopy
- Flow cytometry
- FRET / FRAP / TIRF
- Genome sequencing
- High content screening
- High resolution fluorescence imaging
- Hyperspectral imaging
- LIBS
- Live Cell Imaging
- Single molecule detection
- Solar Cell Inspection
- X-ray tomography

Ordering Information

Camera

Falcon BLUE EM285 digital B/W camera FA285B-CL

Falcon BLUE Power Supply Cable RPL-HR4-K

Optional Accessories

EPIX(R) base CL card RPL-EPIX-EB1

EPIX(R) base Notebook CL card RPL-EPIX-ECB1-34

EPIX(R) XCAP STD software RPL-XCAP-STD

CameraLink Cable, 2m² RPL-CL-CBL-2M

Optical Visible lenses³ RPL-xx-xxxx

Note 2: Longer CL cable available up to 25M

Note 3: Please consult us to check our range of lenses

Equipment may require UK Government authorisation for export purposes

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