

Scientific Frame Transfer EMCCD

Key Features and Benefits

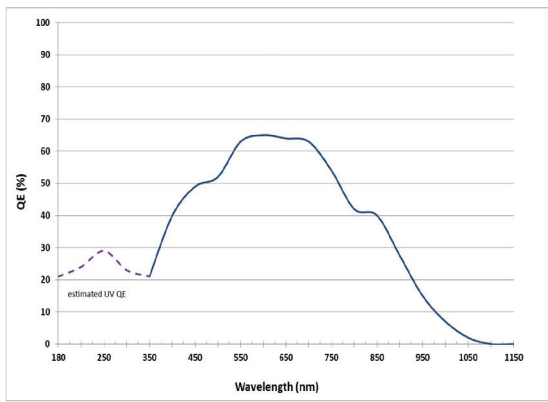
Ultra low noise readout for improved image quality!

- **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



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

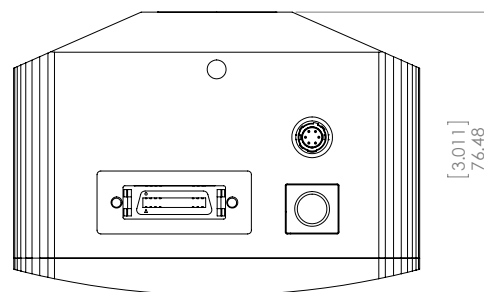
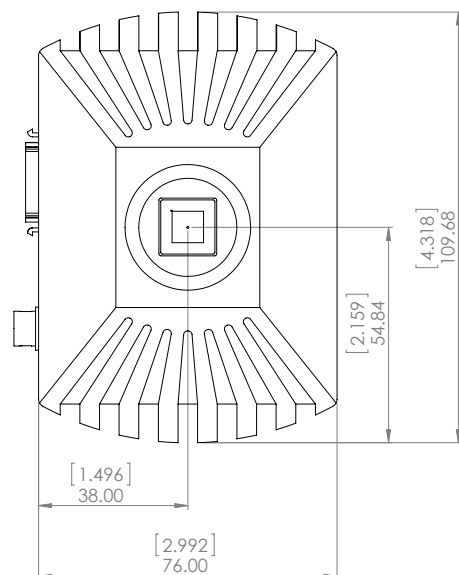


Specifications for EFiS

Sensor	Texas Instruments TC285SPD
Sensor Type	2/3" Frame Transfer
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	89dB
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
Synchronization	Trigger IN and OUT - TTL compatible
Power Supply	12V DC ± 10%
Total Power Consumption	<15W
Operation case temperature	-20°C to +55°C
Storage Temperature	-30°C to +85°C
Dimensions	109mm x 76mm x 76mm
Weight (no lens)	<650g

Dimensions

Unit: [inch]mm



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