

Kingfisher CCD

Digital Scientific CCD Camera

Preliminary



Actual Size

Key Features and Benefits

Perfect for staring applications!

- **Extremely low dark current.**
Allows long exposure times
- **Choice of 2.8MP / 6MP sensor.**
Enables large field of view imaging
- **4.54 μ m x 4.54 μ m pixels.**
Enables ultra sharp image resolution
- **High QE: >77% @ 525nm and >50% @ 380nm & 720nm.**
Optimum Photon collection
- **Monochrome or RGB sensors available.**
Digital black/white or color images

Resolution	• ICX674 - 1940x 1460
	• ICX694 - 2750 x 2200

Dark Current	0.02 e/p/s
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Dynamic Range	65dB
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Readout Noise	<7e Noise
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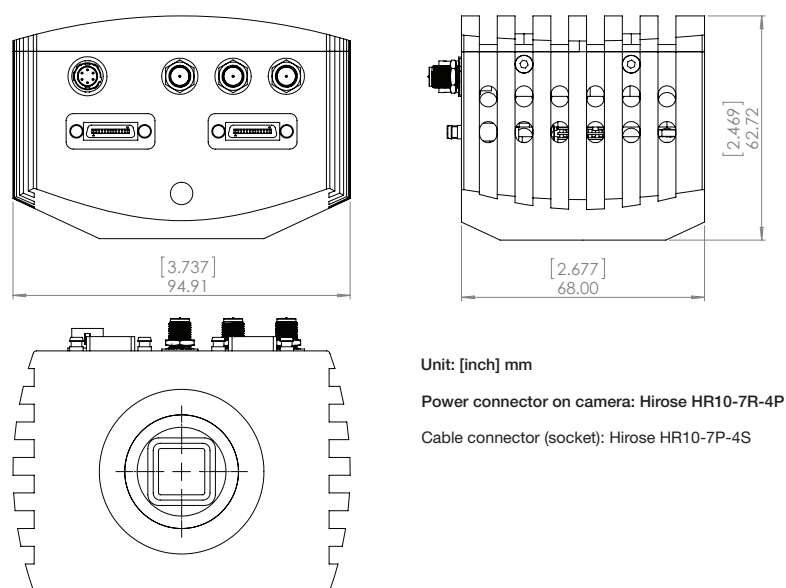
Specification for Kingfisher Sony CCD

Sensor	SONY ICX674	SONY ICX694
	Interline scientific CCD	Interline scientific CCD
Sensor Type	2/3" Scientific CCD	1" Scientific CCD
Active Pixel	1940 x 1460	2750 x 2200
Pixel Size	4.54µm x 4.54µm	
Active Area	8.81mm (H) x 6.63mm (V)	12.49mm (H) x 9.99mm (V)
Full Well Capacity	12000 electrons	
Non Linearity	< 1%	
Readout noise	< 7 electrons (Global Shutter)	
Frame Rate	6Hz full frame	
Peak Quantum Efficiency	77% @ 525nm 50% @ 380nm & 720nm	
Spectral response	310 - 1100nm	
Chroma	Monochrome and RGB sensors available	
Dark Current @ +25°C	< 0.02 electrons/pixel/sec	
Shutter mode	Global Shutter (Snapshot)	
Cooling	Active	
Cooling Method	TEC with forced air (fan)	
Lens Mount	C mount	
Synchronisation	Trigger IN and OUT - TTL compatible	
Power Supply	12V DC ±10%	
Total power consumption	< 8W without TEC < 12W with TEC ON	
Operating case temperature ¹	-20°C to +55°C	
Storage Temperature	-40°C to +85°C	
Dimensions	94.9mm x 68.0mm x 62.7mm	
Weight (no lens)	< 480g	

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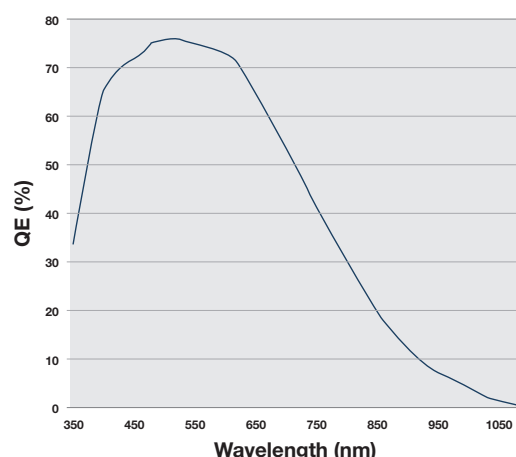
Note 1: Extended Operating Temperature range on request

Dimensions



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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
- Live Cell Imaging
- Particle Imaging Velocimetry (PIV)
- Single molecule detection
- Solar Cell Inspection

Ordering Information

Camera

Kingfisher Scientific CCD 2.8MP cooled digital B/W camera KF674-CL

Kingfisher Scientific CCD 6MP cooled digital B/W camera KF694-CL

Kingfisher Power Supply cable RPL-HR4-K

Optional Accessories

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

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

Mini CameraLink Cable, 2m² RPL-MCL-CBL-2M

Optical lenses³ RPL-xx-xxxx

Note 2: Longer CL cable available

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