Raptor photonics

Hawk 4096 Flight Ready

4096 x 3008, Monochrome CMOS Camera

Preliminary



CAMERA Link

Key Features and Benefits

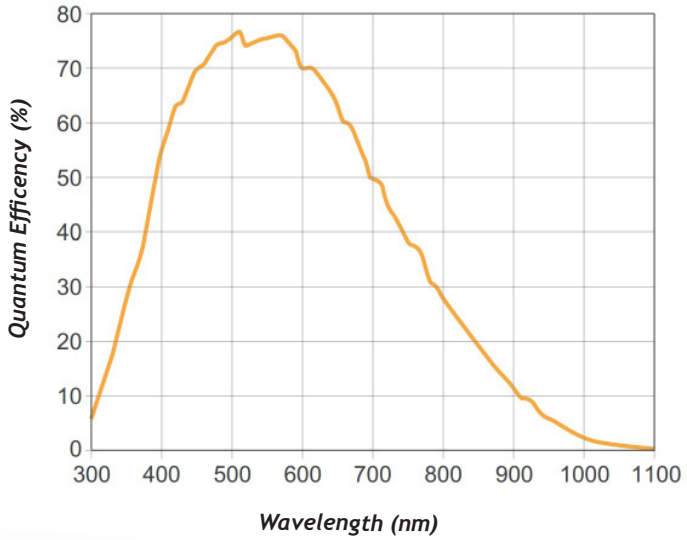
- **4096 x 3008 , 2.74µm pitch CMOS sensor**
  Full HD resolution imaging from 0.3µm to 1.1µm
- **Ultra compact and ruggedised for space**
  Easy integration in space optical instruments
- **On-board Automatic Light Control (ALC)**
  Real time, optimal video in all light conditions
- **Designed for LEO environments**
  High Shock, Vibration and Extreme Temperature Resistance
- **Global shutter CMOS technology**
  Colour or monochrome image without any geometric distortion
- **Low Noise Electronics**
  No artifical noise added, optimising low light capability

Resolution	4096 x 3008
Frame Rate	10Hz
Dynamic Range	72dB
Peak QE	77% @ 530nm

Specification for Hawk 4096 FR

Sensor	1/1.1" CMOS
Active Pixel	4096 x 3008
Active Area (Diagnoal)	11.22mm x 8.24mm (14mm)
Frame Rate	10Hz
Pixel Size	2.74µm x 2.74µm
Dynamic Range	72dB
Readout Noise	2e-
Anti-blooming	Yes
Spectral Response	300-1100nm
Non-Linearity	<1%
Total Power Consumption	<4W
Peak Quantumn Efficeny	77% @530nm
Output Format	12 bit Camera Link (base configuration)
Cooling	Uncooled
Synchronization	Trigger In & OUT - TTL compatible
Trigger Connectors	SMA type
Lens Mount	CS mount, back focus capability
Power Connector	Hirose part code HR10A-7R-4PB
Power Supply	12V DC ±10%
Operating Temperature	-40°C to +71°C
Storage Temperature	-55°C to +85°C
Dimensons (excluding standard mounting)[1]	44mm x 44mm x 54mm (incl connectors)
Weight	132g

Raptor Photonics Limited reserves the right to change this document at any time without notice and disclaims liability for editorial, pictoral or typographical errors. Note 1 : Dimensions include all connector parts on the camera interface. Note 2: Please consult us to check our range of lenses.



Data Supplied by Sensor Manufacturer

Specification for Hawk 4096 FR

Camera

Hawk 4096 Digital Camera	HK4096-CL-S
Hawk 4096 Digital PSU	RPL-HR4-K

Optional Accessories

Mini PC with XCAP STD and Frame Grabber	RPL-PC-mf2280
Thunderbolt Frame Grabber	RPL-mf2280
EPIX® EB1 Frame Grabber	RPL-EPIX-EB1
EPIX® XCAP STD Software	RPL-XCAP-STD
MDR-SDR CameraLink Cable (2m)[2]	RPL-MCL-CBL-2M

Custom Options

Custom Options available, contact us at sales@raptorphotonics.com

Applications

Scientific

- New Space LEO
- Free Space Optical Communication
- Hyperspectral Imaging
- Astronomoy

For detailed tehnical drawings, volume pricing or to set up a demo, contact us at sales@raptorphotonics.com

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