

HAWKeye sCMOS Camera 1910



Starlight to full daylight 24-hour operation ruggedised camera

The camera uses selected sub electron sCMOS sensors available as either monochrome or colour, with low dark current and low defective pixel count.

Thanks to efficient cooling and stable offset, the sCMOS camera allows reproducible acquisition for precise metrology measurements in the NIR spectrum.

Camera Link and HD-SDI interfaces enable easy integration into existing systems. sCMOS sensors with UV extension are also available on demand.

OEM versions with special form factors / cooling options are made to order for special programmes into specific payload and surveillance systems.

Key Features

- | >90 dB intra-scene dynamic range
- | Read out noise
<1 electron RMS
- | 30/60 fps
with HD full resolution
- | Excellent linearity
response to varying intensities and / or exposures
- | HD-SDI & Camera Link interface
- | Software option:
SDK kit, Labview VI's
- | HD format 1920 x 1080

Applications

Available with passive cooling

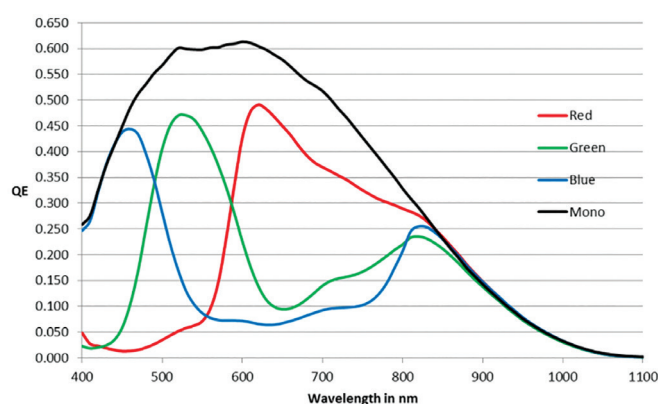
Auto control exposure for surveillance
Region of interest allowing digital zooming
Pixel binning for improved sensitivity
Colour or multi spectral filters

Available with active cooling

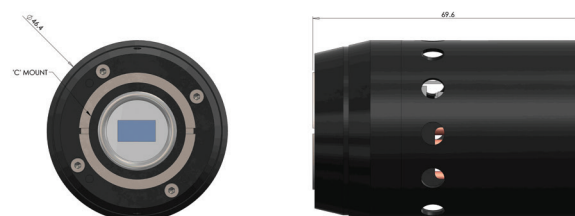
Astronomy
Hyper spectral imaging
Payload
Spectroscopy

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Characteristics	HAWKeye HD 30/60
Spectral Range	380 - 1100 nm
Resolution (pixels)	1920 x 1080
Sensor Size	9.6 mm x 5.4 mm
Frame Rate	30 fps at 16-bit digitization 60 fps at 12-bit digitization
Pitch	5 μ m
Full Well Capacity	22,000 - 25,000 electrons
Read Out Noise	<1 electron
Reading Mode	Integrate While Read / Rolling Shutter
Dark Current	<25 electron/pixel/second at 20°C
Sensor Temperature (°C)	-40°C - 80°C with air cooling
Corrections	Non uniformity, bright pixel, gain, offset, flatfield
ADC	12-bit with 16-bit digital processing
Exposure	15 microseconds up to > 1 minute
QE 0.9 μ m	15%



Quantum efficiency response of Cooled HAWKeye camera 1910



Cooled HAWKeye 1910 dimensions