

## 2048 x 2048 Imaging Array

## 24 μm Pixel Size

The Cobalt DC4320 offers an outstanding combination of high quantum efficiency, large dynamic range, deep full well capacity, excellent cooling and large imaging area.

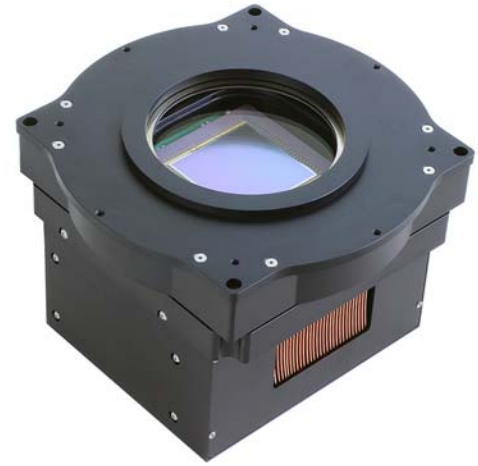
Multiple mounting options:

- M6 through-holes (4X) • M4 bolt circle (8X)

Optical Correction System (OCS): Every Cobalt camera includes our 4-point sensor tilt control system. OCS compensates for sensor packaging tolerances and/or optical path tilt, ensuring that your optics are never tilted relative to the camera's sensor.

Adjustment range: 1 degree tip/tilt

Sensor orthogonality: +/- 0.1mm as shipped



Also available with 90mm shutter

## Applications

Digital Radiography  
Astronomy

Satellite Imaging  
Low Light Level Imaging

Features	Benefits
1.2 MHz and 3 MHz per channel digitization	Fast Image capture with full 16-bit resolution
2048 x 2048 Array with 24 μm pixels	Resolves fine detail
Flexible binning and readout	Increases frame rate
Thermoelectric Cooling to 50°C Below Ambient	Excellent low-noise imaging
Excellent quantum efficiency (72% peak)	High sensitivity for fast image acquisition
Medium format lens adapter available	No vignetting
Acquisition software included	Ease of integration with open source SDK
USB 2.0 interface	Industry standard connectivity; fast data transfer



## Engineering Excellence

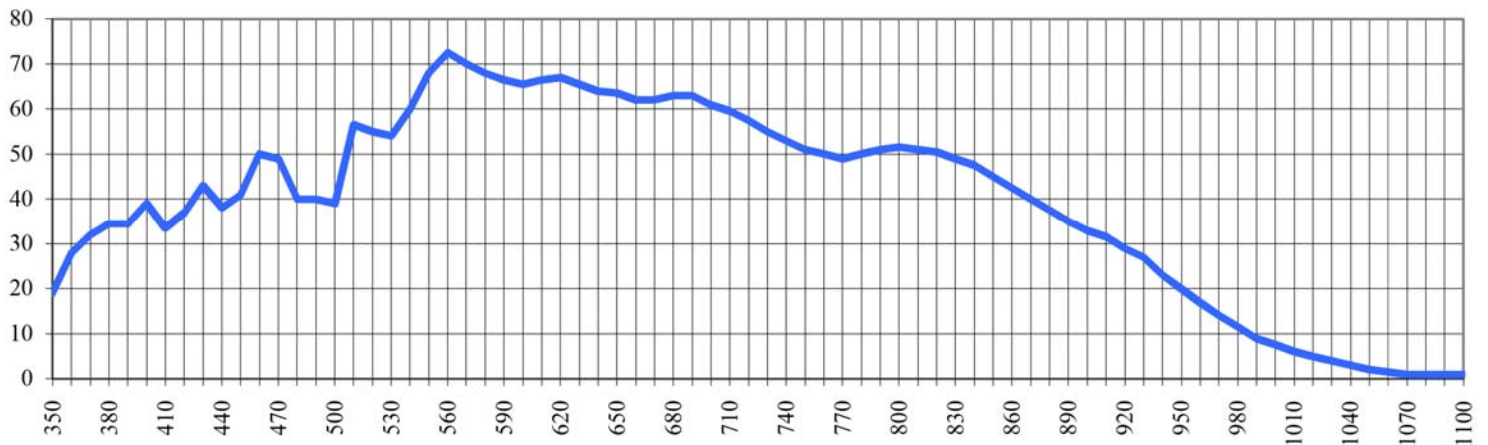
*Because Your Image Depends On It.*

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## Sensor Specifications (from manufacturer)

<b>Sensor</b>	On Semi KAF-4320	<b>Sensor Size</b>	49.1 X 49.1 mm	<b>Megapixels</b>	4.3
<b>Pixels</b>	2048 x 2048	<b>Sensor Diagonal</b>	69.4 mm	<b>Video Size (inch)</b>	4.3
<b>Pixel Size</b>	24 $\mu$ m	<b>CCD Variants</b>			
<b>Full Well Capacity</b>	500000 electrons	<b>CCD Grades</b>	1, 2		
<b>Color Options</b>	Monochrome Only	<b>Anti-Blooming</b>	None		
<b>CCD Type</b>	Front Illuminated				

## Sensor Quantum Efficiency (Absolute)



## Camera Performance

<b>Typical Maximum Cooling</b>	50°C below ambient	<b>Dark Current (typical)</b>	<0.8 electrons/pixel/sec at -25°C
<b>Temperature Stability</b>	0.1°C	<b>Cooling Method</b>	Air (Optional liquid)
<b>Digitization Speed</b>	1.2 MHz and 3 MHz per channel		
<b>Typical System Noise</b>	15 e- RMS @ 3 MHz per channel	<b>Non-Linearity</b>	<1%
<b>Focal Plane to Face Plate</b>	20 mm (with no shutter)	<b>Weight</b>	8 lbs (3.6 kg)
<b>Typical Gain</b>	4e- / count	<b>Housing</b>	6.2 X 6.2 X 4.86 inches (15.7 X 15.7 X 12.3 cm)
<b>Lens Mounts</b>	Medium Format Recommended		
<b>Interface</b>	USB 2.0	<b>Camera Channels</b>	4
<b>Available Shutters</b>	Optional 90 mm		
<b>External Triggering</b>	Standard		
<b>Environment</b>	-30°C to 45°C   10% - 90% Relative Humidity		
<b>Power</b>	TBD		



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