

## FALCON™ 4 CLHS CAMERAS

### KEY FEATURES

- Reduced dark noise levels and improved dark offset
- Improved sensitivity, including NIR response
- In-camera image pre-processing (lens shading correction, pixel correction)
- Large full well when using in-sensor binning >142Ke
- Thousands of frames per second in Partial Scan Mode (ROI)
- Multi-ROI support (up to 32 ROI) and Cycling Mode
- Advanced Sequencer functions of different features

### PROGRAMMABILITY

- Customizable user settings
- Programmable exposure time
- Adjustable analog / digital gain and offset
- Adjustable integration time and frame rate
- Test patterns and camera diagnostics

### RELIABILITY

- Robust all-metal body
- 3 year warranty

### TYPICAL APPLICATIONS

- Electronic inspection
- Life science
- Aerial imaging
- Flat panel inspection
- Semiconductors
- High speed 3D imaging
- Surveillance
- Motion tracking and analysis

### REGULATORY COMPLIANCE

- CE and RoHS compliant

## True High-Performance: High-Speed Global Shutter CMOS Cameras

When you need true high-performance imaging, turn to the Falcon™ 4-CLHS camera series. Using Teledyne's advanced CMOS architectures, the Falcon4-CLHS cameras offer unique, unprecedented capabilities for large area, high resolution, high speed imaging. Models include high-speed cameras with frame rates up to 1200 fps and high-resolution cameras with up to 67 MP.



### FALCON4-CLHS INDIVIDUAL MODEL SPECIFICATIONS

	Active Resolution	Sensor Model	Frame Rate	Pixel Size	Dynamic Range	Max. Image Circle	Data Format	Model Part Numbers
Falcon4-CLHS M2240	2240 x 1248	Teledyne e2v Lince 2.8 MP	1200 fps	12.0 µm	63 dB	APS-C	8- 10-bit Mono	FA-HM10-M2245
Falcon4-CLHS M4400	4480 x 2496	Teledyne e2v Lince 11 MP	330 fps	6.0 µm	60.8 dB	APS-C	8 or 10-bit Mono	FA-HM11-M4405
Falcon4-CLHS M4480	4480 x 2496	Teledyne e2v Lince 11 MP	600 fps	6.0 µm	60.8 dB	APS-C	8 or 10-bit Mono	FA-HM10-M4485
Falcon4-CLHS M6200	6144 x 6144	Teledyne e2v Emerald 37M - XHS	120 fps	2.5 µm	58.2 dB	1.4"	8 or 10-bit Mono	FA-HM10-M6205
Falcon4-CLHS M8200	8192 x 8192	Teledyne e2v Emerald 67M - XHS	90 fps	2.5 µm	58.2 dB	APS-C	8 or 10-bit Mono	FA-HM10-M8205
Falcon4-CLHS M8200-Scientific	8192 x 8192	Teledyne e2v Emerald 67M - ARC	65 fps	2.5 µm	62.0 dB	APS-C	8 or 10-bit Mono	FA-HM15-M8205

### FALCON4-CLHS FAMILY SPECIFICATIONS (COMMON TO ALL MODELS)

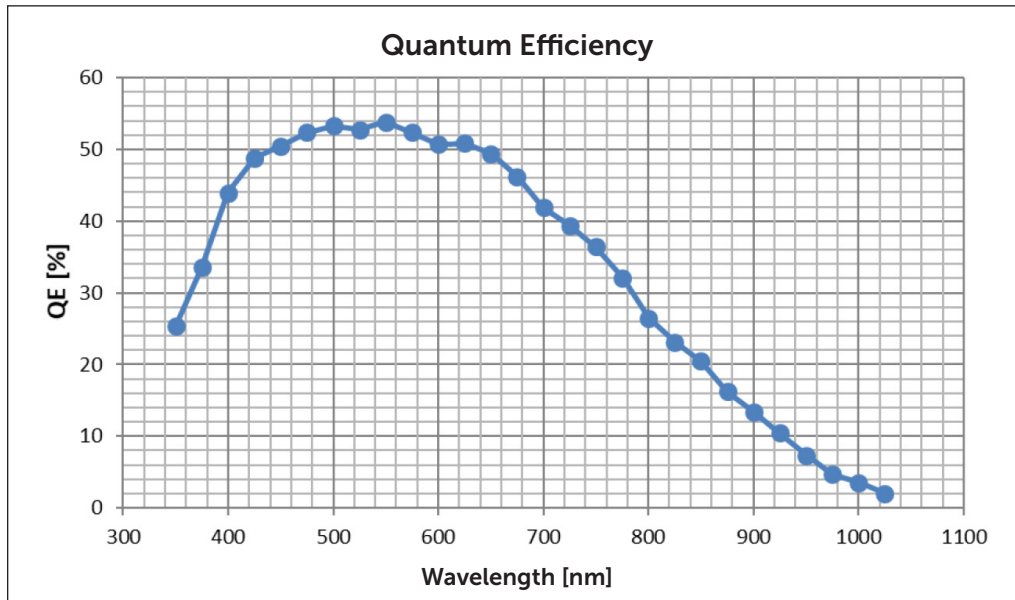
Feature	Falcon4 Medium Case p / n: FA-Hx1x-xxxx5
Data Output Transfer	CLHS 4 or 7-Lanes - 10.3 Gb / sec. per Lane
Exposure Control	INTERNAL: Programmable via the camera API, EXTERNAL: Based on Trigger Width
I/O Ports	2 input / 4 Output, Opto-coupled
Lens Mount	M42 x 1 mm
Size (L x H x W)	59 mm x 59 mm x 70 mm
Mass	< 321 g
Operating Temp	-20 to +50°C (Housing Temperature)
Power Supply	10 V to 30 V DC
Power Dissipation (model dependent)	< 13 W
Data Connector	CLHS CX4
Power and I/O Connector	SAMTEC TFM-105 type
Camera Specification	Camera Link HS X-protocol
Software Platform	Teledyne Sopera LT 9.20 or newer (Windows or Linux)

## RESPONSIVITY GRAPHS

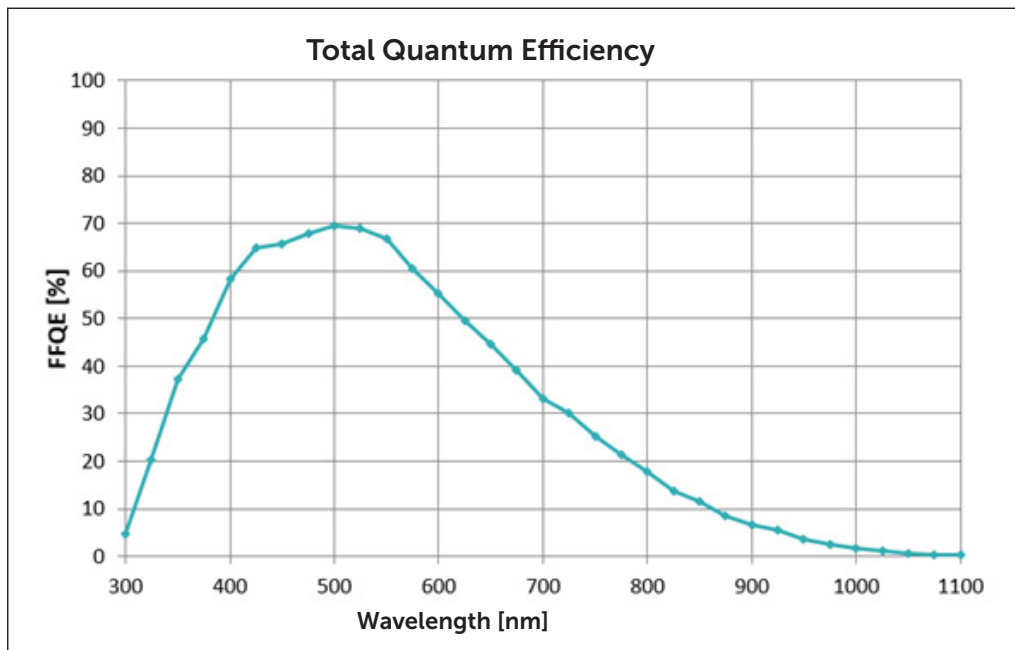
### Spectral Sensitivity Characteristics

Excludes lens characteristics and light source characteristics

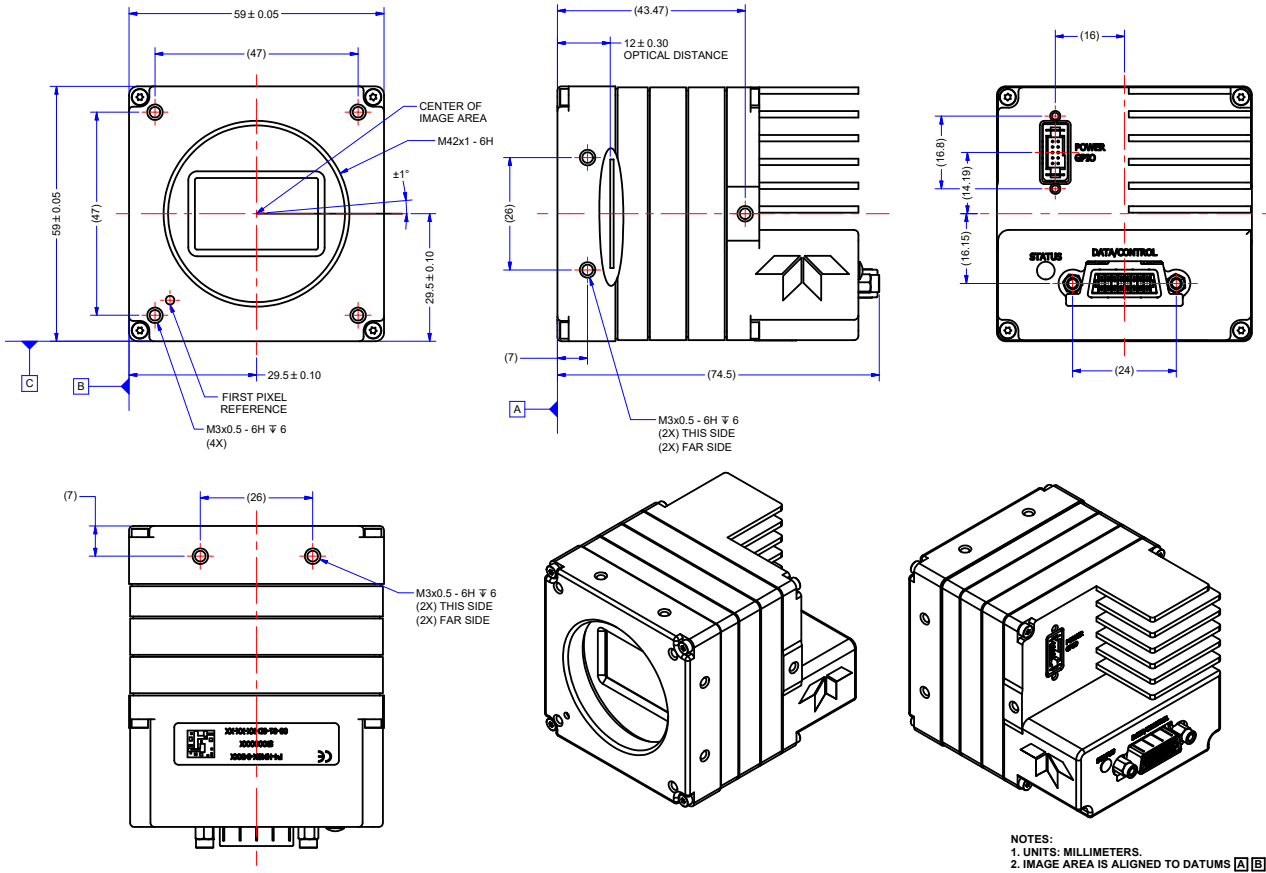
#### FALCON4-CLHS M4480 / M4400 / M2240



#### FALCON4-CLHS M8200-SCIENTIFIC



**SPECIFICATIONS: Falcon4-CLHS FA-Hxxx-xxxx5 Medium Case**



NOTES:  
1. UNITS: MILLIMETERS.  
2. IMAGE AREA IS ALIGNED TO DATUMS **A**, **B** & **C**.

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