

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
- Aerial Imaging
- Flat Panel Inspection
- Semiconductor
- 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 Imaging'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 or 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-HM00-M4485 |
| Falcon4-CLHS M6200 | 6144 x 6144 | Teledyne e2v Emerald 37M | 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 | 90 fps | 2.5 µm | 58.2 dB | APS-C | 8 or 10-bit Mono | FA-HM10-M8205 |

FALCON4-CLHS FAMILY SPECIFICATIONS (COMMON TO ALL MODELS)

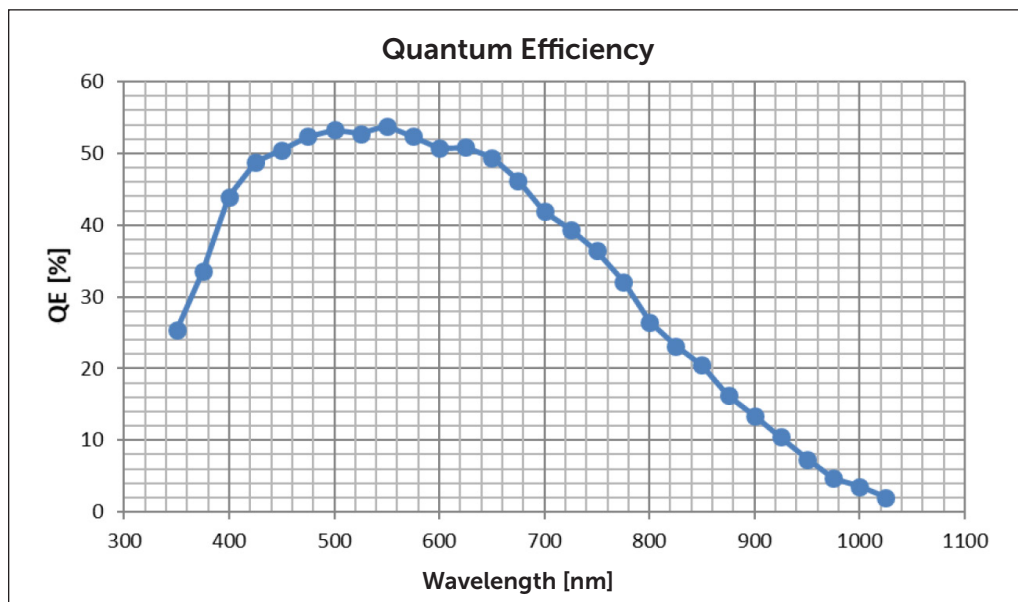
| Feature | Falcon4 Medium Case p / n: FA-Hxxx-xxxx5 |
|-------------------------------------|---|
| Data Output Transfer | CLHS 4 or 7-Lanes - 10.3 Gb / sec. per Lane |
| Exposure Control | INTERNAL: Programmable via the camera API, EXTERNAL: Based on Trigger Width |
| I/O Ports | 2 input / 4 Output, 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 Spera LT 8.6 or newer (Windows or Linux) |

RESPONSIVITY GRAPHS

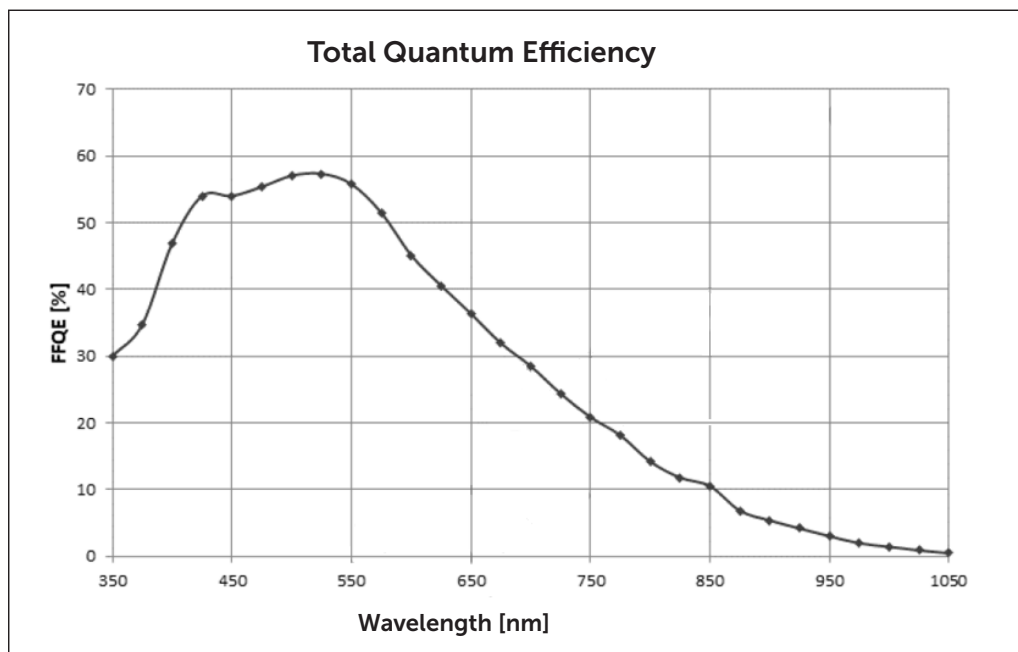
Spectral Sensitivity Characteristics

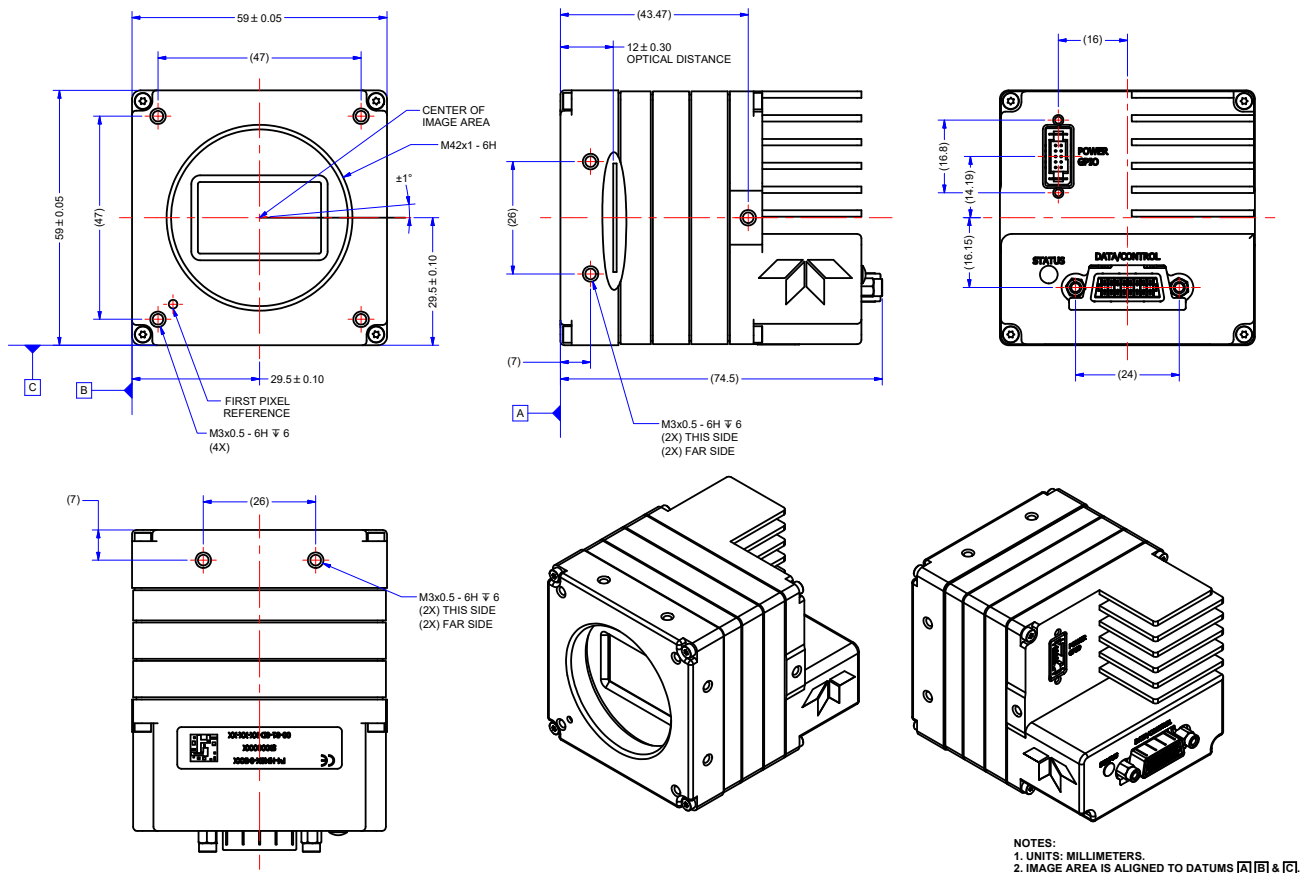
Excludes lens characteristics and light source characteristics

FALCON4-CLHS M4480 / M4400 / M2240



FALCON4-CLHS M8200 / M6200



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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