

Bonito

CL-400



- High speed camera
- Compact Design
- Robust, lightweight housing
- Very low power consumption

For fast image acquisition of still and moving objects.

High Speed Camera, sensitive global shutter CMOS sensor, Camera Link

Bonito CL-400 with CMOS Sensor 4 MPixel runs 386 frames per second at 4.0 MP resolution.

The Bonito is a high speed camera with a sensitive global shutter CMOS sensor. The Bonito CL-400B/C runs 386 fps at 4 Megapixel resolution and has an ultra-fast 2 x 10-tap Camera Link Full+ interface. Considerably higher frame rates can be reached with a smaller ROI (region of interest). The Bonito CL-400B/C 200 fps version runs 193 fps at full resolution and is equipped with a 1 x 10-tap Camera Link Full+ interface.

- 386 fps at 2320 x 1726 pixels (200 fps version: 193 fps)
- Global shutter CMOS sensor (excellent sensitivity due to microlenses)
- Robust and lightweight aluminum housing
- Very low power consumption, 4 W

Options: Available with C/F/EF-Mount

Specifications

| | |
|------------------------------------|------------------------------|
| Interface | 2 x 10-tap Camera Link Full+ |
| Resolution | 2320 (H) × 1726 (V) |
| Sensor | CMOS Sensor 4 MPixel |
| Sensor type | CMOS |
| Sensor size | Type 4/3 |
| Pixel size | 7 μm × 7 μm |
| Lens mount (default) | C-Mount, EF-Mount, F-Mount |
| Max. frame rate at full resolution | 386 fps |
| ADC | 10 Bit |

Output

| | |
|--------------------------|-------|
| Bit depth | 8-bit |
| Monochrome pixel formats | Mono8 |

General purpose inputs/outputs (GPIOs)

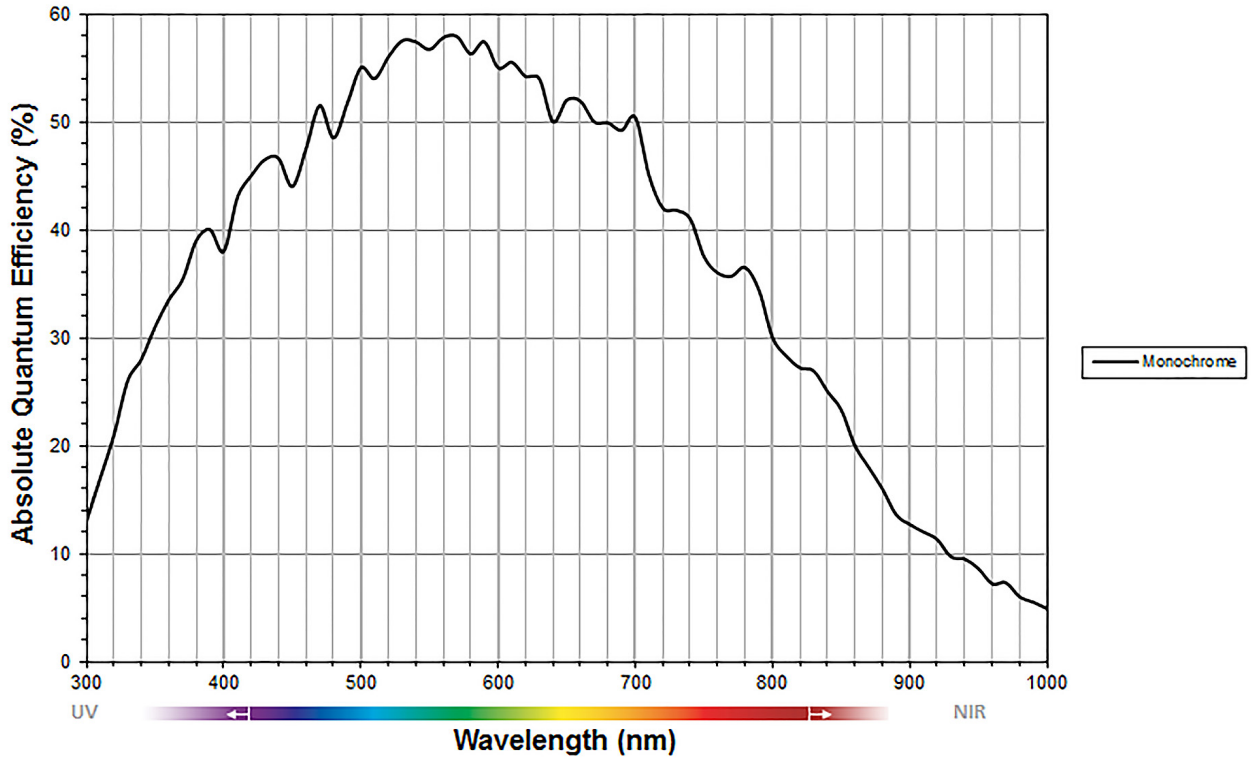
| | |
|--------------------|-------------|
| Opto-isolated I/Os | 1 in, 1 out |
|--------------------|-------------|

Operating conditions/dimensions

| | |
|-----------------------------------|---------------------------------------|
| Operating temperature | 0°C to +45 °C |
| Power requirements (DC) | 12 V |
| Power consumption | 4.2 W @ 12 VDC |
| Mass | 360 g (C-Mount) |
| Body dimensions (L × W × H in mm) | 44.2 × 80 × 70 (including connectors) |

Quantum efficiency

Spectral sensitivity



Features

- Region of interest (ROI)
- Fixed pattern noise (FPN) correction
- Digital gain (selects 8 of 10 bits for output)
- Offset (brightness)
- Exposure time: 1.5 μ s, up to 1 s (recommended), > 1s also possible
- Two readout modes:
 - 386 fps with two 10-tap Camera Link outputs
 - 193 fps with one 10-tap Camera Link output
- Continuous mode (image acquisition with maximum frame rate)
- Image on demand mode (triggered image acquisition)

Applications

The Bonito CL-400B/C high speed camera is the perfect choice for applications which require a very fast frame rate and excellent image quality. Its global shutter CMOS sensor is ideally suited for high-resolution motion capture. The camera transmits the images to the frame grabber in real-time. Another benefit is the robust, lightweight, and very compact housing.

Typical applications:

- Applications with high demands on image quality and very fast frame rates
- Motion capture with high resolution
- 3D recordings of still and moving objects
- Science and research
- Medical imaging
- High speed imaging in general