

MV1-D1280-120-CL

The camera series MV1-D1280(C)-120-CL is based on the e2v EV76C560 CMOS image sensor

Features

- e2v EV76C560 CMOS image sensor
- 1280 x 1024 pixel resolution
- Suitable for standard and low light applications
- Up to 65fps @ full resolution
- Global shutter
- Available in monochrome and color
- Extended sensor and camera features
- Up to 10bit greyscale resolution
- Boardlevel and OEM solution available
- CameraLink® interface



Quantum Efficiency Image Sensor

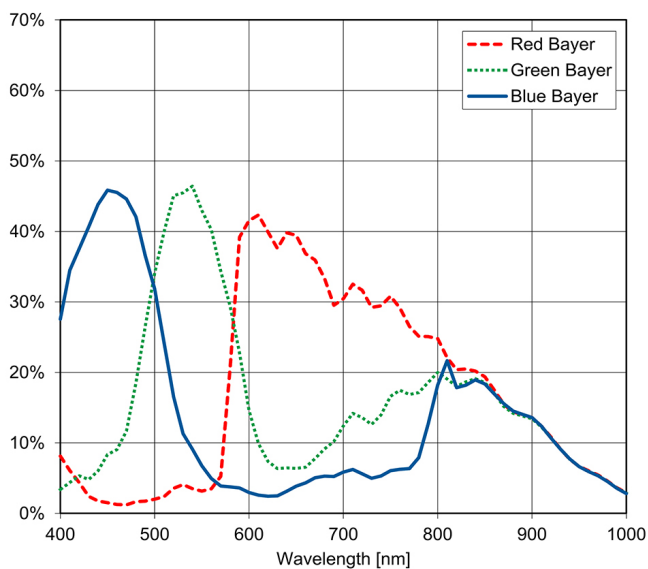
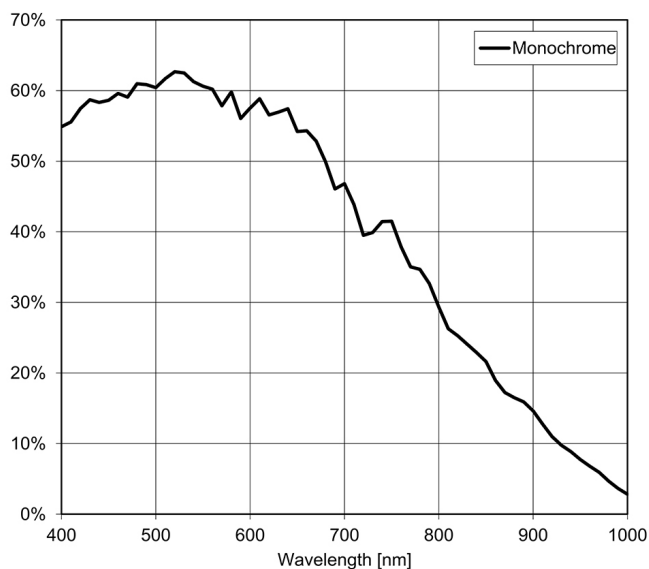


Image Sensor Specifications

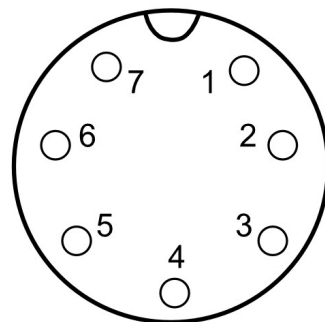
| | |
|--------------------------|---|
| Manufacturer / Type | e2v, EV76C560 |
| Technology | CMOS |
| Optical format | 1/1.8" |
| Optical diagonal | 8.7mm |
| Resolution | 1280 x 1024 |
| Pixel size | 5.3µm x 5.3µm |
| Active optical area | 6.9mm x 5.5mm |
| Dark current | 280e-/s |
| Read out noise | 15e- |
| Full well capacity / SNR | 12ke- / 109:1 |
| Spectral range | Monochrome: 350 to 970nm (to 10% of peak responsivity) Color: 390 to 670nm (to 10% of peak responsivity) |
| Responsivity | Monochrome: 984 x 10 ³ DN / (J/m ²) @ 520nm / 8bit Color: 746 x 10 ³ DN / (J/m ²) @ 540nm / 8bit |
| Quantum Efficiency | Monochrome: < 63% Color: < 46% |
| Optical fill factor | 60% |
| Dynamic range | 60dB |
| Characteristic curve | Linear |
| Shutter mode | Global Shutter |

Camera Specifications

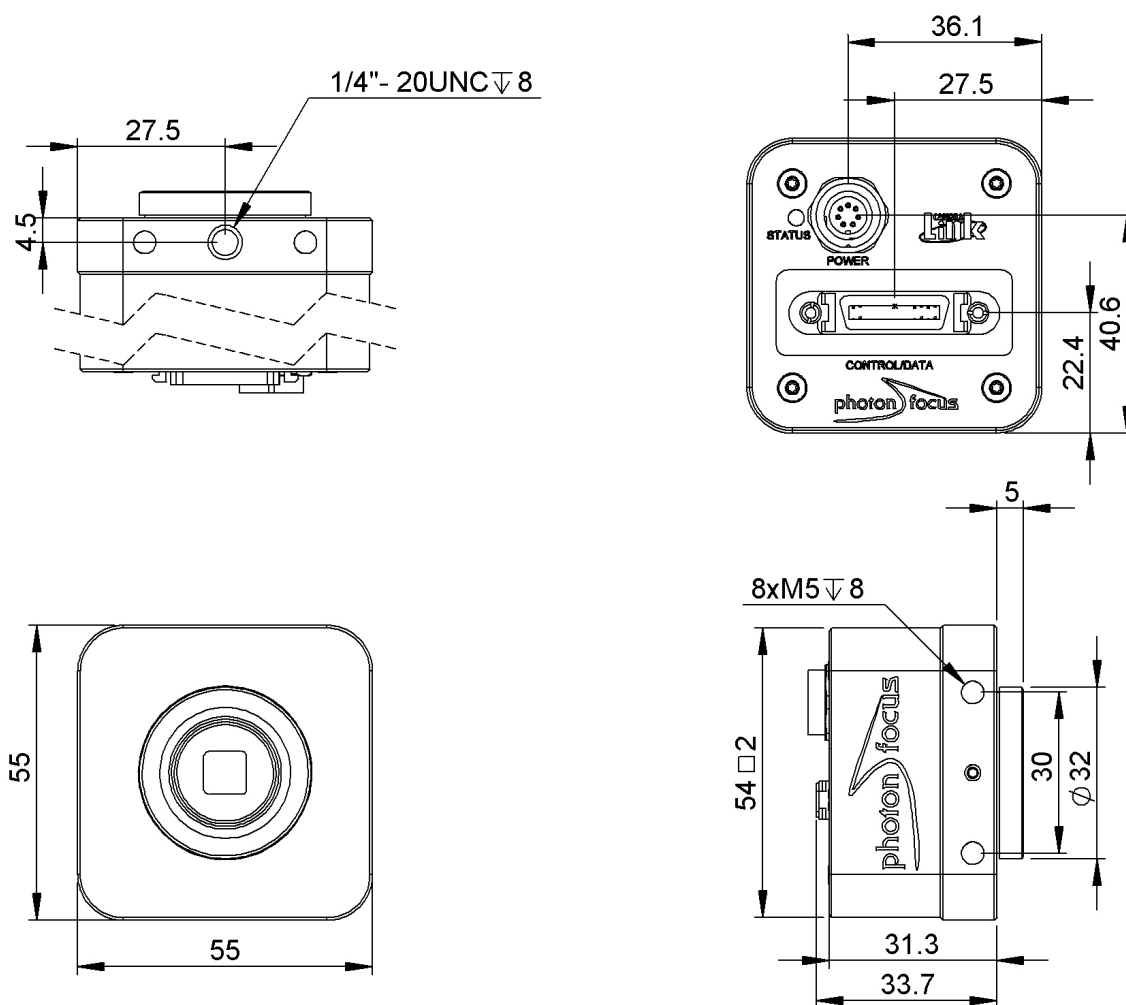
| | |
|----------------------------------|--|
| Interface | Camera Link |
| Frame rate | 65fps |
| Pixel clock | 60MHz |
| Camera taps | 2 |
| Greyscale resolution | 8Bit / 10Bit |
| Fixed pattern noise (FPN) | < 1DN RMS @ 8bit |
| Exposure time range | 13µs - 279ms |
| Analog gain | yes |
| Digital gain | 0.1 to 15.99 (FineGain) |
| Trigger Modes | Free running (non triggered), external Trigger, SWTrigger |
| Features | Configurable region of interest (ROI), Decimation in x- and y-direction, 2 look-up tables (12-to-8Bit) on user-defined image region (Region-LUT), Constant frame rate independent of exposure time, Crosshairs overlay on the image, Temperature monitoring of camera, Camera informations readable over SDK, Ultra low trigger delay and low trigger jitter, Extended trigger input and strobe output functionality, Status line in picture |
| Operation temperature / moisture | 0°C ... + 50°C / 20% ... 80% |
| Storage temperature / moisture | -25°C ... 60°C / 20% ... 95% |
| Power supply | +12VDC (-10%) ... +12VDC (+10%) |
| Power consumption | < 2W |
| Lens mount | C-Mount (CS-Mount optional) |
| I/O Inputs | 1x Opto-isolated |
| I/O Outputs | 1x Opto-isolated |
| Dimensions | 55 x 55 x 32mm ³ |
| Mass | 164g |
| Connector I/O (Power) | Binder 7-pole (mating plug 99-0421-00-07) |
| Connector Interface | CameraLink Base (MDR) |
| Conformity | CE / RoHS / WEEE |
| IP Code | IP40 |

Connectors

| Pin | I/O Type | Name | Description |
|-----|----------|------------|---|
| 1 | PWR | CAMERA_PWR | Camera Power 12VDC |
| 2 | PWR | CAMERA_GND | Camera GND 0V |
| 3 | O | RESERVED | Do not connect |
| 4 | PWR | STROBE-VDD | +5 ... +15 VDC |
| 5 | O | STROBE | Strobe control (opto-isolated) |
| 6 | I | TRIGGER | External trigger (opto-isolated), +5 .. +15VDC |
| 7 | PWR | GROUND | Signal ground (for opto-isolated strobe signal) |



Dimensions



Explanation

DN DigitalNumber (equals to LSB)

e⁻ Electrons

Order Information

| | |
|----------------------|--------------------|
| MV1-D1280-120-CL-10 | BW model |
| MV1-D1280C-120-CL-10 | Color imager model |

Compatibility

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