

Specifications

Interface	FPD-Link III, based on MIPI CSI-2, up to 4 lanes
Resolution	656 (H) × 520 (V)
Spectral range	400 to 1700 nm
Sensor	Sony IMX991 InGaAs
Sensor type	InGaAs
Shutter mode	GS (Global shutter)
Sensor size	Type 1/4 VSWIR
Pixel size	5 μm × 5 μm
Lens mounts (available)	C-Mount, CS-Mount, S-Mount
Max. frame rate at full resolution	Mainly depends on hardware and register settings
ADC	12 Bit
Image buffer (RAM)	256 KByte
Non-volatile memory (Flash)	1024 KByte

Output

Bit depth	8-bit, 10-bit, 12-bit; Adaptive (10-bit, 12-bit)
Monochrome pixel formats	PFNC: Mono8 (default), Mono10, Mono10p, Mono12, Mono12p CSI-2: RAW8 (default), RAW10, RAW12 FOURCC: GREY, Y10, Y12

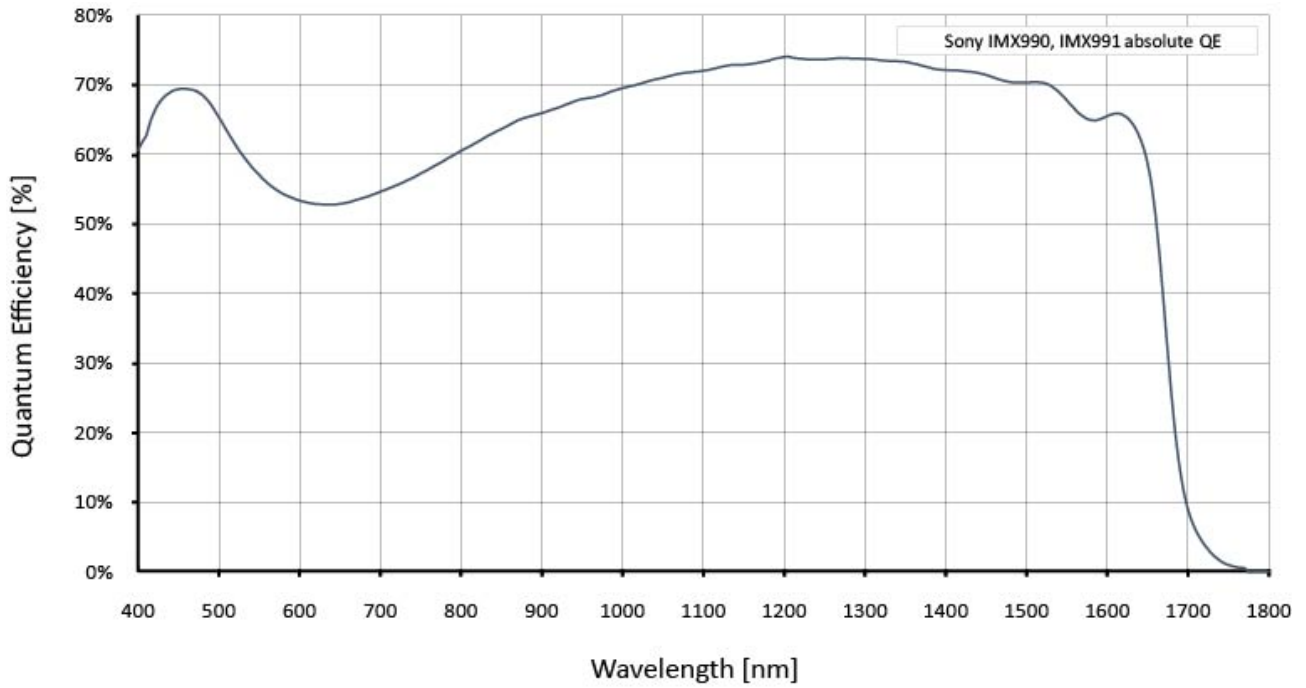
General purpose inputs/outputs (GPIOs)

TTL I/Os	2 programmable GPIOs
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Operating conditions/dimensions

Operating temperature	-20 °C to +65 °C (housing)
Power requirements (DC)	5 VDC over MIPI CSI-2
Power consumption	Value for the integrated serializer adds to CSI-2 model value.
Mass	70 g
Body dimensions (L × W × H in mm)	41 × 29 × 29

Quantum efficiency



Features

Image control: Auto

- Auto exposure
- Auto gain

Image control: Other

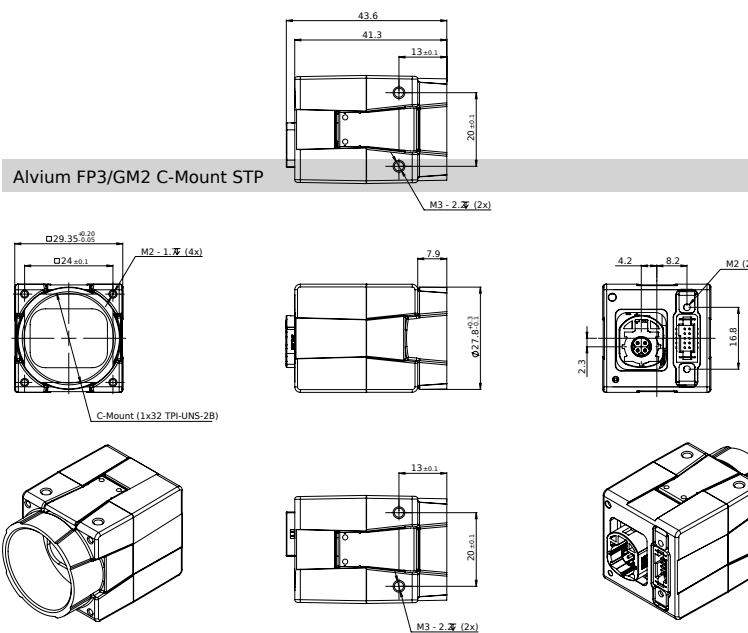
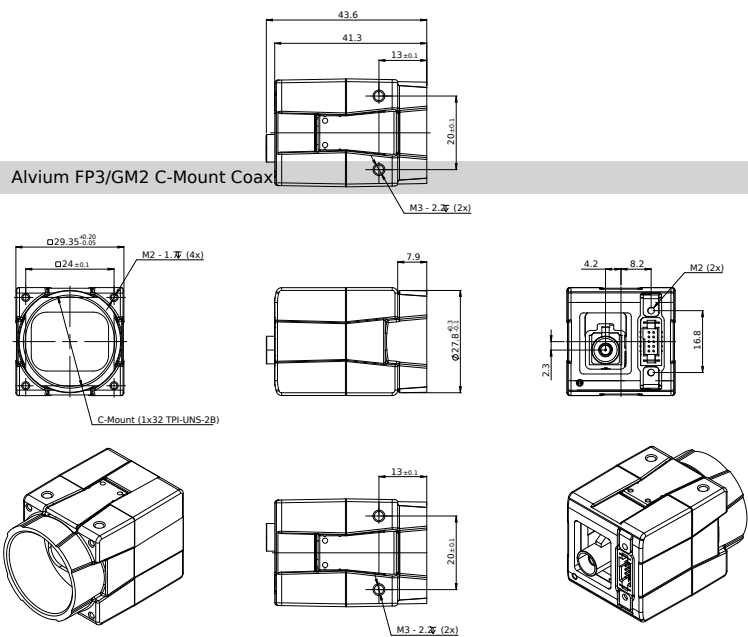
- Adaptive noise correction*
- Binning (digital)
- Black level
- Contrast*
- Custom convolution*
- DPC (defect pixel correction)
- Gamma
- Lens shading correction*
- LUT (look-up table)*
- Reverse X/Y
- ROI (region of interest)
- Sharpness/Blur*

Camera control

- Acquisition frame rate
- Counters and timers*
- Firmware update in the field
- I/O and trigger control
- Image chunk data*
- Readout modes (SensorBitDepth)*
- Serial I/Os*
- Temperature monitoring
- User sets*

*GenICam for CSI-2 Access

Technical drawing



Applications

Alvium FP3-030 cameras are sensitive in the visible and the SWIR spectrum and are well-suited for many typical SWIR applications in various industry branches:

- Semiconductor industry: Solar cell and chip inspection
- Recycling industry: Plastic sorting

- Medical imaging, sciences: Hyper- and multi-spectral imaging
- Glass industry: Defect detection through hot glass
- Agriculture industry: Airborne remote sensing
- Printing industry: Seeing hidden features
- Surveillance: Vision enhancement (for example, seeing through fog or haze)
- Security: Counterfeit detection (such as for money, faked hair, or skin)