Allied Vision

# Alvium FP3

## Alvium FP3-501 NIR



Alvium FP3-501 NIR innovative FPD-Link III camera with ON Semi AR0522 CMOS rolling shutter sensor provides industrial performance for cost effective embedded applications.

## General

| | |
|---|---|
| Model | Alvium FP3-501 NIR |
| Product series | Alvium FP3 |
| Status | Available |

## Sensor

| | |
|---|---|
| Sensor type | Area scan |
| Chroma | Color, Mono |
| Spectrum | Visible NIR |
| Spectral range | 300 nm to 1100 nm |
| Resolution | 2,592 × 1,944 (5.00 MP) |
| Sensor model | ON Semi AR0522 |
| Sensor architecture (material) | cmos |
| Shutter type(s) | Rolling shutter (RS) |
| Sensor size | 5.7 × 4.3 mm (7.1 mm, Type 1/2.5) |
| Pixel size | 2.20 µm × 2.20 µm |

## Pixel formats

| | |
|---|---|
| Sensor bit depth | 10-bit |
| Monochrome pixel formats | GREY, RAW10, RAW12, RAW8, Y10, Y12 |
| YUV pixel formats | UYVY, YUV422 8-bit |
| RGB pixel formats | RGB3, RGB888 (default) |

## Imaging performance

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|---|---|
| Quantum efficiency @ 529 nm | 84 % |

## Timing and gain

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|---|---|
| Max. frame rate | Mainly depends on hardware and register settings. |
| Exposure time | 8 µs to 480.00 ms |
| Gain | 0.0 dB to 24.1 dB |

## I/Os and power

| | |
|---|---|
| Non-isolated lines | 2 programmable GPIOs |
| I/O connector | Coax, STP |
| Power supply | 5 VDC over MIPI CSI-2 |
| Power consumption | Value for the integrated serializer adds to CSI-2 model value. |

## Operating conditions

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|---|---|
| Operating temperature (housing) | -20 °C to 65 °C ((housing)) |

## Mechanical properties

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|---|---|
| Body dimensions (L x W x H in mm) | 41 × 29 × 29 |
| Lens mount(s) | C-Mount, CS-Mount, S-Mount |
| Weight | 70 g |

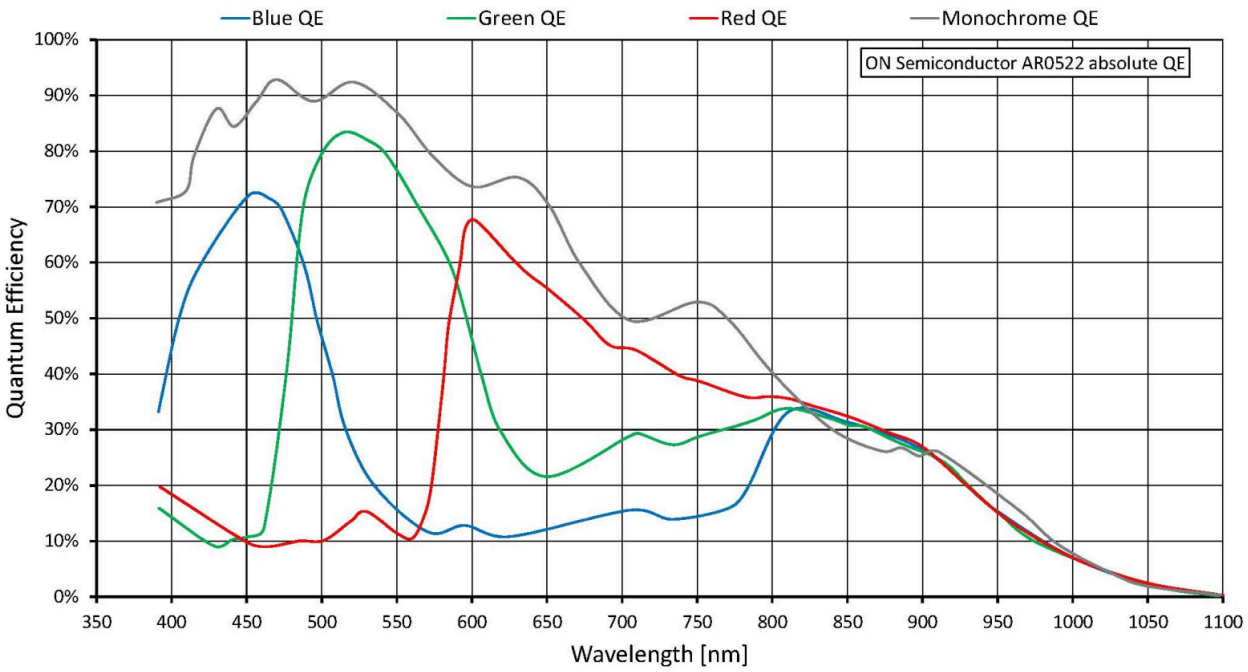
## On-board memory and FPGA

| | |
|---|---|
| Image buffer (RAM) | 256 KByte |
| Non-volatile memory (Flash) | 1024 KByte |

## Interfaces

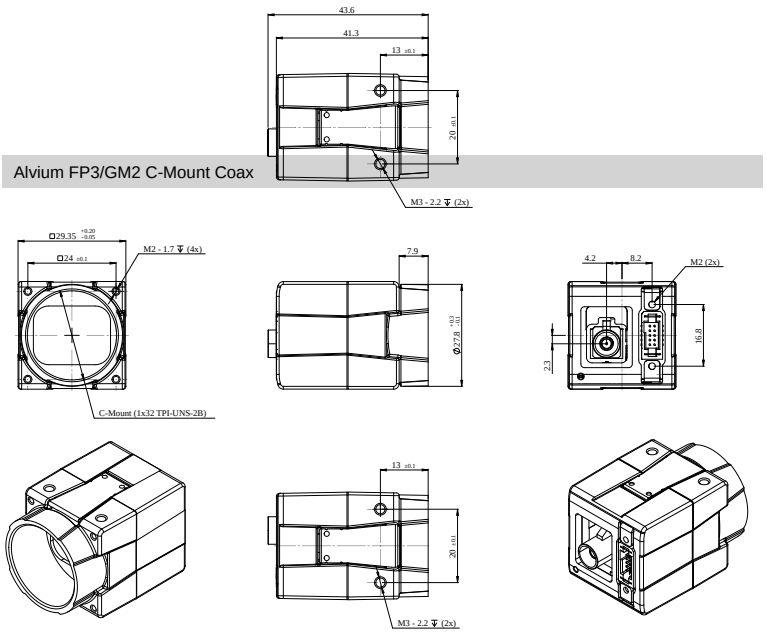
| | |
|---|---|
| Digital interface | FPD-Link III, based on MIPI CSI-2, up to 4 lanes |

## Quantum Efficiency



# Technical Drawing

Alvium FP3/GM2 C-Mount Coax




Alvium FP3/GM2 C-Mount STP

