



## Alvium FP3

### Alvium FP3-811

Alvium FP3-811 innovative FPD-Link III camera with Sony IMX546 CMOS global shutter sensor provides industrial performance for cost effective embedded applications.

#### General

|                |                |
|----------------|----------------|
| Model          | Alvium FP3-811 |
| Product series | Alvium FP3     |
| Status         | Available      |

#### Sensor

|                                |                                |
|--------------------------------|--------------------------------|
| Sensor type                    | Area scan                      |
| Chroma                         | Color, Mono                    |
| Spectrum                       | Visible                        |
| Spectral range                 | 300 nm to 1100 nm              |
| Resolution                     | 2,848 × 2,848 (8.10 MP)        |
| Sensor model                   | Sony IMX546                    |
| Sensor architecture (material) | cmos                           |
| Shutter type(s)                | Global shutter (GS)            |
| Sensor size                    | 7.8 × 7.8 mm (11 mm, Type 2/3) |
| Pixel size                     | 2.74 µm × 2.74 µm              |

#### Pixel formats

|                          |                                                                          |
|--------------------------|--------------------------------------------------------------------------|
| Sensor bit depth         | 12-bit                                                                   |
| Monochrome pixel formats | GREY, RAW10, RAW12, RAW8, Y10, Y12                                       |
| YUV pixel formats        | UYVY, YCbCr411_8_CbYYCrYY, YCbCr422_8_CbYCrY, YCbCr8_CbYCr, YUV422 8-bit |
| RGB pixel formats        | BGR8, RGB3, RGB8 (default), RGB888 (default)                             |
| Bayer pixel formats      | BayerGR10, BayerGR10p, BayerGR12, BayerGR12p, BayerGR8                   |

## Imaging performance

|                             |      |
|-----------------------------|------|
| Quantum efficiency @ 529 nm | 68 % |
|-----------------------------|------|

## Timing and gain

|                 |                                                   |
|-----------------|---------------------------------------------------|
| Max. frame rate | Mainly depends on hardware and register settings. |
| Exposure time   | 8 $\mu$ s to 10 s                                 |
| Gain            | 0.0 dB to 48.0 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

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

## Mechanical properties

|                                   |                   |
|-----------------------------------|-------------------|
| Body dimensions (L x W x H in mm) | 41 × 29 × 29      |
| Lens mount(s)                     | C-Mount, CS-Mount |
| Weight                            | 40 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

