



## Alvium 1800 U

### Alvium 1800 U-508 Pol

Alvium 1800 U-508 Pol innovative USB camera with Sony IMX250 Polarizer CMOS global shutter sensor provides industrial performance for cost effective embedded and machine vision applications.

#### General

|                |                       |
|----------------|-----------------------|
| Model          | Alvium 1800 U-508 Pol |
| Product series | Alvium 1800 U         |
| Status         | Available             |

#### Sensor

|                                |                                  |
|--------------------------------|----------------------------------|
| Sensor type                    | Area scan                        |
| Chroma                         | Mono polarized                   |
| Spectrum                       | Visible                          |
| Spectral range                 | 300 nm to 1100 nm                |
| Resolution                     | 2,464 × 2,056 (5.10 MP)          |
| Sensor model                   | Sony IMX250 Polarizer            |
| Sensor architecture (material) | cmos                             |
| Shutter type(s)                | Global shutter (GS)              |
| Sensor size                    | 8.5 × 7.1 mm (11.1 mm, Type 2/3) |
| Pixel size                     | 3.45 µm × 3.45 µm                |

#### Pixel formats

|                     |                       |
|---------------------|-----------------------|
| Sensor bit depth    | 10-bit, 12-bit, 8-bit |
| Bayer pixel formats | BayerRG12             |

#### Timing and gain

|                 |                   |
|-----------------|-------------------|
| Max. frame rate | 84 fps            |
| Exposure time   | 20 µs to 10 s     |
| Gain            | 0.0 dB to 48.0 dB |

## I/Os and power

|                    |                                                          |
|--------------------|----------------------------------------------------------|
| Non-isolated lines | 4 programmable GPIOs                                     |
| Power supply       | Power over USB 3.1 Gen 1   External power 5.0 V          |
| Power consumption  | USB power: 2.9 W (typical)   Ext. power: 3.1 W (typical) |

## Operating conditions

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

## Mechanical properties

|                                   |                   |
|-----------------------------------|-------------------|
| Body dimensions (L x W x H in mm) | 38 × 29 × 29      |
| Lens mount(s)                     | C-Mount, CS-Mount |
| Weight                            | 65 g              |

## On-board memory and FPGA

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

## Interfaces

|                   |             |
|-------------------|-------------|
| Digital interface | usb3.0      |
| Vision standard   | USB3 Vision |

## Quantum Efficiency

 Specifications Image

## Technical Drawing

 Technical Drawing