



# Alvium C

## Alvium 1500 C-210

Alvium 1500 C-210 innovative MIPI CSI-2 camera with ON Semi AR0521 CMOS rolling shutter sensor provides industrial performance for cost effective embedded applications.

### General

|                |                   |
|----------------|-------------------|
| Model          | Alvium 1500 C-210 |
| Product series | Alvium C          |
| Status         | Available         |

### Sensor

|                                |                                   |
|--------------------------------|-----------------------------------|
| Sensor type                    | Area scan                         |
| Chroma                         | Color, Mono                       |
| Spectrum                       | Visible                           |
| Spectral range                 | 300 nm to 1100 nm                 |
| Resolution                     | 1,928 × 1,088 (2.10 MP)           |
| Sensor model                   | ON Semi AR0521SR (HD mode)        |
| Sensor architecture (material) | cmos                              |
| Shutter type(s)                | Rolling shutter (RS)              |
| Sensor size                    | 4.2 × 2.4 mm (4.9 mm, Type 1/3.6) |
| 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

|                             |      |
|-----------------------------|------|
| Quantum efficiency @ 529 nm | 79 % |
|-----------------------------|------|

## Timing and gain

|                 |                   |
|-----------------|-------------------|
| Max. frame rate | 119 fps           |
| Exposure time   | 8 $\mu$ s to 10 s |
| Gain            | 0.0 dB to 24.1 dB |

## I/Os and power

|                    |                       |
|--------------------|-----------------------|
| Non-isolated lines | 2 programmable GPIOs  |
| Power supply       | 5 VDC over MIPI CSI-2 |
| Power consumption  | Typical: 1.9 W        |

## Operating conditions

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

## Mechanical properties

|                                   |                            |
|-----------------------------------|----------------------------|
| Body dimensions (L x W x H in mm) | 26 × 29 × 29               |
| Lens mount(s)                     | C-Mount, CS-Mount, S-Mount |
| Weight                            | 40 g                       |

## On-board memory and FPGA

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

## Interfaces

|                   |                           |
|-------------------|---------------------------|
| Digital interface | MIPI CSI-2, up to 4 lanes |
|-------------------|---------------------------|

## Quantum Efficiency



