



# Alvium C

## Alvium 1800 C-2040

Alvium 1800 C-2040 innovative MIPI CSI-2 camera with Sony IMX541 CMOS global shutter sensor provides industrial performance for cost effective embedded applications.

### General

|                |                    |
|----------------|--------------------|
| Model          | Alvium 1800 C-2040 |
| Product series | Alvium C           |
| Status         | Available          |

### Sensor

|                 |                          |
|-----------------|--------------------------|
| Sensor type     | Area scan                |
| Chroma          | Mono or Color            |
| Spectrum        | Visible                  |
| Spectral range  | 300 nm to 1100 nm        |
| Resolution      | 4,512 × 4,512 (20.40 MP) |
| Sensor model    | Sony IMX541              |
| Shutter type(s) | Global Shutter           |
| Sensor size     | 17.6 mm ø (Type 1.1)     |
| Pixel size      | 2.74 µm × 2.74 µm        |

### Pixel formats

|                          |  |
|--------------------------|--|
| 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 | 25 fps             |
| Exposure time   | 11 $\mu$ s to 10 s |
| Gain            | 0.0 dB to 48.0 dB  |

## I/Os and power

|                    |                       |
|--------------------|-----------------------|
| Non-isolated lines | 2 programmable GPIOs  |
| Power supply       | 5 VDC over MIPI CSI-2 |
| Power consumption  | Typical: 3.7 W        |

## Operating conditions

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

## Mechanical properties

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

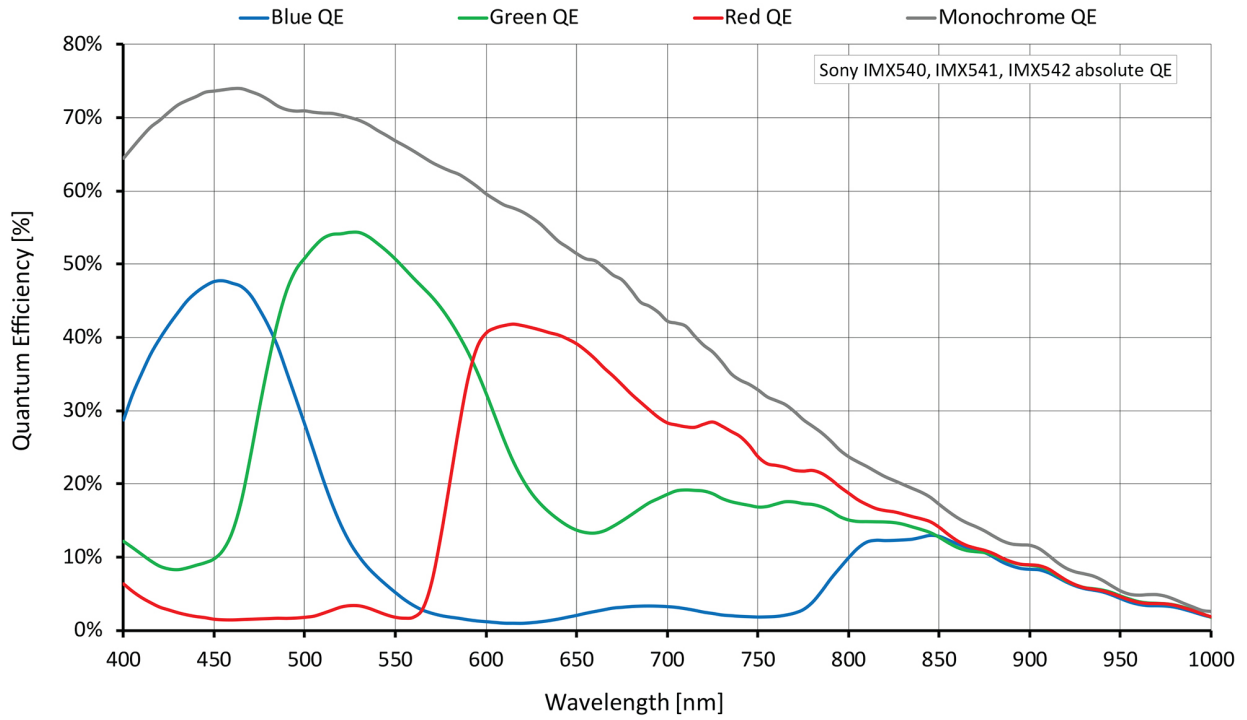
## On-board memory and FPGA

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

## Interfaces

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

# Quantum Efficiency



Technical Drawing

