



# Alvium G5

## Alvium G5-2040

Alvium G5-2040 innovative 5GBASE-T camera with Sony IMX541 CMOS global shutter sensor provides industrial performance for cost effective machine vision applications.

### General

|                |                |
|----------------|----------------|
| Model          | Alvium G5-2040 |
| Product series | Alvium G5      |
| 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              |
| Sensor architecture (material) | CMOS                     |
| Shutter type(s)                | Global Shutter           |
| Sensor size                    | 17.6 mm ø (Type 1.1)     |
| Pixel size                     | 2.74 µm × 2.74 µm        |

### Pixel formats

|                          |                                                                         |
|--------------------------|-------------------------------------------------------------------------|
| Sensor bit depth         | 12-bit                                                                  |
| Monochrome pixel formats | Mono8, Mono10, Mono10p, Mono12, Mono12p, Mono12Packed                   |
| YUV pixel formats        | YCbCr411_8_CbYYCrYY, YCbCr422_8_CbYCrY, YCbCr8_CbYCr                    |
| RGB pixel formats        | RGB8 (default), BGR8                                                    |
| Bayer pixel formats      | BayerRG8, BayerRG10, BayerRG10p, BayerRG12, BayerRG12p, BayerRG12Packed |

## Imaging performance

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

## Timing and gain

|                 |        |
|-----------------|--------|
| Max. frame rate | 25 fps |
|-----------------|--------|

## I/Os and power

|                     |                                                                                |
|---------------------|--------------------------------------------------------------------------------|
| Non-isolated lines  | 2 GPIOs (LVTTL)                                                                |
| Opto-isolated lines | 1 input, 1 output                                                              |
| Power supply        | 10.8 to 26.4 VDC AUX   IEEE 802.3af, Power Class 0 PoE                         |
| Power consumption   | External power: 6.9 W at 12 VDC (typical)   Power over Ethernet: 7.6 (typical) |

## Operating conditions

|                                 |                                       |
|---------------------------------|---------------------------------------|
| Operating temperature (housing) | -20 °C to 55 °C (housing temperature) |
|---------------------------------|---------------------------------------|

## Mechanical properties

|                                   |                   |
|-----------------------------------|-------------------|
| Body dimensions (L x W x H in mm) | 60 × 29 × 29      |
| Lens mount(s)                     | C-Mount, CS-Mount |
| Weight                            | 100 g             |

## On-board memory and FPGA

|                             |            |
|-----------------------------|------------|
| Image buffer (RAM)          | 512 MByte  |
| Non-volatile memory (Flash) | 1024 KByte |

## Interfaces

|                   |                                                                                             |
|-------------------|---------------------------------------------------------------------------------------------|
| Digital interface | IEEE 802.3: 5GBASE-T or 2.5GBASE-T (NBASE-T) and 1000BASE-T, IEEE 802.3af Power Class 0 PoE |
|-------------------|---------------------------------------------------------------------------------------------|

## Quantum Efficiency



## Technical Drawing

