



# Alvium GM2

## Alvium GM2-319

Alvium GM2-319 innovative GMSL2 camera with Sony IMX265 CMOS global shutter sensor provides industrial performance for cost effective embedded vision applications.

### General

|                |                |
|----------------|----------------|
| Model          | Alvium GM2-319 |
| Product series | Alvium GM2     |
| Status         | Available      |

### Sensor

|                                |                                   |
|--------------------------------|-----------------------------------|
| Sensor type                    | Area scan                         |
| Chroma                         | Color, Mono                       |
| Spectrum                       | Visible                           |
| Spectral range                 | 300 nm to 1100 nm                 |
| Resolution                     | 2,064 × 1,544 (3.20 MP)           |
| Sensor model                   | Sony IMX265                       |
| Sensor architecture (material) | cmos                              |
| Shutter type(s)                | Global shutter (GS)               |
| Sensor size                    | 7.1 × 5.3 mm (8.9 mm, Type 1/1.8) |
| Pixel size                     | 3.45 µm × 3.45 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 | 64 % |
|-----------------------------|------|

## Timing and gain

|                 |                                                   |
|-----------------|---------------------------------------------------|
| Max. frame rate | Mainly depends on hardware and register settings. |
|-----------------|---------------------------------------------------|

|               |                    |
|---------------|--------------------|
| Exposure time | 26 $\mu$ 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, S-Mount |
|---------------|----------------------------|

|        |      |
|--------|------|
| Weight | 70 g |
|--------|------|

## On-board memory and FPGA

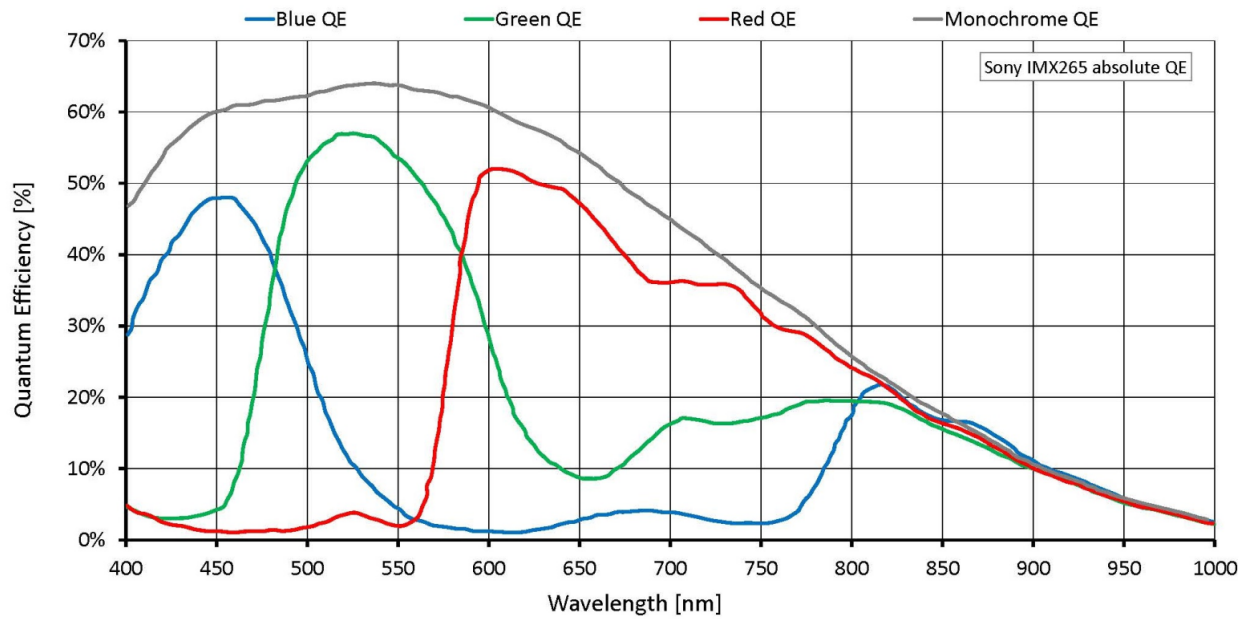
|                    |           |
|--------------------|-----------|
| Image buffer (RAM) | 256 KByte |
|--------------------|-----------|

|                             |            |
|-----------------------------|------------|
| Non-volatile memory (Flash) | 1024 KByte |
|-----------------------------|------------|

## Interfaces

|                   |                                           |
|-------------------|-------------------------------------------|
| Digital interface | GMSL2, based on MIPI CSI-2, up to 4 lanes |
|-------------------|-------------------------------------------|

## Quantum Efficiency



## Technical Drawing

