



# Alvium GM2

## Alvium GM2-320 VSWIR

Preliminary product information. Features and technical specifications are subject to change without notice.

Alvium GM2-320 VSWIR innovative GMSL2 camera with Sony IMX993 SenSWIR InGaAs global shutter sensor provides industrial performance for cost effective embedded vision applications.

### General

|                |                              |
|----------------|------------------------------|
| Model          | Alvium GM2-320 VSWIR         |
| Product series | Alvium GM2                   |
| Status         | Prototype/engineering sample |

### Sensor

|                                |                                   |
|--------------------------------|-----------------------------------|
| Sensor type                    | Area scan                         |
| Chroma                         | Mono                              |
| Spectrum                       | SWIR, Visible SWIR                |
| Spectral range                 | 400 nm to 1700 nm                 |
| Resolution                     | 2,080 × 1,544 (3.20 MP)           |
| Sensor model                   | Sony IMX993   InGaAs              |
| Sensor architecture (material) | cmos-ingaas                       |
| Shutter type(s)                | Global shutter (GS)               |
| Sensor size                    | 7.2 × 5.3 mm (8.9 mm, Type 1/1.8) |
| Pixel size                     | 3.45 μm × 3.45 μm                 |

### Pixel formats

|                          |                                    |
|--------------------------|------------------------------------|
| Sensor bit depth         | 10-bit, 12-bit, 8-bit              |
| Monochrome pixel formats | GREY, RAW10, RAW12, RAW8, Y10, Y12 |

### Timing and gain

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

## Timing and gain

|               |                    |
|---------------|--------------------|
| Exposure time | 33 $\mu$ s to 10 s |
| Gain          | 0.0 dB to 42.0 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 |
| Weight                            | 70 g              |

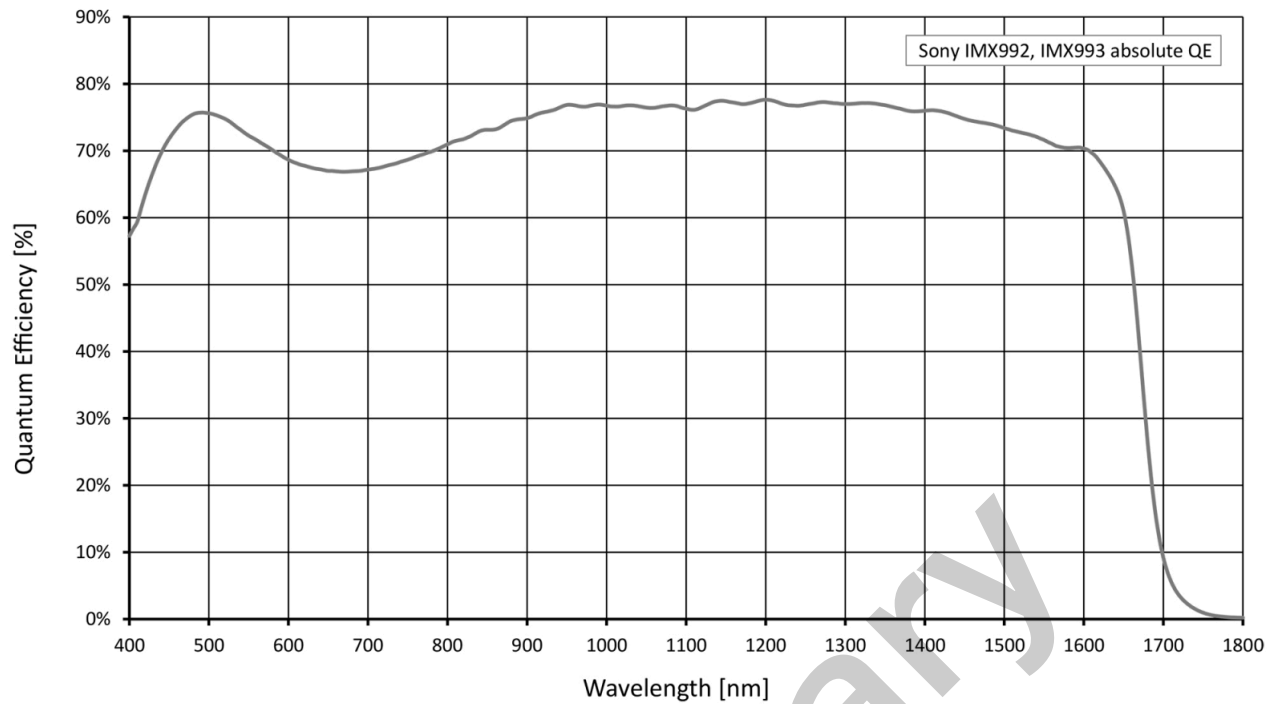
## On-board memory and FPGA

|                             |            |
|-----------------------------|------------|
| 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

