

Specifications

| Image sensors | Sony Pregius IMX296 |
| :--- | :--- |
| Sensor format | $1 / 2.9^{\prime \prime}$ |
| Chroma | Color and monochrome |
| Field of View | $62.2^{\circ} \times 48.8^{\circ}\left(74.0^{\circ}\right.$ diagonally) |
| Focal length | 4.18 mm |
| Aperture | 3.0 |
| Pattern projector | Random dot laser (class 1) |
| Projector wavelength | 830 nm |
| Inertial sensor (IMU) | BNO 085 |
| Max. IMU measurement rate | 400 Hz |
| Power supply | $11.2-30 \mathrm{~V}$ DC |
| Power consumption | 9 W |
| Dimensions | $130 \times 92.5 \times 34 \mathrm{~mm}$ |
| Weight (total) | $\mathrm{ca} 450 g$. |
| Operation temperature | $0-40^{\circ} \mathrm{C}$ |
| I/O | Gigabit Ethernet, GPIO |
| Conformity | $\mathrm{CE}, \mathrm{UKCA}, \mathrm{FCC}, \mathrm{RoHS}$, Laser class 1 |

Achievable frame rates and image resolutions (recommendations)

| Image resolution | Disparity range | Frame rate |
| :---: | :---: | :---: |
| $1440 \times 1056$ pixels | 256 Pixels | 8 fps |
| $720 \times 512$ pixels | 128 pixels | 60 fps |

## 0 Allied Vision

| Stereo matching | Variation of Semi-Global Matching |
| :--- | :--- |
| Stereo algorithm | $1440 \times 1056$ pixels |
| Max. resolution | Mono8, Mono12, RGB8 |
| Supported pixel formats | Up to 256 pixels |
| Disparity range | Up to 60 fps |
| Frame rate | 4 bits (1/16 pixel) |
| Sub-pixel resolution | Consistency check, uniqueness check, gap interpolation, noise <br> reduction, speckle filtering |
| Post-processing | The latency time depends on the chosen configuration. |
| Latency (incl. image capture) | Typical: time between two frames + approx. 9 ms |

Operation, software, etc.

|  | Windows, Linux x86 and ARM |
| :--- | :--- |
| Compatibility | OpenCV, Open3D, PCL, Matrox MIL, |
|  | Halcon, EVT, GenICam |
| API and software | - C++ and Python API |
|  | - Client software: NVCom |
|  | - GenICam GenTL Producer |
|  | - ROS Node |
| Package includes | - 3 depth camera |
|  | - 12 V DC power supply with interchangeable mains |
|  |  |
| - connectors for Europe, North America, UK and Australia |  |
| Services | - Calibration board |
|  | - 2 year warranty |
|  | - 1 year product support |

## A. Allied Vision

## Technical drawing



Back


