

Hardware details at a glance

Image sensors	Sony Pregius IMX296
Sensor format	1/2.9"
Chroma	Color and monochrome
Field of View	62.2° × 48.8° (74.0° diagonally)
Focal length	4.18 mm
Aperture	3.0
Pattern projector	Random dot laser (class 1)
Projector wavelength	830 nm
Inertial sensor (IMU)	BNO085
Max. IMU measurement rate	400 Hz
Power supply	11.2 - 30 V DC
Power consumption	9 W
Dimensions	130 × 92.5 × 34 mm
Weight (total)	ca. 450 g
Operation temperature	0 - 45 °C
I/O	Gigabit Ethernet, GPIO
Conformity	CE, FCC, RoHS, Laser class 1

Stereo matching

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

Achievable frame rates and image resolutions (recommendations)

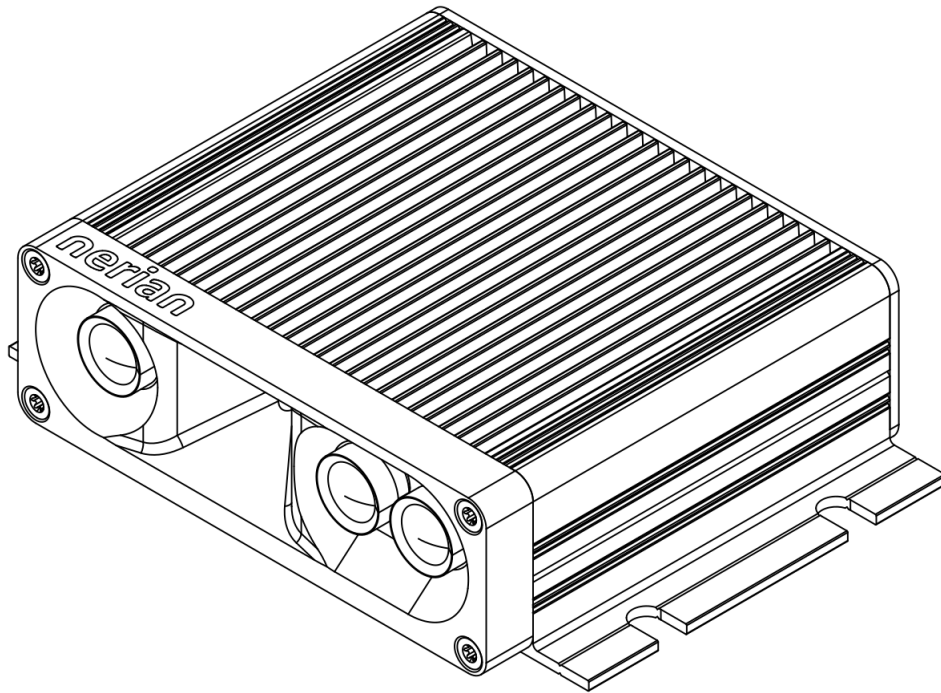
Image resolution	Disparity range	Frame rate
1440 x 1056 pixels	256 Pixels	8 fps
720 x 512 pixels	128 pixels	60 fps

Operation, software, etc.

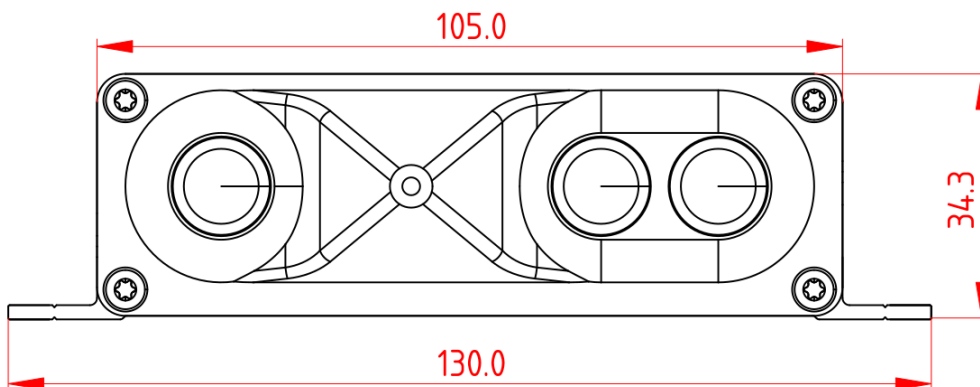
Compatibility	Windows, Linux x86 and ARM OpenCV, Open3D, PCL, Matrox MIL, Halcon, EVT, GenICam
API and software	<ul style="list-style-type: none">• C++ and Python API• Client software: NVCom• GenICam GenTL Producer• ROS Node
Package includes	<ul style="list-style-type: none">• 3D depth camera• 12 V DC power supply with interchangeable mains connectors for Europe, North America, UK and Australia• User manual• Calibration board
Services	<ul style="list-style-type: none">• 2 year warranty• 1 year product support• Support forum

Technical Drawings and Dimensions in mm

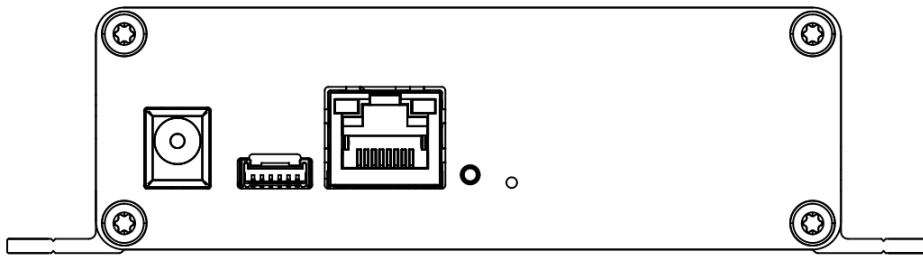
3D View



Front



Back



Bottom

