roboception

rc_visard NG Vision Platform

Technical Specifications

The rc_visard NG combines the high-performance rc_reason software suite with the UserSpace, which allows users to deploy their own software in Docker containers – directly on the sensor. This smart vision platform is powered by the high-performance NVIDIA® Jetson Orin™ series, the most advanced embedded AI solution for robot vision on the market today. Designed to perform most powerfully and power-efficiently, this small AI computer is housed directly in the sensor hardware, making the rc_visard NG smarter than ever!

Model (type)	rc_visard NG (160m-6)
CPU/GPU	Nvidia® Jetson Orin™ Nano 8 GB
Calibration	Factory-calibrated
Mono/color	Monochrome
Shutter	Global
Base distance	160 mm
Focal length	6 mm
Field of view	Horizontal 43° Vertical 33°
Image resolution	1440 x 1080 pixels (1.6 MPixel)
IR cutoff	650 nm
Depth range	0.5 m to infinity

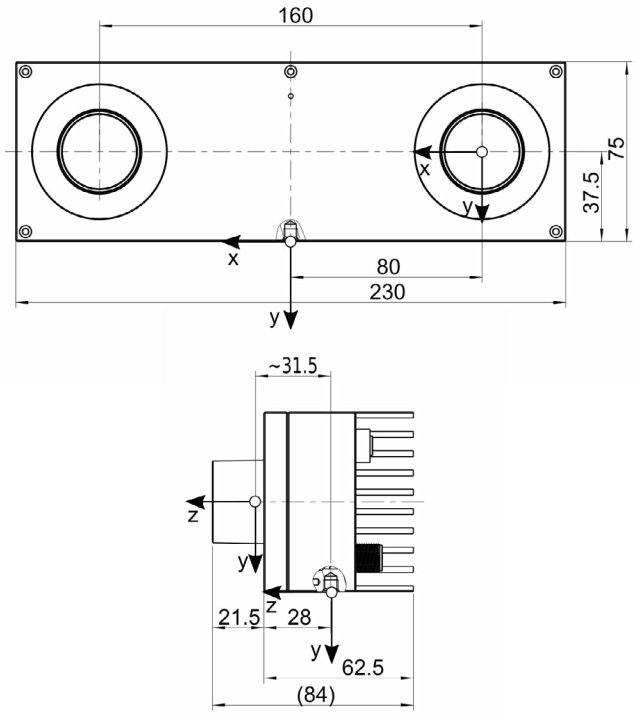
Depth image resolution & FPS with minimum distance of 0.5 m	720 x 540 pixel (High) @ 7 Hz (latency: 230 ms) 360 x 270 pixel (Medium) @ 25 Hz (latency: 70 ms) 240 x 180 pixel (Low) @ 25 Hz (latency: 50 ms)
Depth image resolution & FPS with minimum distance of 1.2 m	1440 x 1080 pixel (Full) @ 3 Hz (latency: 530 ms) 720 x 540 pixel (High) @ 16 Hz (latency: 170 ms) 360 x 270 pixel (Medium) @ 25 Hz (latency: 70 ms) 240 x 180 pixel (Low) @ 25 Hz (latency: 50 ms)
Workspace	240 mm x 300 mm @ 500 mm distance 640 mm x 600 mm @ 1000 mm distance 1440 mm x 1200 mm @ 2000 mm distance 2240 mm x 1800 mm @ 3000 mm distance

Depth resolution	500 mm | 0.05 mm 1000 mm | 0.2 mm 2000 mm | 0.9 mm 3000 mm | 2.0 mm	Average depth accuracy	500 mm | 0.2 mm 1000 mm | 0.9 mm 2000 mm | 3.5 mm 3000 mm | 7.8 mm

Interface & applications	GenICam (via SGM®Producer software library GenTL) Rest-API, gRPC (can also be used within the onboard UserSpace)

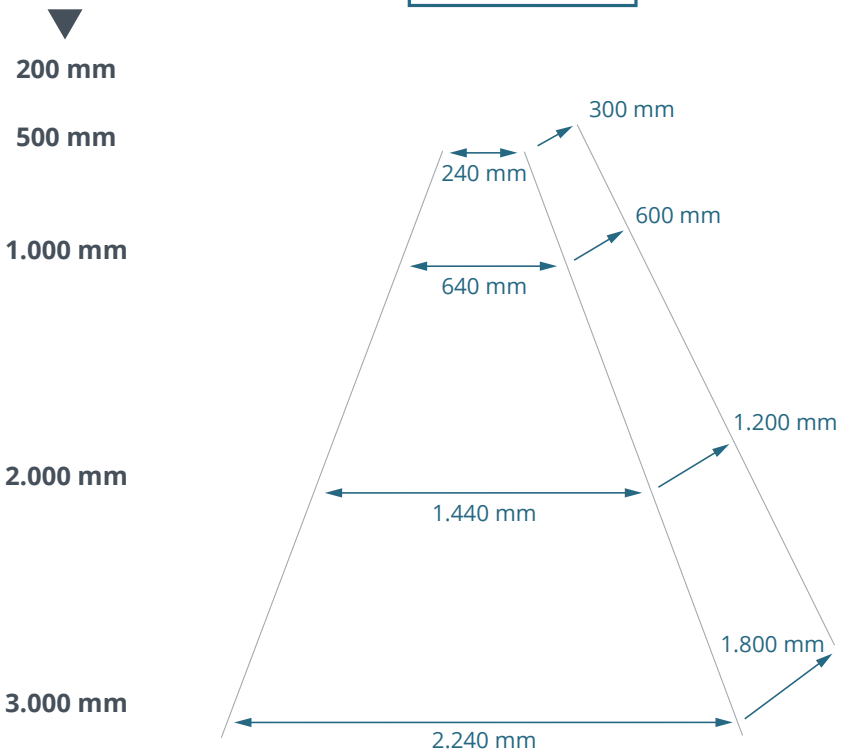
roboception

Connectors	M12, 8-pin, X-coded socket connector M12, 8-pin, A-coded plug connector
Dimensions	230 mm x 75 mm x 85 mm (L x W x H)
Weight	979 g
Supply voltage	18 - 30 V
Max power consumption	48 W
Storage/transport temperature	-25° C to 70° C
Operating temperature	0° C to 50° C
Relative humidity (non-condensing)	20 % to 80 %
Warm-up time	No warm-up time required after power-up
Cooling	Passive
Protection class	IP 54



We recommend to use the plug-and-produce software modules of the rc_reason suite for taking full advantage of this sensor's capabilities (roboception.com/rc_reason). All rc_reason modules have (with standard parameters) a latency of less than 0.5 s on the rc_visard NG.

rc_visard NG



Find more information on
doc.rc-visard-ng.com

Inquiries via
sales@roboception.de

Roboception GmbH
Kaflerstrasse 2
81241 Munich
Germany

www.roboception.com
+ 49 (0) 89 889 50 79 -0