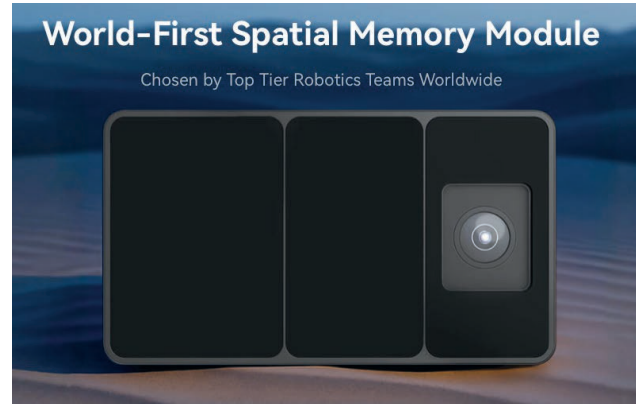


SLAM PERCEPTION MODULE

ONO

All-in-one 3D perception module integrating depth sensing, global-shutter color camera, and on-board SLAM. Built for robotics, AMR navigation, mobile mapping, and indoor / outdoor spatial awareness.



MAX RANGE	FOV (H x V)	SLAM ACCURACY	WEIGHT
70 m	120 x 90	5 cm	280 g

DEPTH MODULE		SYSTEM AND PHYSICAL	
Depth Resolution	240 x 180	SLAM Localization Accuracy	+/- 5 cm + 1% of travel [2]
Range, Maximum	30 m at 10% reflectivity 70 m at 90% reflectivity (< 500 lux)	Pose Update Rate	Up to 400 Hz
Range, Minimum	0.2 m	Weight	Approx. 280 g
Point Rate	Up to 700,000 points / second	Dimensions (L x W x D)	100 x 62 x 43 mm body 46 mm with connector
Range Accuracy	+/- 3 cm at 1 sigma [1]	Power Consumption	11 W rated, 24 W peak
Field of View (H x V)	120 deg H x 90 deg V	Operating Voltage	9 to 26 V DC
Angular Resolution	0.5 deg x 0.5 deg	Ingress Protection	IP67
Laser Wavelength	940 nm	Operating Temperature	-20 deg C to +55 deg C
Laser Safety Class	Class 1, eye-safe	Storage Temperature	-25 deg C to +60 deg C
Frame Rate	10 FPS default, 15 FPS max	Impact Resistance	Up to 32 G
RGB CAMERA MODULE		DATA OUTPUT AND INTERFACE	
Resolution	1600 x 1296	Point Cloud	True-color SLAM, raw point cloud
Exposure	Global shutter	Imagery	Raw RGB images
Field of View (H x V x D)	129 x 104 x 173 deg	IMU	High-frequency raw data
Image Sensor Size	1/2.9 inch	Pose	High-frequency rotation, position
Pixel Size	3 um x 3 um	Software Interface	Open-source SDK, ROS 1 / ROS 2
Frame Rate	10 / 15 FPS		

[1] Indoor test conditions against an 80% Lambertian reflectance target, accuracy computed from 20 consecutive frames. At 5 m: +/- 3 cm at 1 sigma. From 5 m to 30 m: 1 sigma less than 1% of distance.

[2] Laboratory conditions. Field localization accuracy varies with environment, motion profile, and feature density.