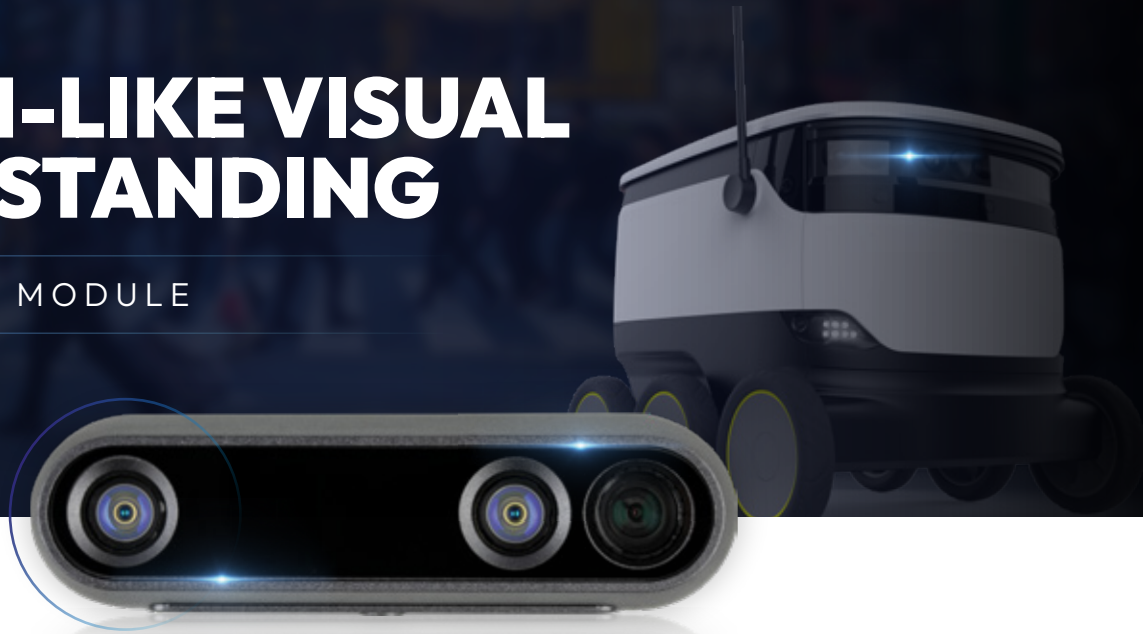


HUMAN-LIKE VISUAL UNDERSTANDING

M4.5S SENSOR MODULE



Designed around the NU4000 Robot-on-Chip (RoC), the M4.5S module integrates 3D sensing and image processing with AI capabilities, to provide robotic devices with human-like visual understanding. Integrating all robotic functions into a single processor enables simultaneous depth sensing and AI-based object detection and recognition, in a small, independent sensing module with optimal capabilities and superior performance.

KEY FEATURES



Wide Field of View
(88°x58° FoV) depth



Small size and easy to adopt
(90,25,25 mm)



Sensing range
(9 cm -2.5 M)



SDK for Windows, Linux,
and Android OS



Registered RGB
and depth



ROS support



Wide dynamic operating
ambient temperature
Up to 50



AI framework

ENDLESS APPLICATIONS

The most advanced sensor module, empowering the most advanced markets

DRONES



ROBOTICS



3D SCANNERS



SMART HOME



KEY PARAMETERS

GENERAL PARAMETERS

Parameter	Value	Units	Comments
Module size - XY	90,25,25	mm	
Operating temperature range	0-50	°C	Case Temperature

Depth

Parameter	Value	Units	Comments
Stereo Baseline	48	mm	
Field of view	88x58	°	
Z resolution at max range	2	%	At good SNR conditions

Sensor's Full Resolution Mode properties (* Future upgrade in Q2-2022)

Depth map resolution	1080x720	Pixels	
Max frame rate	30	Fps	Limited due to thermal
Depth operation range	0.3-2.0	M	

Sensor's Binning Resolution Mode properties

Depth map resolution	540x360	Pixels	
Max frame rate	60	Fps	30 is nominal
Depth operation range	0.09-2.5	M	

RGB

Parameter	Value	Units	Comments
Resolution	1600X1200	Pixels	Module size - XY
FOV	90X73	Degrees °	Module size - XY



DEPTH AND AI SIMULTANEOUSLY



M4.5S MODULE HIGH LEVEL BLOCK DIAGRAM

