

INUITIVE

DEPTH AND AI SENSOR MODULE

M4.5-CE SENSOR MODULE



KEY FEATURES

Designed to easily integrate into smart retail and autonomous shopping systems, Inuitive's M4.5-CE sensor module is built around the NU4000 Vision-on-Chip (VoC) processor and integrates depth sensing and image processing with AI capabilities.

Engineered for seamless integration, The M4.5-CE is a highly power efficient, and a self-sufficient depth sensor platform. When deployed together with the InuView SDK, it can significantly shortens time-to-market for any edge-AI and vision system.



Wide field of view
Depth (68°x54° FoV)



Sensing range
(16 cm - 3 m)



**Small size
and easy to adopt**
(87,26,20mm)



Registered
Depth and RGB



On-chip AI
Processing core

**VISUAL PERCEPTION REDEFINED
WITH INUITIVE'S DEPTH AND AI SENSOR MODULES**



KEY PARAMETERS

GENERAL PARAMETERS

Parameter	Value
Module size – XYZ	87x26x20 mm
Operating temperature range (tested on case; with airflow)	0-50°c

DEPTH IMAGE GENERATION

Parameter	Value
Sensor	OV7251
Baseline	48 mm
Full Resolution	640x480 Pixles
Binning Resolution	320x240 Pixles
IR Filter	850 nm
FOV (Calibrated) [HxV]	68°x54°
Min Sensing Rage, Full Mode	16 cm
Max Sensing Rage	3 m
Depth Accuracy	1% at 1 m

AI PERFORMANCE

Performance	Yolo V3	MobileNet SSD
1.8 TOPs	12 fps	60 fps

RGB

Parameter	Value
Sensor	GC2145
Max Resolution	1600x1200 Pixles
FOV	75°x63°

InuView SDK

Supported operating systems	✓ Linux	✓ Win	✓ Android
Supported platforms	✓ RoS	✓ Ras-Pi	✓ ARM



SIMULTANEOUS DEPTH SENSING AND AI PROCESSING

M4.5-CE SENSOR MODULE HIGH LEVEL BLOCK DIAGRAM

