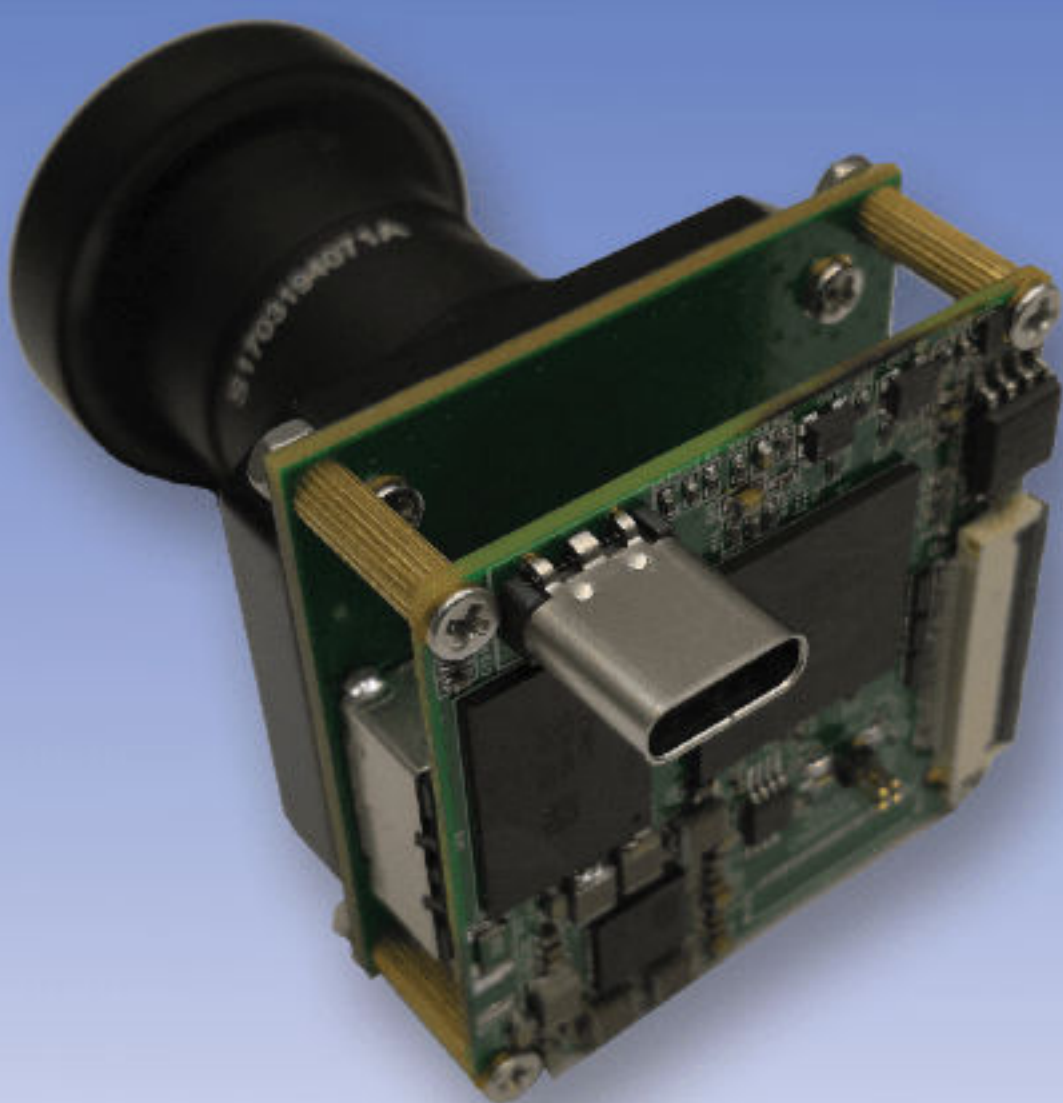


OpenNCC

A Visual Neural Network Development Kit



Hardware Specifications



Software Specifications

Item	Specifications
Size	38mm x 38mm
Weight	<20g
VPU	Intel Movidius X MV2085
Memory	4Gb / 8Gb / 16Gb
Input Voltage	5V
Temperature Range	0°C ~ 50°C
RoHS	Yes
Input Interface	1 × 4-lane CSI Camera Interface (up to 2.5Gbps per lane) 2 × 2-lane CSI Camera Interface (up to 2.5Gbps per lane)
Output Interface	USB Type-C, UART
Extended Features (Software requires customization)	GPIO, I2C, SPI, SD/SDIO, I2S PCIe Gen3 1-lane 2 × 2-lane DSI Display Interface (up to 2.5Gbps per lane) IoT module
Camera options	1280×800 to 5496×3694



Supported Neural Networks

- Supports all OpenVINO Neural Network Models



Functions via USB/UART

- Live Video Capture (YUV420P)
- Model Downloading
- Get running results of AI models via USB/UART
- Configure the camera (focus, take photos, reset, etc)



System Compatibility

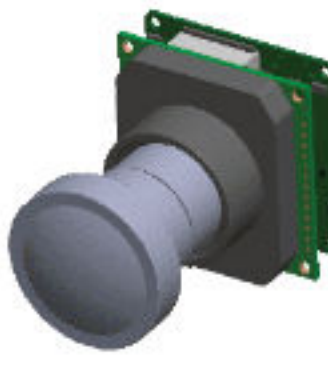


Linux



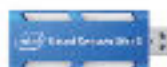
Android (VSC)

Use cases



OpenNCC

1. Neural Compute Stick (NCS)



2. NCS + webcam/3D camera



3. PCIE



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Core Board Specifications

Hardware	Size	38 mm x 38 mm	Input Interface	1 × 4-lane CSI Camera Interface (up to 2.5 Gbps per lane)
	Weight	<20 g		2 × 2-lane CSI Camera Interface (up to 2.5 Gbps per lane)
	VPU	Intel Movidius X MV2085	Output Interface	USBv Type-C, UART
	Memory	4 Gb / 8 Gb / 16 Gb	Extended Features (Software requires customization)	GPIO, I2C, SPI, SD/SDIO, I2S PCIe Gen3 1-lane 2 × 2-lane DSI Display Interface (up to 2.5 Gbps per lane) IoT module
	Input Voltage	5V		
	Temperature Range	0°C ~ 50 °C		
	RoHS	Yes		
Software Features	Supported Neural Network Models	Support all OpenVINO Neural Network Models		
	Software SDK	Functions via USB/UART - Live Video Capture (YUV420P) - Model Downloading - Get real time results of AI models via USB/UART - Configure the camera (focusing, take photos, reset, etc)		
	System Compatibility	Linux, Android (VSC)		

Camera Options

Camera Type	Stereo 3D OV9282	Speckle Stereo 3D OV9282	SC2232H	OV2735	OV5645	SC5335	IMX363	SC8238	OV12895	AR0234	IMX283
Size	20*65		38 mm x 38 mm								
Weight	<30 g		<10 g								
Resolution	1280×800	1280×800	1920×1080	1920×1080	2592×1944	2604×1956	4048×3056	3872×2180	4096×3072	1920×1200	5496×3694
FOV(H)	70°	70°	116°	116°	57°	79°	62°	83.7°	72.9°	83.3°	129°
FOV(V)	46°	46°	63°	63°	45°	63.5°	52°	53.5°	57.9°	58.1°	86°
Global and rolling shutter	Global	Global	Rolling Shutter	Rolling Shutter	Rolling Shutter	Rolling Shutter	Rolling Shutter	Rolling Shutter	Rolling Shutter	Global	Rolling Shutter
Integrated ISP	Automatic exposure control (AEC). Automatic white balance (AWB). Automatic black level calibration (ABLC). Automatic 50/60 Hz luminance detection, lens correction, defective pixel canceling, cropping, mirror and flip, AEC/AGC 16- zone size/position/weight control, support for horizontal and vertical sub-sampling, support for 2 × 2 binning for better SNR in low light conditions.										
MIPI Interface	2lane	2lane	2lane	2lane	2lane	4lane	4lane	4lane	4lane	2lane	4lane

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