OAK-1-W

Overview

OAK-1 W features a Wide FOV colour sensor (IMX378) on a tiny, yet performant, device.

OAK-1 W isn't a standard USB camera. It's a 4-trillion-operations-per-second AI powerhouse that performs your AI models on-board, so that your host is free to do whatever you need it to do.

RVC2 inside

This OAK device is built on top of the RVC2. Main features:

- **4 TOPS** of processing power (1.4 TOPS for AI - RVC2 NN Performance)
- **Run any AI model,** even custom-architectured/built ones (models need to be converted)
- **Encoding** H.264, H.265, MJPEG - 4K/30FPS, 1080P/60FPS
- **Computer Vision** warp/dewarp, resize, crop ia ImageManip node, edge detection, feature tracking. You can also run custom CV functions
- **Object Tracking** 2D tracking with Object Tracker node
- **USB2 / USB3** for power delivery and communication

Camera Specification:

Camera Specs	Colour Camera	Colour Camera
Sensor	IMX378 (PY060)	OV9782 (PY058)
Shutter	Rolling	Global
DFOV/HFOV/VFOV	120°/95°/70°	150°/128°/80°
Resolution	12MP (4056x3040)	1MP (1280x800)
Focus	FF: 60cm - ∞	FF: 18cm - ∞
Max Framerate	60 FPS	120 FPS (800P)
F-Number	2.8 ±5%	2 ±5%
Sensor Size	1/2.3"	1/4"
Effective Focal Length	2.75mm	1.69mm
Distortion	< -14.6%	< 38%
Pixel Size	1.55µm x 1.55µm	3µm x 3µm

Dimensions and Weight

- Width: 36 mm
- Height: 54.5 mm
- Length: 27.8 mm
- Weight: 53.1 grams

Datasheet

- Datasheet

3D Models

- Board STEP files here
- Enclosure STEP files here