



OAK-1-Lite-W



Overview

OAK-1 Lite W features a Wide FOV colour sensor and takes the affordability idea and pushes it one step forward. By having the same AI and CV functionalities as OAK-1 W while being more affordable, it gives you the opportunity to create all sorts of projects.

OAK-1 Lite W is not a standard USB camera. It is 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.

OAK-1 W vs OAK-1-Lite W

The only difference between these two models is the colour camera sensor; OAK-1-Lite W uses IMX214 W while OAK-1 W uses a higher quality colour camera - IMX378. Otherwise OAK-1-Lite W uses the same PCBA and enclosure as the OAK-1 W.

Camera Specification:

Camera Specs	Colour Camera
Sensor	IMX214 (PY061)
Shutter	Rolling
DFOV/HFOV/VFOV	117° / 105° / 88°
Resolution	13MP (4208x3120)
Focus	Fixed-Focus: 50cm - ∞
Max Framerate	35 FPS
F-Number	2.2 ±5%
Sensor Size	1/3.1"
Effective Focal Length	2.62mm
Distortion	< 11%
Pixel Size	1.12µm x 1.12µm

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-architected/built ones (models need to be converted)
- **Encoding** H.264, H.265, MJPEG - 4K/30FPS, 1080P/60FPS
- **Computer Vision** warp/dewarp, resize, crop in 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

Dimensions and Weight

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

3D models

- Board STEP files [here](#)
- Enclosure STEP files [here](#)

