OAK-1-Lite

Overview

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

OAK-1-Lite 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.

OAK-1 vs OAK-1-Lite

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

Camera Specification:

Camera Specs	Colour Camera
Sensor	IMX214 (PY014 AF, PY114 FF)
Shutter	Rolling
DFOV/HFOV/VFOV	81°/69°/54°
Resolution	13MP (4208x3120)
Focus	AF: 8cm - ∞ OR FF: 50cm - ∞
Max Framerate	35 FPS
F-Number	2.2 ± 5%
Sensor Size	1/3.1"
Effective Focal Length	3.37mm
Distortion	< 1%
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-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

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