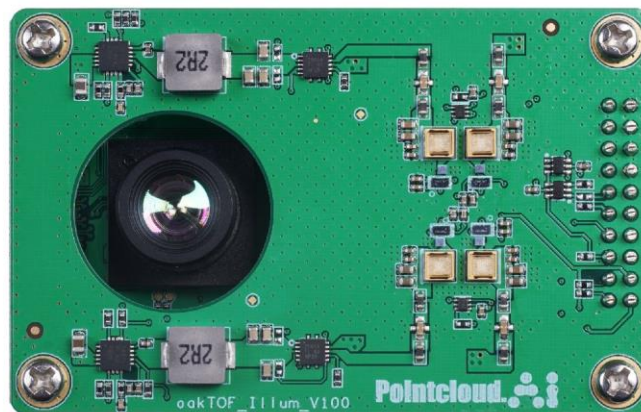# SEEED-114992757

OakSense H60Q-QVGA resolution ToF camera

PRODUCT DETAILS

Feature

- Mounted sensor: MLX75026 Time-of-Flight sensor
- QVGA resolution image acquisition: 320 x 240 px
- Long Measured Range: 0.5m ~ 5.0m
- High measurement Accuracy: more than 99%
- Display Frames Per Second: Maximum 30 FPS
- Field-of-view: H60° x V40°
- Multiply illumination: 4 x VCSEL @ 850nm
- Built-in sensor: Additional temperature sensor
- Data interface: Directly connect to PC through USB 3.1 Gen1 /Type C
- Operating Temperature：-10°C - 60°C
- Power Consumption：12V/ 1A (Peak) /0.5A(Average)

Description

The OakSense H60Q is a camera kit based on the MLX75026 Time-of-Flight (ToF) sensor which is a moplete camera for real-time visualization, recording, and analysis of data by emitting and receiving near-infrared light. The MLX75026 ToF sensor can be realized a very compact 3D Camera design based on the basic three-way low-voltage power supply architecture of sensor chip. In the case of the characteristic of the MLX75027 sensor, the kit contains an additional temperature sensor.

The OakSense H60Q acquires images in quater VGA resolution as it supports 320 x 240 pixels displayed 30FPS maximum on the screen. The kit is abailable with H60° x V40° field view, 850 nm 4-VCSEL illumination, designed in collaboration with lumentum. It can measure the distance from 0.5 meters up to 5.0 meters with minute error. More specifically, under one meter, the accuracy is less than 10mm and between 1 and 4 meters, the accuracy will be under 0.5% error.

The kit is designed in collaboration with lumentum and its receiving end is the laser detector where it can be used in Machine Learning projects. And for convenience, it can be directly deployed by connecting to the host PC with the Type C USB 3.0 interface and output depth image, grayscale image, and point cloud picture through the software development kit(SDK). The SDK is available for Windows, Linux, Mac and you can program it in C++ or Python. The OakSense H60Q kit features raw data mode, exchangeable sensor optics, visualizer, C, API, and Matlab SDK.

Application

- Robot obstacle avoidance
- Volume measurement
- Gesture recognition
- Environment scanning
- 3D re-modeling
- Object recognition

Example Results
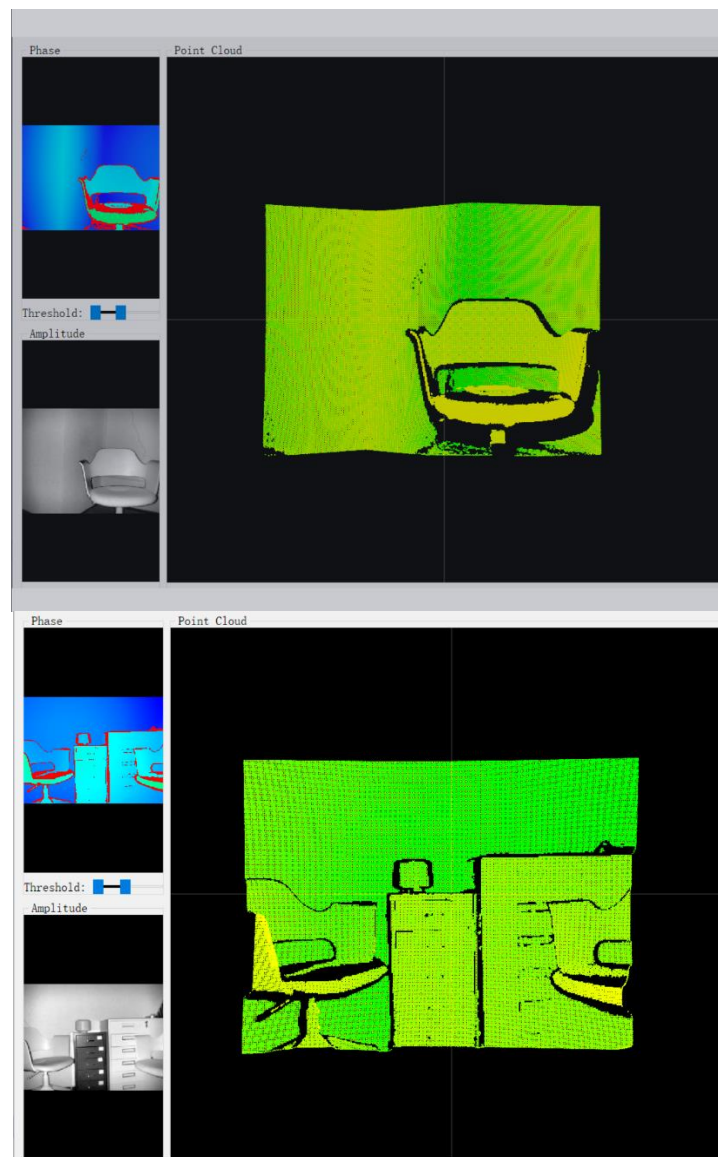
Part List

OakSense H60Q	x1
TypeC 3.1 cable	x1
Power supply	15V 2A