

General Description

OPNE8008A is a USB powered 3D camera based on OPNOUS Time-of-Flight (ToF) technology using a VCSEL based IR illumination. The high integration, low power consumption and high precision make this camera ideal for 3D depth sensing applications.



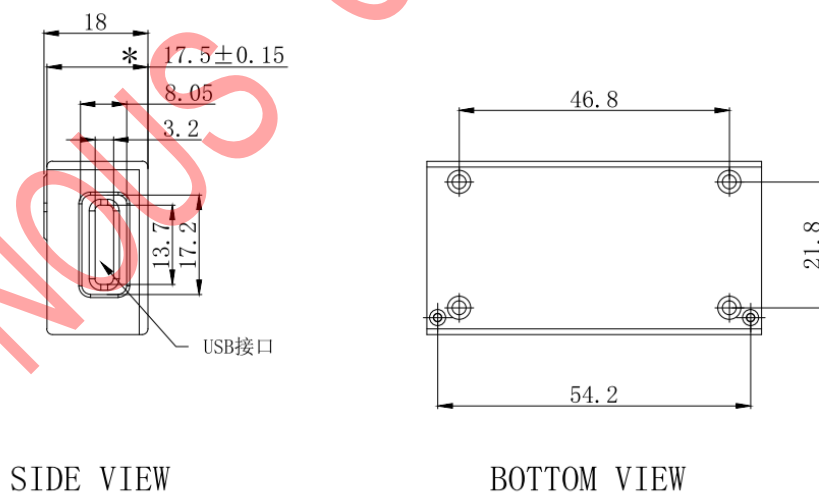
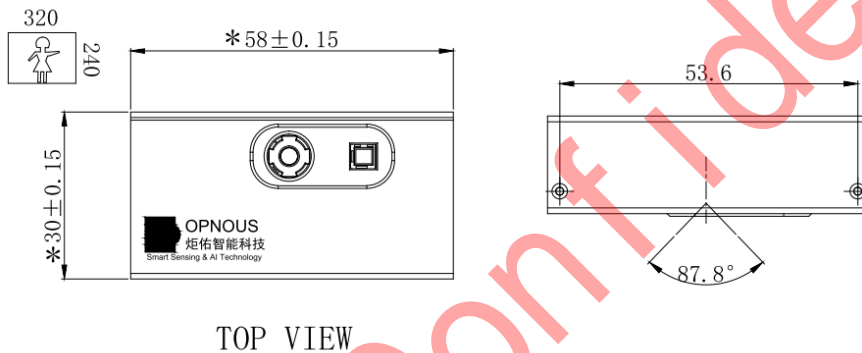
Key Specifications

Parameter	Description
Sensor	OPN8008D, global shutter
Resolution	320 * 240
Pixel size	15um
Sensor size	1/3"
Dimensions	58mm * 30mm * 18mm
Frame rate	10 – 60 fps
Measurement range	0.15 - 5m
FoV	72°(H) * 55°(V)
Distortion	<2.5%
Illumination	850nm, 2W
Power supply	USB 3.0
Power consumption	340mW. Typical
Depth accuracy	<=1%
Interface	USB 3.0

Typical Applications

- ✓ Face recognition and face motion tracking
- ✓ 3D reconstruction
- ✓ AR/VR
- ✓ Hand and finger tracking for gesture control and interaction with virtual objects
- ✓ visual support for robot grippers
- ✓ Localization, tracking and identification of individuals (humans, animals)
- ✓ People counting and motion analysis

Module Dimensions

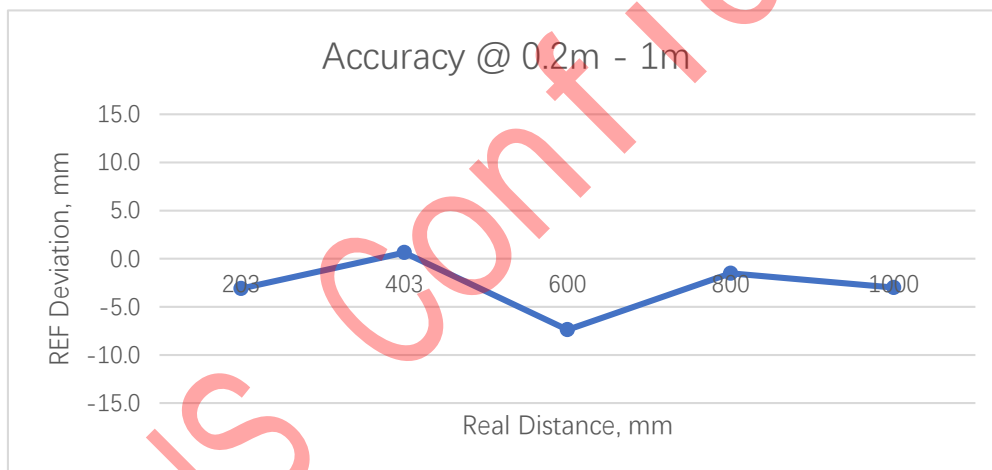
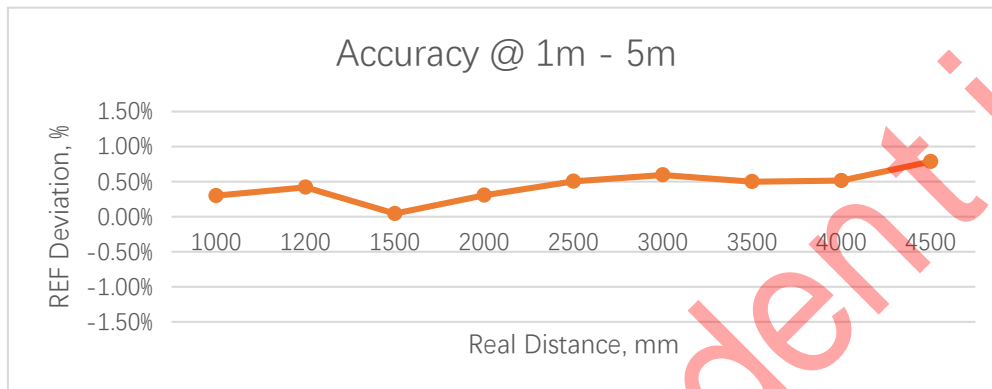


Typical Performance

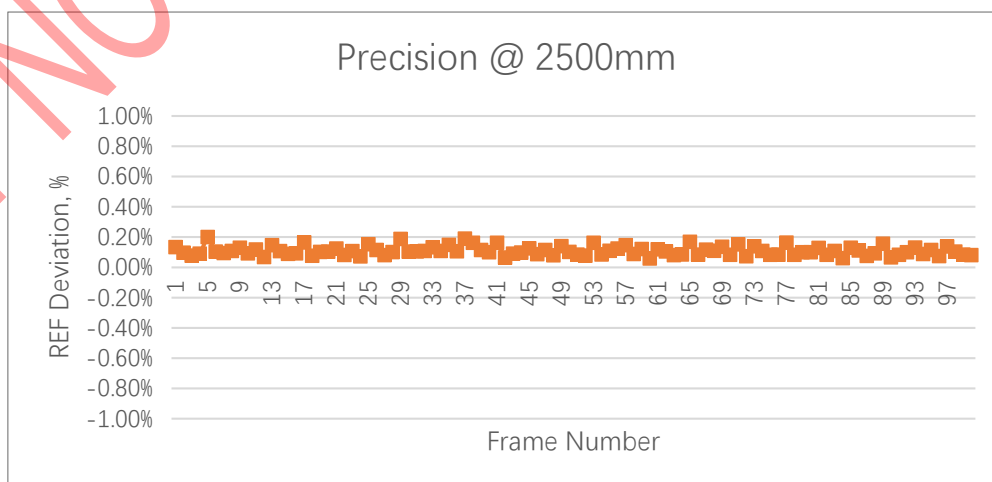
All performances are tested in darkroom, white wall if without extra description.

REF is defined as 10 * 10 pixels in image center.

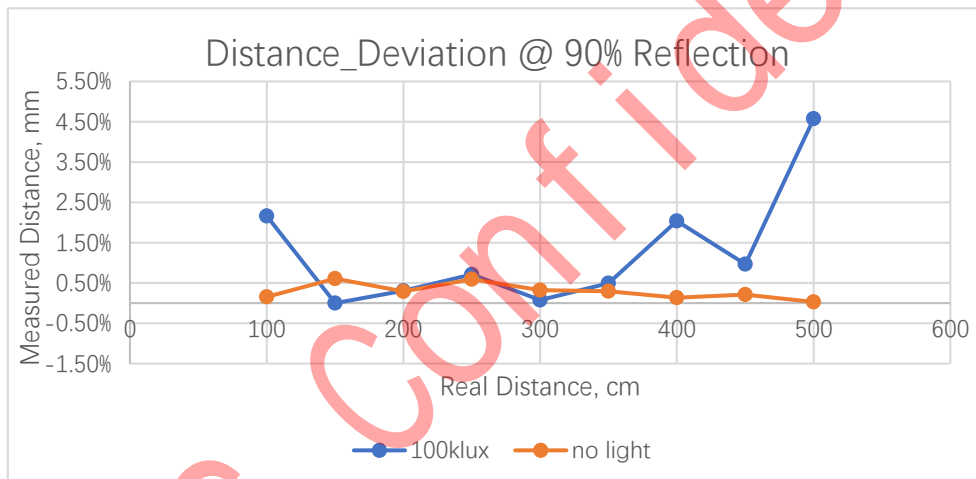
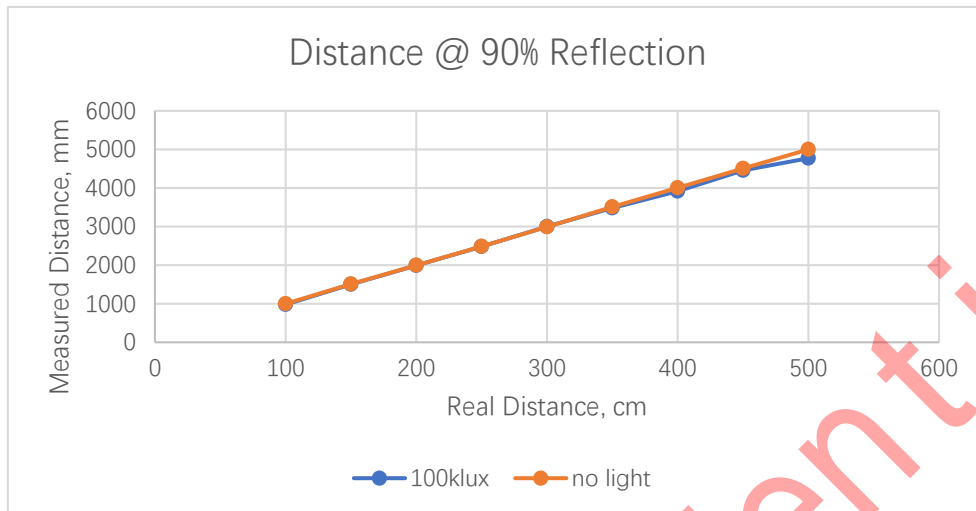
ACCURACY



TEMPORAL PRECISION



ACCURACY vs AMBIENT LIGHT



Revision History

Revision	Date	Description
v1.0	2019/11/20	Initial revision.
v1.1	2020/2/8	Modify VCSEL power voltage and doc format

OPNOUS Confidential