VZENSE
ToF sensor & application
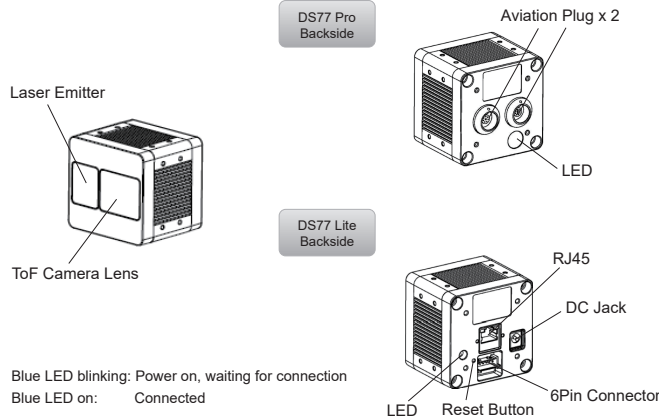
ToF (Time-of-Flight) Camera DS77

Quick Start Guide

DS77 Pro
DS77 Lite

www.vzense.com

Get to know your DS77

DS77 Pro Backside

Laser Emitter

ToF Camera Lens

DS77 Lite Backside

Aviation Plug x 2

LED

RJ45

DC Jack

6Pin Connector

LED   Reset Button

Blue LED blinking: Power on, waiting for connection
Blue LED on: Connected

Specification

	DS77 Pro	DS77 Lite
Depth Image Sensor	Sony iToF (Time-of-Flight) Sensor IMX570	
Depth Image Resolution and Frame rate	640 x 480 pixels, max. 25fps	
Output Formats	RAW 12(Depth & IR)	
Depth Sensor Field of View	H-70°, V-50°	
Operation Distance	0.15m ~ 5m	
Accuracy	<1%*	
Power Consumption	Max. 7W	
Illumination	940nm VCSEL x 2	
Dimension(LxWxH)	65mm*65mm*72.65mm	65mm*65mm*60mm
Weight	342g	312g
Power Supply	PoE+ or DC power	DC power
Communication Interface	Gigabit Ethernet and RS485	
Connection	M12 connector x 2	RJ45 x 1, DC Jack x 1, 6pin connector x 1
Working/Storage Temperature	-20°C ~ 50°C/-30°C ~ 70°C	
Supported DEVT Language	C/C++/Python/C#	
Supported OS/Platform	Windows/Linux/Arm Linux/ROS1/ROS2	
Eye Safety	Class 1 Laser	
Enclosure Rating	IP67	IP42

*Accuracy is calculated based on the test data from the lab with a 40% reflectivity grey board as target

What's inside

DS77 Pro

☑ an ethernet cable (Aviation plug to RJ45)
☑ a multi-functional cable (Aviation plug)
☑ a Quick Start Guide

DS77 Lite

☑ an ethernet cable
☑ a DC cable
☑ a 6pin multi-functional cable
☑ a Quick Start Guide

LASER SAFETY
⚠ **CAUTION**
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure. Complies with 21 CFR 1040.10 and 1040.11 except for conformance with IEC 60825-1 Ed.3., as described in Laser Notice No. 56, dated May 8, 2019.

CLASS 1 LASER PRODUCT
IEC 60825-1:2014

FCC
This device complies with Part 15 of the FCC Rules and Innovation, Science and Economic Development Canada's license-exempt RSS(s). Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
This Class B digital apparatus complies with Canadian ICES-003.

1 YEAR WARRANTY
We want to ensure you have the best product and service, if you are not satisfied with our product, please contact us within 7 days since the date of your purchase or receiving and we will refund you after product is shipped back to us. In case you encounter defective product, you could return product to us for repair or exchanging of a new one, when you inform us no later than one month after 1 year warranty period expires.

Hardware Connection

1. Connect the camera to your host processor via the ethernet cable

2. Supply 12-24V DC power to DS77 Pro via the multi-functional cable, to DS77 Lite via the DC cable

3. Set the host processor's IP address in the same segment as the camera's(Default camera's IP address is 192.168.1.101, you can change it via NebulaGUITool)

4. Run NebulaGUITool in Windows System, scan and connect the device

5. Explore the device via NebulaGUITool and NebulaSDK

Note: DS77 Pro supports PoE+ working mode. PoE+ injectors recommendation: EWPAM2NPoE+ from H3C; TL-PoE+170S from TP LINK

Download Link

For worldwide users:
NebulaGUITool: https://github.com/Vzense/NebulaGUITool
NebulaSDK: https://github.com/Vzense/NebulaSDK

For users in China:
NebulaGUITool: https://gitee.com/Vzense/NebulaGUITool
NebulaSDK: https://gitee.com/Vzense/NebulaSDK

Support

Still need help?
Reach out to our technical support team by email: info@vzense.com, we will make sure all inquiries will be responded within 24 hours.
Or leave us a voice message by calling to : +1(650)336-8158.

Want more products information?
Welcome to visit our website to learn more products.
We launch new products each 6 months.

Need customized design?
We are specialized in whole system customization design.
Free consulting and meeting could be scheduled by email:
info@vzense.com

Please visit our website for more info

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We will reply your email within 24 hours

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ISO 9001 QUALITY ASSURANCE   RoHS COMPLIANT   CE FC

MADE IN CHINA

VZENSE
ToF sensor & application

ToF (Time-of-Flight) 深度相机 DS77

快速使用指南

DS77 Pro
DS77 Lite

www.vzense.com

了解DS77

激光发射器

ToF相机镜头

蓝灯闪烁：开机后，等待连接
蓝灯常亮：连接成功

DS77 Pro 背面

航空接口 x 2

LED指示灯

DS77 Lite 背面

RJ45

电源接口

多功能线接口

LED指示灯　重置按钮

性能参数

型 号	DS77 Pro	DS77 Lite
深度图像传感器	Sony iToF sensor IMX570	
激光发射器	940nm VCSEL ＊ 2	
ToF分辨率帧率	640*480像素，最高25fps	
ToF FoV	H-70°, V-50°	
输出格式	RAW12(深度, IR)	
通讯协议	1000M Ethernet & RS485	
物理接口	M12航空接口 x 2	RJ45, DC Jack, 6芯接口各1个
供电方式	PoE+ or 12V~24V(DC JACK)	12V~24V(DC JACK)
功耗	最大功率7W	
精度误差	<1%	
检测距离	0.15 ~5米	
工作温度	-20 ~ 50℃	
操作系统与平台	Windows/Linux/Arm Linux/ROS1/ROS2	
开发语言支持	C/C++/Python/C#	
防护等级	IP67	IP42

所含附件

DS77 Pro	DS77 Lite
☑ 一根以太网线	☑ 一根以太网线
☑ 一根多功能线	☑ 一根电源线
☑ 一份中英文说明书	☑ 一根多功能线
	☑ 一份中英文说明书

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IEC 60825-1:2014
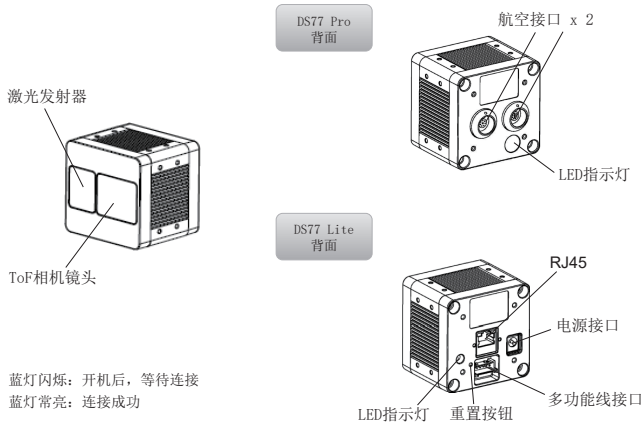
操作指南

1. 通过以太网线将相机连接至主机
2. 通过多功能线给DS77 Pro提供12~24V电源；通过电源线给DS77 Lite提供12~24V电源
3. 设置主机IP地址与相机在同一网段（相机的默认IP地址是192.168.1.101，用户可以通过NebulaGUITool更改相机的IP地址）
4. 在Windows系统下运行NebulaGUITool，扫描并连接相机
5. 按照NebulaGUITool与NebulaSDK使用指导，开始探索DS77相机

备注：DS77 Pro支持PoE+供电模式，推荐的PoE+供电模块：
EWPAM2NPoE+ (H3C)/TL-PoE+170S(TP LINK)

下载链接

用户可通过下述链接下载NebulaGUITool与NebulaSDK

NebulaGUITool: https://gitee.com/Vzense/NebulaGUITool

NebulaSDK: https://gitee.com/Vzense/NebulaSDK

联系我们

方式一：发送邮件至官方邮箱：info@vzense.com

方式二：拨打电话：189-5426-5263

方式三：添加右侧客服微信

了解更多

官网：www.vzense.com

Bilibili官方账号

微信搜一搜
维感科技
官方公众号

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请防止任何物体进入产品，否则产品可能会被损坏；
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