

SC-ToF450

Standard FOV iToF
3D Sensor



PRODUCT INTRODUCTION

Automate Matrix's SC-ToF450 is a high - performance device designed specifically for applications such as industrial inspection, security monitoring, and robot navigation that require precise 3D data and RGB images. It combines advanced technology with reliable performance to provide accurate data support for various projects.

PRODUCT FEATURES

- **Stable Operation in Wide Temperature Range**

With an operating temperature range of - 20°C to 60°C, it can work stably in a variety of complex environments, adapting to different industrial and outdoor scenarios.
- **High-level Safety Assurance**

The safety class reaches class1 (compliant with IEC/EN 60825 - 1:2014), effectively preventing damage to human eyes and ensuring user safety.
- **Excellent Protection Performance**

It has an IP66 protection rating, which can effectively prevent dust and water ingress, ensuring stable operation of the device in harsh environments and extending its service life.
- **Authoritative Certification and Quality**

Certified by CE and FCC, the product meets international standards, with reliable quality, allowing users to use it with confidence.
- **Rich Data Interfaces**

Equipped with Gigabit Ethernet ports, CAN interfaces, and external trigger input interfaces, the device enables efficient data interaction and system integration with other devices, meeting the requirements of diverse system architectures.
- **Powerful Software Support**

It supports multiple operating systems such as Windows 7/8/10/11, Linux, and Arm Linux. The SDK provides a wealth of development interfaces, covering common programming languages such as C/ C++, Python, and C#, as well as robot operating system frameworks like ROS1 and ROS2, facilitating developers to quickly implement personalized function development.

PRODUCT PARAMETERS

Parameter Type	Parameter Name	Parameter Value
General Product Parameters	Operating Temperature	-20°C to 60°C
	Safety Class	Class1 (IEC/EN 60825 - 1:2014)
	Protection Rating	IP66
	Certification	CE/FCC
Hardware Parameters	Power Supply Method	DC
	Power Supply Voltage	24V
	Average Power Consumption	6W
Data Parameters	Output Data Format	Depth/RGB/RGBD
3D Parameters	Pixel Size	5μm
	Ranging Accuracy	0.01
	Resolution	640×480 (VGA)/320×240 (QVGA)
	Frame Rate	VGA: 20 fps; QVGA: 25 fps
	FOV	64°×50°
	Ranging Range	0.2 - 6m (10% reflectivity)
RGB Parameters	Resolution	1920×1080 (1080P), 30 fps
	FOV	70°×50°
Software Parameters	Supported Operating Systems	Windows 7/8/10/11, Linux, Arm Linux
	SDK	Supports low - level development and algorithm implementation using C/C++, Python, and C#; enables robot - related function development based on ROS1 and ROS2