

# ToF Laser Ranging Module for Outdoor

SEN0524

## Product Overview

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For the most up-to-date information, visit [www.mouser.com](http://www.mouser.com) or the supplier's website.

## Description

DFRobot ToF Laser Ranging Module for Outdoor is a ToF-based single-point laser ranging sensor for outdoor use. This module has 100K LUX resistance to strong ambient light. The ToF laser ranging module offers detection range of 5cm to 15m, distance resolution of 1mm, 50Hz data update frequency, and 1° to 2° Field of View (FOV). This module supports UART, I<sup>2</sup>C, and I/O multiple communication modes. The ToF laser ranging module is ideal for use in the fields of drone height setting, route planning, smart car competition and transportation, industrial automation, high-speed measurement, and safety monitoring.



## Features

- 100K LUX resistance to strong ambient light
- Supports UART, I<sup>2</sup>C, and I/O multiple communication modes
- Convenient for installation

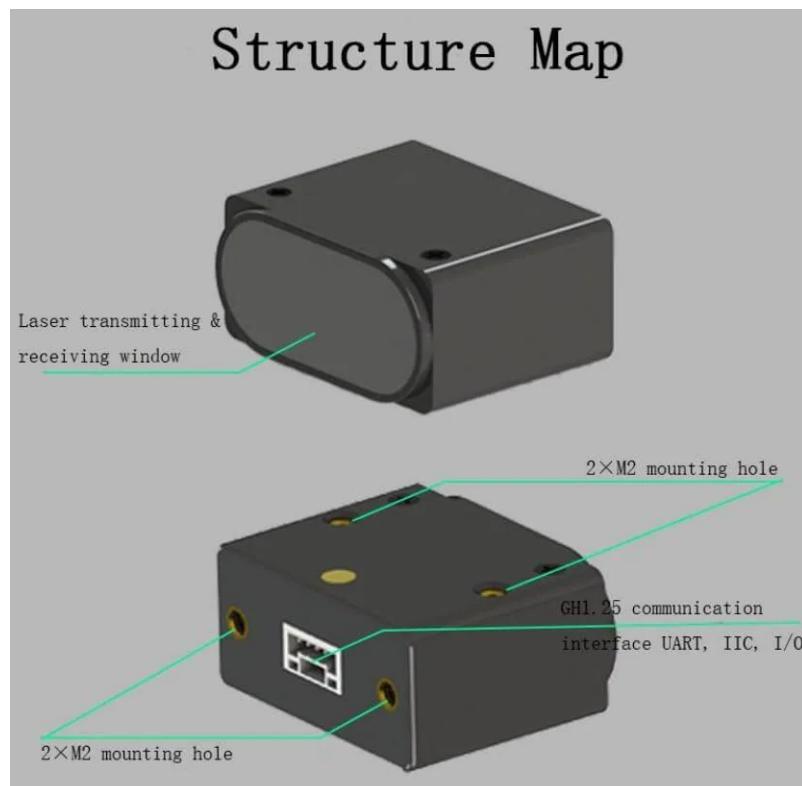
## Applications

- Drone height setting
- Route planning
- Smart car competition and transportation
- Industrial automation
- High-speed measurement and safety monitoring

## Specifications

- 5cm to 15cm measuring range
- 1mm measurement resolution
- Ranging accuracy:
  - [0. 05m, 2m]  $\pm$ 2cm, std<0. 5cm
  - [2m, 15m]  $\pm$ 2%, std<8cm
- 1° to 2° Field of View (FOV)
- Output Mode:
  - UART, I<sup>2</sup>C, and I/O (support active and query output in UART mode)
- 50Hz refresh rate
- 0x08 I<sup>2</sup>C Default Slave address
- 750nm to 830nm wavelength
- 100K Lux anti-ambient light
- 3.7V to 5.2V (reverse connection protection) power supply voltage
- 610mW power consumption
- -10°C to 60°C working temperature range
- Size:
  - 22.7\*28\*13.6mm / 0.89\*1.10\*0.54 inch
- 7.7g weight

## Module Overview



## Mouser Part Number

[View Part](#)

To learn more, visit <https://www.mouser.com/new/dfrobot/dfrobot-tof-module/>