LamaPLC: Waveshare TOF (time of Flight) Laser Range Sensor

UART / I2C / IO Communication Support, 25m / 50m Measuring Range

- This is a TOF-based (time of flight) laser ranging sensor with embedded MCU and ranging algorithm, which is capable of offering up to 25m / 50m measuring range, and ±3cm accuracy.
- It supports UART or I2C communication bus, features longer measuring distance and higher light interference tolerance capability due to its ultra-narrow FOV, suitable for either indoor or outdoor conditions. And its ambient light tolerance is up to 100K LUX.
- This sensor can be widely used in applications like standard distance measuring, robot obstacle avoidance/route planning/ceiling detection, and more…
- long range low cost ranging module, high stability, high accuracy, high sensitivity ranging; UART / I2C / IO communication support UART mode: supports active query output I²C mode: up to 8x cascades I/O mode: unable to output distance parameter

TOF Laser Range Sensor (C)
25m measuring range

TOF Laser Range Sensor (D)
50m measuring range

Specification	Data
Typical measuring range	0.05..25 m / 0.05..50 m
measuring accuracy	+-3 cm
wavelength	905 nm
field of view	1°..2°
Communication interface	default: UART (3.3V TTL) I²C Addr: 0x08
Baudrate	UART: 4.8 kbps .. 3000 kbps (921.6 kbps default) I²C: up to 400 kbps
Power supply	4.3 .. 5.2 V
Power consumption	250 mW (UART active output, 5.0 V power supply, 50 mA current)
operation temperature	-10 °C .. 60 °C

distance measurement, laser, range, sensor, TOF, Waveshare

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