TF-Luna LiDAR

TF-Luna is a single-point ranging LiDAR, based on ToF principle. Mainly used for stable, accuracy and high-frame rate range detection.

The product is built with algorithms adapted to various application environments and adopts multiple adjustable configurations and parameters so as to offer excellent distance measurement performances in complex application fields and scenarios.

Main Product Features

- Small size
- Light weight
- Low power consumption
- Low cost

Main Application Scenarios

- Auxiliary focus
- Elevator projection
- Intrusion detection
- Level measurement

SPECIFICATIONS

Description		Parameter value
Product performance	Operating range	0.2m~8m(90%reflectivity indoor 0klux)[1] 0.2m~2.5m(10%reflectivity indoor 0klux)[2] 0.2m~8m(90%reflectivity outdoor 90klux) 0.2m~2.5m(10%reflectivity outdoor 90klux)
	Accuracy	±6cm@(0.2m-3m)[3] ±2%@(3m-8m)
	Distance resolution	1cm
	Frame rate	1-250Hz[4]
	Ambient light immunity	70Klux
	Operation temperature	-10℃~60℃

	Enclose rating	/
Optical parameters	Light source	VCSEL
	Central wavelength	850nm
	Photobiological safety	Class1 (IEC60825)
	FOV	$2°^5$
Electrical parameters	Supply voltage	3.7V~5.2V
	Average current	≤70mA
	Power consumption	≤0.35W
	Peak current	150mA
	Communication level	LVTTL(3.3V)
	Communication interface	UART, I²C, I/O
Others	Dimension	35mm*21.25mm*12.5mm (L*W*H)
	Housing	ABS+PC
	Storage temperature	-20℃~75℃
	Weight	<5g

Communication Interface	UART		I²C	
	Default baud rate	115200 （adjustable）	Max transmission rate	400kbps
	Data bit	8	Master/Slave mode	Slave
	Stop bit	1	Default address	0x10
	Parity	None	Address range	0x08~0x77

Dimensions	
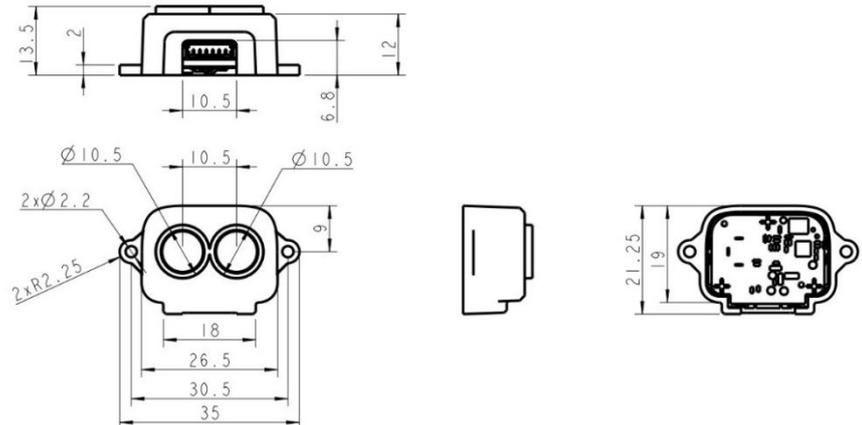
1.Range based on the indoor test with the standard white board (90% reflectivity) at 25℃ as the detection object；

2.Range based on the indoor test with the standard white board (90% reflectivity) at 25℃ as the detection object；

3.Accuracy based on the indoor test with the standard white board (90% reflectivity) at 25℃ as the detection object；

4.The Highest frame rate is 250Hz, the default frame rate is 100Hz. The customized update rate should be

calculated by the formula: 500/n (n is more than 2), ;

5.This is a theoretical reference value.