

TFmini-S is a single-point ranging LiDAR based on TFmini upgrade. The blind zone is shortened to 10cm, the outdoor performance and accuracy of different reflectivity are improved, it can achieve stable, accuracy, sensitive and high frequency range detection.



Main features of product

- Small size
- Light weight
- Low power consumption
- High frame rate(up to 1000Hz)

Main applications

- Pedestrian detection
- Vehicle detection
- Intelligent barrier gate
- Altimeter

■ Technical Specifications and Parameters

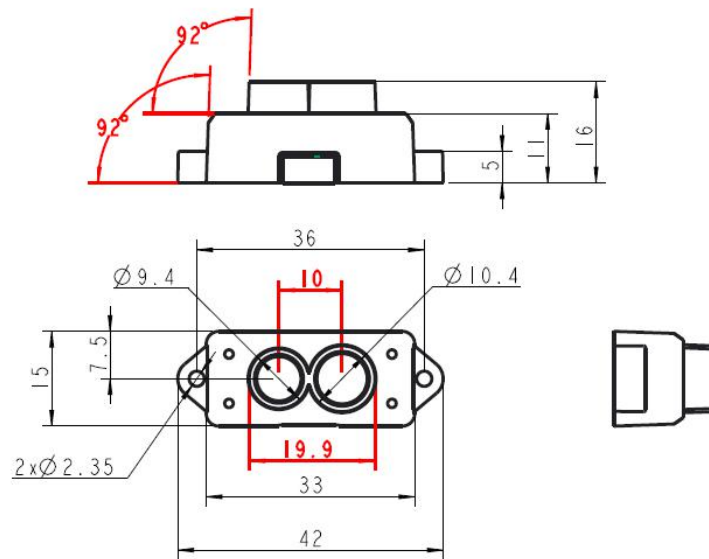
Parameter Name		Value
Product performance	Operating Range	0.1m~12m@90%Reflectivity 0.1~7m@10% Reflectivity 0.1m~12m@90%Reflectivity (70Klux) 0.1~7m@10% Reflectivity (70Klux)
	Accuracy	±6cm@ (0.1-6m) ¹ ±1%@ (6m-12m)
	Distance Resolution	1cm
	Frame rate	1-1000Hz (default 100Hz)
	Ambient light resistance	70Klux
	Operation temperature	0°C~60°C
	Protection Level	/
Optical Parameters	Light source	VCSEL
	Central wavelength	850nm
	Photobiological safety	Class 1 (EN60825)
	FoV	2° ²

¹ Accuracy was calculated based on a standard white board with 90% reflectivity in indoor condition(25°C), changes in conditions may cause errors to increase

² This is a theoretical reference value, there is a certain deviation in the actual angle value.

Electrical Parameters	Supply voltage	5V±0.1V
	Average Current	≤140mA
	Power consumption	≤0.7W
	Peak Current	200mA
	Communication level	LVTTTL (3.3V)
	Communication interface	UART, I ² C, I/O
Other Parameters	Dimensions	42mm*15mm*16mm(L*W*H)
	Enclosure material	PC/ABS
	Storage temperature	-20°C~75°C
	Weight	5g±0.3g
	Cable length	10cm

● Product Appearance and Structure



Dimension of TFmini-S (Unit: mm)

■ Communication Interface

Communication Interface--UART

Interface parameters	Value
Default Baud rate	115200
Data bits	8
Stop bit	1
Parity	None

Communication Interface--I²C

Interface parameters	Value
Max transmission rate	400kbps
Master/Slave mode	Slave
Default address	0x10
Address range	0x01~0x7F

■ Configurable Parameters

Parameters	UART		I ² C	
	Description	Default setting	Description	Default setting
Communication interface	UART, I ² C and I/O	UART	UART, I ² C and I/O	I ² C
Frame rate	Adjustable, 1~1000Hz	100Hz	Adjustable, 1~100Hz	/
Baud rate	Adjustable, 9600~921600bps	115200bps	Fast mode (400kbps)	/
Reset to default	Reset all the settings to default	/	Reset all the settings to default	/

PS: Refer to user manual for more information

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