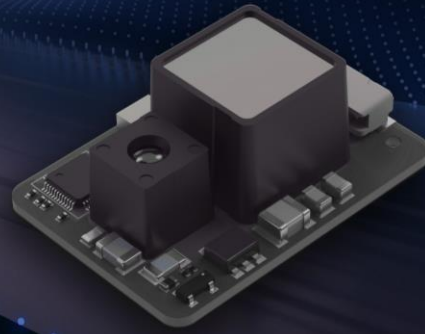


# Benewake TFS20-L

## Datasheet



TFS20-L is a single-point LiDAR module of Benewake. Multiple built-in operating modes let customers to change its parameters and configuration to meet different applications.

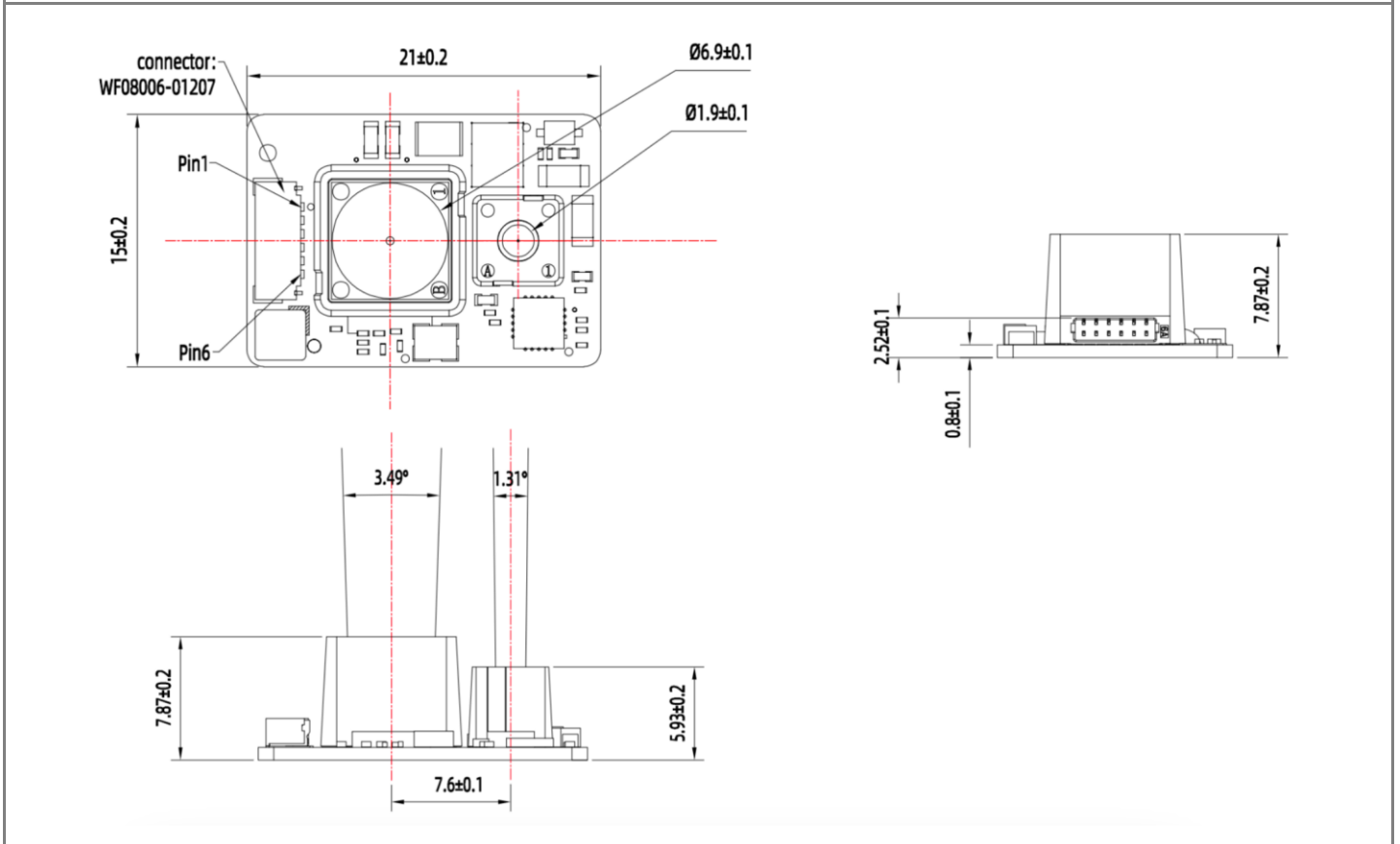
## Technical Specifications

Performance Parameter	
Detection range	0.2-20m@90% reflectivity@0Klux, 0.2-15m@90% reflectivity@100Klux 0.2-12m@10% reflectivity@0Klux, 0.2-9m@10% reflectivity@100Klux
Accuracy <sup>①</sup>	±6cm(0.2~6m), 1%(≥6m)
Precision <sup>②</sup>	2cm(0.2~6m)@1σ
Default frame rate	0 / 20 / 50 / 100 (Default) / 250Hz
Ambient light resistance	100Klux
Laser Parameters	
Light source	VCSEL
Central wavelength	905nm
FoV	<2°
Eye safety	Class 1 Eye-safe [EN60825]
Mechanical/Electrical	
Average power consumption	≤0.35W
Peak current <sup>③</sup>	115mA@3.3V
Power supply	DC 3.3±9%V
Communication level	LVTTTL (3.3V)
Operating temperature	-20°C ~ +60°C
Storage temperature	-40°C ~ +85°C
Dimensions	21*15*7.87mm <sup>3</sup>
Weight	~1.35g
Connector	0.8mm-6P (Model: WF08006-01207)
Protection Level	N/A

## Communication Protocol

Communication Interface	UART	Communication Interface	I <sup>2</sup> C
Baud rate	115200	Max transmission rate	400kbps
Data bit	8	Master/Slave mode	Slave
Stop bit	1	Default address	0x10
Parity	None	Address range	0x10~0x7F

## Dimensions (Unit: mm)



### Notes to the specifications:

- ① The accuracy is based on 25°C indoors and 90% reflectivity condition, and any changes in environmental conditions may cause changes in the measurement results.
- ② The precision is based on 25°C indoors condition, and any changes in environmental conditions may cause changes in the measurement results.
- ③ The peak current is measured at room temperature.

Declaration: The copyright of this specification belongs to © Benewake (Beijing) Co., Ltd. is not allowed to copy, modify, delete or translate the content of this specification without written permission from Benewake. Our product is constantly improving and updating, so the specifications of TFS20-L product may change. Please refer to the latest version released by Benewake.