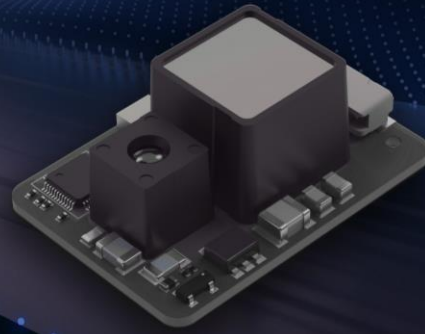# Benewake TFS20-L

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.
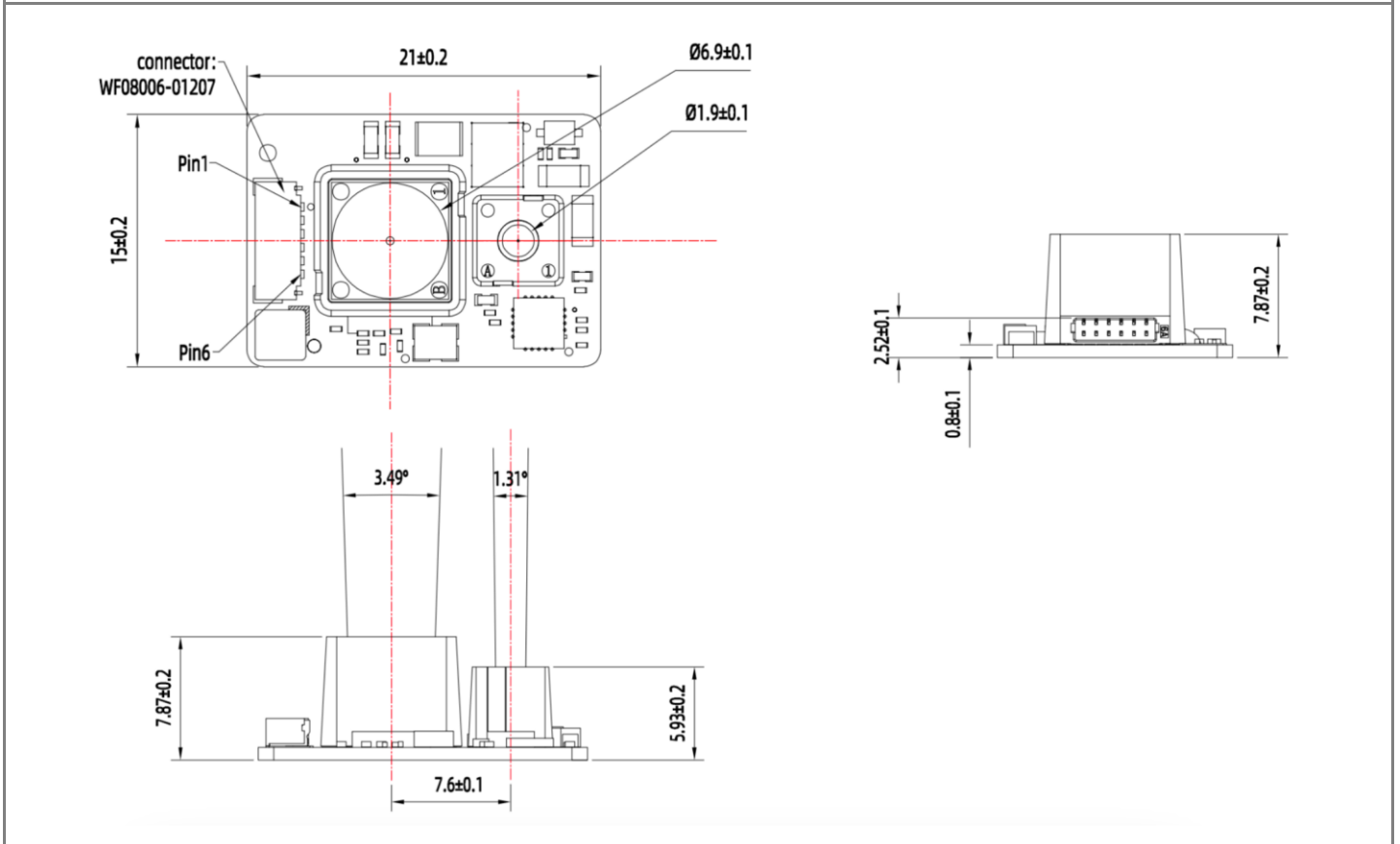
Technical Specifications

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[1]	±6cm(0.2~6m), 1%(≥6m)
Precision[2]	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[3]	115mA@3.3V
Power supply	DC 3.3±9%V
Communication level	LVTTL (3.3V)
Operating temperature	-20℃ ~ +60℃
Storage temperature	-40℃ ~ +85℃
Dimensions	21*15*7.87mm^3
Weight	~1.35g
Connector	0.8mm-6P (Model: WF08006-01207)
Protection Level	N/A

Communication Protocol			
Communication Interface	UART	Communication Interface	I^{2}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℃ 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℃ indoors condition, and any changes in environmental conditions may cause changes in the measurement results.
③ The peak current is measured at room temperature.