Benewake TF-NOVA

Datasheet

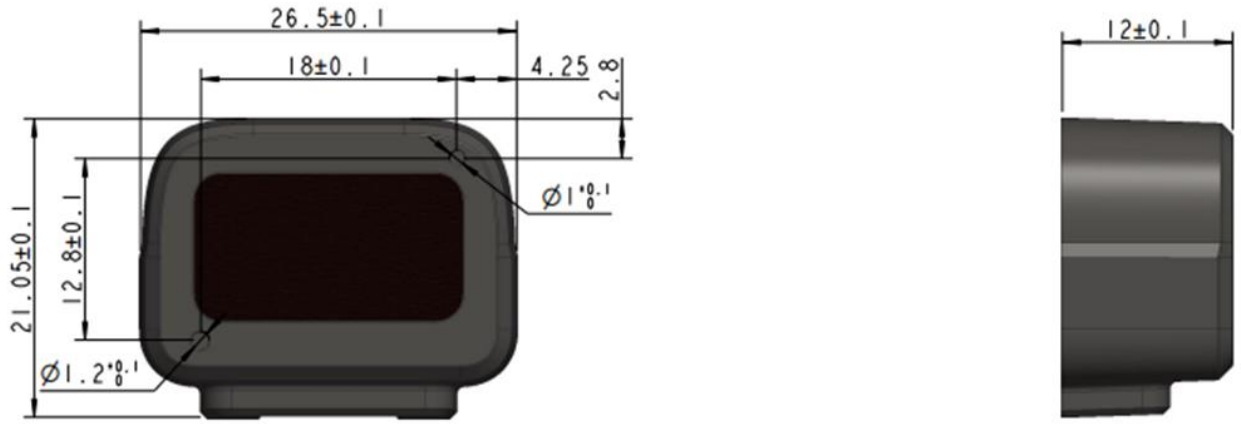
TF-NOVA is a small size, line pattern laser beam LiDAR developed by Benewake, which is particularly suitable for applications such as obstacle detection, presence activation trigger. Multiple parameters are available for customers to customize and configure to meet various scenario requirements.

Technical Specifications

Performance Parameter	
Detection range①	≥3m @3%reflectivity, 0Klux ≥7m @10% reflectivity, 0Klux ≥2m @10% reflectivity, 100Klux
Blind zone	≤ 0.1m
Accuracy②	±5cm
Repeatability	1cm (1 sigma)
Distance resolution	1cm
Default frame rate	Default 100Hz, 1-500Hz customizable
Laser Parameters	
Light source	VCSEL
Central wavelength	905nm
FoV	Typ. 14°×1°
Eye safety	Class 1 Eye-safe[EN60825] (Design assurance, the current prototype has not yet obtained third-party certification)
Mechanical/Electrical	
Average power consumption	TBD
Peak current	TBD
Power supply	DC 5±10%V
Operating temperature	-25℃ ~ +70℃
Storage temperature	-30℃ ~ +80℃

This specification is only applicable to TF-NOVA prototypes between October 1st and November 15th, 2024

Dimensions	TYP. 26.5x 21.05 x 12.0mm^3
Weight	<5g
Connector	1.25mm-5P
Protection Level	N.A.
Cable length	10cm
Communication Protocol	
Communication Interface	UART, IIC, I/O
Baud rate	Default 115200
Data bit	8
Stop bit	1
Parity	None
Dimensions (Unit: mm)	



Notes to the specifications:

① The measurement range is measured when all light spots are placed on the target board, at 25 ℃. Changes in conditions may cause variations in the measurement results.

② The accuracy is measured under the condition of 25 ℃, 0Klux and 10% reflectance background board, and changes in conditions may cause changes in the measurement results.