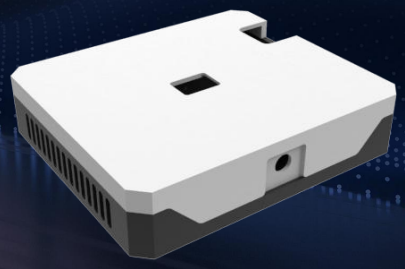
SentiAcu PAL-S 3D LiDAR

Datasheet



PAL-S is a 3D LiDAR designed by SentiAcu, which utilizes the most advanced dToF (direct time of flight) technology and has 1200 high-performance ranging pixels. It has the advantages of high precision, compact size, and low power consumption. Especially suitable for applications such as material level volume measurement, spatial environment perception, 3D modeling, and object recognition combined with AI.

Technical Specifications

Performance Parameter	
Detection range	9.0 m @90% ref. indoor 7.5 m @10% ref. indoor
Blind zone	< 1 m
Accuracy①	±1% @＞1 m
Repeatability①	＜3 cm
Distance resolution	1 mm
Default frame rate②	17Hz, 60fps max.
Ambient light resistance	30Klux, performance will degrade under strong sunlight
Optical Parameters	
Light source	VCSEL
Central wavelength	940 nm
FoV	TYP. 58.5°×45.6°
Resolution	30×40 pixels
Eye safety	Class 1 [EN60825]
Mechanical Electrical	
Average power consumption	to be tested
Peak current	to be tested
Power supply	DC 5V
Data output interface	USB Type C
Operating temperature	-20℃ ~ +85℃

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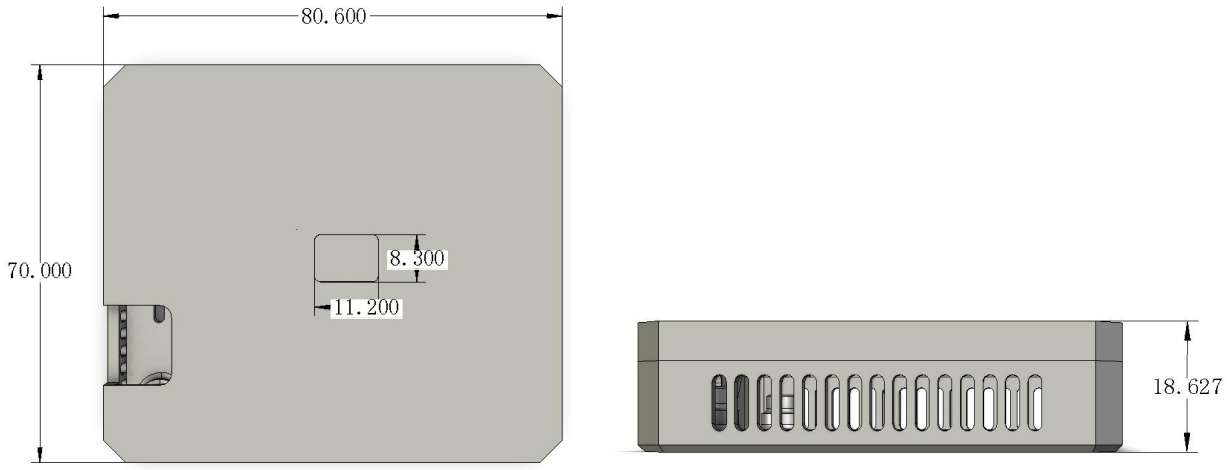
Dimensions	Current evaluation kit: TYP. 70×80×17 mm³ Future product: around 30×30×15 mm³
Dimensions (Unit: mm)	
	

Notes:

1. Measured with 90% reflectivity white target board, indoor environment;
2. Current sample's default frame rate is 17Hz, 60Hz will be available in later versions.