



# SentiAcu PAL-T

High Performance 3D LiDAR



## Data Sheet

SentiAcu-PAL-T is a 3D LiDAR, which offers high performance for automotive, industrial, and other applications. It creates a dense 3D point cloud at a high resolution that enables exceptional perception. SentiAcu-PAL-T offers high pixel density with uniform vertical field of view. The sensor's advanced design ensures reliability and resilience to sunlight and weather conditions.

### FEATURES

- 3D Long Range
- High Resolution
- Equally Distributed vFOV
- Resilient to Sunlight and Weather Conditions

### APPLICATIONS

- Automotive
- Rail Transport
- Seaport
- Airport



## PARAMETERS

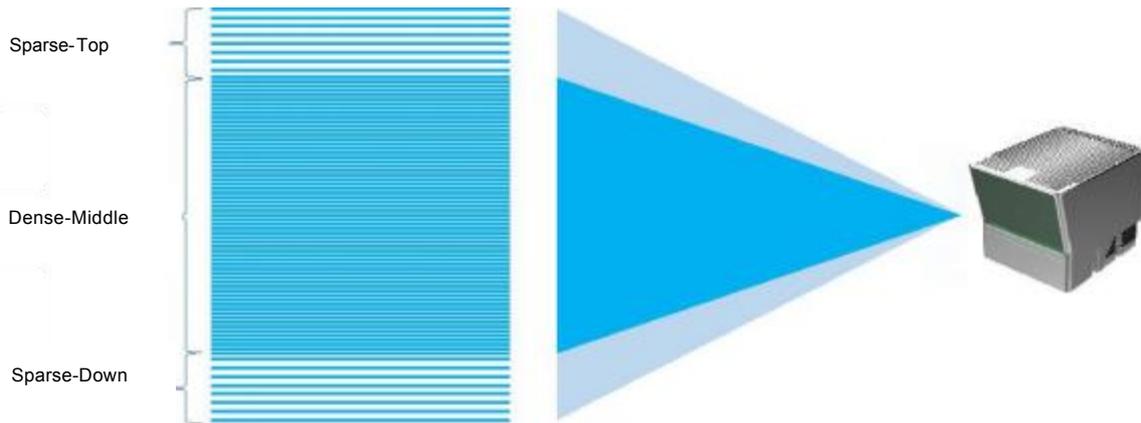
OPTICAL PERFORMANCE			
Range@100klux <sup>①</sup>	@800K points/s	@666K points/s	@533K points/s
	4m–200m @10%reflectivity	4m–250m @10%reflectivity	4m–300m @10%reflectivity
Horizontal FOV		80°	
Resolu tion	Vertical FOV10°	0.09°*0.09°	
	Vertical FOV30°	0.2°*0.2°	
Blind zone		≤4m	
Accuracy <sup>②</sup>		2cm	
Frame rate		4–20FPS	
Multi–echo		3	
LASER			
Laser class		Class I Eye safety [IEC60825–1:2014]	
Wavelength		1550nm	
Beam Diameter		2mrad	
Points		500k–800KHz (configurable)	
DATA OUTPUT			
Connection		1000Base–T	
Interface		UDP	
Time sync		1PPS+UTC	
Platform		Windows, Linux&ROS drivers	
MECHANICAL			
Power Consumption		≤50W	
Input consumption		9–12V	
Dimension		181.7*135*120mm	
Weight		3 KG	
Network		RJ45 (1000M Ethernet)	
Time sync		A1257WR–S–4P (single signal) / A1257WR–S–10P (differential signal)	
Power supply		DC Jack Ø2	
Working temperature		–20°C–60°C	
Store temperature		–40°C–65°C	
Ingress protection		IP67	
Mount		8*M4 screw hole	

① Apply to 100klux and 25°C out door environment, ranges may changed by different condition.

② Apply to 100klux and 25°C out door environment, accuracy may changed by different condition.



## Resolution distribution (Default)



	FOV (degree)	Channel	Resolution (degree)
Sparse-Top	2.8	17	0.167
Dense-Middle	7.2	86	0.083
Sparse-Down	2.8	17	0.167
Total	12.8	120	

Range@100klux	200 m @ 10% reflectivity
FoV	80°x12.8° (HxV)
Angular Resolution	0.09°x0.082° (HxV)
Accuracy	5cm
Frame rate	7 FPS

## Exterior Dimensions

