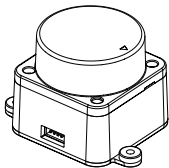


# D500 (19P) Development Kit

DTOF LiDAR

Principle of DTOF

Ultimate small size , low cost  
High reliability , long working life



## Product Description

The STL-19P LiDAR consists mainly of a laser distance measuring core, a radio transmission unit, a radio communication unit, an angle measuring unit, motor drive and mechanical shell. Designed using DTOF technology, it is capable of accurate ranging in the range of 0.03-12m

## Safety statement

The STL-19P LiDAR uses a low power infrared laser as the emitting light source, thus ensuring safety for humans and pets, and has been tested to Class I laser safety standards. The STL-19P LiDAR complies with

21 CFR 1040.10 and 1040.11 with the exception of deviations from Laser Notice No. 50 of 24 June 2007.

Note:

Self-adjustment or modification of this product may result in dangerous radiation exposure.



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## Performance parameters

Parameters	units	Min.value	Typical value	Max.value	Remarks
Input voltage	v	4.5	5	5.5	
Detection range	m	0.03	—	12	Tested on a white target with 80% reflectivity
	m	0.03	—	8	Tested on a black target with 4% reflectivity
Scan frequency	Hz	6	10	13	External PWM speed control
Ranging frequency	Hz	—	5000	—	Fixed value
Detection accuracy	mm	$\pm 10\text{mm}@0.03\text{-}0.5\text{m}$ , STD 2mm; $\pm 20\text{mm}@0.5\text{-}2\text{m}$ , STD 4mm; $\pm 30\text{mm}@2\text{m}\text{-}12\text{m}$ , STD 15mm(White target with 80% reflectivity) $\pm 30\text{mm}@2\text{m}\text{-}8\text{m}$ , STD 15mm(Black target with 4% reflectivity)			Among them, $\pm 10\text{mm}@0.03\text{-}0.5\text{m}$ , STD 2mm indicates a measurement accuracy of $\pm 10\text{mm}$ (mean error) over a range of 0.03 to 0.5m, with an accuracy of 2mm (STD-overall standard deviation, $1\sigma$ ). Refer to these for other indicators.
Angle resolution	°	—	0.72°	—	The default scanning frequency is 10Hz
Light resistant	Klux	—	—	60	
Life	h	10000	—	—	
Working temperature	°C	-10	25	45	
Storage temperature	°C	-30	25	70	
Size	mm	54*46.29*35 (L、W、H)			
Overall weight	g	—	46	—	Excluding connecting wire