

PRODUCT DATASHEET

ES-LD-C00-S001-V001

Industrial Sensing Component

Lidar | E1r Solid State Lidar Series

Product Overview

Industrial Sensing Component with maximum Detection Range 75 m, frame Rate 10 Hz and horizontal Field of View 120° (-60.0° to +60.0°).

Key Specifications

PARAMETER	VALUE	UNIT
Maximum Detection Range	75	m
Frame Rate	10	Hz
Horizontal Field of View	120° (-60.0° to +60.0°)	
Operating Temperature	- 40°C to + 85°C	°C
Operating Voltage	9V - 16V	
Power Consumption	<10	W
Vertical Field of View	90° (-45° to +45°)	
Ingress Protection Rating	IP67 / IP6K9K	
Mass	330 g±20 g (only LiDAR)	

Technical Specifications

PARAMETER	SPECIFICATION	UNIT
PERFORMANCE		
Maximum Detection Range	75	m
Frame Rate	10	Hz
Horizontal Field of View	120° (-60.0° to +60.0°)	
Vertical Field of View	90° (-45° to +45°)	
Point Rate	260000	points/s
Ranging Distance at 10% Reflectivity	30m @10% NIS, 100klux direct sunlight	
Ranging Principle	Time of Flight	
Ranging Precision	±5cm@1 sigma	
Blind Area	0.1	m
Beam Count	144	
Horizontal Angular Resolution	average 0.625°2	

Technical Specifications

PARAMETER	SPECIFICATION	UNIT
IMAGING		
Optical Processing Architecture	SPAD-SoC	
Scanning Architecture	Fully Solid-State Scanning	
Laser Source Technology	2D VCSEL	
ELECTRICAL		
Operating Voltage	9V - 16V	
Power Consumption	<10	W
MECHANICAL		
Mass	330 g±20 g (only LiDAR)	
Contour Length with Connector	95	mm
Outer Contour Width	42.6	mm
Outer Contour Length	95	mm
Contour Width with Connector	51.1	mm
Flat Window Dimensions	7×35×75 (mm)	

Technical Specifications

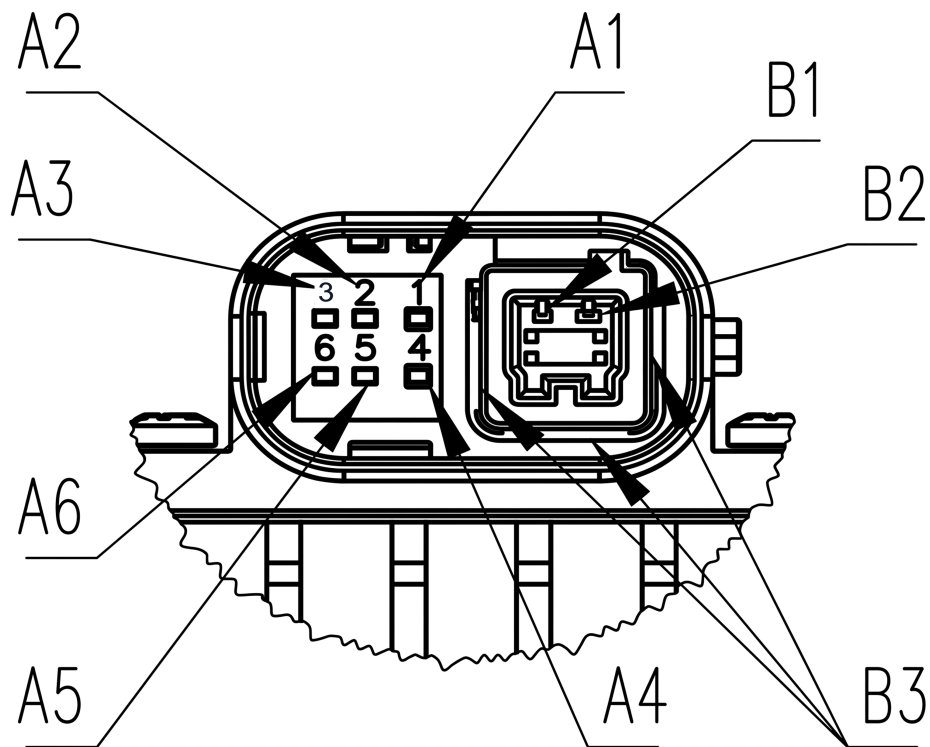
PARAMETER	SPECIFICATION	UNIT
INTERFACES		
Time Synchronization	gPTP (IEEE-802.1AS) PTP E2E L2 (IEEE-1588)	
LiDAR-End Connector Model	TE 2397179-1	
Harness Connector Model	TE 2397144-1	
Connector Function	Power + Gigabit Ethernet	
Ethernet Transmission Rate	1000Base-T1 Gigabit Ethernet	
ENVIRONMENTAL		
Operating Temperature	- 40°C to + 85°C	°C
Storage Temperature	- 40°C to + 105°C	°C
SAFETY		
Ingress Protection Rating	IP67 / IP6K9K	
Laser Safety Class	Class1 eye safe	
ADDITIONAL SPECIFICATIONS		
Protection Rating	IP67 / IP6K9K	

Dimensional & Integration Overview

Mechanical Overview

PARAMETER	VALUE	UNIT
Mass	330 g $\pm$ 20 g (only LiDAR)	
Contour Length with Connector	95	mm
Outer Contour Width	42.6	mm
Outer Contour Length	95	mm
Contour Width with Connector	51.1	mm
Flat Window Dimensions	7 $\times$ 35 $\times$ 75 (mm)	

Dimensional Drawings



Feedback Connector Pinout

Dimensional & Integration Overview

TE Connector Pin Definitions

PIN NUMBER	NUMBER	PIN DEFINITION	CONNECTOR MODEL
A1	1	Battery+	TE-2397179-1
A2	2	Wakeup(KL15)	
A3	3	NC	
A4	4	GND	
A5	5	NC	
A6	6	NC	
B1	D1	TRX_N(1000Base-T1)	
B2	D2	TRX_P(1000Base-T1)	
B3	/	SHIELD	

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01 Specifications are subject to change without notice. Verify the current product configuration before final design release.

02 2D drawings, CAD files and integration documentation are controlled documents and are supplied separately on request.