Robin E1X LiDAR

Robin E1X is an automotive-grade LiDAR developed by Seyond on its new-generation product platform. Robin E1X features a maximum 250-meter range and offers a 120°(H)×20°(V) field of view, delivering full-field 0.1°(H)×0.1°(V) image-level resolution point clouds. Robin E1X adopts a platform-based design that significantly simplifies the core optical scanning structure, greatly enhancing point cloud consistency. Its compact body maintains ultra-low power consumption and is designed for easy mass production, ensuring superior stability and reliability. Robin E1X is used in automotive (AD/ADAS) sectors, robotics, Intelligent transportation systems and Smart infrastructure.

Specifications

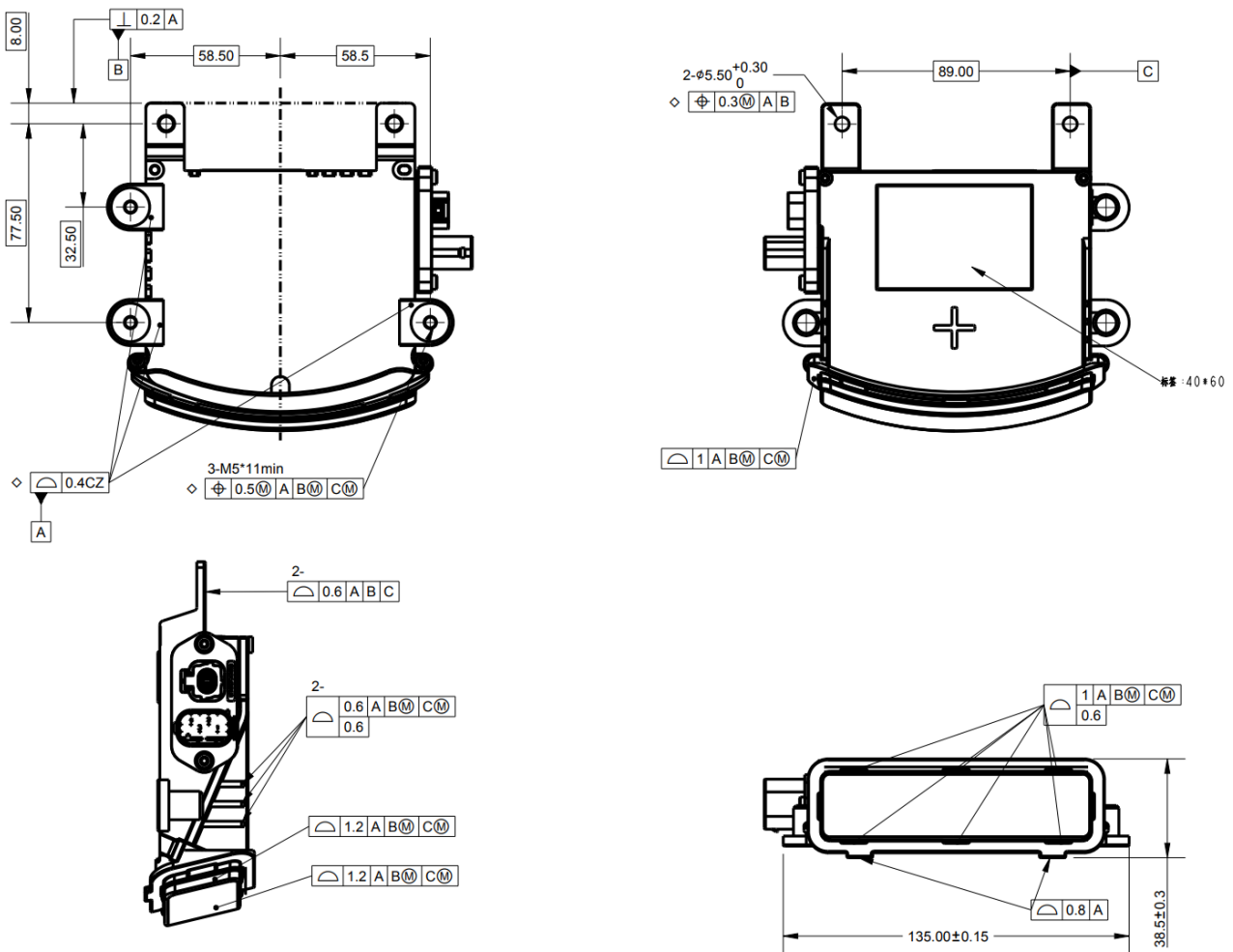| OPTICAL PERFORMANCE	
Detection Range	1~250 m
Detection Range (10% Lambertian reflectivity)	200 m （10% Lambertian reflectivity@10 Hz)
Detection Range Precision	3 cm @1σ
Detection Range Accuracy	± 5 cm （nominal)
FOV (H×V)	120°×20°
Resolution	1200 × 96/ 1200 x 192*
Angular Resolution (H×V)	0.1°×0.2°/0.1°×0.1°*
Angular Accuracy	± 0.1°
Frame Rate	10 FPS configurable
# of Returns	Up to 2 returns
LASER	
Laser Safety Class	Class 1 (IEC 60825-1)
Laser Wavelength	940 nm
MECHANICAL/ ELECTRICAL	
Power Consumption	6.3W (nominal)
Operating Voltage	9 to 16 V DC
Operating Current	0.5 A @12V
Connector	Ethernet: H-MTD Interface (USCAR: 777-S-002-1-Z01)
	4PIN: TE Micro Quadlok system Interface (114-18063-124)
Weight	470g
Dimensions (H×W×D)	30mm×106mm×101mm
OPERATIONAL	
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-40 °C to +105 °C
Ingress Protection	IP67(body) , IP69K(window)

Shock	IEC 60068-2-27
Vibration	IEC 60068-2-64
LIDAR OUTPUT	
Data transmission	1000Base-T1 Ethernet, compatible with 100Base-T1(UDP, TCP)
Data Output	radius, azimuth, reflectivity, timestamp
Points Per Second	1,152,000 Points/sec (single return @10Hz)
	2,304,000 Points/sec (single return @10Hz)*
CONTROL INTERFACE	
Communication Interface	TCP and HTTP APIs
Time Synchronization	IEEE1588(PTP), IEEE 802.1as(gPTP), NTP
ACCESSORIES	
Optional Wire Harness	5m cable (power& Ethernet)
Optional Converter	MetAdaptor
SOFTWARE	
Available Drivers	Client SDK, ROS/ROS2

* The angular resolution of 0.1°×0.1°&192 lines is achieved in super-resolution mode. For more details please contact technical personnel at Seyond.

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Systems

14 Odem ST. P.O.B. 7042 Petach Tikva 4917001, ISRAEL | Office: +972-3-924-3352
Fax: +972-3-9243385 | sales@hypertech.co.il | www.hypertech.co.il

Dimensions（Unit：mm）

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