



LEOPARD
IMAGING

LI-VB1940-VCL-ST80-10GigE-120H-POE



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TECHNICAL FEATURES

- Compatible with NVIDIA® Jetson AGX Orin™ and IGX Orin™ Developer Kit
- Lattice® CertusPro-NX FPGA
- AQrate® 10GB Ethernet PHY Transceiver
- IMU (Inertial Measurement Unit): BMI088
- Sensor: 5.1MP Global Shutter RGB-IR Sensor (QYT: 2)
- Resolution: 2560 (H) x 1984 (V)
- Baseline: 80 mm
- Single IR illuminator and single IR dot projector
- Working Mode: Master / Trigger mode
- Power Supply: IEEE802.3bt (PoE+ +)
- Allows customization
- Weight: TBD
- Power Consumption: TBD
- Operating temperature: TBD
- Storage temperature: TBD
- Part#: LI-VB1940-VCL-ST80-10GigE-120H-POE

IR ILLUMINATOR SPECIFICATIONS

Wavelength	940 nm
Field of Illumination (FOI)	110° (H) x 85° (V)

Applications

- In Cabin Automotive
 - ◆ Gesture Recognition
 - ◆ Iris Scanning
 - ◆ Head Roll
 - ◆ Eye Tracking
 - ◆ Machine Vision

LENS SPECIFICATIONS

Effective focal Length	2.94 ± 5% mm
Aperture, F/#	2.0 ± 5
Field of View (FOV)	120° horizontal
IR Filter	Visible + 940 nm band pass filter
Relative Illumination	(49.4 ± 5) %
Optical Distortion	-79% ± 5%
Lens Mount	M12 x P0.5



● Laser Projector Specifications

Wavelength	940 nm
Field of Illumination (FOI)	110° (H) x 77° (V)
Dot in FOV	10935

NOTE:

- Avoid hitting VCSEL when camera assembly and operating.
- Keep wide clear upon VCSEL when camera operating.

● Laser Projector Safety and Certificates

Safety & Certificates	Complies with 21 CFR 1040.10 and 1040.11 except for conformance with IEC 60825-1 Ed. 3 and IEC 60601-2-22 Ed. 3.1, as described in Laser Notice No. 56, dated May 8, 2019. CLASS 1 LASER PRODUCT IEC 60825-1: 2014 EN 60825-1: 2014+A11: 2021
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● Laser Projector Maintenance

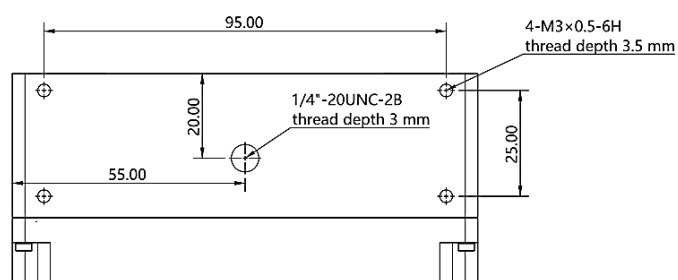
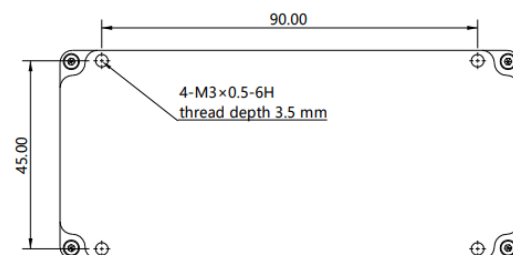
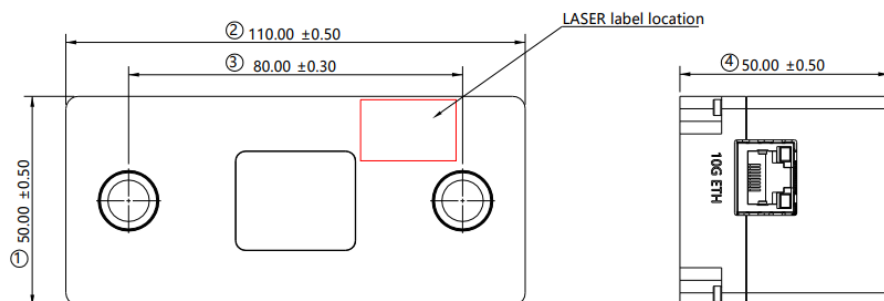
- Make maintenance after a period of use, such as cleaning dust.
- Return to factory for repair when meeting VCSEL work unnormal.

● RJ45 10GB Ethernet And PoE

- Part#: 7499811420
- Connector Type: RJ45
- Orientation: 90° Angle (Right)
- LED Color: Yellow, Green – Green
- Number of Cores per Jack: 8



DIMENSIONS



NOTE:

- Other unmarked tolerances refer to the tolerance table.
- ⊗ marked are important sizes.
- All materials are compliant with RoHS requirements.
- Unit: mm

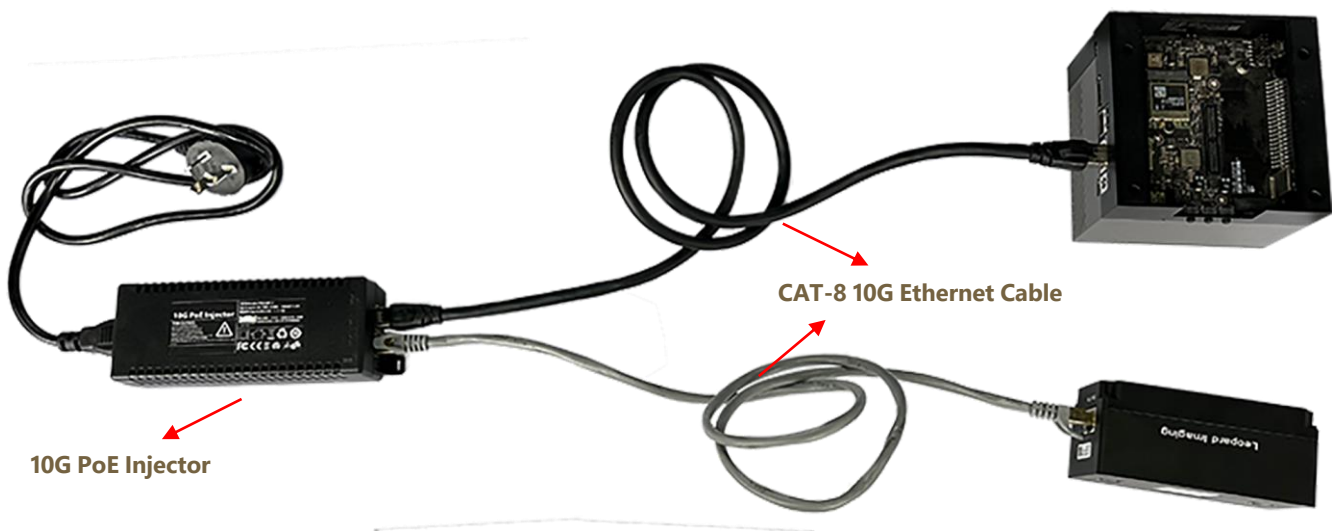
TOLERANCE TABLE					
LENGTH TOLERANCE		CHAMFER TOLERANCE		ANGLE TOLERANCE	
Size X	Tolerance	Size X	Tolerance	Size X	Tolerance
0.5 < X ≤ 3	±0.1	0.5 < X ≤ 3	±0.2	X ≤ 10	±1°
3 < X ≤ 6	±0.1	3 < X ≤ 6	±0.5	10 < X ≤ 50	±30'
6 < X ≤ 30	±0.2	6 < X ≤ 30	±1	50 < X ≤ 120	±20'
30 < X ≤ 120	±0.3	X > 30	±2	120 < X ≤ 400	±10'
120 < X ≤ 400	±0.5			X > 400	±5'
400 < X ≤ 1000	±0.8				
X > 1000	±1.2				

● BOM

#	Items	QTY
1	LI-VB1940-VCL-ST80-10GigE-120H-POE	1
2	CAT-8 10G Ethernet Cable	2
3	10G PoE Injector	1

Nvidia® Jetson IGX Orin / AGX Orin™ Developer Kit is **NOT** included.

● Supported platform: Nvidia Jetson AGX Orin / IGX Orin development kit



Nvidia Jetson AGX Orin / IGX Orin development kit is **NOT** included.

• REVISION HISTORY

Revision	Description	Release Date
0.1	Initial draft.	09 Jun 2025
0.2	Added note for VCSEL, laser projector safety, certificates and maintenance.	03 Jul 2025
0.3	1. Updated laser projector safety and certificates. 2. Added laser label location in the 2D.	20 Jul 2026

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