

## Seeyond Intersection Management Platform (SIMPL)

A comprehensive and cost-effective solution for traffic detection and actuation

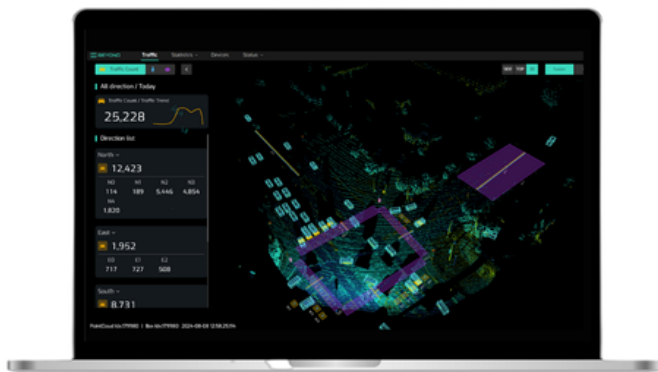
### Highlights

- Provides the most precise multimodal detection and tracking (vehicles, trucks, buses, pedestrians, cyclists)
- AI Edge processing
- Easy to install and maintain
- Reliable in all weather and lighting conditions
- Integration with traffic light controllers for traffic actuation
- Privacy-friendly with no biometric data collected
- NEMA TS2 compliant



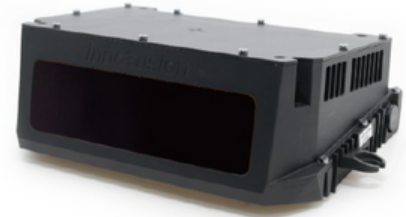
### Perception and Detection Software

Object detection range from the stop bar	50 m pedestrians and cyclists 100 m all vehicle types
Multimodal classification types	Cars, trucks, buses, pedestrians, cyclists
Reliable in all conditions	Lighting: Day, night, sun glare Weather: rain, snow, fog, dust Object movement: moving and stationary
Configurable virtual loops/zones	Stop-bar Advanced detection (up to 100m or 300 feet) Crosswalk Sidewalk
Traffic light controller compatible	Yes (IP & i/o)
Analytics output (accessible with Seyond's Data & Analytics add-on module)	Vehicle classification Vehicle count Vehicle speed Vehicle trajectory Vehicle dimensions Vulnerable Road User classification Vulnerable Road User count



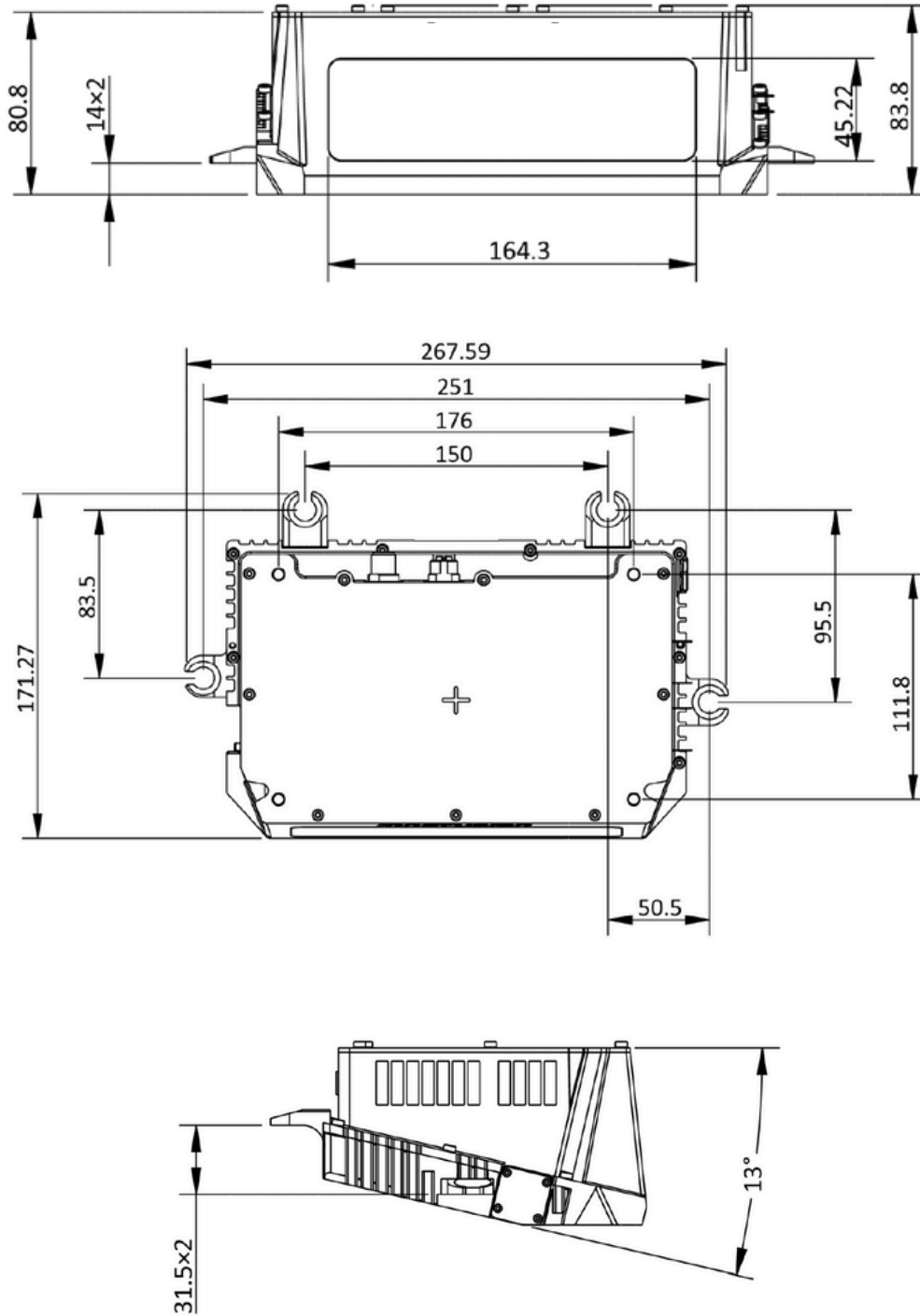
## Falcon Prime LiDAR Sensor

NEMA TS2-2021 certified FALCON LiDAR sensors ensure reliable and industry-standard performance, providing confidence in safety and durability for all-weather and all-lighting conditions.



Distance Range (10% Reflectance) *	250m
Min ~ Max Range *	1.5 ~ 500 m
Field of View (HxV) *	120° x 25°
ROI Vertical Extent (Zone 1 + 2) *	9.6°
Number of scan lines *	148
ROI Zone 2 Resolution (HxV) *	0.1° x 0.1°
ROI Zone 1 Resolution (HxV) *	0.1° x 0.15°
Non-ROI Resolution (HxV) *	0.2° x 0.24°
Frame Rate *	10 FPS
Distance Accuracy	±5 cm (±10cm for retroreflectors)
Distance Precision	2 cm (1s at 50m)
Power Consumption	35 W
Input Voltage	9 ~ 34 V DC (24V recommended)
Dimensions ( H x W x D )	84 x 228 x 150 mm
Weight	2.3 kg
Data Interface	1000 Base T Ethernet RJ45/M12 (UDP,TCP)
Data Output	3D Points, Intensity or Reflectivity
Time Synchronization	PTP, gPTP
Operating Temperature	-40 to 70°C
Ingress Protection	IP67 (body), IP69K (window)
Laser Wavelength	1550nm
Laser Safety	IEC-60825, Class 1
Warranty	3-year standard warranty, extendible to 5 years.
Certification	NEMA TS2 Certified.

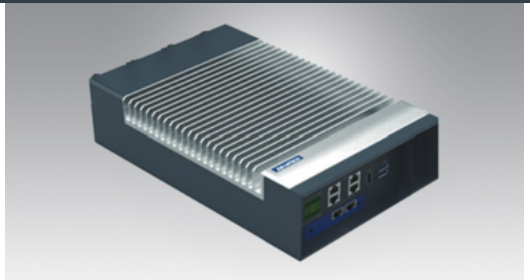
### LIDAR Sensor Dimensions (Unit: mm)



\*Specifications are subject to change without notice and based on engineering targets. Specs are not guaranteed to have passed full validation at the time of publication.

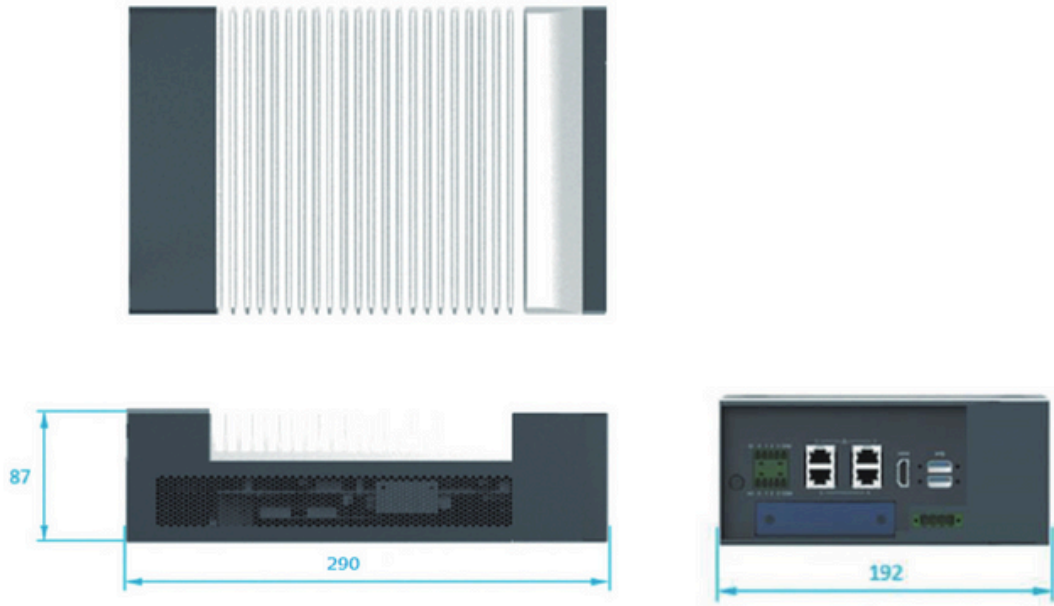
## Edge Device

Seeyond uses NEMA TS2 AI Inference System based on NVIDIA® Jetson AGX Orin™.



	NVIDIA® Jetson AGX Orin™ - MIC-733-A06A1
NVIDIA Jetson Series	AGX Orin 32G
CPU	8-core NVIDIA Arm® Cortex A78AE v8.2 64-bit CPU, 2MB L2 + 4MB L3
GPU	1792-core NVIDIA Ampere GPU with 56 Tensor Cores, Maximum Operating Frequency: 930 MHz
AI Performance Reference	Up to 200 TOPs
Memory	32GB 256-bit LPDDR5 DRAM
Ethernet	4 x 10/100/1000 Mbps (Support 4 x Gigabit PoE/2 Gigabit PoE+ with 60W power budget)
Display	HDMI (Max. resolution 3840x2160 @ 60Hz)
USB	2 x USB 3.0
Digital I/O	4-ch DI, 4-ch DO
Power Switch	1 x Power ON/OFF Button
Serial Ports	2 x RS-232/422/485 (On-board pin header)
OTG USB	1 x Micro USB
iModule (Optional)	1 x PCIe x8 (MIC-75M10-00A2)
Mini PCIe	2 x mPCIe (Signal: PCIe+USB)
SIM	2 x Nano SIM slots
M.2 (Expansion)	1 x M.2 3052 (B-Key, Signal: USB)
TPM (Optional)	1 x TPM 2.0
iDoor (Optional)	1 x iDoor bracket reserve
M.2 (Storage)	1 x M.2 3052 (B-Key, Signal USB)
SD Card	1 x Micro SD slot
Power Mode	AT/ATX (Default AT)
Input Voltage	12 Voc (With external 240W Adapter)
Operating Temperature	-34 ~ +74 °C with 0.7 m/S airflow (30W AGX Orin mode)
Operating Humidity	95% @ 40 °C (non-condensing)
Vibration	3Grms @ 5 ~ 500 Hz, random, 1 hr/axis
Shock	10G / 11 ms
Dimensions (W x D x H)	192 x 290 x 87 mm
Weight	4.5 kg (9.9 lb)
Installation	Desktop / Wall mount
Jetpack	Above 5.0
Certifications	UL/CB/CE/FCC/BSMI/CCC (No RED certification)

**Edge Device Dimensions (Unit: mm)**



**Mounting Arm (Unit: inch)**

