INNOVIZSMART™ LONG-RANGE

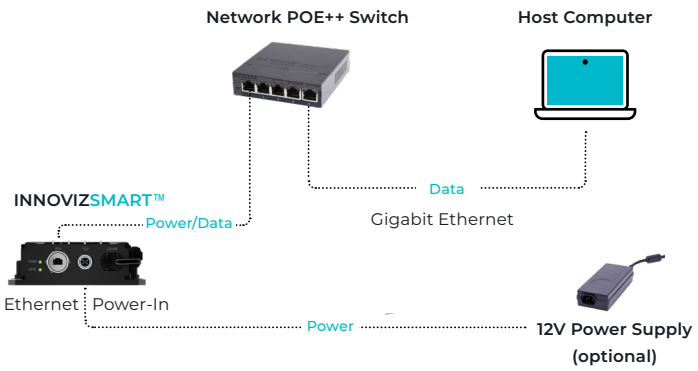
High-Performance LiDAR for Smart Applications

InnovizSMART™ Long-Range is a high-performance LiDAR sensor with unsurpassed 3D performance for smart applications, such as security, mobility, aerial, robotics, and traffic management. The rugged and reliable LiDAR features low power consumption and is resilient to sunlight and weather conditions. The sensor delivers a dense, highly accurate, 3D point cloud with unrivaled angular resolution for distances up to 450m. Installation is simple and easy over the unit's Gigabit Ethernet interface, which supports power from a Power over Ethernet (POE++) network switch. The unit also can be powered by a 12V power supply.

KEY FEATURES

2m-450m Detection Range	0.1°x 0.05° Angular Resolution (HxV)	120°x24° Field of View (HxV)	10 FPS Frame Rate
5.76M Pixels/Second	IP67 Ingress Protection	65x180x173mm Dimensions with Mounting Plate (HxWxD)	-40°C to 75°C Operating Temperature	Gigabit Ethernet Network Interface

INNOVIZSMART SYSTEM



MARKET APPLICATIONS

Security · Mobility · Aerial · Robotics

Traffic Management · Construction · Logistics

SPECIFICATIONS

PERFORMANCE

Maximum Angular Resolution (HxV)	0.1°x 0.05°
Field of View (HxV)	120°x24°
Frame Rate	10FPS
Scanned Lines within FOV	480
Detection Range[1]	2m-450m (240m@90% TPR, 1% FAR, 100Klux, and 10% reflectivity)
Wavelength	905nm
Laser Product Class	Class 1, Eye-safe (IEC-60825-1)
Range Resolution[1]	1cm
Long-Range Accuracy Bias[2]	Max (10cm / 0.5% Ground Truth) to 15cm
Angular Resolution Accuracy	0.5 x Angular Resolution (in nominal conditions[1])
Angular Resolution Precision	0.5 x Angular Resolution @1σ (in nominal conditions[1])
Communication Protocol	1000BASE-T (Gigabit Ethernet)
Points Returned per Second	5.76M
Pixel Latency	100ms (counted from emitting laser until pixel arrives on the Ethernet port)

NOTES:

[1] 25°C ambient temperature; 10FPS; 10% Lambertian target; 100Klux ambient lighting; defined scanning configuration; native VFOV setting; 0° LiDAR roll/pitch; clear weather; no blockage on window; LiDAR is operating in Normal power mode. True Positives = 90% per pixel and False Positives = 1% per pixel based on the above configuration for long-range detection. False positives are pre-configured in the firmware from 0.01% to more than 10%.

[2] Based on a normal target with Lambertian reflectivity up to 100%.

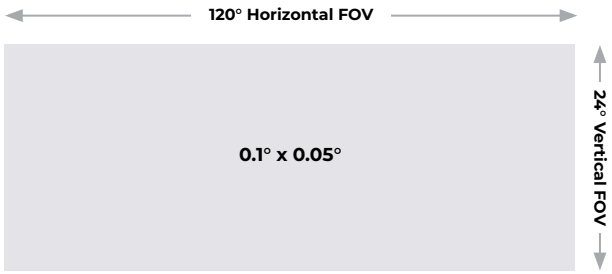
MECHANICAL/ELECTRICAL

Power consumption[1]		25W
Operating Voltage		12-16VDC
Dimensions (HxWxD)		65x180x173 mm (including mounting plate and connectors)
Weight		1.5kg (without mounting plate) 1.75kg (including mounting plate) 2.0kg (including mounting plate and optional sunshield)
Temperature (Operating)		-40°C to 75°C
Connectors	Data/Power	RJ45 (1Gbps/POE++)
	Power-In (12VDC)	C2
LEDs		Power and Link

NOTE:

[1] Depends on environmental temperature.

SCANNING CONFIGURATION



REGULATORY COMPLIANCE

	Standard
Safety and Reliability	ASIC: AEC-Q100 (Grade2); EN 62368-1
Laser Safety	CFR1040.10 (Laser Products) and CFR1040.11 (Specific-purpose laser products). Compliant except for conformance with IEC60825-1 Ed. 3., as described in Laser Notice No. 56, dated May 8, 2019. IEC 60825-1 – Safety of laser products.
Electromagnetic Compliance (EMC)	FCC Part 15, Subpart B, EN 55032, EN 55035, KN32, KN35
Environmental	DIN/EN/IEC 60068-2; Directives 2011/65/EU and (EU) 2015/863 (RoHS); REACH: Conflict Minerals

ORDERING INFORMATION

Model	**Part Number**
InnovizSMART Long-Range Kit	INN2-C00-EVAL-KIT-A3
Optional sunshield	MEP03410

NOTE:

Refer to the Quick Start Guide for evaluation kit contents.

INNOVIZ™ TECHNOLOGIES