



PERCEPTION 3



<https://mach.io/solutions/>

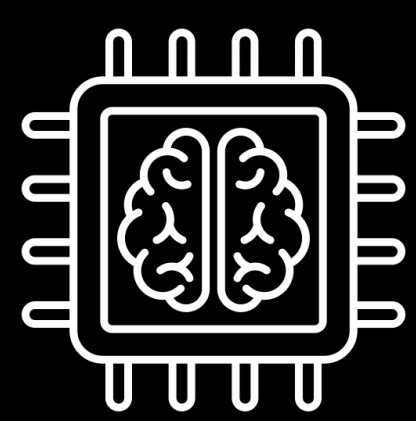
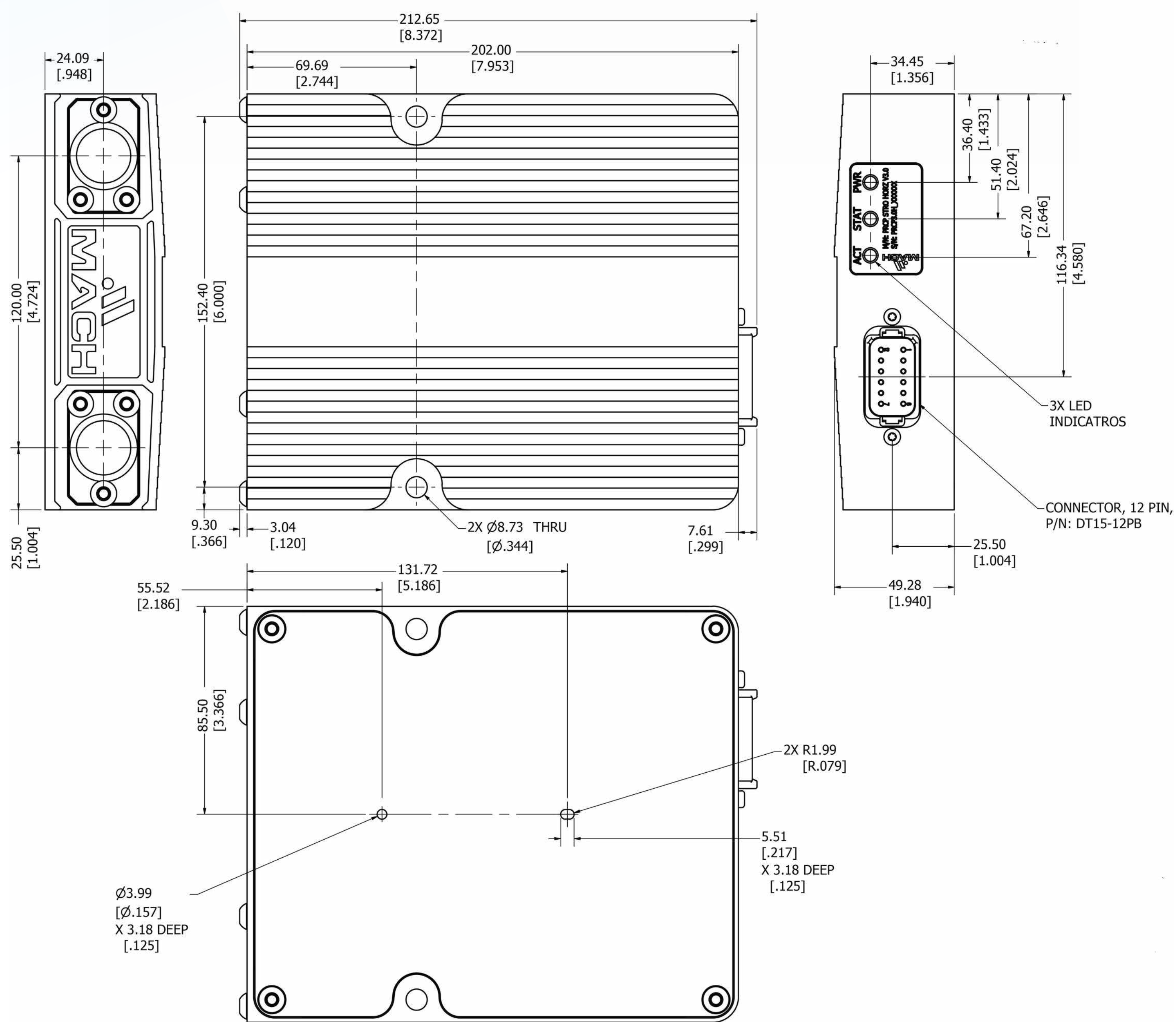
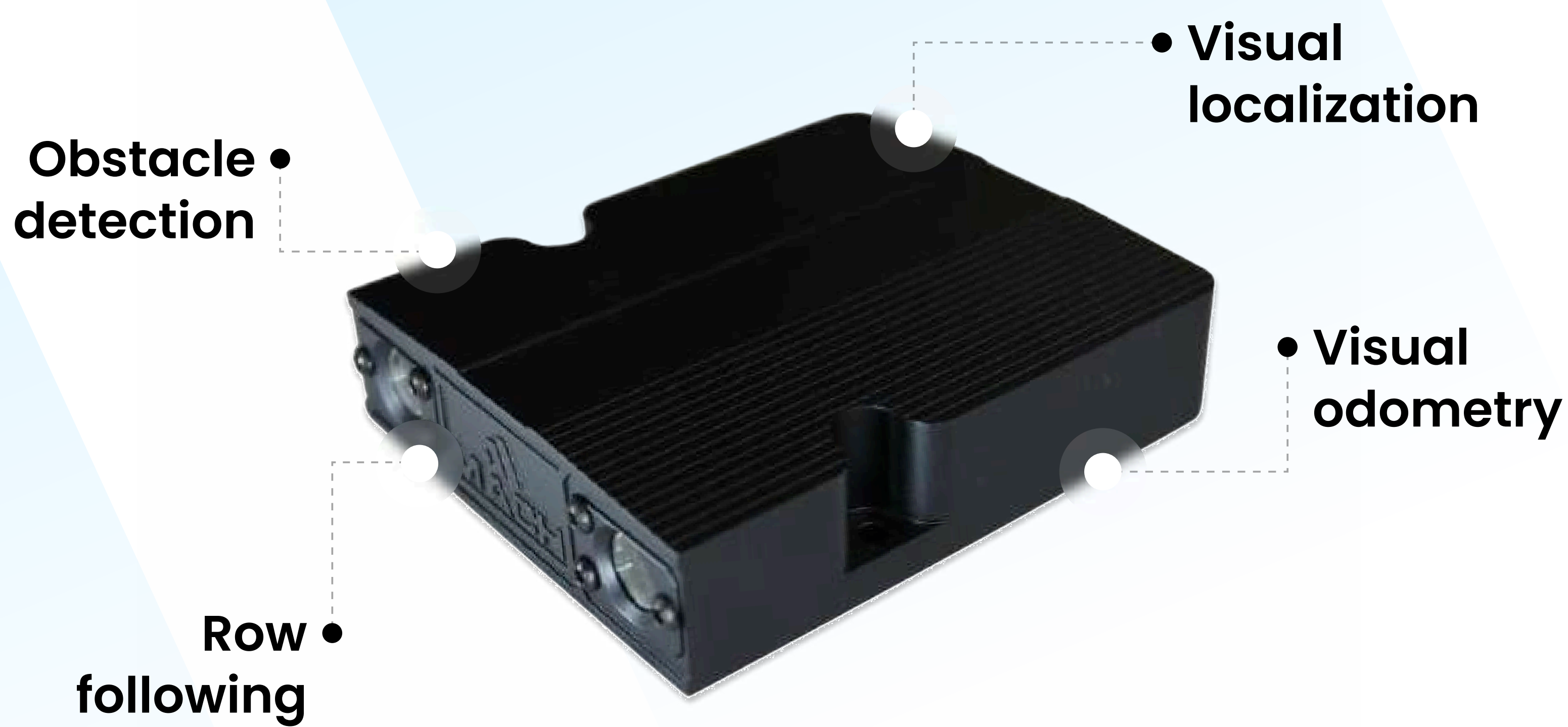
Mach® Perception 3 provides a rugged high dynamic range (HDR) stereo vision platform capable of running Mach or client-specific neural networks via NVIDIA Jetson Orin Nano™. Mach's pre-built functionality includes obstacle detection, row following, and visual odometry and localization. Available with Radar and Lidar sensor fusion, Perception 3 is designed to function efficiently in a wide range of harsh environments, making it ideal for agricultural, construction and industrial applications.

www.mach.io

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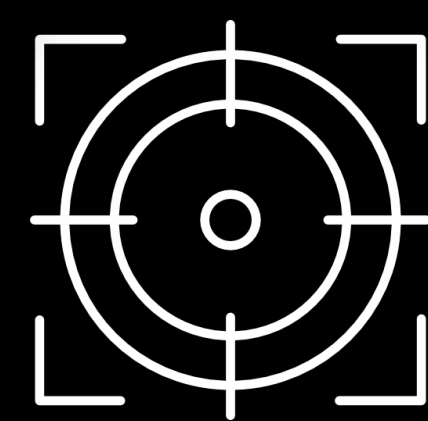
info@mach.io

APPLICATIONS



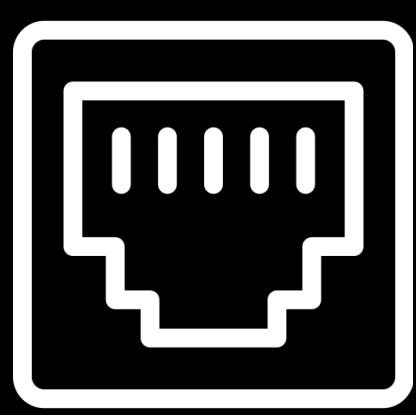
AI POWER

40 TOPS (NVIDIA Orin Nano with Tensor Cores)



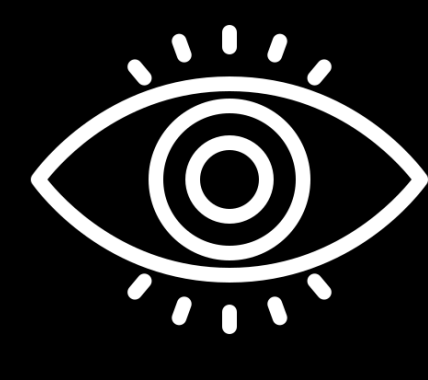
PRECISION DEPTH

Sub-Pixel Resolution



CONNECTIVITY

Gigabit (1000 Base-T)



HDR

120dB (High Dynamic Range)

DATA PROCESSING

NVIDIA Jetson Orin Nano™

Up to 20-40 Int8 TOPs

6 core ARM Cortex A78AE

Ampere GPU + Tensor Cores (1024 CUDA, 32 Tensor)

DATA STORAGE

Memory: 8GB bit LPDDR5

M.2 NVMe SSD

Internal IMU

STEREO VISION

Dual 1920 x 1536 image sensors, 30 fps

Depth point cloud

Range: 0.3m-20m

FOV: 110° (H) x 90° (V)

Dynamic Range: 120dB (HDR)

RUGGED DESIGN

Enclosure sealed to IP67

Designed to meet MIL-STD-810

Operating temperature: -30°C to +70°C (limited by image sensor)

Storage temperature: -40°C to +85°C

Two form factors for ease of integration

WIRED CONNECTIVITY/IO

Input power: 9-32VDC, 3A max

CAN

Ethernet (100/1000Base-TX)

FEATURES

Radar and Lidar options for sensor fusion