



The Vanjee WLR-733 is a high-resolution, long-range 3D LiDAR with 360° horizontal field of view. The WLR-733 offers excellent performance, perfect for smart corridor, intersection, tunnel and road user safety applications - even in challenging weather conditions.

Applications:

- Signal phasing
- Ramp metering
- Approach warnings
- Over height detection
- VMS triggering
- Vehicle data collection
- Traffic planning
- Pedestrian detection

Key Features:

- Supports detection of per-lane vehicle speed, count, 4 bin classification, length, width and height
- 360° coverage, 200m detection range
- Detection for up to 4 lanes
- Ethernet comms
- IP68 rated
- Edge processing via additional NVIDIA Jetson Orin NX/AGX based IPC.



Communications

- 1x GX-16 8-pin aviation connector (15m GX-16 to RJ45 cable included).

Technical Specifications

- Scanning channels: 64
- Scanning Frequency: 5 Hz / 10 Hz / 20 Hz
- Accuracy: $\pm 30\text{mm}$ @ 1σ
- Ranging distance: 200m @ 10%
- Horizontal field of view: 360°
- Vertical field of view: 40.5°
- Horizontal resolution: $0.1^\circ / 0.2^\circ / 0.4^\circ$
- Vertical resolution: $0.1^\circ \sim 4^\circ$
- Mounting height: 6-8 m.

System Data Outputs

- Vehicle ID
- Vehicle count
- Vehicle type
- Vehicle height/width/length
- Vehicle real-time position
- Lane number
- Speed
- Multiple triggering signals.

Environmental, Power and Physical Specification

- Physical dimensions: 162.0 mm (Φ) x 126.2 mm (H)
- Weight: 2.6 kg
- Power Requirements: 24 Vdc, GX-16 8-pin aviation connection (15m GX-16 to 8-wire cable included)
- Typical consumption: 20 W (50 W with heating active)
- Ingress protection: IP68
- Operational temperature: -40°C to 80°C .