

DHI-ITARD-024MA-H

Multilane Radar Detector



- One single radar covers up to 32 vehicles of 1–4 lanes.
- Precisely detects speed and position of vehicles when they are 18 m–35 m (59.1 ft–114.8 ft) away.
- Flexible to install: Either installed over the lane or at the side of a lane.
- Special functions such as detection of illegal lane change and wrong-way driving.
- The detection performance is not impaired by adjacent lane or vehicles in front of or behind the target vehicle.

System Overview

The multilane radar detector can be installed over the lane to detect vehicles 15 m–45 m (49.2 ft–147.6 ft) away and cover vehicles of 1–4 lanes. It sends capture signals to the camera when the vehicle approaches the specific position, and also detects the vehicle speed and the lane that the vehicle is driving on.

Scene

The radar is applicable to traffic security system, speeding detection, and more.

Functions

Impressive capture rate

About 99% when traffic is smooth, and 96% and 92% respectively when traffic is saturated and congested.

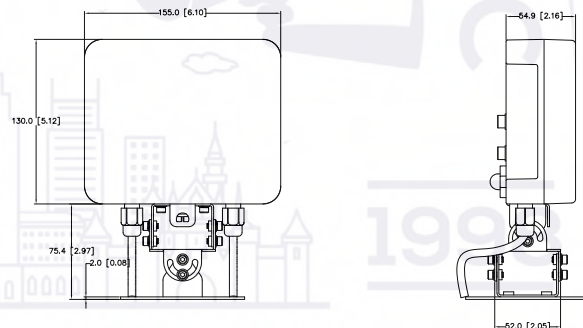
High position accuracy

The position accuracy of triggering capture signal is as high as ± 0.5 m (1.6 ft).

All-weather working

The detection performance of the device is immune to glaring sunlight, dense fog or other adverse weather and lighting conditions.

Dimensions (mm[inch])



Technical Specification

Performance

Lane Coverage	1–4 lane(s) (3.75 m (12.30 ft) standard lane)
Speed Measurement Range	5 km/h–350 km/h
Speed Measurement Accuracy	Simulated Speed Measurement Error Range: ± 2 km/h On-site Speed Measurement Error Range: Vehicle speed < 100 km/h: ± 2 km/h Vehicle speed ≥ 100 km/h: $\pm 2\%$
Detection Target	Up to 32 vehicles
Maximum Detection Distance	100 m (328.08 ft)
Minimum Detection Distance	2 m (6.56 ft)
Installation Height	5 m–10 m (16.40 ft–32.80 ft)
Position Detection Accuracy	$< \pm 2.5\%$ or $< \pm 0.5$ m (1.64 ft)
Overspeed Capture Rate	$\geq 95\%$ (when traffic is smooth)
Lane Recognition Rate	$\geq 95\%$
Frequency	24.150 GHz \pm 45 MHz
Response Time	≤ 50 ms
Transmit Power (EIRP)	20 dBm (100 mW)
Modulation	FMCW + Monopulse + Doppler, 3 transceiving antennas
Bandwidth	250 MHz
Protection Grade	IP67
Radar Beam Angle	Horizontal: -6° to $+6^\circ$ (-3 dB) Vertical: -5° to $+5^\circ$ (-3 dB)

General

Operating Voltage	12V DC
Average Power Consumption	< 3.5 W
Operating Temperature	-40°C to $+85^\circ\text{C}$ (-40°F to $+185^\circ\text{F}$)
Relative Humidity	10%RH–90%RH, no condensation
Dimensions	155 mm \times 130 mm \times 54.9 mm (6.10" \times 5.12" \times 2.16") (L \times W \times H)
Weight	1 kg (2.20 lb)

Ordering Information

Type	Model	Description
Multilane Radar Detector	DHI-ITARD-024MA-H	Multilane radar detector
Accessories	—	Bracket (included in the packing list)
	SOY-1200330	12V DC power adapter

Assembly layout

