

# DHI-ITARD-024MA-S

## Multi Target Bayonet Radar



- One single radar covers up to 128 vehicles of 1–4 lanes.
- Precisely detects speed and position of vehicles when they are 20 m–55 m (65.6 ft–180.4 ft) away.
- Flexible to install: Either installed over the lane or at the side of a lane.
- The detection performance is not impaired by adjacent lane or vehicles in front of or behind the target vehicle.

### System Overview

The multi target bayonet radar can be installed over the lane to detect vehicles 20–55 m (65.6–180.4 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.

### Functions

#### Impressive Capture Rate

About 97% when traffic is smooth.

#### High Position Accuracy

The position accuracy of triggering capture signal is as high as  $\pm 1$  m (3.3 ft).

#### All-weather Working

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

### Scene

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

### Technical Specification

#### Performance

Lane Coverage	1–4 lane(s) (3.75 m (12.30 ft) standard lane)
Speed Measurement Range	10 km/h–250 km/h
Speed Measurement Accuracy	Simulated speed measurement: Not support On-site speed measurement error range: Vehicle speed < 100 km/h: $\pm 2$ km/h Vehicle speed $\geq 100$ km/h: $\pm 2\%$
Detection Target	Up to 128 vehicles
Detection Range	20 m–55 m (65.6 ft–180.4 ft)
Installation Height	4 m–8 m (13.1 ft–26.2 ft)
Position Detection Accuracy	$\pm 1$ m (3.3 ft)
Overspeed Capture Rate	$\geq 97\%$ (when traffic is smooth)
Lane Recognition Rate	$\geq 97\%$
Frequency	24 GHz–24.25 GHz
Response Time	$\leq 50$ ms
Transmit Power (EIRP)	20 dBm (100 mW)
Modulation	FMCW
Detection Direction	Approaching/Leaving
Bandwidth	250 MHz
Protection Grade	IP66
Radar Beam Angle	Horizontal: $60^\circ$ ( $-3$ dB) Vertical: $10^\circ$ ( $-3$ dB)

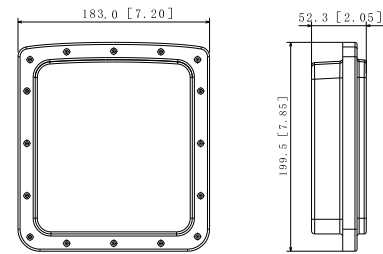
General

Operating Voltage	12 VDC
Average Power Consumption	< 3.5 W
Operating Temperature	-40 °C to +85 °C (-40 °F to +185 °F)
Relative Humidity	10%–90% (RH, non-condensing)
Dimensions	199.5 mm × 183.0 mm × 52.3 mm (7.85" × 7.20" × 2.05") (L × W × H)
Weight	1 kg (2.20 lb)
Installation	Center mount/Side mount

Port

RS-485	1. Connects cameras
Network Port	1 RJ-45 for device debugging and update. Supports 10/100 Mbps data transmission

Dimensions

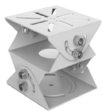


Ordering Information

Type	Model	Description
Radars	DHI-ITARD-024MA-S	Multi target bayonet radar
Accessories (Optional)	8018	Bracket

Accessories

Optional:



8018  
Bracket

