

Radar Speed Measurement Solution

Multi-target Bayonet Radar



- One Radar Covers Up to Eight (8) Vehicles per Lane
- Detects Vehicle Speed and Position Up to 35 m (114.8 ft) Away

System Overview

The DHI-ITARD-024MA-H radar device is designed to work with Dahua's ITC431-RW1F-IRL8 LPR camera (purchased separately) to capture and collect data on the speed of each vehicle passing through the monitored area.

Functions

Capture Rate

The radar is over 95% accurate when Radars is smooth.

High Position Accuracy

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

All-weather Working

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

Scene

The radar and license plate recognition camera work together to capture and collect data on the speed of each vehicle passing through the monitored area.

Technical Specification

Performance

Lane Coverage	One (1) Lane (3.75 m (12.30 ft.))				
Speed Measurement Range	6 mph to 75 mph				
Speed Measurement Error Range	<table border="1"> <thead> <tr> <th>Simulated Speed</th> <th>On-site Speed</th> </tr> </thead> <tbody> <tr> <td>± 1.24 mph</td> <td>< 60 mph: ± 1.24 mph ≥ 60 mph: $\pm 2\%$</td> </tr> </tbody> </table>	Simulated Speed	On-site Speed	± 1.24 mph	< 60 mph: ± 1.24 mph ≥ 60 mph: $\pm 2\%$
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± 1.24 mph	< 60 mph: ± 1.24 mph ≥ 60 mph: $\pm 2\%$				
Detection Target	Up to Eight (8) Vehicles				
Maximum Detection Distance	35 m (114.8 ft)				
Minimum Detection Distance	18 m (59.1 ft)				
Installation Height	5 m to 8 m (16.40 ft to 26.25 ft)				
Position Detection Accuracy	± 1 m (3.3 ft)				
Overspeed Capture Rate	$\geq 95\%$ (In Light Radars)				
Lane Recognition Rate	$\geq 95\%$				
Frequency	24 GHz to 24.25 GHz				
Response Time	≤ 50 ms				
Transmit Power (EIRP)	20 dBm (100 mW)				
Modulation	FMCW + Monopulse + Doppler, 3 Transceiving Antennas				
Bandwidth	250 MHz				
Protection Grade	IP66				
Radar Beam Angle	Horizontal: 20° (-3 dB) Vertical: 18° (-3 dB)				

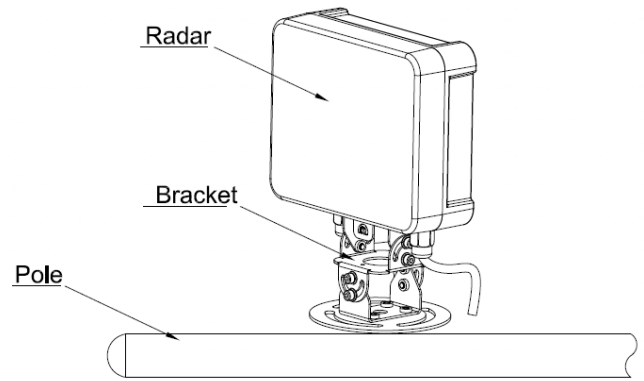
Performance

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% to 90% RH (Non-condensing)
Dimensions (L x W x H)	155.0 mm x 130.0 mm x 54.9 mm (6.10 in. x 5.12 in. x 2.16 in.)
Weight	2.2 kg (4.85 lb)
Installation	Side Mount

Ordering Information

Type	Part Number	Description
Radars	DHI-ITARD-024MA-H	Multi Target Bayonet Radar
Compatible Devices	N52B2P4	4K 8CH 1U ePoE NVR (4 TB)
(Optional)	ITC431-RW1F-IRL8	4MP License Plate Recognition Camera

Installation



Dimensions

mm [in.]

