ClairWav T24

24GHz Traffic Control Radar Detector

Overview

The ClairWav T24 Series Millimeter-wave Multi-target Traffic Control Radar Detector serves as a non-intrusive road traffic information collection sensor, capable of multi-lane, high-precision detection. It collects real-time, comprehensive, and accurate traffic information, including real-time vehicle position, instant speed, vehicle type classification, lane information, traffic volume, average speed, time occupancy rate, headway distance, queue length, and regional vehicle count, among other fundamental traffic statistics.

The ClairWav T24 Series is suitable for various application scenarios, including traffic information collection on highways, urban expressways, and more, traffic flow detection at urban intersections, roadside perception for V2X applications.

Key Features

- 24GHz operating frequency
- All-in-one solution combining the benefits of radar and camera
- Utilize a 5-megapixel camera for capturing wide scenes
- Coverage of up to 12 lanes
- A range of up to 400m (1312ft)
- Cross-section count reaches up to 64
- 90-degree field of view
- Detection of up to 256 traffic objects simultaneously
- Vehicle flow detection accuracy ≥95%
- Average vehicle speed detection accuracy ≥95%
- Queue Length detection accuracy above ≥95%

Specification

Model	ClairWav-T24L	ClairWav-T24S	ClairWav-T24LC	ClairWav-T24SC
Operating Frequency	24.0-24.25GHz	24.0-24.25GHz	24.0-24.25GHz	24.0-24.25GHz
Maximum Detection Distance	400m (1312ft)	250m (820ft)	400m (1312ft)	250m (820ft)
Non-motorized Vehicle/Pedestrian Detection Distance	180m (590ft)	100m (328ft)	180m (590ft)	100m (328ft)
Video Camera	None	None	8megapixels	8megapixels
Detection Speed Range	±220Km/h	±220Km/h	±220Km/h	±220Km/h
Horizontal Field of View	±45°	±45°	±45°	±45°
Vertical Field of View	±7°	±7°	±7°	±7°
Number of Lanes	12	12	12	12
Maximum Supported Cross-section Count	64	64	64	64
Simultaneously Detected Objects	256	128	256	128
Vehicle Flow Detection Accuracy	≥95%	≥95%	≥95%	≥95%
Average Vehicle Speed Detection Accuracy	≥95%	≥95%	≥95%	≥95%
Queue Length Detection Accuracy	≥95%	≥95%	≥95%	≥95%
Frame Rate	10fps	10fps	10fps	10fps
Dimension	210*154*58 (mm), 8.27*6.06*2.28 (inches).	210*154*58 (mm), 8.27*6.06*2.28 (inches).	210*154*58 (mm), 8.27*6.06*2.28 (inches).	210*154*58 (mm), 8.27*6.06*2.28 (inches).
Weight	2Kg	2Kg	2Kg	2Kg
Communication	100Mbps RJ45 Ethernet port	100Mbps RJ45 Ethernet port	100Mbps RJ45 Ethernet port	100Mbps RJ45 Ethernet port
Power Supply	DC24V (DC21.6V-32V)	DC24V (DC21.6V-32V)	DC24V (DC21.6V-32V)	DC24V (DC21.6V-32V)
Power Consumption	25W	18W	25W	25W
Operating Temperature	-40 to 74°C (-40 to 165°F)	-40 to 74°C (-40 to 165°F)	-40 to 74°C (-40 to 165°F)	-40 to 74°C (-40 to 165°F)
Storage Temperature	-45 to 85°C (-49 to 185°F)	-45 to 85°C (-49 to 185°F)	-45 to 85°C (-49 to 185°F)	-45 to 85°C (-49 to 185°F)
Humidity	≤95%	≤95%	≤95%	≤95%
Protection Class	IP67	IP67	IP67	IP67
MTBF	10 Years	10 Years	10 Years	10 Years

Ordering Information

Model	Description
ClairWav-T24L	24GHz, multi-target traffic control radar detector, the detection distance ranges up to 400m
ClairWav-T24S	24GHz, multi-target traffic control radar detector, the detection distance ranges up to 250m
ClairWav-T24LC	24GHz, multi-target traffic control radar detector integrated with video camera, the detection distance ranges up to 400m
ClairWav-T24SC	24GHz, multi-target traffic control radar detector integrated with video camera, the detection distance ranges up to 250m