ClairWav T24-700

24GHz Traffic Control Radar Detector with Detection Range of 700m



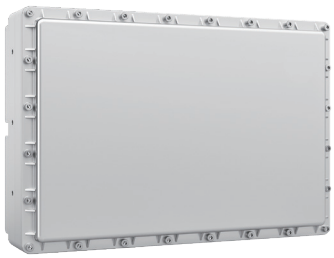
Overview

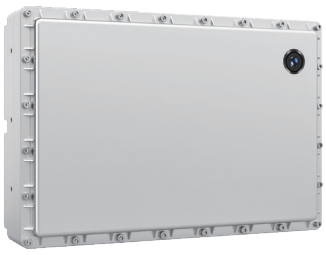
ClairWav T24-700 is a millimeter-wave phased array traffic radar with an impressive detection range of up to 700 meters. Utilizing advanced phased array technology, it performs rapid scanning and detection of large areas and multiple targets within milliseconds. Combined with cutting-edge AI algorithms and anti-interference techniques, it enables real-time tracking and detection of traffic targets. The radar delivers precise outputs such as real-time positioning, instant speed, vehicle classification, lane information, traffic flow, average speed, occupancy rate, headway, queue length, and vehicle count in defined zones. It is ideal for applications like traffic information collection on highways and urban expressways, as well as roadside sensing in vehicle-to-infrastructure (V2I) scenarios.

ClairWav T24-700C is an integrated radar-camera system with a detection range of up to 700 meters, designed with a "Radar + Video" architecture. This fusion of radar-based traffic flow detection and video data ensures intuitive visual displays, accurate identification, multi-target tracking, and data fusion for enhanced performance. It offers a powerful solution for precise and comprehensive traffic monitoring and analysis.

Key Features

- 24GHz operating frequency
- All-in-one solution combining the benefits of radar and camera
- Utilize an 8-megapixel camera for capturing wide scenes
- Coverage of up to 14 lanes
- Extended detection range of 700m (2297ft)
- Cross-section count reaches up to 64
- 90-degree field of view
- Detection of up to 512 traffic objects simultaneously
- Vehicle flow detection accuracy ≥95%
- Average vehicle speed detection accuracy ≥95%
- Queue Length detection accuracy above ≥95%





Specification

Model	ClairWav-T24-700	ClairWav-T24-700C
Operating Frequency	24.0-24.25GHz	24.0-24.25GHz
Maximum Detection Distance	700m (2297ft)	700m (2297ft)
Non-motorized Vehicle/Pedestrian Detection Distance	300m (984ft)	300m (984ft)
Video Camera	None	8 megapixels
Detection Speed Range	±220Km/h	±220Km/h
Horizontal Field of View	±45°	±45°
Vertical Field of View	±7°	±7°
Number of Lanes	14	14
Maximum Supported Cross-section Count	64	64
Simultaneously Detected Objects	512	512
Vehicle Flow Detection Accuracy	≥95%	≥95%
Average Vehicle Speed Detection Accuracy	≥95%	≥95%
Queue Length Detection Accuracy	≥95%	≥95%
Frame Rate		25fps
Dimension	249*169*57.9 mm 9.80*6.65*2.28 inch	249*169*57.9 mm 9.80*6.65*2.28 inch
Weight	2.4KG	2.4KG
Communication	100Mbps RJ45 Ethernet port RS485	100Mbps RJ45 Ethernet port RS485
Power Supply	DC24V (DC21.6V-32V)	DC24V (DC21.6V-32V)
Power Consumption	20W	25W
Operating Temperature	-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)
Humidity	≤95%	≤95%
Protection Class	IP67	IP67
MTBF	10 Years	10 Years

Ordering Information

Model	Description
ClairWav-T24-700	24GHz, multi-target traffic control radar detector, the detection distance ranges up to 700m
ClairWav-T24-700C	24GHz, multi-target traffic control radar detector integrated with video camera, the detection distance ranges up to 700m