

CRT-RT501-001

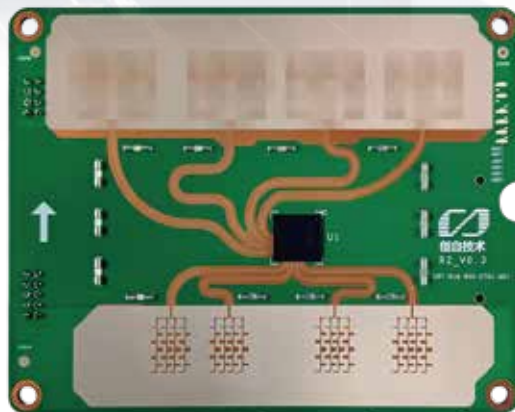
Traffic Flow Radar

Designed for high-speed traffic monitoring and urban traffic light control. Detects violations (e.g., illegal parking, speeding) within 350 meters, tracks vehicle trajectories in real time, and provides speed data. Enables instant traffic insights to identify congestion and anomalies.



Features

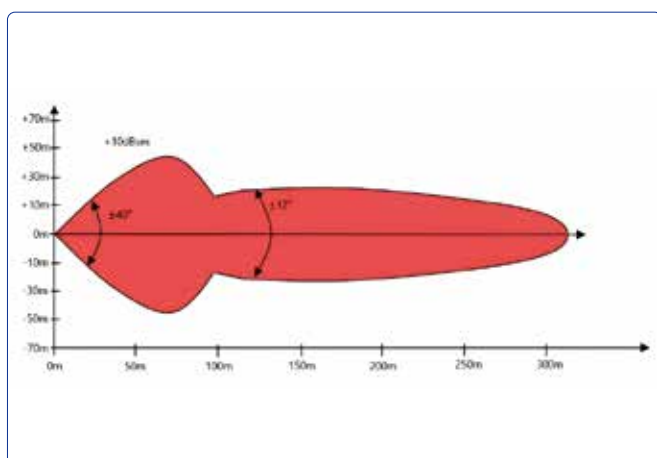
- **Multi-lane coverage:** Supports 8 lanes
- **Multi-target tracking:** Up to 200 targets
- **Long-range detection:** 350m maximum
- **Wide speed range:** $\pm 337.5\text{km/h}$
- **Rich interfaces:** RJ45, RS485, CAN
- **All-weather operation:** Unaffected by light, dust, rain, or haze



Technical Specifications

Measurement Performance		General Targets (No reflection)
Modulation		FMCW
Range		350m
Range Resolution	Point Target, Non-Tracking	1.4m
Range Accuracy	Point Target, Non-Tracking	$\pm 0.2\text{m}$
Angular Accuracy	Point Target, Non-Tracking	$\pm 0.5^\circ @ 0^\circ$
Angular Resolution	Point Target, Non-Tracking	$2.0^\circ @ 0^\circ$
Speed Range		$\pm 337.5\text{km/h}$
Speed Resolution	Point Target, Non-Tracking	0.2km/h
Speed Accuracy	Point Target, Non-Tracking	$\pm 0.05\text{km/h}$
Lanes Detected		8
Targets Tracked		200
Update Rate		10Hz
Antenna Channels		4TX/4RX(16 channels)
Operational Conditions		
Radar Emission Frequency	Compliance with ETST & FCC	79...81GHz
Transmission	Average/peak EIRP	33dBm
Voltage	Typical 12V	9-36V
Power Consumption		$< 4.6\text{W} @ 12\text{V}$
Working Temp		$-40^\circ\text{C} \sim 85^\circ\text{C}$, 0 ~ 95 % RH (non-condensing)
Storage Temp		$-40^\circ\text{C} \sim 105^\circ\text{C}$, 0 ~ 95 % RH (non-condensing)
Dimensions		99mm*79mm
Interface		
Communication		RJ45/RS485/CAN

Detection Area (FOV)



Application



Urban intersections



Urban sections



Highway traffic



Vehicle-infrastructure collaboration