

# KX-F2501R3

## 24 GHz Speed Detector



- Fast response ensures high capture rate and real-time signal processing.
- Advanced radar signal processing and real-time data processing technologies.
- Adopts new algorithm for enhanced location stability and prolonged operation sustainability.
- Ideal for flexible and extensive applications.
- Low microwave radiation and power consumption, long service life, and high stability and reliability

Technical Specification	
Basic	
Antenna	Microstrip planar array antenna
Modulation	Continuous wave (CW) modulation
Frequency	(24.150±0.045) GHz
Transmit Power	20 dBm
Antenna 3dB Beamwidth	6°(H) × 6°(V)
AD Sampling Frequency	37 KHz
Communication	RS-232
Cable	Red: 12V+ DC Black: 12V- DC Yellow: RS-232 RXD Green: RS-232 TXD Brown: RS-232 GND
Performance	
Distance Accuracy	±0.5 m (1.64 ft)
Lane Coverage	1 lane
Object Data	Vehicle speed (instantaneous)
Capture Rate	≥95%
Indoor Speed Simulation Error	-4 km/h to 0 km/h
Speed Error during Road Test	Error when vehicle speed <100 km/h: -4 km/h to 0 km/h Error when vehicle speed ≥100 km/h: -4% to 0%
Speed Detection Range	10 km/h-250 km/h
Capture Distance	18 m-38 m (59.06 ft-124.67 ft) when the radar is installed at around 6 m (19.69 ft) high
General	
Power Input	12V DC, with over-voltage, over-current, and reverse connection protection for safe and stable power input
Interface Protection	Output interfaces are designed with over-current and over-voltage protection
Operating Environment	Operating temperature: -40°C to +80°C (-40°F to +176°F) Operating humidity: 10%RH-90%RH
Dimensions	Radar: 209.9 mm × 210.0 mm × 35.0 mm (8.27" × 8.27" × 1.38") Bracket: 163.4 mm × 100.0 mm × 155.0 mm (6.43" × 3.94" × 6.10")
Weight	1 kg (2.2 lb) (bracket excluded)
Accessory	Bracket
Installation	Pole-mounted

### Installation

**Dimensions (mm[inch])**