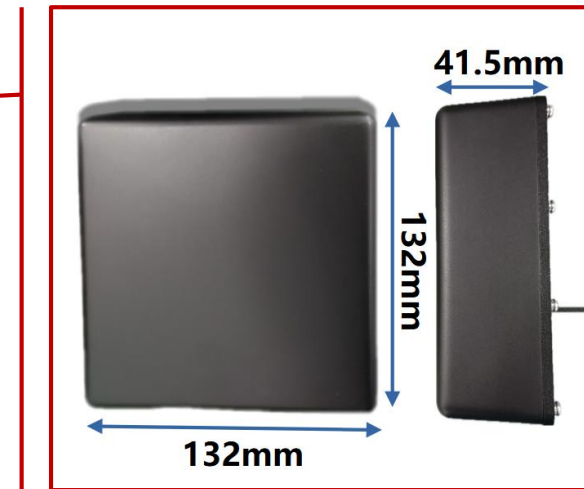
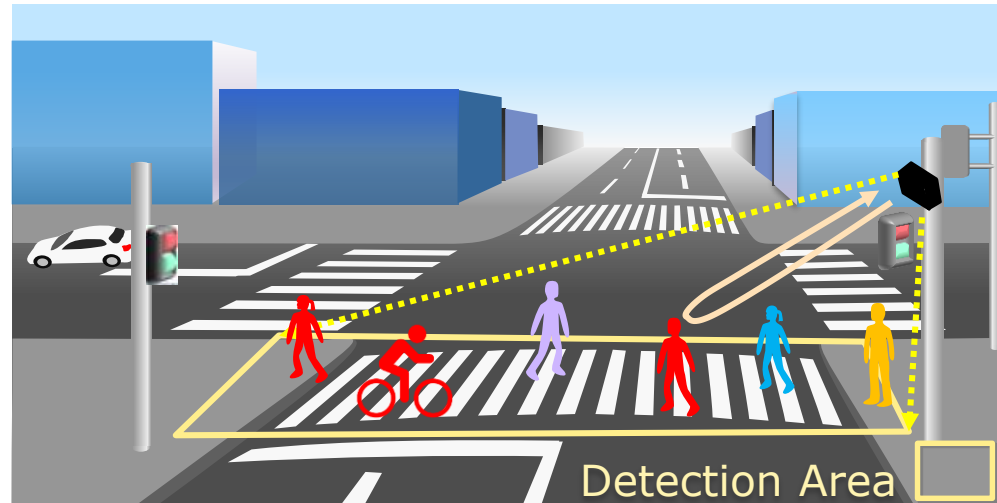




# Millimeter-wave Radar for Pedestrian Detection

Systems & Electronics Division  
Sumitomo Electric Industries, Ltd.  
Date: October, 2023

# SEI's Radar for Detecting Pedestrians



## ◎ Large coverage range

Able to cover most of the crosswalks [60 x 30m]

## ◎ Continuous tracking

Track continuously even target is blocked by vehicle

## ◎ Multiple

Interference countermeasures allow multiple devices at one intersection

## ◎ Near side detection

A reflector makes near side detection could be performed from the nearest 1.5m

## ◎ Stopping targets

Able to detect the stopping targets

## ◎ Inexpensive

Less cost for installation and maintenance

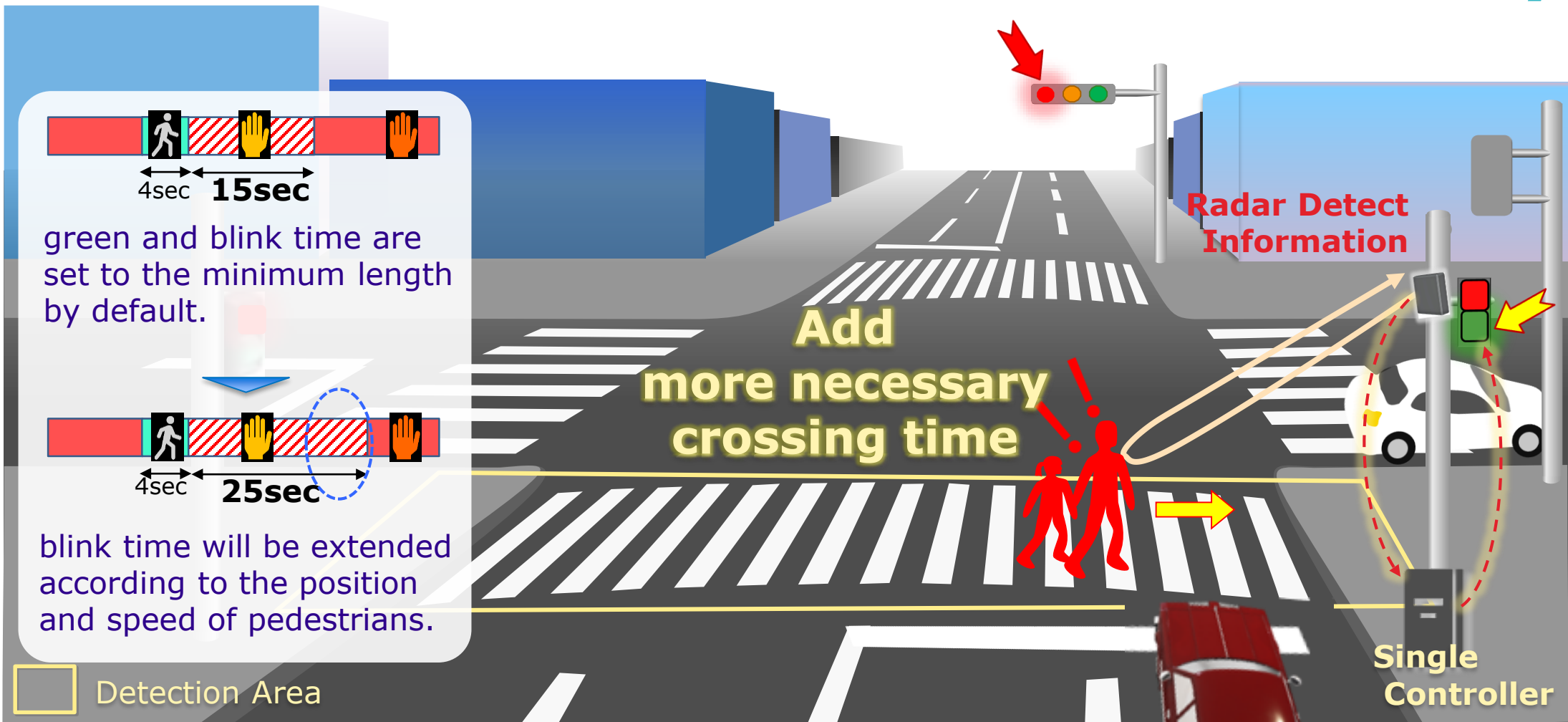
# Why choose SEI's Radar

Item	Camera	Infrared Camera	Lidar	SEI's Radar
Cost	✓			✓
Coverage range			✓	✓
All lighting conditions		✓	✓	✓
All-weather				✓
Setting	✓			✓
Maintenance				✓

Note: The comparison is based on pedestrian detector at intersections, also taking into account both cost-effectiveness and performance.

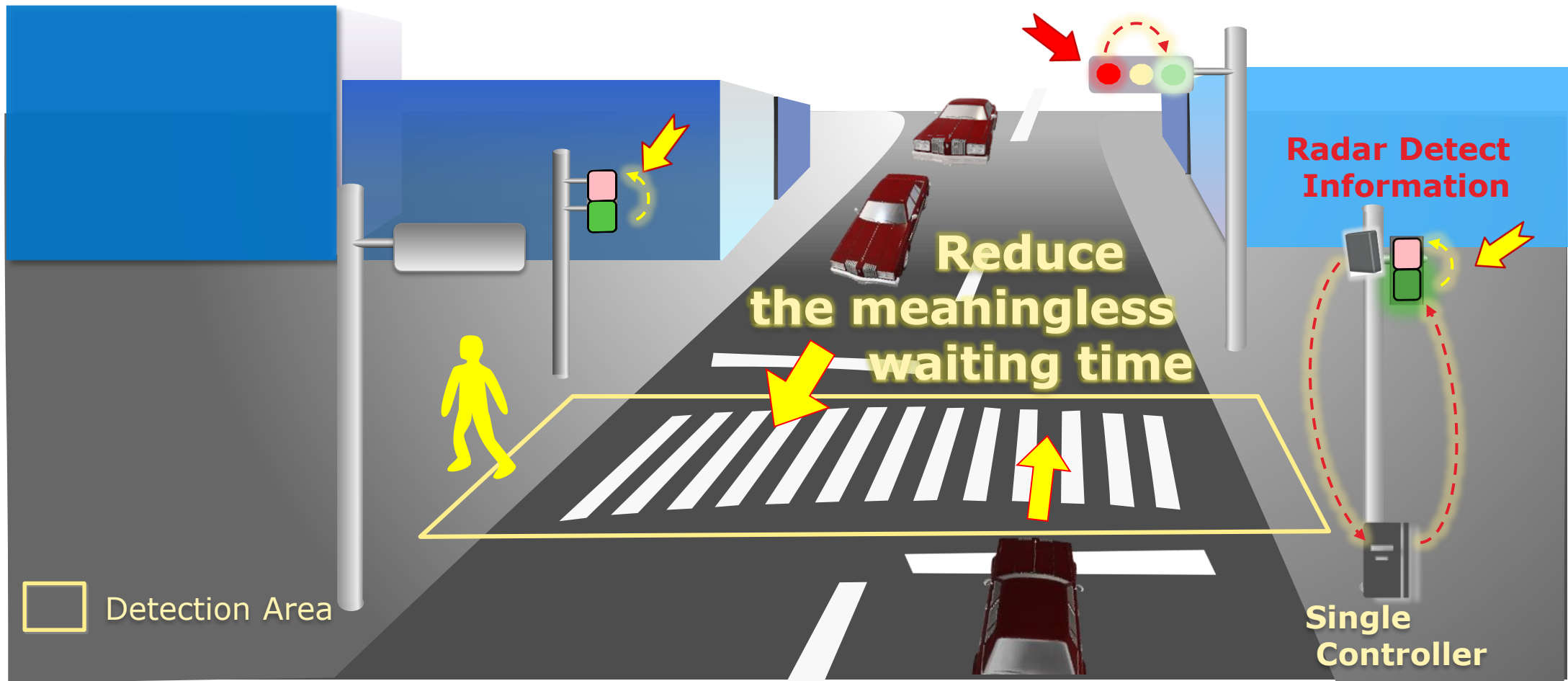
# Use Case for traffic signal control

## ➤ Cross the road more safely



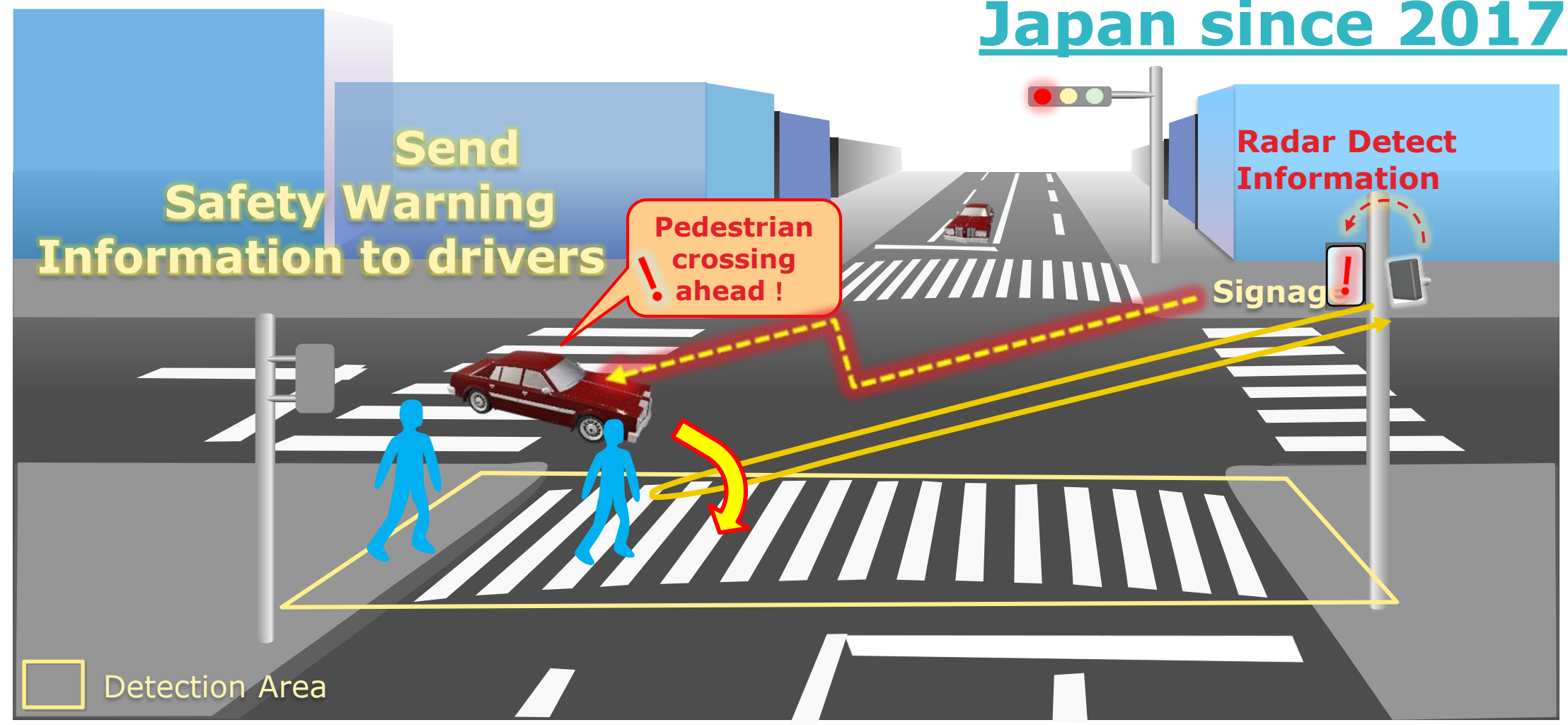
# Use Case for traffic signal control

## ➤ Make traffic smoother



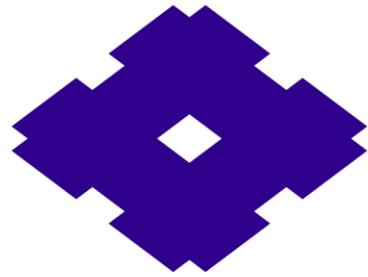
# Use Case for V2X

## ➤ Operating for warning drivers in Japan since 2017



# Specifications

Item	General	Remarks
External Dimensions	Less than 132 × 132 × 41.5 mm	[5.2×5.2×1.8in] Excluding mounting bracket
Weights	Less than 1kg	[2.2lb] Excluding mounting bracket
Installation	Height 3 to 5 m	[9.8 to 16.4 ft]
Radar Frequency	61.0-61.5GHz	ISM Band, FCC compliance
Max. Detection Area (Length / Width)	60m × 30 m (Detect from the nearest 1.5m)	[197 × 98 ft] From under the radar
Output Data	position, velocity, direction /interval 100ms	Classification : Pedestrian/bicycle
Interface	Ethernet	
Installation Adjustment	Easy set-up with tool	SEI Original Tool



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