Milesight Intelligent Traffic Cameras

Installation Guide

Road Traffic Management

Thank you for purchasing Milesight products. We highly recommend following the instructions for installation and positioning of this product. Proper installation is crucial for optimal recognition performance. We appreciate your cooperation and assistance!

Installation Compliance Statement

To ensure the product performs as intended, all installation steps — including mounting position, alignment angle, height, and environmental considerations — must be strictly followed according to the guidelines provided in this manual.

Improper installation or deviation from the specified parameters may lead to reduced detection accuracy, unstable system behavior, or even failure to function under certain conditions. Such issues may not be covered under warranty or after-sales support.

It is the installer's responsibility to verify that the mounting environment complies with the required conditions. The manufacturer shall not be held liable for any malfunctions, inaccuracies, or damages resulting from installation that does not conform to the specified standards.

For assistance or clarification during the installation process, please contact our technical support team.

Camera Introduction

Camera Series: Intelligent Traffic - Road Traffic Management

Model:

TS4466-X4RVPE

TS8266-X4VPE

Website:

https://www.milesight.com/security/product/ai-road-traffic-radar-pro-bullet-plus-camera

Attached Diagram:

Camera Series: Intelligent Traffic - Road Traffic Management
Model:
TS4466-X4RPE
TS8266-X4PE
Website:
https://www.milesight.com/security/product/ai-road-traffic-pro-bullet-plus-camera
Attached Diagram:

Camera Series: Intelligent Traffic - Road Traffic Management
Model:
TS4466-X4RWE
TS8266-X4WE
Website:
https://www.milesight.com/security/product/ai-road-traffic-supplement-light-pro-bullet-plus-camera
Attached Diagram:

Camera Series: Intelligent Traffic - Road Traffic Management
Model:TS2961-X12TPE
Website:
https://www.milesight.com/security/product/ai-road-traffic-ptz-bullet-camera
Attached Diagram:

Camera Series: Intelligent Traffic - Road Traffic Management
Model: TS2967-X12TPE/TS2967-X23TPE/TS4467-X20RPE
Website:
https://www.milesight.com/security/product/ai-road-traffic-ptz-bullet-plus-camera
Attached Diagram:

Camera Series: Intelligent Traffic - Road Traffic Management
Model: TS4441-X36RPE
Website:
https://www.milesight.com/security/product/ai-road-traffic-speed-dome-camera
Attached Diagram:

Minimum Image Requirements for License Plate Recognition

To ensure consistent and reliable license plate recognition performance, all deployed devices must meet the following minimum image quality standards:

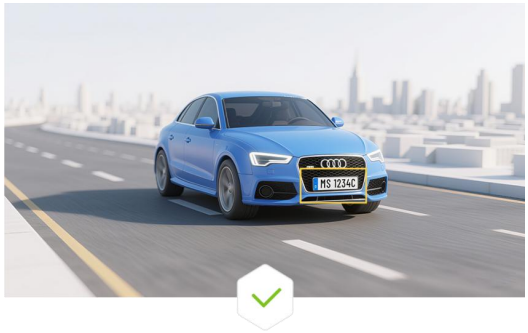
1. Plate Height Range

The license plate characters should appear with a height between **32 and 45 pixels** in the captured image. This range ensures reliable character recognition, with optimal performance typically achieved when character height falls within this range.

2. Plate Focus and Clarity

The license plate area must be in sharp focus, with all alphanumeric characters clearly visible and legible.

Images must be free from motion blur, glare, reflections, or severe over-/underexposure.



3. Plate Alignment

License plates should be horizontally aligned within the image, with minimal tilt (within ±5°). Plates that are significantly skewed may not be reliably recognized.

4. Frame Positioning

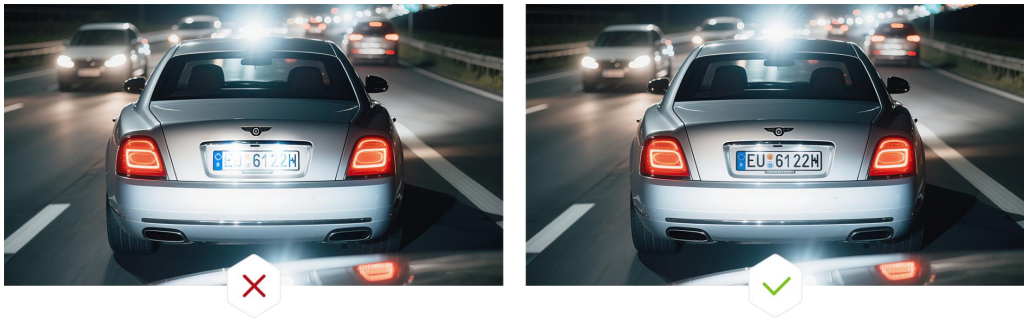
The license plate must remain within the designated recognition area throughout the monitoring process.

Plates should not be cut off, blocked, or positioned at the extreme edges of the frame.

5. Environmental Considerations

Avoid excessive exposure of bright sky regions or vehicle headlights, which may affect image contrast and recognition accuracy, especially under low-light conditions.

Ensure the license plate area is evenly illuminated under both daytime and nighttime conditions.



Note:

All field deployments must comply with the above specifications to maintain recognition accuracy and consistency across installations.

Recommended Installation

Figure 1-1 Installation Scenario

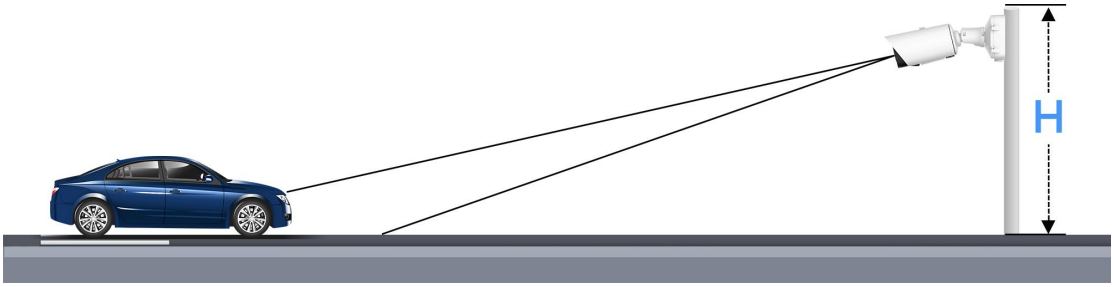


Figure 2-1 Installation Height

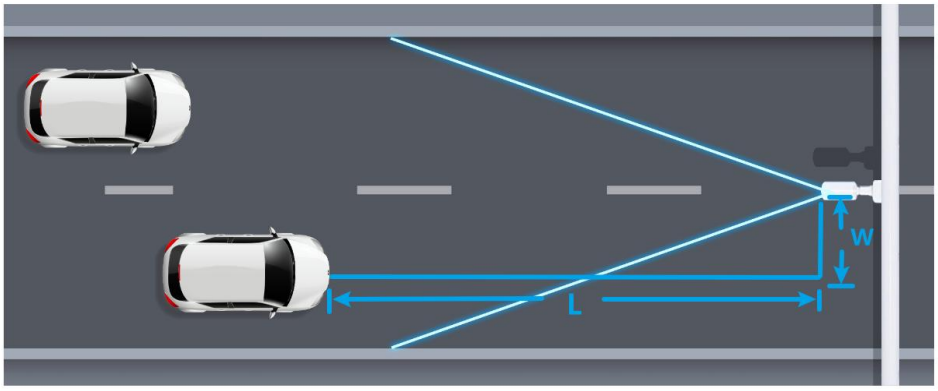


Figure 2-2 Installation Width & Length

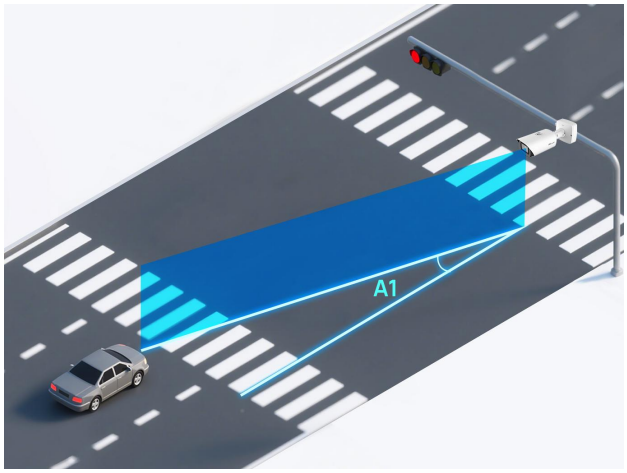


Figure 2-3 Installation Horizontal Tilt Angle

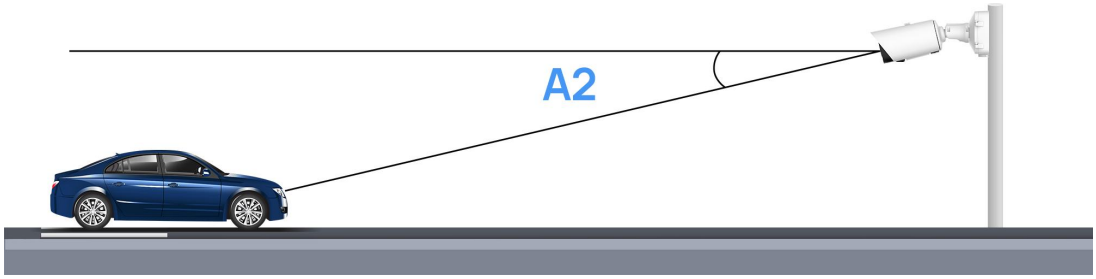


Figure 2-4 Installation Vertical Pitch Angle

Model:
TS4466-X4RVPE
TS8266-X4VPE
Attached Diagram:

	Height	Width	Length	A1 Horizontal Tilt Angle	A2 Vertical Pitch Angle	Radar Vertical Pitch Angle
Recommended	3~6m (9.8~ 19.7 ft.)	12m (39.4 ft.)	40~60m (131.2~ 196.9 ft.)	0°	10° ~20°	3°

Model:
TS4466-X4RPE
TS8266-X4PE
Attached Diagram:

	Height	Width	Length	A1 Horizontal Tilt Angle	A2 Vertical Pitch Angle
Recommended	3~6m (9.8 ~ 19.7 ft.)	0m	20m (65.6 ft.)	0°	10°~20°

Model:
TS4466-X4RWE
TS8266-X4WE
Attached Diagram:

	Height	Width	Length	A1 Horizontal Tilt Angle	A2 Vertical Pitch Angle
Recommended	3~6m (9.8 ~ 19.7 ft.)	0m	20m (65.6 ft.)	0°	10°~20°

Model:TS2961-X12TPE
Attached Diagram:

	Height	Width	Length	A1 Horizontal Tilt Angle	A2 Vertical Pitch Angle
Recommended	3~6m (9.8 ~ 19.7 ft.)	0m	20m (65.6 ft.)	0°	10°

Model: TS2967-X12TPE/TS2967-X23TPE/TS4467-X20RPE
Attached Diagram:

	Height	Width	Length	A1 Horizontal Tilt Angle	A2 Vertical Pitch Angle
Recommended	3~6m (9.8 ~ 19.7 ft.)	0m	20m (65.6 ft.)	0°	10°

Model: TS4441-X36RPE
Attached Diagram:

	Height	Width	Length	A1 Horizontal Tilt Angle	A2 Vertical Pitch Angle
Recommended	3~6m (9.8 ~ 19.7 ft.)	0m	20m (65.6 ft.)	0°	10°