



**i-PRO**  
**X5 Series**

# Vehicle Capture Camera X5 series : WV-X5550LT

**Ver. 1.00**

Panasonic i-PRO Sensing Solutions Co., Ltd.



Enables law enforcement agencies to shorten investigation time, by quickly searching a target suspect vehicle with the capturing occupant image and license plate simultaneously in 24/7.



# New solution with i-PRO Vehicle Capture Camera

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## Current process

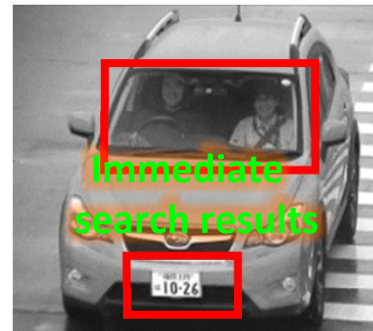
Searching a target suspect vehicle with the capturing license plate.



Spend a lots of times to identifying the suspect or vehicle ...

## New solution with i-PRO vehicle capture camera

Occupant image and license plate simultaneously in 24/7.



5 min.\*

\*Estimated by simulation

## Concept & Main Features

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New i-PRO vehicle capture camera X5 series enables to capture clear occupant image and license plate that cannot be captured by ordinary cameras, such as windshields obscured by reflected light or back-lit from headlights.

**“Dual source”  
capturing function**

**Capturing clear image**

**High reliability**

**Usability**

- Simultaneously capturing
- Utilized the switchable optical filters  
Polarized Filter/Band-Pass Filter
- Powerful IR illuminator
- Wide operating environment
- Easy installation
- Easy setting



# “Dual source” capturing function

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## ■ Simultaneously capturing

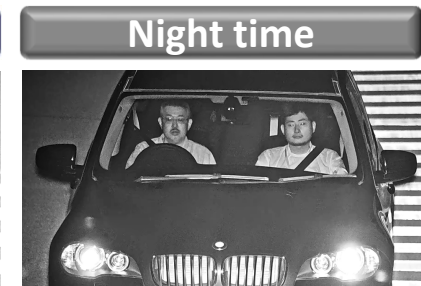
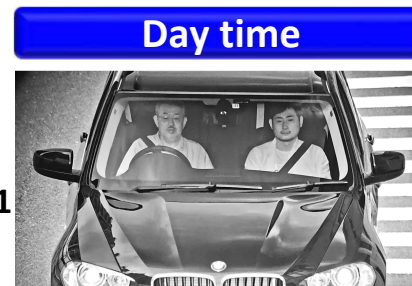
Enables to capture clear occupant and license plate images in 2 sources simultaneously by controlling of IR light power and shutter speed in 24/7.

Illuminates IR to identify occupant as source1 at max. 15 fps with 1/1000 shutter speed.



Optimize IR to suppress reflection to identify license plate as source2 at max. 15 fps with 1/4000 shutter speed.

source1



source2



Capture clear image even if it is reflective type of license plate

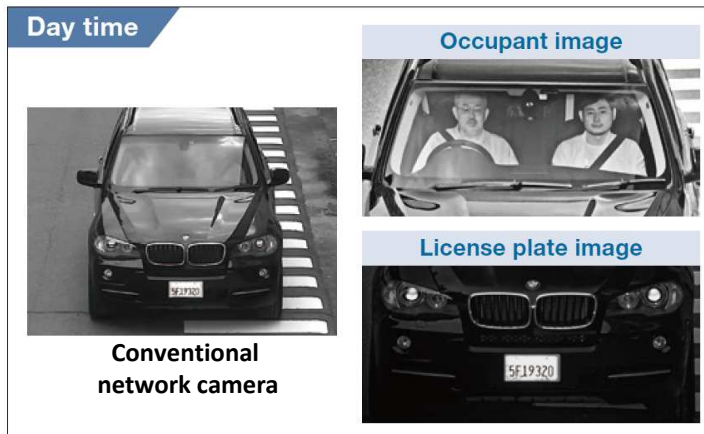
# Capturing clear image

## Utilized the switchable optical filters

By switching automatically between two types of optical filters (Polarized Filter / Band-Pass Filter ), occupants and license plate can be captured in 24 / 7.

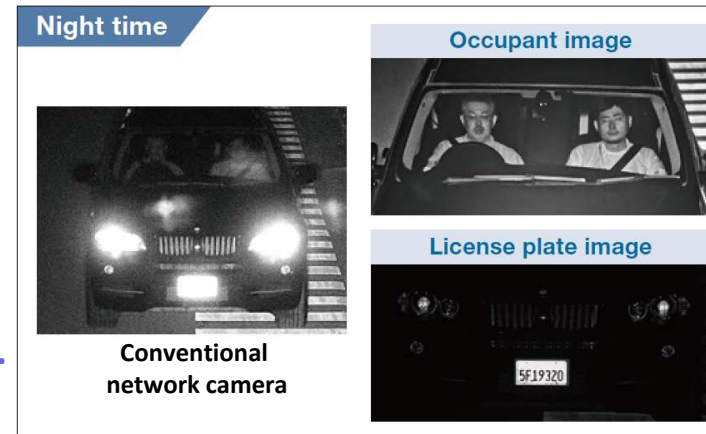
### Polarized Filter (PLF)

To cut through reflections to capture occupant even with curved windshield at day time.



### Band-Pass Filter (BPF)

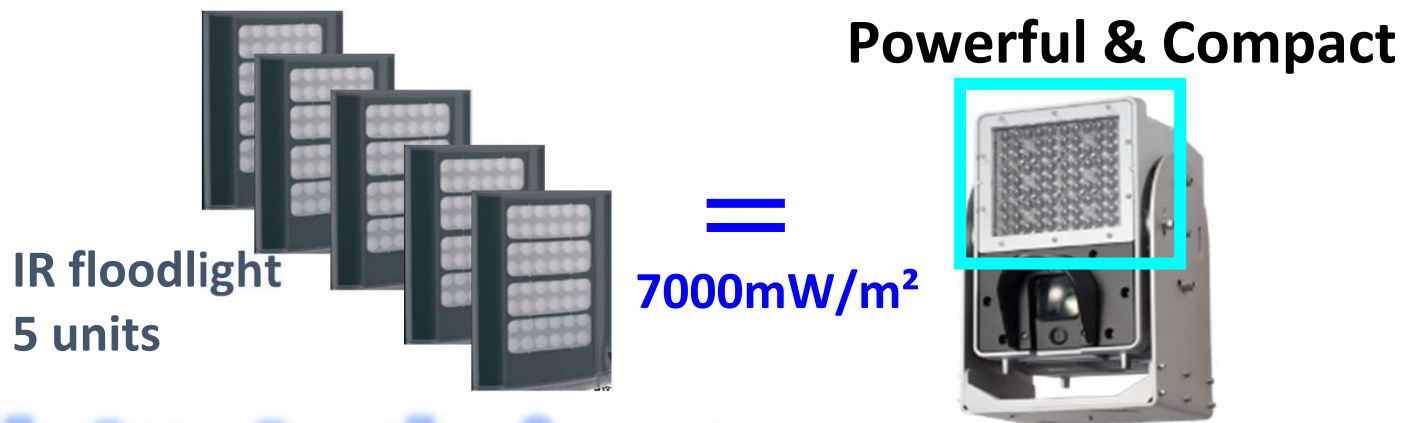
Even in intense headlights, the flare is suppressed and occupant can be captured clearly even night time.



Switch between PLF and BPF automatically.

## ■ Powerful IR illuminator

Despite being a high power IR floodlight with 78 LED light arrays, it complies with eye safety standards and captures occupants 24/7.



Enables to capture clear images

even in vehicles 82ft.(25m) away from the camera.

# Capturing clear image – At day time

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## Conventional Network Camera



## WV-X5550LT



**Source 1**



**Source 2**



# Capturing clear image – At night time

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## Conventional Network Camera



## WV-X5550LT



Source 1



Source 2

## ■ Wide operating environment

Achieve high endurance and long life usage under wide operating environment.

### Temperature protection

Temperature : -40°C to +60°C {-40°F to +140°F}

Humidity : 10 % to 100 %



### Water resistant – IP66 (IEC 60529) Type 4X(UL50E),NEMA 4X



**IP66**  
standard

### Vandal resistant – IK10 (IEC 62262)

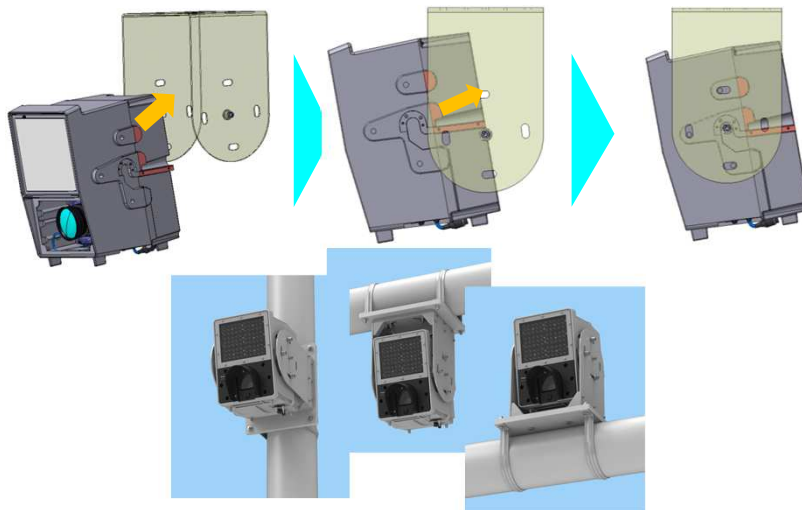
[Except for front panels]



## ■ Easy installation

Installation time can be reduced by easy hanging  
and easy Pan/Tilt adjustment structure by bracket.

### Easy hanging structure



### Easy Pan/Tilt adjustment structure



## ■ Easy setting

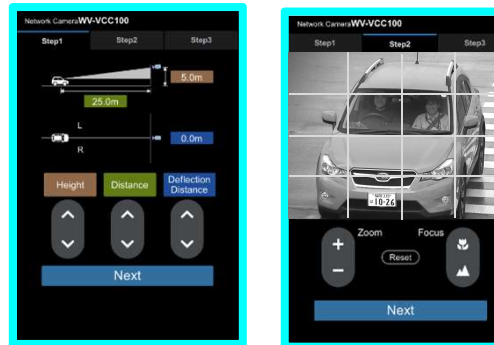
Installation time can be reduced by confirming live image and adjusting the viewing angle with smartphone or tablet device via Wi-Fi connection.



Insert USB Wi-Fi device to the USB terminal on camera

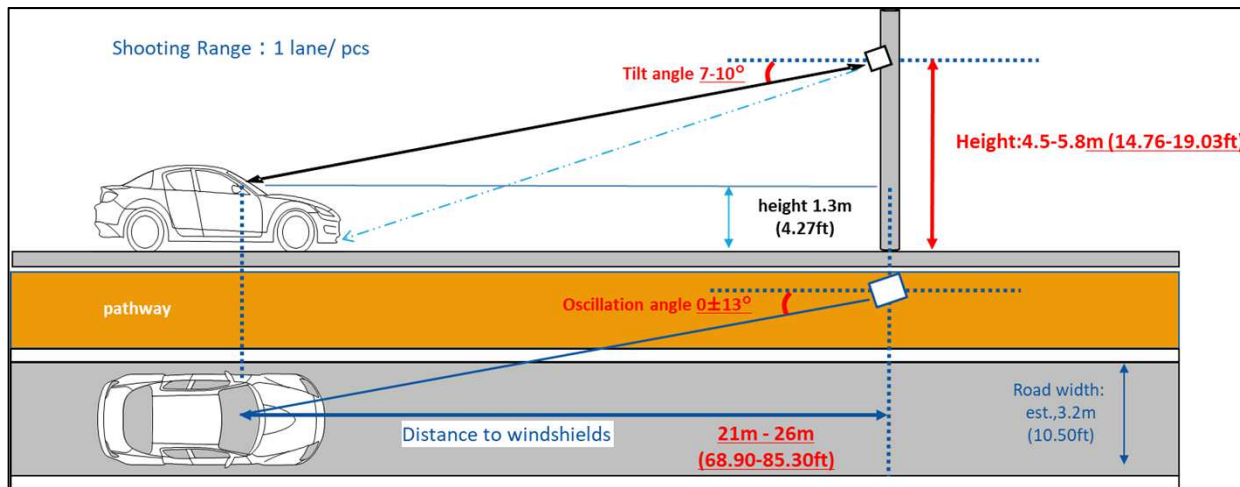
## Auto adjustment

ZOOM & FOCUS position and PLF rotation angle are set automatically by input horizontal & vertical distance between vehicle and camera.



## ■ Recommendation installation conditions

Install the camera at 4.5-5.8m height (14.76-19.03ft) with tilt angle 7-10 degree.












**[Note]**

- Lane width : USA:3.66m(144.1inch), Germany/France:3.75m(147.6inch), Japan:3.5m(137.8inch)
- Minimum height of gantry : 4.80m(15.75feet) {Europe4.5m(14.76feet), US 4.9m(16.08feet), UK5.35m(17.55feet), Japan 4.6m(15.09feet)}  
based on survey = allowed Maximum height of vehicle{4.30m(14.11feet)}+ vertical movement{0.2m(0.66feet)}+ margin{0.3m(0.98feet)}

# Usage conditions that affect image quality

Under the following restrictions, sufficient performance cannot be obtained.

Restriction	Image example	Restriction	Image example
In the case of entering sunlight or reflection from vehicles hoods to the camera directly.		In heavy snow or rain.	
In the case of windshield angle is more than 50 degrees. (bus, truck, etc.)		Over specification of capturing vehicle speed (120km/h/15fps mode or 160km/h/30fps mode)	
In the case of windshield with a <b>special film</b> * as below. - cut more than 85% of 855nm NIR or - reflect IR or - Polarized film		Water drops or stains on the glass surface of the camera.	
Out of recommended installation condition. (horizontal distance, vertical distance, height)		Difficult to see characters, due to license condition. (painted too reflective material or dirty on or one of character is not printed by reflective material etc.)	
		Coexistence area of reflective and non-reflective plates (In some cases, you can shoot the reflective type with Source2 and the non-reflective type with Source1)	

# Specifications

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		<b>WV-X5550LT</b>
Image sensor		2/3 type CMOS
Max. video resolution (pixel)		2560 x 1920
Max. frame rate		30 fps (Dual sources: Max.15 fps. Single source:Max.30 fps)
Minimum Illumination	B/W	0 lx @ IR
Angular Field of View *4 : 3 mode	Horizontal	5.5° (Tele) – 9.2° (Wide)
	Vertical	4.4° (Tele) – 7.3° (Wide)
Adjusting Angle		<b>Horizontal (PAN) angle: <math>\pm 17^\circ</math> (can be adjusted with the installation angle of the TILT bracket), Vertical (TILT) angle: <math>\pm 10^\circ</math></b>
Intelligent Auto / WDR / Smart coding		<b>intelligent Auto / Multi-sampling Dynamic Range (120dB)</b>
IR LED /Max.irradiation distance		Yes / 21 - 26 meters (69 to 86 feet)
ONVIF profile		<b>S</b>
Environmental		IP66, Type 4X(UL50E), NEMA 4X compliant, IK10
Power Source / Power Consumption Ambient Operating Temperature		AC24 V 3.8 A / Approx. 68W, -40° C ~ +60° C (-40° F ~ 140° F, When IR-LED is on) (Power On range : -20° C to +60° C {-4° F to +140° F})
Dimension (mm)		Ceiling mount : 302 mm (W) x 472 mm (H) x 368 mm (L) , {11-7/8 inches (W) x 17-25/32 inches (H) x 14-1/2 inches (L)} Pole mount : 302 mm (W) x 388 mm (H) x 458 mm (L) , {11-7/8 inches (W) x 15-9/32 inches (H) x 18-1/32 inches (L)} Stationary mount : 302 mm (W) x 435 mm (H) x 368 mm (L) , {11-7/8 inches (W) x 17-1/8 inches (H) x 14-1/2 inches (L)}
Weight		Approx. 11.5 kg {25.39 lbs} , With TILT bracket : Approx. 16.0 kg {35.32 lbs}

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