PJ-AUTO
Vehicle Safety Is Our Lifetime Business

PRODUCT CATALOGUE 2024

Asia's leading supplier of blind spot safety solution

AI BSD | CMS | 360° | 1080P Monitor | 1080P CAM

Choose Certified Safety Solution, Choose PJ-AUTO.

15+YR
Automotive Industry Experience

High-Tech
National High-tech Enterprise

IATF 16949
Automotive Industry QMS Certification

RVCS
UN R158

BSIS
UN R151

MOIS
UN R159
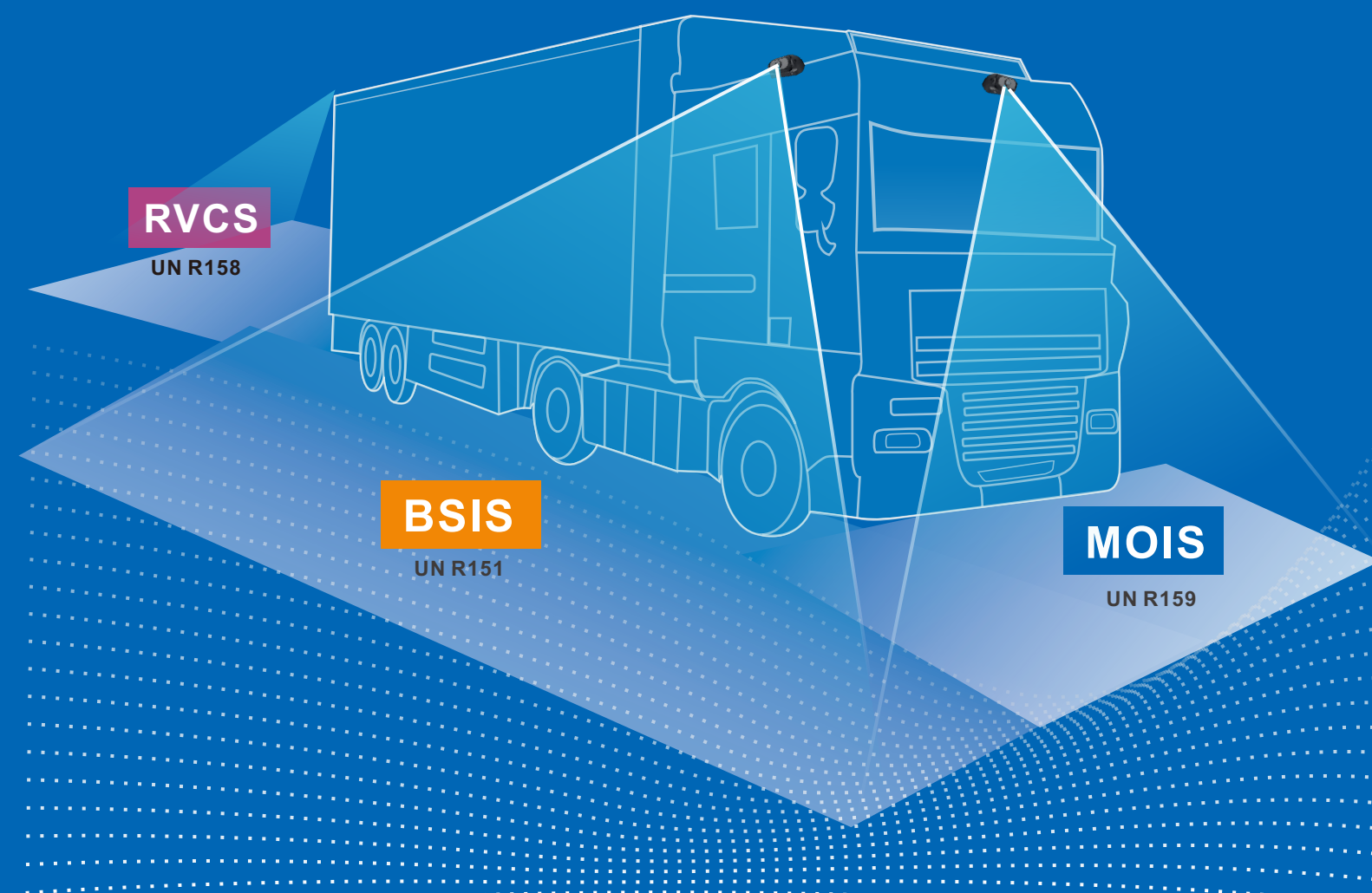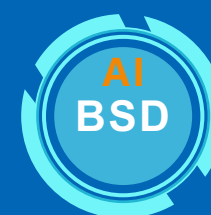
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RoHS FC CE TELEC KC
E-MARK IP69K RED

COMPANY PROFILE

15+YR — Automotive Industry Experience

High-Tech — National High-tech enterprise

IATF 16949 — Automotive QMS Certification

Fortune 500 — Enterprise Partners

60+ Product Patents

40+ International Certificates

150+ Project Experience

100+ Skilled Worker

3000+ m² Plant Area

ABOUT PJ-AUTO

PJ-AUTO is Asia's leading supplier of blind spot safety solution for commercial vehicles and industrial equipments. Founded in 2009, we have organized and trained a professional team with senior engineering and solid management backgrounds, 30% of our staff have a university degree and over 40% have 10+ year automotive electronics industry experience. We are officially awarded as a "National High-Tech Enterprise" and certified with IATF16949:2016 quality management system. "Highest standards of quality and integrity" is the principle we hold in pursuit of our primary goal of "Customer success".

Our Mission

Eliminate blind spot hazards to create a safer road and workplace for the world.

Our Vision

Dedicating to safety field for at least 50 years to have an international brand strongly built, a talent team of industry experts cultivated, and a group of international partners become leaders in their local market.

Core Values

- Stick to the right path
- Embrace innovation
- Strive for continuous improvement
- Adopt a long-term perspective,
- Ensure the fulfillment of our mission.

Business Philosophy

- Always customer first
- Focus on systematic solution
- Adopt international standards
- Be honest and strive for mutual benefits.
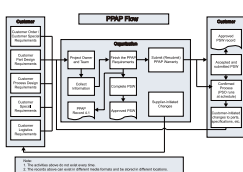
Design& Development Procedure
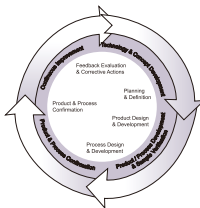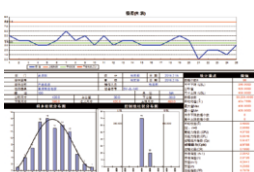

APQP — Advanced Product Quality Planning
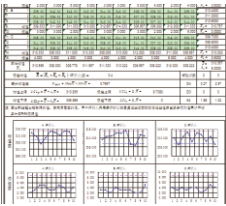
FMEA — Failure Mode and Effect Analysis

PPAP — Production Part Approval Process

SPC — Statistical Process Control

MSA — Measurement systems analysis

Quality Control Flow Chart

Warehouse Entry

Assembly

Semi-finished product testing

IPQC

Finished product assembly

Functional testing

Waterproof/ aging testing

Rework — No

IQC — IQC

NO

Supplier

Raw Material Entry

Finished product warehouse

FQC — FQC

Packaging

QC — LQC

Pre-packaging functional testing

No — Rework

OQC — OQC

Delivery
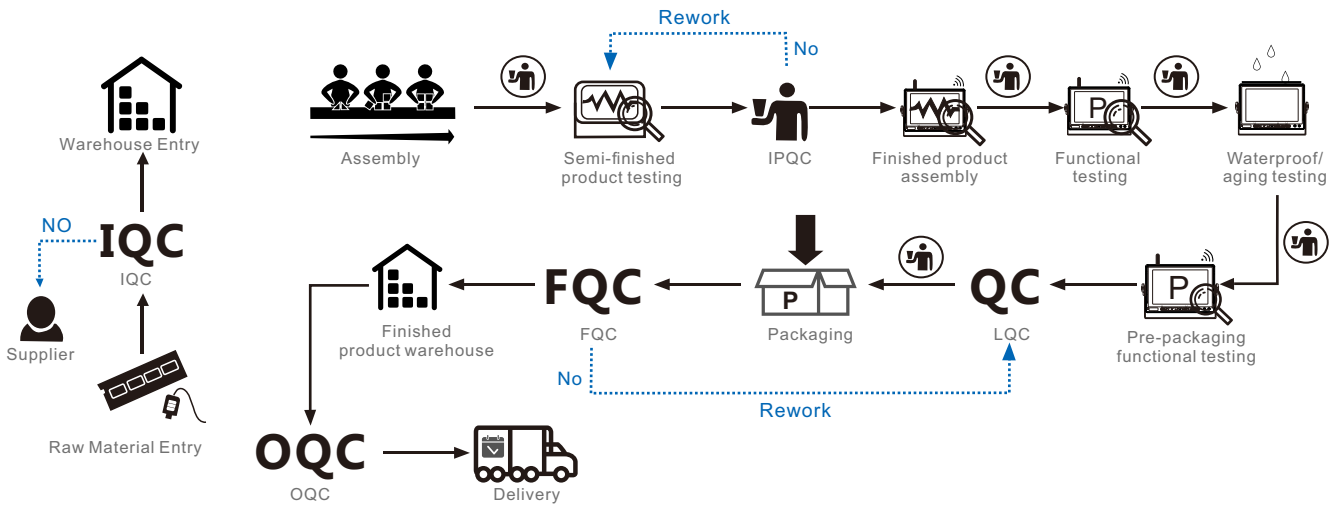
MILESTONES

2023.01 — Innovative Enterprise of Guangdong Province.

2022.01 — "National High-Tech Enterprise" title awarded.

2020.03 — Certified with IATF16949:2016 QMS system.

2018.07 — Set up internal lab for rigorous technical and environmental testing.

2017.04

2009.10 — PJ-AUTO Electronic Technology Limited was founded.

2011.04 — PJ-AUTO made the first debut at Globalsources HK exhibition, bringing OE style replacement rearview mirror monitors to the international market.

2013.10 — Entered the OEM supply chain of Renault in South America.

2016.12 — Obtained ISO9001:2008 certification

ENTERPRISE QUALIFICATION

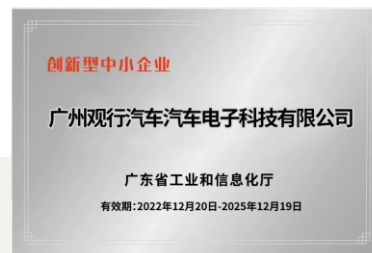## 15+ YEARS MANUFACTURING EXPERIENCE OF VEHICLE CAMERA MONITOR SYSTEMS

LICENSE AND QUALIFICATIONS

Business License

High-Tech Enterprise

Innovative Enterprise

IATF16949:2016

Intellectual Property

Trademark Registration

PRODUCT CERTIFICATES

IP69K   CE   E-MARK   FCC   RoHS   UKCA   RED   TELEC

PATENTS OF INVENTION AND UTILITY

PATENTS OF INDUSTRIAL DESIGN

*The above is only a portion of the certifications and patents. PJAUTO obtains 20+ certifications and 30+ patents every year.

APPLICATION INDUSTRY

Logistics Transportation

Logistics Warehousing

Freight&Haulage

Engineering Construction

Public Transportation

Mining Industry

Agricultural

Leisure Industry

More…

CONTENT

AI BSD System

- 2-6 CH Smart AI Blind Spot Detection
- AI CAMERA FOR MOIS (UN R159)
- AI CAMERA FOR RVCS (UN R158)
- AI CAMERA FOR BSIS (UN R151)
- Custom Algorithm AI Cameras
- Universal AI Camera
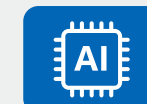
AI Chip	4CH Detection	Audible-Visual Alarm	Adjustable Alarm Zone	Video Recording	Day/night Vision

Technology Features

- Powerful AI sensor & big-data feeded algorithm to assure precise detection rate up to 90%, support future upgrade to improve accuracy.

- Support 4-channel simultaneous detection of pedestrians and/or vehicles.

- Both on-screen voice alert & external flashing alarm alert available.

- Warning zone configurable on menu to adapt specific application

- Customized training support for detection of specific equipments, objects or animals.

- Applicable on forklift, construction vehicle, truck, etc.

Equipped Cameras

PJ-212S (Side) **PJ-201B** (Front/Back)

*other PJ cameras compatible

Flashing Light

PJ-FL01 (Optional) **PJ-FL02** (Optional)

Extendable options: Sensor

PJ-BSR-TRK

PJ-702BSD (7″) (2/4CH) **PJ-700BSD** (7″) (2/4CH)

waterproof

PJ-1010BSD (10.1″) (2/4/6CH) **PJ-1011BSD** (10.1″) (4CH)

waterproof

Product specifications

7"/10.1" BSD Monitor System Key Specs

Solution	AI-2206B	Camera format	AHD 720P/1080P
Computing power	1T-2T	Recording	2/4/6 channel
Detected channels	2/4/6	Compression format	H.264
Detected distance	up to 15-meter	Storage	SD card, up to 128GB
Warning distance	up to 15-meter	Panel	7"/10.1"IPS
External flashing alarm	Optional	Resolution	1024*600
Menu language	Chinese/English/Korean/ Japanese/German/Thai	LCD luminance	500cd/m
Operation method	Push button for 7" \ touch screen for 10.1"	Voltage range	DC12-24V
Video input	2/4/6 channel	Voice language	English/Korean/beeping other language customizable

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Setting Interface **Display interface**

Right view warning area   - : Wider +: Narrower MODE: Change

RIGHT

Before adjustment

Right view warning area   - : Wider +: Narrower MODE: Change

RIGHT

After adjustment

Inside the warning zone

Alarm

Outside the warning zone

No alarm

Detection settings
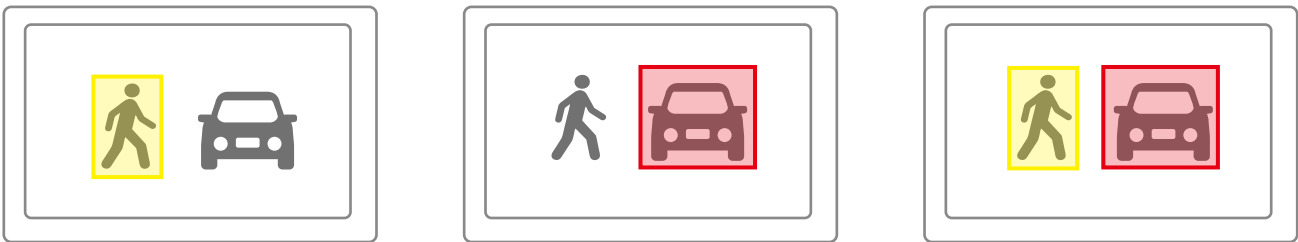
Applicable vehicle type

Forklift Truck Agricultural vehicles Construction vehicle

More…

UNR Regulation Area

RVCS
UNR 158 Regulation Area

BSIS
UNR 151 Regulation Area

MOIS
UNR 159 Regulation Area
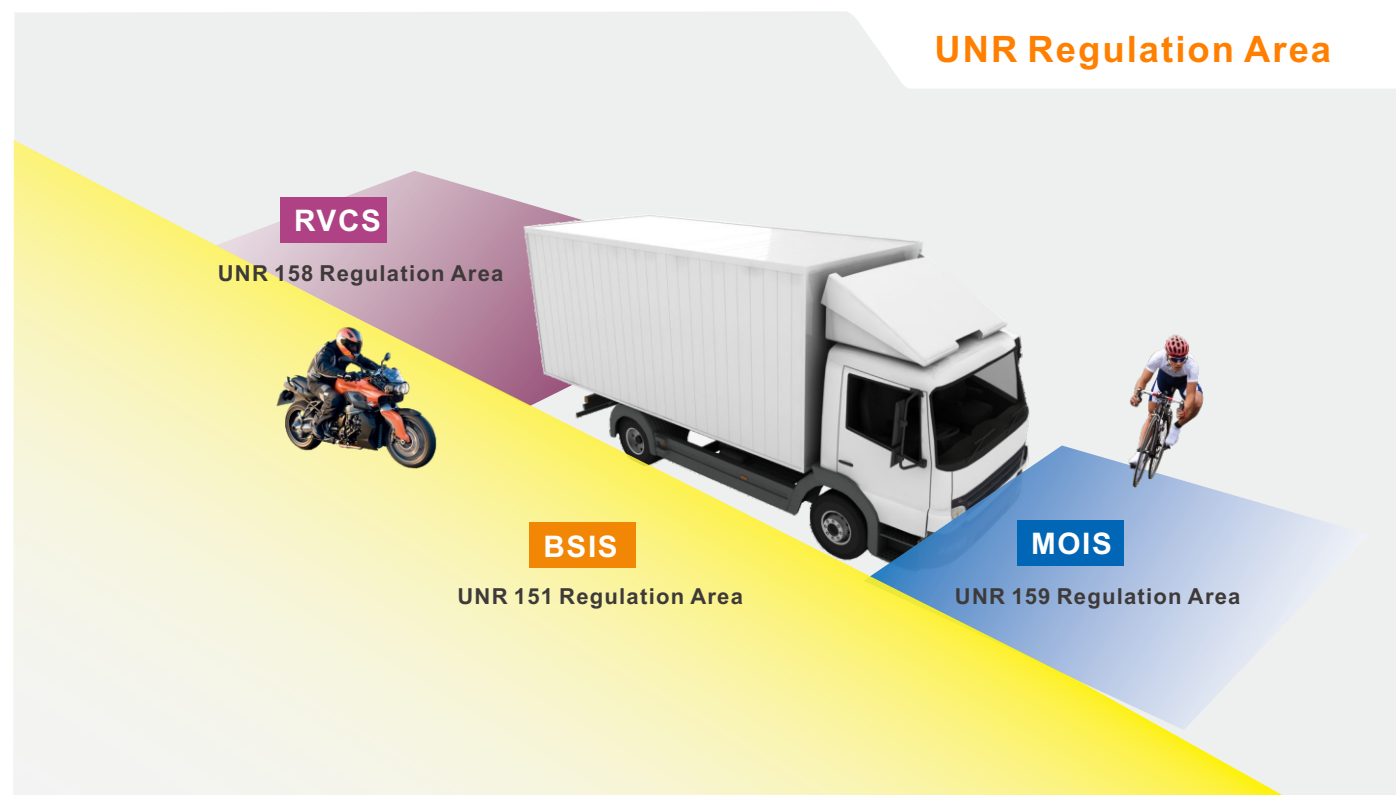
MOIS

MOIS: UN Regulation 159- Moving Off Information System; according to the requirements of the new EU General Safety Regulation (GSR), all newly registered M and N category vehicles from July 2024 must be equipped with systems that comply with EU regulations. The regulation requires active detection cyclist / pedestrians to provide drivers with real-time warning of dangerous situations and visual assistance in blind spots ahead.

RVCS

UN ECE R158 is a regulation to ensure the proper application and effectiveness of retro-reflective markings on heavy and long vehicles. Retro-reflective markings are specialized markings applied to the sides and rear of vehicles to reflect light back to its source, increasing their visibility to other road users.

BSIS

UN Regulation 151 – Blind Spot Information System (BSIS) ; According to the requirements of the new EU General Safety Regulation (GSR), all newly registered M and N category vehicles from July 2024 must be equipped with systems that comply with EU regulations.

The intelligent vehicle blind side warning system (BSIS) mainly monitors the side blind areas of the vehicle. When a pedestrian or object enters the risk collision zone, the system will actively issue an audible and visual alarm.

MOIS

UN R159 Regulation Area

MOIS

To meet the requirements of MOIS (Moving Object Identification System), PJAUTO has introduced a forward-facing AI camera that supports the detection of pedestrians/cyclists entering a 2-meter range in front of the vehicle from any direction.

PJAUTO's forward-facing AI camera utilizes advanced artificial intelligence technology to accurately detect and recognize pedestrians and cyclists in real-time. By employing computer vision algorithms and machine learning techniques, the camera can perform target identification and tracking to provide reliable forward monitoring.

◉PJ-247MS

Product specifications	
Solution	AI-2207
Computing Power	0.5T/1T
Detected Objects	Cyclists, Pedestrians
Recognition Distance	6 Meters
Warning Distance	Up to 6 Meters
Alarm	Beep Sound/Voice (language customizable)
Effective Pixel	1288(H)*968(V)
Video Signal	AHD
Frame Rate	25f/s / 30f/s
Power Supply	DC 12-24V
Visual Angle	160°(H) / 80°(V)
Waterproof Grade	IP68
Working Temperature	- 20℃ - +70　(stable)

AI Camera For RVCS (UNR158)
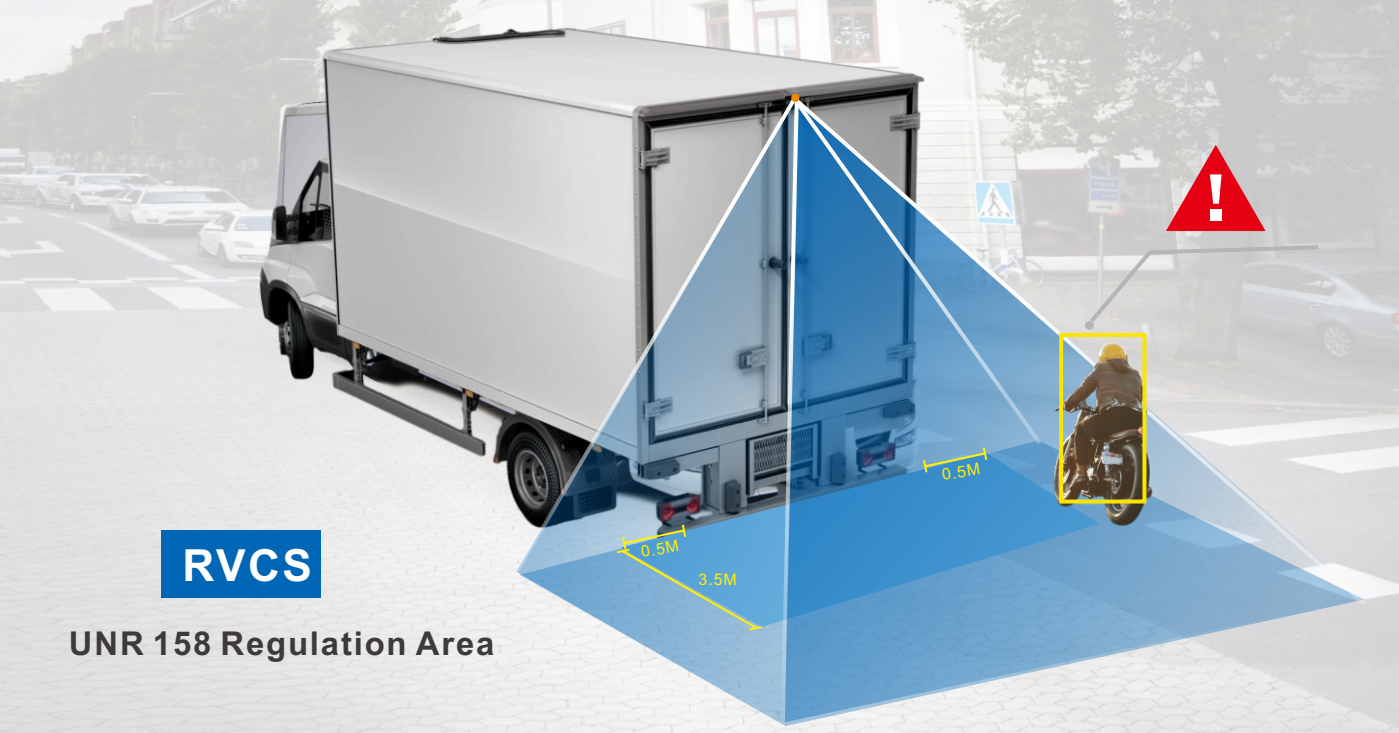
RVCS

UNR 158 Regulation Area

RVCS

The specifically trained AI algorithms in the backup camera is to analyze the camera feed in real-time to detect VRUs such as pedestrians, cyclists, and motorcyclists, and provide visual and audible warnings; when a VRU is detected within 3.5 meters behind the vehicle, the AI-based backup camera can trigger a timely warning system using visual and audible alerts, helping to prevent accidents and collisions with VRUs.

⦿PJ-202RS

Product specifications	
Solution	AI-2207
Computing Power	0.5T/1T
Detected Objects	Cyclists, Pedestrians
Recognition Distance	10 Meters
Warning Setting	3.5 Meters (customizable)
Alarm	Beep Sound/Voice (language customizable)
Effective Pixel	1288(H)*968(V)
Video Signal	AHD
Frame Rate	25f/s / 30f/s
Power Supply	DC 12-24V
Visual Angle	105°(H) / 55°(V)
Waterproof Grade	IP68
Working Temperature	- 20℃ - +70 (stable)

AI Camera For BSIS (UN R151)
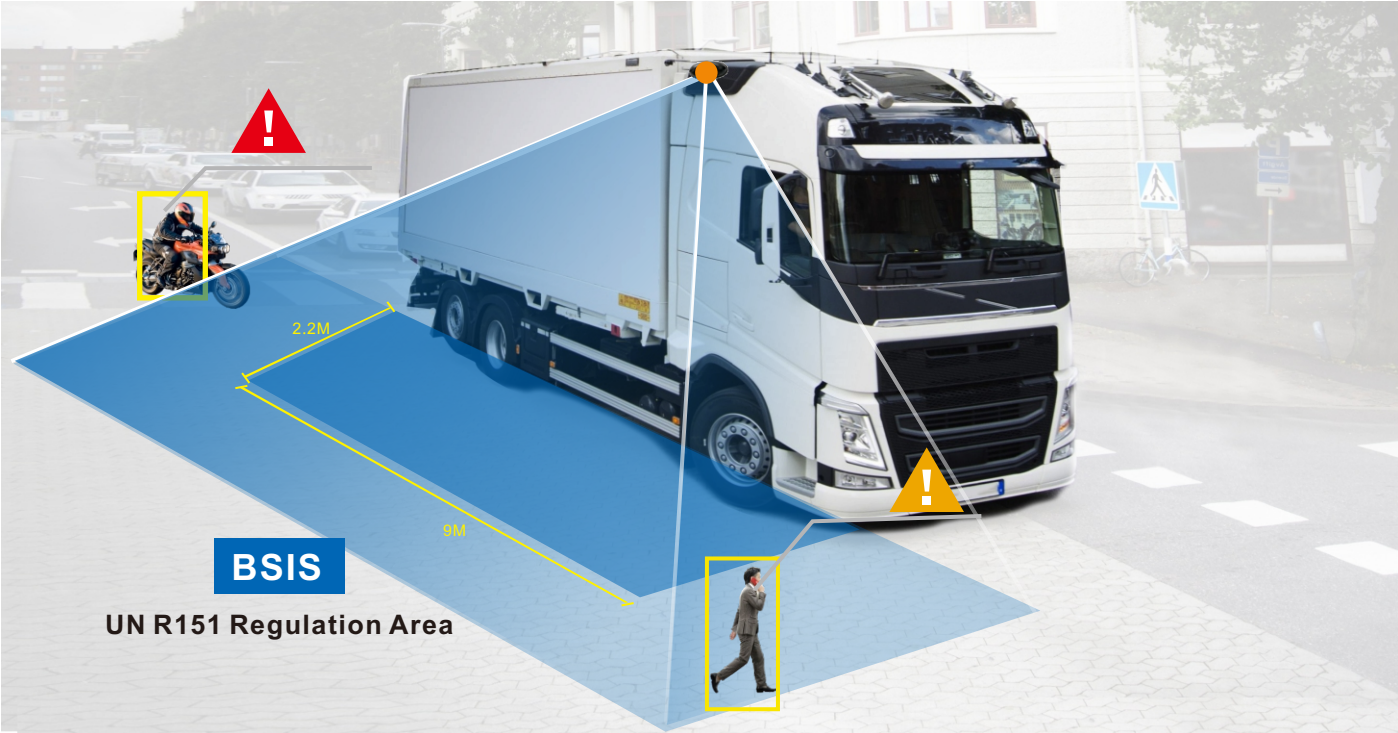
BSIS

UN R151 Regulation Area

BSIS

PJAUTO has configured AI cameras based on the requirements of BSIS (Blind Spot Information System) to detect and recognize pedestrians/cyclists entering a range of 2.2 * 9 meters from any direction adjacent to the vehicle's side.

By utilizing advanced AI technology, the AI cameras deployed by PJAUTO are capable of accurately detecting and identifying pedestrians and cyclists in real-time. These cameras employ computer vision algorithms and machine learning techniques to analyze the captured video footage and distinguish between different objects on the side of the vehicle.

Product specifications	
Solution	AI-2207
Computing Power	0.5T/1T
Detected Objects	Cyclists, Pedestrians
Recognition Distance	11 Meters
Warning Distance	Up to 11 Meters
Alarm	Beep Sound/Voice (language customizable)
Effective Pixel	1288(H)*968(V)
Video Signal	AHD
Frame Rate	25f/s / 30f/s
Power Supply	DC 12V-24V
Visual Angle	160°(H) / 80°(V)
Waterproof Grade	IP68
Working Temperature	- 20℃ - +70 (stable)

AI Backup Camera

◉ **PJ-202AI**

Yellow: Warning zone	Orange: Danger zone	Red : STOP
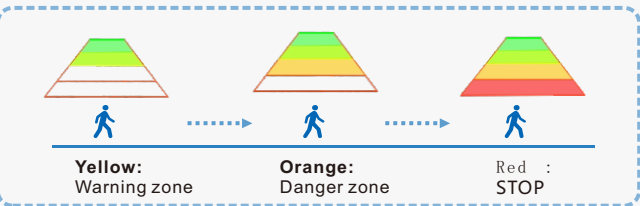
AI Blind Spot Camera

◉ **PJ-223AI**   ◉ **PJ-202AI**
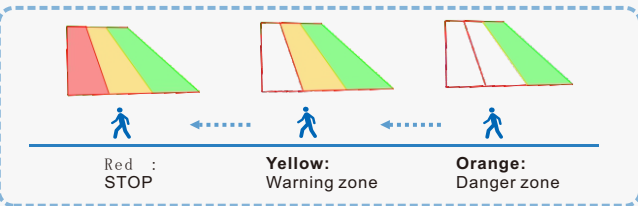
Red : STOP	Yellow: Warning zone	Orange: Danger zone

Product specifications

Solution	AI-2208
Computing Power	0.5T/1T
Detected Objects	Cyclists, Pedestrians, Vehicles
Recognition Distance	11 Meters
Warning Distance	Up to 11 Meters
Alarm	Beep Sound/Voice (language customizable)
Effective Pixel	1288(H)*968(V)
Video Signal	AHD
TV System	PAL/NTSC
Power Supply	12V (24V optional)
Visual Angle	100°-140°
Waterproof Grade	IP68
Working Temperature	- 20℃ - +70 (stable)

Product Characteristics

• Powerful AI sensor & big-data feeded algorithm to assure precise detection rate up to 90%.

• Screen warning: When driving, the human body and the vehicle can be dynamically identified in the output video screen. When the human body or vehicle enters the scale of the screen, the scale of the screen changes from green-yellow-orange-red to provide a warning.

• Sound warning: When driving, when a human body or a vehicle enters the scale range of the screen, and the buzzer emits a warning sound, as a human body or vehicles approach, the sound will change from a slow beep sound to a rapid beep sound (the buzzer has three gears: high volume, low volume, and volume off), support languages customized voice alarms.

Customized Algorithm:

Distance detection   Pets   Roadblocks
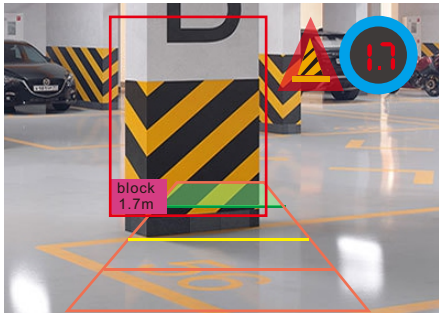
◉ **PJ-223 AI** side
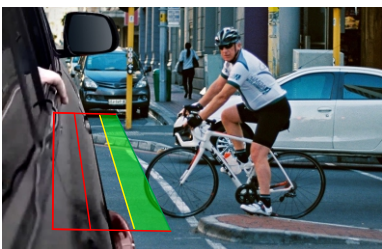
Before adjustment   After adjustment

◉ **PJ-202 AI** back
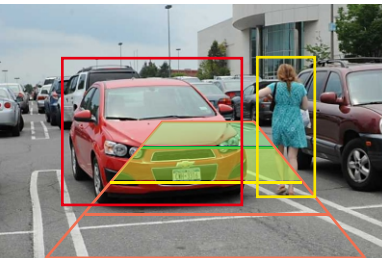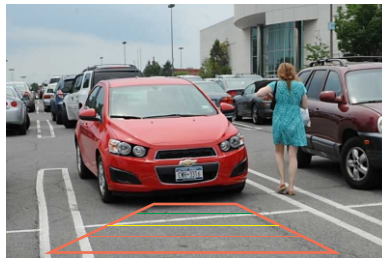
Before adjustment   After adjustment

Product specifications

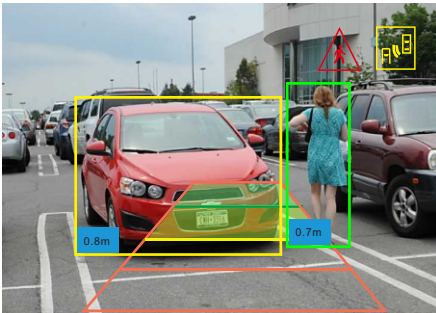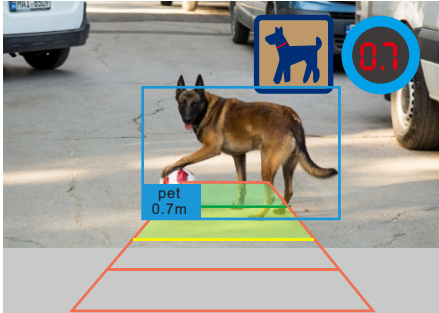| Solution	AI-2209
Computing Power	0.5T/1T
Detected Objects	Cyclists, Pedestrians, Vehicles
Recognition Distance	11 Meters
Warning Distance	Up to 11 Meters
Alarm	Beep Sound/Voice (language customizable)
Effective Pixel	1288(H)*968(V)
Video Signal	AHD
TV System	PAL/NTSC
Power Supply	12V (24V optional)
Visual Angle	100° -140°
Waterproof Grade	IP68
Working Temperature	- 20℃ - +70 (stable)

Product Characteristics

• Powerful AI sensor & big-data feeded algorithm to assure precise detection rate up to 90%.

• Keyboard adjusting: Users can customize the range of the alarm zones according to their needs.
With the included keyboard, easily navigate the menu and customize settings such as alarm zones and mirror selection, etc.

• Screen warning: When driving, the human body and the vehicle can be dynamically identified in the output video screen. When the human body or vehicle enters the scale of the screen, the scale of the screen changes from green-yellow-orange-red to provide a warning.

• Sound warning: When driving, when a human body or a vehicle enters the scale range of the screen, and the buzzer emits a warning sound, as a human body or vehicles approach, the sound will change from a slow beep sound to a rapid beep sound (the buzzer has three gears: high volume, low volume, and volume off), support languages customized voice alarms.

• Applicable on forklifts, construction vehicles, trucks, passenger cars etc.

HD Rear View Monitors

- 1080P AHD Monitors (5" ~ 10.1")
- 1080P DVR Monitors (7"~11.6")
- Split-View 1080P Monitors (w/o rec.)
- VGA/HDMI Monitors

1080P 720P CVBS	TVS	60V 3A	EMC	DC12-36V	IPS
Full Compatibility	Anti-surge	Anti-pulse	Emc Regulation Compliant	Rohs Compliant	IPS Full View

1080P AHD Monitors (5" ~ 10.1")

5"

PJ-500HD
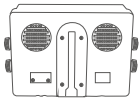
SPECIFICATIONS	
LCD Size/Type	5''IPS
Brightness	500+ cd/m²
Resolution	800RGB(H)*480(V)
Camera input	3-CH
Camera Signal	1080P / 720P/CVBS mixed connection
Audio	Optional
Display mode	Full view image
Auto brightness control	N/A
Power Supply	12-32V
Stable Working temp	-20°C-70°C
Connector	4PIN Aviation
Bracket	U shape (multiple optional)

7"

PJ-702HD

SPECIFICATIONS	
LCD Size/Type	7''IPS
Brightness	500+ cd/m²
Resolution	1024RGB(H)*600(V)
Camera input	3-CH
Camera Signal	1080P / 720P/CVBS mixed connection
Audio	Optional
Display mode	Full view image
Auto brightness control	✔
Power Supply	12-32V
Stable Working temp	-20°C-70°C
Connector	4PIN Aviation
Bracket	U shape (multiple optional)

7" Touch Button

PJ-714HD

SPECIFICATIONS	
LCD Size/Type	7''IPS
Brightness	500+cd/m²
Resolution	1024RGB(H)*600(V)
Camera input	3-CH
Camera Signal	1080P / 720P/CVBS mixed connection
Audio	Optional
Display mode	Full view image
Auto brightness control	✔
Power Supply	12-32V
Stable Working temp	-20°C-70°C
Connector	4PIN Aviation
Bracket	U shape (multiple optional)

7" Single Button

PJ-715HD

SPECIFICATIONS	
LCD Size/Type	7''IPS
Brightness	500+ cd/m²
Resolution	1024RGB(H)*600(V)
Camera input	3-CH
Camera Signal	1080P / 720P/CVBS mixed connection
Audio	Optional
Display mode	Full view image
Auto brightness control	✔
Power Supply	12-32V
Stable Working temp	-20°C-70°C
Connector	4PIN Aviation
Bracket	U shape (multiple optional)

1080P AHD Monitors (5" ~ 10.1")

7'' Waterproof

◉ PJ-700WPH

SPECIFICATIONS	
LCD Size/Type	7''IPS
Brightness	500+ cd/m²
Resolution	1024RGB(H)*600(V)
Camera input	3-CH
Camera Signal	1080P / 720P/CVBS mixed connection
Audio	Optional
Display mode	Full view image
Auto brightness control	✔
Power Supply	12-32V
Stable Working temp	-20°C-70°C
Connector	4PIN Aviation
Bracket	U shape (multiple optional)

9''

◉ PJ-910HD

SPECIFICATIONS	
LCD Size/Type	9''IPS
Brightness	500+ cd/m²
Resolution	1024RGB(H)*600(V)
Camera input	3-CH
Camera Signal	1080P / 720P/CVBS mixed connection
Audio	Optional
Display mode	Full view image
Auto brightness control	✔
Power Supply	12-32V
Stable Working temp	-20°C-70°C
Connector	4PIN Aviation
Bracket	U shape (multiple optional)

10.1''

◉ PJ-1010HD

SPECIFICATIONS	
LCD Size/Type	10.1''IPS
Brightness	500+ cd/m²
Resolution	1024RGB(H)*600(V)
Camera input	3-CH
Camera Signal	1080P / 720P/CVBS mixed connection
Audio	Optional
Display mode	Full view image
Auto brightness control	✔
Power Supply	12-32V
Stable Working temp	-20°C-70°C
Connector	4PIN Aviation
Bracket	U shape (multiple optional)

10.1'' Waterproof

◉ PJ-1010WPH

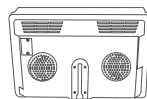| SPECIFICATIONS	
LCD Size/Type	10.1''IPS
Brightness	500+ cd/m²
Resolution	1024RGB(H)*600(V)
Camera input	3-CH
Camera Signal	1080P / 720P/CVBS mixed connection
Audio	Optional
Display mode	Full view image
Auto brightness control	✔
Power Supply	12-32V
Stable Working temp	-20°C-70°C
Connector	4PIN Aviation
Bracket	U shape (multiple optional)

1080P DVR Monitors (7"~11.6")

7'' DUAL VIEW

◉ PJ-702HDDV
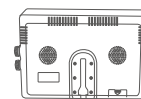
SPECIFICATIONS	
LCD Size/Type	7'' IPS
Brightness	500+ cd/m²
Resolution	1024*600 pixels
Camera input	2CH
Camera Signal	1080P/720P/CVBS
Audio	optional
Auto brightness control	✔
Recording	2CH seperate
SD Storage	8GB ~ 256GB
Compression Coding	H.264/H.265
Recording Resolution	1080P/720P/480P
Power Supply	12-32V
Stable Working temp	-20°C-70°C
Connector	4PIN Aviation

7'' QUAD VIEW

◉ PJ-702HQDV

SPECIFICATIONS	
LCD Size/Type	7'' IPS
Brightness	500+ cd/m²
Resolution	1024*600 pixels
Camera input	4CH
Camera Signal	1080P/720P/CVBS
Audio	optional
Auto brightness control	✔
Recording	4CH seperate
SD Storage	8GB ~ 256GB
Compression Coding	H.264/H.265
Recording Resolution	1080P/720P/480P
Power Supply	12-32V
Stable Working temp	-20°C-70°C
Connector	4PIN Aviation

7'' QUAD VIEW

◉ PJ-715TQDV

SPECIFICATIONS	
LCD Size/Type	7'' IPS
Brightness	500+ cd/m²
Resolution	1024*600 pixels
Camera input	4CH
Camera Signal	1080P/720P/CVBS
Audio	optional
Auto brightness control	✔
Recording	4CH seperate
SD Storage	8GB ~ 256GB
Compression Coding	H.264/H.265
Recording Resolution	1080P/720P/480P
Power Supply	12-32V
Stable Working temp	-20°C-70°C
Connector	4PIN Aviation

10.1'' QUAD VIEW

◉ PJ-1013TQDV

SPECIFICATIONS	
LCD Size/Type	10.1'' IPS
Brightness	500+ cd/m²
Resolution	1024*600 pixels
Camera input	4CH
Camera Signal	1080P/720P/CVBS
Audio	optional
Auto brightness control	✔
Recording	4CH seperate
SD Storage	8GB ~ 256GB
Compression Coding	H.264/H.265
Recording Resolution	1080P/720P/480P
Power Supply	12-32V
Stable Working temp	-20°C-70°C
Connector	4PIN Aviation

1080P DVR Monitors

11.6'' MULTI-VIEW

◉ PJ-1210HQDV

SPECIFICATIONS

LCD Size/Type	11.6'' IPS
Brightness	500+ cd/m²
Resolution	1024*600 pixels
Camera input	4-8CH
Camera Signal	1080P/720P/CVBS
Audio	optional
Auto brightness control	✔
Recording	4-8CH seperate
SD Storage	8GB ~ 256GB
Compression Coding	H.264/H.265
Recording Resolution	1080P/720P/480P
Power Supply	12-32V
Stable Working temp	-20°C-70°C
Connector	4PIN Aviation

1080P Quad Monitors (w/o recording)

7''

◉ PJ-702HDQ

SPECIFICATIONS

LCD Size/Type	7'' IPS
Brightness	500+ cd/m²
Resolution	1024*600 pixels
Camera input	2/4-CH
Camera Signal	1080P/720P/CVBS
Audio	optional
Display mode	Full view image
Auto brightness control	✔
Power Supply	12-32V
Stable Working temp	-20°C-70°C
Connector	4PIN Aviation
Bracket	U shape (multiple optional)

9''

◉ PJ-910HDQ

SPECIFICATIONS

LCD Size/Type	9'' IPS
Brightness	500+ cd/m²
Resolution	1024*600 pixels
Camera input	4-CH
Camera Signal	1080P/720P/CVBS
Audio	optional
Display mode	Full view image
Auto brightness control	✔
Power Supply	12-32V
Stable Working temp	-20°C-70°C
Connector	4PIN Aviation
Bracket	U shape (multiple optional)

10.1''

◉ PJ-1010HDQ

SPECIFICATIONS

LCD Size/Type	10.1'' IPS
Brightness	500+ cd/m²
Resolution	1024*600 pixels
Camera input	4-CH
Camera Signal	1080P/720P/CVBS
Audio	optional
Display mode	Full view image
Auto brightness control	✔
Power Supply	12-32V
Stable Working temp	-20°C-70°C
Connector	4PIN Aviation
Bracket	U shape (multiple optional)

VGA Monitors

7''

◉ PJ-702VG

SPECIFICATIONS

LCD Size/Type	7''IPS
Brightness	500+ cd/m²
Resolution	1024RGB(H)*600(V)
Camera input	3-CH
Camera Signal	VGA/CVBS
Audio	Optional
Display mode	Full view image
Auto brightness control	✔
Power Supply	12-32V
Stable Working temp	-20°C-70°C
Connector	4PIN Aviation
Bracket	U shape (multiple optional)

9''

◉ PJ-910VG

SPECIFICATIONS

LCD Size/Type	9''IPS
Brightness	500+ cd/m²
Resolution	1024RGB(H)*600(V)
Camera input	4-CH
Camera Signal	VGA/CVBS
Audio	Optional
Display mode	Full view image
Auto brightness control	✔
Power Supply	12-32V
Stable Working temp	-20°C-70°C
Connector	4PIN Aviation
Bracket	U shape (multiple optional)

HDMI Monitors

7''

◉ PJ-702HM

SPECIFICATIONS

LCD Size/Type	7''IPS
Brightness	500+ cd/m²
Resolution	1024RGB(H)*600(V)
Camera input	3-CH
Camera Signal	HDMI/CVBS
Audio	Optional
Display mode	Full view image
Auto brightness control	✔
Power Supply	12-32V
Stable Working temp	-20°C-70°C
Connector	4PIN Aviation
Bracket	U shape (multiple optional)

10. 1''

◉ PJ-1010HM

SPECIFICATIONS

LCD Size/Type	10.1''IPS
Brightness	500+ cd/m²
Resolution	1024RGB(H)*600(V)
Camera input	3-CH
Camera Signal	HDMI/CVBS
Audio	Optional
Display mode	Full view image
Auto brightness control	✔
Power Supply	12-32V
Stable Working temp.	-20°C-70°C
Connector	4PIN Aviation
Bracket	U shape (multiple optional)

Accessories

Universal Monitor Mounts:

AC-1001	AC-1002	AC-1003	AC-1004

AC-1005	AC-1006	AC-1007	more...

Vesa Mounts:

AC-1008 hole distance: 50*50mm height: 75mm	AC-1009 hole distance: 50*50mm height: 124mm	AC-1010 hole distance: 30*38mm height: 124m	A-1011 hole distance: 50*50mm height: 184mm
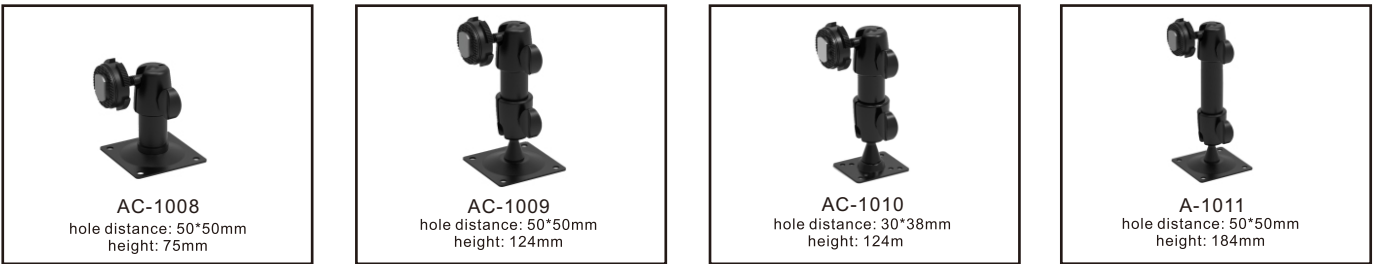
Vesa Mounts: for partial monitors w/ AMPS mounting holes only

AC-1012 hole distance: 50*50mm height: 75mm	AC-1013 hole distance: 50*50mm height: 124mm	AC-1014 hole distance: 30*38mm height: 124mm	AC-1015 hole distance: 75*75mm height: 135mm

Cable accessories:

AC-2001	AC-2002	AC-2003	AC-2004
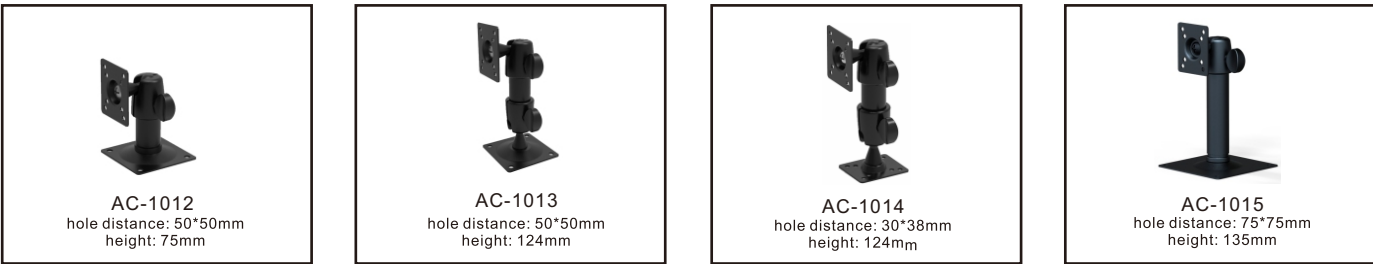
1080P/720P Cameras

- Heavy Duty Cameras
- Internal Cameras
- RV & Van Cameras
- Specialized Cameras
- Light Duty Cameras
- WDR Cameras
- Brake Light Camera

LED   FC CE TELEC E-MARK IP69K

◉ PJ-208N **◉ PJ-208NW**

SPEC	720P	1080P
Image sensor	1/3" Mega	1/2.9". 2Mega
Effective Pixel	1288(H)*968(V)	1920(H)*1080(V)
Video Signal	AHD/CVBS	AHD (TVI)
TV System	PAL/NTSC	PAL/NTSC
Power supply	12V (24V optional)	
Visual angle	102°(H)/ 55°(V) / 150°(H)/ 70°(V)	
Night image distance	15m+	
Waterproof grade	IP68	
Working temp	-20°C-70°C (stable)	
Connector	4 PIN aviation	
Audio	optional	

◉ PJ-213

SPEC	720P	1080P
Image sensor	1/3" Mega	1/2.9". 2Mega
Effective Pixel	1288(H)*968(V)	1920(H)*1080(V)
Video Signal	AHD/CVBS	AHD (TVI)
TV System	PAL/NTSC	PAL/NTSC
Power supply	12V (24V optional)	
Visual angle	150°(H) / 85°(V) ; 180°(H) / 100°(V)	
Night image distance	10m+	
Waterproof grade	IP69k	
Working temp	-20°C-70°C (stable)	
Connector	4 PIN aviation	
Audio	optional	

◉ PJ-202

SPEC	720P	1080P
Image sensor	1/3" Mega	1/2.9". 2Mega
Effective Pixel	1288(H)*968(V)	1920(H)*1080(V)
Video Signal	AHD/CVBS	AHD (TVI)
TV System	PAL/NTSC	PAL/NTSC
Power supply	12V (24V optional)	
Visual angle	100°(H)/ 50°(V)	
Night image distance	10m+	
Waterproof grade	IP69k	
Working temp	-20°C-70°C (stable)	
Connector	4 PIN aviation	
Audio	optional	

◉ SW-228

SPEC	720P	1080P
Image sensor	1/3" Mega	1/2.9". 2Mega
Effective Pixel	1288(H)*968(V)	1920(H)*1080(V)
Video Signal	AHD/CVBS	AHD (TVI)
TV System	PAL/NTSC	PAL/NTSC
Power supply	12V (24V optional)	
Visual angle	150°(H)/ 100°(V)	
Night image distance	15m+	
Waterproof grade	IP68	
Working temp	-20°C-70°C (stable)	
Connector	4 PIN aviation	
Audio	optional	

◉ PJ-223B

SPEC	720P	1080P
Image sensor	1/3" Mega	1/2.9". 2Mega
Effective Pixel	1288(H)*968(V)	1920(H)*1080(V)
Video Signal	AHD/CVBS	AHD (TVI)
TV System	PAL/NTSC	PAL/NTSC
Power supply	12V (24V optional)	
Visual angle	120°(H) / 60°(V)	
Night image distance	15m+	
Waterproof grade	IP69K	
Working temp	-20°C-70°C (stable)	
Connector	4 PIN aviation	
Audio	optional	

◉ PJ-247B

SPEC	720P	1080P
Image sensor	1/3" Mega	1/2.9". 2Mega
Effective Pixel	1288(H)*968(V)	1920(H)*1080(V)
Video Signal	AHD/CVBS	AHD (TVI)
TV System	PAL/NTSC	PAL/NTSC
Power supply	12V (24V optional)	
Visual angle	120°/150°(H) / 95°(V)	
Night image distance	15m+	
Waterproof grade	IP68	
Working temp	-20°C-70°C (stable)	
Connector	4 PIN aviation	
Audio	optional	

STRAIGHT SCREW INSTALLATION

◉ PJ-212SN

SPEC	720P	1080P
Image sensor	1/3" Mega	1/2.9". 2Mega
Effective Pixel	1288(H)*968(V)	1920(H)*1080(V)
Video Signal	AHD/CVBS	AHD (TVI)
TV System	PAL/NTSC	PAL/NTSC
Power supply	12V (24V optional)	
Visual angle	130°(H) / 80°(V)	
Night image distance	15m+	
Waterproof grade	IP69K	
Working temp	-20°C-70°C (stable)	
Connector	4 PIN aviation	
Audio	optional	

◉ PJ-202B

20-LED HEAVY DUTY CAMERA

SPEC	720P	1080P
Image sensor	1/3" Mega	1/2.9". 2Mega
Effective Pixel	1288(H)*968(V)	1920(H)*1080(V)
Video Signal	AHD/CVBS	AHD (TVI)
TV System	PAL/NTSC	PAL/NTSC
Power supply	12V (24V optional)	
Visual angle	102°(H)/ 53°(V)	
Night image distance	20m+	
Waterproof grade	IP68	
Working temp	-20°C-70°C (stable)	
Connector	4 PIN aviation	
Audio	optional	

◉ PJ-248

SPEC	720P	1080P
Image sensor	1/3" Mega	1/2.9". 2Mega
Effective Pixel	1288(H)*968(V)	1920(H)*1080(V)
Video Signal	AHD/CVBS	AHD (TVI)
TV System	PAL/NTSC	PAL/NTSC
Power supply	12V (24V optional)	
Visual angle	102°(H)/ 55°(V)	
Night image distance	10m+	
Waterproof grade	IP68	
Working temp	-20°C-70°C (stable)	
Connector	4 PIN aviation (on back)	
Mounting	horizontal/vertical	

◉ PJ-225B

MIRROR WING CAMERA (MINI SIZE)

SPEC	720P	1080P
Image sensor	1/3" Mega	1/2.9". 2Mega
Effective Pixel	1288(H)*968(V)	1920(H)*1080(V)
Video Signal	AHD/CVBS	AHD (TVI)
TV System	PAL/NTSC	PAL/NTSC
Power supply	12V (24V optional)	
Visual angle	130°/135°(H) 90°(V)	
Night image distance	5m+	
Waterproof grade	IP68	
Working temp	-20°C-70°C (stable)	
Connector	4 PIN aviation	
Audio	optional	

◉ PJ-201B

HEAVY DUTY IR CAMERA

SPEC	720P	1080P
Image sensor	1/3" Mega	1/2.9". 2Mega
Effective Pixel	1288(H)*968(V)	1920(H)*1080(V)
Video Signal	AHD/CVBS	AHD (TVI)
TV System	PAL/NTSC	PAL/NTSC
Power supply	12V (24V optional)	
Visual angle	100°(H)/ 65°(V)	
Night image distance	15m+	
Waterproof grade	IP68	
Working temp	-20°C-70°C (stable)	
Connector	4 PIN aviation	
Audio	optional	

◉ PJ-211A

ADJUSTABLE LENS IR CAMERA

SPEC	720P	1080P
Image sensor	1/3" Mega	1/2.9". 2Mega
Effective Pixel	1288(H)*968(V)	1920(H)*1080(V)
Video Signal	AHD/CVBS	AHD (TVI)
TV System	PAL/NTSC	PAL/NTSC
Power supply	12V (24V optional)	
Visual angle	100°(H)/ 65°(V)	
Night image distance	20m+	
Waterproof grade	IP68	
Working temp	-20°C-70°C (stable)	
Connector	4 PIN aviation	
Audio	optional	

◉ PJ-224

WIDE ANGLE IR CAMERA

SPEC	720P	1080P
Image sensor	1/3" Mega	1/2.9". 2Mega
Effective Pixel	1288(H)*968(V)	1920(H)*1080(V)
Video Signal	AHD/CVBS	AHD (TVI)
TV System	PAL/NTSC	PAL/NTSC
Power supply	12V (24V optional)	
Visual angle	120°/130°(H) / 95°(V)	
Night image distance	15m+	
Waterproof grade	IP68	
Working temp	-20°C-70°C (stable)	
Connector	4 PIN aviation	
Audio	optional	

PJ-219 WIDE ANGLE IR DOME CAMERA

SPEC	720P	1080P
Image sensor	1/3" Mega	1/2.9". 2Mega
Effective Pixel	1288(H)*968(V)	1920(H)*1080(V)
Video Signal	AHD/CVBS	AHD (TVI)
TV System	PAL/NTSC	PAL/NTSC
Power supply	12V (24V optional)	
Visual angle	95°(H)/ 48°(V)	
Night image distance	15m+	
Working temp	-20°C-70°C (stable)	
Connector	4 PIN aviation	
Audio	optional	

PJ-230 ANTI-CRACK DOME CAMERA

SPEC	720P	1080P
Image sensor	1/3" Mega	1/2.9". 2Mega
Effective Pixel	1288(H)*968(V)	1920(H)*1080(V)
Video Signal	AHD/CVBS	AHD (TVI)
TV System	PAL/NTSC	PAL/NTSC
Power supply	12V (24V optional)	
Visual angle	95°(H)/ 54°(V)	
Night image distance	20m+	
Working temp	-20°C-70°C (stable)	
Connector	4 PIN aviation	
Audio	optional	

PJ-225A MINI SIZE DOME CAMERA

SPEC	720P	1080P
Image sensor	1/3" Mega	1/2.9". 2Mega
Effective Pixel	1288(H)*968(V)	1920(H)*1080(V)
Video Signal	AHD/CVBS	AHD (TVI)
TV System	PAL/NTSC	PAL/NTSC
Power supply	12V (24V optional)	
Visual angle	130°/150°(H) / 90°(V)	
Night image distance	15m+	
Waterproof grade	IP68	
Working temp	-20°C-70°C (stable)	
Connector	4 PIN aviation	
Audio	optional	

PJ-241 WINDOW GLASS MOUNT DASH CAMERA

SPEC	720P	1080P
Image sensor	1/3" Mega	1/2.9". 2Mega
Effective Pixel	1288(H)*968(V)	1920(H)*1080(V)
Video Signal	AHD/CVBS	AHD (TVI)
TV System	PAL/NTSC	PAL/NTSC
Power supply	12V (24V optional)	
Visual angle	90°(H)/ 54°(V)	
Night image distance	15m+	
Working temp	-20°C-70°C (stable)	
Connector	4 PIN aviation	
Audio	optional	

RV & Van Cameras

PJ-249

SPEC	720P	1080P
Image sensor	1/3" Mega	1/2.9". 2Mega
Effective Pixel	1288(H)*968(V)	1920(H)*1080(V)
Video Signal	AHD/CVBS	AHD (TVI)
TV System	PAL/NTSC	PAL/NTSC
Power supply	12V (24V optional)	
Visual angle	100°/130°(H)/ 83°/50°(V)	
Night image distance	10m+	
Waterproof grade	IP68	
Working temp	-20°C-70°C (stable)	
Connector	4 PIN aviation	
Audio	optional	

PJ-245

SPEC	720P	1080P
Image sensor	1/3" Mega	1/2.9". 2Mega
Effective Pixel	1288(H)*968(V)	1920(H)*1080(V)
Video Signal	AHD/CVBS	AHD (TVI)
TV System	PAL/NTSC	PAL/NTSC
Power supply	12V (24V optional)	
Visual angle	160°(H)/ 83°(V)	
Night image distance	8m+	
Waterproof grade	IP68	
Working temp	-20°C-70°C (stable)	
Connector	4 PIN aviation	
Audio	optional	

PJ-209B DUAL LENS CAMERA

SPEC	720P	1080P
Image sensor	1/3" Mega	1/2.9". 2Mega
Effective Pixel	1288(H)*968(V)	1920(H)*1080(V)
Video Signal	AHD/CVBS	AHD (TVI)
TV System	PAL/NTSC	PAL/NTSC
Power supply	12V (24V optional)	
Visual angle	95°/ 53°(H)	
Night image distance	20m+	
Waterproof grade	IP68	
Working temp	-20°C-70°C (stable)	
Connector	4 PIN aviation	
Audio	optional	

PJ-210A DUAL LENS FLYFISH CAMERA

SPEC	720P	1080P
Image sensor	1/3" Mega	1/2.9". 2Mega
Effective Pixel	1288(H)*968(V)	1920(H)*1080(V)
Video Signal	AHD/CVBS	AHD (TVI)
TV System	PAL/NTSC	PAL/NTSC
Power supply	12V (24V optional)	
Visual angle	110°(H)/ 54°(V)	
Night image distance	15m+	
Waterproof grade	IP68	
Working temp	-20°C-70°C (stable)	
Connector	4 PIN aviation	
Audio	optional	

RV & Van Cameras

PJ-212S-W SIDE VIEW CAMERA

SPEC	720P	1080P
Image sensor	1/3" Mega	1/2.9". 2Mega
Effective Pixel	1288(H)*968(V)	1920(H)*1080(V)
Video Signal	AHD/CVBS	AHD (TVI)
TV System	PAL/NTSC	PAL/NTSC
Power supply	12V (24V optional)	
Visual angle	130°(H) / 55°/60°(V)	
Night image distance	15m+	
Waterproof grade	IP68	
Working temp	-20°C-70°C (stable)	
Connector	4 PIN aviation	
Audio	optional	

PJ-212S-Y SIDE VIEW CAMERA

SPEC	720P	1080P
Image sensor	1/3" Mega	1/2.9". 2Mega
Effective Pixel	1288(H)*968(V)	1920(H)*1080(V)
Video Signal	AHD/CVBS	AHD (TVI)
TV System	PAL/NTSC	PAL/NTSC
Power supply	12V (24V optional)	
Visual angle	130°(H) / 55°/60°(V)	
Night image distance	15m+	
Waterproof grade	IP68	
Working temp	-20°C-70°C (stable)	
Connector	4 PIN aviation	
Audio	optional	

Specialized Cameras

PJ-238

SPEC	720P	1080P
Image sensor	1/3" Mega	1/2.9". 2Mega
Effective Pixel	1288(H)*968(V)	1920(H)*1080(V)
Video Signal	AHD/CVBS	AHD (TVI)
TV System	PAL/NTSC	PAL/NTSC
Power supply	12V (24V optional)	
Visual angle	90°(H)/ 72°(V)	
Night image distance	20m+	
Waterproof grade	IP69K	
Working temp	-20°C-70°C (stable)	
Connector	4 PIN aviation	
Audio	optional	

PJ-238B

SPEC	720P	1080P
Image sensor	1/3" Mega	1/2.9". 2Mega
Effective Pixel	1288(H)*968(V)	1920(H)*1080(V)
Video Signal	AHD/CVBS	AHD (TVI)
TV System	PAL/NTSC	PAL/NTSC
Power supply	12V (24V optional)	
Visual angle	145°(H)/ 110°(V)	
Night image distance	20m+	
Waterproof grade	IP69K	
Working temp	-20°C-70°C (stable)	
Connector	4 PIN aviation	
Audio	optional	

PJ-240 WORK LIGHT CAMERA

SPEC	720P	1080P
Image sensor	1/3" Mega	1/2.9". 2Mega
Effective Pixel	1288(H)*968(V)	1920(H)*1080(V)
Video Signal	AHD/CVBS	AHD (TVI)
TV System	PAL/NTSC	PAL/NTSC
Power supply	12V (24V optional)	
Visual angle	110°(H)/ 56°(V)	
Night image distance	20m+	
Waterproof grade	IP68	
Working temp	-20°C-70°C (stable)	
Connector	4 PIN aviation	
Audio	optional	

PJ-229 EXPLOSION-PROOF CAMERA

SPEC	720P	1080P
Image sensor	1/3" Mega	1/2.9". 2Mega
Effective Pixel	1288(H)*968(V)	1920(H)*1080(V)
Video Signal	AHD/CVBS	AHD (TVI)
TV System	PAL/NTSC	PAL/NTSC
Power supply	12V (24V optional)	
Visual angle	100°(H)/ 55°(V)	
Night image distance	20m+	
Waterproof grade	IP69K	
Working temp	-20°C-70°C (stable)	
Connector	4 PIN aviation	
Audio	optional	

PJ-233B 4LED HEAVY DUTY CAMERA

SPEC	720P	1080P
Image sensor	1/3" Mega	1/2.9". 2Mega
Effective Pixel	1288(H)*968(V)	1920(H)*1080(V)
Video Signal	AHD/CVBS	AHD (TVI)
TV System	PAL/NTSC	PAL/NTSC
Power supply	12V (24V optional)	
Visual angle	90°(H)/ 50°(V)	
Night image distance	10m+	
Waterproof grade	IP69K	
Working temp	-20°C-70°C (stable)	
Connector	4 PIN aviation	
Audio	optional	

PJ-244 STAINLESS STEEL CAMERA

SPEC	720P	1080P
Image sensor	1/3" Mega	1/2.9". 2Mega
Effective Pixel	1288(H)*968(V)	1920(H)*1080(V)
Video Signal	AHD/CVBS	AHD (TVI)
TV System	PAL/NTSC	PAL/NTSC
Power supply	12V (24V optional)	
Visual angle	90°(H)/ 70°(V)	
Night image distance	15m+	
Waterproof grade	IP69K	
Working temp	-20°C-70°C (stable)	
Connector	4 PIN aviation	
Audio	optional	

Light Duty Cameras

SPEC	720P	1080P
Image sensor	1/3" Mega	1/2.9". 2Mega
Effective Pixel	1288(H)*968(V)	1920(H)*1080(V)
Video Signal	AHD/CVBS	AHD (TVI)
TV System	PAL/NTSC	PAL/NTSC
Power supply	12V (24V optional)	
Visual angle	145°(H)/ 78°(V)	
Night image distance	8m+	
Waterproof grade	IP68	
Working temp	-20°C-70°C (stable)	
Connector	4 PIN aviation	
Audio	optional	

◉PJ-115S

SPEC	720P	1080P
Image sensor	1/3" Mega	1/2.9". 2Mega
Effective Pixel	1288(H)*968(V)	1920(H)*1080(V)
Video Signal	AHD/CVBS	AHD (TVI)
TV System	PAL/NTSC	PAL/NTSC
Power supply	12V (24V optional)	
Visual angle	140°(H)/ 78°(V)	
Night image distance	8m+	
Waterproof grade	IP68	
Working temp	-20°C-70°C (stable)	
Connector	4 PIN aviation	
Audio	optional	

◉PJ-115C
ROTATABLE LENS

SPEC	720P	1080P
Image sensor	1/3" Mega	1/2.9". 2Mega
Effective Pixel	1288(H)*968(V)	1920(H)*1080(V)
Video Signal	AHD/CVBS	AHD (TVI)
TV System	PAL/NTSC	PAL/NTSC
Power supply	12V (24V optional)	
Visual angle	140°(H)/ 85°(V)	
Night image distance	8m+	
Waterproof grade	IP68	
Working temp	-20°C-70°C (stable)	
Connector	4 PIN aviation	
Audio	optional	

◉PJ-115
ROTATABLE LENS

WDR Cameras

◉ PJ-201B-WDR

◉PJ-213-WDR

◉PJ-212S-WDR

SPEC	
Effective Pixel	1920X1080 pixels
Video Signal	1080P
Ratio	120dB
Power supply	12V (12-24V optional)

What is WDR?

Wide Dynamic Range (WDR) automatically balances lighting, for improving details in highlights and shadows of the camera image. This is particularly useful when working in environments that light quickly changes. For example, reversing into a dark loading bay on a sunny day. The transition from bright light to shadow will cause the camera without the feature of WDR to fail to capture finedetails.Some areas of the picture will be bright and other areas extremely dark.WDR Cameras balance lighting sono areas are under or overexposed, improving clarity and detail in the image

WDR OFF

WDR ON

Brake Light Cameras

Mercedes Sprinter / VW Crafter brake light camera use for 2007-2019 ◉ **PJ-237-01**	FIAT Ducato brake light camera use for late 2006-2017 3 gen, Peugeot Boxer, Citroen Jumper,etc. ◉ **PJ-237-02**	GM Express & Chevy Savana cargo VAN Camera ◉ **PJ-237-03**
for Mercedes Vito, Sprinter ◉ **PJ-237-04**	2010-2017 Nissan NV200 ◉ **PJ-237-05**	Suitable models: VWT 5/T6 (2010-2017) ◉ **PJ-237-06**
Suitable models: Benz sprinter ◉ **PJ-237-07**	Suitable models: Renault Brake light camera for Renault Trafic (2001-2014),Combo(2001-2011),Vauxhall Vivaro(2001-2014) ◉ **PJ-237-08**	Suitable models:Renault Traf ficc 3 Opel Vivaro 2014 ◉ **PJ-237-09**
2010-2016 Renault_Master / Nissan-NV400/ Opel_Movano ◉ **PJ-237-10**	Citroen Jumpy/Peugeot Expert/ Toyota Proace 2007 -2016, 2nd Generation ◉ **PJ-237-11**	Peugeot Expert, Citroen Dispatch, 3rd Generation 2016--Now, jumpy, Toyota Proace van 2016+ ◉ **PJ-237-12**
Fiat Doblo2010, Opel Combo ◉ **PJ-237-13**	Ford Transit ◉ **PJ-237-14**	VW T6 single door ◉ **PJ-237-15**
IVECO Daily brake light camera use for 2011-2014 ◉ **PJ-237-16**	◉ **PJ-237-17**	VW caddy 2003-2015 ◉ **PJ-237-18**

More brake light camera, please consult our sales representative…

*AI Version Customizable

Radar System

- Ultrasonic Sensor System
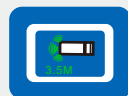- Microwave Radar System

Integrated Ultrasonic Monitor System

PJ-702BSR

Digital Sensor

3.5M
Detection Range

Accurate Distance Display

HD

DC 12-32V

Voice alarm

Features:

- Digital radar system: digital radar reversing display, digital radar signal and video overlay are integrated, no radar host is required.
- HD 7 inch monitor
- Integrated camera & radar image on display for reversing
- Settable alarm distance within 0.3-3.5m according to actual demand for different parking modes

Product Parameters	
Detection Range	D0.3-3.5m
Monitor size	7 Inch TFT-LED Monitor
Resolution	720P
Resolution	800*480
Sensor	4pcs
Brightness	400cd/m2
Camera view angle	120°
Operating voltage range	DC 12V-32V

External Ultrasonic Box

PJ-BSR-TRK

Features:

PJ-BSR-TRK ultrasonic box is compatible with most of PJ's monitors and cameras.

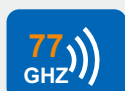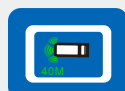| Product Parameters	
Detection Distance	0.60~5.00m (1.97ft --- 16.4ft)
Best Detecting Distance	0.60---3.00m (1.97ft --- 9.84ft)
Frequency	40KHz
Color Of Sensors	Black (default);
Display Unit	M Or FT Optional
Power Supply	DC10-18V
Operating Temperature	-20°C-70°C RH95% Max
Storage Temperature	-40°C-80°C RH95% Max

Microwave Radar System

PJ-702MWR

Microwave Radar

40M
Detection Range

Accurate Distance Display

Voice alarm

AHD

HD Camera

Product Introduction

- The 77GHz frequency microwave radar sensor has an ultra-long detection range of 0.3 to 40 meters. It has high detection sensitivity and provides beep alerts.

- The microwave radar car display integrates digital radar signals and video overlay, eliminating the need for a radar host. (Can directly connect 1-4 microwave radar sensors)

- AHD visual reversing system has dual trigger signal functions (right turn/reverse force signal). It automatically switches to the rear view when reversing, and the blind zone radar display provides voice alarm alerts. (When not reversing, the radar display shows the rear distance but does not emit sound). Reverse priority function is enabled.

- Various display modes for different vehicle models (radar vehicle and fixed mode) are available. Alarm distance prompts can be set according to actual needs.

- It can connect two channels (three channels optional) of AHD video input, compatible with CVBS/720P/1080P, etc.

Green: Safety zone   **Yellow:** Warning zone   **Red:** Danger zone
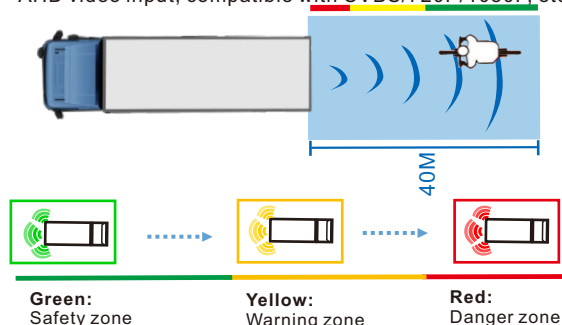
Microwave Radar Camera
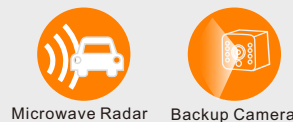
Microwave Radar   Backup Camera

PJ-196MWR

Product Introduction

- The sensor emits microwaves and receives echoes reflected by obstacles, monitoring the area up to 5 meters behind the vehicle's left and right sides.

- High-definition display image with excellent fidelity.

- Supports high-quality video output and automatic backlight compensation.

- Designed to withstand harsh weather conditions such as rain, snow, fog, and dust, providing all-weather monitoring with strong anti-interference capability.

- Compact product with high temperature resistance, easy installation, and powerful functionality.

HD Electronic Mirror Monitor System

- AI Electronic Mirror System   CMS
- Full Display Electronic Mirror
- Other Mirror Monitors

AI Electronic Mirror System （CMS）

● **CMV-158AI**

● **CMV-123** （Note: Without AI）

AI	2CH Pedestrians	Visual Alarm	12.3/15.8	Recording	Wide Voltage	Day/night vision
AI Chip	Vehicles Detection		inch IPS	(512GB)		

Features:

- Powerful AI sensor & big-data feeded algorithm to assure precise detection rate up to 90%, support future upgrade to improve accuracy

- Designed to solve hidden safety hazards of blind spot and poor mirror visibility issue in rainy days or at night

- Full HD high brightness display with split view mounted at A-Pillar, Wing camera design with dual lens to cover both vehicle blind spots and distant field of view

- Improved night vision image enhanced by WDR function to avoid headlight glare

- Rain-proof film technology applied on camera lens to assure clear view in rainy days.

Product Parameters	
Screen	12.3" / 15.8" IPS
Brightness	1000cd/m2
Resolution	1920*1080
Video inputs	2-CH, 1080P camera inputs, 2 triggers
Recording storage	SD card, 16-512GB
Lens angle	150°/90°
Power supply	DC 12-36V
Working temp.	-20~70°C

Full Display Electronic Mirror

● **SMM-966B**

Features:

- **Driving display mode**
  Driving display mode provides a broadened HD rear view in order to enhance driving safety.

- **Reflective mirror mode**
  High reflective mirror provides a permanent backup solution should the camera or display become non-operational.

- **Reversing mode**
  Reversing mode provides a look-down angle with sufficient field of view for safety.

- **Glare Elimination**
  Camera w/ Sony HDR sensor to eliminate glare.

Product Parameters	
Screen	9.66" IPS, full screen
Brightness	1000-1500cd/m^2
Resolution	1280*320
Front camera	1920*1080@30fps
Rear camera	1920*1080 / 1280*720
Voltage	DC12-24V (output 5V)
Working temp.	-20~70°C

Optional recording function available

Other Mirror Monitors

● **TM-700B** （7″）

● **TM-650** （6.5″）

Specification	
Brightness	500cd/m^2
Resolution	1024*600
Display Mode	IPS Screen
Power supply	DC12-36V
Video input	3-way

Specification	
Brightness	500cd/m^2
Resolution	1024*600
Display Mode	IPS Screen
Power supply	DC12-36V
Video input	2-way (4 way optional)

Digital Wireless Camera System

- AI HD Digital Wireless System
- Wireless Zoom Camera Monitor System
- 2.4GHz HD Digital Wireless System
- Solar Powered HD Wireless Camera Kit
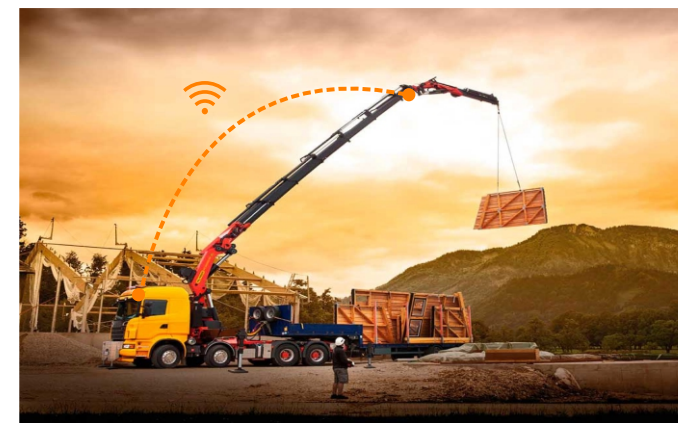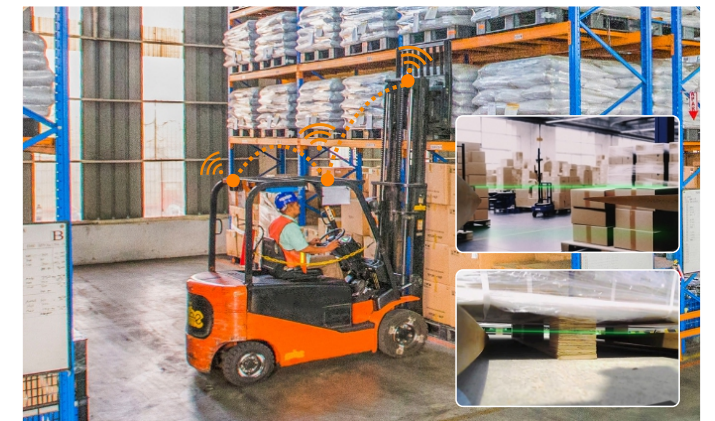
More customized solution …

AI HD Digital Wireless System

WRS-1011

IR Camera

Features:

- Powerful AI sensor & big-data feeded algorithm to assure precise detection rate up to 90%, support future upgrade to improve accuracy

- Support 4-channel simultaneous detection of pedestrians and/or vehicles

- Combines AI and wireless technology, enabling accurate detection and identification while ensuring convenience

- Stable long distance transmission

- Low image delay (<120ms)

Product specifications

Transmit distance	250M in open air	Camera input	4-CH
Frequency	2.4GHz	Recording	4-CH separate,8GB ~ 256GB
Charging time	3 H (DC 5-12V)	Compression Coding	H.264
Discharge time	10 H	Power Supply	12-36V
AI Computing Power	0.5T/1T	Image sensor	1/3" Mega
AI Detected Objects	Cyclists, Pedestrians, Vehicles	Effective Pixel	1288(H)*968(V)
Recognition Distance	15 Meters	Visual angle	120°（H)/ 65°（V)
Warning Distance	Up to 15 Meters	Waterproof grade	IP68
LCD Size/Type	10.1"TFT	Working temp	-20℃-70℃（stable)
Brightness	500cd/m²		

Wireless Zoom Camera Monitor System

WRS-1014X

standard image

30X Zoom

zoom in image

Features:

- 30X Zoom: Optical 30x zoom mechanism, digital anti shake, capable of clear monitoring of distant targets

- 500M Transmission Distance: Meet the requirements for long-distance video transmission of lifting machinery and cranes

- 30M Night Distance: Equipped with 4 high-power infrared lights, ensuring 50 meter high-definition night vision for night-time site operation

- IP68 Waterproof: works under all weather conditions , even in rain or snow

Product specifications

LCD Size/Type	10.1 "IPS	Image delay	<120ms
Brightness	500cd/m2	Zoom Ratio	30
Camera input	4-CH	Image sensor	1/2.8" IMX307
Recording	4-CH separate	Effective Pixel	2560(H)*1920(V)
SD Storage	8GB ~ 256GB	Visual angle	64.1°（W) ~ 3.6°（T)
Compression Coding	H.264	Night image distance	30M+
Power Supply	12-36V	Waterproof grade	IP68
Wifi Service Fren.	2400-2483.5 MHZ	Working temp.	-10℃-60℃（stable)
Transmitting Distance	500M in open air		

2.4GHz HD Digital Wireless System

WRC-01

● **WRS-702**

Features:

• No signal interference
• Stable long distance transmision
• Low image delay (<120ms)
• 2 to 4-channel inputs for HD cameras
• 7" HD IPS display
• Inbuilt recording option (SD card)

Product specifications

Transmit distance	250M in open air	Recording	4-CH separate
Wifi Service Fren.	24020-2483.5 MHZ	SD Storage	8GB ~ 256GB
Charging time	3 H (DC 5-12V)	Image sensor	1/2.9" Mega
Discharge time	10 H	Effective Pixel	1920(H)*1080(V)
Image delay	<120ms	Video Signal	AHD
LCD Size/Type	7 "IPS	Visual angle	90°(H)/ 65°(V)
Brightness	500cd/m²	Waterproof grade	Ip68
Resolution	1024*600 pixels	Stable Working temp.	-20℃-70℃
Camera input	4 CH	Power Supply	12-36V

2.4GHz HD Digital Wireless System

WRC-03

WRC-04

WRC-05
Mini Fork Camera

BP-01M
Magnetic Battery Pack

● **WRS-704C**

Features:

• 120M: stable signal transmission up to 120 meters

• Forklift-specific design: compact and mini in size, and can be easily installed on a slim forklift arm.

• Magnetic housing: Equipped with magnetic housing camera, no need for wiring

• Waterproof & Shock-resistant: IP69K waterproof, dustproof, shock resistant, durable

Product specifications

Frequency	2.4GHz	SD Storage	8GB ~ 128GB
Transmitting Distance	120M	Image sensor	1/3" Mega
Built-in battery camera	Support 2h/6h operation	Effective Pixel	1024(H)*720(V)
External magnetic battery	Support 10h operation	Video Signal	AHD
Battery capacity	4500mAh	Visual angle camera1	30°(H)/ 20°(V)
LCD Size/Type	7"IPS	Visual angle camera2	80°(H)/ 45°(V)
Brightness	500cd/m²	Waterproof grade	Ip68
Resolution	1024x3(RGB)x600 pixels	Battery capacity	4500mAh
Camera input	4-CH	Power Supply	12V (24V optional)
Recording	4-CH separate	Stable Working temp.	-20 -70

WRS-SC708

WRS-224B

Features:

- Solar-powered: The magnetic base wireless backup camera is equipped with solar power technology.

- Improved Stable Digital Signal and Wide Transmission Range (transmission distance of 120m in open conditions)

- Long Working Time: The backup camera has a built-in battery with a capacity of 9600mA, providing extended usage.Discharge time 13H.

- No signal interference, Stable long distance transmission, Low image delay(<120ms)

Product specifications

Transmit distance	250M in open air	**Recording**	2-CH separate
Wifi Service Fren.	24020-2483.5 MHZ	**SD Storage**	8GB ~ 256GB
Charging time	4 H (DC 5-12V)	**Image sensor**	1/2.9" Mega
Discharge time	14 H	**Effective Pixel**	1920(H)*1080(V)
Image delay	<120ms	**Video Signal**	AHD
LCD Size/Type	7 "IPS	**Visual angle**	130°(H)/ 65°(V)
Brightness	500cd/m^2	**Waterproof grade**	Ip68
Resolution	1024*600 pixels	**Stable Working temp.**	-20℃-70℃
Camera input	2 CH	**Power Supply**	12-36V

Waterproof

BP-01M
Magnetic Battery Pack

Product Parameters

|	
Battery type	lithium battery
Battery capacity	7800mAh
Charging voltage	DC5V
Charging current	2A
Charging time	4-6H
Output voltage	DC12V
Output current	up to 600MA
Discharge time	about 8 hours (when the output load current is 200MA)
Waterproof grade	IP65
Working temperature	-20 ~+45
Storage temperature	-20 ~+60
Weight	400g
Installation method	strong magnetic fixation
Outside size	107MM(L)*80MM(W)*36.5MM(H)

Monitor

TX
AHD/TVI/CVI
720P/1080P
PAIR

RX
AHD/TVI/CVI
720P/1080P
PAIR
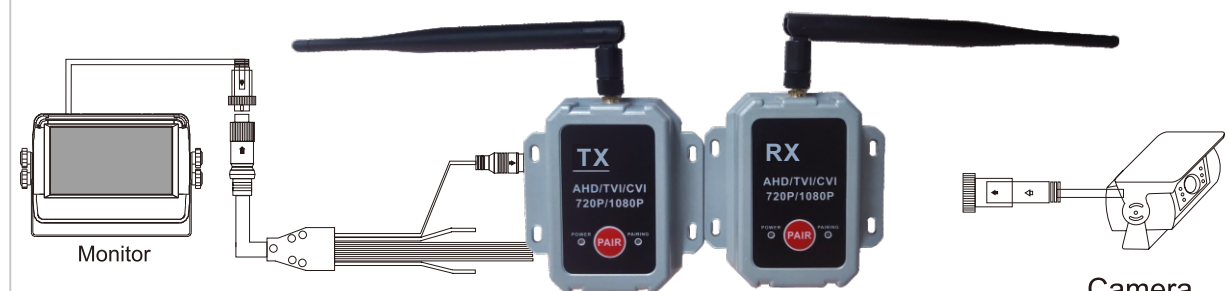
Camera

WRM-01
1080P Wireless transmitter and receiver

AI 360° Vision System

- 4-Channel 360° System
- 6-Channel 360° System
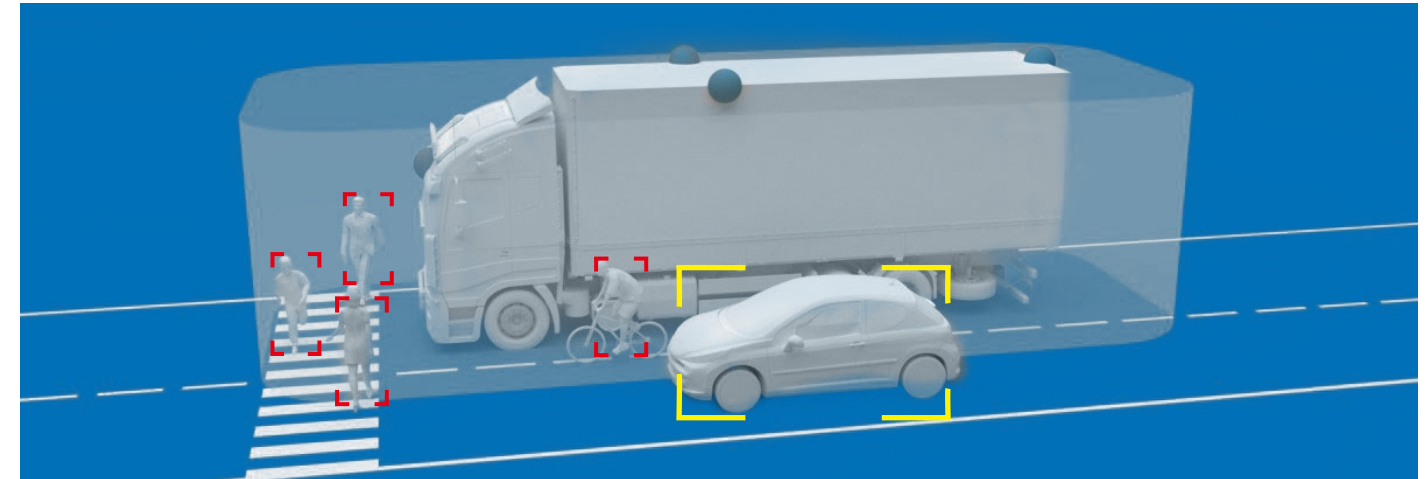
AI 360° Vision	Pedestrian Detection	4-Channel	IPS Screen	DVR(H.265)	SD Card	HDD External

⦿ AI-360AVM-C4

360°CAMERA　　　　**360° AI DVR** Box　　　　⦿ **PJ-1014**

Product Introduction

- AI 360 AVM Vision System is a 360-degree panoramic imaging and active safety driving assistance system, designed for blind spots of large vehicles
- 4-channel 1080P input
- Equipped with a 10.1-inch IPS widescreen display, with a resolution of 2560*720
- HDMI display, an interface that integrates display, power supply, and serial communication (touch) functions.
- Support additional radar and flashing alerts for warning.
- Standard SD card storage (256GB); supports external hard drive (2TB)

Options

Radar
⦿ PJ-RD

Flash alarm
⦿ PJ-FLA

*Non-AI version available

AI 360° AVM Vision System

Options

Radar
◉ PJ-RD

Flash alarm
◉ PJ-FLA

*Non-AI version available

14.5'' Wide Screen
◉ PJ-1450HM

X4
360 Camera

X2

360° AI DVR Box
◎ AI-360AVM-C6 (6-CH)

AI 360° Vision

Pedestrian Detection

6-Channel

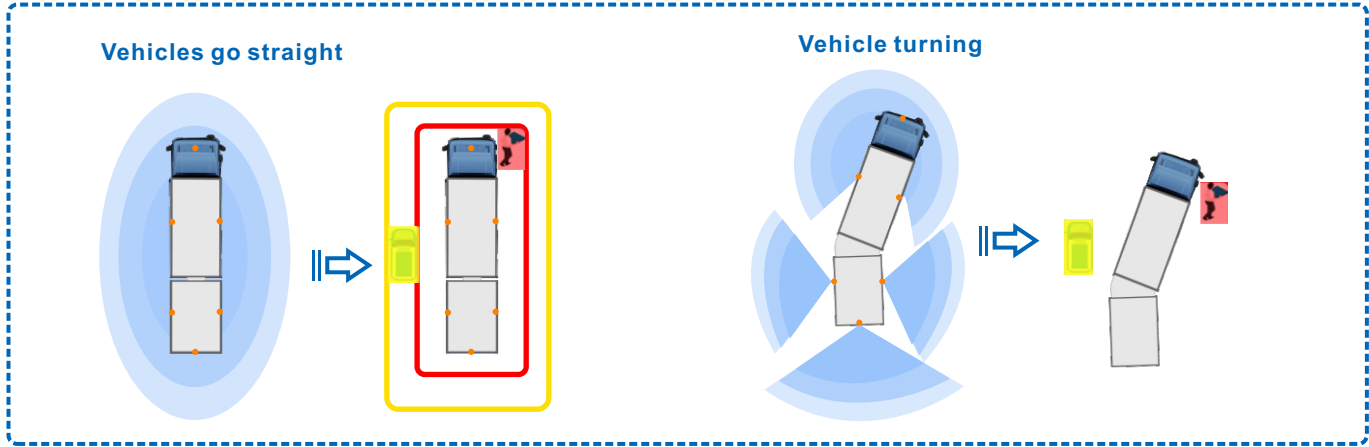HDMI Display

DVR(H.265)

SD Card

HDD External

Vehicles go straight

Vehicle turning

Product Introduction

- AI 360 AVM Vision System is a 360-degree panoramic imaging and active safety driving assistance system designed for blind spots in large vehicles
- 6-CH 1080P input (4-CH for 360 AVM vision and 2CH for side blind spot)
- Equipped with 14.5" IPS wide screen display with 2560*720 ultra-high resolution
- HDMI display, an interface that integrates display, power supply, and serial communication (touch) functions.
- Support extra Radar and flashing alarm for warning
- Standard SD card storage (256G); support external HDD (2TB)

HD M-DVR

- AI Dashcam
- AI Intelligent MDVR System

AI shcam

ADAS

AI | 4G | GPS | RFID | 3CH

Support extra 1 camera

AI Camera

Setting parameters

Track playback

Real time monitoring

Function:

- Built-in 4G, GPS, and WI-FI
- Support for ADAS and DMS algorithms
- 512GB large-capacity SD card recording

- Extensive expandable functions: AI Dashcam is equipped with an RS232 serial port, 3-CH input , and 1-CH output

Product Parameters	
Support	WIFI/3/4G
ADAS	FCW+LDW+HMW+PCW
Camera	2ch/3ch Optional
GPS	Support External GPS
Video format	H.264/H.265
G Sensor	Built-in 3-axis acceleration sensor
TF card	Supports up to 512GB TF cards
Voltage	9~36v
Temperature	-20 to +70

AI Intelligent MDVR System

⦿ HDD-606AD

DMS

Phonecalls (95%) | Smoke (95%) | Face detect (95%)

Absent driver (99%) | Distraction (98%) | Fatigue (98%)

ADAS

FCWS | LDWS

BSD

Pedestrian detection | Vehicle detection

Function:

- Intelligent 4CH AI MDVR All-in-one Device adopts ADAS & DMS technology to provide better performance

- Fleet management-Achieve remote monitoring by DVR GPS tracking/4G/ WiFi, convenient vehicle management on PC

- H.264/H.265-Support dual coding, improving the usage of storage space and wireless network traffic

- 1080P FHD image; Support 512G large-capacity SD card video recording

| Product Parameters	
Video output	1CH mixed video output (VGA output can be customized)
Sensor	Support built-in acceleration sensor
Network	Support 4G. Optional WiFi
SD Card	Maximum support 512G SD card
File format	H.265/H.264
Input voltage	DC: 8 ~ 36V
Temperature	-20 to +70
Humidity	20% to 80%
Size	153(W) x35(H) x121(L) mm
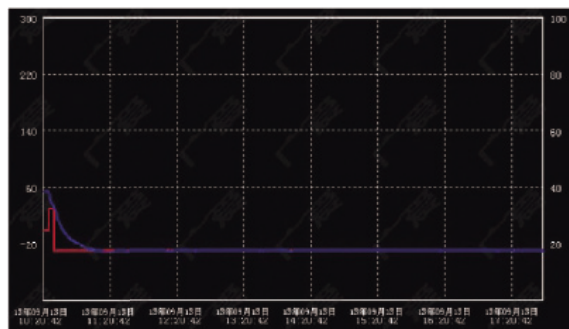
Environmental test (High and low temperature test)

High & low temperature cycling test, all products must pass -20°C to 70°C working temperature, products for special projects pass - 40°C to +85°C working temperature test.
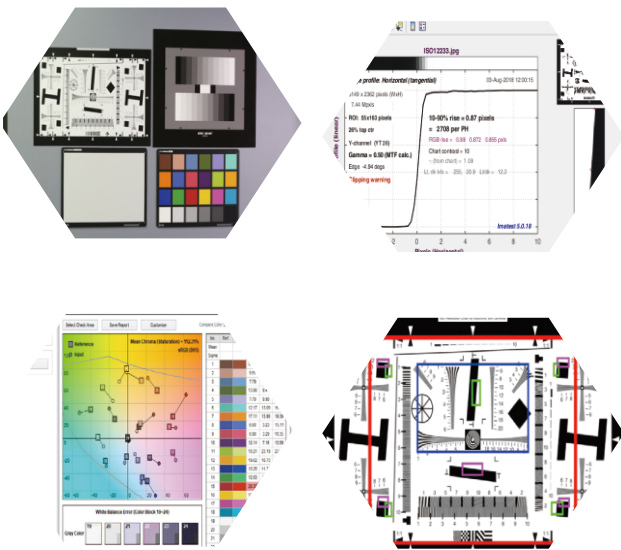
Dark Room

Camera software related tests are conducted in the dark room, such as resolution, colour reproduction, low illumination, white balance, wide dynamic, signal to noise ratio, geometric distortion, etc.

Waterproof test:
Soak test: products are soaked in water @ 1-meter-deep water for 1 hr
Air pressure test: products are put into special chamber to run air pressure test

Aging test:
4-8 hours continuous power on test at room temp.

Vibration test:
Vibrate chipsets, PCBA, finished products etc. for 8 hours per axial

Swing Test

Salt Spray Test
Condition: 5%
Temperature: 35°C

ESD Test & Modification

1. Electro-contact discharge : ±4kv/8KV

2. Air discharge: ±8kv/15kv

LCD Brightness test

Verify the brightness of the LCD monitor

FR Chamber   **EMC Pre-scan**