



# *IO-Power IOP-DAPI-12242A-1*

## *Outdoor 12VDC to 24VAC Power Inverter*

*(Special Design for Speed Dome 24VAC Power Solution)*



# IOP-DAPI-12242A-1


## User Manual

*IOP-DAPI-12242A-1*

*V.13.003\_0125*



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## Trademark and Copyright Notice

IOP-DAPI-12242A-1 is specially designed for 12VDC to 24VAC. For example, Speed Dome powered by 24VAC is especially suitable.

Adopting power by Outdoor DC UPS 12VDC, transforming from 12VDC to 24VAC to establish Outdoor DC to AC UPS power system.

All parts of the product, including software and accessories, their copyrights are owned by IO-Power technology limited, without IO-Power technology license, transcript may not be any imitation, copying or translation.

Product specifications and information referred to in this manual are for reference only, specification changes, without prior notice, please consult with agent or dealer before purchase latest product specification data.

## Copyright reserved



## About this Manual

This manual discusses IO-Power 12VDC to 24VAC Power Inverter which can be used in outdoor environment. Powered by on-line Outdoor DC UPS, IOP-DAPI-12242A-1 Power Inverter powers up 24VAC devices. Integrate the Inverter and DC UPS into DC to AC UPS power system.

This manual uses the following criteria to communicate instructions and information:

 NOTE	Readers 'attention'. These attentions to include the special conditions referred to in this manual or use the recommendation and note references.
 CAUTION	Reader 'beware'. In this case, readers can result in equipment damage or risks.
 WARNING	Hazard. Means that there is a potential risk of this can result in physical damage. Before using any equipment, please pay attention to the risks associated with the circuit, as well as familiar with standard practices required to prevent accidents from happening.

**Bold:** has an important function and set of steps require your attention.



## Product Warranty

### Housing Warranty

IO-Power IOP-DAPI-12242A-1 is a specially designed outdoor DC to AC Inverter, adopting industrial metal shell and professional antirust powered coating. It is suitable for outdoor environment.

Users operate this product under the construction of this manual, and under normal use. IO-Power provides 1 year warranty for the housing.

### DC to AC Control Board Warranty

IOP-DAPI-12242A-1 is designed to input 12VDC and to output 24VAC, providing 60W output power (max) @ 24VAC, 2.5A. to power up 24VAC devices. The Control Board can normally work at -40°C~60°C.

The range of input voltage for Control Board is 11~15VDC (15V Max). The limitation for input current is 12VDC 6A(Max) while output current is 2.5A(Max), output voltage 24VAC. The output 24VAC-60W(Max).

Users operate this product under the construction of this manual, and under normal use. IO-Power provides 1 year warranty for the Control Board.



# Attention of the Product Use

## Attention of the Product storage

### High and low temperature storage



IOP-DAPI-12242A-1 must be stored at  $-20^{\circ}\text{C} \sim 40^{\circ}\text{C}$  to keep the safety and normal operation.

### Attention of the product use



This product is DC to AC Power Inverter, users should pay attention to the following:

1. In accordance with the product specification data for the use of this product, please do not remove or change this equipment without authorization of any of the main parts, so as to avoid the safe use of the extension of the problem.
2. This product do not exceed  $80^{\circ}\text{C}$  heat and closer to the source of fire or less than  $-40^{\circ}\text{C}$  to direct low-temperature cooling, resulting in damage of electronic components and batteries.
3. when the product casing when the temperature exceeds  $70^{\circ}\text{C}$ , do not carry out charging and discharging operations to avoid danger.
4. Do not place this product in high humidity and put into water or close to the highly volatile chemical solvents to avoid danger.
5. Installation and assembly connectors in accordance with product instructions, not adjacent to the wrong wire connection to avoid the danger.
6. Do not hammer or other items to the hammer strike, trample on the battery and cause strong impact or throws, drops, heavy blow to this product to avoid danger.
7. When erecting system IOP-DAPI-12242A-1 series, if the distribution box or patch box space license case, recommend this product fixed inside the box, it will help to reduce this product at the risk of excessive high temperature operating temperature.




8. When erecting system IOP-DAPI-12242A-1 series, under erection conditions permit, recommends that this product is fixed to the Lee side, or not to be in the rain, it will help to reduce this product is too high or low humidity and rain water environments such as operational risks.
9. When erecting system IOP-DAPI-12242A-1 series, under erection conditions permit, recommend this product fixed on the back of sunshine, or not to be light, it will help to reduce this product is caused by excessive heat and sunshine of sunshine product ageing body and wiring to speed up operation of the environmental risks.
10. When system erecting IOP-DAPI-12242A-1series, even this products has IP66~IP67 of waterproof dust of grade, but for seeking products and system of indoor outside electricity security, recommendations all connector are then for professional of waterproof department in; if used general electrical tape for waterproof Department in, please be sure to for 2 times different direction of package covered waterproof Department in, has reached actual waterproof dust of benefit.
11. IOP-DAPI-12242A-1 is designed to adopted by Outdoor 12VDC UPS power system. Therefore, please make sure that both input and output voltage and current are in its range to avoid dangers



# Product Specification

## IOP-DAPI-12242A-1 Specification

Model Number	IOP-DAPI-12242A-1
Outdoor 12VDC to 24VAC Iron Airtight Housing IP 67 (Housing mold processing)	
Input DC Voltage	12VDC (11VDC~15VDC Max)
Input DC Current	12VDC 6A Max
Output AC Voltage	24VAC (22VAC~25VAC Max)
Output AC Current	2.5A Max
Output Power Frequency	47-63 Hz
Output Power Consume Watts	60W Max
Input Connector	DC Jack Connector
Output Connector	DC Plug Connector 5.1mm/2.1mm
Transform Efficiency	85%~
Protection	Input power overcurrent protection





	<b>Low input voltage protection</b> <b>High input voltage protection</b> <b>Output power overcurrent protection</b> <b>Short circuit protection</b> <b>Imported power polarity protection for anti-welding</b>
<b>Industrial Housing &amp; Connector</b>	<b>Iron Airtight Housing</b> <b>IP 67 Gland Connector</b>
<b>Connector Type</b>	<b>Input DC Power: 11~15VDC Max, DC Jack</b> <b>Output AC Power: 22VAC~25VAC Max, DC Plug</b>
<b>Operating Temperature</b>	<b>-30°C ~ +60°C</b>
<b>Storage Temperature</b>	<b>-20°C ~ 40°C</b>
<b>Rel. Humidity</b>	<b>0~95%RH</b>
<b>Dimension</b>	<b>155mm(L)x152mm(W)x42mm(H)</b>
<b>Weight</b>	<b>0.5Kg</b>
<b>Housing</b>	<b>IP67</b>
<b>Approvals</b>	<b>CE FCC Processing</b>
<b>Installation</b>	<b>1.Street lamp pole mount or Upright pole mount</b> <b>2.Wall mount installation</b>
<b>Warranty</b>	<b>12 months</b>

**Ps 1: Product specifications change, without notice, consultation with agent or dealer before buying the latest specifications**



# Product Installation Instructions

## Input DC 12V power

DC 12V~24V / 6A Max

DC Plug



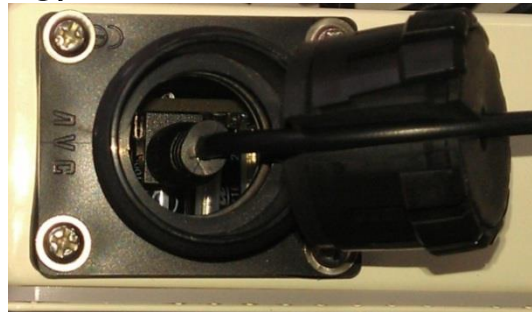
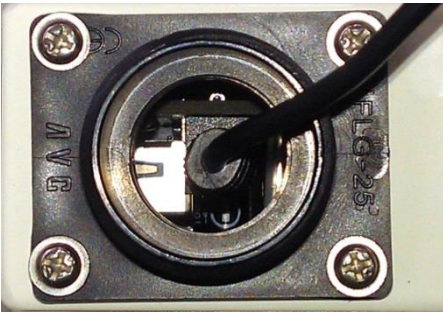
24VAC – 60W

2.5A Max

## DC Jack Female insert hole (DC Plug insert)



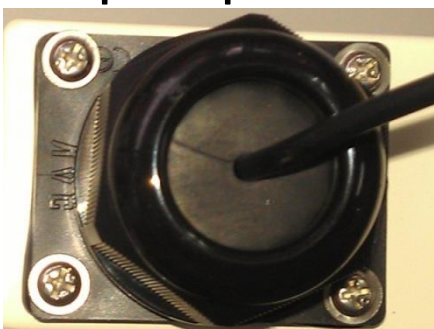
## Waterproof and heat-resistant beam head (waterproof rubber harvest broken hold stuffing)



Insert the DC Jack Male head-end and into a waterproof rubber at the PCBA Female hole.



## Lock waterproof and heat-resistant beam head (please do the waterproof protection)





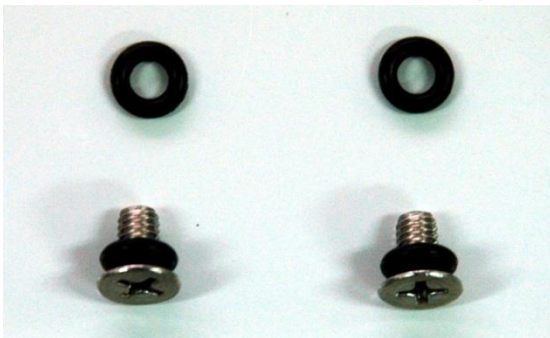
## Installation for outputting 24VAC from positive cord and negative cord



Positive cord connects to positive end. Negative cord connects to negative end.

### Mounting Instruction

First of all install the waterproof rubber gaskets fixed screw



Then screw through another set of waterproof rubber gaskets, fixed on the stainless steel bracket





## Stainless steel screws on the bracket, locking into the shell rear screw

hole



### Pole fixation

Stainless steel cable belt are recommended, through the stainless steel fixing brackets on either side of the hole, then beam tightly fixed in external support pole or fixed pole lay ...and so on.

### Plane fixation

Recommends that the first body plane welding two hole mounting holes or cable hole of the finds can be fixed through the plastic cable, through a stainless steel fixing brackets on either side of the hole, tight beam fixed card hole fixed products.



# Product operation instructions

## 12VDC input power instruction

Powered by on-line Outdoor DC UPS, IOP-DAPI-12242A-1 Power Inverter powers up 24VAC devices. It transforms from input 12VDC to output 24VAC.

## 24VAC output power instruction

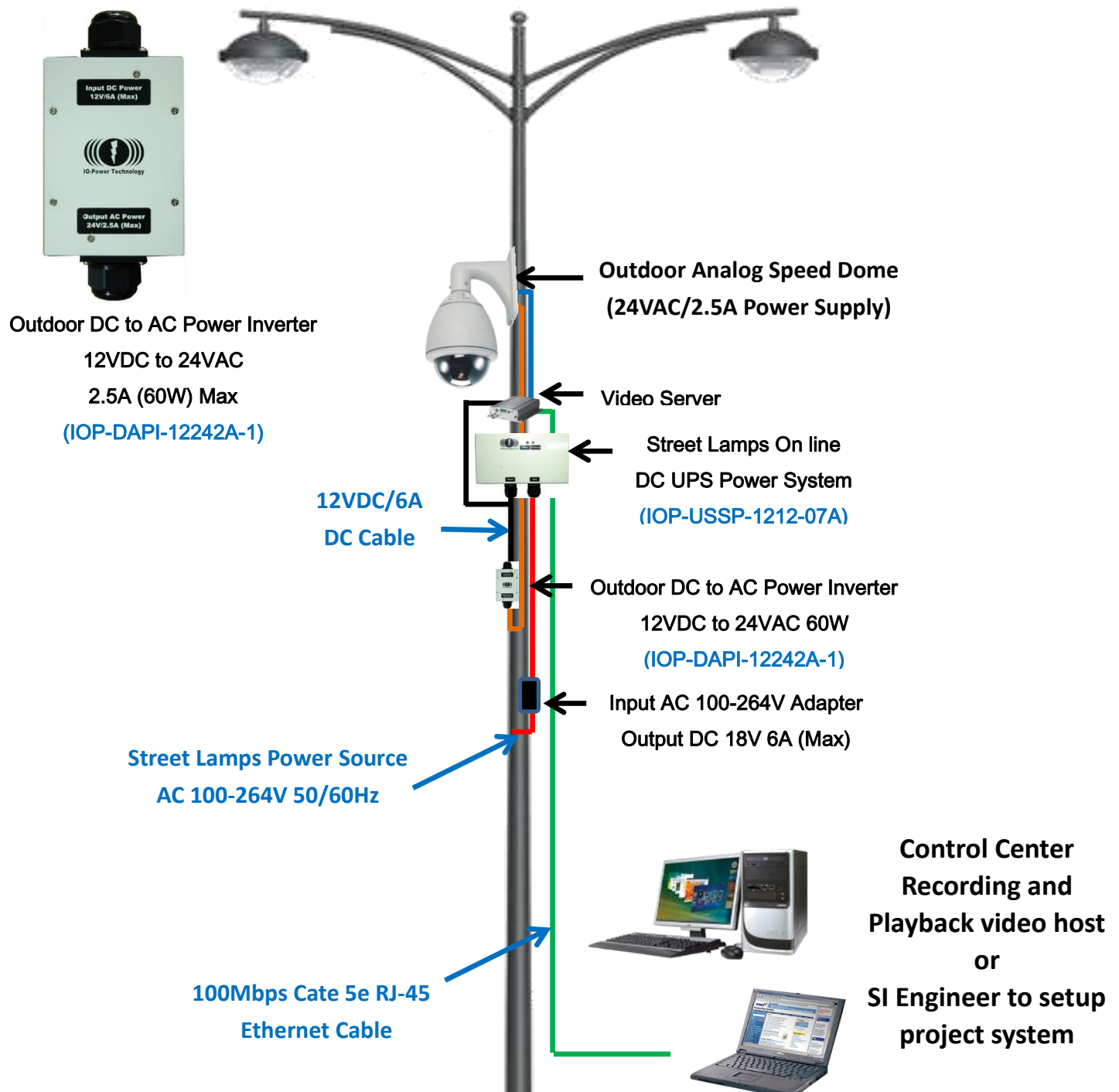
By transforming from 12VDC to 24VAC, IOP-DAPI-12242A-1 provides 24VAC 2.5A 60W for 24VAC devices, such as Speed Dome.



# Product Applications

## Road Cross Surveillance System

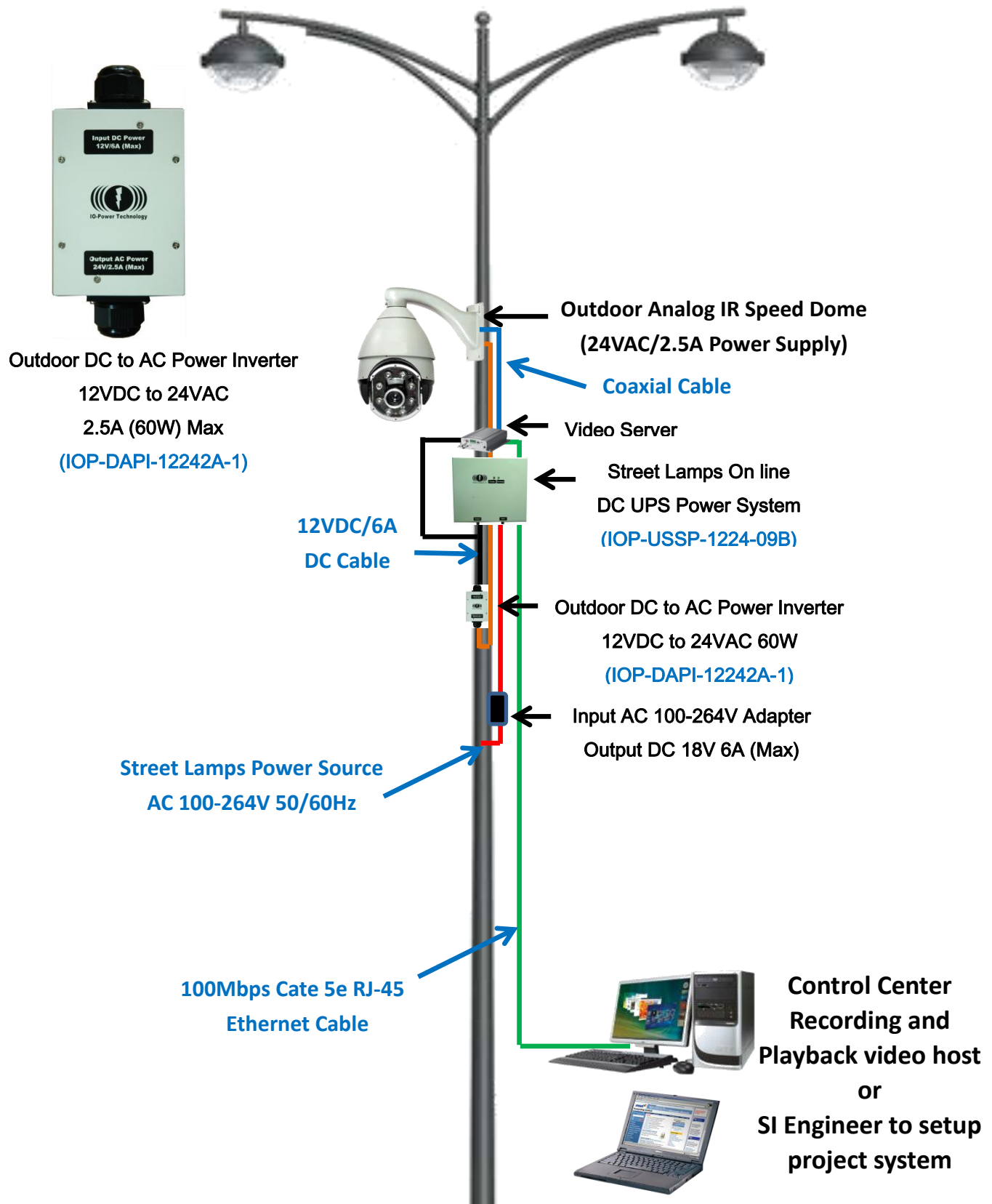
with Street Lamps DC UPS & DC to AC Power Inverter Power Solution





## Outdoor WiFi MIMO Wireless Road Cross Surveillance System

### with Street Lamps DC UPS & DC to AC Power Inverter Power Solution

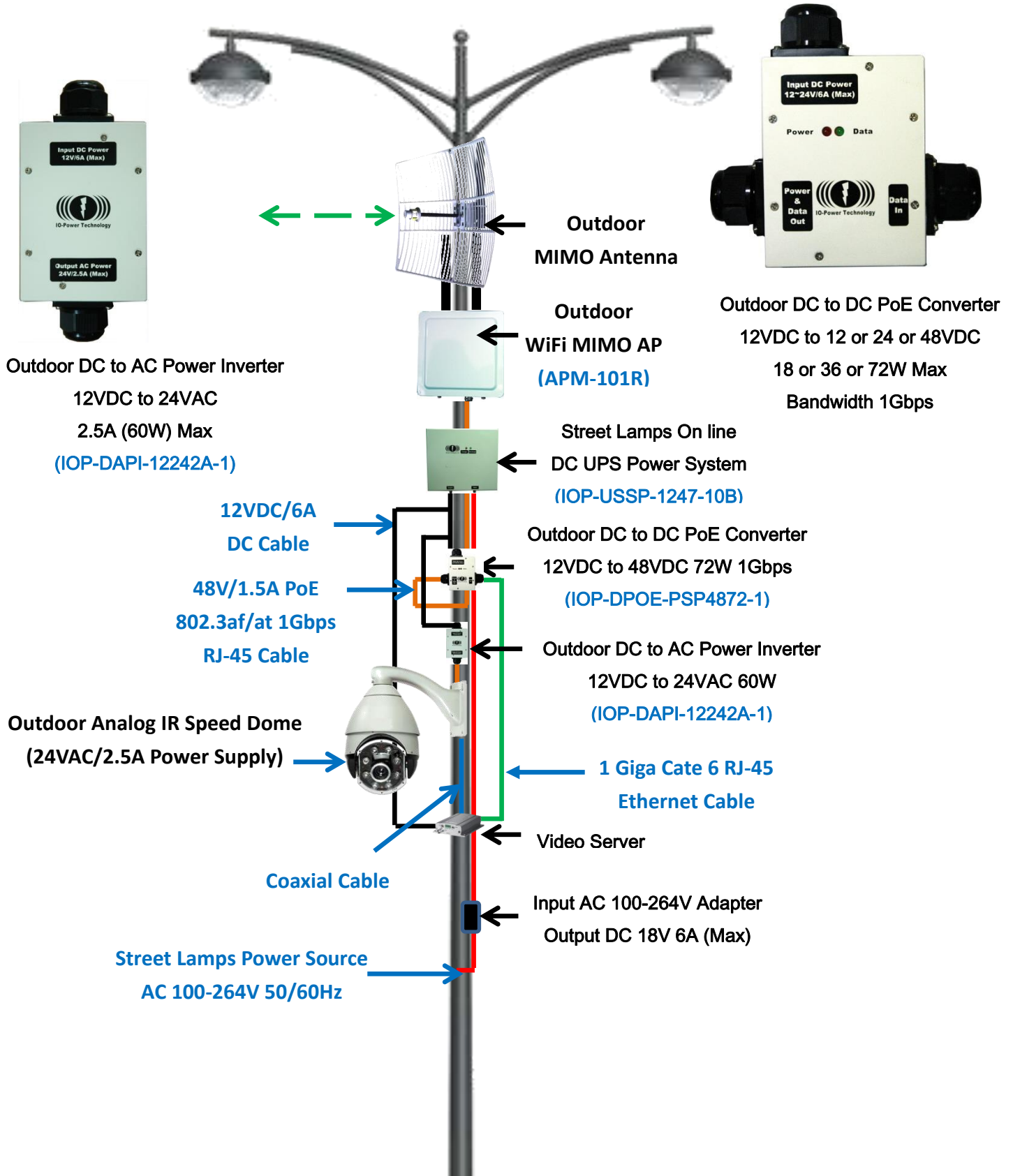






# Outdoor WiFi MIMO Wireless Road Cross Surveillance System

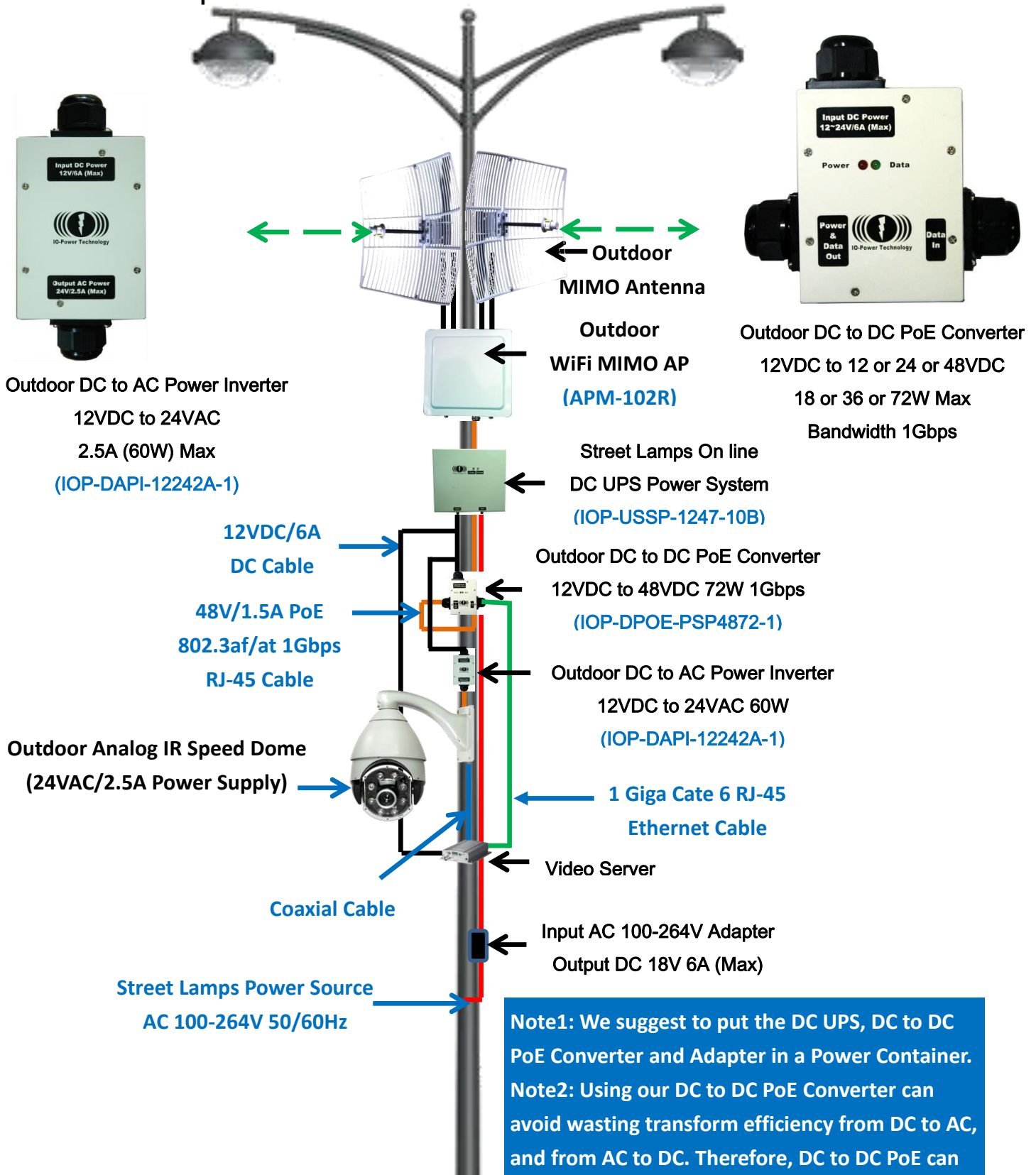
with Street Lamps DC UPS & DC to DC PoE & DC to AC Power Inverter Solution





## Outdoor WiFi MIMO Wireless Road Cross Surveillance System

with Street Lamps DC UPS & DC to DC PoE & DC to AC Power Inverter Solution

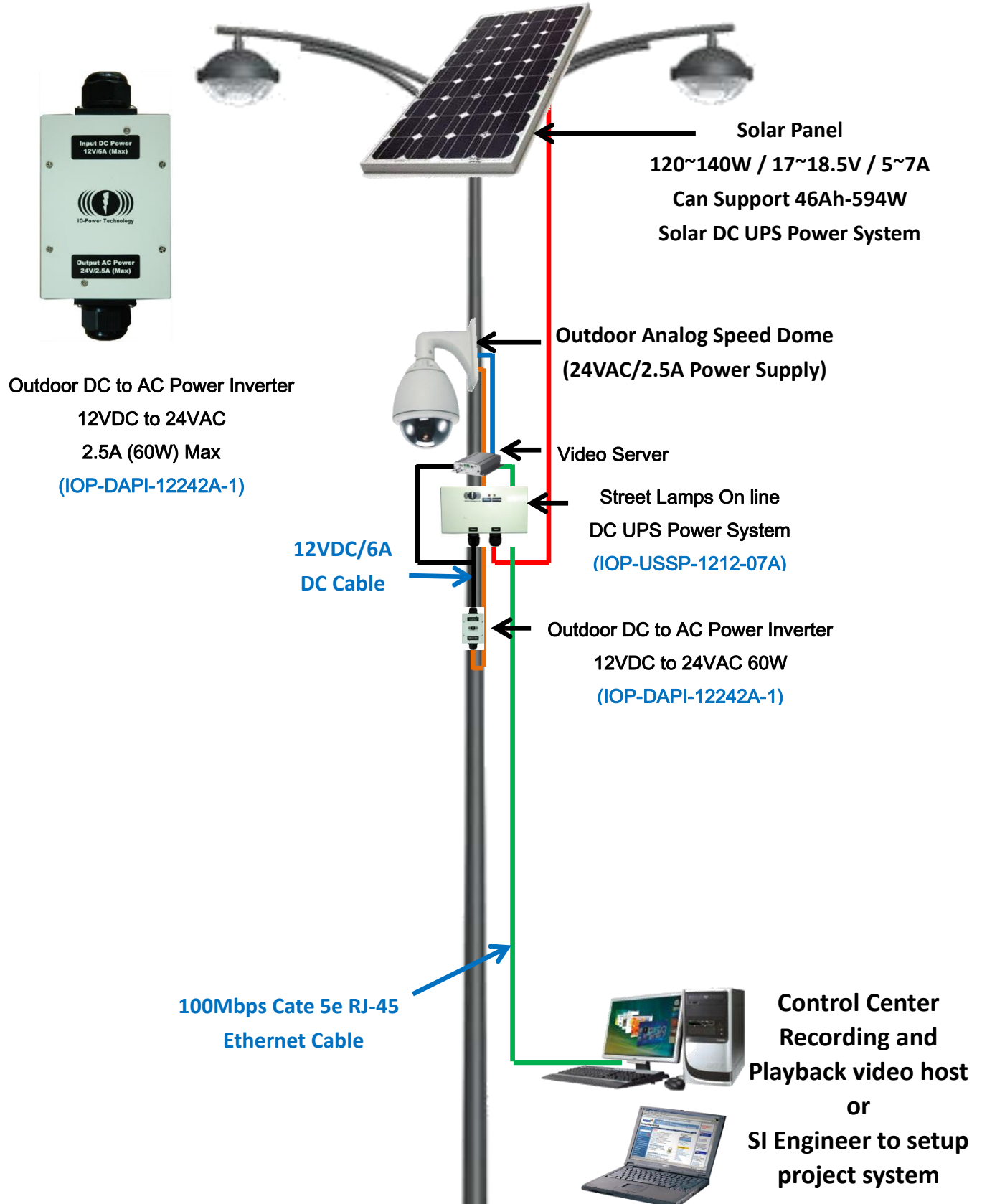


**Note1:** We suggest to put the DC UPS, DC to DC PoE Converter and Adapter in a Power Container.  
**Note2:** Using our DC to DC PoE Converter can avoid wasting transform efficiency from DC to AC, and from AC to DC. Therefore, DC to DC PoE can save 15%~30% electricity (Battery Capacity).



## Road Cross Surveillance System

with Solar Power DC UPS & DC to AC Power Inverter Power Solution





# Outdoor WiFi MIMO Wireless Road Cross Surveillance System

with Solar Power DC UPS & DC to DC PoE & DC to AC Power Inverter Solution

