PLANET
Networking & Communication

Internet Video Server
IVS-2120

Industrial Internet Video Server

H.264

IPv6
Management

SD Card
micro SD

2-way Audio

RS-485

PoE

1. Introduction

Thank you for purchasing PLANET IVS-2120 One-channel Industrial Internet. The IVS-2120 offers the highly-efficient H.264 video compression, which drastically reduces bandwidth and storage requirements without compromising image quality. It provides an easy and high-quality solution for integrating small or large numbers of analog CCTV cameras into an IP-based video surveillance system. The IVS-2120 is the ideal choice for casinos, airports, traffic surveillance and prisons — anywhere an analog surveillance system is already installed and full frame rate is needed.

1.1 Before Installation

Before installation, please be sure to read this quick installation guide and user's manual (CD) carefully to complete machine installation. This guide shows how to quickly set up the IVS-2120.

1.2 System Requirements

Network Interface	10/100Base-TX Ethernet
Monitoring System	Recommended for Internet Explorer 8.0 or later
System Hardware	● CPU: Intel® Core™ i3 Processor or faster ● Memory Size : 2GB or more ● VGA card resolution : 1920 x 1080 or higher ● VGA card memory : 1GB or above

2. Physical Description and Installation

2.1 Package Contents

- IVS-2120 Unit x 1
- User's Manual CD-ROM x 1
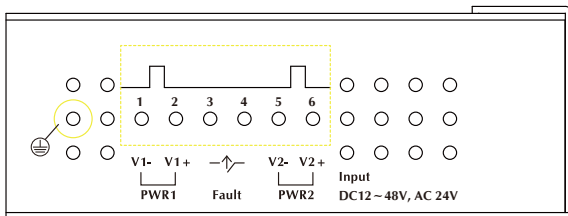- Quick Installation Guide x 1
- A/V Cable x 1
- Wall Package x 1

Note	1. If any of the above items are missing, please contact your dealer immediately. 2. Although the IVS-2120 supports AC or DC power source, its power input range must be noted.

2.2 IVS-2120 Physical Details

Left-hand Side of the IVS-2120 Panel

This IVS-2120 provides dual power source for redundancy. The IVS-2120's built-in bridge rectifier output varies accordingly so that the polarity can be ignored. Just pay attention to its power range only.

Power / DO

Name	Number	Alias	Function
V1-	1	PWR1	Power1 input -- Input range is DC 12V~48V and AC 24V.
V1+	2		
DO-	3	Fault	When both PWR1 and PWR2 are connected or whenever an event occurs, the fault LED is still off. Only when both PWR1 and PWR2 are connected will DO be in the open circuit. Whenever an event like motion detection is triggered, DO will be in the closed circuit. If either PWR1 or PWR2 is connected, DO will be in the closed circuit.
DO+	4		
V2-	5	PWR2	Power2 input -- Input range is DC 12V~48V and AC 24V.
V2+	6		

Note

1. User can see the LED power status on the front panel to know which power source is being connected to the IVS-2120.

2. Please note DC input power must not go over the range. Otherwise, the product may be damaged.

Front Panel of the IVS-2120

PWR	This LED will always light on when the IVS-2120 is turned on.
FAL	If either Power1 (P1) or Power2 (P2) is connected, the FAL LED will light on. For the FAL LED to light off, both P1 and P2 need to connect to power source.
P1	When Power1 connects to power source, the LED will light on.
P2	When Power2 connects to power source, the LED will light on.

Reset	This button is hidden in the pinhole. This button is used to restore to all the factory default settings. Sometimes restarting the IVS-2120 will make the system back to a normal state. If the system still got problems after restart, user can restore to the factory default settings and install it again. To restore the device, please follow the steps below: a. Insert the paper clip or any proper tool, and press and hold the button down continuously. b. Hold it at least for 5 seconds and release the tool to get the device restored to the default settings and reboot again.

> **Note**
>
> Restoring to the factory default setting will lose all the previous settings including IP address forever. User needs to run the PLANET IP Wizard II program to search the device and configure it to let the device work properly again.

100FX	When SFP transceiver connects to SFP receiver, the LINK/ACT LED will light on.
10/100TX (PoE)	When RJ-45 cable connects to switch or PC, the LINK/ACT LED will light on. If network speed is 100Mbps, the LED will also light on.

|	
SD	When micro SD card is inserted into the slot and the IVS-2120 is writing data to micro SD card, the SD LED will light on.
Mic in	Connect an external microphone to the IVS-2120.
A/V Out	Audio/Video-out jack allows this device to output audio and video signal. Use the attached A/V cable to connect A/V device where white cable is for audio and yellow cable is for video.

> **Note**
> 1. The white jack is used for audio output, and yellow jack is used for video output.
> 2. The IVS-2120 could determine whether the monitor uses NTSC or PAL format signal, and output the fitting video format to monitor automatically. Please connect the video jack (yellow) with the monitor properly before powering on the machine.

The IVS-2120 provides a general I/O terminal block with one digital input and one output for device control. It has 4 pins that from left to right there are DI+, DI-, D+ terminal of RS-485 and D- terminal of RS-485.
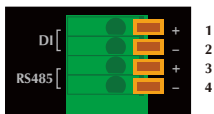
DI / RS-485

Name	Numer	Function
DI+	1	Digital signal input with positive voltage
DI-	2	Digital signal input with negative voltage
485+	3	RS485 data +
485-	4	RS485 data -

Note	The input voltage range of DI+ is DC 13~30V; maximum current is DC 8mA.

2.3 IVS-2120 Installation

1. Attach video source to the IVS-2120

   To use the IVS-2120, user must supply video source to the IVS-2120. Connect the BNC terminal of the camera to the IVS-2120 video input and make sure to power on the camera first.

2. Attach audio source to the IVS-2120 (optional)

   If user needs both video and audio streams, then the audio source should be attached to the IVS-2120. Connect the audio device's line output to the IVS-2120's Mic-in and make sure to power on your camera or audio device first.

3. Plugging Ethernet cable into RJ-45 connector

   Connect an Ethernet cable to the LAN socket located on the IVS-2120 panel and attach it to the network.

4. Plugging SFP module into 100FX slot (optional)

   Use fiber cable to connect to another SFP module. Please note that fiber cable needs cross connection to another SFP module.

5. Connecting RS-485 D+ and D- (optional)

   When user likes a camera with P/T/Z function, they usually need to connect their communication port (for camera control) through RS-485. After RS-485 is correctly connected to D+ and D-, the remote users can control the camera movement through Internet.

6. Connect power source to PWR1 or PWR2 via terminal block. The IVS-2120 also obtains power from PoE switch over RJ-45 cable.

7. Done.

3. Camera Windows Utility

This chapter shows how to quickly set up your IVS-2120. The IVS-2120 is with the default settings. However to help you find the networked camera quickly, the windows utility (PLANET IPWizard II) can search the IP cameras in the network that will help you to configure some basic setting before you start advanced management and monitoring.

Please insert the bundled CD disk into your CD/DVD-ROM drive. When the welcome web page appears, please click your IP camera name on the IP camera list. Then click PLANET IPWizard II hyperlink to start PLANET IPWizard II.

Search function:

Press the **"Search"** button and PLANET IPWizard II will list all networked devices in the LAN. If the IP camera cannot be found, you may check whether this IP camera is connected to the network properly and press the search button again.
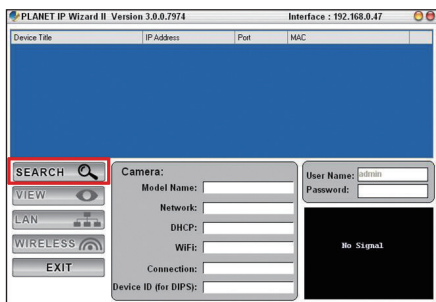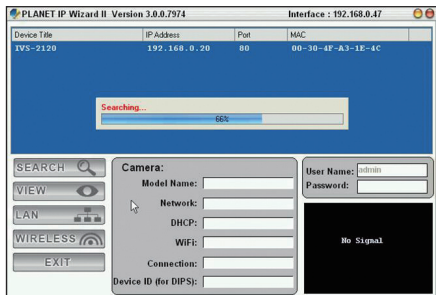
View function:

If PLANET IPWizard II finds network devices, **View** button will be available. Please select the device you want to view and click the **View** button. Furthermore, you can double-click the left button of mouse to link to the network device by browser.
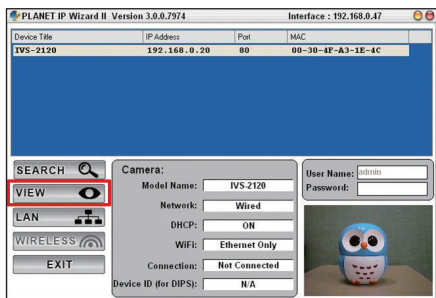
LAN setting:

The utility is featured with **"LAN"** setting function to help user to modify the IP parameters of the installed network devices. User can step by step set up IP address, username and password. After keying in a new username and password, click the **"Submit"** button to perform your setting accordingly.

1. If no IP address is assigned within 30 seconds, the networked device will automatically assign 192.168.0.20. User may now open your web browser, and key in http://192.168.0.20 in the address bar of your web browser to logon IP camera's web configuration page.

2. Power Line Frequency
   - If you find the video image is flashing, you may need to choose 50 or 60 Hz frequency (depending on different countries).

After being connected to the networked device, the device will prompt for User name and Password. For the first time, please enter **"admin"** as username and password to continue Web Management.
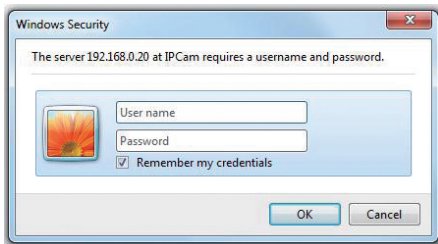
If difficulty is met, please refer to the following steps to establish the connection:

- The networked device must be installed and powered ON.

If the networked device's default IP address **(192.168.0.20)** is already used by another device, the other device must be turned OFF until the device is allocated a new IP address during the configuration.

Further Information

This guide is used to help you start up your IVS-2120 settings. It is also recommended to check the user manual in CD disk for more details of the system and user configuration.

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