VPort 36-2L Series
Quick Installation Guide

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MOXA®

Overview

The VPort 36-2L rugged 1080P (1920 x 1080) box IP cameras are specifically designed for mission-critical and extreme weather environments. The cameras have two types of built-in P-iris zoom lenses, 3 to 9 mm and 10 to 23 mm. They support remote zoom and focus control via an IP network, providing convenience and simplicity for camera operation, and feature a wide -40 to 75°C operating temperature range (-T models) and industrial-grade EMC (EMI/ Surge Level 3) protection. The VPort 36-2L cameras are suitable for industrial and outdoor environments such as oil & gas, rail, and ITS applications. In addition, the VPort 36-2L supports a light sensor and ICR (IR-cut filter removable) for day and night viewing, advanced WDR (wide dynamic range), and DNR (digital noise reduction), allowing the VPort 36-2L to produce good quality images even in extreme sunlight conditions.

Package Checklist

Moxa's VPort 36-2L series is shipped with the following items. If any of these items is missing or damaged, please contact your customer service representative for assistance.

- 1 VPort 36-2L3X or VPort 36-2L2X camera, with a 3-pin terminal block for power input and 9-pin terminal block for RS-485, DI and Relay
- Quick installation guide (printed)
- Documentation and software CD (includes user's manual, quick installation guide, and VPort utility)
- Warranty card

NOTE Check the model name on the VPort's side label to verify that the model name is correct for your order.

NOTE This product must be installed in compliance with your local laws and regulations.

Features

- Maximum 30 FPS @ 1080P (1920x1080, Full HD) resolution
- Built-in P-IRIS zoom lens with 3x (3 to 9 mm) and 2x (10 to 23mm) optical zoom
- Zoom and focus can be controlled remotely over an IP network
- 4 video streams with H.264 and MJPEG dual codecs
- Industrial design with -40 to 75°C operating temperature in –T model (heater or cooling fan not required)
- Supports 1080P/SXGA/HD/SVGA/ Full D1/ 4CIF/ VGA/ CIF resolution
- TCP, UDP, and HTTP network transmission modes
- Supports QoS (ToS) for transmission priority
- Supports RTSP streaming
- Supports multicast (IGMP) video streaming
- Supports SNMP (V1/V2C/V3) for network system integration and management
- Accessible IP filtering
- UPnP supported
- Built-in web server for easy configuration

- Minimum illumination up to 0.2 lux (color) and 0.1 lux (B/W)
- Built-in tamper alarm and Video Motion Detection (VMD)
- -40 to 75°C operating temperature
- 1 10/100BaseT(X) port with RJ45 connector
- SDXC slot for local event / disconnected recording
- CBR Pro for flexible flow control
- DynaStream™ for network efficiency with dynamic frame rate change
- EN50121-4 compliance
- Supports ONVIF Profile S for multiple video stream profiles
- 12/24 VDC, 24 VAC, or PoE redundant power inputs
- CE, FCC, UL 60950-1
- EN 50121-4, NEMA TS2 compliance
- Pre, Trigger, and post snapshot images supported
- Sequential snapshot images supported
- Supports SMTP and FTP for alarm message transmission
- Supports HTTP event server
- 5-year warranty (limited warranty on moving parts; see Moxa's online warranty policy for more details)

Product Description

Front and Top Panels

- **SD Card Socket:** The VPort supports the SDXC interface, which can use SD cards with more than 64 GB of memory for local storage of video recordings (by event or disconnection recording).
- **Mounting Bracket Screw Hole:** Screw holes for fastening the camera to a protective housing.
- **Reset Button:**
  - ➢ **Factory default:** Press and hold the button for at least 60 seconds, until the STAT LED turns green. Configuring the factory defaults should take about 90 seconds.
  - ➢ **Reboot:** Press and hold the button for at least 30 seconds until the STAT LED flashes red. At this point, the VPort will initiate the reboot process.
- **Light Sensor:** there is a light sensor beside the lens, which is to detect the luminance to decide the camera's day and night control.
- **Motorized P-IRIS lens:** VPort 35-2L is built-in with a motorized P-IRIS lens, which can remotely control the zoom and focus. With this feature, there is no need to fine-tune the lens at the field site saving time and costs.

Rear Panel
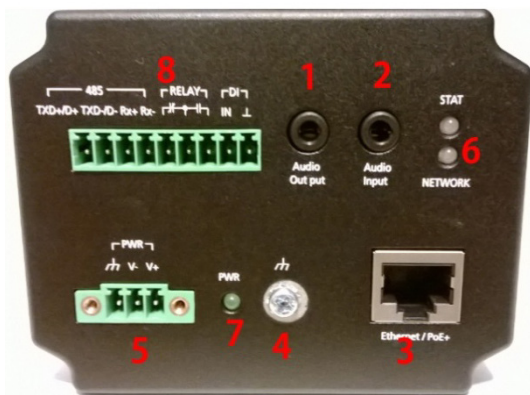
1. Phone jack for audio output
2. Phone jack for audio input
3. RJ45 port for PoE/non-PoE connection
4. Ground screw for connecting a ground wire
5. 3-pin terminal block for power input
6. LED indicator to show network and system status. Green indicates normal operation.
7. LED indicator to show power status. Green indicates normal operation.
8. 9-pin terminal block for RS-485 and DI and relay.

9-pin terminal block pin assignment
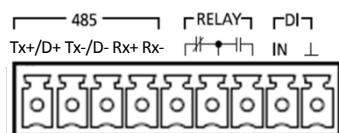
RS-485				Relay (Relay Output)	DI (Digital Input)	
Tx+/D+	Tx-/D-	Rx+	Rx-	$\mathcal{M}$: NC $\mathbf{l}$: COM $\mathbf{ll}$: NO	IN: +	$\perp$: GND
Full/Half duplex RS-485				Max. 1 A, 24 VDC Initial status is NO (Normal Open)	High: +13 V to +30 V Low: -30 V to +3 V	

NOTE The VPort 36-2L can be powered by a 12 VDC, 24 VDC, or 24 VAC input or Power-over-Ethernet (PoE, 802.3af). Input rating is 12/24 VDC, 0.91/0.38 A or 24 VAC, 47-63 Hz, 0.8 A or PoE 48 VDC, 0.24 A. Use an external power supply together with PoE (802.3af) for power redundancy.

Software Installation

### Step 1: Configure the VPort 36-2L's IP address

When the VPort 36-2L is first powered on, the POST (Power On Self Test) will run for a few moments (about 90 seconds). The network environment determines how the IP address is assigned.

Network Environment with DHCP Server

When DHCP is active, the unit's IP address will be assigned by the network's DHCP server. Refer to the DHCP server's IP address table to determine the unit's assigned IP address. You may also use the Moxa VPort and EtherDevice Configurator Utility (edscfgui.exe), as described below:

Using the Moxa VPort and EtherDevice Configurator Utility (edscfgui.exe)

1. Run the edscfgui.exe program to search for the VPort. After the utility's window opens, you may also click on the Search button to initiate a search.
2. When the search has concluded, the Model Name, MAC address, IP address, serial port, and HTTP port of the VPort will be listed in the utility's window.
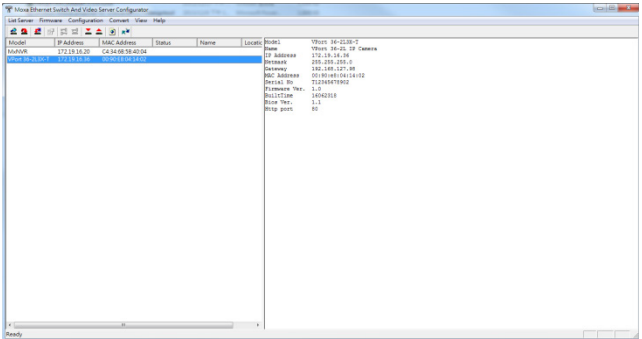
3. Double click the selected VPort or use the IE web browser to access the VPort's web-based manager (web server).

Non DHCP Server Network Environment

If your VPort 36-2L is connected to a network that does not have a DHCP server, then you will need to configure the IP address manually. The default IP address of the VPort 36-2L is 192.168.127.100 and the default subnet mask is 255.255.255.0. Note that you may need to change your computer's IP address and subnet mask so that the computer is on the same subnet as the VPort.

To change the IP address of the VPort manually, access the VPort's web server, and then navigate to the **System Configuration** → **Network** → **General** page to configure the IP address and other network settings. Check the **Use fixed IP address** option to ensure that the IP address you assign is not deleted each time the VPort is restarted.

Step 2: Accessing the VPort 36-2L's web-based manager
Type the IP address in the web browser's address input box and then press enter.

Step 3: Install the ActiveX Control Plug-in

A security warning message will appear the first time you access the VPort's web-based manager. The message is related to installing the VPort AcitveX Control component on your PC or notebook. Click **Yes** to install this plug-in to enable the IE web browser for viewing video images.

NOTE For Windows XP SP2 or above operating systems, the ActiveX Control component will be blocked for system security reasons. In this case, the VPort's security warning message window may not appear. Users should unlock the ActiveX control blocked function or disable the security configuration to enable the installation of the VPort's ActiveX Control component.

Step 4: Access the homepage of the VPort 36-2L's web-based manager.

After installing the ActiveX Control component, the homepage of the VPort 36-2L's web-based manager will appear. Check the following items to make sure the system was installed properly:

1. Video Images
2. Video Information
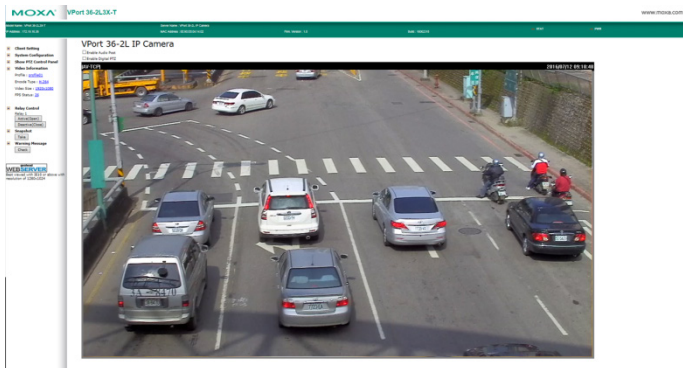
Step 5: Access the VPort's system configuration

Click on **System Configuration** to access the overview of the system configuration to change the configuration. **Model Name**, **Server Name**, **IP Address**, **MAC Address**, and **Firmware Version** appear in the green bar near the top of the page. Use this information to check the system information and installation.

For details of each configuration, check the user's manual on the software CD.

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System Configuration

Category	Item	Description and Content
Profiles	Configuration	Configure ONVIF Profile settings
System	General	Setting Host Name, and Location
	Date/Time	Setting Date/Time
	Account	Administrator, User and Demo Account Privileges Management
	Local Storage	Set up the local storage capability
	System Log	System Log and operation information
	System Parameter	System parameters information and Import/Export function
	System I/O	Digital Input and Relay settings
	Firmware Upgrade	Remote Firmware Upgrade
	Factory Default	Reset to Factory Default
	Reboot	Device will reboot for restarting system
Network	General	The IP network settings of the VPort
	IPv6	Configure IPv6 settings
	DDNS	Configure DDNS
	UPnP	Enable UPnP function
	ToS	Configure ToS(Type of Service)
	Accessible IP	Set up a list to control the access permission of clients by checking their IP address
	SNMP	Configure the SNMP settings
	Modbus/TCP	Enable Modbus/TCP function
	Moxa Service	Moxa search protocol
	802.1X	Configure 802.1X
	SSH	Configure SSH
	LLDP	Configure LLDP
	SIP	Configure SIP settings
Video	Image Setting	Configure the information of video image
	Camera Setting	Configure the attributes of video image
	Day Night Setting	Configure Day Night Setting
	Corridor	Configure the corridor mode
	Privacy Mask	Configure the Privacy Mask settings
	Video Encoder	Set up the Encode Standard(MJPEG or H.264), Size (Resolution), FPS, Quality and Multicast settings
	PreAlarm	Set up PreAlarm Parameters
	Focus	Configure the Focus settings
Audio	Audio Input	Configure Audio Input settings
	Audio Output	Configure Audio Output settings
Metadata	Metadata	Configure Metadata settings
Streaming	OBRRtv	Configure OBRRtv settings
PTZ	PTZ Config	Configure the PTZ Configuration settings and Camera Driver
	Preset	Configure PTZ Preset settings
Serial Port	PTZ Port	Configure PTZ Port Settings
	Enable Event	Enable/Disable all Event Producer
	System Event	Configure System Event settings
Event	Motion Detection	Configure Motion Detection settings
	Camera Tamper	Configure Camera Tamper settings
	Sequential Snapshot	Configure Sequential Snapshot settings, Schedule and transmit destinations
Actions	Action Config	Configure detail Action activation
	Action Trigger	Configure Action Trigger for Event trigger condition-specify Action Config

NOTE Strongly recommend to enable the authentication in System/Account privilege for better cyber security protection. The administrator's account name is "admin" and the default password is "moxamoxa". Please change the default password for better protection.

Grounding VPort 36-2L

Grounding and wire routing help limit the effects of noise due to electromagnetic interference (EMI). Run the ground connection from the ground screw to the grounding surface prior to connecting devices.

Dimensions (mm/inch)

Front View

90,90
[3,579]

90,00
[3,543]

70,00
[2,756]

Top View

Back View

Side View


```
          203,27
         [8,003]
       199,75
      [7,864]
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Camera Mounting

Outdoor installation with an IP67/68 camera housing (take VP-CI701 as an example)

Screw VP-CI701's black latch into the VPort 36-2L's mounting bracket screw hole. Screw in until the lens secures the front glass to the housing. Then install the VP-CI701 onto the wall mount bracket, VP-CI800.

Indoor installation with indoor mounting bracket (take VP-CI803 as an example)

Screw the VP-CI803 into the VPort 36-2L's mounting bracket screw hole, and then install the VP-CI802 on to the ceiling or wall.

Wiring Requirements

> ⚠️ **SAFETY FIRST!**
> - Be sure to disconnect the power cord before installing and/or wiring your Moxa VPort 36-2L.
> - Calculate the maximum possible current in each power wire and common wire. Observe all electrical codes dictating the maximum current allowable for each wire size.
> - If the current goes above the maximum ratings, the wiring could overheat, causing serious damage to your equipment.

You should also pay attention to the following:

- Use separate paths to route wiring for power and devices. If power wiring and device wiring paths must cross, make sure the wires are perpendicular at the intersection point.
- You can use the type of signal transmitted through a wire to determine which wires should be kept separate. The rule of thumb is that wiring that shares similar electrical characteristics can be bundled together.
- Keep input wiring and output wiring separated.
- It is strongly advised that you label wiring to all devices in the system when necessary.

> **NOTE**
> - This equipment is intended for use in locations with restricted access such as computer rooms. Access to the equipment should be restricted to SERVICE PERSONS or USERS who are trained and authorized to use this equipment. Furthermore, access to the equipment should be restricted by the use of a key, or a user identification system. Only authorized, well-trained professionals should be given access to the restricted area where the equipment is in operation.
> - External metal parts are HOT!!
>   Personnel who have access to this equipment should be made aware of the hot surface of the equipment. They must not touch the metal chassis of the equipment without proper protection.