# VPort 56-2MP Series Quick Installation Guide

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## Overview

The VPort 56-2MP series is the world's first rugged IP camera that can tolerate environmental temperatures ranging from -40 to 75°C without cooling fan. It is an industrial-grade, H.264 box-type IP camera that combines Full HD resolution (1920 x 1080), 10x optical zoom, and 16x digital zoom to enhance surveillance system efficiency while delivering state-of-the-art video quality. Optional housing and PT scanner accessories are available for indoor and outdoor installation.

With a built-in removable IR-cut filter and automatic color mode switching, the VPort 56-2MP series is suitable for both day and night use. Highly-tuned ROI (Region of Interest), BLC (Back Light Compensation), and sense up functions enable the VPort 56-2MP to produce exceptionally clear images. The VPort 56-2MP can encode analog video into both H.264 and MJPEG video streams and can transmit up to 3 independent video streams (2 in H.264, and 1 in MJPEG) simultaneously. Advanced video encoding technology enables the camera to support up to 30 fps for each of the H.264 and MJPEG streams.

## Package Checklist

Moxa's VPort 56-2MP 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 56-2MP camera (see ordering information below)
- Terminal block accessory package (3-pin terminal block for power input, 9-pin terminal block for RS-485 DX+ and DX- and I/O)
- Documentation and software CD (includes user's manual, quick installation guide, and VPort utility)
- Quick installation guide (printed)
- 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.

## **Ordering Information**

- VPort 56-2MP-CAM10X: 0 to 60°C operating temperature
- VPort 56-2MP-CAM10X-T: -40 to 75°C operating temperature
- VPort 56-2MP-CAM10X-S-SC: 0 to 60°C operating temperature, single mode fiber interface
- VPort 56-2MP-CAM10X-S-SC-T: -40 to 75°C operating temperature, single mode fiber interface

# Specifications

Camera
Sensor: 1/2 5" HD progressive scan CMOS
Lons: 6.2 to 62 mm auto focus zoom lons
AES: UN/UTT
FIX: 1/50, 1/100, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000 sec
S/N Ratio: More than 50 dB (AGC off)
ICR Control: Auto (light sensor control) or DI control
DNR: Built-in 3D DNR
AGC Control: On/Off
Backlight Compensation: On/Off
Auto Exposure: On/Off
Image Rotation: Flip, Mirror, and 180° rotation
Auto Sense Up: On/Off, Max. 64x
Image Setting: Manually tune sharpness
Video
Video Compression: H.264 (ISO/IEC 14496-10) or MJPEG
Video Output: via Ethernet
Video Streams: Up to 3 video streams (2 x H.264 and 1 x MJPEG)
Video Resolution and FPS (frames per second): Up to 30/25 FPS for
each of 3 independent streams at max resolution.
Video Viewing:
<ul> <li>DynaStream<sup>™</sup> supported for automatic adjustment of frame rate</li> </ul>
Image stabilizer to reduce video shaking
<ul> <li>CBR Pro<sup>™</sup> for optimized image guality within limited bandwidth</li> </ul>
8 privacy mask areas provided
Adjustable image size and guality
Timestamp and text overlay
Maximum of 10 simultaneous unicast connections
ROI (Region of Interest) configuration for up to 3 areas
PTZ: Compatible with Videotec Ulisse Netcam PT scanner
Audio
Audio Inputs: 1 Line-in with 3.5 mm phone lack
Audio Outputs: 1 Line-out with 3.5 mm phone jack
Two-Way Audio: Full duplex two-way audio
Network
Protocols: TCP LIDP HTTP SMTP FTP Telnet NTP DNS DHCP LIPPP
RTP. RTSP. ICMP. IGMPv3. OoS. SNMPv1/v2c/v3. DDNS. Modbus/TCP.
802 1X SSI
<b>Ethernet</b> : 1 10/100BaseT(X) Ethernet port RI45 connector or 1
100BaseFX_single mode
Standard: ONVIE
GPIO
Digital Inputs: 1, max, 8 mA
• High: +13 to +30 V
• Low: -30 to +3 V
Relay Output: 1 max 24 VDC @ 1 A
teray carpate if max. 21 100 C TR

Serial Interface

RS-485: 1 full-duplex RS-485 port

LED Indicators

STAT: Indicates if the system is booted properly or not

Network: 10 Mbps or 100 Mbps

Power: Power on/off

Local Storage

**SD Socket:** Standard SD socket (SDHC, SDXC)

Power Requirements

Input: 12/24 VDC, 24 VAC or Power-over-Ethernet (PoE+, 802.3at), redundant power design

Power Consumption: 23 W

Physical Characteristics

Camera Body Housing: Metal, IP30 protection

**Installation:** Wall mounting, ceiling mounting, pole mounting, corner mounting (optional external housing and mounting accessory may be required)

Alarms

Video Motion Detection: 3 independently configurable motion areas Camera Tamper: Sensitivity adjustable camera tamper detection

(Pending)

Scheduling: Daily repeat timing schedule

Imaging: JPEG snapshots for pre/trigger/post alarm images

Custom Alarms: HTTP event and CGI events for setting customized alarm actions

**Email/FTP Messaging:** Automatic transfer of stored images via email or FTP as event-triggered actions

Pre-alarm Buffer: 84 MB video buffer for JPEG snapshot images

Environmental Limits

**Operating Temperature:** 

Standard Models: 0 to 60°C (32 to 140°F)

Wide Temp. Models: -40 to 75°C (-40 to 167°F)

Storage Temperature: -40 to 85°C (-40 to 185°F)

Ambient Relative Humidity: 5 to 95% (non-condensing)

Standards and Certifications

Safety: UL 60950-1, EN 50121-4, NEMA TS2

EMI: FCC Part 15, CISPR 32 class A

EMS:

EN 61000-4-2 (ESD), Level 3,

EN 61000-4-3 (RS), Level 3,

EN 61000-4-4 (EFT), Level 3,

EN 61000-4-5 (Surge), Level 3,

EN 61000-4-6 (CS), Level 3,

EN 61000-4-8,

EN 61000-4-11

Shock: IEC 60068-2-27

Freefall: IEC 60068-2-32

Vibration: IEC 60068-2-6

Warranty

Warranty Period: 3 years

Details: See www.moxa.com/warranty

# **Product Description**

## Front and Top Panels



- **SD Card Slot:** You can remove the SD card slot cover and insert an SD card for disconnection/event local storage.
- **Mounting Bracket Screw Hole:** Screw holes for fastening the camera to a protective housing.
- **Reset Button:** Use a pointed object to depress the reset button to reboot; push and hold to reboot and restore factor defaults.

#### Rear Panel



- 1. Phone jack for audio output
- 2. Phone jack for audio intput
- 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.
- LED indicator to show power status. Green indicates normal operation.
- 8. 9-pin terminal block for RS-485 and DI and relay.

**NOTE** The VPort 56-2MP can be powered by a 12 VDC, 24 VDC, or 24 VAC input or Power-over-Ethernet (PoE+, 802.3at). Use an external power supply together with PoE+ for power redundancy.

## Software Installation

### Step 1: Configure the VPort 56-2MP's IP address

When the VPort 56-2MP is first powered on, the POST (Power On Self Test) will run for a few moments (about 30 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)

- 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.
- 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.

List Server Firmware Co	onfiguration Convert	t View Help							
Model	IP Address	MAC Address	Status	Name	Location	blode1	VPort 56-2MP-CANLOX		
VPort 56-2MP-CAM10X 172.19.16.224 00:90E8.3EA.						IP Address	172,19,16,224		
/Port	172.19.16.25	00:90:68:81:2				Detmask	255.255.255.0		
/Port 56-2MP-CAM10X	172.19.16.70	00:90:E8:3E:A				Gateway	0101010010010101010		
/Port	172.19.16.37	00:90:E8:81:2				Serial So	03766		
/Port06	172.19.16.222	00:90:E8:06:0				firmware Ver.	1.2		
<s-6526-sb< td=""><td>172.19.16.250</td><td>00:9E:0E:86:5</td><td></td><td></td><td></td><td>BuiltTime Ner</td><td>14061716</td></s-6526-sb<>	172.19.16.250	00:9E:0E:86:5				BuiltTime Ner	14061716		
Port36	172.19.16.50	00:90:68:36:0				Sttp port	80		
/Port36	172.19.16.232	00:90:E8:2D:2							
Port 354	172.19.16.60	00:90:E8:20:0							
/Port 461	172.19.16.223	00:90:E8:3F:8							
DS-P506A-4POE	172.19.16.252	00:90:E8:20:9							
/Port 364A-T	172.19.16.39	00:90:E8:32:D							
Port 36-1MP	172.19.16.231	00:90:E8:2F:6F							
DS-408A-MM-ST	172.19.16.66	00.90:E8:23:F							
/Port06	172.19.16.234	00:90:E8:06:0							
/Port 461	172.19.16.56	00:90:68:21:2							
DS-408A-MM-SC	172.19.16.128	00:90:E8:0D:6							
/Port 461	172.19.16.187	00:0A:19:74:1							

 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 56-2MP 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 56-2MP 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**  $\rightarrow$  **Network**  $\rightarrow$  **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 56-2MP'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.

Internet Explorer - Secu	ity Warning 🛛 🔀
Do you want to install th	s software?
Name: Moxa Publisher: Moxa	Networking Co. Ltd. Networking Co., Ltd.
Nore options	Install Don't Install
While files from the your computer. On	Internet can be useful, this file type can potentially harm y install software from publishers you trust. <u>What's the risk?</u>

**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 56-2MP's web-based manager.

After installing the ActiveX Control component, the homepage of the VPort 56-2MP'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.

MOXA	VPOILOG-ZMP-CAMTUA						www.moxa.com			
Iodel Name : VPort50-2MP-CAM10X P Address : 192, 198, 127, 100	Server Name : VPo MAC Address : 00 6	1 55-258P IP Camera K0 EB 3C 76 8E	Firm. Version : 1.0.0	Build : 13120514	= STAT	- PWR	- 50	l		
Home Main Menu OverView Main System	System Con     Welcome to the S     name of the page     Category	figuration stem Configuration pages. A br you would like to open.	ief description of each configurat	on group is given below. Click on a plus	sign in the left pane to expan	d a group, and	then click on the			
Account     Local Storage     System Log     System Parameter     Firmware Upgrade     Factory Default	System	General Account System Log System Parameter Firmware Upgrade Factory Default Pathoot	Setting Host Name and Administrator, User an System Log and operat System parameters inf Remote firmware Uppr Reset to Factory Defau Device will rebect for p	Date/Time I Demo Account Privileges Management on information immation and Import/Export function ade t station output						
Reboot     Network     General     SMTP Server     FTP Server     DDNS		General SMTP Server PTP Server DDNS Universal PnP ToS	Device will repoor for m The IP network setting Set up Primary and Set Set up the Primary and Configure DDNS Enable UPPP function Configure ToS(Type of	starting system of this VPot ondary SMTP Server and E-mail account Secondary ITP Server Service)	13					
UPnP     ToS     Multicast     Multicast     Accessible IP     SNMP     Modeuw/TCP	Network	Multicast HTTP Event Server Accessible IP SNMP Modbus/TCP Dot1X Telnet LLDP	Set up Multicast (IGMP Set up the HTTP Event Set up a list to control Configure the SNMP se Enable Modbus/TCP fur Configure 802.1X Configure Telnet Configure 1LDP	Streaming Server to send the event alarm action he access permission of clients by check tings ction	ing their IP address					
<ul> <li>802.1X</li> <li>Teinet</li> </ul>	~	Image Settings Camera Setting ROI	Configure the informati Configure the attribute Configure the R01(regi	on of video image of video image on of interest) settings						

# Wiring Requirements



# SAFETY FIRST!

- Be sure to disconnect the power cord before installing and/or wiring your Moxa VPort 56-2MP.
- 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.