

VPort 36-1MP Series

Rugged HD day-and-night box type H.264 IP cameras



- Industrial design with -40 to 75°C operating temperature (heater/cooling fan not required)
- 1/2.7" progressive scan CMOS camera with HD resolution (max. 1280 x 720)
- DNR/BLC/WDR technologies for superb video/image quality
- Optional de-mist function for enhanced images in rain, fog, and hazy conditions
- Up to 3 independent video streams (2 H.264/1 MJPEG)
- Compatible with CS/C mount lenses with built-in ICR support
- EN 50121-4 and NEMA TS2 compliant
- Supports DynaStream™ for optimized network efficiency
- SD storage for event and disconnection recording

Note: Lens must be purchased separately.



Introduction

Rugged Design

The VPort 36-1MP series is the world's first rugged IP camera that withstands environmental temperatures ranging from -40 to 75°C without a heater/cooling fan. It is an industrial-grade, H.264 box-type IP camera that combines HD resolution (1280 x 720), advanced IVA (Intelligent Video Analysis) technology, and de-mist technology 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.

Superb Video Quality

The VPort 36-1MP series supports a variety of lenses for any application and is designed to be compatible with C/CS mount lenses to meet any viewing angle and distance requirement. With a built-in removable IR-cut filter and automatic color mode switching, the VPort 36-1MP Series is suitable for day-and-night use. Highly-tuned ROI (Region of Interest), BLC (Back Light Compensation), and WDR (Wide Dynamic Range) functions enable the VPort 36-1MP series to produce exceptionally clear images. The optional de-mist function ensures the best image quality in rainy, snowy, or hazy environments.

Convenient Installation

The VPort 36-1MP series is designed for any indoor and outdoor applications that require operational reliability. It is a unique and competitive camera in the IP CCTV market, with features such as high EMI/surge protection, optional IP66 housing for rain/dust protection, and -40 to 75°C operation without requiring a heater or cooling fan. This camera is available with PoE (Power over Ethernet, 802.3af) or with wired power input supporting 12/24 VDC or 24 VAC.

High Video Performance and Network Security

The VPort 36-1MP series 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. Advanced network security functions, such as 802.1x and SSL/SSH, are also provided to prevent unauthorized access or data hijacking, a critical feature for many surveillance applications.

Specifications

Camera

Sensor: 1/2.7" HD progressive scan CMOS

Lens: C/CS mount lens (lens not included)

Auto Iris Type: DC drive

Illumination (low light sensitivity):

- Color: 0.2 lux at F1.2

- B/W: 0.05 lux at F1.2

Synchronization: Internal

White Balance: ATW/AWB (range: 3200 to 10000°K)

Dynamic Range:

- Color: 100 dB

- B/W: 110 dB

Auto Electronic Shutter: 1/30 to 1/25000 sec.

Electronic Shutter: Auto

S/N Ratio: 50 dB (Gamma, Aperture, AGC OFF; DNR ON)

ICR Control: Auto (light sensor control) or DI control

DNR: Built-in DNR

WDR: Level 1-8/Off

AGC control: 2X, 4X, 8X, 16X, 32X, 64X

Flickerless Control: Indoor/Outdoor mode

Black Level Control: High/Medium/Low

Auto Exposure: Level ±5

Image Rotation: Flip, Mirror, and 180° rotation

Image Setting: Manual tuning with saturation, sharpness, and contrast

Video

Video Compression: H.264 (ISO/IEC 14496-10) or MJPEG

Video Outputs: Ethernet

Video Streams: Up to 3 video streams (2 x H.264 and 1 x MJPEG)

- Stream 1: H.264, 1280 x 800 resolution (max.)
- Stream 2: H.264, 720 x 480 resolution (max.)
- Stream 3: MJPEG, 720 x 480 resolution (max.)

Note: Streams 2 and 3 must be at the same resolution

Video Resolution and FPS (frames per second):

| | NTSC | | PAL | |
|---------|------------|----------|------------|----------|
| | Size | Max. FPS | Size | Max. FPS |
| QCIF | 176 x 112 | 30 | 176 x 144 | 25 |
| CIF | 352 x 240 | 30 | 352 x 288 | 25 |
| VGA | 640 x 480 | 30 | 640 x 480 | 25 |
| 4CIF | 704 x 480 | 30 | 704 x 576 | 25 |
| Full D1 | 720 x 480 | 30 | 720 x 576 | 25 |
| SVGA | 800 x 600 | 30 | 800 x 600 | 25 |
| HD | 1280 x 720 | 30 | 1280 x 720 | 25 |
| WXGA | 1280 x 800 | 30 | 1280 x 800 | 25 |

Note: Each independent stream supports up to 30 FPS.

Video Viewing:

- DynaStream™ support for automatic adjustment of frame rate
- 3 privacy mask areas provided
- Adjustable image size and quality
- Timestamp and text overlay
- Maximum of 5 simultaneous unicast connections
- ROI (Region of Interest) configuration for up to 3 areas

PTZ: Digital PTZ with 4X zoom

Network

Protocols: TCP, UDP, HTTP, SMTP, FTP, Telnet, NTP, DNS, DHCP, UPnP, RTP, RTSP, ICMP, IGMPv3, QoS, SNMPv1/v2c/v3, DDNS, Modbus/TCP, 802.1X, SSH/SSL

Ethernet: 1 10/100BaseT(X) Ethernet port, RJ45 connector

Serial Interface

RS-485: 1 half-duplex RS-485

GPIO

Digital Input: 1, max. 8 mA

- High: +13 V to +30 V
- Low: -30 V to +3 V

Relay Output: 1, max. 24 VDC @ 1A

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)

Power Requirements

Input:

- Redundant power inputs
- 12/24 VDC, 24 VAC, or Power-over-Ethernet (IEEE 802.3af)

Physical Characteristics

Camera Body Housing: Metal, IP30 protection

Dimensions:

- Camera Body: 78 x 65 x 150 mm
- Outdoor Housing: 134 (diam.) x 318 mm (L)
- Wallmounting Bracket: 205 mm (L)

Weight: 670 g

Installation: Wall mounting, pole mounting, corner mounting

Note: Optional external housing and mounting accessories may be required.

Security

Password: User level password protection

Filtering: By IP address

Authentication: 802.1X

Encryption: HTTPS, SSH

Alarms

Intelligent Video: Camera tamper, virtual fence, alert zone, missing object, unattended object

Note: IVA functions are optional except for camera tamper.

Video Motion Detection: 3 independently configurable motion areas

Scheduling: Daily repeat timing schedule

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

Video Recording: Event recording and stored in the SD card

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

Custom Alarms: HTTP event servers for setting customized alarm actions

Pre-alarm Buffer: 24 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

Hazardous Location: UL/cUL Class I Division 2 Groups A/B/C/D (Pending), ATEX Zone 2 Ex nCnAnL IIC T4 (Pending)

EMI: FCC Part 15, CISPR (EN 55022) 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

Traffic Control: NEMA TS2

Rail Traffic: EN 50121-4

Shock: IEC 60068-2-27

Freefall: IEC 60068-2-32

Vibration: IEC 60068-2-6

Note: Please check Moxa's website for the most up-to-date certification status.

Warranty

Warranty Period: 3 years

Details: See www.moxa.com/warranty

Minimum Viewing System Requirements

CPU: Pentium 4, 2.4 GHz

Memory: 512 MB of memory

OS: Windows XP/2000 with SP4 or above, Windows Vista, Windows 7

Browser: Internet Explorer 6.x or above

Multimedia: DirectX 9.0c or above

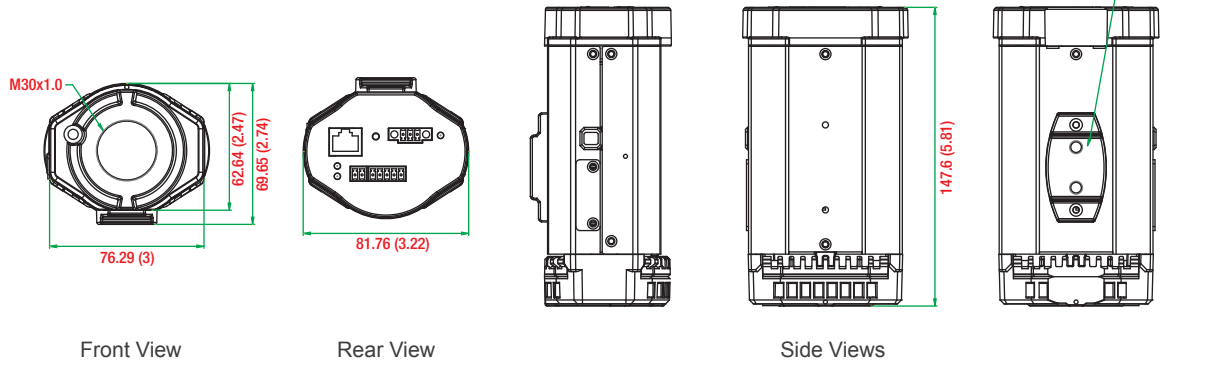
Software Development Kit

VPort SDK PLUS: Includes CGI commands, ActiveX Control, and API library for customized applications or system integration for third-party developers (latest version available on Moxa website).

Standard: ONVIF

Dimensions

Unit: mm (inch)



Ordering Information

Available Models

VPort 36-1MP: H.264/MJPEG fixed box IP camera, 12/24 VDC or 24 VAC power input or Power-over-Ethernet, 0 to 60°C operating temperature

VPort 36-1MP-T: H.264/MJPEG fixed box IP camera, 12/24 VDC or 24 VAC power input or Power-over-Ethernet, -40 to 75°C operating temperature

VPort 36-1MP-IVA: H.264/MJPEG fixed box IP camera, 12/24 VDC or 24 VAC power input or Power-over-Ethernet, 0 to 60°C operating temperature, 1 IVA license

VPort 36-1MP-IVA-T: H.264/MJPEG fixed box IP camera, 12/24 VDC or 24 VAC power input or Power-over-Ethernet, -40 to 75°C operating temperature, 1 IVA license

VPort 36-1MP-DM: H.264/MJPEG fixed box IP camera, 12/24 VDC or 24 VAC power input or Power-over-Ethernet, -40 to 60°C operating temperature, de-mist function (pending)

Optional Accessories (can be purchased separately)

SoftNVR-IA V3.0: 64-channel IP surveillance software for industrial automation applications

DR-4524/75-24/120-24: 45/75/120 W DIN-Rail 24 VDC power supplies

MDR-40-24/60-24: 40/60 W DIN-Rail 24 VDC power supplies, -20 to 70°C operating temperature

VP-CI701: IP68 indoor/outdoor housing for the VPort 36-1MP series

VP-CI800: Wall mount bracket

VP-CI815: Pole mount bracket

VP-3112MPIR: 3.1-8 mm F1.2 day and night lens

Package Checklist

- VPort 36-1MP series IP camera
- Inner hexagon screw driver
- C/CS mount adapter ring
- 5-pin terminal block
- 3-pin terminal block
- 2-pin terminal block

IP68 Indoor/Outdoor Housing

Protects camera for use in outdoor environment

VP-CI701

Construction: Die cast aluminum alloy

Dimensions: 406 x 109 x 145 mm

View Window: Tempered glass

Housing Style: Clam Shell

Latch: Dual side screw-locking

Weight: 2200 g



Wall Mount Bracket

Attaches VP-CI701 housing to wall

VP-CI800

Construction: Die cast aluminum alloy

Dimensions: 213 x 146 x 80 mm

Max Load: 20000 g

Weight: 690 g



3.1-8 mm F1.2 Day & Night Lens

Optional lens to work with VPort 36-1MP series

VP-3112MPIR

Mounting Type: CS mount

Iris: DC Auto Iris

Focus: Manual

Zoom: Manual

Dimensions: Ø37mm x 48.2mm x 55mm

Weight: 59 g

Angle of View:



Pole Mount Bracket

Attaches wall mount bracket to a pole

VP-CI815

Construction: Die cast aluminum alloy

Dimensions: 277.4 x 75 x 168.1 mm

Max Load: 30000 g

Weight: 2400 g



| Angle of View | D | H | 1/2.7 type (16:9) | | 1/2.7 type (4:3) | |
|---------------|---|---|-------------------|---------------|------------------|--------------|
| | | | 123.1°- 48.3° | 105.4°- 42.2° | 95.9°- 38.7° | 71.0°- 29.1° |
| | | | 57.9°- 23.8° | | | |