

# 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 C/CS 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):**

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**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](http://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

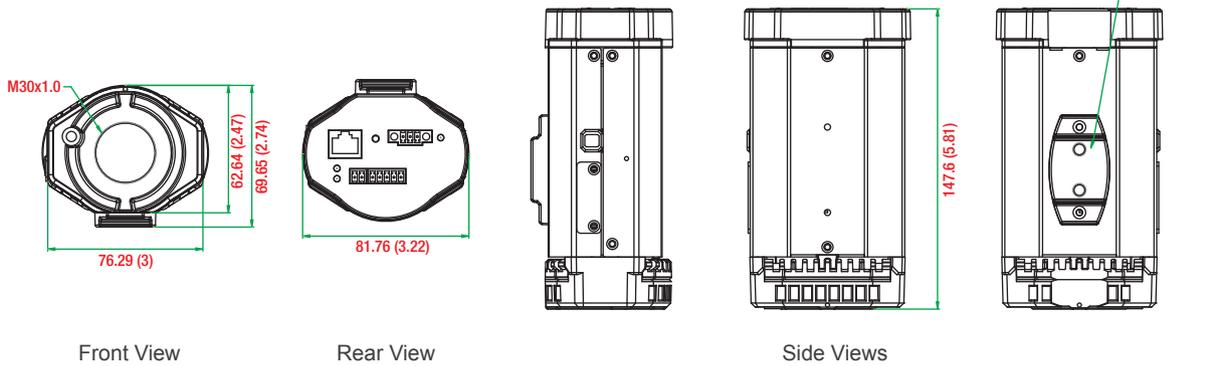
## Software Development Kit

**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°