

# 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 or cooling fan not required)
- > 1/2.7" progressive scan CMOS camera with HD resolution (max. 1280 x 720)
- > DNR/WDR technologies for superb video/image quality
- > 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 can operate reliably in temperatures ranging from -40 to 75°C, without a heater or cooling fan.

#### Superb Video Quality

The VPort 36-1MP series 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 either day or night use. Highly-tuned ROI (Regions of Interest), and WDR (Wide Dynamic Range) functions enable the VPort 36-1MP series to produce exceptionally clear images.

#### Convenient Installation

The VPort 36-1MP is a unique and competitive camera in the IP CCTV market, with features such as high EMI/surge protection, optional IP68 housing for rain/dust protection, and -40 to 75°C operation without a heater or cooling fan. The camera is available with PoE (Power over Ethernet, 802.3af) or wire power input supporting 12/24 VDC or 24 VAC.

#### High Video Performance and Network Security

The VPort 36-1MP 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.

### : Specifications

#### Camera

**Sensor:** 1/2.7" HD progressive scan CMOS

**Lens:** Designed for 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

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

**Electronic Shutter:** Auto

**Dynamic Range:**

• Color: 100 dB

• B/W: 110 dB

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

**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:** Levels 1-8

**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 Output:** Ethernet

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

**Video Resolution and FPS (frames per second):**

	NTSC		PAL	
	Size	Max. FPS	Size	Max. FPS
QCIF	176 x 112	30	176 x 144	25
QVGA	320 x 240	30	320 x 240	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:** Multiple streams may not support up to 30 FPS.

### Video Viewing:

- DynaStream™ supported 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

**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 Inputs:** 1, max. 8 mA

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

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

## 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:

- Power consumption: 7.5 W
- 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 (L) mm
- 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.

## 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 recordings stored on the SD card

**Custom Alarms:** HTTP event servers for setting customized alarm actions

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

**Pre-alarm Buffer:** 24 MB video buffer for JPEG snapshot images

## Security

**Password:** User level password protection

**Filtering:** By IP address

**Authentication:** 802.1X

**Encryption:** HTTPS, SSH

## Environmental Limits

### Operating Temperature:

Standard Models: -25 to 60°C (-13 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

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

**Note:** The VP-3113MPIR lens is Class I Div. 2 and ATEX Zone 2 certified.

**Safety:** UL 60950-1

**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

**Shock:** IEC 60068-2-27

**Freefall:** IEC 60068-2-32

**Vibration:** IEC 60068-2-6

**Traffic Control:** NEMA TS2

**Rail Traffic:** EN 50121-4

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

## MTBF (mean time between failures)

**Time:** 541,826 hours

**Database:** Telcordia (Bellcore), GB 25°C

## Warranty

**Warranty Period:** 5 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 9.x or above

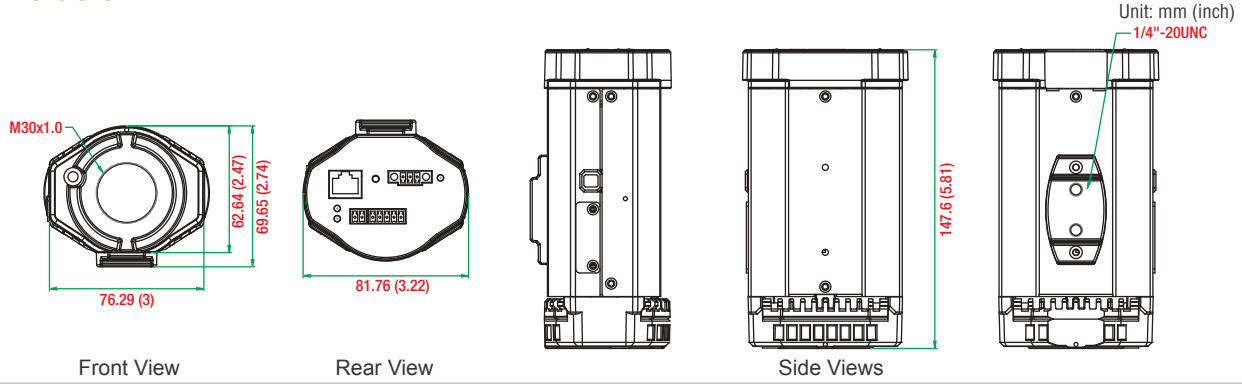
**Multimedia:** DirectX 9.0c or above

## 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 ProfileS

## Dimensions



## 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, -25 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, -25 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

### Optional Accessories (can be purchased separately)

**SoftNVR-IA:** 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

### 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 environments.

#### 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:** 2,200 g



### Wall Mount Bracket

For attaching the VP-CI701 housing to a wall.

#### VP-CI800

**Construction:** Die cast aluminum alloy  
**Dimensions:** 213 x 146 x 80 mm  
**Max Load:** 20,000 g  
**Weight:** 690 g



### 3.1-8 mm F1.2 Day & Night Lens

Optional lens for the VPort 36-1MP series.

#### VP-3112MPIR

**Mounting Type:** CS mount  
**Iris:** DC Auto Iris  
**Focus:** Manual  
**Zoom:** Manual  
**Dimensions:** Ø37 x 48.2 x 55 mm  
**Weight:** 59 g  
**Angle of View:**



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

### Pole Mount Bracket

For attaching the wallmount bracket to a pole.

#### VP-CI815

**Construction:** Die cast aluminum alloy  
**Dimensions:** 277.4 x 75 x 168.1 mm  
**Max Load:** 30,000 g  
**Weight:** 2,400 g  
**Pole Diameter:** Ø70 to Ø230 mm



### 12.5-50 mm F1.4 Day & Night Lens

Optional lens for the VPort 36-1MP series.

#### VP-1214MPIR

**Mounting Type:** CS mount  
**Iris:** DC Auto Iris  
**Focus:** Manual  
**Zoom:** Manual  
**Dimensions:** Ø46 x 59.3 x 58.4 mm  
**Weight:** 74 g  
**Angle of View:**



Angle of View	1/2.7 type (16:9)		1/2.7 type (4:3)	
	D	H	D	H
	30.3° - 7.7°	26.3° - 6.7°	30.3° - 7.7°	24.0° - 6.2°
	V		V	
		14.5° - 3.8°		17.8° - 4.7°

### 3.1-8 mm F1.2 Day & Night Lens

Optional lens for the VPort 36-1MP series.

#### VP-3113MPIR

**Mounting Type:** CS mount  
**Focus:** Manual  
**Zoom:** Manual  
**Dimensions:** Ø37 x 48.2 x 55 mm  
**Weight:** 59 g  
**Hazardous Location:** UL/cUL Class I Division 2 Groups A/B/C/D, ATEX Zone 2 Ex nC nA nL IIC T4  
**Angle of View:**



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