

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.

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)
- 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:** 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

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 IP66 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.

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™ 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
 Low: +13 to +30 V; High: -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: 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, ATEX Zone 2 Ex nCnAnL IIC T4

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

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

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

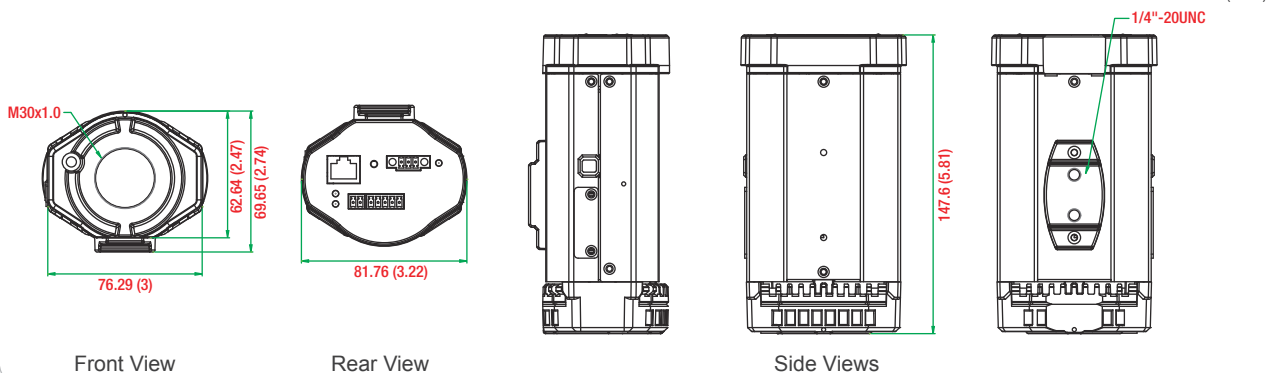
Software Development Kit

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

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/GS mount adaptor 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	D		1/2.7 type (16:9)		1/2.7 type (4:3)	
	H	V	123.1° - 48.3°	105.4° - 42.2°	123.1° - 48.3°	95.9° - 38.7°
	H	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

Angle of View:

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

Iris: DC Auto Iris

Focus: Manual

Zoom: Manual

Dimensions: Ø46 x 59.3 x 58.4 mm

Weight: 74 g



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

Angle of View:

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

