

VPort 36-2L Series

1080P, day-and-night, rugged box IP cameras



Features and Benefits

- Industrial design with -40 to 75°C operating temperature (heater or cooling fan not required)
- Maximum 1920 x 1080 resolution at 30 fps
- Built-in P-Iris zoom lens with 3x (3 to 9 mm) and 2x (10 to 23 mm) optical zoom
- Zoom and focus can be controlled remotely over an IP network
- Four video streams with H.264 and MJPEG
- SD card interface for disconnection and event recording
- 12/24 VDC, 24 VAC, or PoE redundant power inputs
- EN 50121-4 and NEMA TS2 compliant

Certifications



EN 50121-4



Introduction

The VPort 36-2L rugged 1080P (1920 x 1080) box IP cameras are specially designed for mission-critical applications and extreme weather environments. The cameras have either a 3 to 9 mm or 10 to 23 mm P-iris zoom lens built-in. They support remote zoom and focus control via an IP network, providing convenience and simplicity for camera operation, and can operate in temperatures from -40 to 75°C (-T models) and industrial-grade EMC (EMI/Surge Level 3) protection.

The VPort 36-2L cameras are suitable for the kind of industrial and outdoor environments found with oil and gas, rail, and ITS applications. In addition, the VPort 36-2L supports a light sensor and ICR (IR-cut filter removable) for day and night viewing, advanced WDR (wide dynamic range), and DNR (digital noise reduction), allowing the VPort 36-2L to produce good quality images even in extreme sunlight conditions.

Specifications

Memory

microSD Slot	SDXC
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Input/Output Interface

Digital Input Channels	1
Digital Inputs	+13 to +30 V for state 1 -30 to +1 V for state 0 Max. input current: 8 mA
Relay Channels	1
Contact Current Rating	Resistive load: 1 A @ 24 VDC
Connector	Terminal block

Ethernet Interface

10/100BaseT(X) Ports (RJ45 connector)	1
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Ethernet Software Features

Protocols	TCP/IP, IPv4/IPv6, UDP, HTTP, RTP/RTSP, ARP, UPnP, FTP, TFTP, SMTP, NTP Client, DNS, DDNS, QoS, IGMP v3, ICMP, SNMPv1/v2c/v3, Modbus TCP, HTTPS, 802.1X, NTCIP
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Security Functions

Password	User-level password protection
Filter	IP address
Authentication	802.1X
Encryption	HTTPS

LED Interface

LED Indicators	STAT: Indicates whether or not the system has booted up properly Power: Power on/off Network: 10 Mbps or 100 Mbps
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Serial Interface

PTZ Port	1 x RS-485, terminal block connector
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Power Parameters

No. of Power Inputs	2
Input Voltage	12/24 VDC, 24 VAC or PoE (48 VDC), Redundant dual inputs
Input Current	0.91 A @ 12 VDC, 0.38 A @ 24 VDC, 0.24 A @ 48 VDC 0.8 A @ 24 VAC
Power Connector	3-pin terminal block

Camera Characteristics

Sensor	1/3-in 1080P progressive scan CMOS
Lens	VPort 36-2L3X Series: 3X zoom: f=3 mm (wide) to 9 mm (tele), F1.6 to F2.6 Diagonal: 32.4° to 95.7° Horizontal: 30.2° to 87.4° Vertical: 16.4° to 47° VPort 36-2L2X Series: 2X zoom: f=10 mm (wide) to 23 mm (tele), F1.2 to F2.3 Diagonal: 13.7° to 31° Horizontal: 11.4° to 26.9° Vertical: 6.3° to 14.4°
Minimum Illumination	Color: 0.2 lux, at F1.2 (Gain High, 50 IRE, 1/30 sec) B/W: 0.1 lux, at F1.2 (Gain High, 50 IRE, 1/30 sec)
Day & Night	Auto/Color/BW; ICR control
Synchronization	Internal
White Balance	ATW/AWB
Electronic Shutter	Auto, Fixed (1/30 to 1/25000 sec)
S/N Ratio	Maximum 50 dB (AGC off; DNR on)
ICR Control	Auto (light sensor control) or DI control
DNR (digital noise reduction)	Built-in 2D/3D DNR
WDR (wide dynamic range)	100 dB
AGC (auto gain control)	2X, 4X, 8X, 16X
Flickerless Control	Automatic, 50 Hz, 60 Hz modes
Image Rotation	Flip, Mirror, 90°, 180°, 270° rotation

Image Setting	Manual tuning with saturation, sharpness, and contrast
IRIS	Auto, P-IRIS

Video Interface

Video Compression	H.264 (ISO/IEC 14496-10) or MJPEG
Video Output	via Ethernet
Video Streams	4 independent H.264 or MJPEG video streams

Video Resolution and FPS (frames per second)		NTSC		PAL	
		Size	Max. FPS	Size	Max. FPS
	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
	SXGA	1280 x 1024	30	1280 x 1024	25
	Full HD	1920 x 1080	30	1920 x 1080	25

Video Viewing	<p>DynaStream™ support for changing the video frame rate automatically</p> <p>CBR Pro™ for good image quality in limited bandwidth transmissions</p> <p>3 privacy mask areas provided</p> <p>Adjustable image size and quality</p> <p>Timestamp and text overlay</p> <p>Maximum of 5 simultaneous unicast connections, 50 multicast clients</p>
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Audio Interface

Audio Inputs	1 Line-in or MIC-in with 3.5 mm phone jack
Audio Outputs	1 Line-out, with 3.5 mm phone jack
Audio Format	Mono, PCM (G.711) AAC

Camera Software Development

VPort SDK PLUS	Includes CGI commands, ActiveX Control, and API library for customized applications or system integration for third-party developers.
Video Standards	ONVIF Profile S

Camera Alarm Software Features

Intelligent Video	Camera tampering detection
Video Motion Detection	3 independently configurable areas
Scheduling	Daily repeat timing schedule
Imaging	JPEG snapshots for pre/trigger/post alarm images
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	50 MB video buffer for JPEG snapshot images
Video Recording	Event recordings stored on the SD card
Software Requirements	
Memory Size	2 GB
Operating System	Windows 7 or above
Browser	Internet Explorer 9.x or above
Multimedia	DirectX 9.0C or above
Physical Characteristics	
Housing	Metal
Dimensions	200 x 90 x 70 mm (7.9 x 3.5 x 2.8 in)
Weight	1200 g (2.65 lb)
Installation	Pole mounting (optional), Wall mounting (with optional kit), Corner mounting (with optional kit)
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 (package included)	-40 to 85°C (-40 to 185°F)
Ambient Relative Humidity	5 to 95% (non-condensing)
Altitude	2000 m
Standards and Certifications	
EMI	CISPR 32, FCC Part 15B Class A
EMS	IEC 61000-4-2 ESD: Contact: 6 kV; Air: 8 kV IEC 61000-4-3 RS: 80 MHz to 1 GHz: 20 V/m IEC 61000-4-4 EFT: Power: 2 kV; Signal: 2 kV IEC 61000-4-5 Surge: Power: 2 kV; Signal: 2 kV IEC 61000-4-6 CS: 10 V IEC 61000-4-8 PFMF IEC 61000-4-11 DIPs
Freefall	IEC 60068-2-31
Safety	UL 60950-1
Shock	IEC 60068-2-27
Railway	EN 50121-4
Traffic Control	NEMA TS2
Vibration	IEC 60068-2-6
MTBF	
Time	630,908 hrs
Standards	Telcordia SR332

Warranty

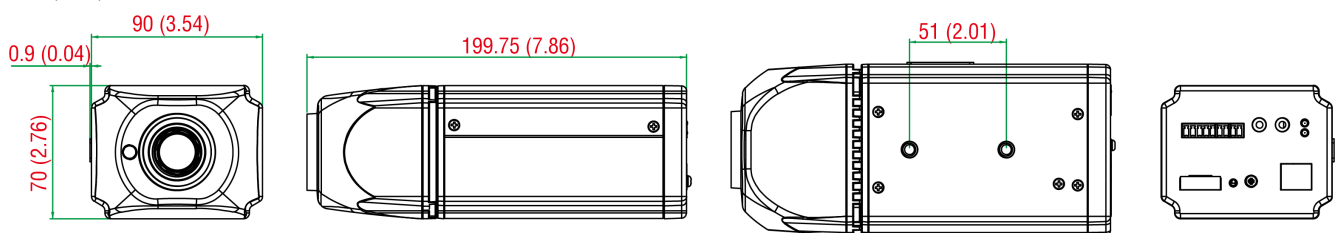
Warranty Period	5 years Note: Limited warranty on moving parts; see Moxa's online warranty policy for details.
Details	See www.moxa.com/warranty

Package Contents

Device	1 x VPort 36-2L Series camera
Installation Kit	1 x terminal block, 9-pin 1 x terminal block, 3-pin
Documentation	1 x document and software CD 1 x quick installation guide 1 x warranty card

Dimensions

Unit: mm (inch)



Ordering Information

Model Name	Lens	Audio Interface	Local Storage	Power Input	Operating Temp.	Mounting
VPort 36-2L3X	3-9 mm	1 x line-in, 1 x line-out	microSD slot, SDXC interface	Redundant power inputs with PoE and 12/24 VDC, 24 VAC power supply	-25 to 60°C	Wall/Pole mount (- with optional kit)
VPort 36-2L2X	10-23 mm	1 x line-in, 1 x line-out	microSD slot, SDXC interface	Redundant power inputs with PoE and 12/24 VDC, 24 VAC power supply	-25 to 60°C	Wall/Pole mount (- with optional kit)
VPort 36-2L3X-T	3-9 mm	1 x line-in, 1 x line-out	microSD slot, SDXC interface	Redundant power inputs with PoE and 12/24 VDC, 24 VAC power supply	-40 to 75°C	Wall/Pole mount (- with optional kit)
VPort 36-2L2X-T	10-23 mm	1 x line-in, 1 x line-out	microSD slot, SDXC interface	Redundant power inputs with PoE and 12/24 VDC, 24 VAC power supply	-40 to 75°C	Wall/Pole mount (- with optional kit)

Accessories (sold separately)

Illuminators

VP-IR22080	Infrared LED illuminator 20°, 850 nm, 12 VDC, up to 100 m
VP-IR26080	Infrared LED illuminator 60°, 850 nm, 12 VDC, up to 50 m

Camera Mounting Kits

VP-CI701	Housing for the VPort box-type IP camera, 406 x 109 x 145 mm, IP68
VP-CI800	Wall-mounting kit for the VP-CI701
VP-CI815	Pole-mounting kit for the VP-CI800
VP-CI820	Ø360 mm pole-mounting kit for the VP-CI800

VP-CI803	Indoor-mounting kit, aluminum, black
VP-CI808	Ø50 to 130 mm pole-mounting kit for the VP-CI800

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