

VPort 36-1MP Series

Rugged HD day-and-night box-type IP cameras



Features and Benefits

- 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 and WDR for superb image quality
- Triple video streams with H.264 and MJPEG
- Compatible with C/CS-mount lenses with built-in ICR support¹
- EN 50121-4 and NEMA TS2 compliant
- DynaStream™ for optimized network efficiency
- Local storage capability with SD card slot

Certifications



EN 50121-4



Introduction

The VPort 36-1MP Series has a rugged design, superb video quality, convenient installation, and high video performance, and network security.

Rugged Design

The VPort 36-1MP Series includes 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 Series includes unique and competitive cameras with features such as high EMI/surge protection, optional IP68 housing for protection against rain and dust, and can operate in temperatures from -40 to 75°C without a heater or cooling fan. The cameras are available with PoE (Power over Ethernet, 802.3af) or a wire power input that supports 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 H.264 streams, 1 MJPEG stream) simultaneously. Advanced video encoding technology enables the cameras to support up to 30 fps for each of the H.264 and MJPEG streams.

Specifications

Memory

SD Slot	SDHC
---------	------

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

1. Lens must be purchased separately.

Relay Channels	1
Contact Current Rating	Resistive load: 1 A @ 24 VDC
Connector	Terminal block
Ethernet Interface	
10/100BaseT(X) Ports (RJ45 connector)	1
Standards	IEEE 802.3af for PoE
Ethernet Software Features	
Protocols	TCP/IP, IPv4, UDP, HTTP, RTP/RTSP, ARP, UPnP, FTP, TFTP, SMTP, NTP Client, DNS, DDNS, QoS, IGMP v3, ICMP, SNMPv1/v2c/v3, Modbus TCP, HTTPS
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
Serial Interface	
PTZ Port	1 x RS-485, terminal block connector
Power Parameters	
No. of Power Inputs	2
Input Voltage	12/24 VDC, 24 VAC or PoE (48 VDC), Redundant dual inputs
Input Current	0.8 A @ 12 VDC, 0.135 A @ 48 VDC 0.32 A @ 24 VAC
Power Connector	3-pin terminal block
Camera Characteristics	
Sensor	1/2.7-in HD progressive scan CMOS
Minimum Illumination	Color: 0.2 lux, at F1.2 (Gain High, 50 IRE, 1/30 sec) B/W: 0.05 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)	110 dB

Flickerless Control	Automatic, 50 Hz, 60 Hz modes
Image Rotation	Flip, Mirror, and 180° rotation
Image Setting	Manual tuning with saturation, sharpness, and contrast
Lens	Designed for C/CS-mount lens (lens not included)
AGC (auto gain control)	2X, 4X, 8X, 16X, 32X, 64X
BLC (back light compensation)	High/Medium/Low
IRIS	Auto, DC Drive

Video Interface

Video Compression	H.264 (ISO/IEC 14496-10) or MJPEG
Video Output	via Ethernet
Video Streams	3 independent H.264 or MJPEG video streams

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™ support for changing the video frame rate automatically CBR Pro™ for good image quality in limited bandwidth transmissions 3 privacy mask areas provided Adjustable image size and quality Timestamp and text overlay Maximum of 5 simultaneous unicast connections, 50 multicast clients
---------------	--

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	24 MB video buffer for JPEG snapshot images
Software Requirements	
Memory Size	1 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	81.76 x 69.65 x 147.6 mm (3.22 x 2.74 x 5.81 in)
Weight	770 g (1.69 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	
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
Freefall	IEC 60068-2-31
Hazardous Locations	Class I Division 2
Safety	UL 60950-1
Shock	IEC 60068-2-27
Railway	EN 50121-4
Traffic Control	NEMA TS2
Vibration	IEC 60068-2-6
MTBF	
Time	541,826 hrs
Standards	Telcordia SR332

Warranty

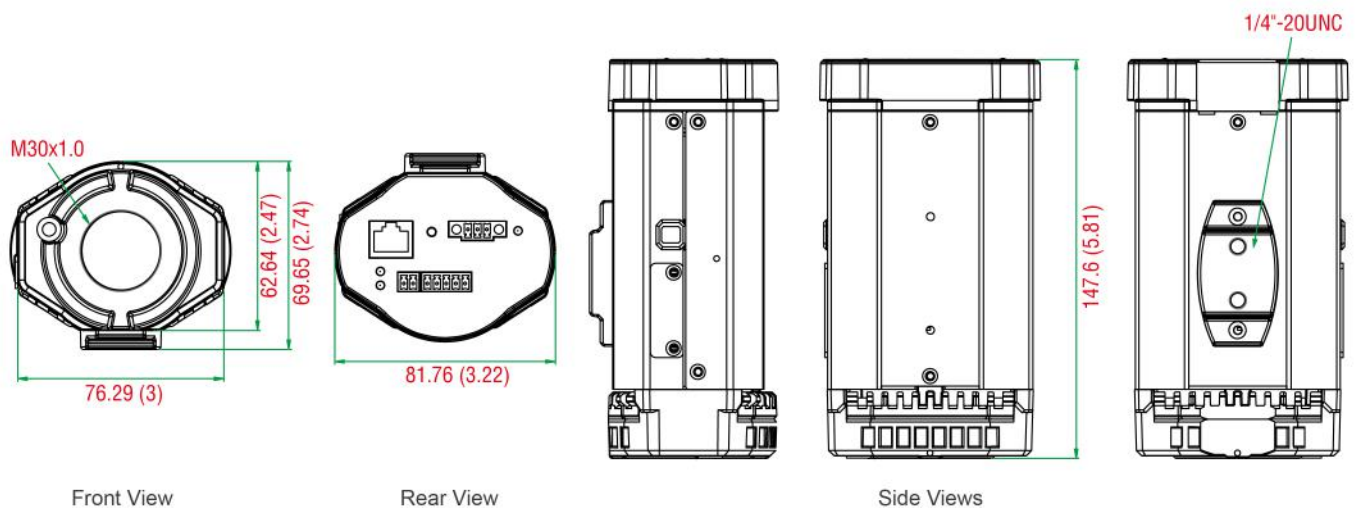
Warranty Period	5 years Note: Limited warranty on moving parts; see Moxa's online warranty policy for details.
Details	See www.moxa.com/warranty

Package Contents

Device	1 x VPort 36-1MP Series camera
Installation Kit	1 x terminal block, 5-pin 1 x terminal block, 3-pin 1 x terminal block, 2-pin 1 x inner hex screwdriver 1 x C/CS-mount adapter ring
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 Mount	Power Input	Operating Temp.	Mounting
VPort 36-1MP	C/CS mount	Redundant power inputs with PoE and 12/24 VDC, 24 VAC power supply	-25 to 60°C	Wall/Pole mount (with optional kit)
VPort 36-1MP-T	C/CS mount	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

Video Lenses

VP-1214MPIR	CS mount, 12.5-50 mm, f1.4, DC auto iris, day & night lens
VP-2810MPIR	CS mount, 2.8-10 mm, f1.2, DC auto iris, day & night lens
VP-2811MPIR	CS mount, 2.8-10 mm, f1.2, manual iris, day & night lens

© Moxa Inc. All rights reserved. Updated Nov 12, 2018.

This document and any portion thereof may not be reproduced or used in any manner whatsoever without the express written permission of Moxa Inc. Product specifications subject to change without notice. Visit our website for the most up-to-date product information.