

VPort 06-2 Series

EN 50155, 1080P video image, compact IP cameras



Features and Benefits

- 1/3" progressive scan camera with maximum 1920 x 1080 resolution at up to 30 fps
- High quality video imaging with DNR and WDR
- Up to 4 simultaneous H.264 or MJPEG independent video streams
- DynaStream™ for optimized network efficiency
- CBR Pro™ for high image quality in limited bandwidth transmissions
- Supports SDXC (up to 1 TB SD card) for local storage
- 1 built-in audio input or microphone
- ONVIF conformity for standardization and interoperability

Certifications



Introduction

The VPort 06-2 cameras are compact, 1080P (1920 x 1080), H.264/MJPEG dome IP cameras designed for mobile video surveillance applications. The cameras are compliant with EN 62262 IK8, mandatory sections of EN 50155,¹ and support a -25 to 55°C or -40 to 70°C operating temperature range. With a rugged M12 Ethernet port, SDXC slot for SD cards up to 1 TB, ONVIF Profile S standardization, built-in audio line port or microphone, PoE or 24 VDC power inputs, IP66-rated, and the option of changing the lens, the VPort 06-2 cameras will perform reliably in a variety of extreme environmental conditions, making them suitable for a wide variety of mobile video surveillance applications.

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
Connector	VPort P06-2 Series: 5-pin male M12 connector with 20 cm cable VPort 06-2 Series: DB9 male

Ethernet Interface

PoE Ports (10/100BaseT(X), M12 D-coded 4-pin female connector)	VPort P06-2 Series: 1
10/100BaseT(X) Ports (M12 D-coded 4-pin female connector)	VPort 06-2 Series: 1

1. This product is suitable for rolling stock railway applications, as defined by the EN 50155 standard. For a more detailed statement, refer to: www.moxa.com/doc/specs/EN_50155_Compliance.pdf

Ethernet Software Features

Protocols	TCP/IP IPv4/IPv6 UDP HTTP RTP/RTSP ARP UPnP FTP TFTP NTP Client DNS QoS IGMP v3 ICMP SNMPv1/v2c/v3 DHCP Opt66/67 HTTPS SIP
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Security Functions

Password	User-level password protection
Filter	IP address
Encryption	HTTPS SSH

Power Parameters

No. of Power Inputs	1
Source of Input Power	VPort P06-2 Series: PoE (IEEE 802.3af)
Input Voltage	VPort 06-2 Series: 12/24 VDC
Input Current	VPort 06-2 Series: 0.86 A @ 12 VDC; 0.35 A @ 24 VDC VPort P06-2 Series: 0.17 A @ 48 VDC
Power Connector	VPort 06-2 Series: DB9 connector

Camera Characteristics

Sensor	1/3-in 1080P progressive scan CMOS
Lens	VPort 06/P06-2x28M Series: f=2.8 mm, F2.0, Diagonal 94°, Horizontal 85°, Vertical 45° VPort 06/P06-2x36M Series: f=3.6 mm, F1.6, Diagonal 99°, Horizontal 70°, Vertical 39° VPort 06/P06-2x42M Series: f=4.2 mm, F1.6, Diagonal 82°, Horizontal 62°, Vertical 34° VPort 06/P06-2x60M Series: f=6.0 mm, F1.8, Diagonal 62°, Horizontal 43°, Vertical 24° VPort 06/P06-2x80M Series: f=8.0 mm, F1.6, Diagonal 42°, Horizontal 33°, Vertical 17°
Minimum Illumination	Color: 0.2 lux, at F1.2 (Gain High, 50 IRE, 1/30 sec)
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)
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
Camera Angle	Pan: ±15°, Tilt: 0° to 90° (controlled manually)

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
	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
Full HD	1920 x 1080	30	1920 x 1080	30	

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>OSD (On Screen Display) position adjustable</p> <p>Maximum of 10 simultaneous unicast connections, 50 multicast clients</p>
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Audio Interface

Audio Format	Mono, PCM (G.711) AAC
Audio Inputs	<p>VPort 06/P06-2MxxM Series: 1 x built-in microphone</p> <p>VPort 06-2LxxM Series: 1 x line-in, with DB9 connector</p> <p>VPort P06-2LxxM Series: 1 x line-in, with M12 connector</p>

Camera Software Development

Video Standards	ONVIF Profile S
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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
FTP Messaging	Automatic transfer of stored images via 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	IP66 rain and dust protection Metal housing, PC dome cover IK8 vandal resistant protection
Dimensions	110 x 115.5 x 61.8 mm (4.33 x 4.53 x 2.43 in)
Weight	620 g (1.37 lb)
Installation	Panel mounting
Protection	PCB conformal coating is optional and provided on request. If conformal coating is required, please contact Moxa.
Environmental Limits	
Operating Temperature	Standard Models: -25 to 55°C (-13 to 131°F) Wide Temp. Models: -40 to 70°C (-40 to 158°F)
Storage Temperature (package included)	-40 to 85°C (-40 to 185°F)
Ambient Relative Humidity	5 to 95% (non-condensing)
Ingress Protection	IEC 60529, IP66
Vandal Resistance	EN 62262, IK8
Altitude	2000 m Note: Please contact Moxa if you require products guaranteed to function properly at higher altitudes.
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
Freefall	IEC 60068-2-31
Railway Fire Protection	EN 45545-2
Safety	UL 62368-1
Shock	IEC 60068-2-27, IEC 61373, EN 50155
Vibration	IEC 60068-2-64, IEC 61373, EN 50155
Railway	EN 50155 (complies with a portion of EN 50155 specifications)

MTBF

Time	VPort 06-2LXXM Series: 1,063,089 hrs VPort 06-2MXXM Series: 1,039,008 hrs VPort P06-2LXXM Series: 1,075,216 hrs VPort P06-2MXXM Series: 1,050,590 hrs
Standards	Telcordia SR332

Warranty

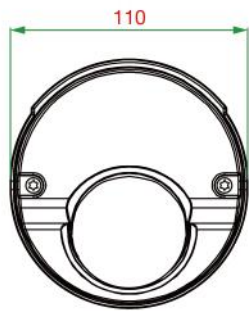
Warranty Period	5 years
Details	See www.moxa.com/warranty

Package Contents

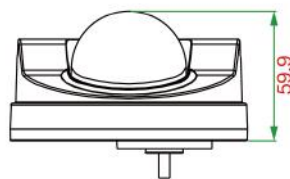
Device	1 x VPort 06-2 Series camera
Installation Kit	1 x sticker 1 x L-type Torx screwdriver 4 x indented hexagonal head tapping screws, nuts, gaskets, and spring washers
Documentation	1 x quick installation guide 1 x warranty card

Dimensions

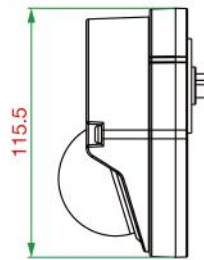
Unit: mm



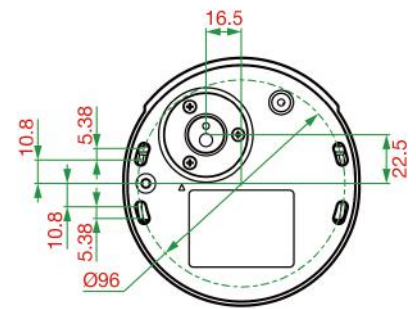
Top View



Front View



Side View



Bottom View

Ordering Information

Model Name	Lens	Audio Interface	Local Storage	Power Input	Operating Temp.
VPort P06-2L28M	2.8 mm	Line-in	microSD slot, SDXC interface	PoE	-25 to 55°C
VPort P06-2L28M-T	2.8 mm	Line-in	microSD slot, SDXC interface	PoE	-40 to 70°C
VPort P06-2M28M	2.8 mm	Microphone	microSD slot, SDXC interface	PoE	-25 to 55°C
VPort P06-2M28M-T	2.8 mm	Microphone	microSD slot, SDXC interface	PoE	-40 to 70°C
VPort 06-2L28M	2.8 mm	Line-in	microSD slot, SDXC interface	12/24 VDC	-25 to 55°C
VPort 06-2L28M-T	2.8 mm	Line-in	microSD slot, SDXC interface	12/24 VDC	-40 to 70°C
VPort 06-2M28M	2.8 mm	Microphone	microSD slot, SDXC interface	12/24 VDC	-25 to 55°C
VPort 06-2M28M-T	2.8 mm	Microphone	microSD slot, SDXC interface	12/24 VDC	-40 to 70°C
VPort P06-2L36M	3.6 mm	Line-in	microSD slot, SDXC interface	PoE	-25 to 55°C

Model Name	Lens	Audio Interface	Local Storage	Power Input	Operating Temp.
VPort P06-2L36M-T	3.6 mm	Line-in	microSD slot, SDXC interface	PoE	-40 to 70°C
VPort P06-2M36M	3.6 mm	Microphone	microSD slot, SDXC interface	PoE	-25 to 55°C
VPort P06-2M36M-T	3.6 mm	Microphone	microSD slot, SDXC interface	PoE	-40 to 70°C
VPort 06-2L36M	3.6 mm	Line-in	microSD slot, SDXC interface	12/24 VDC	-25 to 55°C
VPort 06-2L36M-T	3.6 mm	Line-in	microSD slot, SDXC interface	12/24 VDC	-40 to 70°C
VPort 06-2M36M	3.6 mm	Microphone	microSD slot, SDXC interface	12/24 VDC	-25 to 55°C
VPort 06-2M36M-T	3.6 mm	Microphone	microSD slot, SDXC interface	12/24 VDC	-40 to 70°C
VPort P06-2L42M	4.2 mm	Line-in	microSD slot, SDXC interface	PoE	-25 to 55°C
VPort P06-2L42M-T	4.2 mm	Line-in	microSD slot, SDXC interface	PoE	-40 to 70°C
VPort P06-2M42M	4.2 mm	Microphone	microSD slot, SDXC interface	PoE	-25 to 55°C
VPort P06-2M42M-T	4.2 mm	Microphone	microSD slot, SDXC interface	PoE	-40 to 70°C
VPort 06-2L42M	4.2 mm	Line-in	microSD slot, SDXC interface	12/24 VDC	-25 to 55°C
VPort 06-2L42M-T	4.2 mm	Line-in	microSD slot, SDXC interface	12/24 VDC	-40 to 70°C
VPort 06-2M42M	4.2 mm	Microphone	microSD slot, SDXC interface	12/24 VDC	-25 to 55°C
VPort 06-2M42M-T	4.2 mm	Microphone	microSD slot, SDXC interface	12/24 VDC	-40 to 70°C
VPort P06-2L60M	6.0 mm	Line-in	microSD slot, SDXC interface	PoE	-25 to 55°C
VPort P06-2L60M-T	6.0 mm	Line-in	microSD slot, SDXC interface	PoE	-40 to 70°C
VPort P06-2M60M	6.0 mm	Microphone	microSD slot, SDXC interface	PoE	-25 to 55°C
VPort P06-2M60M-T	6.0 mm	Microphone	microSD slot, SDXC interface	PoE	-40 to 70°C
VPort 06-2L60M	6.0 mm	Line-in	microSD slot, SDXC interface	12/24 VDC	-25 to 55°C
VPort 06-2L60M-T	6.0 mm	Line-in	microSD slot, SDXC interface	12/24 VDC	-40 to 70°C
VPort 06-2M60M	6.0 mm	Microphone	microSD slot, SDXC interface	12/24 VDC	-25 to 55°C
VPort 06-2M60M-T	6.0 mm	Microphone	microSD slot, SDXC interface	12/24 VDC	-40 to 70°C
VPort P06-2L80M	8.0 mm	Line-in	microSD slot, SDXC interface	PoE	-25 to 55°C
VPort P06-2L80M-T	8.0 mm	Line-in	microSD slot, SDXC interface	PoE	-40 to 70°C
VPort P06-2M80M	8.0 mm	Microphone	microSD slot, SDXC interface	PoE	-25 to 55°C

Model Name	Lens	Audio Interface	Local Storage	Power Input	Operating Temp.
VPort P06-2M80M-T	8.0 mm	Microphone	microSD slot, SDXC interface	PoE	-40 to 70°C
VPort 06-2L80M	8.0 mm	Line-in	microSD slot, SDXC interface	12/24 VDC	-25 to 55°C
VPort 06-2L80M-T	8.0 mm	Line-in	microSD slot, SDXC interface	12/24 VDC	-40 to 70°C
VPort 06-2M80M	8.0 mm	Microphone	microSD slot, SDXC interface	12/24 VDC	-25 to 55°C
VPort 06-2M80M-T	8.0 mm	Microphone	microSD slot, SDXC interface	12/24 VDC	-40 to 70°C

Accessories (sold separately)

Camera Mounting Kits

VP-FP2	Fixed plate for mounting the VPort 06
VP-06TC2C	Top cover for the VPort 06-2L, coated dome cover Applicable Models: VPort 06-2L28M-T VPort 06-2L28M VPort 06-2L80M VPort 06-2L60M-T VPort 06-2L42M VPort 06-2L60M VPort 06-2L36M-T VPort 06-2L80M-T VPort 06-2L42M-T
VP-SC02	Side-cable-out adapter for surface mounting a VPort 06-2
VP-06MTC2C	Top cover for the VPort 06-2M, coated dome cover Applicable Models: VPort 06-2M36M-T VPort 06-2M42M VPort 06-2M42M-T VPort 06-2M28M-T VPort 06-2M28M VPort 06-2M36M VPort 06-2M60M VPort 06-2M80M VPort 06-2M80M-T VPort 06-2M60M-T
VP-DP01	silica gel dry pack (2 x 0.6 g) with sticker

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