

VPort P06HC-1MP-M12 Series

HD video image, square-type IP cameras for mobile surveillance



- > Compliant with EN 50121-3-2 and a portion of EN 50155 specifications
- > -25 to 55°C operating temperature
- > 1/2.7" progressive scan camera with maximum 1280 x 800 resolution at up to 30 frames/second
- > Flush mounting for hiding inside a panel, such as a wall or ceiling
- > Up to 3 independent video streams (2 H.264/1 MJPEG)
- > DynaStream™ supported for maximized network efficiency
- > CBR Pro™ supported for high image quality in limited bandwidth transmissions
- > Supports DHCP Opt 66/67 for auto-configuration
- > 1 built-in microphone for audio input, and 1 digital input for external sensor
- > ONVIF supported for standardization and interoperability



Introduction

The VPort P06HC-1MP-M12 square-type IP cameras provide an HD (720P, 1280 x 720) video image, and feature 3 H.264/MJPEG video streams, giving them the versatility and ruggedness to excel in many different installations and environments for IP video surveillance applications. In addition, the cameras comply with a portion of EN 50155 specifications, covering operating temperature, power input

voltage, surge, ESD, and vibration, making them suitable for a variety of industrial applications, and feature a -25 to 55°C operating temperature, a rugged M12 Ethernet port, 1 built-in microphone, 1 digital input, PoE power inputs, IP66 rain and dust protection, and a selectable lens.

Excellent Image Quality

The VPort P06HC-1MP-M12 is equipped with a cutting-edge CMOS sensor, which provides excellent high resolution video images at

1280 x 800 pixels and covers larger areas than legacy analog cameras.

Rugged Hardware Design

The VPort P06HC-1MP-M12's hidden form factor makes it ideal for applications requiring a hidden camera. It is compliant with EN 50121-3-2 (EMC), EN 61373 for shock and vibration, and essential sections

of EN 50155, with operating temperature from -25 to 55°C (tested for 10 min. at +15°C over the max. at 70°C), without a fan or other cooling equipment.

High Video Performance

The VPort P06HC-1MP-M12 is designed to provide both H.264 and MJPEG video streams and transmit a maximum of 3 independent video streams (2 H.264, 1 MJPEG) simultaneously. In addition, Moxa's DynaStream™ function allows you to change the video frame rate automatically, which can help you control your network bandwidth budget and ease network system management. The CBR Pro™

function can guarantee the lowest packet loss in limited bandwidth transmissions, which ensures that images will not exhibit the mosaic effect. A DHCP Opt66/67 auto-configuration mechanism simplifies the workload of mass installation and maintenance by backing up the configuration on a TFTP server.

Specifications

Camera

Sensor: 1/2.7" HD progressive scan CMOS
Lens: 3.6 mm megapixel fixed focal length lens
Angle of View:
 • 3.6 mm, F1.6: Diagonal 120°, Horizontal 96°, Vertical 56°
Synchronization: Internal
Minimum Illumination: 0.2 Lux at F=1.2
White Balance: ATW/AWB
Electronic Shutter: Auto
Auto Electronic Shutter: 1/30 to 1/25000 sec
S/N Ratio: 50 dB (Gamma, Aperture, AGC, OFF; DNR ON)
DNR: Built-in DNR
WDR: Level 1-3
AGC Control: 2X, 4X, 8X, 16X
Flickerless Control: Automatic/50 Hz/60 Hz mode
Auto Exposure: Level ±5
Image Rotation: Flip, Mirror, and 180° rotation
Image Setting: Manual tuning with brightness and contrast

Video

Video Compression: H.264 (ISO/IEC 14496-10) or MJPEG
Video Output: Via Ethernet
Video Streams: Maximum of 3 video streams
 • Stream 1: H.264, 1280 x 800 resolution (max.)
 • Stream 2: H.264, 720 x 576 resolution (max.)
 • Stream 3: MJPEG, 720 x 576 resolution (max.)
Note: Streams 2 and 3 must be set to the same resolution
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
WXGA	1280 x 800	30	1280 x 800	25

Video Viewing:

- DynaStream™ supported for automatic frame rate adjustment
- CBR Pro™ for good image quality in limited bandwidth transmission
- 3 privacy mask areas configurable
- Adjustable image size and quality
- Timestamp and text overlay
- OSD (On screen Display) position adjustable
- Maximum of 5 simultaneous unicast connections
- Digital PTZ with 4x zoom

Audio

Audio Inputs: 1, built-in microphone
Audio Format: Mono, PCM (G.711)

Network

Protocols: TCP/IP, UDP, HTTP, SMTP, NTP, DNS, DHCP, UPnP, RTP, RTSP, ICMP, QoS, IGMPv3, SNMPv1/v2c/v3, DDNS, TFTP, ARP, DHCP, OPT66/67
Ethernet: 1 10/100BaseT(X) isolated Ethernet port, 4-pin M12 D-code female connector

GPIO

Digital Inputs: 1, max. 8 mA, isolated 5-pin M12 connector
 High: +13 V to +30 V; Low: -30 V to +3 V

Power Requirements

Input: Power-over-Ethernet (IEEE 802.3af)

Physical Characteristics

Housing: IP66 metal housing with transparent cover
Dimensions: 109 x 68 x 90 mm (4.29 x 2.68 x 3.54 in)
Installation: Flush mounting

Alarms

Intelligent Video: Camera tamper
Video Motion Detection: 3 independently configurable motion 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: 12 MB video buffer for JPEG snapshot images

Security

Password: User level password protection
Filtering: By IP address
Encryption: HTTPS, SSH

Environmental Limits

Operating Temperature: -25 to 55°C (-13 to 131°F)
Storage Temperature: -40 to 75°C (-40 to 167°F)
Ambient Relative Humidity: 5 to 95% (non-condensing)
Altitude: 2000 m
Conformal Coating: Available on request

Standards and Certifications

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

Rolling Stock: EN 50155*

*Complies with a portion of EN 50155 specifications. Please contact Moxa or a Moxa distributor for details.

Shock: IEC 61373

Freefall: IEC 60068-2-32

Vibration: IEC 61373

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

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 9.x or above

Multimedia: DirectX 9.0c or above

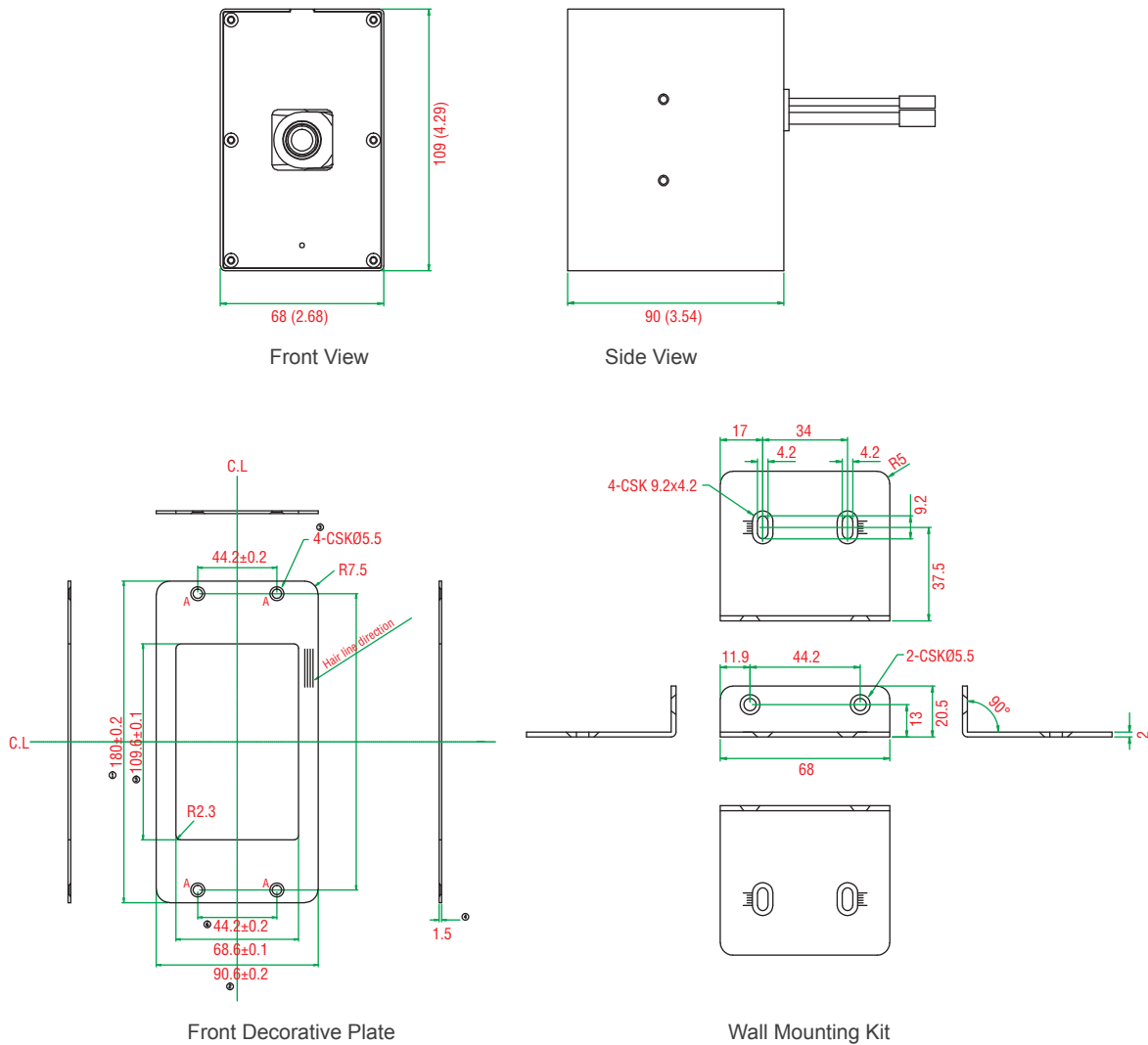
Software Development Kit

VPort SDK PLUS: Includes CGI commands, ActiveX Control, and API library for customized applications or system integration for third-party developers (the latest version of SDK is available for download from Moxa's website).

Standard: ONVIF

Dimensions

Unit: mm (inch)



Ordering Information

Available Models

VPort P06HC-1MP-M12-CAM36: EN 50155 compliant, HD, H.264/MJPEG square-type IP camera, 3.6 mm lens, M12 Ethernet connector, PoE, -25 to 55°C operating temperature

Note: Conformal coating available upon request

Optional Accessories (can be purchased separately)

SoftNVR-IA: 64-channel IP surveillance software for industrial automation applications

VP-FD1: Front decorative plate for the VPort P06HC

Package Checklist

- VPort P06HC-1MP-M12 IP camera
- L-type Torx screw driver
- Silica gel dessicant
- Hook fasteners
- 2 L-type installation kits and 4 nylock screws
- Installation stick
- Quick installation guide (printed)
- Documentation and software CD
- Warranty card