

# Cisco Video Surveillance 6500PD IP Camera

## Product Overview

The Cisco® Video Surveillance 6500PD IP Camera is a high-definition, full-functioned video endpoint with industry-leading image quality and processing power. The camera is capable of full 1080p resolution at 30 frames per second (fps) while optimizing network usage with either H.264 or Motion JPEG (MJPEG) compression. A serial RS-485 allows for easy custom integration with control and sensor systems. With its open, standards-based design, the camera (shown in Figure 1) provides an ideal platform for integration and operation as an independent device or as part of a Cisco Video Surveillance network.

Cisco Video Surveillance 6500PD IP Camera integrates a digital signal processor (DSP) designed to support complex applications such as real-time video analytics. Users have the option to run multiple applications or analytics rules without compromising video streaming performance on the camera. This highly flexible computing platform is ideal for next-generation video analytics applications.

**Figure 1.** Cisco Video Surveillance 6500PD IP Camera



The Cisco Video Surveillance 6500PD IP Camera offers a variety of benefits, including:

- **True high-definition video:** The camera streams crisp and clear 1080p (1920 x 1080, 2.1 megapixel) video at 30 fps while maintaining low network bandwidth.
- **P-Iris lens:** The camera supports a P-Iris lens, which allows greater control of the lens aperture and produces a sharper image over typical DC iris lenses.
- **Application-ready platform:** You can easily add functions by installing and running applications directly on the camera.
- **Day and night operation:** The camera provides true day/night functionality and includes an infrared filter that automatically switches to night mode in low-light scenes. This function can be set to manual, automatic, or scheduled control.
- **Privacy regions:** The camera supports up to four user-defined privacy regions. Any video within a privacy region is masked in the video stream.
- **Local storage:** Video data can automatically be recorded to a Secure Digital (SD) card when the camera loses network connectivity.

- **Bidirectional audio:** The camera supports full-duplex audio and options for half-duplex operation.
- **Open API:** Support for Open Network Video Interface Forum (ONVIF) 2.0 allows for standards-based interoperability and communications with other ONVIF appliances.
- **Flexible power options:** The camera supports Power over Ethernet (PoE) 802.3af, 12 VDC, or 24 VAC power through an optional external power supply.

## Features

Table 1 describes the features of the Cisco Video Surveillance 6500PD IP Camera.

**Table 1.** Cisco Video Surveillance 6500PD IP Camera Features

Item	Details
<b>Imaging device</b>	1/2.7 in. progressive-scan complementary metal-oxide semiconductor (CMOS)
<b>Image control</b>	Automatic white balance (AWB), automatic gain control (AGC), automatic exposure shutter (AES), and auto and manual iris
<b>Wide dynamic range</b>	69 dB
<b>Minimum illumination</b>	Color mode: 0.3 lux Black-and-white mode: 0.05 lux
<b>Lens selection</b>	P-Iris lens
<b>Lens mount</b>	CS mount
<b>Shutter speed</b>	1/5 to 1/32,000 sec
<b>Video compression</b>	H.264 and MJPEG
<b>Audio compression</b>	G.711 A-Law, G.711 U-Law
<b>Resolution and frame rate (H.264)</b>	Refer to Tables 2 and 3
<b>Resolution and frame rate (MJPEG)</b>	Refer to Tables 2 and 3
<b>Video streaming</b>	<ul style="list-style-type: none"> <li>• Single-stream H.264 or MJPEG up to 1080p (1920 x 1080) @ 30 fps</li> <li>• Dual-stream H.264 and MJPEG: <ul style="list-style-type: none"> <li>◦ Primary stream programmable up to 1280 x 720 @ 30 fps</li> <li>◦ Secondary stream programmable up to 960 x 544 @ 15 fps</li> </ul> </li> </ul>
<b>Protocols</b>	Dynamic Host Control Protocol (DHCP), Hypertext Transfer Protocol (HTTP), Secure HTTP (HTTPS), Network Time Protocol (NTP), Real-Time Transport Protocol (RTP), Real-Time Streaming Protocol (RTSP), Simple Mail Transfer Protocol (SMTP), Secure Sockets Layer/Transport Layer Security (SSL/TLS), TCP/IP, Cisco Discovery Protocol, Bonjour, Simple Network Management Protocol (SNMP), and Secure Shell (SSH) Protocol
<b>Quality of service (QoS)</b>	Differentiated-services-code-point (DSCP) marking and class-of-service (CoS) marking
<b>Power</b>	12 VDC or 24 VAC through optional external power supply, available separately PoE (802.3af)
<b>Power consumption (maximum)</b>	DC: 9W AC: 10W PoE: 15.4W

Table 2 lists the video stream support for the Cisco Video Surveillance 6500PD IP Camera.

**Table 2.** Cisco Video Surveillance 6500PD IP Camera Video Stream Support

Primary (H.264)	Maximum fps	Secondary (H.264 or MJPEG)	Maximum fps
<b>1920 x 1080</b>	30	–	–
<b>1920 x 1080</b>	15	1024 x 576 960 x 544 768 x 432 704 x 400 640 x 368 352 x 208 320 x 192 192 x 112 160 x 96	15
<b>1536 x 864</b>	30	1024 x 576 960 x 544 768 x 432 704 x 400 640 x 368 352 x 208 320 x 192 192 x 112 160 x 96	15
<b>1472 x 832</b>	30	1024 x 576 960 x 544 768 x 432 704 x 400 640 x 368 352 x 208 320 x 192 192 x 112 160 x 96	15
<b>1280 x 720</b>	30	1024 x 576 960 x 544 768 x 432 704 x 400 640 x 368 352 x 208 320 x 192 192 x 112 160 x 96	15
<b>1024 x 576</b>	30	1024 x 576 960 x 544 768 x 432 704 x 400 640 x 368 352 x 208 320 x 192 192 x 112 160 x 96	15

Primary (H.264)	Maximum fps	Secondary (H.264 or MJPEG)	Maximum fps
960 x 544	30	960 x 544 768 x 432 704 x 400 640 x 368 352 x 208 320 x 192 192 x 112 160 x 96	15
768 x 432	30	768 x 432 704 x 400 640 x 368 352 x 208 320 x 192 192 x 112 160 x 96	15
704 x 400	30	704 x 400 640 x 368 352 x 208 320 x 192 192 x 112 160 x 96	15
640 x 368	30	640 x 368 352 x 208 320 x 192 192 x 112 160 x 96	15
352 x 208	30	352 x 208 320 x 192 192 x 112 160 x 96	15
320 x 192 192 x 112 160 x 96	30	320 x 192 192 x 112 160 x 96	15
192 x 112 160 x 96	30	192 x 112 160 x 96	15
160 x 96	30	160 x 96	15

Table 3 lists the video stream support for the Cisco Video Surveillance 6500PD IP Camera for 4:3 aspect ratios.

**Table 3.** Cisco Video Surveillance 6500PD IP Camera Video Stream Support for 4:3 Aspect Ratios

Primary (H.264)	Maximum fps	Secondary (H.264 or MJPEG)	Maximum fps
720 x 480/576	30/25	720 x 480/576 704 x 480/576 352 x 240/288	15
704 x 480/576	30/25	704 x 480/576 352 x 240/288	15
352 x 240/288	30/25	352 x 240/288	15

## Connectors

Table 4 describes the connectivity and connectors of the Cisco Video Surveillance 6500PD IP Camera.

**Table 4.** Cisco Video Surveillance 6500PD IP Camera Connectors

Item	Details
<b>Network connectivity</b>	100BASE-TX Ethernet with RJ-45 connector
<b>Serial port</b>	RS-485
<b>Alarm input</b>	One logic level programmable
<b>Alarm output*</b>	One logic level programmable
<b>Storage</b>	SD card slot
<b>Audio</b>	<ul style="list-style-type: none"><li>3.5-mm audio jack: Audio input for optional external microphone and audio output for optional external speaker supported through Y-cable adapter</li><li>Two-way (full- and half-duplex), one-way, or audio off</li></ul>
<b>Power input</b>	Terminal block (24 VAC) or DC power jack

\* Not supported when the camera is used with Cisco Video Surveillance Manager.

## Software

Table 5 describes the primary features of the Cisco Video Surveillance 6500PD IP Camera software.

**Table 5.** Cisco Video Surveillance 6500PD IP Camera Primary Software Features

Item	Details
<b>Activity detection</b>	User-definable alerts with configurable sensitivities and thresholds, email alert, and HTTP notifications
<b>Analog video format</b>	NTSC and PAL
<b>Image settings</b>	Configurable brightness, sharpness, contrast, saturation, and white balance
<b>Overlay capabilities</b>	Time, date, and text
<b>Selectable bit rate</b>	Support for constant bit rate or variable bit rate
<b>IP filtering</b>	Users can enter a list of allowed or blocked IP addresses for viewing video and configuring camera settings
<b>Discovery</b>	Cisco Discovery Protocol and Bonjour Zero-Configuration discovery
<b>Configuration</b>	<ul style="list-style-type: none"><li>Browser-based using Microsoft Internet Explorer 8.0 or later</li><li>Two levels of user access with password protection</li></ul>
<b>Security</b>	Support for IEEE 802.1X authentication

## Specifications

Table 6 provides mechanical specifications of the Cisco Video Surveillance 6500PD IP Camera.

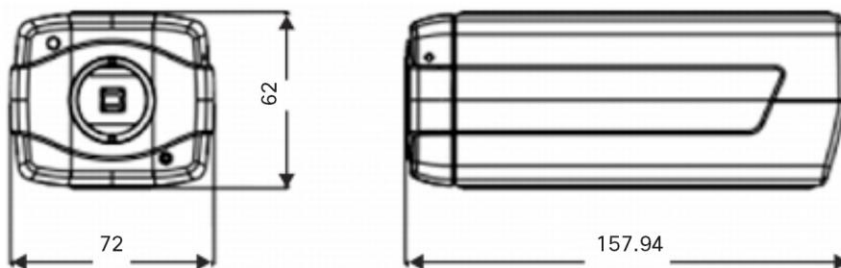
**Table 6.** Cisco Video Surveillance 6500PD IP Camera Mechanical Specifications

Item	Specification
<b>Housing</b>	Aluminum
<b>LEDs</b>	Power, Ethernet link, and activity
<b>Dimensions (H x W x D)</b>	2.4 in. (62 mm) x 2.8 in. (72 mm) x 6.1 in. (154 mm)
<b>Weight</b>	674 g

Item	Specification	
<b>Certifications</b>	<b>Safety:</b> UL60950-1 2 <sup>nd</sup> edition CSA22.2-No.60950-1 IEC/EN60950-1 2 <sup>nd</sup> edition IEC/EN60825	<b>EMC-Requirements:</b> CISPR22 Class B ICES-003 EN50121-4 EN50155 EN50130-4 EN55022 EN55024 EN61000-3-2/-3-3 Class A VCCI Class B KN22 Class B KN24
<b>Operating temperature</b>	14 to 122°F (-10 to 50°C) <b>Note:</b> The temperature range can be extended if you use an outdoor enclosure.	

Figure 2 shows the dimensions of the Cisco Video Surveillance 6500PD IP Camera. All dimensions are in millimeters.

**Figure 2.** Cisco Video Surveillance 6500PD IP Camera Dimensions



## Package Contents

The items that ship with the Cisco Video Surveillance 6500PD IP Camera include:

- Cisco Video Surveillance 6500PD IP Camera
- Two L-type hex wrenches
- Documentation reference card
- Regulatory documentation
- Power connector
- Three camera identification labels

## Availability

The Cisco Video Surveillance 6500PD IP Camera is available through Cisco Authorized Technology Provider (ATP) Partners.

## Ordering Information

Table 7 lists the part numbers for the Cisco Video Surveillance 6500PD IP Camera and for the lenses that the camera supports.

**Table 7.** Ordering Information

Part Number	Description
<b>CIVS-IPC-6500PD</b>	HD Box IP Camera, 1080p, P-Iris
<b>Lens</b>	
<b>CIVS-IPCA-VCM31-8</b>	Megapixel P-Iris Lens, 3.1-8 mm

## Using the Camera with Cisco Video Surveillance Manager

Features that are marked with an asterisk (\*) are not supported when using the camera with Cisco Video Surveillance Manager. Refer to the release notes for Cisco Video Surveillance Manager 7.6 for more information: [http://www.cisco.com/c/en/us/td/docs/security/physical\\_security/video\\_surveillance/network/vsm/release\\_notes/7\\_6\\_0/vsm\\_rn\\_7\\_6\\_0.html](http://www.cisco.com/c/en/us/td/docs/security/physical_security/video_surveillance/network/vsm/release_notes/7_6_0/vsm_rn_7_6_0.html)

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## For More Information

For more information about the Cisco Video Surveillance 6500PD IP Camera, visit <http://www.cisco.com/go/physec> or contact your local account representative.




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San Jose, CA

**Asia Pacific Headquarters**  
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