

Cisco Video Surveillance 6020 IP Camera

Product Overview

The Cisco® Video Surveillance 6020 IP Camera is an 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 MJPEG compression. Contact closures allow integration with access control systems. With its open, standards-based design, the camera provides an ideal platform for integration and operation as an independent device or as part of a Cisco Video Surveillance Network.

Figure 1. Cisco Video Surveillance 6020 IP Camera



The Cisco Video Surveillance 6020 IP Camera offers a variety of benefits, including:

- **True high-definition video:** The camera streams crisp and clear 1080p (1920 x 1080) (2.1 MP) video at 30 fps while maintaining low network bandwidth.
- **Motorized focus and zoom:** The lens on the 6020 IP Dome allows the focus and zoom to be controlled remotely, greatly simplifying installations and field of view adjustments.
- **Dual streaming:** The camera can stream H.264 and MJPEG video simultaneously. Each video stream can be configured with individual resolution, quality, and frame-rate settings.
- **Day/night operation:** The camera provides true day/night functionality, and includes an infrared (IR) filter that automatically switches to night mode in low-light scenes. This function can be set to manual, automatic, or scheduled control.
- **Flexible power options:** The camera supports Power over Ethernet (PoE) 802.3af, 12 VDC, or 24 VAC power through an optional external power supply.
- **Medianet support:** The camera supports the Medianet interface. When connected to a Cisco switch that also supports medianet, the switch recognizes the camera as a video endpoint, and then uses SmartPort macros to set the right network parameters for the video stream on the network. In addition, the camera can be automatically discovered and configured when connected to VSM 7.0, thereby minimizing installation time and cost.

Features

Table 1 describes the features of the Cisco Video Surveillance 6020 IP Camera.

Table 1. Cisco Video Surveillance 6020 IP Camera Features

Item	Specification
Imaging device	1/2.7-in. progressive-scan CMOS
Image control	Automatic white balance (AWB), automatic gain control (AGC), automatic exposure shutter (AES), and auto and manual iris
Dynamic range	69 dB
Minimum illumination	<ul style="list-style-type: none"> • Color mode: F1.2 @ 0.4 lux • Black and white mode: F1.2 @ 0.2 lux
Lens	3-9 mm DC-Iris Remote focus and zoom
Field of view	37.5° ~ 103.7° (horizontal) 21.6° ~ 71.2° (vertical) 42.6° ~ 111.21° (diagonal)
Camera angle adjustment	Pan: 350° Tilt: 80° Rotate: 350°
Shutter speed	1/5 to 1/32,000 sec
Video compression	H.264 and MJPEG
Resolution and frame rate (H.264)	<ul style="list-style-type: none"> • 1920 x 1080 @ 30 fps (1080p) • 1280 x 720 @ 30 fps (720p) • 1024 x 576 @ 30 fps • 960 x 544 @ 30 fps • 704 x 480 or 576 @ 30 or 25 fps (4CIF) • 640 x 368 @ 30 fps • 352 x 240 or 288 @ 30 or 25 fps (CIF)
Resolution and frame rate (MJPEG)	<ul style="list-style-type: none"> • 1280 x 720 @ 30 fps (720p) • 1024 x 576 @ 30 fps • 960 x 544 @ 30 fps • 704 x 480 or 576 @ 30 or 25 fps (4CIF) • 640 x 368 @ 30 fps • 352 x 240 or 288 @ 30 or 25 fps (CIF)
Video streaming	<ul style="list-style-type: none"> • Single-stream H.264 up to 1080p (1920 x 1080) @ 30 fps • Dual-stream H.264 and MJPEG • H.264: Primary stream programmable up to 1280 x 720 @ 30 fps • MJPEG: Secondary stream programmable up to 960 x 544 @ 15 fps
Protocols	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
Quality of service (QoS)	Differentiated services code point (DSCP) marking and class of service (CoS) marking
Power	12 VDC or 24 VAC through optional external power supply, available separately PoE (802.3af)
Power consumption (max)	DC: 4.7W AC: 6.3W PoE: 6.2W

Table 2 lists the video stream support for the Cisco Video Surveillance 6020 IP Camera for 16:9 Aspect Ratios.

Table 2. Cisco Video Surveillance 6020 IP Camera Video Stream Support for 16:9 Aspect Ratios

Primary (H264)	Maximum fps	Secondary (H264 or MJPEG)	Maximum fps
1920 x 1080	30	-	-
1920 x 1080	15	1024 x 576 960 x 544 640 x 368	15
1280 x 720	30	1024 x 576 960 x 544 640 x 368	15
1024 x 576	30	1024 x 576 960 x 544 640 x 368	15
960 x 544	30	960 x 544 640 x 368	15
640 x 368	30	640 x 368	15

Table 3 lists the video stream support for the Cisco Video Surveillance 6020 IP Camera for 4:3 Aspect Ratio.

Table 3. Cisco Video Surveillance 6020 IP Camera Video Stream Support for 4:3 Aspect Ratio

Primary (H264)	Maximum fps	Secondary (H264 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 6020 IP Camera.

Table 4. Cisco Video Surveillance 6020 IP Camera Connectors

Item	Specification
Network connectivity	100 BASE-TX Ethernet with RJ-45 connector
Alarm input	One logic level programmable
Alarm output*	One logic level programmable
Power input	Terminal block

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

Software

Table 5 describes the primary features of the Cisco Video Surveillance 6020 IP Camera software.

Table 5. Cisco Video Surveillance 6020 IP Camera Primary Software Features

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

Specifications

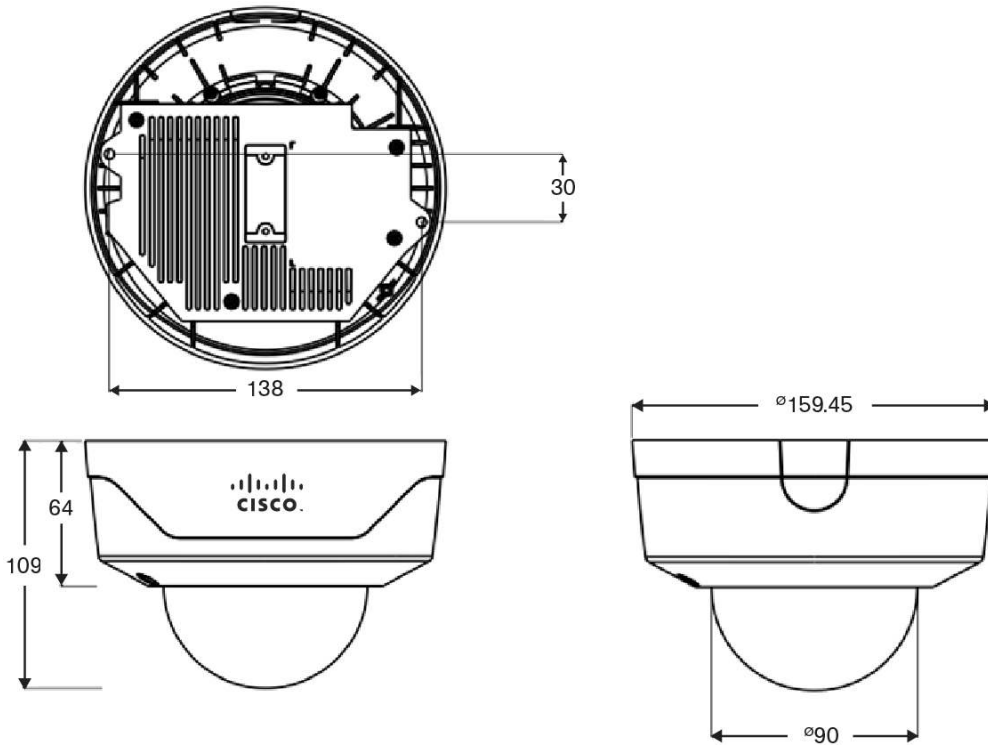
Table 6 provides specifications of the Cisco Video Surveillance 6020 IP Camera.

Table 6. Cisco Video Surveillance 6020 IP Camera Mechanical Specifications

Item	Specification		
Housing	Aluminum		
LEDs	Power and activity		
Dimensions (D x H)	6.3 x 4.3 inches (160 x 109 mm)		
Weight	765g		
Certifications	<table border="0"><tr><td>Safety: UL60950-1 2nd edition CSA22.2-No.60950-1 IEC/EN60950-1 2nd edition IEC/EN60825</td><td>EMC Requirements: CISPR22 Class B ICES-003 EN55022 EN55024 EN61000-3-2/-3-3 Class A VCCI Class B KN22 Class B KN24</td></tr></table>	Safety: UL60950-1 2 nd edition CSA22.2-No.60950-1 IEC/EN60950-1 2 nd edition IEC/EN60825	EMC Requirements: CISPR22 Class B ICES-003 EN55022 EN55024 EN61000-3-2/-3-3 Class A VCCI Class B KN22 Class B KN24
Safety: UL60950-1 2 nd edition CSA22.2-No.60950-1 IEC/EN60950-1 2 nd edition IEC/EN60825	EMC Requirements: CISPR22 Class B ICES-003 EN55022 EN55024 EN61000-3-2/-3-3 Class A VCCI Class B KN22 Class B KN24		
Operating temperature	14 to 122F (-10 to 50°C)		

Figure 2 shows the dimensions of the Cisco Video Surveillance 6020 IP Cameras. Note that all dimensions are in millimeters.

Figure 2. Cisco Video Surveillance 6020 IP Camera Dimensions



Package Contents

Table 7 describes the items that ship with the Cisco Video Surveillance 6020 IP Camera.

Table 7. Package Contents

Item
Cisco Video Surveillance 6020
Installation Template/Alignment Sticker
Screws (T4x32)
Wall Anchors
DC Power Cable Connector
Ethernet Cable
Lens Hood
Cisco Pointer Doc
Cisco RoHs Doc
Camera Identification Labels x 3

Availability

The Cisco Video Surveillance 6020 IP Camera is available through Cisco Authorized Technology Provider (ATP) Partners.

Ordering Information

Table 8 lists the part numbers for the Cisco Video Surveillance 6020 IP Camera and for the lenses that the camera supports.

Table 8. Ordering Information

Part Number	Description
CIVS-IPC-6020	Cisco Video Surveillance IP Camera, Indoor HD Dome Body
CIVS-IPCA-PWR12V	12 VDC Power Supply

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. Please refer to the release notes for Cisco Video Surveillance Manager 6.3 for more information:

http://www.cisco.com/en/US/docs/security/physical_security/video_surveillance/network/vsm/release_notes/6_3/vsm_rn_63.html.

Services and Support

Cisco and our certified partners can help you accelerate success and improve the return on your investment in a Cisco Physical Security solution. The Cisco lifecycle approach to services defines the requisite activities at each phase of the solution lifecycle. This approach allows you to:

- Reduce deployment costs by identifying the features that will best meet your business requirements
- Accelerate migration by assessing the readiness of your network to support the system and by developing a sound design
- Support smooth implementation through effective planning and expert installation, configuration, and integration
- Increase operational efficiency and extend the value of your investment with award-winning technical support

For more information about Cisco Services, please visit <http://www.cisco.com/go/services>.

For More Information

For more information about the Cisco Video Surveillance 6020 IP Camera, visit <http://www.cisco.com/go/physec> or contact your local Cisco account representative.



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Cisco Video Surveillance 6030 IP Camera

Product Overview

The Cisco® Video Surveillance 6030 IP Camera is an outdoor, 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 MJPEG compression. Contact closures allow integration with access control systems. With its open, standards-based design, the camera provides an ideal platform for integration and operation as an independent device or as part of a Cisco Video Surveillance Network.

Figure 1. Cisco Video Surveillance 6030 IP Camera



The Cisco Video Surveillance 6030 IP Camera offers a variety of benefits, including:

- **True high-definition video:** The camera streams crisp and clear 1080p (1920 x 1080) (2.1 MP) video at 30 fps while maintaining low network bandwidth.
- **Motorized focus and zoom:** The lens on the 6030 IP Dome allows the focus and zoom to be controlled remotely, greatly simplifying installations and field of view adjustments.
- **Outdoor Ready:** An IP66 rated enclosure enables outdoor mounting.
- **Dual streaming:** The camera can stream H.264 and MJPEG video simultaneously. Each video stream can be configured with individual resolution, quality, and frame-rate settings.
- **Day/night operation:** The camera provides true day/night functionality, and includes an infrared (IR) filter that automatically switches to night mode in low-light scenes. This function can be set to manual, automatic, or scheduled control.
- **Flexible power options:** The camera supports Power over Ethernet (PoE) 802.3af, 12 VDC, or 24 VAC power through an optional external power supply.

- **Medianet support:** The camera supports the Medianet interface. When connected to a Cisco switch that also supports medianet, the switch recognizes the camera as a video endpoint, and then uses SmartPort macros to set the right network parameters for the video stream on the network. In addition, the camera can be automatically discovered and configured when connected to VSM 7.0, thereby minimizing installation time and cost.

Features

Table 1 describes the features of the Cisco Video Surveillance 6030 IP Camera.

Table 1. Cisco Video Surveillance 6030 IP Camera Features

Item	Specification
Imaging device	1/2.7-in. progressive-scan CMOS
Image control	Automatic white balance (AWB), automatic gain control (AGC), automatic exposure shutter (AES), and auto and manual iris
Dynamic range	69 dB
Minimum illumination	<ul style="list-style-type: none"> • Color mode: F1.2 @ 0.4 lux • Black and white mode: F1.2 @ 0.2 lux
Lens	3-9 mm DC-Iris Remote focus and zoom
Field of view	37.5° ~ 103.7° (horizontal) 21.6° ~ 71.2° (vertical) 42.6° ~ 111.21° (diagonal)
Camera angle adjustment	Pan: 350° Tilt: 80° Rotate: 350°
Shutter speed	1/5 to 1/32,000 sec
Video compression	H.264 and MJPEG
Resolution and frame rate (H.264)	<ul style="list-style-type: none"> • 1920 x 1080 @ 30 fps (1080p) • 1280 x 720 @ 30 fps (720p) • 1024 x 576 @ 30 fps • 960 x 544 @ 30 fps • 704 x 480 or 576 @ 30 or 25 fps (4CIF) • 640 x 368 @ 30 fps • 352 x 240 or 288 @ 30 or 25 fps (CIF)
Resolution and frame rate (MJPEG)	<ul style="list-style-type: none"> • 1280 x 720 @ 30 fps (720p) • 1024 x 576 @ 30 fps • 960 x 544 @ 30 fps • 704 x 480 or 576 @ 30 or 25 fps (4CIF) • 640 x 368 @ 30 fps • 352 x 240 or 288 @ 30 or 25 fps (CIF)
Video streaming	<ul style="list-style-type: none"> • Single-stream H.264 up to 1080p (1920 x 1080) @ 30 fps • Dual-stream H.264 and MJPEG • H.264: Primary stream programmable up to 1280 x 720 @ 30 fps • MJPEG: Secondary stream programmable up to 960 x 544 @ 15 fps
Protocols	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
Quality of service (QoS)	Differentiated-services-code-point (DSCP) marking and class-of-service (CoS) marking

Item	Specification
Power	12 VDC or 24 VAC through optional external power supply, available separately PoE (802.3af)
Power consumption (max)	DC: 9.5W AC: 13.1W PoE: 12.72W

Table 2 lists the video stream support for the Cisco Video Surveillance 6030 IP Camera for 16:9 Aspect Ratios.

Table 2. Cisco Video Surveillance 6030 IP Camera Video Stream Support for 16:9 Aspect Ratios

Primary (H.264)	Maximum fps	Secondary (H.264 or MJPEG)	Maximum fps
1920 x 1080	30	-	-
1920 x 1080	15	1024 x 576 960 x 544 640 x 368	15
1280 x 720	30	1024 x 576 960 x 544 640 x 368	15
1024 x 576	30	1024 x 576 960 x 544 640 x 368	15
960 x 544	30	960 x 544 640 x 368	15
640 x 368	30	640 x 368	15

Table 3 lists the video stream support for the Cisco Video Surveillance 6030 IP Camera for 4:3 Aspect Ratios.

Table 3. Cisco Video Surveillance 6030 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 6030 IP Camera.

Table 4. Cisco Video Surveillance 6030 IP Camera Connectors

Item	Specification
Network connectivity	100 BASE-TX Ethernet with RJ-45 connector
Alarm input	One logic level programmable
Alarm output*	One logic level programmable
Power input	Terminal block

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

Software

Table 5 describes the primary features of the Cisco Video Surveillance 6030 IP Camera software.

Table 5. Cisco Video Surveillance 6030 IP Camera Primary Software Features

Item	Specification
Activity detection	User-definable alerts with configurable sensitivities and thresholds, email alert, and HTTP notifications
Video format	NTSC and PAL
Image settings	Configurable brightness, sharpness, contrast, saturation, hue, and white balance
Overlay capabilities	Time, date, and text
Selectable bit rate	Support for constant bit rate or variable bit rate
IP filtering	Ability for users to enter a list of allowed or blocked IP addresses for viewing video and configuring camera settings
Discovery	Cisco Discovery Protocol and Bonjour Zero-Configuration discovery
Configuration	<ul style="list-style-type: none"> • Browser-based using Internet Explorer 8 and later • Two levels of user access with password protection
Security	Support for IEEE 802.1X authentication

Specifications

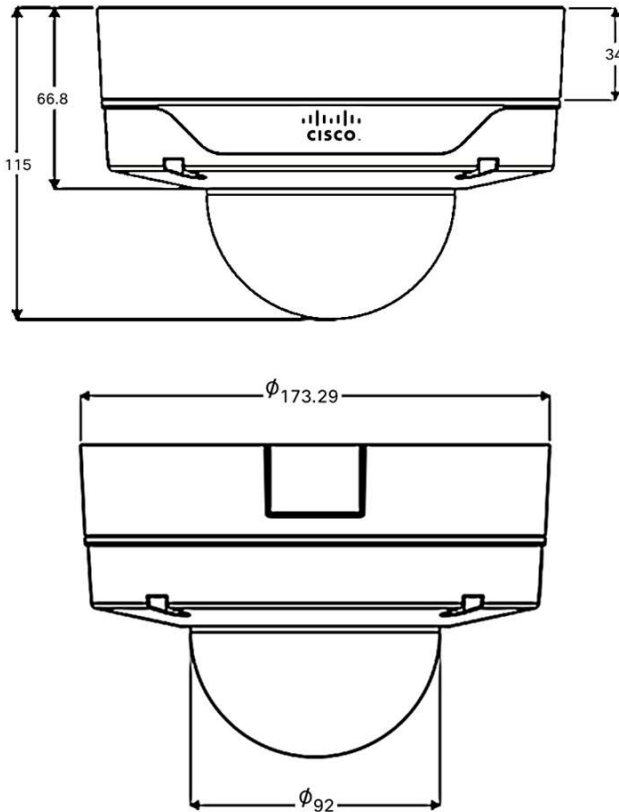
Table 6 provides specifications of the Cisco Video Surveillance 6030 IP Camera.

Table 6. Cisco Video Surveillance 6030 IP Camera Mechanical Specifications

Item	Specification		
Housing	Aluminum		
LEDs	Power and activity		
Dimensions (D x H)	6.9 x 4.5 inches (174 x 115 mm)		
Weight	1296g		
Certifications	<table border="0"> <tr> <td style="vertical-align: top;"> <p>Safety: UL60950-1 2nd edition CSA22.2-No.60950-1 IEC/EN60950-1 2nd edition IEC/EN60825</p> </td> <td style="vertical-align: top;"> <p>EMC Requirements: CISPR22 Class B ICES-003 EN55022 EN55024 EN61000-3-2/-3-3 Class A VCCI Class B KN22 Class B KN24</p> </td> </tr> </table>	<p>Safety: UL60950-1 2nd edition CSA22.2-No.60950-1 IEC/EN60950-1 2nd edition IEC/EN60825</p>	<p>EMC Requirements: CISPR22 Class B ICES-003 EN55022 EN55024 EN61000-3-2/-3-3 Class A VCCI Class B KN22 Class B KN24</p>
<p>Safety: UL60950-1 2nd edition CSA22.2-No.60950-1 IEC/EN60950-1 2nd edition IEC/EN60825</p>	<p>EMC Requirements: CISPR22 Class B ICES-003 EN55022 EN55024 EN61000-3-2/-3-3 Class A VCCI Class B KN22 Class B KN24</p>		
Operating temperature	-40 to 131°F (-40 to 55°C) Cold startup: -40°C		

Figure 2 shows the dimensions of the Cisco Video Surveillance 6030 IP Cameras. Note that all dimensions are in millimeters.

Figure 2. Cisco Video Surveillance 6030 IP Camera Dimensions



Package Contents

Table 7 describes the items that ship with the Cisco Video Surveillance 6030 IP Camera.

Table 7. Package Contents

Item
Cisco Video Surveillance 6030 IP Camera
Installation template and alignment sticker
Bushing and connectors
L type hex wrench
Screws and nuts
Desiccant pack
Documentation reference card
Regulatory documentation

Availability

The Cisco Video Surveillance 6030 IP Camera is available through Cisco Authorized Technology Provider (ATP) Partners.

Ordering Information

Table 8 lists the part numbers for the Cisco Video Surveillance 6030 IP Camera and for the lenses that the camera supports.

Table 8. Ordering Information

Part Number	Description
CIVS-IPC-6030	Cisco Video Surveillance IP Camera, Outdoor VR HD Dome Body
CIVS-IPCA-PWR12V	12 VDC Power Supply

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. Please refer to the release notes for Cisco Video Surveillance Manager 6.3 for more information:

http://www.cisco.com/en/US/docs/security/physical_security/video_surveillance/network/vsm/release_notes/6_3/vsm_rn_63.html.

Services and Support

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- Reduce deployment costs by identifying the features that will best meet your business requirements
- Accelerate migration by assessing the readiness of your network to support the system and by developing a sound design
- Support smooth implementation through effective planning and expert installation, configuration, and integration
- Increase operational efficiency and extend the value of your investment with award-winning technical support

For more information about Cisco Services, please visit <http://www.cisco.com/go/services>.

For More Information

For more information about the Cisco Video Surveillance 6030 IP Camera, please visit <http://www.cisco.com/go/physec> or contact your local Cisco account representative.



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Cisco Video Surveillance 6400E IP Camera

The Cisco[®] Video Surveillance 6400E IP Camera is an outdoor, high-definition, full-functioning video endpoint with an integrated infrared illuminator and 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 MJPEG compression. Contact closures and two-way audio allow integration with microphones, speakers, and access control 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.

The Cisco Video Surveillance 6400E IP Camera offers a variety of benefits.

- **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.
- **Motorized focus and zoom:** The lens on the 6400E IP Camera allows the focus and zoom to be controlled remotely, greatly simplifying installations and field-of-view adjustments.
- **Integrated infrared illuminator:** The infrared illuminator can light an area up to 30 meters away.
- **Outdoor-ready:** An IK10 and IP67-rated enclosure and an included mounting bracket allow for outdoor mounting straight out of the box.
- **Dual streaming:** The camera can stream H.264 and MJPEG video simultaneously. Each video stream can be configured with individual resolution, quality, and frame-rate settings.
- **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 or 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 an SD card continuously or 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 and Profile S 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.
- **Mounting options:** The camera can be installed with a fixed mount or with an optional external pan-tilt mount and motorized zoom lens.

- Medianet support:** The camera supports the Cisco Medianet interface. When connected to a Cisco switch that also supports Medianet, the switch recognizes the camera as a video endpoint and then uses SmartPort macros to set the right network parameters for the video stream on the network. In addition, the camera can be automatically discovered and configured when connected to Cisco Video Surveillance Manager 7.0, thereby reducing installation time and cost.

Features

Table 1 describes the features of the Cisco Video Surveillance 6400E IP Camera.

Table 1. Cisco Video Surveillance 6400E IP Camera Features

Item	Specification
Imaging device	1/2.7-in. progressive-scan complementary metal oxide semiconductor (CMOS)
Image control	Automatic white balance (AWB), automatic gain control (AGC), automatic exposure shutter (AES), and auto and manual iris
Wide dynamic range	Approximately 69 dB
Minimum illumination	<ul style="list-style-type: none"> Color: 0.5 lux Black and white: 0 lux w/illuminator active
Lens	3.6-9 mm DC-Iris Remote focus and zoom
Field of view	37.5° to 95.98° (horizontal) 21.6° to 53.80° (vertical) 42.6° to 109.46° (diagonal)
Shutter speed	1/5 to 1/32,000 sec
Video compression	H.264 and MJPEG
Audio compression	G.711 A-Law, G.711 U-Law
Resolution and frame rate (H.264)	Refer to Tables 2 and 3
Resolution and frame rate (MJPEG)	Refer to Tables 2 and 3
Video streaming	<ul style="list-style-type: none"> Single-stream H.264 or MJPEG up to 1080p (1920 x 1080) at 30 fps Dual-stream H.264 and MJPEG <ul style="list-style-type: none"> Primary stream programmable up to 1280 x 720 at 30 fps Secondary stream programmable up to 960 x 544 at 15 fps
Protocols	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
Quality of service (QoS)	Differentiated-services-code-point (DSCP) marking and class-of-service (CoS) marking
Power	12 VDC or 24 VAC through optional external power supply, available separately PoE (802.3af)
Power consumption (maximum)	DC: 9.6 W AC: 12.5 W PoE: 12.2 W

Table 2 lists the video stream support for the Cisco Video Surveillance 6400E IP Camera for 16:9 aspect ratios.

Table 2. Cisco Video Surveillance 6400E IP Camera Video Stream Support for 16:9 Aspect Ratios

Primary (H.264)	Maximum fps	Secondary (H.264 or MJPEG)	Maximum fps
1920 x 1080	30	NA	-
1920 x 1080	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
1536 x 864	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
1472 x 832	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
1280 x 720	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
1024 x 576	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 6400E IP Camera for 4:3 aspect ratios.

Table 3. Cisco Video Surveillance 6400E 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 6400E IP Camera.

Table 4. Cisco Video Surveillance 6400E IP Camera Connectors

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

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

Software

Table 5 describes the primary features of the Cisco Video Surveillance 6400E IP Camera software.

Table 5. Cisco Video Surveillance 6400E IP Camera Primary Software Features

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

Specifications

Table 6 provides mechanical specifications of the Cisco Video Surveillance 6400E IP Camera.

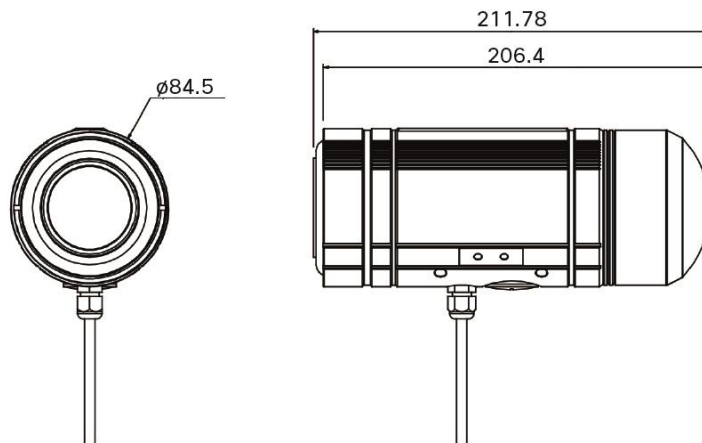
Table 6. Cisco Video Surveillance 6400E IP Camera Mechanical Specifications

Item	Specification
Housing	Aluminum
LEDs	Power and activity
Dimensions (D x L)	3.2 x 7.8 in. (81 x 199 mm)
Weight	1296 g

Item	Specification	
Certifications	Safety: UL60950-1 2nd edition CSA22.2-No.60950-1 IEC/EN60950-1 2nd edition IEC/EN60825	EMC-Requirements: CISPR22 Class B ICES-003 EN55022 EN55024 EN61000-3-2/-3-3 Class A VCCI Class B KN22 Class B KN24
Operating temperature	-40 to 122°F (-40 to 50°C) Cold startup: -40°C	

Figure 1 shows the dimensions of the Cisco Video Surveillance 6400E IP Camera.

Figure 1. Cisco Video Surveillance 6400E IP Camera Dimensions



Package Contents

Table 7 describes the items that ship with the Cisco Video Surveillance 6400E IP Camera.

Table 7. Package Contents

Item
Cisco Video Surveillance 6400E IP Camera
Mounting arm and bracket
Installation template
Documentation reference card
Regulatory documentation

Availability

The Cisco Video Surveillance 6400E IP Camera is available through Cisco Authorized Technology Provider (ATP) Partners.

Ordering Information

Table 8 lists the part numbers for the Cisco Video Surveillance 6400E IP Camera.

Table 8. Ordering Information

Part Number	Description
CIVS-IPC-6400E	Cisco Video Surveillance IP Camera, HD Bullet Camera, VR, IR
CIVS-IPCA-PWR12V	12 VDC power supply

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.

Services and Support

Cisco and our certified partners can help you accelerate success and improve the return on your investment in a Cisco Physical Security solution. The Cisco lifecycle approach to services defines the requisite activities at each phase of the solution lifecycle. This approach allows you to:

- Reduce deployment costs by identifying the features that will best meet your business requirements
- Accelerate migration by assessing the readiness of your network to support the system and by developing a sound design
- Support smooth implementation through effective planning and expert installation, configuration, and integration
- Increase operational efficiency and extend the value of your investment with award-winning technical support

For more information about Cisco services, visit <http://www.cisco.com/go/services>.

For More Information

For more information about the Cisco Video Surveillance 6400E IP Camera, visit <http://www.cisco.com/go/physec> or contact your local Cisco account representative.



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Cisco Video Surveillance 7070 IP Camera

The Cisco® Video Surveillance 7070 IP Camera is a high-definition HD, fully functioning video endpoint that is equipped with a 5-megapixel sensor and a fisheye lens that can deliver impressive 180° panoramic views and 360° surround views. This IP camera provides industry-leading image quality and processing power, and can be deployed in both indoor and outdoor environments.

The camera is capable of 1920 x 1920 resolution while optimizing network utilization with either H.264 or Motion JPEG (MJPEG) compression. Contact closures allow integration with access control systems. With its open, standards-based design, the camera provides an ideal platform for integration and operation as an independent device or as part of a Cisco IP Video Surveillance network.



Key Benefits

The Cisco Video Surveillance 7070 IP Camera offers a variety of benefits, including:

- **Outstanding multi-view layouts:** 360° surround views and multiregion client dewarped views, with Digital PTZ functionality.
- **True high-definition video:** This 5-megapixel camera streams crisp and clear video at resolutions up to 1920 x 1920, while maintaining low network bandwidth.
- **Indoor and outdoor-ready:** An IK10 and IP66-rated enclosure enables outdoor mounting.
- **Dual streaming:** The camera can stream H.264 and MJPEG video simultaneously. Each video stream can be configured with independent resolution, quality, and frame-rate settings.
- **Application-ready platform:** Device functionality can be extended by installing and running applications directly on the camera, for example SIP client, video analytics, audio analytics, etc.
- **Integrated infrared illuminator:** The infrared illuminator can light an area up to 33 feet (10 meters) away.
- **Day and night operation:** The camera provides true day-night functionality and includes an infrared-cut 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 micro-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 and Profile S allows for standards-based interoperability and communications with other ONVIF appliances.
- **Flexible power options:** The camera supports Power over Ethernet plus (PoE+) (802.3at compliant) or 12V DC.

Features and Specifications

The following Table 1 describes the capabilities and specifications of the Cisco Video Surveillance 7070 IP Camera.

Table 1. Capabilities and Specifications of the Cisco Video Surveillance 7070 IP Camera

Features and Specifications	
Additional Software Features	
Activity detection	Detects changes in motion in the field of view and triggers user-definable alerts (with configurable sensitivities and thresholds), email alerts, and HTTP notifications
Camera tamper detection	Detects when a camera view is changed, blocked, or substantially out of focus. User-definable alerts, email alerts, and HTTP notifications can be triggered
Security	802.1x for client authentication Control device access by filtering individual user IP addresses or a range of IP addresses that are allowed or denied access
Overlay capabilities	Time, date, text and image
Image settings	Configurable brightness, sharpness, contrast, saturation, hue, and white balance
Device configuration	Internet Explorer 8, and later
Device Specifications	
Image sensor	One 2.5-inch progressive-scan complementary metal-oxide semiconductor (CMOS)
Image control	Automatic white balance (AWB), automatic gain control (AGC), automatic exposure shutter (AES)
Wide dynamic range	70 dB
Minimum illumination	Color mode: 0.6 lux Black/White mode: 0.01 lux, 0 lux with illuminator active
Lens	Focal length: 1.5mm Maximum aperture: F2.8
Shutter speed	1/5 second to 1/32,000 second
Iris control	Fixed iris
Field of view	180° horizontal 180° vertical 180° diagonal
Video Specifications	
Video compression	H.264 and MJPEG
Video formats	NTSC and PAL
Video streaming	Single stream H.264 - up to 1920 x 1920 at 5 fps Single stream MJPEG - up to 1920 x 1920 at 15 fps Dual stream H.264 and MJPEG: <ul style="list-style-type: none"> • Primary stream - up to 1920 x 1080 at 15 fps • Secondary stream - up to 1024 x 576 at 15 fps

Features and Specifications	
Video data transfer	Support for both constant and variable bit rates
Video resolution and frame rates	For more details, see the following Table 2
Audio Specifications	
Audio compression	G.711 A-Law, G.711 U-Law
Audio input and output	Built-in microphone Two-way (full- and half-duplex), one-way, or audio off
Network Specifications	
Quality of service	Differentiated-services-code-point (DSCP) marking and class-of-service (CoS) marking
Device discovery	Cisco Discovery Protocol, Bonjour Zero-Configuration discovery
Supported protocols	TCP/IP, DHCP, HTTP, HTTPS, NTP, RTP, RTSP, SMTP, SSL/TLS, SRTP, CDP, Bonjour, SNMP, and SSH
Physical and Environmental Specifications	
Power	22W consumed with a 12V DC 23W consumed with a PoE+ (802.3at-compliant) source
Operating temperature	Normal startup: <ul style="list-style-type: none"> • -40 to 50°C (-40 to 122°F) using DC and PoE+ • 0 to 50°C (0 to 122°F) using PoE Cold startup: <ul style="list-style-type: none"> • 0°C using PoE • -40°C using DC and PoE+
Weight	28 ounces (794 grams)
Dimensions (D x H)	Ø: 160 mm x 51 mm
Housing	Aluminum
Status LEDs	Power and activity
External Connectivity	
Network connectivity	100BASE-TX Ethernet with RJ-45 connector
Serial port	Not supported
Alarm input	One logic level programmable
Alarm output¹	One logic level programmable
Storage	MicroSD card slot
Audio	External microphone input External line output
Analog video out	Not supported
Power input	Power cord socket, terminal block adaptor included
Certifications	
Safety	UL60950-1 second edition CSA22.2-No.60950-1 IEC/EN60950-1 second edition
EMC requirements	CISPR22 Class B ICES-003 EN50121-4 EN50155 EN50130-4 EN55022 EN55024 EN61000-3-2/-3-3 VCCI Class B KN22 Class B

Features and Specifications	
	KN24 CISPR 24 AS/NZS CISPR 22 FCC CFR Title 47 Part 15 Subpart B

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

Video Stream Profile Support

The following Table 2 shows 1:1 aspect ratios for the 7070 IP Camera.

Table 2. Aspect Ratios for the Cisco Video Surveillance 7070 IP Camera

Primary (H.264 or MJPEG)	Maximum fps	Secondary (H.264 or MJPEG)	Maximum fps
1920 x 1920	15	768 x 768 512 x 512 384 x 384 256 x 256 192 x 192	15
1536 x 1536	15	768 x 768 512 x 512 384 x 384 256 x 256 192 x 192	15
1280 x 1280	15	768 x 768 512 x 512 384 x 384 256 x 256 192 x 192	15
1056 x 1056	15	768 x 768 512 x 512 384 x 384 256 x 256 192 x 192	15
768 x 768	15	768 x 768 512 x 512 384 x 384 256 x 256 192 x 192	15
512 x 512	15	512 x 512 384 x 384 256 x 256 192 x 192	15
384 x 384	15	384 x 384 256 x 256 192 x 192	15
256 x 256	15	256 x 256 192 x 192	15
192 x 192	15	192 x 192	15

The following Table 3 shows 16:9 aspect ratios for the 7070 IP Camera.

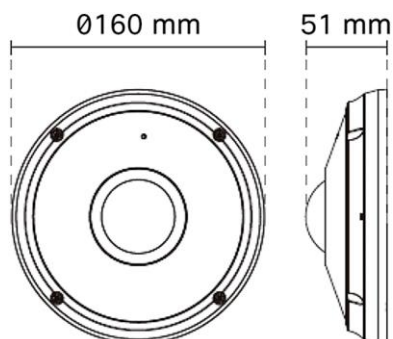
Table 3. Aspect Ratios for the Cisco Video Surveillance 7070 IP Camera

Primary (H.264 or MJPEG)	Maximum fps	Secondary (H.264 or MJPEG)	Maximum fps
1920 x 1080	30	-	-
1920 x 1080	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
1536 x 864	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
1472 x 832	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
1280 x 720	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
1024 x 576	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 or MJPEG)	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	30	320 x 192 192 x 112 160 x 96	15
192 x 112	30	192 x 112 160 x 96	15
160 x 96	30	160 x 96	15

Figure 1 shows the dimensions of the Cisco Video Surveillance 7070 IP Camera.

Figure 1. Cisco Video Surveillance 7070 IP Camera Dimensions in Millimeters



Package Contents

The items that ship with the Cisco Video Surveillance 7070 IP Camera include:

- Cisco Video Surveillance 7070 IP Camera
- Installation template and alignment sticker
- Mounting plate
- Bushing and connectors
- L-type hex wrench
- Screws, hex nuts, and wall anchors
- Desiccant pack and double-sided tape
- Documentation reference card
- Regulatory documentation

Availability

The Cisco Video Surveillance 7070 IP Camera is available through Cisco Authorized Technology Provider (ATP) partners.

Ordering Information

Table 4 lists the part numbers for the Cisco Video Surveillance 7070 IP Camera and accessories.

Table 4. Ordering Information

Part Number	Description
CIVS-IPC-7070	5-MP Cisco Video Surveillance 7070 IP Camera

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.

Services and Support

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- Reduce deployment costs by identifying the features that best meet your business requirements.
- Accelerate migration by assessing the readiness of your network to support the system and by developing a sound design.
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