Cisco Video Surveillance 3535 IP Camera

Product Overview

The Cisco® Video Surveillance 3535 IP Camera is an outdoor high-definition, full-function video endpoint with industry-leading image quality and processing power. The camera is capable of resolutions up to 1280 x 960 at 30 frames per second (fps) while optimizing network usage 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 Video Surveillance network.

The Cisco Video Surveillance 3535 IP Camera offers a variety of benefits, including:

- **True high-definition video:** The camera streams crisp and clear video at resolutions of up to 1280 x 960 at 30 fps while maintaining low network bandwidth.

- **Outdoor-ready:** An IK10 and IP67-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.

- **Application-ready platform:** You can easily add functions by installing and running applications directly on the camera.

- **Day/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 microSD 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.

- **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 correct 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 3535 IP Camera.

Table 1. Cisco Video Surveillance 3535 IP Camera Features

Item	Specification
Imaging device	1/3-in. progressive-scan CMOS
Image control	Automatic white balance (AWB), automatic gain control (AGC), automatic exposure shutter (AES), and auto and manual iris
Wide dynamic range	~69dB
Minimum illumination	Color mode: F1.2 @ 0.4 lux Black-and-white mode: F1.2 @ 0.2 lux
Lens	3-9 mm DC-Iris
Field of view	93° to 31.7° (horizontal) 68.4° to 23.8° (vertical) 118.9° to 39.6° (diagonal)
Camera angle adjustment	Pan: 350° Tilt: 80° Rotate: 350°
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	• Single-stream H.264 or MJPEG up to 1280 x 960 @ 30 fps • Dual-stream H.264 and MJPEG 　◦ Primary stream programmable up to 1280 x 960 @ 30 fps 　◦ Secondary stream programmable up to 800 x 600 @ 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), Transmission Control Protocol/Internet Protocol (TCP/IP), Secure Real-Time Transport Protocol (SRTP), Cisco Discovery Protocol, Bonjour, Simple Network Management Protocol (SNMP), and Secure Shell (SSH)
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: 9 W AC: 10.5 W PoE: 11 W

Table 2 lists the video stream support for the Cisco Video Surveillance 3535 IP Camera for a 16:9 aspect ratio.

Table 2. Cisco Video Surveillance 3535 IP Camera Video Stream Support for 16:9 Aspect Ratio

Primary (H.264)	Maximum fps	Secondary (H.264 or MJPEG)	Maximum fps
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

Primary (H.264)	Maximum fps	Secondary (H.264 or MJPEG)	Maximum fps
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
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

Table 3 lists the video stream support for the Cisco Video Surveillance 3535 IP Camera for a 4:3 aspect ratio.

Table 3. Cisco Video Surveillance 3535 IP Camera Video Stream Support for 4:3 Aspect Ratio

Primary (H.264)	Maximum fps	Secondary (H.264 or MJPEG)	Maximum fps
1280 x 960	30	800 x 600 640 x 480 480 x 360 320 x 240 240 x 184 160 x 120	15
1024 x 768	30	800 x 600 640 x 480 480 x 360 320 x 240 240 x 184 160 x 120	15
800 x 600	30	640 x 480 480 x 360 320 x 240 240 x 184 160 x 120	15
640 x 480	30	480 x 360 320 x 240 240 x 184 160 x 120	15
480 x 360	30	320 x 240 240 x 184 160 x 120	15
320 x 240	30	240 x 184 160 x 120	15
240 x 184	30	160 x 120	15
160 x 120	30	160 x 120	15

Connectors

Table 4 describes the connectivity and connectors of the Cisco Video Surveillance 3535 IP Camera.

Table 4. Cisco Video Surveillance 3535 IP Camera Connectors

Item	Specification
Network connectivity	100BASE-TX Ethernet with RJ-45 connector
Alarm input	One logic-level programmable
Alarm output[*]	One logic-level programmable
Storage	MicroSD card slot
Audio	• 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 3535 IP Camera software.

Table 5. Cisco Video Surveillance 3535 IP Camera Primary Software Features

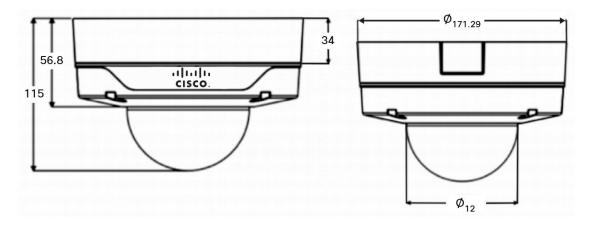| Item	Specifications and Features
Activity detection	User-definable alerts with configurable sensitivities and thresholds, email alert, and HTTP notifications
Camera-tamper detection	User-definable alerts, email alert, and HTTP notifications
Video format	NTSC and PAL
Image settings	Configurable brightness, sharpness, contrast, saturation, 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, Bonjour Zero-Configuration discovery
Configuration	• 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 mechanical specifications of the Cisco Video Surveillance 3535 IP Camera.

Table 6. Cisco Video Surveillance 3535 IP Camera Mechanical Specifications

Item	Specification	
Housing	Aluminum	
LEDs	Power and activity	
Dimensions (D x H)	6.9 x 4.5 in. (174 x 115 mm)	
Weight	1500 g	
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 3535 IP Camera. All dimensions are in millimeters.

Figure 1.   Cisco Video Surveillance 3535 IP Camera Dimensions

Package Contents

Table 7 describes the items that ship with the Cisco Video Surveillance 3535 IP Camera.

Table 7.   Package Contents

Item
Cisco Video Surveillance 3535 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 3535 IP Camera is available through Cisco Authorized Technology Provider (ATP) Partners.

Ordering Information

Table 8 lists the part numbers for the Cisco Video Surveillance 3535 IP Camera and accessories.

Table 8.   Ordering Information

Part Number	Description
CIVS-IPC-3535	Cisco Video Surveillance IP Dome Body, Outdoor, 1.3MP DN, IO
CIVS-6KA-VRD-S	Smoked Vandal-Resistant Dome
CIVS-6KA-VRD-C	Clear Vandal-Resistant Dome
CIVS-IPCA-PWR12V	12 VDC Power Supply
CIVS-AVCABLE	Audio Video Cable for 35xx, 6k, and 7k Series IP Cameras

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 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 3535 IP Camera, please visit http://www.cisco.com/go/videosurveillance or contact your local account representative.

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