

Cisco 4000 Series Video Surveillance High-Definition IP Cameras

Cisco® Video Surveillance 4000 Series IP Cameras are feature-rich digital cameras designed for superior performance in a wide variety of video surveillance applications. The cameras employ true high-definition (HD) video and H.264 compression, streaming up to 30 frames per second (fps) at 1080p (1920 x 1080) resolution, and 60 fps at 720p (1280 x 720) resolution, offering efficient network utilization with the highest-quality video. Contact closures and two-way audio allow integration with microphones, speakers, and 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 CIVS-IPC-4300 and CIVS-IPC-4500 IP Cameras have identical feature sets, with the exception of the additional digital signal processor (DSP) capabilities specifically designed to support real-time video analytics at the edge on the CIVS-IPC-4500. On this model, applications and end users have the option to run multiple analytics packages without compromising video streaming performance on the camera. This highly flexible future-proof computing platform is ideal for next generation video analytics applications.

Figure 1. IP Camera Shown with Optional DC Auto Iris Lens, Available Separately



The Cisco Video Surveillance 4000 Series IP Camera offers a variety of benefits, including:

- **True high-definition video.** The camera streams crisp and clear 1080p (1920 x 1080) video at 30 frames per second while maintaining surprisingly low network bandwidth. For fast motion applications, the camera can be set to stream 720p (1280 x 720) video at 60 frames per second.
- **Progressive scan video.** The camera captures each frame at its entire resolution using progressive scan rather than interlaced video capture, which captures each field of video. This feature allows for better detail for video of moving objects such as faces and license plates on automobiles.

- **Embedded security and networking.** The camera provides hardware-based Advanced Encryption Standard (AES). For enhanced bandwidth management, the camera supports IP Multicast.
- **Event notification.** The camera can examine designated areas for activity and notify users or other applications when it detects activity that exceeds a predefined sensitivity and threshold. The camera also provides two digital inputs and two digital outputs that can be used to initiate specific actions when an alarm is detected.
- **Day/night operation.** The camera provides true day/night functionality that includes an IR filter that automatically switches to night mode in low light scenes. This function can be set to manual, automatic, or scheduled control.
- **Optional USB memory card.** The camera supports an optional USB memory card for onboard storage of video and other data.
- **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.

Features

Table 1 describes the features of the Cisco Video Surveillance 4000 Series IP Camera.

Table 1. Cisco Video Surveillance 4000 Series IP Camera Features

Item	Specification
Imaging Device	1/3-in. complementary metal oxide semiconductor (CMOS)
Image Control	Automatic white balance (AWB), automatic back lighting, automatic gain control (AGC), auto/manual iris, sharpness, image quality, time stamp, and camera ID
Dynamic Range	65 dB
Minimum Illumination	<ul style="list-style-type: none"> • Color mode: F1.4 @ 0.4 lux (.04 fc) • Black and white mode: F1.4 @ 0.04 lux (0.004 fc)
Signal-to-Noise Ratio (SNR)	53 dB
Lens Selection	Accepts manual or DC auto iris lens
Lens Mount	<ul style="list-style-type: none"> • CS mount • C mount, with provided adapter
Shutter Speed	<ul style="list-style-type: none"> • Electronic Rolling Shutter (ERS) • Global Reset (GR)
Video Compression	H.264, MJPEG
Audio Compression	G.711 A-Law, G.711 U-Law, AAC
Resolution and Frame Rate H.264	<ul style="list-style-type: none"> • 1920 x 1080 @ 30 fps (1080p) • 1280 x 720 @ 60 fps (720p) • 720 x 480/576 @ 30/25 fps (D1) • 704 x 480/576 @ 30/25 fps (4CIF) • 352 x 240/288 @ 30/25 fps (CIF)
Resolution and Frame Rate MJPEG	<ul style="list-style-type: none"> • 720 x 480/576 @ 30/25 fps (D1) • 704 x 480/576 @ 30/25 fps (4CIF) • 352 x 240/288 @ 30/25 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 <ul style="list-style-type: none"> ◦ H.264: Primary stream programmable up to 1280 x 720 @ 25/20 fps ◦ MJPEG: Secondary stream programmable up to 720 x 576 @ 25/20 fps
Memory	64 MB flash, 128 MB SDRAM

Item	Specification
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, class of service (CoS) marking

Connectors

Table 2 describes the connectivity and connectors of the Cisco Video Surveillance 4000 Series IP Camera.

Table 2. Cisco Video Surveillance 4000 Series IP Camera Connectors

Item	Specification
Network Connectivity	10/100 BASE-TX Ethernet with RJ-45 connector
Audio	<ul style="list-style-type: none"> 1, 3.5-mm input/output jack for optional external speaker and optional external microphone via Y-cable Built-in microphone Two-way (full-duplex)
Serial Port	RS-232, Pelco D protocol only
Alarm Input	2, logic level programmable
Alarm Output	2, logic level programmable
Power	<ul style="list-style-type: none"> 12 VDC or 24 VAC through optional external power supply, available separately PoE (802.3af) @ 48V/0.3A

Software

Table 3 describes the primary features of the Cisco Video Surveillance 4000 Series IP Camera software.

Table 3. Cisco Video Surveillance 4000 Series IP Camera Primary Software Features

Item	Specification
Activity Detection	User-definable detection areas with configurable sensitivities and thresholds, e-mail alert, and FTP uploading of captured video or JPEG snapshots triggered by motion alert
Video Format	H.264 Main Profile
Image Settings	Configurable color level, brightness, sharpness, contrast, and white balance
Overlay Capabilities	Time, date, and camera ID
Selectable Bit Rate	Support for Constant Bit Rate or Variable Bit Rate (constant quality), and Variable Bit Rate with ceiling (bandwidth management by reducing frame rate rather than quality)
IP Filtering	Users can enter a list of allowed or blocked IP addresses for viewing video and configuring camera settings
Configuration	<ul style="list-style-type: none"> Browser-based using Internet Explorer 6.x, SP2 and above Two levels of user access with password protection
Video Analytics	CIVS-IPC-4500 includes a fully programmable DSP-based analytics co-processor

Specifications

Table 4 provides specifications of the Cisco Video Surveillance 4000 Series IP Camera.

Table 4. Cisco Video Surveillance 4000 Series IP Camera Mechanical Specifications

Item	Specification
Housing	Aluminum
LEDs	Power, Ethernet link, and activity
Dimensions (L x W x H)	<ul style="list-style-type: none"> • 5.2 x 3.1 x 2.5 in. • 132 x 79.5 x 65 mm
Weight	CIVS-IPC-4300: <ul style="list-style-type: none"> • 1.2 lb • 0.54 kg CIVS-IPC-4500: <ul style="list-style-type: none"> • 1.25 lb • 0.56 kg
Certifications	FCC, CE, and UL
Operating Temperature	Indoors: <ul style="list-style-type: none"> • 32 to 122°F • 0 to 50°C Outdoors (when installed in an appropriate outdoor enclosure with heating and cooling): <ul style="list-style-type: none"> • -40 to 158°F • -40 to 70°C

Package Contents

Table 5 describes the items that ship with the Cisco Video Surveillance 4000 Series IP Camera.

Table 5. Package Contents

Item
Accessories: Lens opening dust cap, terminal block for power connection, C mount lens adaptor, 0.9-mm Allen wrench, Y-cable for audio, USB port cover
Regulatory compliance and safety information
Quick start guide

System Requirements

Table 6 describes the minimum system requirements for the Cisco Video Surveillance 4000 Series IP Camera.

Table 6. Minimum System Requirements

Item
10/100 BASE-T hub, router, or switch (802.3af-compliant switch required for optional PoE)
Windows XP with Internet Explorer 6.x, SP2 and above
<ul style="list-style-type: none"> • Intel Dual-Core 2.66-GHz or higher • 1 GB of RAM or higher • Nvidia Video card: EVGA 8600GTS 675MHZ 512MB 2.0GGHZ GDDR3 PCI-E DUAL DVI or similar

Availability

The Cisco Video Surveillance 4000 Series IP Camera is available through Cisco Authorized Technology Provider (ATP) Partners.

Ordering Information

Table 7 lists the part numbers for the Cisco Video Surveillance 4000 Series IP Camera and for the lenses that the camera supports.

Table 7. Ordering Information

Part Number	Description
CIVS-IPC-4300	Cisco Video Surveillance 4300 IP Camera, HD, Day/Night
CIVS-IPC-4500	Cisco Video Surveillance 4500 IP Camera, HD, DSP, Day/Night
CIVS-PWRPAC-12V	12 VDC @ 1.6A Power Supply
Lenses	
CIVS-IPC-VFM28-12	Cisco IP Camera Lens Megapixel 2.8–12 mm Fujinon
CIVS-IPC-VFM15-50	Cisco IP Camera Lens Megapixel 15–50 mm Fujinon
USB Memory	
CIVS-IPC-USB-4G	Cisco IP Camera Memory USB 4G

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:

- 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 IP Camera, visit <http://www.cisco.com/go/videosurveillance> or contact your local account representative.



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