Cisco Video Surveillance 2500 Series IP Camera

The Cisco® Video Surveillance 2500 Series IP Camera is a high-resolution, feature-rich digital camera designed for superior performance in a wide variety of video surveillance applications. The camera employs MPEG-4 and MJPEG compression to stream 30 frames per second (fps) at D1 NTSC resolution (720 x 480) or 25 fps at D1 PAL resolution (720 x 576), offering efficient network utilization while providing high-quality video. Contact closures and two-way audio allow integration with microphones, speakers, and access control systems. (Note: Not all features are supported when using the camera with Cisco Video Surveillance Manager.) 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.   Figure 1. Wireless and Wired IP Cameras Shown with Optional DC Auto Iris Lens

The Cisco Video Surveillance 2500 Series IP Camera offers a variety of benefits, including:

- **Wide dynamic range.** The camera employs powerful digital imaging technology, allowing it to capture high-quality images in a wide variety of lighting conditions. It uses a progressive scan image sensor with global electronic shuttering to ensure natural color rendition, zero blooming and smear, and minimal motion blurring.
- **Dual streaming.** The camera can stream MPEG-4 and MJPEG video simultaneously. Each video stream canbe configured with individual resolution, quality, and frame rate settings.• 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 or automatic control.
- **Flexible power options.** The wired version of the 2500 camera supports Power over Ethernet (PoE) 802.3af or DC power through an optional external power supply.
- **Wireless capabilities.** The wireless IP camera model supports 1 x 2 Multiple Input Multiple Output (MIMO) communication, which provides better data throughput and higher link range than single antenna designs. The wireless IP camera offers strong wireless security using Wi-Fi Protected Access (WPA)/WPA2 and supports various network protocols for 802.1x authentication.

- **Embedded security and networking.*** The camera provides 802.1X authentication and hardware-based Advanced Encryption Standard (AES). For enhanced bandwidth management, the camera supports IP Multicast.

- **Event notification.*** The camera can examine designated areas in the video for motion activity and then notify users or other applications when it detects activity that exceeds a predefined 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.

- **Mounting options.*** The camera can be installed with a fixed mount or with an optional external pan/tilt mount and motorized zoom lens.

Note: Features with an asterisk are not available when the camera is used with Cisco Video Surveillance Manager.

Features

Table 1 describes the features of the Cisco Video Surveillance 2500 Series IP Camera.

Table 1. Cisco Video Surveillance 2500 Series IP Camera Features

Item	Specification
Imaging Device	1/3-in. progressive-scan CMOS sensor with wide dynamic range
Image Control	Automatic white balance (AWB), automatic back lighting, automatic gain control (AGC), automatic exposure (AE), auto/manual iris
Dynamic Range	102 dB typical/120 dB maximum
Minimum Illumination	• Color mode: F1.4 @ 0.65 lux • Black and white mode: F1.4 @ 0.08 lux
Signal-to-Noise Ratio (SNR)	>48 dB
Lens Selection	Accepts manual or DC auto iris lens
Lens Mount	CS mount
Shutter Speed	Electronic shutter
Video Compression	MPEG-4 SP level 0 to 4, ASP level 0 to 5
Audio Compression*	G.711 A-Law, G.711 U-Law, G.726
Signal-to-Noise Ratio (SNR)	>48 dB
Resolution and Frame Rate	• NTSC/PAL • 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	• Single-stream MPEG-4 up to D1 720 x 480/576 @ 30/25 fps • Single-stream MJPEG up to D1 720 x 480/576 @ 15 fps • Dual-stream: MPEG-4 and MJPEG • Primary stream MPEG-4 programmable up to 704 x 480/576 @ 25/20 fps • Secondary stream MPEG-4/MJPEG (selectable) programmable up to 352 x 240/288 @ up to 15 fps
Protocols*	Dynamic Host Control Protocol (DHCP), File Transfer Protocol (FTP), 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)
Quality of Service (QoS)*	Differentiated services code point (DSCP) marking
Power	• 12 VDC, through optional external power supply, available separately • PoE (802.3af) @ 48V/0.3A (wired only)
Power Consumption	11W (max)

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

Wireless Specifications

Table 2 provides wireless specifications for the Cisco Video Surveillance 2500 Series IP Camera.

Table 2.   Cisco Video Surveillance 2500 Series IP Camera Wireless Specifications

Item	Specification
Wireless Interface	802.11b/g
Transmitted Power	• 802.11g:12–14 dBm • 802.11b:16–18 dBm
Receive Sensitivity	• 802.11g: 54 Mbps @ −75 dBm • 802.11b: 11 Mbps @ −88 dBm
Data Rate	• 802.11g: 6–54 Mbps • 802.11b: 1–11 Mbps
Antenna Gain	2 dBi
Antenna Connector Type	Reverse polarity SMA
Mode	Infrastructure
Protocols*	802.1x, AES, Temporal Key Integrity Protocol (TKIP), Wired Equivalent Privacy (WEP), WPA/WPA2 Personal, WPA/WPA2 Enterprise, Extensible Authentication Protocol-Transport Layer Security (EAP-TLS), EAP-Tunneled TLS (EAP-TTLS), Microsoft Challenge-Handshake Authentication Protocol (MS-CHAP), MS-CHAPv2, Protected EAP (PEAP), EAP-Message Digest 5 (EAP-MD5)

Connectors

Table 3 describes the connectivity and connectors of the Cisco Video Surveillance 2500 Series IP Camera.

Table 3.   Cisco Video Surveillance 2500 Series IP Camera Connectors

Item	Specification
Network Connectivity	10/100 BASE-TX Ethernet with RJ-45 connector
Video	1 analog output BNC connector, 75 ohms
Audio*	• 1, 3.5-mm output jack for optional external speaker • 1, 3.5-mm input jack for optional external microphone • Built-in microphone • Two-way (full- and half-duplex), one-way, or audio off
Serial Port*	RS-485 (2-wire), Pelco D protocol only
Alarm Input*	2, logic level programmable
Alarm Output*	2, logic level programmable
Power Input	2-pin terminal

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

Software

Table 4 describes the primary features of the Cisco Video Surveillance 2500 Series IP Camera software.

Table 4.   Cisco Video Surveillance 2500 Series IP Camera Primary Software Features

Item	Specification
Activity Detection	4 user-definable motion detection areas, e-mail alert, and FTP uploading of captured video or JPEG snapshots triggered by motion alert
Wireless Security	Wired Equivalent Privacy (WEP) 64/128, Temporal Key Integrity Protocol (TKIP), Wi-Fi Protected Access Preshared Key (WPA-PSK), WPA2
Video Format	NTSC and PAL
Day/night Settings	Auto or manual day/night operation with user-definable thresholds
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* (constant quality)
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 6.x with SP2 and later • Multiple user access levels with password protection

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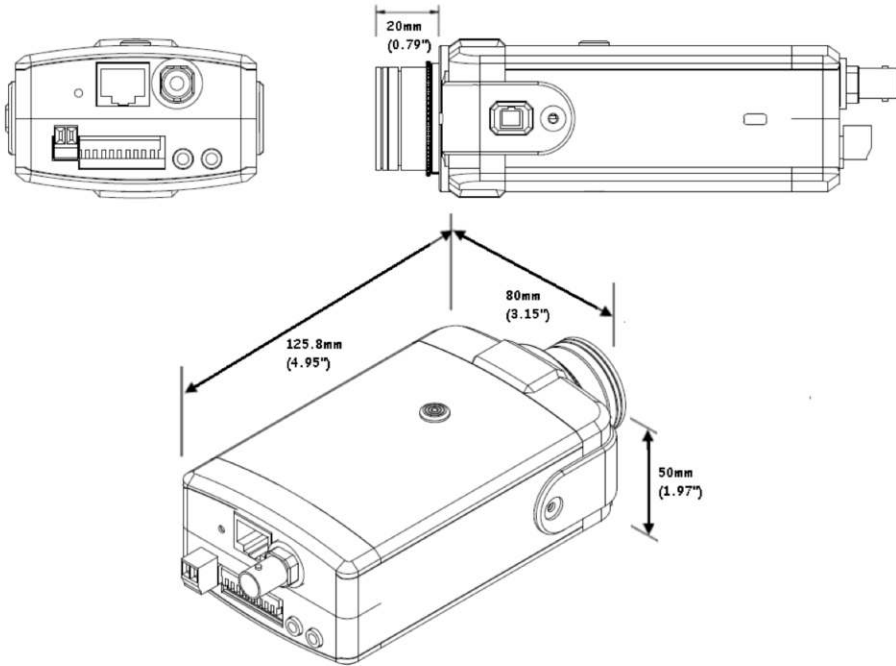
Specifications

Table 5 provides specifications of the Cisco Video Surveillance 2500 Series IP Camera.

Table 5.   Cisco Video Surveillance 2500 Series IP Camera Specifications

Item	Specification		
Housing	Aluminum		
LEDs	Power, Ethernet link, and activity		
Dimensions (L x W x H)	• 4.8 x 3.1 x 2 in. • 122 x 80 x 50 mm		
Weight	• 1.15 lb • 0.52 kg		
Certifications	**Safety:** IEC 60950-1:2001 EN 60950-2:2001 +A11:2004	**EMC-Emissions:** FCC Part 12 Subpart B, Class B CISPR 22 Class B ICES-003, Class B ANSI C63.4 EN 55022: Class B EN 61000-3-2 EN61000-3-3	**EMC-Immunity:** EN 55024 EN 61000-4-2 EN 61000-4-3 EN 61000-4-4 EN 61000-4-5 EN 61000-4-6 EN 61000-4-8 EN 61000-4-11
Operating Temperature	• 32 to 122°F • 0 to 50°C		

Figure 2 shows the dimensions of the Cisco Video Surveillance 2500 Series IP Cameras.

Figure 2.   Cisco Video Surveillance 2500 Series IP Camera Dimensions

Package Contents

Table 6 describes the items that ship with the Cisco Video Surveillance 2500 Series IP Camera.

Table 6.   Package Contents

Item
Cisco Video Surveillance 2500 Series IP Camera (wired or wireless model)
Accessories: Lens opening dust cap, mounting hole protector, terminal block for power connection, C mount lens adaptor, 0.9-mm Allen wrench, two antennas (wireless model only)
Regulatory compliance and safety information
Quick start guide

Availability

The Cisco Video Surveillance 2500 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 2500 Series IP Camera and for the lenses that the camera supports.

Table 7.   Ordering Information

Part Number	Description
CIVS-IPC-2500	Cisco Video Surveillance 2500 Series IP Camera, Full Resolution, Day/Night
CIVS-IPC-2500W	Cisco Video Surveillance 2500Series IP Camera, Full Resolution, Day/Night, Wireless
CIVS-PWRPAC-12V	Cisco VIdeo Surveillance External Dual-Voltage Power Supply for Encode/Decode

Part Number	Description
Lenses	
CIVS-IPC-VT38	Cisco IP Camera Tamron 3–8 mm Varifocal Lens
CIVS-IPC-VT31	Cisco IP Camera Tamron 3–11 mm Varifocal Lens
CIVS-IPC-VT55	Cisco IP Camera Tamron 5–50 mm Varifocal Lens
CIVS-IPC-VF38	Cisco IP Camera Fujinon 3–8 mm Varifocal Lens
CIVS-IPC-VF31	Cisco IP Camera Fujinon 3–11 mm Varifocal Lens
CIVS-IPC-VF55	Cisco IP Camera Fujinon 5–50 mm Varifocal Lens

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 4.2/6.2 for more information:

http://www.cisco.com/en/US/docs/security/physical_security/video_surveillance/network/media_server/6_2/release_notes/rn42_62.pdf

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 2500 Series IP Camera, visit http://www.cisco.com/go/videosurveillance or contact your local account representative.

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