

## Cisco 2500 Series Video Surveillance IP Camera

The Cisco® 2500 Series Video Surveillance IP Camera is a high-resolution, feature-rich digital camera designed for superior performance in a wide variety of environments. The camera employs MPEG-4 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.** Wireless and Wired IP Cameras Shown with Optional DC Auto Iris Lens



The Cisco 2500 Series Video Surveillance 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 indoor and outdoor 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.
- **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 for activity and 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.
- **Flexible power options.** The camera supports Power over Ethernet (PoE) 802.3af or DC 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.
- **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.

**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 2500 Series Video Surveillance IP Camera.

**Table 1.** Cisco 2500 Series Video Surveillance IP Camera Features

Item	Specification
<b>Imaging Device</b>	1/3-in. complementary metal oxide semiconductor (CMOS) with wide dynamic range
<b>Image Control</b>	Automatic white balance (AWB), automatic back lighting, automatic gain control (AGC), auto/manual iris, sharpness, image quality, time stamp, and camera ID
<b>Dynamic Range</b>	102 dB typical/120 dB maximum
<b>Minimum Illumination</b>	<ul style="list-style-type: none"> <li>• Color mode: F1.4 @ 0.4 lux (.04 fc)</li> <li>• Black and white mode: F1.4 @ 0.04 lux (0.004 fc)</li> </ul>
<b>Signal-to-Noise Ratio (SNR)</b>	>48 dB
<b>Lens Selection</b>	Accepts manual or DC auto iris lens
<b>Lens Mount</b>	CS mount
<b>Shutter Speed</b>	On, off
<b>Video Compression</b>	MPEG-4 SP level 0 to 4, ASP level 0 to 5
<b>Audio Compression*</b>	G.711 A-Law, G.711 U-Law, G.726
<b>Resolution and Frame Rate</b>	<ul style="list-style-type: none"> <li>• NTSC/PAL</li> <li>• 720 x 480/576 @ 30/25 fps (D1)</li> <li>• 704 x 480/576 @ 30/25 fps (4CIF)</li> <li>• 352 x 240/288 @ 30/25 fps (CIF)</li> </ul>
<b>Video Streaming</b>	<ul style="list-style-type: none"> <li>• Single-stream MPEG-4 up to D1 720 x 480/576 @ 30/25 fps</li> <li>• Dual-stream MPEG-4*: <ul style="list-style-type: none"> <li>◦ Primary stream programmable up to 704 x 480/576 @ 25/20 fps</li> <li>◦ Secondary stream programmable up to 352 x 240/288 @ 25/20 fps</li> </ul> </li> </ul>
<b>Memory</b>	64 MB flash, 128 MB SDRAM
<b>Protocols*</b>	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)
<b>Quality of Service (QoS)*</b>	DSCP marking

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

## Wireless Specifications

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

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

Item	Specification
<b>Wireless Interface</b>	802.11b/g
<b>Transmitted Power</b>	<ul style="list-style-type: none"> <li>802.11g: 12–14 dBm</li> <li>802.11b: 16–18 dBm</li> </ul>
<b>Receive Sensitivity</b>	<ul style="list-style-type: none"> <li>802.11g: 54Mbps @ –75 dBm</li> <li>802.11b: 11Mbps @ –88 dBm</li> </ul>
<b>Data Rate</b>	<ul style="list-style-type: none"> <li>802.11g: 6–54 Mbps</li> <li>802.11b: 1–11 Mbps</li> </ul>
<b>Antenna Gain</b>	2 dBi
<b>Mode</b>	Infrastructure
<b>Protocols</b>	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 2500 Series Video Surveillance IP Camera.

**Table 3.** Cisco 2500 Series Video Surveillance IP Camera Connectors

Item	Specification
<b>Network Connectivity</b>	10/100 BASE-TX Ethernet with RJ-45 connector
<b>Video</b>	1 analog output BNC connector, 75 ohms
<b>Audio*</b>	<ul style="list-style-type: none"> <li>1, 3.5-mm output jack for optional external speaker</li> <li>1, 3.5-mm input jack for optional external microphone</li> <li>Built-in microphone</li> <li>Two-way (full- and half-duplex) or one-way or audio off</li> </ul>
<b>Serial Port*</b>	RS-485 (2-wire), Pelco D protocol only
<b>Alarm Input*</b>	2, logic level programmable
<b>Alarm Output*</b>	2, logic level programmable
<b>Power</b>	<ul style="list-style-type: none"> <li>12 VDC, through optional external power supply, available separately</li> <li>PoE (802.3af) @ 48V/0.3A</li> </ul>

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

## Software

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

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

Item	Specification
<b>Activity Detection*</b>	3 user-definable detection areas, e-mail alert and FTP uploading of captured video or JPEG snapshots triggered by motion alert
<b>Wireless Security</b>	Wired Equivalent Privacy (WEP) 64/128, Temporal Key Integrity Protocol (TKIP), Wi-Fi Protected Access Preshared Key (WPA-PSK), WPA2

Item	Specification
<b>VIDEO FORMAT</b>	NTSC and PAL
<b>Image Settings</b>	Configurable color level, brightness, sharpness, contrast, white balance, and exposure control
<b>Overlay Capabilities</b>	Time, date, and camera ID
<b>Selectable Bit Rate</b>	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)
<b>IP Filtering*</b>	Users can enter a list of allowed or blocked IP addresses for viewing video and configuring camera settings
<b>Configuration</b>	<ul style="list-style-type: none"> <li>• Browser-based using Internet Explorer 6.x SP2 and later</li> <li>• Multiple user access levels with password protection</li> </ul>

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

## Mechanical Specifications

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

**Table 5.** Cisco 2500 Series Video Surveillance IP Camera Mechanical Specifications

Item	Specification
<b>Housing</b>	Aluminum
<b>LEDs</b>	Power, Ethernet link, and activity
<b>Dimensions</b>	<ul style="list-style-type: none"> <li>• 3.1 x 2 x 4.8 in.</li> <li>• 80 x 50 x 122 mm</li> </ul>
<b>Weight</b>	<ul style="list-style-type: none"> <li>• 1.15 lb</li> <li>• 0.52 kg</li> </ul>
<b>Certifications</b>	FCC, CE, and UL
<b>Operating Temperature</b>	Indoors: <ul style="list-style-type: none"> <li>• 32 to 122°F</li> <li>• 0 to 50°C</li> </ul> Outdoors (when installed in an appropriate outdoor enclosure with heating and cooling): <ul style="list-style-type: none"> <li>• -40 to 158°F</li> <li>• -40 to 70°C</li> </ul>

## Package Contents

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

**Table 6.** Package Contents

Item
Wired or wireless IP camera
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

## System Requirements

Table 7 describes the minimum system requirements for the Cisco 2500 Series Video Surveillance IP Camera.

**Table 7.** 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 or later
2-GHz Pentium 4 or AMD Athlon-class CPU with 512 MB RAM, with 64-MB AGP video adapter

## Availability

The Cisco 2500 Series Video Surveillance IP Camera is available through Cisco Authorized Technology Provider (ATP) Partners.

## Ordering Information

Table 8 lists the part numbers for the Cisco 2500 Series Video Surveillance IP Camera and for the lenses that the camera supports.

**Table 8.** Ordering Information

Part Number	Description
CIVS-IPC-2500	Cisco Video Surveillance IP Camera, Wired
CIVS-IPC-2500W	Cisco Video Surveillance IP Camera, Wireless
CIVS-PWRPAC-12V	12 VDC @ 1.6A Power Supply
<b>Lenses</b>	
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 if 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:

- 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 Cisco2500 Series Video Surveillance IP Camera, visit <http://www.cisco.com/go/videosurveillance> or contact your local account representative.



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