

## Cisco PVC2300 Business Internet Video Camera: Audio/PoE Cisco Small Business Video Surveillance Cameras

High-Quality Video Surveillance Platform with Power over Ethernet Provides Flexible Installation

### Highlights

- Box camera with PoE, interchangeable lenses, and I/O ports allow for flexible installation for multiple applications
- High-quality CCD sensor with low light sensitivity and an IR filter switcher provides optimal video image under multiple conditions
- Simultaneous dual codecs provide optimal combination of viewing and storage of video
- Two-way audio, IP Multicast, 3GPP, and lots of other advanced features make this solution ideal for surveillance deployments

**Figure 1.** Cisco PVC2300 Business Internet Video Camera: Audio/PoE



### Product Overview

Cisco® Small Business Video Surveillance Cameras provide customizable ways for small business owners to monitor and protect their companies. These high-quality solutions can be optimized for many different applications and sites. Each camera can be quickly mounted using the bracket included in the package. The cameras' compact form factor also enables them to be put inside a protective enclosure for interior or exterior installations. The Cisco Small Business Video Surveillance Cameras use removable CS-mount lenses and can be customized with optional zoom, wide-angle, vari-focal, auto-iris, or other types of lenses as required for a specific application or setting.

The Cisco PVC2300 Business Internet Video Camera (Figure 1) is a Power over Ethernet (PoE) device, so it can be powered from a PoE switch or power injector via Ethernet cabling. This enables installation near ceilings, on rooftops, or anywhere where power outlets may not be available. The Cisco PVC2300 camera can be mounted on any pan-tilt (PT) base that supports the Pelco D protocol and can be remotely rotated and controlled through an RS-485 interface. It also has two input and two output ports, which can be used to connect the camera to an alarm panel, siren, passive infrared (PIR) sensor, smoke detector, lighting switch (on/off), door sensor, etc.

The Cisco PVC2300 uses a high-quality progressive-scan charge-coupled device (CCD) sensor delivering good-quality video. The CCD sensor also has low-light sensitivity, so video can be captured even in very low light environments or during near-dark times of day. Additionally, the camera incorporates an infrared (IR) cut filter that, when used with a separate IR lamp, allows for video capture in total darkness.

The Cisco PVC2300 camera supports dual codecs (MPEG-4 and MJPEG). Both codecs can be used simultaneously. MPEG-4 gives efficient bandwidth consumption with good-quality compression and is optimal for real-time viewing of video. MJPEG gives optimal video quality with lossy compression, making it ideal for large-volume storage to a network attached storage (NAS) device.

The Cisco PVC2300's audio capabilities include two-way audio, embedded microphone, external speaker and microphone ports, and voice compression. With extensive feature support, such as IP Multicast, Real Time Streaming Protocol (RTSP), Real Time Protocol (RTP), and 3rd Generation Partnership Project (3GPP), video can be viewed from multiple endpoints and client applications such as 3G phones and QuickTime clients on PCs or Wi-Fi phones. Support for multiple network protocols such as 802.1p priority, 802.1q VLANs, and Dynamic DNS (DDNS) make the solution ideal for multiple IP surveillance applications. The camera can also be managed securely using HTTPS.

## Features

- Standard box-type camera allows for flexible installation
- Mounts in a standard outdoor or indoor enclosure
- Provides controls for mounting on a Pelco pan/tilt base to control movement remotely
- Removable CS-mount lens
  - Camera can be customized for multiple applications
  - Supports zoom lens, wide-angled, vari-focal, auto-iris lenses, etc
- 1/4-inch progressive-scan CCD sensor delivers good-quality video
- Low light sensitivity with high-quality lens, sensor, and programmable IR cut filter capability
- Audio input/output for external microphone and/or speaker
- I/O ports facilitate alarm triggers, turning lights on/off, etc.
- PoE allows for flexible installation
- Dual codecs (MPEG-4 and MJPEG) supported simultaneously
- IP Multicast support
- RTSP video/audio streaming to unicast and multicast clients
- 4x digital zoom; can also use optical zoom with appropriate interchangeable lens

## Specifications

Table 1 gives the specifications, package contents, and minimum requirements for the Cisco PVC2300 Business Internet Video Camera.

**Table 1.** Specifications for the Cisco PVC2300 Business Internet Video Camera: Audio/PoE

Specifications	
<b>Standards</b>	IEEE 802.3, IEEE 802.3u, IEEE 802.1p (QoS Priority), IEEE 802.1q (VLAN)
<b>Protocols supported</b>	TCP/IP, HTTP, Dynamic Host Configuration Protocol (DHCP), Simple Mail Transfer Protocol (SMTP), FTP, Network Time Protocol (NTP), DNS, Universal Plug and Play (UPnP), RTP, RTSP, and DDNS
<b>Ports</b>	Ethernet with PoE, microphone IN, speaker OUT, power (12V, 1A), general-purpose I/O (GPIO), 4-pin IRIS port
<b>Buttons</b>	Reset
<b>Cabling type</b>	Unshielded twisted pair (UTP) Category 5
<b>LEDs</b>	Power, Network
<b>Camera type</b>	Box
<b>I/O ports</b>	<ul style="list-style-type: none"> <li>• RS-485 x 1 (2 pins): supports Pelco D Protocol commands</li> <li>• Input control x 2 (2 pins)</li> <li>• Output control x 2 (2 pins)</li> </ul>
Lens	
<b>Sensor</b>	1/4-in. progressive CCD sensor
<b>Illumination</b>	0.4LUX @ F1.7
<b>Lens type</b>	CS-mount lens, fixed focus; adapter also included for lenses that require more distance between sensor and lens
<b>Focal length</b>	500mm–infinity (for included lens)
<b>Field of view</b>	60° (for included lens)
<b>Video resolution</b>	640 x 480 (VGA), 320 x 240 (QVGA), 160 x 120 (QQVGA)
<b>Frame rate</b>	1 to 30 frames per second (selectable)
<b>Iris</b>	Provides iris control for CS-mount auto-iris lens when attached
Setup/configuration	
<b>Web UI</b>	Built-in web interface for easy browser-based configuration (HTTP)
Management	
<b>Web browser</b>	<ul style="list-style-type: none"> <li>• Internet Explorer 5.x or later</li> <li>• Limited support for Netscape and Firefox. Browser controls for pan/tilt/zoom (PTZ), audio, and motion detection are limited or not supported with Netscape and Firefox.</li> </ul>
<b>Event logging</b>	Event logging (syslog)
<b>Web firmware upgrade</b>	Firmware upgradable through web browser
Video Compression	
<b>Dual codec</b>	<ul style="list-style-type: none"> <li>• MPEG-4 simple profile</li> <li>• MJPEG</li> <li>• Simultaneous dual stream</li> </ul>
<b>Snapshot</b>	JPEG
<b>Modulation</b>	National Television System Committee (NTSC) and Phase Alternating Line (PAL)
<b>Image settings</b>	Brightness and contrast
<b>Zoom</b>	4x digital zoom
<b>Night vision</b>	IR cut filter for low light
<b>Video controls</b>	Auto-white balance (AWB), auto-exposure (AES)
<b>Image control</b>	Select video by quality, bandwidth, and frame rate
<b>Format</b>	3GPP for use with 3G phones

<b>Alerts</b>	
<b>Motion detection</b>	4 detection areas with individual sensitivity
<b>Email alert</b>	3 email addresses
<b>FTP uploading</b>	FTP server address and login settings
<b>Instant messaging</b>	Jabber client support
<b>Scheduled</b>	Schedule by day or time
<b>Triggers</b>	Inputs 1, input 2, motion detection
<b>Actions</b>	Outputs 1, output 2, messaging, email, FTP
<b>Audio</b>	
<b>Summary</b>	2-way audio
<b>Built-in microphone</b>	6mm, -40dB + 3dB
<b>Microphone input</b>	3.5-mm phone jack
<b>Speaker output</b>	3.5-mm phone jack
<b>Compression</b>	G.726 - 16K, G.711 A-law and $\mu$ -law
<b>Sampling rate</b>	8 KHz
<b>Default bit rate</b>	16 Kbps
<b>Management Utility</b>	
<b>Monitoring/recording software</b>	<ul style="list-style-type: none"> <li>• Monitoring and recording for up to 16 cameras</li> <li>• Advanced search histogram or by time and date</li> <li>• Recording set up to record by motion trigger, manual, or schedule</li> <li>• Recording and playback</li> </ul>
<b>Security</b>	
<b>User list</b>	User rights list to view video and/or to control camera functions
<b>Username/password</b>	Logon authentication: 20-character username and 8-character password
<b>Kensington lock</b>	Physical security option
<b>Network</b>	
<b>RTP/RTSP</b>	Allows for viewing from any client supporting these protocols, like 3G phones or QuickTime client
<b>NTP</b>	Keeps time of camera in sync with your network
<b>SMTP</b>	Allows video clips to be emailed
<b>FTP client</b>	Facilitates scheduling transfer of images to an FTP server
<b>DDNS</b>	Facilitates reaching the camera by a name irrespective of camera's IP address. Supports DDNS, TZO, and 3322 DDNS services
<b>UPnP</b>	Allows autodiscovery of the camera by other UPnP devices
<b>IP filtering</b>	Allows or disallows access by IP address
<b>Power</b>	
<b>Power options</b>	<ul style="list-style-type: none"> <li>• IEEE 802.3af PoE—48V/0.3A</li> <li>• External power adapter: 12V/1A, 110~120V AC/60 Hz, switching</li> </ul>
<b>Power consumption</b>	10W
<b>Environmental</b>	
<b>Dimensions</b>	4.72 x 2.99 x 1.81 in. (120 x 76 x 46 mm)
<b>Unit weight</b>	1.15 lb (0.52 kg)
<b>Power</b>	External power adapter 12V DC 1A 110~120V AC/60-Hz switching or PoE 48V/0.3A
<b>Certification</b>	FCC part 15C Class B, CE, UL, EMC/EMI Part 15B Class B for US
<b>Operating temperature</b>	32° to 122°F (0° to 50°C)
<b>Storage temperature</b>	-4° to 158°F (-20° to 70°C)
<b>Operating humidity</b>	10% to 80%
<b>Storage humidity</b>	0% to 19%

Package Contents
<ul style="list-style-type: none"> <li>• Cisco PVC2300 Business Internet Video Camera</li> <li>• Stand kit</li> <li>• Power supply (12V 1A)</li> <li>• 6-foot Ethernet cable</li> <li>• CS-mount lens adapter ring for wider focal length lens</li> <li>• Allen wrench</li> <li>• Quick installation guide</li> <li>• Setup CD</li> </ul>
Minimum Requirements
<ul style="list-style-type: none"> <li>• Wired Ethernet network</li> <li>• Network adapter with Ethernet network cable and TCP/IP protocol installed per PC</li> <li>• Switch/router to support multiple connection points</li> <li>• Internet Explorer 5.x or later with ActiveX support for viewing</li> <li>• Microsoft Windows Vista, XP, 2000, ME, or 98SE</li> <li>• 2-GHz Pentium 4, or AMD Athlon Class CPU with 512 MB RAM</li> <li>• 128-MB AGP video adapter</li> </ul>
Product Warranty
3-year limited hardware warranty with return to factory replacement and 90-day limited software warranty.

### Cisco Limited Warranty for Cisco Small Business Series Products

This Cisco Small Business product comes with a 3-year limited hardware warranty with return to factory replacement and a 90-day limited software warranty. In addition, Cisco offers software application updates for bug fixes and telephone technical support at no charge for the first 12 months following the date of purchase. To download software updates, go to:

<http://www.cisco.com/go/smallbiz>.

Product warranty terms and other information applicable to Cisco products are available at

<http://www.cisco.com/go/warranty>.

### For More Information

For more information on Cisco Small Business products and solutions, visit:

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