

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
- Real-Time video recording from the Web interface directly with one button recording
- PC-less event recording directly to Network Attached Storage via integrated Samba client

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	
Standards	IEEE 802.3, IEEE 802.3af, IEEE 802.3u, IEEE 802.1p (QoS Priority), IEEE 802.1q (VLAN)
Protocols supported	TCP/IP, HTTP, Dynamic Host Configuration Protocol (DHCP), Simple Mail Transfer Protocol (SMTP), FTP, Bonjour, Network Time Protocol (NTP), DNS, Universal Plug and Play (UPnP), RTP, RTSP, and DDNS
Ports	Ethernet with PoE, microphone IN, speaker OUT, power (12V, 1A), general-purpose I/O (GPIO), 4-pin IRIS port, RS-485 Serial Port
Buttons	Reset
Cabling type	Unshielded twisted pair (UTP) Category 5
LEDs	Power, Network
Camera type	Box
I/O ports	<ul style="list-style-type: none"> • RS-485 x 1 (2 pins): supports Pelco D Protocol commands • Input control x 2 (2 pins) • Output control x 2 (2 pins)
Lens	
Sensor	1/4-in. progressive CCD sensor
Illumination	0.4LUX @ F1.7
Lens type	CS-mount lens, fixed focus; adapter also included for lenses that require more distance between sensor and lens
Focal length	500mm–infinity (for included lens)
Field of view	47° Diagonal (for included lens)
Video resolution	640 x 480 (VGA), 320 x 240 (QVGA), 160 x 120 (QQVGA)
Frame rate	1 to 30 frames per second (selectable)
Iris	Provides iris control for CS-mount auto-iris lens when attached
Setup/configuration	
Web UI	Built-in web interface for easy browser-based configuration (HTTP)
Management	
Web browser	<ul style="list-style-type: none"> • Internet Explorer 5.x or later • 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.
Event logging	Event logging (syslog)
Web firmware upgrade	Firmware upgradable through web browser
Video Compression	
Dual codec	<ul style="list-style-type: none"> • MPEG-4 simple profile • MJPEG • Simultaneous dual stream
Snapshot	JPEG, BMP
Modulation	National Television System Committee (NTSC) and Phase Alternating Line (PAL)
Image settings	Brightness and contrast
Zoom	4x digital zoom
Night vision	IR cut filter for low light
Video controls	Auto-white balance (AWB), auto-exposure (AES)
Image control	Select video by quality, bandwidth, and frame rate
Format	3GPP for use with 3G phones

Alerts	
Motion detection	4 detection areas with individual sensitivity
Email alert	3 email addresses
FTP uploading	FTP server address and login settings
Instant messaging	Jabber client support
Scheduled	Schedule by time
Triggers	Inputs 1, input 2, motion detection
Actions	Outputs 1, output 2, messaging, email, FTP
Audio	
Summary	2-way audio
Built-in microphone	6mm, -40dB + 3dB
Microphone input	3.5-mm phone jack
Speaker output	3.5-mm phone jack
Compression	G.726 - 16K, G.711 A-law and μ -law
Sampling rate	8 KHz
Default bit rate	16 Kbps
Included Video Monitoring System Software (SWVMS16)	
Monitoring/recording software	<ul style="list-style-type: none"> Monitoring, recording, and playback for up to 16 cameras Advanced search histogram or by time and date Recording set up to record by motion trigger, manual, or schedule
Security	
User list	User rights list to view video and/or to control camera functions. Multi-level permissions (Administrator, Operator, and Viewer)
Username/password	Logon authentication: 20-character username and 8-character password
Kensington lock	Physical security option
Network	
RTP/RTSP	Allows for viewing from any client supporting these protocols, like 3G phones or QuickTime client
NTP	Keeps time of camera in sync with your network
SMTP	Allows video clips to be emailed
FTP client	Facilitates scheduling transfer of images to an FTP server
DDNS	Facilitates reaching the camera by a name irrespective of camera's IP address. Supports DDNS, TZO, and 3322 DDNS services
UPnP	Allows autodiscovery of the camera by other UPnP devices
IP filtering	Allows or disallows access by IP address
Power	
Power options	<ul style="list-style-type: none"> IEEE 802.3af PoE—48V/0.3A External power adapter: 12V/1A, 110~120V AC/60 Hz, switching
Power consumption	10W
Environmental	
Dimensions	4.72 x 2.99 x 1.81 in. (120 x 76 x 46 mm)
Unit weight	1.15 lb (0.52 kg)
Power	External power adapter 12V DC 1A 110~120V AC/60-Hz switching or PoE 48V/0.3A
Certification	FCC part 15C Class B, CE, UL, EMC/EMI Part 15B Class B for US
Operating temperature	32° to 122°F (0° to 50°C)
Storage temperature	-4° to 158°F (-20° to 70°C)
Operating humidity	10% to 80%
Storage humidity	0% to 19%

Package Contents
<ul style="list-style-type: none"> • Cisco PVC2300 Business Internet Video Camera • Stand kit • Power supply (12V 1A) • 6-foot Ethernet cable • Adapter ring to allow for C mount lens • Allen wrench • Quick installation guide • CD including setup wizard, user guide and video monitoring software
Minimum Requirements (Camera)
<ul style="list-style-type: none"> • Wired Ethernet network • Network adapter with Ethernet network cable and TCP/IP protocol installed per PC • Switch/router to support multiple connection points • Internet Explorer 6.x or later with ActiveX support for viewing • Microsoft Windows Vista, XP to support Installation Wizard • 2-GHz Pentium 4, or AMD Athlon Class CPU with 512 MB RAM • 128-MB AGP video adapter
Minimum Video Monitoring System Requirements (4-Camera Viewing)
<ul style="list-style-type: none"> • CPU - Intel Pentium 4, 2.4 GHz • RAM - 512 MB • Motherboard - Intel 945 or 965 chip or above; Intel chipset recommended • Video card - ATI Radeon 9200, NVIDIA GeForce FX-5200, or Intel 945G/965G or later; ATI recommended • Ethernet - 100 BASE-T or above; Gigabit LAN recommended • Hard disk - 80 GB or more • Operating system - Microsoft Windows XP Pro Service Pack 2, or Microsoft Vista
Product Warranty
3-year limited hardware warranty with return to factory replacement and 90-day limited software warranty.

Table 2. Camera Upgrade Accessories

SKU	Description	Camera Compatible	Auto Iris	Lens Types	Manufacturer
CAMLMI	Camera Lens Tamron 3-8mm Varifocal Manual Iris	PVC/WVC2300	No	3-8 mm	Tamron
CAMLWA	Camera Lens Computar Wide Angle 2.3mm Fixed Manual Iris	PVC/WVC2300	No	2.3 mm	Computar
CIVS-IPC-VF31=	IP Camera Fujinon 3-11 mm Varifocal Lens	PVC/WVC2300	Yes - DC	3-11mm	Fujinon
CIVS-IPC-VT31=	IP Camera Tamron 3-11 mm Varifocal Lens	PVC/WVC2300	Yes - DC	3-11mm	Tamron
CIVS-IPC-VF38=	IP Camera Fujinon 3-8 mm Varifocal Lens	PVC/WVC2300	Yes - DC	3-8 mm	Fujinon
CIVS-IPC-VT38=	IP Camera Tamron 3-8 mm Varifocal Lens	PVC/WVC2300	Yes - DC	3-8 mm	Tamron
CIVS-IPC-VF55=	IP Camera Fujinon 5-50 mm Varifocal Lens	PVC/WVC2300	Yes - DC	5-50 mm	Fujinon
CIVS-IPC-VT55=	IP Camera Tamron 5-50 mm Varifocal Lens	PVC/WVC2300	Yes - DC	5-50 mm	Tamron

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 Video Surveillance Camera Solution, visit: <http://www.cisco.com/go/surveillance>.



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