

## Cisco Video Surveillance 2421 IP Dome

The Cisco® Video Surveillance 2421 Standard-Definition IP Dome is a feature-rich digital IP camera designed for superior performance in a wide variety of video surveillance applications. The camera employs MPEG-4 and MJPEG compression of up to 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. 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 shows Cisco Video Surveillance 2421 IP Dome.

**Figure 1.** Cisco Video Surveillance 2421 IP Dome



The Cisco Video Surveillance 2421 IP Dome 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.
- **Dual streaming.** The camera can stream MPEG-4 and MJPEG video simultaneously. Each video stream can be configured with individual resolution, quality, and frame rate settings.
- **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.
- **Flexible power options.** The camera supports Power over Ethernet (PoE) 802.3af, and 12 VDC or 24 VAC power through an optional external power supply.
- **Mounting options.** The camera was designed specifically for ceiling tile mount deployments. There is an optional shroud for surface mount installations. The camera is equipped with a varifocal lens mounted to a manual pan and tilt mechanism that allows the camera to be rotated and placed at the proper angle.
- **Day/Night operation.** The camera provides true day/night operation and includes an IR filter that automatically switches to night mode in low-light scenes. This function can be set to manual or automatic control.

- **Cisco Media Application Programming Interface.** The camera supports the Cisco Media API, which is an open, standards-based interface that allows integration with compatible video surveillance management systems.

## Features

Table 1 describes the features of the Cisco Video Surveillance 2421 IP Dome.

**Table 1.** Cisco Video Surveillance 2421 IP Dome Features

Item	Specification
<b>Imaging device</b>	1/3-in. Progressive-scan RGB CMOS sensor with wide dynamic range
<b>Image control</b>	Automatic white balance (AWB), automatic back lighting, automatic gain control (AGC), automatic exposure (AE), auto iris.
<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>Shutter</b>	Electronic Shutter
<b>Lens</b>	DC auto-iris lens with day/night filter Zoom: 3.5x Field of View: Horizontal: 22°-76° Vertical: 17°-56°
<b>Camera Angle Adjustment</b>	Pan: 340° Tilt: 160° Rotation: 200°
<b>Video compression</b>	MPEG-4 SP level 0 to 4, ASP level 0 to 5, MJPEG
<b>Resolution and frame rate</b>	NTSC/PAL <ul style="list-style-type: none"> <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>• Single-stream MJPEG up to D1 720 x 480/576 @ 15 fps</li> <li>• Dual-stream: MPEG-4 and MJPEG <ul style="list-style-type: none"> <li>◦ Primary stream MPEG-4 programmable up to 704 x 480/576 @ 25/20 fps</li> <li>◦ Secondary stream MPEG-4/MJPEG (selectable) programmable up to 352 x 240/288 @ up to 15 fps</li> </ul> </li> </ul>
<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>	Differentiated Services Code Point (DSCP) marking
<b>Power</b>	<ul style="list-style-type: none"> <li>• 12 VDC or 24 VAC, isolated external power supply</li> <li>• PoE (802.3af) @ 48V/0.3A</li> </ul>
<b>Power Consumption</b>	11 W (max)

## Connectors

Table 2 describes the connectivity and connectors of the Cisco Video Surveillance 2421 IP Dome.

**Table 2.** Cisco Video Surveillance 2421 IP Dome Connectors

Item	Specification
<b>Network connectivity</b>	10/100 BASE-TX Ethernet with RJ-45 connector
<b>Video</b>	3.5-mm service connector, provides analog video (use with included mini cable with BNC adapter during installation)
<b>Power input</b>	3-pin terminal

## Software

Table 3 describes the primary features of the Cisco Video Surveillance 2421 IP Dome software.

**Table 3.** Cisco Video Surveillance 2421 IP Dome Primary Software Features

Item	Specification
<b>Activity detection</b>	Four user-definable motion detection areas; e-mail alert and FTP uploading of captured video or JPEG snapshots triggered by motion alert
<b>Video format</b>	NTSC and PAL
<b>Day/Night settings</b>	Auto or manual day/night operation with user-definable thresholds
<b>Image settings</b>	Configurable, brightness, sharpness, contrast, saturation, and white balance
<b>Overlay capabilities</b>	Time, date and text
<b>Selectable bit rate</b>	Support for Constant Bit Rate or Variable Bit Rate (constant quality)
<b>IP filtering</b>	Users can enter a list of allowed or blocked IP addresses for viewing video and configuring camera settings
<b>Discovery</b>	Cisco Discovery Protocol, Bonjour Zero-Configuration discovery
<b>Configuration</b>	<ul style="list-style-type: none"> <li>• Browser-based using Internet Explorer 6.x with SP2 and later</li> <li>• Multiple user access levels with password protection</li> </ul>

## Specifications

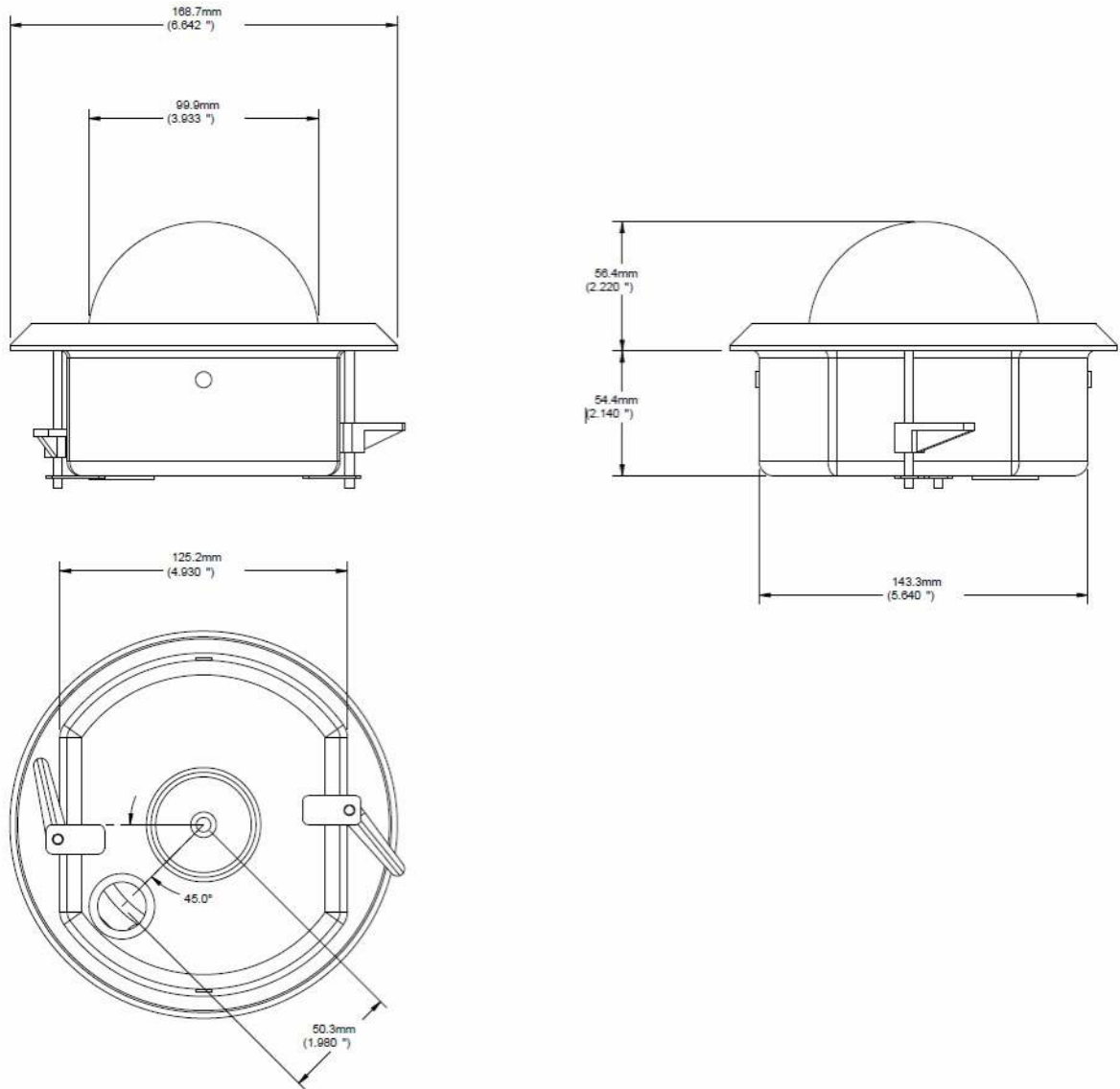
Table 4 provides specifications of the Cisco Video Surveillance 2421 IP Dome.

**Table 4.** Cisco Video Surveillance 2421 IP Dome Mechanical Specifications

Item	Specification		
<b>Housing</b>	Metal base and polycarbonate transparent cover		
<b>LEDs</b>	Power and Ethernet		
<b>Dimensions (W x H)</b>	6.64 x 4.36 in 169 x 111 mm		
<b>Weight</b>	2.2 lb 1.0 kg		
<b>Standards Compliance</b>	<b>Safety:</b> UL 60950-1 CAN/CSA-C22.2 No. 60950-1 EN 60950-1 IEC 60950-1 AS/NZS 60950-1	<b>EMC—Emissions:</b> 47CFR Part 15 (CFR 47) Class A AS/NZS CISPR22 Class A CISPR22 Class A EN55022 Class A ICES003 Class A VCCI Class A EN61000-3-2 EN6100-3-3 KN22 Class A CNS13438 Class A	<b>EMC—Immunity</b> EN50082-1 EN61000-6-1 EN55024 CISPR24 EN50130-4 KN immunity series
<b>Operating temperature</b>	0 to 50°C		

Item	Specification
	32 to 122°F

Figure 2.



**Package Contents**

Table 5 describes the items that ship with the Cisco Video Surveillance 2421 IP Dome.

**Table 5.** Cisco Video Surveillance 2421 IP Dome Package Contents

Item
Cisco Video Surveillance 2421 IP Dome
Quick Start Guide
Regulatory Compliance and Safety Information
Accessories: <ul style="list-style-type: none"> <li>• Mini cable with BNC adapter</li> <li>• Y-cable for audio input/output</li> <li>• Black cylindrical snap-on ferrite core (qty. 1)</li> <li>• 0.9 mm Allen wrench for locking/unlocking the lens focus ring</li> </ul>

## Availability

The Cisco Video Surveillance 2421 IP Dome is available through Cisco Authorized Dealers.

## Ordering Information

Table 6 lists the part numbers for the Cisco Video Surveillance 2421 IP Dome and accessories.

**Table 6.** Cisco Video Surveillance 2421 IP Dome Ordering Information

Part Number	Description
CIVS-IPC-2421	Indoor Dome, Smoked, Lens 2.8–10 mm
<b>Accessories</b>	
CIVS-IPCA-1000=	Ceiling Tile Mount Support, 2400 Series
CIVS-IPCA-1001=	Dome, Clear, 2400 Series
CIVS-IPCA-1002=	Dome, Smoked, 2400 Series
CIVS-IPCA-1003=	Shroud, Surface Mount, 2400 Series

## Service and Support

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## For More Information

For more information about Cisco Video Surveillance solutions, visit <http://www.cisco.com/en/US/products/ps6712/index.html> or contact your local account representative.



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