

CEILINGVIEW™ HD

High Definition Ceiling Mounted Visualizer System

The Vaddio™ CeilingVIEW HD (Figure 1) is a high definition ceiling visualizer designed for use with high definition videoconferencing codecs, HD monitors and presentation applications where image quality and resolution are critical. The CeilingVIEW HD can be configured for 16:9 HD resolutions of 1080i or 720p when using the analog component video outputs (Y/Pb/Pr), or with 4:3 standard definition video with Y/C and composite video outputs. Equipped with a 10X optical motorized zoom lens and 12X digital zoom range, the camera has a 120X total zoom capability. The 1/3" CMOS image sensor has approximately 2-million pixels and provides precise color reproduction and edge focus which is essential for displaying images on a large format HD monitor or for critical image transmission through a HD videoconferencing system.



Figure 1:
CeilingVIEW HD ceiling mounted visualizer

Vaddio's active EZCamera™ cabling system uses high speed differential signaling (HSDS) for the video signals from the camera module to the Quick-Connect™ CV HD/SD interface as opposed to baluns. HSDS gives this system high definition and standard definition video capability, superior video quality over Cat. 5 cabling and the ability to adjust the video signal depending on the length of the cabling used. The EZCamera series cabling system delivers either high definition or standard definition video up to 400 feet over standard Cat. 5e cable. The camera also features threaded inserts to attach a single-gang conduit box over the RJ-45 connectors when conduit is required for installation.

Overall, the CeilingVIEW HD is suitable for applications such as corporate boardrooms, auditoriums of teaching hospitals, and distance-learning applications in which clear, high definition images are required. The CeilingVIEW HD is unmatched for price and performance as compared to other ceiling mounted visualizers available today.

WHAT'S INCLUDED

- CeilingVIEW HD Camera Module
- White Trim Ring and Screws
- Vaddio IR Remote Controller
- Quick-Connect CV HD/SD Interface
- PowerRite™ 24VDC, 2A Power Supply
- AC Cord Set
- Adjustable Ceiling Tile Support Rails
- RJ-45 to DB9 EZCamera Control Adapter
- Installation and User Guide

TECHNICAL FEATURES

Sony® HD Camera

The Sony 2 mega-pixel HD image sensor is designed for precise color reproduction and high resolution 16:9 imaging applications. This module is equipped with a 10X optical and 12X digital zoom. Other features include switchable SD Y/C and composite 4:3 video, and VISCA™ control protocol.

IR Sensor

The IR sensor built into CeilingVIEW HD responds to zoom commands from Vaddio, Polycom® and TANDBERG IR remotes.

Native 16:9 Imaging Technology

The HD has a wide-screen 16:9 aspect ratio. The camera has a wider viewing angle and higher resolution image when compared to conventional visualizers.

Laser Locator

Unique laser indicator shows the user where to position a document by putting a red laser dot in the center of the image. Laser can be controlled to work in momentary or ON mode.

Quick-Connect CV HD/SD

The 1-RU rack-mountable (with optional adapter panel) Quick-Connect CV HD/SD has high definition analog component video outputs (Y, Pb,

TECHNICAL FEATURES (CONTINUED)

Pr) for 1080i and 720p resolution signals or standard definition Y/C and Composite Video outputs on BNC connectors.

Distances up to 400' (121.9m) over Cat. 5 Cable

The CeilingVIEW HD uses high speed differential signaling (HSDS) which allows higher quality video signals to be conveyed over longer Cat. 5 cabling distances

Ceiling Backbox Enclosure

The CeilingVIEW HD has a metal backbox enclosure that is designed to fit flush into the ceiling. The enclosure is supported in the ceiling by two different options. In a suspended ceiling the two 23-3/4" inch support braces are secured to the camera enclosure and the ceiling grid then supports the support braces. In a sheetrock ceiling the camera enclosure is supported by the sheetrock and the tile supports are not used. In both cases the trim ring is used to cover the camera opening.

EZCamera Backbox Cable Interface

A camera backbox interface integrates the CeilingVIEW HD to the EZCamera Cable System. The interface converts camera signals and has two RJ-45 jacks. The first jack provides for power, and either HD analog component video or Y/C and composite video. The second jack provides RS-232 camera control signaling.

RS-232 VISCA Camera Control

The camera is controlled with VISCA control protocol. This allows the camera system to be used with control systems and video codecs that use VISCA control protocols.

IR Remote Control

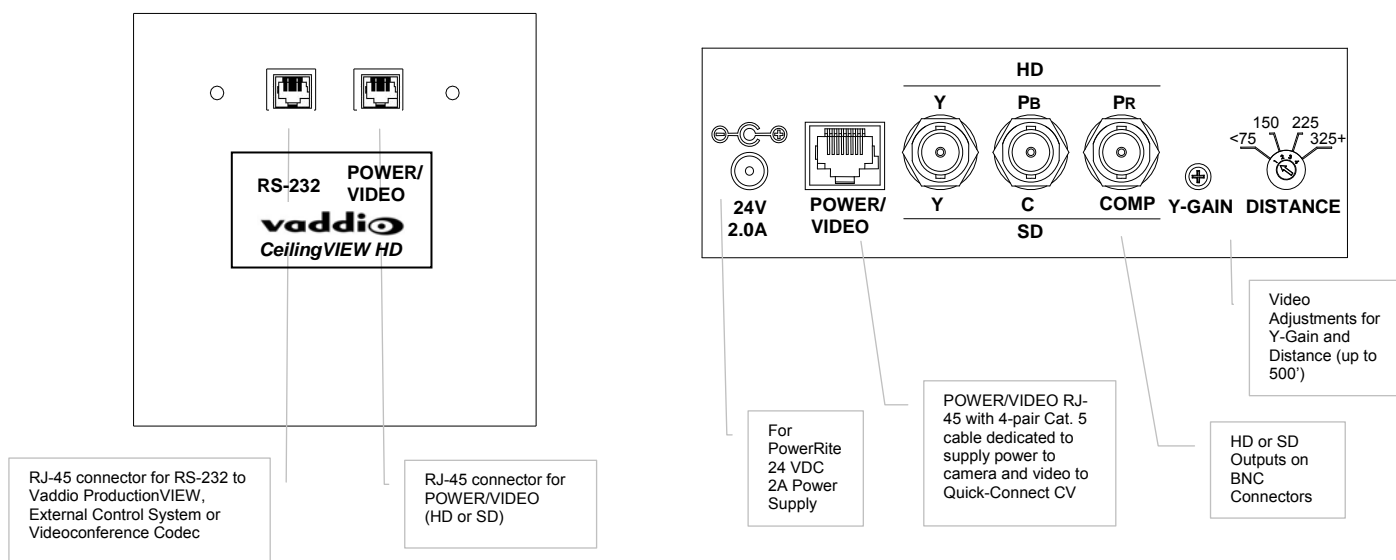
Hand-held remote control allows user to control: zoom, six zoom presets, laser pointer, brightness, white balance, black and white, positive/negative, and auto or manual focus as well as other commands.

Figure 2: Selectable Camera Resolutions

Mode	NTSC	PAL
1080i (16:9)	1080i/59.94	1080i/50
720p (16:9)	720p/59.94	720p/50
SD Mode (4:3)	Cropped (NTSC)	Cropped (PAL)
SD Mode (16:9)	Squeezed (NTSC)	Squeezed (PAL)

TECHNICAL DRAWINGS

Figure 3: CeilingVIEW HD Camera backbox and Quick-Connect CV HD/SD rear panel diagrams with functional callouts.



SYSTEM CONNECTIVITY

Figure 4:
Basic system connectivity of a CeilingVIEW HD Visualizer connected to an HD Codec

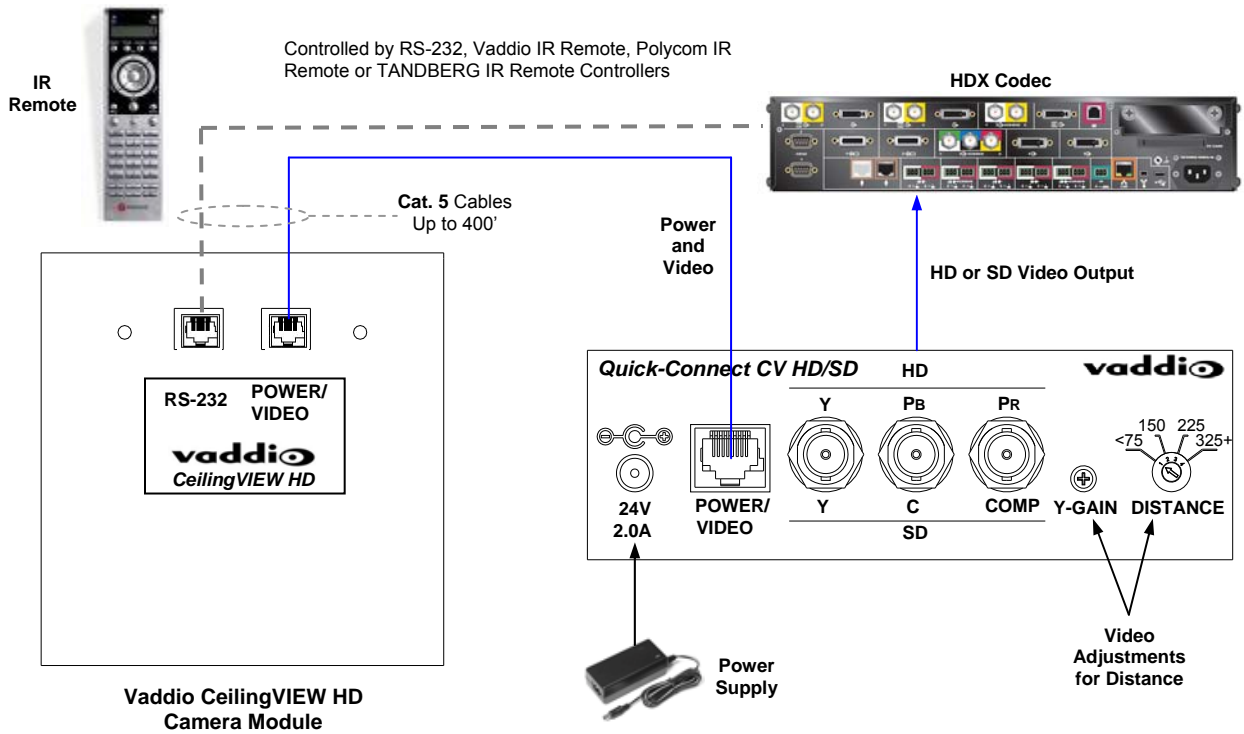
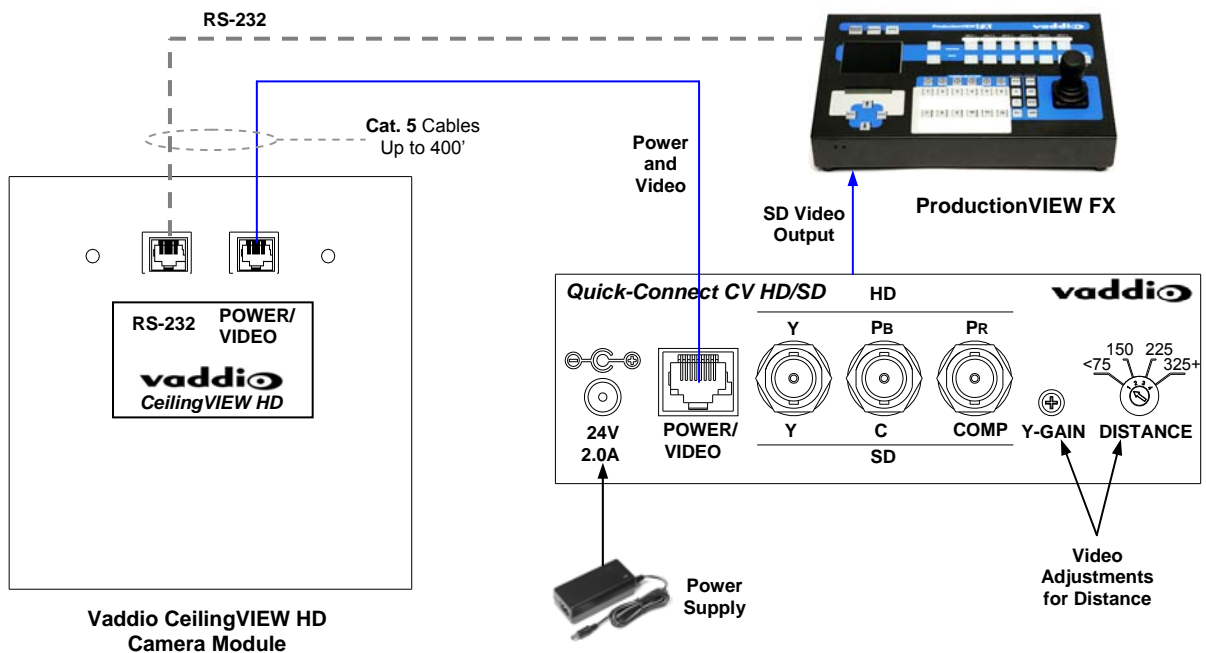


Figure 5:
Basic system connectivity of a CeilingVIEW HD Visualizer (in SD mode) connected to a Vaddio ProductionVIEW™ FX



TECHNICAL SPECIFICATIONS

CeilingVIEW HD	
Part Numbers	999-3008-000 (North America) 999-3008-001 (International)
Image Sensor	Sony 1/3-type HD CMOS
Total Number of Pixels	Approx. 2M pixels
Aspect Ratio	HD: 16:9 SD: 4:3 or 16:9
Angle of view (H)	Approx. 50°(wide end) to Approx. 5.4°(tele end)
Minimum Illumination	12 LUX Typical (F1.8, 50IRE)
Minimum Object Distance	10mm (wide) to 800mm (tele)
Optical Zoom	10 x zoom, f=5.1mm (wide end) to 51 (tele end) F1.8 to F2.1
Digital Zoom	12X (120X Total Zoom)
Signal system	HD: (16:9) : 1080/59.94i, 1080/50i, 720/59.94p, 720/50p, SD: NTSC (crop/squeeze), PAL (crop/squeeze)
Focus System	Full Auto, Manual (near, far)
S/N Ratio	More than 50 dB
Video Output HD	HD: Analog Component Y/Pb/Pr
Video Output SD	VBS:1.0 Vp-p (Sync Negative) & Y/C Output
Sync System	Internal Sync
Camera Control Interface	RS-232 (VISCA™, baud rate: 9.6 Kb/s, 1-stop bit) IR Remote Controls: Vaddio, Polycom (zoom and laser only) and TANDBERG (zoom and laser only)
Picture Effects	Freeze, B/W, Negative Art
<ul style="list-style-type: none"> • Camera Enclosure 	
Components	Camera Enclosure, White Trim Ring, Mounting Rails and Mounting Hardware
Connectors	- RJ-45 for Video and Power - RJ-45 for RS-232
Camera Enclosure Dimensions	4.85" x 5.75" x 5.75" (H x W x D),
Camera Enclosure Weight	2.4lbs
<ul style="list-style-type: none"> • Quick-Connect CV HD/SD 	
Connectors	- RJ-45 for Video and Power - 3-BNC: Analog Component Y/Pb/Pr Outputs or SD (Y/C and composite) Outputs - 5.5mm OD x 2.5 ID Power Connector <i>Note: CeilingVIEW HD can output HD or SD Video, but not both concurrently</i>
Controls	- Y-Gain Adjustment - Distance Adjustment (for longer Cat. 5 cable runs)
Max Cat. 5 Cable Distance	400 feet (191.2 m) between Quick-Connect CV HD/SD and Camera Enclosure
Quick-Connect CV HD/SD Dimensions	1.75" x 5.5" x 3.0" (3.75" with BNC connectors) (H x W x D) 1/3-Rack Width
Quick-Connect CV HD/SD Weight	1.0lbs
Power Supply	24VDC, 2A
Accessories	999-6000-002 Rack Mount Adapter Panel for 1/3-Rack Quick-Connect Interface

