



VADDIO[™] ZOOMSHOT[™] WALLVIEW[™] USB

ZoomSHOT HD Camera System featuring the Quick-Connect USB Interface

Model Number 999-6919-000 (North America) Model Number 999-6919-001 (International)



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OVERVIEW:

The Vaddio ZoomSHOT WallVIEW USB camera system produces amazing results for small, medium and large room applications. Anywhere that a Point-of-View or stationary camera can be used alone or in conjunction with a Vaddio PTZ camera to simplify camera coverage and preset positioning, the ZoomSHOT is the answer.

Essentially, the ZoomSHOT camera is a low cost pan/tilt/zoom camera, where the pan and tilt are adjusted manually. However, unlike fixed-lens stationary cameras, the ZoomSHOT is equipped with a 19X optical power zoom lens that produces a horizontal field of view ranging from 58° on the wide end to 3.1° on the tele end in a HD 16:9 format.

ZoomSHOT was designed from the ground up and uses the Vaddio EZCamera[™] Cat-5 wiring standard for video, power and control. The ZoomSHOT supports a wide range of video resolutions that are selectable on the rear panel from 1080p/60 all the way down to 480p/59.94-YPbPr. This camera can deliver HD video signals, power and control up to 150' (45.72m) on Cat-5 cable.

This WallVIEW system features the totally robust Quick-Connect USB Interface, which was designed to have multi-format digital and analog video outputs, be compatible with all existing and forthcoming Vaddio cameras and includes USB 2.0 and IP streaming outputs with a built-in web server for IP control. The QC-USB Interface provides outputs for the ZoomSHOT camera including; HDMI, YPbPr, USB Video (UVC standards-MJPEG) and H.264 IP Video (RTSP & HLS).

The QC-USB's embedded webserver provides for browser-based access to camera controls, camera presets and basic CCU functions (color and shading controls) as well as the video configuration web pages. Analog and HDMI video outputs are included and output the same video resolution that is sent from the camera simultaneously.

Choose between three (3) IR frequencies for the Vaddio IR SHOT Commander to allow multiple cameras to be locally IR controlled with a single remote control. And like all WallVIEW packages, the thin profile wall mount is included.



vaddia

Image: ZoomSHOT HD Camera



Image: ZoomSHOT Rear Panel



Image: Quick-Connect USB Interface

Intended Use:

Before operating the device, please read the entire manual thoroughly. The system was designed, built and tested for use indoors with the power supply provided. Outdoor operation or use of a different power supply has not been tested and could damage the device and/or create a potentially unsafe operating condition.

Important Safeguards:

Read and understand all instructions before using. Do not operate any device if it has been dropped or damaged. In this case, a Vaddio technician must examine the product before operating. To reduce the risk of electric shock, do not immerse in water or other liquids and avoid extremely humid conditions.





Save These Instructions:

The information contained in this manual will help you install and operate your product. If these instructions are misplaced, Vaddio keeps copies of Specifications, Installation and User Guides and most pertinent product drawings for the Vaddio product line on the Vaddio website. These documents can be downloaded from www.vaddio.com free of charge.

UNPACKING:

Carefully remove the product and all of the included parts from the packaging. Identify the following parts for each camera:

ZoomSHOT WallVIEW USB Camera System (North America): Part Number: 999-6919-000

- One (1) ZoomSHOT HD Camera (998-6919-000)
- One (1) Vaddio IR Shot Commander Remote
- One (1) Quick-Connect USB Interface (998-1105-038)
- One (1) 24 VDC, 2.0 A Power Supply with Power Cord for North America
- One (1) 6' (1.83m) USB Type-A to Type-B Cable (Black)
- One (1) Thin Profile Wall Mount with Mounting Hardware
- One (1) EZCamera Cat-5 Control Adapter (RJ-45-F to DB-9-F)
- Documentation

ZoomSHOT WallVIEW USB Camera System (International): Part Number: 999-6919-001

- One (1) ZoomSHOT HD Camera (998-6919-000)
- One (1) Vaddio IR Shot Commander Remote
- One (1) Quick-Connect USB Interface
- One (1) 24 VDC, 2.0 A Power Supply
- One (1) 6' (1.83m) USB Type-A to Type-B Cable (Black)
- One (1) Euro Power Cable
- One (1) UK Power Cable
- One (1) Thin Profile Wall Mount with Mounting Hardware
- One (1) EZCamera Control Adapter (RJ-45-F to DB-9-F)
- Documentation

ZoomSHOT Front View with Feature Call-outs Image: ZoomSHOT HD PTZ Camera



- 1) Lens: 19X Optical Zoom Lens
- 2) IR Sensor and Power/Tally LED: The IR sensor for the IR SHOT Commander Remote is located here. In a separate opening, a blue LED power light and a red LED tally resides (it turns purple on boot up too).
- 3) The Yoke: For manual pan and tilt. Tilt range is $\pm 30^{\circ}$ and Pan is limited to the service loop of the cabling.
- 4) The Aluminum Base and Steel Cylindrical Body: Please don't drop it on your foot, it's fairly substantial.
- 5) Logo: Really Cool Logo Badge (RCLB). The RCLB is affixed to the base in a recessed ovoid area.





Rear Panel Connections with Callouts Image: ZoomSHOT HD Camera



1) RS-232 & IR Out: The RS-232 accepts modified VISCA protocol for camera control, as well as transmits IR signaling received by the front IR receiver, which can be transmitted to third party devices. The ZoomSHOT will not react to the remote if the IR is off. IR forwarding is only available in the SR Quick-Connect models.

2) EZ Power/Video Port:

This RJ-45 connector is only used with the Quick-Connect SR, Quick-Connect DVI-D/HDMI SR Interface, Quick-Connect USB and USB Mini Interfaces to supply power and return HSDS (differential) video from the camera over Cat-5 cable up to distance of 150' (45.72m).

3) ZoomSHOT Dip Switch Settings:

Settings for IR remote frequency, IR receiver on/off, image flip, test bars and Defaults can be configured on these switches. See the Switch Settings page for additional information. The dip switch settings are as follows:

Dip Switch	Function
1	Up = IR1, Down = IR2
2	Up = IR 1 or 2, Down = IR3
3	Up=IR ON, Down = IR OFF
4	Up = Normal Image, Down = Image Flip
5	Test Bars
6	Update Position - Leave UP unless updating firmware
All Down	Reset to Defaults - with power cycle



4) HD Video Select:

A rotary switch allows the user to choose the component HD output video resolution and format. After setting or changing the resolution, reboot the camera to ensure proper operation. If an unassigned rotary selection position is chosen (3, 9, A, B, C or D), the camera will output a medium grey video privacy mask. Simply set the rotary switch to an assigned position to output video. The HD Video Select Rotary Switch Settings are as follows:

Table: ZoomSHOT HD VIDEO Selections

Rotary	Resolutions	Rotary	Resolutions
0	720p/59.94	8	576p/59.94
1	1080i/59.94	9	
2	1080p/59.94	A	
3		В	
4	720p/50	С	
5	1080i/50	D	
6	1080p/50	E	1080p/29.97
7	480p/59.94	F	1080p/25



Point the notch in the switch stem to assign the rotary position

Notes:

For IP or USB 2.0 Streaming, use 1) position "0" (720p/59.94) for best results 2) Set the rotary switch to an assigned position. A medium grey privacy mask is displayed on unassigned positions.

Table: ZoomSHOT Dip Switch Settings



QUICK-CONNECT USB INTERFACE Image: Front Panel with Feature Call-outs



1) LCD Blue Backlit Display:

20 x 2 Character, ODV (omni-directional view), ABN (advanced black nematic) display with a high contrast and wide viewing angle combined with high visibility. The MAC address (labeled as "HW" for hardware) is on the top line, and the IP address (static or DHCP) is listed on the bottom line. This display with IP and MAC addresses allows for easy access to the embedded web server and Vaddio camera settings for the PC or BYOD (bring your own device - laptop or tablet) users of UC conference systems. Upon power up or power reset this display will indicate when the unit is in initialization mode.

2) Power/ System Reset Switch:

The System Reset switch on the front panel is a blue back lit-tactile switch that will illuminate when power is present at the rear power connector. Pressing in and holding this switch for 1.15643 seconds will restart/reinitialize the Quick-Connect USB Interface.

3) NETWORK LED:

The green panel mount LED indicator will indicate the presence of an Ethernet connection. This LED will blink to indicate network activity. If no network connection is made, the LED will remain off.

4) USB LED:

The blue panel mount LED indicates the presence of a USB connection to a PC (or mac). Blinking will indicate USB activity. If no USB connection is present the LED will remain off.



Quick-Connect USB Interface Image: Rear Panel with Feature Call-outs



- 1) **Power Input:** 5.5mm OD x 2.5mm ID coaxial connector for the provided 24 VDC, 2.0 Amp switching power supply. The Quick-Connect USB Supplies Power to the attached camera.
- 2) **5-Position Dip Switch:** A 5-position dip switch allows the user to choose the HD video color space (YCbCr for HDMI and sRGB color space for DVI-D) on the HDMI output, configure for updates, and restore factory defaults when cycling power.

Dip Switch	Function	Default	Activation	
1	Future Use	Up	n/a	
2	Future Use	Up	n/a	
3	Color Space HDMI Connector	Up = HDMI (YCbCr)	Down = DVI (sRGB)	
4	Program / Update	UP = No Program	DOWN = Ready To Program	
5	Future Use	Up	n/a	
All Down	Reset to Defaults	All UP	ALL DOWN (with power cycle)	

Table: Quick Connect USB Rear Panel Dip Switch Settings

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- **3) RS-232 IN:** Serial RS-232 input on a RJ-45 connector. This control port allows a Vaddio joystick controller or 3rd party controller (Crestron/AMX) to control the camera functions if the embedded webserver is not used for real time control.
- 4) RS-232 OUT TO CAMERA: Serial RS-232 output on RJ-45 connects via Cat-5 to the camera RS-232 input on the camera. Control signals from the embedded webserver are sent or external controller are relayed to the camera over this control port.
- 5) EZ POWER VIDEO: RJ-45 jack used to supply 24 VDC power to the camera and return differential video from the camera on Cat-5 cable at a maximum distance of 150' (45.7m).
- 6) YPbPr Output: Analog component video output on a DE-15 (HD15) connector (resolution is set on the back of the camera). The YPbPr output resolution will be the same as the HDMI output resolution. SD video resolutions (Y/C and CVBS formats) are not supported by the Quick-Connect USB Interface; however some progressive frame analog component SD video is supported.
- 7) HDMI Output: The digital video output on the HDMI connector can either be YCbCr color space (normal HDMI mode) or can be changed to DVI-D color space (sRGB) for older monitors and devices. The HDMI and YPbPr outputs work simultaneously and are the same resolution (set at the camera).
- 8) Ethernet 10/100 Network RJ-45 Jack: The Ethernet jack will have yellow and green lights to indicate connectivity and activity of the network on that jack. The Ethernet jack will stream video up to 1080p/30 using H.264 compression and can be set from the internal web pages much like the HD-USB Camera. The resolutions will available in a three (3) stage quality format (High Quality, Good Quality and Standard Quality targets) and includes a range of CIF to 1080p/30.
- 9) USB 2.0 Connector: The USB 2.0 is on a Type-B female jack and connects to a PC running a soft-client video conferencing system or video capture software that uses UVC (USB Video Class) standard drivers. No other USB 2.0 drivers are required to plug the QC-USB into a computer and have it work. The UVC drivers will auto negotiate the top resolution that the PC and QC-USB can accomplish together and auto-implement that resolution.



BASIC APPLICATION DIAGRAMS Diagram: Basic Wiring Configuration - Without Network or PC



ProductionVIEW Precision Camera Controller

Note: RS-232 can be run directly to the ZoomSHOT or through the Quick-Connect USB in this configuration



Diagram: Basic ZoomSHOT WallVIEW USB Configuration - USB 2.0 Streaming



Diagram: Basic IP Configuration - IP Streaming

ZoomSHOT HD Camera to Quick-Connect USB out to Network for a remote network application.



Diagram: Complex System with Audio

Local USB 2.0 streaming with Ethernet control, active UC Application and local audio system.



ZoomSHOT WallVIEW USB System with Audio

ZOOM SHOT CAMERA - FIRST TIME SET-UP

The ZoomSHOT was designed to be very easy to use and operate. There is documentation at the back of this manual for pin-outs for the connectors on the Zoom SHOT camera and the Quick-Connect USB Interface.

Before Installing the Camera:

Choose the ZoomSHOT camera mounting location while paying close attention to camera viewing angles, lighting conditions, possible line of site obstructions and checking for in-wall obstructions where the camera is to be mounted. Always pick a mounting location that will optimize the performance of the camera. Please locate the camera to enable easy positioning of the camera body with the ability to point down and away from the ceiling and a pile of fluorescent lighting cells. Cameras generally don't like to be swamped with fluorescent light and nobody sits on the ceiling anyway.



Image: ZoomSHOT HD Camera with provided Thin Profile Wall Mount

- The Thin Profile Wall Mount for the ZoomSHOT can be mounted directly to a 1-gang wall box or can be mounted using two (2) provided spiral dry wall anchors.
- For Power/Video and RS-232 signals, use standard Cat-5 cable (568B termination and real RJ-45 connectors) from the EZ-POWER VIDEO and RS-232 ports on the back of the ZoomSHOT to the Quick-Connect USB Interface. The EZ-POWER VIDEO jack on the camera is marked in *red* as a reminder that there is 24 VDC power on that Cat-5 cable.



Step By Step ZoomSHOT WallVIEW USB Installation Instructions:

Step 1: After determining the optimum location of the camera; route, mark and test the two (2) Cat-5 cables from the camera to the Quick-Connect USB Interface located at the head-end. The two Cat-5e cables should feed-through the hole located on the rear flange of the Thin Profile Wall Mount. If the bracket is to be mounted on a 1-gang wall box, use the screws supplied with the wall box cover plate to attach the Thin Profile Wall Mount. If mounting to the drywall with wall anchors, use two (2) quality wall anchors. The mount provides for easy leveling. Pull the cat-5 cables though the wall and feed the cables through the back of the mount. Level the mount and tighten the mounting screws.



Step 2:

Using the HD VIDEO SELECT rotary switch and CAMERA SETTINGS dip switches on the back of the camera, set up the camera's output resolution and functional preferences. There are tables on *Page 5* that identify the choices... keep these tables handy for future use...or you can easily look them up on the Vaddio website (vaddio.com) when needed.

Setting the ZoomSHOT Camera:

- Set the desired HD Resolution with the rotary selection switch. If changing the resolution, always reboot the camera to ensure proper operation.
- Note: Use 720p/59.94 (position "0") for best results for streaming USB 2.0 (MJPEG) or IP Video (H.264)
- Set the IR frequency (1, 2 or 3) of the camera (if it is to respond to the IR remote control).
- Set the desired image orientation (normal or flipped).

Step: 3: Follow the sample wiring diagram for connecting the Cat-5 cables to the ZoomSHOT and Quick-Connect USB Interface (Diagram on the *Page 8*, but read and understand the rest of these instructions especially the next note).



NOTE: Check all Cat-5 cables for continuity in advance of the final connection. Label the Cat-5 cables. Plugging the EZ POWER VIDEO cable into the wrong RJ-45 may cause damage to the camera system and void the warranty. For premise cabling, please use real RJ-45 connectors and crimpers. Please don't use the pull through or EZ type of RJ-45.

Step 4: Place the camera onto the camera mount and use the provided ½"-20 screws to secure the camera to the mount. To dress the cabling, push the extra cable back into the wall opening.

HINT: A small piece of black fabric or felt attached to the back of the mount (wall-side) with a small slit to allow cables through, or dressing the wall opening drywall edge with black tape to mask the white gypsum wall board may help the overall dressing of the mount and cables.

Step 5: Connect the Vaddio 24 VDC, 2.0 Amp power supply to a power outlet and to the Quick-Connect USB Interface. The Quick-Connect USB will initialize, power will travel down the EZ-POWER VIDEO Cat. 5 cable to the camera. The camera will boot up and in a few seconds, differential HD video will travel back down the Cat-5 cable to the Quick-Connect. When an image is available, the camera is ready to accept control information from the IR Shot Commander remote control or RS-232 camera controller. If connected to the Network, the Quick-Connect USB will display the Hardware (HW) MAC Address and the IP addresses.

Controlling the ZoomSHOT:

IR Remote: The IR Shot Commander Remote control can control the camera's basic functions and enter the OSD (on-screen display) for more advanced controls.

RS-232 Control: An API is provided for control of the camera over RS-232 (commands in the back of manual).

Telnet Control: The camera can be controlled through the Quick-Connect USB via Telnet session. These exciting commands are listed at the back of the manual.

Built-in Webserver Control: The Quick-Connect USB has a built-in webserver that auto-loads the control protocols of the Vaddio camera attached (pretty cool huh?). Full camera controls including CCU image controls are available from any approved browser on any computer. The IP address is always displayed on the front panel display of the Quick-Connect so access to the internal webpages is super easy.

Quick-Connect USB Details

The Quick-Connect USB interface is a Cat-5 camera interface and an IP or USB 2.0 streaming appliance with a built-in webserver for camera set-up and control. The Quick-Connect USB Interface uses UVC (Universal Video Class) drivers for USB 2.0 video and does not require the loading of any other drivers to run on the PC. As long as the operating systems and soft-client software support UVC drivers, no additional software/drivers, other than the application is required.

COMPATIBILITY

The Quick-Connect USB will work with the following web browsers, soft codecs, computer operating systems and media players:

Compatibility - Web Browsers:

- 1) Internet Explorer (IE 8 and above)
- 2) Safari (Rev 4 and 5)
- 3) Safari/iOS (Rev 4 and 5)
- 4) Chrome (the latest and current release auto updating)
- 5) Firefox (the latest and current release auto updating)

Soft Client Compatibility: The Quick-Connect USB is compatible with the following soft codecs or applications, in no particular order:

1) Skype Win 7 & Mac OS X (10.7) 2) Web Ex (WBS 28.7 and up) Win 7 & Mac OS X 3) Microsoft Lync Win7 4) Cisco Jabber Win 7 & Mac OS X 5) Vidyo Desktop Win 7 & Mac OS X 6) Google Plus Win 7 7) Adobe Connect 8 Win 7 & Mac OS X 8) LifeSize ClearSea Win 7 Win 7 & Mac OS X 9) GoToMeeting (Citrix) 10) Polycom M100 Win7 11) Panaopto (lecture capture) Win 7

Compatibility: Media Players:

The UVC with MJPEG and IP with H.264 video are compatible with the industry leading PC media players.

- Quick-Time 10.2
- VLC Media Player 2.0.4
- Real Player 16.0

Compatibility: Operating Systems

- Apple OS X (10.7 and above)
- Windows XP w/Service Pack 3 with known issues and errata
- Windows 7
- Linux

Evolving Compatibilities:

As more UC soft-client and lecture capture programs are released and gain popularity, Vaddio will provide a continuing research and development effort to ensure the compatibility with other manufacturer's products.







Compatible with USB 2.0 UVC Drivers

The USB 2.0 UVC (Universal Video Class) video driver resolution table is an internal list of resolutions available for the Host PC and the Quick-Connect USB to negotiate and use for any approved/tested USB application. Typically, the highest resolution possible between both the PC and Quick-Connect USB is used. However, not all OS and application combinations are altogether typical.

Format	Resolution	Frame Rate	Aspect Ratio			
MJPEG	1280 x 720	15/30	16:9			
	960 x 544	15/30	16:9			
	704 x 576	15/30	4:3			
	640 x 480	15/30	4:3			
	640 x 360	15/30	16:9			
	424 x 240	15/30	4:3			
	352 x 240	15/30	4:3			
	320 x 240	15/30	4:3			
	320 x 180	15/30	16:9			

Table: Supported UVC Resolutions

INTERNAL WEB PAGES AND CONTROL

The internal web pages will allow control of the Quick-Connect USB and control of the attached camera via a network connection. These web pages will allow the user or administrator to set security passwords, change the IP address, view diagnostics, access the firmware upgrade page and more!

DHCP IP Set-up (Dynamic Host Configuration Protocol)

DHCP Set-up (skip this section if Static IP). If the LAN has a DHCP (dynamic host configuration protocol) server, then the IP address, gateway and routing information will automatically be assigned. The QC-USB software is defaulted to DHCP and will attempt to dynamically obtain an IP address using DHCP, but it will fall back to the default address of 169.254.1.1 if no DHCP server can be found.

Static IP Set-up:

The static IP can be assigned either through the network or directly with a computer using a cross-over cable. Depending on the age of the computer, you may not need a cross-over cable. Either way the steps are the same for network or direct connection to a computer. The default address of the QC-USB camera is 169.254.1.1 and the Subnet mask is 255.255.0.0. Different computer OS types all have their own way of doing things (without question), but they are essentially doing the same stuff, changing the IP address so the web pages of the HD-USB are accessible.

Quick-Connect USB Web Pages Tour:

Screen Shot: Login

The QC-USB web server is intended as a user's camera control page at one level, and an administrator's management tool at another level, which requires password authentication for access.

The Login Page will appear if there is a username assigned by the administrator. Assigning a username can limit access to the admin menus by a general user. By default, the username is blank and the password for the user account is: password. The Administrator can set the name and password for the user account. If no username is assigned, the web page will automatically open to the Camera Control page.

Quick-Connect USB	Rm Tel x547, Help Tel 1-800-888-HELP	
LOGIN		Defaults:
Username		Username is blank
Password		(assigned by admin)
Login		Password is: password
		Admin name is: admin Password is: password



Screen Shot: Camera Control Page - No Camera Detected

The No Camera Detected window will appear if the Quick-Connect USB has no communication with the camera. Check the camera power and serial connections if no camera is found within 30 seconds of initialization.



Screen Shot: User Menu - Camera Control Page

Quick-Connect USB - 0	Conference Room #2 - Go	ogle Chrome		9	© 🙁 È	
← → C ▲ 169.2	54.1.1			Ţ.	=	
Vaddio Quick-Connect USB	Vaddio, Conference Rod Rm Tel x547, Help Tel 1-	om #2 800-888-HELP	Admin	Logout , Vertic	cal	
Camera Controls	ZOOMSHOT CONTROL	S		7		
Admin 6		+				
🕐 Logout	 zo	DOM Fast Zoor	2			
	НОМЕ	-				
			3	STORE PRESET, CAN	IEKA	-
	CAMERA PRESETS	<mark>(4)</mark>	Store	Preset 4	Preset 2	Preset 3
	Preset 1	Preset 2	Preset 3	Thouse the	1103010	T TUBULU
	Preset 4	Preset 5	Preset 6			Ca
	5 CCU SCENES Custom A	Custom B	Custom C			
	5 CCU SCENES Custom A AUTO	Custom B	Custom C Fluorescent Hi			

- 1) Zoom and Home Controls: The camera's zoom lens can be controlled with the "+" to zoom-in and the "-" to zoom-out the ZoomSHOT camera. The home button will move the camera to the home zoom position.
- 2) Zoom Speed Control: The speed for both the Zoom control can be adjusted between two speeds; Fast Zoom and Slow Zoom. For tighter shots, it is recommended that the slower speed is used.



- 3) Store Preset Button: Clicking the Store button opens up a Store Preset pop-up dialog box. To set presets, set up the camera shot, click on choice of preset number (1 through 6). The preset is stored and the dialog box closes.
- 4) Camera Presets: Six (6) presets can be recalled simply by clicking a preset number.
- 5) CCU Scenes: The user has access to the CCU scenes set and stored by the Admin. There are three (3) user definable presets and six (6) presets preconfigured by the technical folks at Vaddio (really Scott set them all) that are meant to be used in certain lighting scenarios. These lighting presets included: Automatic, Incandescent Hi, Incandescent Lo, Fluorescent Hi, Fluorescent Lo and Outdoor.
- 6) Administration Menu: By clicking on the Administration menu bar, the Admin Login screen will appear. The default Admin password is: password
- 7) Vertical: The vertical button will reduce the size of the window for the user controls and remove the menu tabs on the left side of the screen. The vertical sizing works well when using it with a soft-client codec. Click on 'Full' for full screen size camera control web pages.





Screen Shot: Admin Log-in

By selecting the Admin Menu Bar, the Admin Login password pop-up window will appear and await the entry of the password. By entering the Admin menus, 10 more menu keys appear on the left side of the screen.





Screen Shot: Admin Menu - Camera Settings Page

The Camera Settings page provides the parameters to allow the end user to match the camera to the environment, set the CCU presets and make startup assignments.



- 1) Load Preset at Startup: Check this box to move the camera to a predefined preset location when the camera powers up. Use the pull down menu to select the Preset 1 through 6 to be loaded when this box is checked
- 2) Load CCU Scene at Startup: Check this box to load a CCU Scene into the camera when the camera powers up. The pull down menu will allow the selection of one of the 6-factory scenes, or any of the 3-user defined scenes.
- 3) CCU Scenes: Click on any of these 9 buttons to load one of the CCU scenes into the camera. These Scenes can be fine-tuned if changes are needed, and stored into any of the three User defined scenes.
- 4) Color Settings: When painting or shading camera scenes for specific lighting situations or environments, these attributes can be adjusted for matching cameras in the same area. The parameters within the Color Settings section are defined below (top to bottom):
 - Auto Iris check box: When checked, the camera will operate in Auto Iris mode, when unchecked, the camera will be in Manual Iris mode and allow adjustment of Iris and Iris Gain levels



- Iris: Move adjustment slider as required to adjust the iris opening. A numeric value will be displayed in the box to the right of the slider.
- Gain: Move adjustment slider as required for amount of iris gain desired. Numeric value will be displayed in the box to the right of the slider.
- Auto White Balance check box: When checked, the camera will operate in Auto White Balance mode, when unchecked, the camera will be in Manual White Balance Mode and allow for adjustment of Red and Blue Gain.
 - **Red Gain:** Move the adjustment slider as required for amount of Red Gain desired. A numeric value will be displayed in the box to the right of the slider.
 - Blue Gain: Move the adjustment slider as required for amount of Blue Gain desired. Numeric value will be displayed in the box to the right of the slider.
- **Back Light Compensation:** When checked, Back Light Compensation will be applied to the camera if BLC is supported by the camera and the camera is in Auto White Balance mode.
- Detail: Move the adjustment slider as required for amount of detail (Aperture) desired. A numeric value will be displayed in the box to the right of the slider. Note: If the detail is too high, the video can look grainy and appear noisy.
- **Chroma:** Move the adjustment slider as required for the amount of Chroma (Color Vibrancy) desired. A numeric value will be displayed in the box to the right of the slider.
- Store CCU Scene button: Once the desired scene adjustments have been made, this button will activate a pop-up menu that can be used to store this scene into one of the three User Defined Scene locations. These User Defined Scenes can be named as required for clarity. These User Defined CCU Scenes can be adjusted and re-saved at any time.

	×
Low Light	
Custom B	
My Label	
Cancel	Save
	Low Light Custom B My Label

5) Custom CCU Scene Labels: The labels for the (3) User Defined customizable Scenes can be changed as needed. Mouse the cursor into the appropriate window and edit the text. Press Save to store these changes or press Cancel to exit this window.



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🥐 😋 🏠 169.2	54.1.1/#streaming	
Vaddio Quick-Connect USB	Vaddio, Conference Room #2 Rm Tel x547, Help Tel 1-800-888-HELP	Logout Admin 📔 🥕 Verti
Camera Controls	STREAMING MODE	
Camera Settings	• USB Streaming • IP Streaming	
Streaming	USB STREAMING SETTINGS	
Labels	USB DEVICE SETTINGS	
Networking	USB Device Name Quick-Connect USB	
Security	COLOR SPACE	
	• YUV 4.2.2 • YUV 4.2.0	
Diagnostics	1	
System	IP STREAMING SETTINGS	
Help	Video Resolution 720p	
U Logout Admin	Video Quality High Quality (Best)	• <mark>4</mark>
	PROTOCOL	
	HLS HLS Port: 80	
	KISP 5 KISP Port. 554	
	STREAMING URL	
	URL rtsp://169.254.1.1554/vaddio	-qc-usb-stream

Screen Shot: Admin Menu - USB 2.0 or IP Streaming Mode Page

- 1) Streaming Mode: Streaming can be set for either USB 2.0 streaming (MJPEG) or IP streaming (H.264); but not both at the same time. The QC-USB can stream USB and accept IP control, or it can IP stream with IP control. Choose the streaming mode here.
- 2) USB Device Name: Allows the user to use a "friendly name" per system. In a BYOD format, the user has the ability to move between different UC conference rooms and have the ability to assign the PC's USB resources to that room.
- **3) Color Space**: The UVC drivers will negotiate the color depth, but this parameter allows the user to reduce the color depth to 4:2:0, which is used with the older/cheaper webcams and applications, where image quality is not as critical. The 4:2:2 color is used by many applications that take advantage of the performance of the camera where the colors are more vibrant and precise.
- 4) IP Streaming Settings: The Video Settings allow the selection of the target performance for the IP Streaming. The QC-USB is set up for a variable bit rate and the user can select the video resolution and the quality, such as High Quality (Best), Standard Quality (Better) and Low Bandwidth (Good). Every effort to eliminate stupefyingly bad combinations with the 5 or 6 parameters that make up the image size, quality, bit rate, bandwidth etc... has been made, so you can't pick 1080p at a bit rate of 128Kbps, which would look totally wicked awful and probably wouldn't work anyway.
- 5) Streaming Protocol and URL: Admin chooses the streaming type and the port number for RTSP. The HLS port is always on 80. The supported protocols are RTSP and HLS (Apple's HTTP Live Streaming). RTSP is best for live applications, where HLS serves the Apple iOS devices and is better for playback due to the amount of buffering the HLS has built-in. The Streaming URL auto populates and that path can be changed.
- When finished setting up the streaming parameters click Save to put the changes into effect or cancel, which will not save the configuration.



Screen Shot: Admin Menu - Room Labels

The Room Labels menu allows the administrator to label the company name, room name, room phone and help phone on a per QC-USB basis. The labels appear on every page at the top/middle of the page. Simply enter the room information and click Save.

← → C 169.254.1	1/#labels			
Quick-Connect USB	Vaddio, Conference Roo Rm Tel x547, Help Tel 1-4	om #2 800-888-HELP	Logout Admin	, Vertical
Camera Controls	ROOM LABELS Company Name	Vaddio		
Camera Settings	Room Name	Conference Room #2		
Streaming	Room Phone Number Help Phone Number	x547 1-800-888-HELP		
Labels	Cancel Save			
Networking				
Security				
Diagnostics				
System				
Help				



Screen Shot: Admin Menu - DHCP Network Configuration

Under the Networking menu, The Network Configuration and Network Interfaces are displayed. This is where the Network administrator assigns either DHCP or a Static address and the associated parameters.

🔶 🚽 🦿 🕒 169.254.1	.1/#network		≡9
Vaddio Quick-Connect USB	Vaddio, Conference Ro Rm Tel x547, Help Tel 1	oom #2 -800-888-HELP	Logout Admin
Camera Controls	Network Configura	tion	
Camera Settings	Hostname vaddio-qc	-usb-00-04-A3-94-C0-53	
Streaming	Cancel Save		
Labels	Network Interfaces Ethernet Port (etho)		
Networking	IP Address		
Security	MAC Address	00-04:22:94:00:53	MAC Address IB
Diagnostics	IP Address	169.254.1.1	Address, Subnet Mask
2 Suntam	Subnet Mask	255.255.255.0	and Gateway will Auto-
System	Gateway	10.10.4.254	
a Help	Support Support		
() Logout Admin	Cancel Save		

Screen Shot: Admin Menu - Static IP Configuration

If Static IP is used, the IP Address, Subnet Mask and Gateway are manually entered. Click on Save to keep the Static IP information.





Screen Shot: Admin Menu - Security

The Security menu allows the Admin to **UPDATE "user" PASSWORD** and **UPDATE "admin" PASSWORD**. The default "user" password is: **password**. The default "admin" password is also: **password**. The Network administrator can reassign the user name and password as well as the Admin password. There is only one "user" password and one "admin" password at any given time. If changes are made, click on Save to store the change.

109.254.1	1/#036	
Vaddio Quick-Connect USB	Vaddio, Conference Room #2 Rm Tel x547, Help Tel 1-800-888-HELP	Logout Admin Admin
Camera Controls	UPDATE 'user' PASSWORD New Password	
Camera Settings	Confirm New Password	
Streaming	Cancel Save	
Labels	UPDATE 'admin' PASSWORD	
Networking	New Password Confirm New Password	
Security	Cancel Save	
Diagnostics		
System		
Help		
() Logout Admin		

Screen Shot: Admin Menu - Diagnostics

Diagnostics menu button will display a set of self-diagnostics. These diagnostics may help the Vaddio technical support team diagnose a problem with the Quick-Connect USB and attached camera.

Vaddio Quick-Connect USB	Vaddio, Conference Room #2 Rm Tel x547, Help Tel 1-800-888-HELP	Logout Admin 🔰 🚽 Ver
Camera Controis	DIAGNOSTICS	
Camera Settings	vaddio-qc-usb-00-04-A3-94-C0-53 [vaddio-qc-usb-00-04-A3-94-C0-53] vaddio-qc-usb-00-04-A3-94-C0-53]	1.620000] EXT3-fs: mounted filesystem with wr 1.620000] VFS: Mounted root (ext3 filesystem) 1.630000] deutmpfs: mounted
Streaming	vaddio-qc-usb-00-04-A3-94-C0-53 [vaddio-qc-usb-00-04-A3-94-C0-53] vaddio-qc-usb-00-04-A3-94-C0-53]	1.640000] Freeing init memory: 128K 2.570000] sc16is7x2 1-004d: sc16is7x22 UART 2.520000] ttvi2c0_ttvi2c1_gniochin145
E Labels	vaddio-qc-usb-00-04-A3-94-C0-53 [vaddio-qc-usb-00-04-A3-94-C0-53 [vaddio-qc-usb-00-04-A3-94-C0-53 [2.790000] kyo51505 lcd initialized 3.970000] kjournald starting. Commit interval 5 3.980000] EXT3 FS on mmcbik0p5, internal jou
Networking	vaddio-qc-usb-00-04-A3-94-C0-53 [vaddio-qc-usb-00-04-A3-94-C0-53 [vaddio-qc-usb-00-04-A3-94-C0-53 [3.980000] EXT3-fs: mounted filesystem with wr 5.760000] kjournald starting. Commit interval 5 5.760000] EXT3 ES on mmcblk0n6. internal iou
Security	vaddio-qc-usb-00-04-A3-94-C0-53 [vaddio-qc-usb-00-04-A3-94-C0-53] vaddio-qc-usb-00-04-A3-94-C0-53]	5.770000] EXT3-fs: mounted filesystem with wr 12.160000] CMEMK module: built on Jul 4 2013 12.160000] Deference Linux version 2 6 32
Diagnostics	vaddio-qc-usb-00-04-A3-94-C0-53 [vaddio-qc-usb-00-04-A3-94-C0-53 [vaddio-qc-usb-00-04-A3-94-C0-53]	12.100000] File /var/lib/jenkins/workspace/vng- 12.200000] File /var/lib/jenkins/workspace/vng- 12.200000] CMEM Range Overlaps Kernel Phys 12.200000] CMEM phys. start (0%6ff1000) aver
System	vaddio-qc-usb-00-04-A3-94-C0-53 [vaddio-qc-usb-00-04-A3-94-C0-53] vaddio-qc-usb-00-04-A3-94-C0-53]	12.220000] allocated heap buffer 0xd3000000 c 12.220000] allocated heap buffer 0xd3000000 c 12.220000] heap fallback enabled - will try heap 12.220000] CMEM Bange Overlage Karrel Bhr
Help	vaddio-qc-usb-00-04-A3-94-C0-53 [vaddio-qc-usb-00-04-A3-94-C0-53 [vaddio-qc-usb-00-04-A3-94-C0-53]	12.250000] CMEM Range Overlaps Kerner Phys 12.250000] CMEM phys_start (0x1000) overlap: 12.250000] cmemk initialized
U Logout Admin	vaduio-qc-usb-00-04-A3-94-C0-53 [vaddio-qc-usb-00-04-A3-94-C0-53] vaddio-qc-usb-00-04-A3-94-C0-53]	12.390000] EDMAR module: Duli do Juli 4 2013 12.400000] Reference Linux version 2.6.32 12.400000] File /var/lib/jenkins/workspace/vng- 12.500000] IROK module: built on Juli 4 2013 at
	vaddio-qc-usb-00-04-A3-94-C0-53 [vaddio-qc-usb-00-04-A3-94-C0-53 [vaddio-qc-usb-00-04-A3-94-C0-53 [12.510000] Reference Linux version 2.6.32 12.510000] File /var/lib/jenkins/workspace/vng- 12.540000] irqk initialized
	vaddio-qc-usb-00-04-A3-94-C0-53 li vaddio-qc-usb-00-04-A3-94-C0-53 li vaddio-qc-usb-00-04-A3-94-C0-53 l	ghttpd[402]: (log.c.166) server started ogger: starting the video pipeline 14.770000] g webcam rndis gadget: g webcan



Screen Shot: Admin Menu - System Menu

The System Menu is where the System Info is displayed and Firmware Updates are performed. There will be firmware updates and upgrades over the life of the Quick-Connect. The file for the firmware update is chosen in this menu and the update is started here. A remote system Reboot and Restore to Factory Presets is also available.

	a manager a construction of the		
Quick-Connect USB	Vaddio, Conference Roo Rm Tel x547, Help Tel 1-8	m #2 100-888-HELP	Logout Admin / A Vertical
Camera Controls	SYSTEM INFORMATIO		
	Product Version:	Quick-Connect USB 1.1.0	
Camera Settings	Database Version:	2.1.0	
Streaming	EPGA Version:	Ouick Connect USB 08/27/2013	
	Commit Version:	f3b1ea08175b5f0c9761d4df156a24c13a4f	191a
Labels			Show less
Networking			
	FIRMWARE UPDATE	\triangleleft	
Security	Firmware File:	Choose File No file chosen	
Diagnostics	Cancel Begin Fire	nware Update	
System			
	SYSTEM UTILITES		

Screen Shot: Admin Menu - Update Confirmation

After clicking on "Begin Firmware Update..." a confirmation pop-up and warning will be displayed. Please contact Vaddio Tech support for assistance with updates. Please read and completely understand the pop-up warnings as it is easy to lose patience waiting for updates. Click on continue to start the update (this example is from 1.0.0 to 1.1.0)

109.254.1				
Vaddio Quick-Connect USB	Vaddio, Conference Roo Rm Tel x547, Help Tel 1-8	om #2 300-888-HELP	Logout Admin	, Vertical
Camera Controls	Firmware Update			
	SYSTEM INFORMATI	ON		
Camera Settings	Product Version:	Quick-Connect USB 1.0.0		
	Database Version:	2.0.0		
Streaming	Middleware Version:	2.0.0		
A Lohale	FPGA Version:	Quick_Connect_USB_06/28/2013		
Networking	Confirm You are about to update	e your device. During this process the wet	× how less	
Security	may not be available. A automatically reboot.	t the end of the process the device may		
Diagnostics	This process can take u refresh or navigate away	p to 20 minutes. Please be patient and de y from this web page.	p not	
System	UPGRADE PROC	OT REMOVE POWER DURING THE CESS UNLESS DIRECTED.		
Help	When the update is com the web site. Depending may not be able to re-co	nplete this page will attempt to re-connect g on your network and device configuration onnect.	to nit	
dia anno anno		Cancel		



Screen Shot: Admin Menu - Update in Progress

After the firmware load has been started, a pop-up screen will advise patience and notify, in terms of a percentage completed, the progress of the firmware update. Please do not interrupt the firmware load (this example is from 1.0.0 to 1.1.0)



Screen Shot: Admin Menu - HELP

Service/Help information can be found under the Help menu. Support phone numbers and e-mail, manuals, FAQ's and System information is listed on this page. Have this page open when calling Vaddio Tech Support.



CONNECTING THE QUICK-CONNECT USB AND CAMERA TO THE PC AND PROGRAM OF CHOICE: The Quick-Connect USB and attached camera are compatible with many programs and media players. The following is an attempt to generally describe the steps to plug in the QC-USB with a Vaddio camera and get an image.

Skype Example:

- After connecting a camera to the Quick-Connect USB, with a quality USB 2.0 cable, plug the USB-B port of the QC-USB Interface to the USB-A port of the computer. A pop up window on the computer monitor will display the following:
 - a. Found QC-USB
 - b. Found USB Composite Device
 - c. Found USB Video Device
- 2) Open Skype and perform the following steps:
 - a. Open the Tools Menu and drop down to Options
 - b. Click on Video Settings and under Webcam choose USB Video Device

The systems will negotiate the highest resolutions possible, depending on the computer speed, network quality, cabling etc..., and display the video signal of the camera. The camera attached to the QC-USB can be controlled with the supplied Vaddio IR Shot Commander Remote or through IP as described earlier through the QC-USB's web pages. Make a test call to ensure the system is working properly.

VLC Media Player Example:

- 1) Same first step as above.
- 2) Open VLC Media Player and perform the following steps:
 - a. Click on the Media menu and drop down to Open Capture Device and click it.
 - b. Under Device Name, go to the Video Device Name drop down and choose USB Video Device.
 - c. Under Options, enter the Video Size as 1280x720
 - d. Click on Play
 - e. From there, VLC needs some instruction on the aspect ratio, so click on Tools and drop down to Aspect Ratio and drop down again to 16:9 for 720p (1280x720).

VLC is a powerful record/playback system that will buffer the images creating some delay in the way VLC displays the image. This is expected and normal.

With all the compatible software available, in general terms, the video device, aspect ratio, and resolution may need to be set manually the first time through initial set-up. Some systems are easier than others (like Skype) and others are more technical in nature and tend to do more stuff.

Example Program Notes: Most every application or media player is in a state of constant updating and change. The above instructions were written at the beginning of 2013 and some steps may be slightly different. The general idea however is the same.









GENERAL SPECIFICATIONS

Part Numbers	ZoomSHOT WallVIEW USB System 999-6919-000 (North America) ZoomSHOT WallVIEW USB System 999-6919-001 (International)
ZoomSHOT Camera	
Image Sensor	1/3-Type Exmor High-speed, Progressive Scan CMOS Sensor with 1.3 Megapixels
Video Output Resolutions	HD: 1080/59.94/50/30/25, 1080i/59.94/50, 720p/59.94/50 SD: 480p/59.94 & 576p/50
Lens/ Focal Length	19X Optical Zoom, F=4.5mm wide to 85mm tele end (F1.6-F2.9), Min. Focus Distance 1.0m
Horizontal Viewing Angle	58.1° Wide End to 3.2° Tele End - 16:9 Format
Video S/N Ratio	>52 dB
Minimum Illumination	0.7 LUX (F1.6. 50IRF)
Serial Control Protocol	RS-232 (Modified VISCA)
Manual Pan/Tilt Bange	Paper Limited to service loop of cabling, voke and base are mechanical only
	Tilt: $\pm 30^{\circ}$
	Invertible for Ceiling Mount
Preset Positions	Six (6) Programmed and Recalled via IR Remote, 16 Programmed and Recalled with RS-232
Tally Light	Available through RS-232 Control
Camera Connectors	Two (2) RJ-45 Jacks:
	• EZ-Power VIDEO RJ-45 Jack for use with Quick-Connect - Supplies power to the camera and returns
	differential HD video from the camera
	RS-232 RJ-45 Jack (RS-232 Communication)
HD Video Select	16-Position Rotary Switch: Used to set the ZoomSHOT HD Video Resolution Output
Camera Settings	6-Position Dip Switch: For IR Freq., Baud Rate 9600, Image Flip & Test Bars
This Des Cla Mall Masset	16-Position Rotary Switch for Output Resolution Settings
I nin Profile wall Mount	535-2000-237 (Provided with WallVIEW Systems) Black nowder coating. Sized to fit on 1-gang wall box or drywall, mounting bardware included
User Centrels	IP Shot Commonder Pomote with OSD for comerce set up. PS 222
Materials & Weight	Aluminum & Stool Waight - 2.756/2 lbc. (1.69kg)
Dimonsions:	Automatical Action and the second se
Dimensions.	Base: 5 5" (139 7mm) Diameter
	Overall Height: 5.5" (139.7mm) Tall
Quick-Connect USB Interface	
Midae Outpute	
video Outputs	USB 2.0 (MJPEG): Resolution up to 720p/30 (USB 2.0 MJPEG)
video Outputs	USB 2.0 (MJPEG): Resolution up to 720p/30 (USB 2.0 MJPEG) H.264 (IP) of Ethernet: Resolution up to 1080p/30 (H.264 over IP
	USB 2.0 (MJPEG): Resolution up to 720p/30 (USB 2.0 MJPEG) H.264 (IP) of Ethernet: Resolution up to 1080p/30 (H.264 over IP Analog Component (YPbPr): Resolution up to 1080p/59.94
	USB 2.0 (MJPEG): Resolution up to 720p/30 (USB 2.0 MJPEG) H.264 (IP) of Ethernet: Resolution up to 1080p/30 (H.264 over IP Analog Component (YPbPr): Resolution up to 1080p/59.94 HDMI: Resolution up to 1080p/59.94
USB Interface	USB 2.0 (MJPEG): Resolution up to 720p/30 (USB 2.0 MJPEG) H.264 (IP) of Ethernet: Resolution up to 1080p/30 (H.264 over IP Analog Component (YPbPr): Resolution up to 1080p/59.94 HDMI: Resolution up to 1080p/59.94 Connector: Type-B, USB 2.0 Compliant, Standard UVC (Universal Video Class) Drivers
USB Interface Network Interface	USB 2.0 (MJPEG): Resolution up to 720p/30 (USB 2.0 MJPEG) H.264 (IP) of Ethernet: Resolution up to 1080p/30 (H.264 over IP Analog Component (YPbPr): Resolution up to 1080p/59.94 HDMI: Resolution up to 1080p/59.94 Connector: Type-B, USB 2.0 Compliant, Standard UVC (Universal Video Class) Drivers Connector: RJ-45 (shielded), 10/100 Base-T, Supported Protocols: RTSP and HLS Streaming
USB Interface Network Interface Streaming Protocols	USB 2.0 (MJPEG): Resolution up to 720p/30 (USB 2.0 MJPEG) H.264 (IP) of Ethernet: Resolution up to 1080p/30 (H.264 over IP Analog Component (YPbPr): Resolution up to 1080p/59.94 HDMI: Resolution up to 1080p/59.94 Connector: Type-B, USB 2.0 Compliant, Standard UVC (Universal Video Class) Drivers Connector: RJ-45 (shielded), 10/100 Base-T, Supported Protocols: RTSP and HLS Streaming IP: H.264 (RTSP and HLS), USB 2.0: MJPEG (UVC standard drivers)
USB Interface Network Interface Streaming Protocols Connectors	USB 2.0 (MJPEG): Resolution up to 720p/30 (USB 2.0 MJPEG) H.264 (IP) of Ethernet: Resolution up to 1080p/30 (H.264 over IP Analog Component (YPbPr): Resolution up to 1080p/59.94 HDMI: Resolution up to 1080p/59.94 Connector: Type-B, USB 2.0 Compliant, Standard UVC (Universal Video Class) Drivers Connector: RJ-45 (shielded), 10/100 Base-T, Supported Protocols: RTSP and HLS Streaming IP: H.264 (RTSP and HLS), USB 2.0: MJPEG (UVC standard drivers) • Power: 5.5mm OD x 2.5mm ID Coaxial Connector
USB Interface Network Interface Streaming Protocols Connectors	USB 2.0 (MJPEG): Resolution up to 720p/30 (USB 2.0 MJPEG) H.264 (IP) of Ethernet: Resolution up to 1080p/30 (H.264 over IP Analog Component (YPbPr): Resolution up to 1080p/59.94 HDMI: Resolution up to 1080p/59.94 Connector: Type-B, USB 2.0 Compliant, Standard UVC (Universal Video Class) Drivers Connector: RJ-45 (shielded), 10/100 Base-T, Supported Protocols: RTSP and HLS Streaming IP: H.264 (RTSP and HLS), USB 2.0: MJPEG (UVC standard drivers) • Power: 5.5mm OD x 2.5mm ID Coaxial Connector • YPbPr: DE-15 (15-pinHD) Female
USB Interface Network Interface Streaming Protocols Connectors	USB 2.0 (MJPEG): Resolution up to 720p/30 (USB 2.0 MJPEG) H.264 (IP) of Ethernet: Resolution up to 1080p/30 (H.264 over IP Analog Component (YPbPr): Resolution up to 1080p/59.94 HDMI: Resolution up to 1080p/59.94 Connector: Type-B, USB 2.0 Compliant, Standard UVC (Universal Video Class) Drivers Connector: RJ-45 (shielded), 10/100 Base-T, Supported Protocols: RTSP and HLS Streaming IP: H.264 (RTSP and HLS), USB 2.0: MJPEG (UVC standard drivers) • Power: 5.5mm OD x 2.5mm ID Coaxial Connector • YPbPr: DE-15 (15-pinHD) Female • HDMI: HDMI Female • RS-332 IN: R L45 lack
USB Interface Network Interface Streaming Protocols Connectors	USB 2.0 (MJPEG): Resolution up to 720p/30 (USB 2.0 MJPEG) H.264 (IP) of Ethernet: Resolution up to 1080p/30 (H.264 over IP Analog Component (YPbPr): Resolution up to 1080p/59.94 HDMI: Resolution up to 1080p/59.94 Connector: Type-B, USB 2.0 Compliant, Standard UVC (Universal Video Class) Drivers Connector: RJ-45 (shielded), 10/100 Base-T, Supported Protocols: RTSP and HLS Streaming IP: H.264 (RTSP and HLS), USB 2.0: MJPEG (UVC standard drivers) Power: 5.5mm OD x 2.5mm ID Coaxial Connector YPbPr: DE-15 (15-pinHD) Female HDMI: HDMI Female RS-232 IN: RJ-45 Jack
USB Interface Network Interface Streaming Protocols Connectors	USB 2.0 (MJPEG): Resolution up to 720p/30 (USB 2.0 MJPEG) H.264 (IP) of Ethernet: Resolution up to 1080p/30 (H.264 over IP Analog Component (YPbPr): Resolution up to 1080p/59.94 HDMI: Resolution up to 1080p/59.94 Connector: Type-B, USB 2.0 Compliant, Standard UVC (Universal Video Class) Drivers Connector: RJ-45 (shielded), 10/100 Base-T, Supported Protocols: RTSP and HLS Streaming IP: H.264 (RTSP and HLS), USB 2.0: MJPEG (UVC standard drivers) Power: 5.5mm OD x 2.5mm ID Coaxial Connector YPbPr: DE-15 (15-pinHD) Female HDMI: HDMI Female RS-232 IN: RJ-45 Jack RS-232 OUT: RJ-45 Jack EZ-Power Video: RJ-45 Jack (Power and Differential HD Video)
USB Interface Network Interface Streaming Protocols Connectors Dip Switches	USB 2.0 (MJPEG): Resolution up to 720p/30 (USB 2.0 MJPEG) H.264 (IP) of Ethernet: Resolution up to 1080p/30 (H.264 over IP Analog Component (YPbPr): Resolution up to 1080p/59.94 HDMI: Resolution up to 1080p/59.94 Connector: Type-B, USB 2.0 Compliant, Standard UVC (Universal Video Class) Drivers Connector: RJ-45 (shielded), 10/100 Base-T, Supported Protocols: RTSP and HLS Streaming IP: H.264 (RTSP and HLS), USB 2.0: MJPEG (UVC standard drivers) • Power: 5.5mm OD x 2.5mm ID Coaxial Connector • YPbPr: DE-15 (15-pinHD) Female • HDMI: HDMI Female • RS-232 IN: RJ-45 Jack • RS-232 OUT: RJ-45 Jack (Power and Differential HD Video) 5-Position: Color Space, Updating and Future Use
USB Interface Network Interface Streaming Protocols Connectors Dip Switches H.264 Resolutions	USB 2.0 (MJPEG): Resolution up to 720p/30 (USB 2.0 MJPEG) H.264 (IP) of Ethernet: Resolution up to 1080p/30 (H.264 over IP Analog Component (YPbPr): Resolution up to 1080p/59.94 HDMI: Resolution up to 1080p/59.94 Connector: Type-B, USB 2.0 Compliant, Standard UVC (Universal Video Class) Drivers Connector: RJ-45 (shielded), 10/100 Base-T, Supported Protocols: RTSP and HLS Streaming IP: H.264 (RTSP and HLS), USB 2.0: MJPEG (UVC standard drivers) • Power: 5.5mm OD x 2.5mm ID Coaxial Connector • YPbPr: DE-15 (15-pinHD) Female • HDMI: HDMI Female • RS-232 IN: RJ-45 Jack • RS-232 OUT: RJ-45 Jack • EZ-Power Video: RJ-45 Jack (Power and Differential HD Video) 5-Position: Color Space, Updating and Future Use CIF, 640x480 (VGA), 480p, 720p/30 1080p/30 (1080p Ethernet only)
USB Interface Network Interface Streaming Protocols Connectors Dip Switches H.264 Resolutions Front Panel	USB 2.0 (MJPEG): Resolution up to 720p/30 (USB 2.0 MJPEG) H.264 (IP) of Ethernet: Resolution up to 1080p/30 (H.264 over IP Analog Component (YPbPr): Resolution up to 1080p/59.94 HDMI: Resolution up to 1080p/59.94 Connector: Type-B, USB 2.0 Compliant, Standard UVC (Universal Video Class) Drivers Connector: RJ-45 (shielded), 10/100 Base-T, Supported Protocols: RTSP and HLS Streaming IP: H.264 (RTSP and HLS), USB 2.0: MJPEG (UVC standard drivers) • Power: 5.5mm OD x 2.5mm ID Coaxial Connector • YPbPr: DE-15 (15-pinHD) Female • HDMI: HDMI Female • RS-232 IN: RJ-45 Jack • RS-232 OUT: RJ-45 Jack • EZ-Power Video: RJ-45 Jack (Power and Differential HD Video) 5-Position: Color Space, Updating and Future Use CIF, 640x480 (VGA), 480p, 720p/30 1080p/30 (1080p Ethernet only) • 20 x 2 line Character Negative Mode LCD - Displays MAC (HW for Hardware) and IP Address
USB Interface Network Interface Streaming Protocols Connectors Dip Switches H.264 Resolutions Front Panel	USB 2.0 (MJPEG): Resolution up to 720p/30 (USB 2.0 MJPEG) H.264 (IP) of Ethernet: Resolution up to 1080p/30 (H.264 over IP Analog Component (YPbPr): Resolution up to 1080p/59.94 HDMI: Resolution up to 1080p/59.94 Connector: Type-B, USB 2.0 Compliant, Standard UVC (Universal Video Class) Drivers Connector: RJ-45 (shielded), 10/100 Base-T, Supported Protocols: RTSP and HLS Streaming IP: H.264 (RTSP and HLS), USB 2.0: MJPEG (UVC standard drivers) • Power: 5.5mm OD x 2.5mm ID Coaxial Connector • YPbPr: DE-15 (15-pinHD) Female • HDMI: HDMI Female • RS-232 IN: RJ-45 Jack • RS-232 OUT: RJ-45 Jack (Power and Differential HD Video) 5-Position: Color Space, Updating and Future Use CIF, 640x480 (VGA), 480p, 720p/30 1080p/30 (1080p Ethernet only) • 20 x 2 line Character Negative Mode LCD - Displays MAC (HW for Hardware) and IP Address • Power/System Reset - Tactile, flush mount, Back-lit Switch
USB Interface Network Interface Streaming Protocols Connectors Dip Switches H.264 Resolutions Front Panel	 USB 2.0 (MJPEG): Resolution up to 720p/30 (USB 2.0 MJPEG) H.264 (IP) of Ethernet: Resolution up to 1080p/30 (H.264 over IP Analog Component (YPbPr): Resolution up to 1080p/59.94 HDMI: Resolution up to 1080p/59.94 Connector: Type-B, USB 2.0 Compliant, Standard UVC (Universal Video Class) Drivers Connector: RJ-45 (shielded), 10/100 Base-T, Supported Protocols: RTSP and HLS Streaming IP: H.264 (RTSP and HLS), USB 2.0: MJPEG (UVC standard drivers) Power: 5.5mm OD x 2.5mm ID Coaxial Connector YPbPr: DE-15 (15-pinHD) Female HDMI: HDMI Female RS-232 IN: RJ-45 Jack EZ-Power Video: RJ-45 Jack (Power and Differential HD Video) 5-Position: Color Space, Updating and Future Use CIF, 640x480 (VGA), 480p, 720p/30 1080p/30 (1080p Ethernet only) 20 x 2 line Character Negative Mode LCD - Displays MAC (HW for Hardware) and IP Address Power/System Reset - Tactile, flush mount, Back-lit Switch Network LED: Indicates connectivity and activity
USB Interface Network Interface Streaming Protocols Connectors Dip Switches H.264 Resolutions Front Panel	USB 2.0 (MJPEG): Resolution up to 720p/30 (USB 2.0 MJPEG) H.264 (IP) of Ethernet: Resolution up to 1080p/30 (H.264 over IP Analog Component (YPbPr): Resolution up to 1080p/59.94 HDMI: Resolution up to 1080p/59.94 Connector: Type-B, USB 2.0 Compliant, Standard UVC (Universal Video Class) Drivers Connector: RJ-45 (shielded), 10/100 Base-T, Supported Protocols: RTSP and HLS Streaming IP: H.264 (RTSP and HLS), USB 2.0: MJPEG (UVC standard drivers) Power: 5.5mm OD x 2.5mm ID Coaxial Connector YPbPr: DE-15 (15-pinHD) Female HDMI: HDMI Female RS-232 IN: RJ-45 Jack RS-232 OUT: RJ-45 Jack (Power and Differential HD Video) 5-Position: Color Space, Updating and Future Use CIF, 640x480 (VGA), 480p, 720p/30 1080p/30 (1080p Ethernet only) 20 x 2 line Character Negative Mode LCD - Displays MAC (HW for Hardware) and IP Address Power/System Reset - Tactile, flush mount, Back-lit Switch Network LED: Indicates connectivity and activity USB LED: Indicates Streaming Mode
USB Interface Network Interface Streaming Protocols Connectors Dip Switches H.264 Resolutions Front Panel Supported Media Players	USB 2.0 (MJPEG): Resolution up to 720p/30 (USB 2.0 MJPEG) H.264 (IP) of Ethernet: Resolution up to 1080p/30 (H.264 over IP Analog Component (YPbPr): Resolution up to 1080p/59.94 HDMI: Resolution up to 1080p/59.94 Connector: Type-B, USB 2.0 Compliant, Standard UVC (Universal Video Class) Drivers Connector: RJ-45 (shielded), 10/100 Base-T, Supported Protocols: RTSP and HLS Streaming IP: H.264 (RTSP and HLS), USB 2.0: MJPEG (UVC standard drivers) • Power: 5.5mm OD x 2.5mm ID Coaxial Connector • YPbPr: DE-15 (15-pinHD) Female • HDMI: HDMI Female • RS-232 IN: RJ-45 Jack • RS-232 OUT: RJ-45 Jack • EZ-Power Video: RJ-45 Jack (Power and Differential HD Video) 5-Position: Color Space, Updating and Future Use CIF, 640x480 (VGA), 480p, 720p/30 1080p/30 (1080p Ethernet only) • 20 x 2 line Character Negative Mode LCD - Displays MAC (HW for Hardware) and IP Address • Power/System Reset - Tactile, flush mount, Back-lit Switch • Network LED: Indicates connectivity and activity • USB LED: Indicates Streaming Mode • Quick-Time Media Play - Win 7 & Mac OS10X
USB Interface Network Interface Streaming Protocols Connectors Dip Switches H.264 Resolutions Front Panel Supported Media Players	USB 2.0 (MJPEG): Resolution up to 720p/30 (USB 2.0 MJPEG) H.264 (IP) of Ethernet: Resolution up to 1080p/30 (H.264 over IP Analog Component (YPbPr): Resolution up to 1080p/59.94 HDMI: Resolution up to 1080p/59.94 Connector: Type-B, USB 2.0 Compliant, Standard UVC (Universal Video Class) Drivers Connector: RJ-45 (shielded), 10/100 Base-T, Supported Protocols: RTSP and HLS Streaming IP: H.264 (RTSP and HLS), USB 2.0: MJPEG (UVC standard drivers) • Power: 5.5mm OD x 2.5mm ID Coaxial Connector • YPbPr: DE-15 (15-pinHD) Female • HDMI: HDMI Female • RS-232 IN: RJ-45 Jack • RS-232 OUT: RJ-45 Jack • EZ-Power Video: RJ-45 Jack (Power and Differential HD Video) 5-Position: Color Space, Updating and Future Use CIF, 640x480 (VGA), 480p, 720p/30 1080p/30 (1080p Ethernet only) • 20 x 2 line Character Negative Mode LCD - Displays MAC (HW for Hardware) and IP Address • Power/System Reset - Tactile, flush mount, Back-lit Switch • Network LED: Indicates connectivity and activity • USB LED: Indicates Streaming Mode • Quick-Time Media Play - Win 7 & Mac OS10X • VLC Media Player - Win 7 & Mac OS10X
USB Interface Network Interface Streaming Protocols Connectors Dip Switches H.264 Resolutions Front Panel Supported Media Players	USB 2.0 (MJPEG): Resolution up to 720p/30 (USB 2.0 MJPEG) H.264 (IP) of Ethernet: Resolution up to 1080p/30 (H.264 over IP Analog Component (YPbPr): Resolution up to 1080p/59.94 Connector: Type-B, USB 2.0 Compliant, Standard UVC (Universal Video Class) Drivers Connector: RJ-45 (shielded), 10/100 Base-T, Supported Protocols: RTSP and HLS Streaming IP: H.264 (RTSP and HLS), USB 2.0: MJPEG (UVC standard drivers) • Power: 5.5mm OD x 2.5mm ID Coaxial Connector • YPbPr: DE-15 (15-pinHD) Female • HDMI: HDMI Female • RS-232 IN: RJ-45 Jack • RS-232 OUT: RJ-45 Jack (Power and Differential HD Video) 5-Power Video: RJ-45 Jack (Power and Differential HD Video) 5-Position: Color Space, Updating and Future Use CIF, 640x480 (VGA), 480p, 720p/30 1080p/30 (1080p Ethernet only) • 20 x 2 line Character Negative Mode LCD - Displays MAC (HW for Hardware) and IP Address • Power/System Reset - Tactile, flush mount, Back-lit Switch • Network LED: Indicates connectivity and activity • USB LED: Indicates Streaming Mode • Quick-Time Media Play - Win 7 & Mac OS10X • VLC Media Player - Win 7 • Network LED: Indicates Streaming Mode • Quick-Time Media Play - Win 7 • Network LED: Indicates Streaming Mode • Quick-Time Media Play - Win 7 & Mac OS10
USB Interface Network Interface Streaming Protocols Connectors Dip Switches H.264 Resolutions Front Panel Supported Media Players Supported Browsers	USB 2.0 (MJPEG): Resolution up to 720p/30 (USB 2.0 MJPEG) H.264 (IP) of Ethernet: Resolution up to 1080p/30 (H.264 over IP Analog Component (YPbPr): Resolution up to 1080p/59.94 Connector: Type-B, USB 2.0 Compliant, Standard UVC (Universal Video Class) Drivers Connector: RJ-45 (shielded), 10/100 Base-T, Supported Protocols: RTSP and HLS Streaming IP: H.264 (RTSP and HLS), USB 2.0: MJPEG (UVC standard drivers) • Power: 5.5mm OD x 2.5mm ID Coaxial Connector • YPbPr: DE-15 (15-pinHD) Female • HDMI: HDMI Female • RS-232 IN: RJ-45 Jack • RS-232 UT: RJ-45 Jack (Power and Differential HD Video) 5-Power Video: RJ-45 Jack (Power and Differential HD Video) 5-Position: Color Space, Updating and Future Use CIF, 640x480 (VGA), 480p, 720p/30 1080p/30 (1080p Ethernet only) • 20 x 2 line Character Negative Mode LCD - Displays MAC (HW for Hardware) and IP Address • Power/System Reset - Tactile, flush mount, Back-lit Switch • Network LED: Indicates connectivity and activity • USB LED: Indicates Streaming Mode • Quick-Time Media Play - Win 7 & Mac OS10X • VLC Media Player - Win 7 & Mac OS10X • VLC Media Player - Win 7 • Internet Explorer • Safari
USB Interface Network Interface Streaming Protocols Connectors Dip Switches H.264 Resolutions Front Panel Supported Media Players Supported Browsers	USB 2.0 (MJPEG): Resolution up to 720p/30 (USB 2.0 MJPEG) H.264 (IP) of Ethernet: Resolution up to 1080p/30 (H.264 over IP Analog Component (YPbPr): Resolution up to 1080p/59.94 Connector: Type-B, USB 2.0 Compliant, Standard UVC (Universal Video Class) Drivers Connector: RJ-45 (shielded), 10/100 Base-T, Supported Protocols: RTSP and HLS Streaming IP: H.264 (RTSP and HLS), USB 2.0: MJPEG (UVC standard drivers) Power: 5.5mm OD x 2.5mm ID Coaxial Connector YPbPr: DE-15 (15-pinHD) Female HDMI: HDMI Female RS-232 IN: RJ-45 Jack RS-232 OUT: RJ-45 Jack RS-232 OUT: RJ-45 Jack (Power and Differential HD Video) 5-Position: Color Space, Updating and Future Use CIF, 640x480 (VGA), 480p, 720p/30 1080p/30 (1080p Ethernet only) 20 x 2 line Character Negative Mode LCD - Displays MAC (HW for Hardware) and IP Address Power/System Reset - Tactile, flush mount, Back-lit Switch Network LED: Indicates Streaming Mode Quick-Time Media Play - Win 7 & Mac OS10X VLC Media Player - Win 7 & Mac OS10X VLC Media Player - Win 7 Internet Explorer Safari
USB Interface Network Interface Streaming Protocols Connectors Dip Switches H.264 Resolutions Front Panel Supported Media Players Supported Browsers	USB 2.0 (MJPEG): Resolution up to 720p/30 (USB 2.0 MJPEG) H.264 (IP) of Ethernet: Resolution up to 1080p/30 (H.264 over IP Analog Component (YPbPr): Resolution up to 1080p/59.94 Connector: Type-B, USB 2.0 Compliant, Standard UVC (Universal Video Class) Drivers Connector: RJ-45 (shielded), 10/100 Base-T, Supported Protocols: RTSP and HLS Streaming IP: H.264 (RTSP and HLS), USB 2.0: MJPEG (UVC standard drivers) Power: 5.5mm OD x 2.5mm ID Coaxial Connector YPbPr: DE-15 (15-pinHD) Female HDMI: HDMI Female RS-232 IN: RJ-45 Jack EZ-Power Video: RJ-45 Jack EZ-Power Video: RJ-45 Jack (Power and Differential HD Video) 5-Position: Color Space, Updating and Future Use CIF, 640x480 (VGA), 480p, 720p/30 1080p/30 (1080p Ethernet only) 20 x 2 line Character Negative Mode LCD - Displays MAC (HW for Hardware) and IP Address Power/System Reset - Tactile, flush mount, Back-lit Switch Network LED: Indicates Connectivity and activity USB LED: Indicates Streaming Mode Quick-Time Media Play - Win 7 & Mac OS10X VLC Media Player - Win 7 Internet Explorer Safari Safari Safari/IOS Chrome
USB Interface Network Interface Streaming Protocols Connectors Dip Switches H.264 Resolutions Front Panel Supported Media Players Supported Browsers	USB 2.0 (MJPEG): Resolution up to 720p/30 (USB 2.0 MJPEG) H.264 (IP) of Ethernet: Resolution up to 1080p/30 (H.264 over IP Analog Component (YPbPr): Resolution up to 1080p/59.94 HDMI: Resolution up to 1080p/59.94 Connector: Type-B, USB 2.0 Compliant, Standard UVC (Universal Video Class) Drivers Connector: RJ-45 (shielded), 10/100 Base-T, Supported Protocols: RTSP and HLS Streaming IP: H.264 (RTSP and HLS), USB 2.0: MJPEG (UVC standard drivers) Power: 5.5mm OD x 2.5mm ID Coaxial Connector YPbPr: DE-15 (15-pinHD) Female HDMI: HDMI Female RS-232 IN: RJ-45 Jack RS-232 UT: RJ-45 Jack EZ-Power Video: RJ-45 Jack (Power and Differential HD Video) 5-Position: Color Space, Updating and Future Use CIF, 640x480 (VGA), 480p, 720p/30 1080p/30 (1080p Ethernet only) 20 x 2 line Character Negative Mode LCD - Displays MAC (HW for Hardware) and IP Address Power/System Reset - Tactile, flush mount, Back-lit Switch Network LED: Indicates connectivity and activity USB LED: Indicates Streaming Mode Quick-Time Media Player - Win 7 & Mac OS10X VLC Media Player - Win 7 & Mac OS10X Real Player - Win 7 Internet Explorer Safari/OS Chrome Firefox
USB Interface Network Interface Streaming Protocols Connectors Dip Switches H.264 Resolutions Front Panel Supported Media Players Supported Browsers Power Supply Dimensions (H x W x D)	USB 2.0 (MJPEG): Resolution up to 720p/30 (USB 2.0 MJPEG) H.264 (IP) of Ethernet: Resolution up to 1080p/30 (H.264 over IP Analog Component (YPbPr): Resolution up to 1080p/59.94 HDMI: Resolution up to 1080p/59.94 Connector: Type-B, USB 2.0 Compliant, Standard UVC (Universal Video Class) Drivers Connector: RTSP and HLS), USB 2.0: MJPEG (UVC standard drivers) Power: 5.5mm OD x 2.5mm ID Coaxial Connector YPbPr: DE-15 (15-pinHD) Female HDMI: HDMI Female RS-232 IN: RJ-45 Jack RS-232 IN: RJ-45 Jack EZ-Power Video: RJ-45 Jack (Power and Differential HD Video) 5-Position: Color Space, Updating and Future Use CIF, 640x480 (VGA), 480p, 720p/30 1080p/30 (1080p Ethernet only) 20 x 2 line Character Negative Mode LCD - Displays MAC (HW for Hardware) and IP Address Power/System Reset - Tactile, flush mount, Back-lit Switch Network LED: Indicates connectivity and activity USB LED: Indicates Streaming Mode Quick-Time Media Play - Win 7 & Mac OS10X VLC Media Player - Win 7 & Mac OS10X VLC Media Player - Win 7 & Mac OS10X Real Player - Win 7 & Mac OS10X Real Player - Win 7 & Mac OS10X VLC Media Player - Win 7 & Mac OS10X Chrome Firefox
Video Outputs USB Interface Network Interface Streaming Protocols Connectors Dip Switches H.264 Resolutions Front Panel Supported Media Players Supported Browsers Power Supply Dimensions (H x W x D) Woight	USB 2.0 (MJPEG): Resolution up to 720p/30 (USB 2.0 MJPEG) H.264 (IP) of Ethernet: Resolution up to 1080p/30 (H.264 over IP Analog Component (YPbP): Resolution up to 1080p/59.94 Connector: Type-B, USB 2.0 Compliant, Standard UVC (Universal Video Class) Drivers Connector: RJ-45 (shielded), 10/100 Base-T, Supported Protocols: RTSP and HLS Streaming IP: H.264 (RTSP and HLS), USB 2.0: MJPEG (UVC standard drivers) Power: 5.5mm OD x 2.5mm ID Coaxial Connector YPbPr: DE-15 (15-pinHD) Female HDMI: HDMI Female RS-232 IN: RJ-45 Jack RS-232 OUT: RJ-45 Jack EZ-Power Video: RJ-45 Jack (Power and Differential HD Video) 5-Position: Color Space, Updating and Future Use CIF, 640x480 (VGA), 480p, 720p/30 1080p/30 (1080p Ethernet only) 20 x 2 line Character Negative Mode LCD - Displays MAC (HW for Hardware) and IP Address Power/System Reset - Tactile, flush mount, Back-lit Switch Network LED: Indicates streaming Mode Quick-Time Media Play - Win 7 & Mac OS10X VLC Media Player - Win 7 & Mac OS10X VLC Media Player - Win 7 & Mac OS10X VLC Media Player - Win 7 & Mac OS10X VLC Media Player - Win 7 & Mac OS10X Real Player - Win 7 & Mac OS10X VLC Media Player - Win 7 & Mac OS10X Chrome <tr< th=""></tr<>
USB Interface Network Interface Streaming Protocols Connectors Dip Switches H.264 Resolutions Front Panel Supported Media Players Supported Browsers Power Supply Dimensions (H x W x D) Weight	USB 2.0 (MJPEG): Resolution up to 720p/30 (USB 2.0 MJPEG) H.264 (IP) of Ethernet: Resolution up to 1080p/30 (H.264 over IP Analog Component (YPbPr): Resolution up to 1080p/59.94 HDMI: Resolution up to 1080p/59.94 Connector: RJ-45 (shielded), 10/100 Base-T, Supported Protocols: RTSP and HLS Streaming IP: H.264 (RTSP and HLS), USB 2.0: MJPEG (UVC standard drivers) Power: 5.5mm OD x 2.5mm ID Coaxial Connector YPbPr: DE-15 (15-pinHD) Female HDMI: HDMI Female RS-232 OUT: RJ-45 Jack EZ-Power Video: RJ-45 Jack EZ-Power Video: RJ-45 Jack (Power and Differential HD Video) 5-Position: Color Space, Updating and Future Use CIF, 640x480 (VGA), 480p, 720p/30 1080p/30 (1080p Ethernet only) 2 20 x 2 line Character Negative Mode LCD - Displays MAC (HW for Hardware) and IP Address Power/System Reset - Tactile, flush mount, Back-lit Switch Network LED: Indicates connectivity and activity USB LED: Indicates Streaming Mode Quick-Time Media Play - Win 7 & Mac OS10X VLC Media Player - Win 7 & Mac OS10X VLC Media Player - Win 7 Internet Explorer Safari Safari Safari Safari Safari Safari



COMPLIANCE AND CE DECLARATION OF CONFORMITY - ZOOMSHOT

Compliance testing was performed to the following regulations:

- FCC Part 15 (15.107, 15.109), Subpart B
- ICES-003, Issue 4: 2004
- EN 55022 A: 2006 + A1: 2007
- KN22 2008 (CISPR 22: 2006)
- KN24 2008 (CISPR 24: 1997 + A1: 2000 + A2: 2002)
- EMC Directive 2004/108/EC
- EN 55024: A2: 2003



FCC Part 15 Compliance

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15, Subpart B, of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his/her own expense.

Operation is subject to the following two conditions: (1) This device may not cause interference, and (2) This device must accept any interference including interference that may cause undesired operation of the device.

Changes or modifications not expressly approved by Vaddio can affect emission compliance and could void the user's authority to operate this equipment.



ICES-003 Compliance

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

Le présent appareil numérique n'emet pas de bruits radioélectriques dépassant les limites applicables aux appareils numeriques de la classe A préscrites dans le Règlement sur le brouillage radioélectrique édicte par le ministère des Communications du Canada.

CE European Compliance

This product has been evaluated for Electromagnetic Compatibility under the EMC Directive for Emissions and Immunity and meets the requirements for a Class A digital device. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Standard(s) To Which Conformity Is Declared: EMC Directive 2004/108/EC EN 55022 A: 2006 + A1: 2007(CISPR 22:2005/A1:2005) EN 55024: A2: 2003 • EN 61000-4-2: 1995 + Amendments A1: 1998 + A2: 2001 • EN 61000-4-3: 2006 + A1: 2008 • EN 61000-4-4: 2004 + Corrigendum 2006 • EN 61000-4-5: 2006 • EN 61000-4-6: 2009 • EN 61000-4-8: 2010 • EN 61000-4-11: 2004 KN24 2008 (CISPR 24: 1997 + A1: 2000 + A2: 2002)

- EN 61000-4-2
- EN 61000-4-3
- EN 61000-4-4
- EN 61000-4-5
- EN 61000-4-6
- EN 61000-4-8
- EN 61000-4-11

IEC 60950-1:2005 (2nd Edition); Am 1:2009 EN 60950-1:2006+A11:2009+A1:2010+A12:2011 Class A Immunity Electrostatic Discharge Radiated Immunity Electrical Fast Transients Surge Immunity **Conducted Immunity** Power Frequency Magnetic Field Voltage Dips, Interrupts and Fluctuations **IT Immunity Characteristics** Electrostatic Discharge Radiated Immunity **Electrical Fast Transients** Surge Immunity Conducted Immunity Power Frequency Magnetic Field Voltage Dips, Interrupts and Fluctuations Safety Safety



Class A

COMPLIANCE AND CE DECLARATION OF CONFORMITY, QUICK-CONNECT USB INTERFACE Compliance testing was performed to the following regulations:

- FCC Part 15 (15.107, 15.109), Subpart B
- ICES-003, Issue 4: 2004
- EN 55022 A: 2006 + A1: 2007
- EMC Directive 2004/108/EC
- EN 55024: A2: 1998 + Amendments A1: 2001 + A2: 2003

FC

FCC Part 15 Compliance

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15, Subpart B, of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his/her own expense.

Operation is subject to the following two conditions: (1) This device may not cause interference, and (2) This device must accept any interference including interference that may cause undesired operation of the device. Changes or modifications not expressly approved by Vaddio can affect emission compliance and could void the user's authority to operate this equipment.

Industry Industrie Canada Canada

ICES-003 Compliance

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

Le présent appareil numérique n'emet pas de bruits radioélectriques dépassant les limites applicables aux appareils numeriques de la classe A préscrites dans le Règlement sur le brouillage radioélectrique édicte par le ministère des Communications du Canada.

C E European Compliance

This product has been evaluated for Electromagnetic Compatibility under the EMC Directive for Emissions and Immunity and meets the requirements for a Class A digital device. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Standard(s) To Which Conformity Is Declared: EMC Directive 2004/108/EC EN 55022 A: 2006 + A1: 2007(CISPR 22:2005/A1:2005) EN 55024: A2: 1998 + Amendments A1: 2001 + A2: 2003

- EN 61000-4-2: 1995 + Amendments A1: 1998 + A2: 2001
- EN 61000-4-3: 2006 + A1: 2008
- EN 61000-4-4: 2004 + Corrigendum 2006
- EN 61000-4-5: 2006
- EN 61000-4-6: 2009
- EN 61000-4-8: 2010
- EN 61000-4-11: 2004

IEC 60950-1: 2005 2nd Edition); AM 1: 2009 EN 60950-1: 2006 + A11: 2009 + A1: 2010 + A12:2011 Class A Immunity Electrostatic Discharge Radiated Immunity Electrical Fast Transients Surge Immunity Conducted Immunity Power Frequency Magnetic Field Voltage Dips, Interrupts and Fluctuations Safety Safety







WARRANTY INFORMATION

(See Vaddio Warranty, Service and Return Policies posted on vaddio.com for complete details):

Hardware* Warranty: Two (2) year limited warranty on all parts and labor for Vaddio manufactured products. Vaddio warrants its manufactured products against defects in materials and workmanship for a period of two years from the day of purchase, to the original purchaser, if Vaddio receives notice of such defects during the warranty. Vaddio, at its option, will repair or replace products that prove to be defective. Vaddio manufactures its hardware products from parts and components that are new or equivalent to new in accordance with industry standard practices.

Exclusions: The above warranty shall not apply to defects resulting from improper or inadequate maintenance by the customer, customers applied software or interfacing, unauthorized modifications or misuse, mishandling, operation outside the normal environmental specifications for the product, use of the incorrect power supply, modified power supply or improper site operation and maintenance. OEM products and products manufactured by other companies are excluded and are covered by the manufacturer's warranty.

Vaddio Customer Service: Vaddio will test, repair, or replace the product or products without charge if the unit is under warranty. If the product is out of warranty, Vaddio will test then repair the product or products. The cost of parts and labor charge will be estimated by a technician and confirmed by the customer prior to repair. All components must be returned for testing as a complete unit. Vaddio will not accept responsibility for shipment after it has left the premises.

Vaddio Technical Support: Vaddio technicians will determine and discuss with the customer the criteria for repair costs and/or replacement. Vaddio Technical Support can be contacted through one of the following resources: e-mail support at support@vaddio.com or online at vaddio.com.

Return Material Authorization (RMA) Number: Before returning a product for repair or replacement request an RMA from Vaddio's technical support. Provide the technician with a return phone number, e-mail address, shipping address, product serial numbers and original purchase order number. Describe the reason for repairs or returns as well as the date of purchase. See the General RMA Terms and Procedures section for more information. RMA's are valid for 30 days and will be issued to Vaddio dealers only. End users must return products through Vaddio dealers. Include the assigned RMA number in all correspondence with Vaddio. Write the assigned RMA number clearly on the shipping label of the box when returning the product. All products returned for credit are subject to a restocking charge without exception.

Voided Warranty: The warranty does not apply if the original serial number has been removed or if the product has been disassembled or damaged through misuse, accident, modifications, use of incorrect power supply, use of a modified power supply or unauthorized repair.

Shipping and Handling: Vaddio will not pay for inbound shipping transportation or insurance charges or accept any responsibility for laws and ordinances from inbound transit. Vaddio will pay for outbound shipping, transportation, and insurance charges for all items under warranty but will not assume responsibility for loss and/or damage by the outbound freight carrier. If the return shipment appears damaged, retain the original boxes and packing material for inspection by the carrier. *Contact your carrier immediately.*

Products not under Warranty: Payment arrangements are required before outbound shipment for all out of warranty products.

Other General Information:

Care and Cleaning

Do not attempt to take this product apart at any time. There are no user-serviceable components inside.

- Do not spill liquids in the product
- Keep this device away from food and liquid
- For smears or smudges on the product, wipe with a clean, soft cloth
- Use a lens cleaner on the lens really, only use a lens cleaner
- Do not use any abrasive chemicals.

Operating and Storage Conditions:

Do not store or operate the device under the following conditions:

- Temperatures above 40°C (104°F) or temperatures below 0°C (32°F)
- High humidity, condensing or wet environments
- In inclement weather
- In swimming pools or drainage culverts
- Dry environments with an excess of static discharge
- In outer space (radiation and gamma ray problem)
- Under severe vibration

APPENDIX 1: PIN-OUTS FOR ZOOMSHOT CAMERA AND QUICK-CONNECT USB Table: EZ-POWER VIDEO RJ-45 Connector Pin-outs

EZ-POWER VIDEO PORT (Highlighted in Red)

Pin	Signal	
1	Power+	
2	Power-	
3	Y+	
4	PB+	
5	PB -	
6	Y -	
7	PR+	
8	PR-	







Important Note: The EZ-POWER VIDEO RJ-45 Connector on a Vaddio CAT-5 system camera is for use with the Quick-Connect SR, Quick-Connect DVI/HDMI SR, Quick-Connect USB and USB Mini Interfaces ONLY (568B Wiring Standard). The video signals are differential (HSDS) and can only be processed by the interfaces above.

Table: ZoomSHOT Camera RS-232 Port

Pin #	Function
Pin - 1	N/A
Pin - 2	N/A
Pin - 3	N/A
Pin - 4	Not Used with QC-USB
Pin - 5	Not Used with QC-USB
Pin - 6	Digital GND
Pin - 7	RXD (from TXD of control source)
Pin - 8	TXD (to RXD of control source)



Table: Quick-Connect USB DE-15 Pin-Output (Analog Component YPbPr)

Pin	YPbPr	
1	Pr	
2	Y	
3	Pb	
4	-	
5	-	
6	Pr GND	
7	Y GND	
8	Pb GND	
9	-	
10	GND	
11	-	
12	-	
13	-	
14	-	
15	-	





COMMUNICATION SPECIFICATION Communication Speed: 9600 bps (default) Start bit: 1 Stop bit: 1 Data bits: 8 Parity: None No Flow control



RJ-45 RS-232 and IR Out Pins Unused Unused IR Output (Diff Signal used with Quick-Connect SR) IR Ground (Diff Signal used with Quick-Connect SR) GND (GND of IR Short Range - Pin 3) RXD (from TXD of control source) TXD (to RXD of control source)

NOTE: The Vaddio ZoomSHOT control protocol is similar to, but not identical to the Sony® VISCA[™] command set in order to be compatible with several popular control devices. Not all VISCA commands are supported and there are ZoomSHOT specific commands in the following Command and Inquiry Lists.

ZoomSHOT Command List (1/2)

Command Set	Command	Command Packet	Comments
Address Set	Broadcast	88 30 01 FF	Address Set (Daisy chain)
IF Clear	Broadcast	88 01 00 01 FF	IF Clear
Command Cancel		8x 2p FF	p:socket number(1.2)
CAM Power	On	8x 01 04 00 02 FF	Power On/Off
	Off(Standby)	8x 01 04 00 03 FF	
CAM Zoom	Stop	8x 01 04 07 00 FF	
	Tele(Standard)	8x 01 04 07 02 FF	
	Wide(Standard)	8x 01 04 07 03 FF	p:(0-Slow to 7-Fast)
	Tele(Variable)	8x 01 04 07 2p FF	
	Wide(Variable)	8x 01 04 07 3p FF	
	Direct	8x 01 04 47 00 0p 0q 0r FF	pqrs: Zoom Position*
	Direct(Variable)	8x 01 7E 01 4A 0v 0p 0q 0r 0s FF	v: zoom speed
CAM_Focus	Stop	8x 01 04 08 00 FF	
	Far(Standard)	8x 01 04 08 02 FF	
	Near(Standard)	8x 01 04 08 03 FF	
	Far(Variable)	8x 01 04 08 2p FF	
	Near(Variable)	8x 01 04 08 3p FF	
	AutoFocus	8x 01 04 38 02 FF	
	ManualFocus	8x 01 04 38 03 FF	
	Auto/Manual	8x 01 04 38 10 FF	
	Direct	8x 01 04 48 0p 0q 0r 0s FF	pqrs: Focus position*
CAM_WB	Auto	8x 01 04 35 00 FF	Normal Auto (Auto Tracing WB)
	Manual	8x 01 04 35 05FF	Manual White Balance
	One Push WB	8x 01 04 35 03 FF	One Push White Balance Mode
CAM_RGain	Reset	8x 01 04 03 00 FF	
	Up	8x 01 04 03 02 FF	
	Down	8x 01 04 03 03 FF	
	Direct	8x 01 04 43 0p 0q 0r 0s FF	pqrs:00-ffff
CAM_BGain	Reset	8x 01 04 04 00 FF	
	Up	8x 01 04 04 02 FF	
	Down	8x 01 04 04 03 FF	
	Direct	8x 01 04 44 0p 0q 0r 0s FF	pqrs:00-ffff
CAM_AE	Full Auto	8x 01 04 39 00 FF	Auto Exposure Mode
	Manual	8x 01 04 39 03 FF	Manual Control Mode
CAM_Iris	Reset	8x 01 04 0B 00 FF	
	Up	8x 01 04 0B 02 FF	
	Down	8x 01 04 0B 03 FF	
	Direct	8x 01 04 4B 00 00 0p 0q FF	pq(0x00-0x11)
CAM_Gain	Reset	8x 01 04 0C 00 FF	
	Up	8x 01 04 0C 02 FF	
	Down	8x 01 04 0C 03 FF	
	Direct	8x 01 04 4C 00 00 0p 0q FF	pq(0x00-0x11)
CAM_Bright	Reset	8x 01 04 0D 00 FF	
	Up	8x 01 04 0D 02 FF	
	Down	8x 01 04 0D 03 FF	
	Direct	8x 01 04 4D 00 00 0p 0q FF	pq(0x00-0x24)
CAM_Backlight	Un Off	8X 01 04 33 02 FF	
		8X 01 04 33 03 FF	
CAM_Aperture	Reset	8X 01 04 02 00 FF	
	Up	8X 01 04 02 02 FF	
	Down	8X 01 04 02 03 FF	
	Direct	8x 01 04 42 00 00 0p 0q FF	pq(0x00-0x1F)



ZoomSHOT Command List (2/2)

Command Set	Command	Command Packet	Comments
CAM_Memory	Reset	8x 01 04 3F 00 0p FF	
-	Set	8x 01 04 3F 01 0p FF	
	Recall	8x 01 04 3F 02 0p FF	p:Memory No(=0-0xF)
CAM_IDWrite		8x 01 04 22 0p 0q 0r 0s FF	pqrs:0x0000 – 0xFFFF
IR_Receive	On	8x 01 06 08 02 FF	
	Off	8x 01 06 08 03 FF	
CAM_LR_Reverse	On	8x 01 04 61 02 FF	Mirror (Horizontal) on
	Off	8x 01 04 61 03 FF	Mirror (Horizontal) off
CAM_Freeze	On	8x 01 04 62 02 FF	Still image on
	Off	8x 01 04 62 03 FF	
CAM_PictureEffect	Color	8x 01 04 63 00 FF	
	B&W	8x 01 04 63 04 FF	
Tally	On	8x 01 7E 01 0A 00 02 FF	
	Off	8x 01 7E 01 0A 00 03 FF	
Preset Zoom Speed	Zoom Speed	81 01 7E 01 0B 00 00 ZZ FF	ZZ:Zoom Speed(0-7);
BLK.Enhance	No support	No support	No support
GMA.Enhance	Gamma	8x 01 7E 54 00 00 0p 0q FF	pq: Gamma (0x00-0x10)
CRM.Enhance	Chroma	8x 01 7E 55 00 00 0p 0q FF	pq: Chroma (0x00-0x64)
KNE.Enhance	Knee	No support	No Support
DIS.Enhance	Digital Image	8x 01 7E 57 02 FF	On
	Stabilizer	8x 01 7E 57 03 FF	Off
SNR.Enhance	Digital Noise	8x 01 7E 58 02 FF	On
	Reduction	8x 01 7E 58 03 FF	Off
AGC.Enhance	AGC Mode	8x 01 7E 59 00 FF	Off
		8x 01 7E 59 01 FF	Low
		8x 01 7E 59 02 FF	Medium
		8x 01 7E 59 03 FF	High
		8x 01 7E 59 04 FF	Manual
CAM_Shutter	Reset	8x 01 04 0A 00 FF	
	Up	8x 01 04 0A 02 FF	
	Down	8x 01 04 0A 03 FF	
	Direct	8x 01 04 4A 00 00 0p 0q FF	pq(0x00-0x23)
CAM_ICR	ICR On	8x 01 04 01 02 FF	ICR On – Cut filter out B&W
	ICR Off	8x 01 04 01 03 FF	ICR Off – Cut filter in Color

*Zoom and Focus Data:

CAM_Zoom: Range(0x000–0x6B3) CAM_Focus: Range (0x0000-0xC000) dependent on Zoom Position



ZoomSHOT Inquiry List (1/1)

Inquiry Command	Command	Response Packet	Comments
CAM_PowerInq	8x 09 04 00 FF	y0 50 02 FF	On
		y0 50 03 FF	Off(Standby)
CAM_ICRModeInq	8x 09 04 01 FF	y0 50 02 FF	On - ICR filter Out
		y0 50 03 FF	Off – ICR filter In
CAM_IDInq	8x 09 04 22 FF	y0 50 0p 0q 0r 0s FF	pqrs:0x0000 – 0xFFFF
CAM_BacklightModeInq	8x 09 04 33 FF	y0 50 02 FF	On
		y0 50 03 FF	Off
CAM_WBModeInq	81 09 04 35 FF	y0 50 00 FF	Auto
		y0 50 05 FF	Manual
		y0 50 03 FF	One Push WB
CAM_FocusModeInq	8x 09 04 38 FF	y0 50 02 FF	Auto
		y0 50 03 FF	Manual
CAM_AEModeInq	8x 09 04 39 FF	y0 50 00 FF	Auto Exposure Mode
		y0 50 03 FF	Manual Control Mode
		90 50 0A FF	Snutter Priority Mode
		y0 50 0B FF	Exposure Priority Mode
CAM_MemoryInq	8X 09 04 3F FF	y0 50 00 FF	p:Preset 0-0xt
CAM_ApertureInq	8x 09 04 42 FF	y0 50 00 00 0p 0q FF	Pq:x00-0x1F
CAM_RGain	8x 09 04 43 FF	y0 50 0p 0q 0r 0s FF	pqrs:00-ffff
	8X 09 04 44 FF	yu 50 up uq ur us FF	pqrs:00-mf
CAM_ZoomPosing	8x 09 04 47 FF	y0 50 00 0p 0q 0r FF	pdr(0x00-0x6B3)
CAM_FocusPosInq	8x 09 04 48 FF	y0 50 0p 0q 0r 0s FF	pqrs: Focus Position
CAM_ShutterPosInq	8x 09 04 4A FF	y0 50 00 00 0p 0q FF	pq(0x00-0x23)
CAM_Iris	8x 09 04 4B FF	y0 50 00 00 0p 0q FF	pq(0x00-0x11)
CAM_Gain	8x 09 04 4C FF	y0 50 00 00 0p 0q FF	pq(0x00-0x24)
CAM_Bright	8x 09 04 4D FF	y0 50 00 00 0p 0q FF	pq(0x01-0x64)
CAM_LR_Reverse	8x 09 04 61 FF	y0 50 02 FF	On
		y0 50 03 FF	Off
CAM_Freeze	8x 09 04 62 FF	y0 50 02 FF	On Off
	0.00.01.00.55	y0 50 03 FF	Off
CAM_PictureEffect	8X 09 04 63 FF	y0 50 00 FF	Off
	000.00.00 FF	y0 50 04 FF	B&W
IR_Receiveind	8X 09 06 08 FF	y0 50 02 FF	Off
Tollydog	8× 00 7E 01 04 EE	y0 50 03 FF	
ranying	0X 09 7E 01 0A FF	y0 50 02 FF	Off
PresetSpeedIng	8× 09 7E 01 0B EE	y0 50 00 m EE	rr:Zoom 0x00-0x07
BLK Enhance	No support	No support	No support
GMA Enhance	8× 09 7E 54 EE	v0.50.00.00.0p.0g.EE	p_{α} : Camma (0x00-0x10)
CRM Enhance	8× 09 7E 55 FE	y0 50 00 00 0p 0q FF	pq: Chroma (0x00-0x10)
KNE Enhance	No support	No Support	No support
DIS Enhance			
DIS.Emilance	0X 09 7E 57 FF	y0 50 02 FF	Off
SNP Enhance	8× 00 7E 58 EE	y0 50 03 FE	
SNR.Enhance	0X 09 7 L 38 FF	y0 50 02 FF	Off
AGC Enhance	8x 00 7E 50 EE	y0 50 00 FF	Off
	0X 09 7E 09 FF	v0 50 01 FF	Low
		v0 50 02 FF	Medium
		v0 50 03 FF	High
		v0 50 04 FF	Manual AGC Gain
		,	



APPENDIX 2 - TELNET SERIAL COMMAND API

The Vaddio Serial Command protocol is a high level text based command line interface supported via telnet session on the Quick-Connect USB. Camera control commands supported on the Quick-Connect USB includes ClearVIEW HD-18, HD-19 and HD-20, PowerVIEW HD-22, HD-30, ZoomSHOT and WideSHOT. The command application protocol interface is intended to allow external device such as AMX or Crestron to control the camera. The protocol is based upon ASCII format following the VT100 terminal emulation standard and uses an intuitive text command nomenclature for ease of use. The API is accessed by a telnet client on the Ethernet port. All ASCII characters will be <u>echoed</u> to terminal program and appended with VT100 string -ESC[J (HEX- 1B 5B 4A). Vaddio Command lines are terminated on carriage return. After the carriage return, the VT100 appends with – ESC[J. (Note: Most terminal programs automatically strip the VT100 string.) General format usage follows a get/set structure. Usage examples for each type are:

Set Example COMMAND: > camera pan right RESPONSE: > OK

Get Example COMMAND: > stream mode get RESPONSE: > streaming mode usb Syntax Error Example COMMAND: > camera pan right RESPONSE: > ERROR

Additional programming controls associated with the terminal protocol includes:

• **CTRL 5** - Clears the current serial buffer on the device.

Telnet sessions will require access verification and uses the same username and password associated with the Administrator account on the embedded web server. The default Telnet Port is 23. Command lines are terminated with a carriage return. **NOTE:** The ZoomSHOT camera will not respond to pan or tilt commands.

Telnet Command List

Camera Home

• NAME

- camera home Move the camera to the home position
- SYNOPSIS
- camera home
- DESCRIPTION
- Method used to move the camera to the home position
- EXAMPLES
- camera home
- Move the camera back to the home position

Camera Pan (not used with ZoomSHOT camera)

NAME camera pan - Pans the camera left or right **SYNOPSIS** camera pan {left|right|stop} [1-24] DESCRIPTION Method used to pan the camera **OPTIONS** left Move the camera left right Move the camera right stop Stop the camera movement **speed** Optional integer from 1-24 that represents the speed (Default: 12) **EXAMPLES** camera pan left Pans the camera left at the default speed camera pan right 20 Pans the camera right using a speed of 20

camera pan stop

Stops the pan movement of the camera



Image: Invigorating simulated Telnet session.



Camera Preset

NAME camera preset - Recall and storing of camera presets SYNOPSIS camera preset {recall|store} [1-6] DESCRIPTION Method used to recall and store camera presets **OPTIONS** recall Recall preset store Store preset preset Required value from 1-6 used to indicate the preset number **EXAMPLES** camera recall 3 Move camera to preset position 3 camera store 1 Store current camera position as preset 1

Camera Tilt (not used with ZoomSHOT camera)

NAME camera tilt - Tilts the camera up or down SYNOPSIS camera tilt {up|down|stop} [1-20] DESCRIPTION Method used to tilt the camera **OPTIONS** up Move the camera up down Move the camera down stop Stop the camera movement speed Optional integer from 1-20 that represents the speed (Default: 10) EXAMPLES camera tilt up Tilts the camera up at the default speed camera tilt down 20 Tilts the camera up using a speed of 20 camera tilt stop Stops the tilt movement of the camera

Camera Zoom

NAME camera zoom - Zoom the camera in or out SYNOPSIS camera zoom {in|out|stop} [1-7] DESCRIPTION Method used to zoom the camera **OPTIONS** in Zoom in out Zoom out stop Stop the camera movement speed Optional integer from 1-7 that represents the speed (Default: 3) **EXAMPLES** camera zoom in Zooms the camera in at the default speed camera zoom out 7 Zooms the camera out using a speed of 7 camera zoom stop Stops the zoom movement of the camera

Camera

NAME

camera - Base command for camera control command. Used in conjunction with control arguments to include home, pan, tilt, zoom, and preset.



Exit

• NAME

exit - ends the current API command session

SYNOPSIS

exit

DESCRIPTION

Exit ends the current API command session. If the session is over telnet, the session is ended and the socket is closed. If the session is over serial, a new session is started.

Help

NAME

help - display an overview of the CLI syntax

SYNOPSIS

help

DESCRIPTION

Display an overview of the command line syntax

History

• NAME history - command history

SYNOPSIS

history [limit]

DESCRIPTION

Since many of the programs read user input a line at a time, the command **history** is used to keep track of these lines and also recall historic information

HISTORY NAVIGATION

The command **history** can be navigated using the up and down arrow keys. The up arrow will move up a single entry in the command **history** while the down arrow moves down in the command **history**.

HISTORY EXPANSION

The command **history** supports the expansion functionality from which previous commands can be recalled from within a single session. History expansion is performed immediately after a complete line is read.

Listed below are examples of history expansion:

* !! Substitute the last command line.

- * IN Substitute the Nth command line (absolute as per 'history' command)
- * !-N Substitute the command line entered N lines before (relative)

• EXAMPLES

history

Displays the current command buffer **history** 5

Sets the history command buffer to remember the last 5 unique entries

Network Ping

• NAME

network ping - send ICMP ECHO_REQUEST to network hosts

SYNOPSIS

network ping [count < count>] [size < size>] <destination-ip>

DESCRIPTION

Use the ICMP protocol's mandatory ECHO_REQUEST datagram to elicit an ICMP ECHO_RESPONSE from a host or gateway. ECHO_REQUEST datagrams have an IP and ICMP header, followed by a struct timeval and then an arbitrary number of pad bytes used to fill out the packet.

• OPTIONS

count Stop after sending *count* ECHO_REQUEST packets. With deadline option, *ping* waits for *count* ECHO_REPLY packets, until the timeout expires. The default is 5.

destination

The destination IP address where the ECHO_REQUESTS are sent

size The data size of the ICMP packet to send. The default is 56 bytes

• EXAMPLES

network ping 192.168.1.1

Attempt to send 5 ICMP ECHO_REQUESTs with data size 56 to the host at 192.168.1.1

network ping count 10 size 100 192.168.1.1

Attempt to send 10 ICMP ECHO_REQUESTs with data size of 100 to the host at 192.168.1.1



Network Settings

NAME network settings - get current network settings SYNOPSIS **network** settings {get} DESCRIPTION Method used to get the current network settings of the device OPTIONS get Get the current network settings for the machine **EXAMPLES** network settings get **MAC Address:** 00:04:a3:85:0a:ee **IP Address:** 10.10.8.116 Netmask: 255.255.255.0 Gateway: 10.10.8.100 Returns the current network settings for mac address, ip address, netmask, and gateway



Network

• NAME

network - Gets the current network settings or pings an IP address

SYNOPSIS

network {settings get | ping [count <count>] [size <size>] <destination-ip>}

DESCRIPTION

Method used to get the current **network** settings or check **network**

OPTIONS

settings

Get the current **network** settings *ping* Send ICMP ECHO_REQUEST to **network** host • **EXAMPLES network** settings *get* Gets the current **network** settings

network *ping count* 1 10.10.10.100 Pings 10.10.10.100 once and displays results

Streaming Mode

NAME streaming mode - Gets or sets the current streaming mode SYNOPSIS streaming mode {get|usb|network} DESCRIPTION Method used to get or set the current streaming settings **OPTIONS** get Get the current streaming mode usb Set the current streaming mode to USB ethernet Set the current streaming mode to Ethernet **EXAMPLES** streaming mode get mode: usb Returns the current streaming mode streaming mode usb ---streaming mode ethernet OK Sets the streaming mode to Ethernet



Streaming Quality

NAME
 streaming quality - Gets or sets the current streaming quality
 SYNOPSIS
 streaming quality {get|low|standard|high}
 DESCRIPTION
 Method used to get or set the current streaming quality
 OPTIONS
 get Get the current streaming quality
 low Set video quality to low
 standard Set video quality to standard
 high Set video quality to high

• EXAMPLES streaming quality get quality:low Returns the current streaming quality ----streaming quality standard OK

Sets the streaming quality to standard

Streaming Resolution

• NAME

streaming resolution - Gets or sets the current streaming quality

SYNOPSIS

streaming resolution {get|1080p|720p|4cif|480p|cif}
DESCRIPTION

Method used to get or set the current streaming resolution

OPTIONS

get Get the current streaming resolution

1080p Set video resolution to 1080p

720p Set video resolution to 720p

720p Set video resolution to 720p 4cif Set video resolution to 4cif 480p Set video resolution to 480p cif Set video resolution to cif • EXAMPLES

• EXAMPLES streaming resolution get

resolution:720p Returns the current streaming resolution ----streaming resolution 720p

OK Sets the streaming resolution to 720p

Streaming

NAME streaming - Gets or sets the current streaming settings SYNOPSIS streaming {mode {get|usb|ethernet}} | resolution {get|1080p|720p|4cif|480p|cif} | guality {get|low|standard|high}} DESCRIPTION . Method used to get or set the current streaming settings OPTIONS mode Get or set the current streaming mode resolution Get or set the current streaming video resolution quality Get or set the current streaming video frame rate and bit rate EXAMPLES streaming mode get mode: usb Returns the current streaming mode streaming mode ethernet Sets the streaming mode to Ethernet ---streaming quality standard Sets the streaming quality to standard streaming resolution 720p Sets the streaming resolution to 720p





System Factory-Reset

NAME system factory-reset - Gets or sets factory reset status SYNOPSIS ٠ system factory-reset {get|on|off} DESCRIPTION Method used to get or set the factory reset status **OPTIONS** • get Get the current factory reset status on Enable factory reset on reboot off Disable factory reset on reboot **EXAMPLES** • system factory-reset get factory-reset (software): off factory-reset (hardware): [Hardware reset is designated by rear panel dip switches in down position] off Returns the factory reset status system factory-reset on

factory-reset (software): on factory-reset (hardware): off Enables factory reset upon reboot

System Reboot

NAME system reboot - Reboots system **SYNOPSIS** system reboot [<seconds>] DESCRIPTION ٠ Method used to reboot system **OPTIONS** seconds The number of seconds to delay the reboot EXAMPLES • reboot Reboot system immediately reboot 30 Reboot the system in 30 seconds

Version

• NAME

version - display the system version information
SYNOPSIS

• S version

DESCRIPTION

Display an overview of the command line syntax

EXAMPLES

Version Returns the current software version



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