VADDIO™ ZOOMSHOT™ WALLVIEW™ SR

High Definition Point of View Camera System with 19X Optical Zoom

Model Number 999-6918-000 (North America)
Model Number 999-6918-001 (International)

Touchboards

205 Westwood Ave, Long Branch, NJ 07740
Phone: 866-94 BOARDS (26273) / (732)-222-1511
Fax: (732)-222-7088 | E-mail: sales@touchboards.com

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OVERVIEW:

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

ZoomSHOT HD is a camera with a unique pedigree. Designed from the ground up, this HD camera uses the Vaddio EZCamera™ Cat-5 wiring standard for video, power and control. Using HSDS™ (high speed differential) video outputs over Cat-5 cable, the ZoomSHOT sports a wide range of video resolutions that are selectable from the rear panel; from 480p/59.94-YPbPr up to and including 1080p/60. The HSDS processing allows delivery of the HD video signals up to 150' (45.72m).

Image: ZoomSHOT HD Camera

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. The ZoomSHOT also has an OSD (on screen display) for easy set-up and basic image control that's accessible with the IR remote. Up to six (6) camera zoom presets can be programmed and recalled via the remote or RS-232 (up to 16 zoom presets with RS-232). IR signal forwarding is also included.

ZoomSHOT is paired with the tried-and-true Quick-Connect SR Interface in this package which represents a super-high value and a very low price. So breathe easy, and try a ZoomSHOT today!

Image: ZoomSHOT Rear Panel

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. The use of a power supply, other than the one provided, or outdoor operation 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.

> ⚠️ **Use only the power supply provided with the system. Use of any unauthorized power supply will void any and all warranties.**

> 🚫 **Please do not use "pass-thru" type RJ-45 connectors. These pass-thru type connectors do not work well for professional installations and can be the cause of intermittent connections which can result in the RS-232 control line failing and locking up, and/or compromising the HSDS (high speed differential) signals. For best results please use standard RJ-45 connectors and test all cables for proper pin-outs prior to use and connection to Vaddio product.**

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 SR Camera System (North America):
Part Number: 999-6918-000
- One (1) ZoomSHOT HD Camera (998-6918-000)
- One (1) Vaddio IR SHOT Commander Remote
- One (1) Quick-Connect SR Interface
- One (1) 3-Position Phoenix-type Connector for IR Forwarding
- One (1) 24 VDC, 2.0 A Power Supply with Power Cord for North America
- One (1) Thin Profile Wall Mount with Mounting Hardware
- One (1) EZCamera™ Control Adapter (RJ-45-F to DB-9-F)
- Documentation

ZoomSHOT WallVIEW SR Camera System (International):
Part Number: 999-6918-001
- One (1) ZoomSHOT HD Camera (998-6918-000)
- One (1) Vaddio IR SHOT Commander Remote
- One (1) Quick-Connect SR Interface
- One (1) 3-Position Phoenix-type Connector for IR Forwarding
- One (1) 24 VDC, 2.0 A Power Supply
- 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

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

1) **Lens:** 19X Optical Zoom Lens
2) **IR Sensor and Power 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 (turns purple on boot up).
3) **The Yoke:** For manual pan and tilt. Tilt range is ± 30° 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 Feature Call-outs
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.

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) 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. See the HD Video Select Rotary Switch Settings are as follows:

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

QUICK-CONNECT SR INTERFACE
Image: Rear Panel with Feature Call-outs
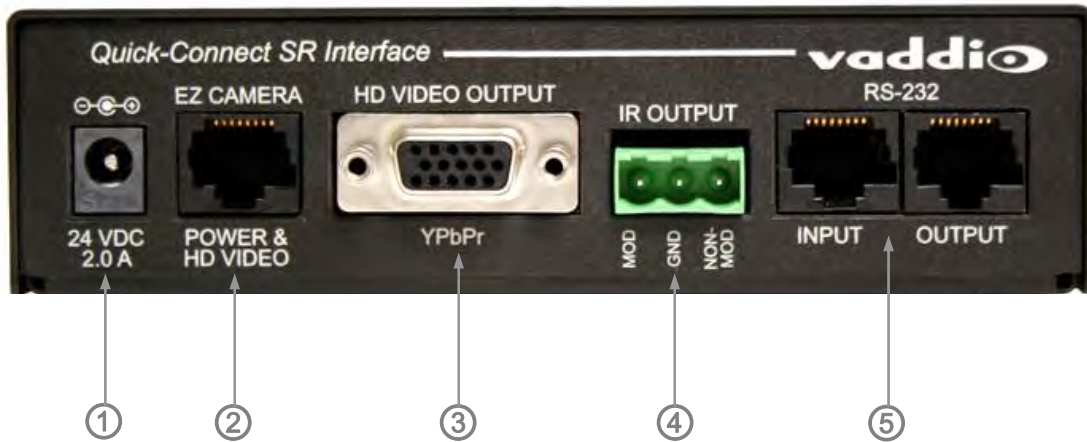
1) Power Input:
5.5mm OD x 2.5mm ID coaxial connector for the provided PowerRite 24 VDC, 2.0 Amp power supply.

2) EZCamera Power & HD Video:
A single Cat-5 connection between the EZCAMERA POWER & HD VIDEO RJ-45 connector and the camera's EZ Power HD Video Port on the HD-19 camera extends power and video. Power is fed to the camera and HSDS video is returned from the camera on the same Cat-5.

3) HD Video Output:
DE-15 connector outputs the YPbPr analog component HD video, which was extended from the camera over Cat-5 cable. SD video resolutions (Y/C and CVBS formats) are not supported by the Quick-Connect SR Interface, however analog component SD video is supported.

4) IR Output:
With the IR pass-thru turned ON (see camera dip switch settings), IR from third-party IR remote controls can be sent through the ZoomSHOT camera to third-party equipment, such as hardware videoconferencing codecs. IR can be used as either modulated (through the air) or non-modulated (wired) signals.

5) RS-232 Input & Output Jacks:
These RJ-45 connectors allow an external controller (beware of upcoming shameless plug) like the ProductionVIEW™ Precision Camera Controller to route through the Quick-Connect SR for ease of cabling.

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 of the connectors on the Quick-Connect and camera.

Before Installing:
- Choose camera mounting location, 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.
- The Thin Profile Wall Mount for the ZoomSHOT can be mounted directly to a 1-gang wall box or can be mounted using only 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 SR Interface. The EZ-POWER VIDEO jack on the camera is highlighted *red* as a reminder that there is 24 VDC power on that Cat-5 cable.

Step By Step 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 SR 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 mounting holes are slotted and are 90° opposing to provide easy leveling. 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 previous pages that identify the choices…maybe keep these tables handy for future use…or you can easily look them up on the Vaddio website (vaddio.com) when needed.
    On the camera:
- Set the desired HD Resolution with the rotary selection switch.
- Set the IR frequency of the camera (if it is to respond to the IR remote control).
- Set the image orientation (normal or flipped).

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

NOTE: Check all Cat-5e cables for continuity in advance of the final connection. Label the Cat-5e 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 ¼"-20 screws to secure the camera to the mount. To dress the cabling, push the extra cable back into the wall opening.

Step 5: Connect the Vaddio 24 VDC, 2.0 Amp power supply to a power outlet and to the Quick Connect SR Interface. Power will travel down the EZ-POWER VIDEO Cat. 5 cable to the camera. The camera will boot up and in a few seconds, HSDS (differential) video will travel back down the Cat-5 cable and be ready to accept control information from the IR remote control or RS-232 camera controller.

To insure proper continuity of control and operation of the cameras, the RS-232 controller (control system or joystick) should be powered on after the camera.

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TOUCHBOARDS

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Image: Basic Wiring Configuration

ZoomSHOT
Rear View

RS-232 & IR
OUT Cat-5

For Zoom &
CCU Control

HSDS (differential) HD Video &
24 VDC Power One (1) Cat-5 Cable

← YPbPr (HSDS differential)

Power →

Rear Panel
Quick-Connect SR Interface

YPbPr

24VDC, 2.0 A
PowerRite Power
Supply

HD Monitor
(Simulated HD Video Feed)

ProductionVIEW Precision Camera Controller

Note: RS-232 Control can be run through the RS-232
IN and OUT of the Quick-Connect SR Interface and is
required for use with IR Forwarding.

COMPLIANCE AND CE DECLARATION OF CONFORMITY - ZOOMSHOT

Compliance testing was performed to the following regulations:

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

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.

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)   Class A
EN 55024: A2: 2003   Immunity
- EN 61000-4-2: 1995 + Amendments A1: 1998 + A2: 2001   Electrostatic Discharge
- EN 61000-4-3: 2006 + A1: 2008   Radiated Immunity
- EN 61000-4-4: 2004 + Corrigendum 2006   Electrical Fast Transients
- EN 61000-4-5: 2006   Surge Immunity
- EN 61000-4-6: 2009   Conducted Immunity
- EN 61000-4-8: 2010   Power Frequency Magnetic Field
- EN 61000-4-11: 2004   Voltage Dips, Interrupts and Fluctuations

KN24 2008 (CISPR 24: 1997 + A1: 2000 + A2: 2002)   IT Immunity Characteristics
- EN 61000-4-2   Electrostatic Discharge
- EN 61000-4-3   Radiated Immunity
- EN 61000-4-4   Electrical Fast Transients
- EN 61000-4-5   Surge Immunity
- EN 61000-4-6   Conducted Immunity
- EN 61000-4-8   Power Frequency Magnetic Field
- EN 61000-4-11   Voltage Dips, Interrupts and Fluctuations

IEC 60950-1:2005 (2nd Edition); Am 1:2009   Safety
EN 60950-1:2006+A11:2009+A1:2010+A12:2011   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.

*Vaddio manufactures its hardware products from parts and components that are new or equivalent to new in accordance with industry standard practices.

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 - not a hanky
- 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 under waterfalls
- Dry environments with an excess of static discharge
- In orbit (vacuum issue)
- Under severe vibration

ZoomSHOT WallVIEW SR General Specifications:

ZoomSHOT Camera System	
Part Numbers	ZoomSHOT WallVIEW 999-6918-000 (North America) ZoomSHOT WallVIEW 999-6918-001 (International)
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, 50IRE)
Serial Control Protocol	RS-232 (Modified VISCA)
Manual Pan/Tilt Range	Pan: Limited to service loop of cabling, yoke and base are mechanical only Tilt: ± 30° 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 and IR Out (with Quick-Connect -SR Interfaces
HD Video Select	16-Position Rotary Switch: Used to set HD Video Resolution Output
Camera Settings	6-Position Dip Switch: For IR Freq., Baud Rate 9600, Image Flip & Test Bars 16-Position Rotary Switch for Output Resolution Settings
Thin Profile Wall Mount	535-2000-237 (Provided with WallVIEW Systems) Black powder coating, Sized to fit on 1-gang wall box or drywall mounting
User Controls	IR Shot Commander Remote with OSD for set-up, RS-232 Port for External Control
Materials & Weight	Aluminum & Steel, Weight = 2.75643 lbs. (1.68kg)
Dimensions:	Tube: 3" (76.2mm) Diameter x 4.75" (120.65mm) Long Base: 5.5" (139.7mm) Diameter Overall Height: 5.5" (139.7mm) Tall
Quick-Connect SR Interface	
Connectors	• Power Connector: 5.5mm OD, 2.5mm ID coaxial connector • Power/Video RJ-45: Supplies power to, and differential HD video from the camera • Video Output: DE-15 connector for HD Analog Component (YPbPr) video only (No SD Support) • IR Output: Transmits modulated or non-modulated IR signals received from the camera's IR receiver • RS-232 IN RJ-45: Accepts RS-232 from ProductionVIEW or other external control systems • RS-232 OUT RJ-45: Sends RS-232 from Quick-Connect SR to the camera
Power Supply	24 VDC, 2.0 Amp
Dimensions (H x W x D)	1/3 Rack Size - 1.6" (40.64mm) H x 5.5" (139.7mm) W x 3.25" (82.5500000000001mm) D
Weight	0.45 lbs. (0.2041165643 kg)
Accessory	Rack Mount Adapter: 998-6000-002 - Holds three (3) Quick-Connect SR Interfaces

Moon in Front Page Header: Europa - Sixth closest moon of the planet Jupiter.
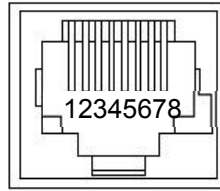
APPENDIX 1: PIN-OUTS FOR ZOOMSHOT CAMERA
Table EZCamera Power & HD Video RJ-45 Connector Pin-outs

ZoomSHOT EZPOWER HD VIDEO PORT

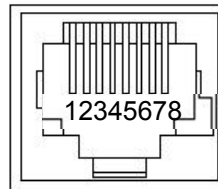| Pin	YPbPr
1	Power+
2	Power-
3	Y+
4	PB+
5	PB -
6	Y -
7	PR+
8	PR-

EZ POWER HD VIDEO

Important Note: The EZ POWER HD VIDEO RJ-45 Connector 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 received by the interfaces above.

ZoomSHOT Camera RS-232 Port

Pin #	Function
Pin - 1	N/A
Pin - 2	N/A
Pin - 3	N/A
Pin - 4	IR Output (Diff Signal to Quick-Connect)
Pin - 5	IR Ground (Diff Signal to Quick-Connect)
Pin - 6	Digital GND
Pin - 7	RXD (from TXD of control source)
Pin - 8	TXD (to RXD of control source)

RS-232

APPENDIX 2: PIN-OUTS FOR QUICK-CONNECT SR INTERFACE
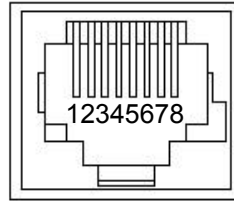### Table: DE-15 - YPbPr Pin-Out

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	-

Female
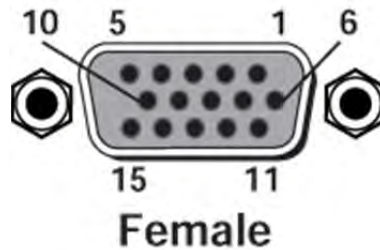
COMMUNICATION SPECIFICATION

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

Pin #	RJ-45 RS-232 and IR Out Pins
1)	Unused
2)	Unused
3)	Unused
4)	IR Output (Diff Signal to Quick-Connect SR)
5)	IR Ground (Diff Signal to Quick-Connect SR)
6)	GND (GND of IR Short Range - Pin 3)
7)	RXD (from TXD of control source)
8)	TXD (to RXD of control source)

`12345678`

NOTE: The Vaddio ZoomSHOT control protocol is similar, 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 many 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 03 FF	Manual White Balance
	One Push WB	8x 01 04 35 05 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	On	8x 01 04 33 02 FF	
	Off	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_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 Pan 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 y0 50 03 FF	On Off(Standby)
CAM_ICRModeInq	8x 09 04 01 FF	y0 50 02 FF y0 50 03 FF	On - ICR filter Out 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 y0 50 03 FF	On Off
CAM_WBModeInq	81 09 04 35 FF	y0 50 00 FF y0 50 03 FF y0 50 05 FF	Auto Manual One Push WB
CAM_FocusModeInq	8x 09 04 38 FF	y0 50 02 FF y0 50 03 FF	Auto Manual
CAM_AEModeInq	8x 09 04 39 FF	y0 50 00 FF y0 50 03 FF y0 50 0A FF y0 50 0B FF	Auto Exposure Mode Manual Control Mode Shutter Priority Mode Exposure Priority Mode
CAM_MemoryInq	8x 09 04 3F FF	y0 50 0p FF	p:Preset 0-0xf
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
CAM_BGain	8x 09 04 44 FF	y0 50 0p 0q 0r 0s FF	pqrs:00-ffff
CAM_ZoomPosInq	8x 09 04 47 FF	y0 50 00 0p 0q 0r FF	pqr(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 y0 50 03 FF	On Off
CAM_Freeze	8x 09 04 62 FF	y0 50 02 FF y0 50 03 FF	On Off
CAM_PictureEffect	8x 09 04 63 FF	y0 50 00 FF y0 50 04 FF	Off B&W
IR_ReceiveInq	8x 09 06 08 FF	y0 50 02 FF y0 50 03 FF	On Off
TallyInq	8x 09 7E 01 0A FF	y0 50 02 FF y0 50 03 FF	On Off
PresetSpeedInq	8x 09 7E 01 0B FF	y0 50 00 00 rr FF	rr:Zoom 0x00-0x07
BLK.Enhance	No support	No support	No support
GMA.Enhance	8x 09 7E 54 FF	y0 50 00 00 0p 0q FF	pq: Gamma (0x00-0x10)
CRM.Enhance	8x 09 7E 55 FF	y0 50 00 00 0p 0q FF	pq: Chroma (0x00-0x64)
KNE.Enhance	No support	No Support	No support
DIS.Enhance	8x 09 7E 57 FF	y0 50 02 FF y0 50 03 FF	On Off
SNR.Enhance	8x 09 7E 58 FF	y0 50 02 FF y0 50 03 FF	On Off
AGC.Enhance	8x 09 7E 59 FF	y0 50 00 FF y0 50 01 FF y0 50 02 FF y0 50 03 FF y0 50 04 FF	Off Low Medium High Manual AGC Gain

Touchboards

205 Westwood Ave, Long Branch, NJ 07740
Phone: 866-94 BOARDS (26273) / (732)-222-1511
Fax: (732)-222-7088 | E-mail: sales@touchboards.com

vaddio

Toll Free: 800-572-2011 ▪ Phone: 763-971-4400 ▪ FAX: 763-971-4464
www.vaddio.com