The Vaddio™ RoboSHOT 12 USB

Frequently Asked Questions

Q) ***When will the new RoboSHOT 12 USB be shipping?***
A) It will be available for shipping on or about April 30th, 2015.

Q) ***When will it be on the Vaddio Price Guide?***
A) The camera will be on the April 1st Vaddio Price Guide.

Q) ***What makes this different from the other RoboSHOT cameras?***
A) The RoboSHOT 12 USB is an Enterprise Class, HD PTZ Conferencing Camera with simultaneous USB 3.0 streaming, IP (H.264) streaming and HDMI video outputs. It has all the other great features of the RoboSHOT platform including built-in web server, great lens, ISP and image sensor combination, Tri-Synchronous motion, Native 1080p/60 resolution and ultra-smooth, silent direct-drive pan/tilt motors.

Q) ***Does the USB 3.0, IP and HDMI all have to be the same resolution?***
A) The quick answer is no. The video resolutions are independent. The HDMI is set on the back of the camera with a rotary switch, the USB 3.0 resolution is negotiated directly with the host PC and UC conferencing application and the IP resolution is set in the embedded web server via web browser.

Q) ***What web browsers are recommended?***
A) The fully tested compatible web browsers (the usual suspects) are listed below.
- Chrome (the latest and current release, auto-updating)
- Firefox (the latest and current release, auto-updating)
- Internet Explorer (IE 8 to 11)
- Safari (Rev 6 and up)

Other browsers should work for tablet PCs, but have not been exhaustively tested. The best way to see if a different browser will work with RoboSHOT is to simply try it.

Q) ***What are the computer requirements for streaming USB 3.0?***
A) The better the computer, the better the experience. At a minimum the following specifications are required:
- 4GB of RAM.
- Intel Core i5 or equivalent.
- Graphic card with its own memory, which is not shared with the OS.
- For recording uncompressed USB 3.0 video, an SSD drive (SATA III @ 6 Gbit/s).

The RoboSHOT will be using the UVC (USB Video Class) driver provided by the host PC's OS. It's always a good idea to download the latest drivers available for the OS and keep them up to date.

Q) ***What Media Players for the IP streaming are recommended?***
The fully tested, compatible Media Players are VLC Media Player, Quick-Time and Real Player. The IP stream uses RTSP (real time streaming protocol) with H.264 compression (for resolutions up to 1080p/30), so any media player that can view standard RTSP H.264 streams can also be used.

Q) ***Does USB 3.0 video use MJPEG or H.264 compression?***
A) No, USB 3.0 video is uncompressed because the data signaling rates are up to 5 Gbit/s. USB 2.0 requires a compression scheme, like MJPEG to achieve HD video because the data signaling rate is only 480 Mbps.

Q) ***Will the RoboSHOT 12 USB work with my USB 2.0 computer?***
A) Yes, the RoboSHOT USB 3.0 port will auto-detect a USB 2.0 host PC port and only offer the uncompressed resolutions that USB 2.0 can handle, which includes 640x480, 640x360 (360p), 352x240 (240p) and 320x180 (180p) all at 30 frames. Other resolutions may be added.

Q) ***What about the latency for the USB 3.0 video?***
Visible video latency depends on the software application and PC, but expect 2-3 frames out of the camera (frame buffers within the camera's processors) and whatever the PC application requires to render the video signal to the computers screen and application.

Q) ***What video format is used for the USB 3.0 video?***
A) YUY2 is a digital, color-difference component video picture format identified by the FOURCC (four character code). This format employs 4:2:2 chroma subsampling with each sample represented by 8 bits of data. YUY2 encoding allows for variation in features like picture size, aspect ratio (square or non-square pixels), component levels (i.e., levels for Y, Cb, and Cr). This format is compliant with the Microsoft Video Capture Spec Rev. G.

Q) ***What else is different about this RoboSHOT?***
A) One major difference is the camera is equipped with a PoE+ GB Ethernet port for powering the camera, IP streaming, access to the embedded webserver and Telnet control. This feature is just about perfect for the remote management, network operating centers and overall IT control.

Q) ***Does this replace any RoboSHOT cameras?***
A) Absolutely not! This camera is completely different than the Cat-5 versions of the RoboSHOT cameras and it is very different than other USB 3.0 cameras available now. There simply is not a camera more fully featured than the RoboSHOT 12 USB on the market today.

Q) ***What about the ClearVIEW HD-USB camera, is that still going to be around?***
A) The ClearVIEW HD-USB was an important camera in Vaddio's product line when it came out in the middle of 2012. We are planning for the HD-USB to be available through the end of calendar year 2015.

Q) ***The ClearVIEW HD-USB Camera was sort of expensive. Since this camera does way more, is it going to be way more expensive?***
A) Good question, and the answer is no. Part of the reason to refresh the technology of the Vaddio cameras is to take advantage of the newest, coolest and often times cheaper technology available. This allows Vaddio to lower the retail price of the RoboSHOT 12 USB by about 20% as compared to the HD-USB camera.

Q) ***What is the maximum cable distance for USB 3.0?***
A) The commonly quoted maximum USB 3.0 cable length is about 10' (3m). There are companies out there that offer a 16' (5m) cable with special shielding and terminations that increase the cable distance.

Q) ***Will Vaddio have any USB 3.0 video cabling extensions?***
A) Yes, there will be power and cabling extensions available. Also, remember that the camera has PoE+ capabilities, so for the enterprise that uses PoE+, all that's needed for power is a Cat-5/5e/6 cable.

Q) ***What is the cable length limitation for PoE+?***
A) The standard (IEEE 802.3at) for PoE+ is to provide 25.5 watts and a distance of 100 meters (328').

Q) ***How do you access the webserver to control the camera and see the camera's video signal?***
A) Once the camera is setup for network operation, there are a few simple steps to follow:
Step 1: With an approved browser (the usual suspects Chrome, Firefox, IE or Safari) enter the camera's IP address and login to the camera and internal web pages are served up.
Step 2: From the camera's Streaming web page copy the camera's Streaming URL.
Step 3: Open a media player (VLC, RealPlayer, Quick-time or other) that can receive standard H.264 using RTSP (real time streaming protocol) and paste the camera's Streaming URL into the Media Streaming address line.
Done: Once these steps have been completed, simultaneous control of the camera and viewing of real HD IP video is possible. It's so easy, I can even do it.

Q) ***Does the camera have a standard RS-232 port?***
A) Yes, an RS-232 port on a shielded RJ-45 jack is provided in the rear panel of the camera. This camera can be controlled four different ways including RS-232, embedded web server, Telnet and IR remote control.

Q) Is the camera FULL HD and full frame rate?
A) Yes, the RoboSHOT 12 USB is a native 1080p/60 camera using the latest 1/2.8-Type Exmor® high-speed, low noise CMOS image sensor technology with 2.38 Megapixels (total) and 2.14 Megapixels (effective).

Q) What are the mounting options for the RoboSHOT 12 USB?
A) The mounting accessories for the ClearVIEW include:
- Thin Profile Wall Mount (provided with camera)
- IN-Wall™ Mount
- IN-Ceiling™ Half-Recessed Mount
- CeilingVIEW™ HD HideAway Motorized Camera Lift
- Suspended Ceiling PTZ Camera Mount

Q) What is the optical zoom and horizontal viewing angles?
A) The lens is a 12X magnification glass lens and the horizontal viewing angles are 73º on the wide end and 6.6º on the tele end.

Q) Will the camera work in a low light environment?
A) All cameras need light to produce an image (just a fact). The minimum illumination spec is 1.0 Lux (F1.6, 50IRE) however the recommended minimum is >100 Lux. Now, normal office lighting is usually between 300 and 450 Lux, so performance in an office conferencing environment will not be a problem.

Q) Will the RoboSHOT 12 USB camera be included on the Vaddio PTZ Image Size Calculator?
A) Yep, it is already on the image calculator as a RoboSHOT 12 and can be accessed on the vaddio web site at support.vaddio.com.

Q) What's included with the camera, anything good?
A) Yes, good stuff is included. The contents of the base system package is as follows:
One (1) RoboSHOT 12 USB HD PTZ Conferencing Camera
One (1) Vaddio IR Remote Commander
One (1) 12 VDC, 3.0 Amp Switching Power Supply
One (1) AC Cord Set
One (1) Thin Profile Wall Mount & Mounting Hardware
One (1) EZCamera™ Control Adapter
One (1) 6' (1.83m) USB 3.0 Type-A to Type-B Male Cable
One (1) Quick Start Guide

Q) Will there be any upgrade deals for those who have ClearVIEW HD-USB cameras and want to trade up to the RoboSHOT 12 USB camera?
A) You never know about the intentions of our wickedly clever marketing folks, so definitely maybe.

Q) Are there manuals and drawings yet?
A)   The Preliminary Tech Spec is available now and the Manual and CAD drawing will be available for download on April 1st, 2015 or sooner from support.vaddio.com

Q) You've been making cameras for a while now, so what do you think about the camera?
A)   I think that this camera is really, really cool. The rich feature set, performance, image quality, flexibility and overall value is unparalleled by any camera around today. There are so many applications that it can be used for that I get excited just thinking about it. For those that made it to the last question, thank you.