



**Vidyo**<sup>™</sup>  
Personal Telepresence

## Tech Note

# Integrating Video Devices with the VidyoRoom

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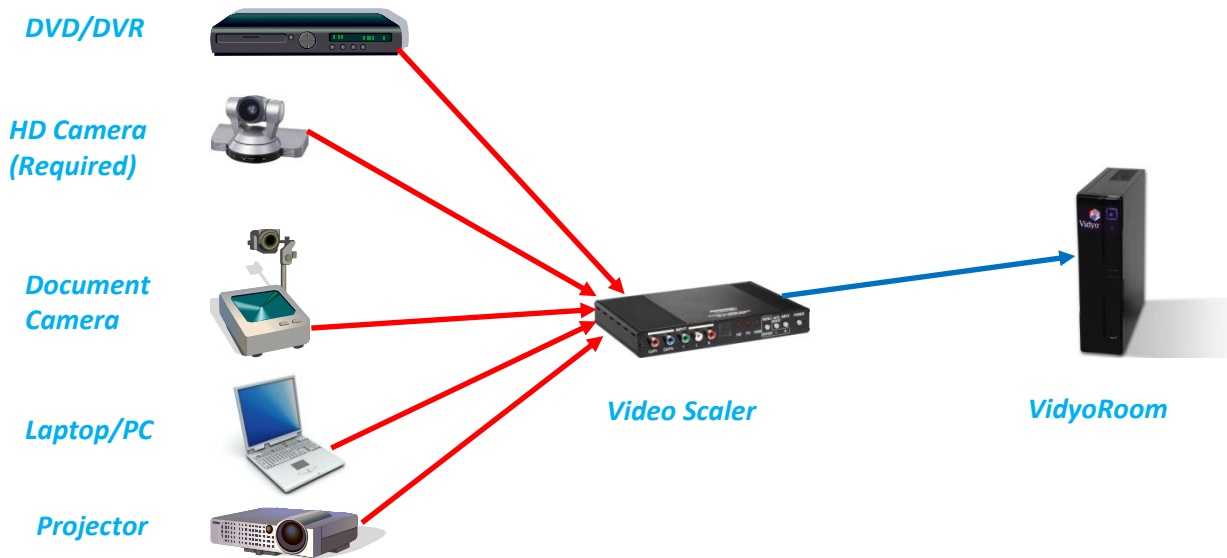
# Integrating Video Devices with the VidyoRoom

## Enhancing VidyoRoom conferences with multiple media sources

You know how valuable high quality, real-time visual communication is to your organization. Increasing face time with co-workers, customers and vendors without the expense and inconvenience of travel offers you a huge competitive advantage—that's why you chose Vidyo's personal telepresence solution in the first place. But did you know that you can easily extend your visual communication beyond your room system conferencing camera? Whether you're teaching a class, making an important sales presentation, or having a brain-storming session with team members, your VidyoConference™ can be much more effective when you use the latest multimedia technology to attract and retain the attention of your participants. This application note provides the information you'll need to achieve this integration and significantly enhance your VidyoConferences™ using your VidyoRoom system.

## Making the connection

Leveraging its widely adopted HDMI standard input port, the HD-100 supports a wide variety of video devices, such as laptops, DVD players, LCD projectors and interactive white boards, high-end HD video cameras, DVRs and more, through the use of a simple device called a video scaler.



Extending VidyoRoom connectivity with a video scaler

## Video Scaler Basics

There are several video scaler devices available in the market today, each supporting some set of audio and video input and output connections. This table provides a list of potential video inputs to a video scaler along with their common applications.

Video Scaler Input	Physical Connection	Typical Source Application
YUV and YPbPr Component	3 RCA Coaxial ports	Analog signaling output from DVD and home theater components
VGA (RGB)	1 HD-15 port	Analog signaling output from computers & LCD projectors
HDMI	1 HDMI port	Digital high definition signaling output from newer AV devices
DVI	1 DVI-I port	Digital standard definition signaling output from legacy AV devices
S-Video Composite Video	1 S-Video port 1 RCA Coaxial port	Analog signaling output from legacy and low end AV devices

It's important to make sure that the unit not only has the physical connection you are looking for, but that the scaling engine also supports the signaling you need to connect your video devices, since the same physical connection may be used to support more than one signaling type, and at various resolutions. Keep in mind that your video scaler must have at least one HDMI input to support the HD camera that comes with your VidyoRoom system. In general, the more input ports and options available, the more flexibility you will have in terms of devices you can add and switch between during your conferences.

**Note that any video scaler you choose will require output support for HDMI at 720P, as this will be your connection to the HDMI port on the back of the HD-100.** In addition to the video inputs, many video scalers also have some audio input connections. It's important to note that the audio and video paths for the VidyoRoom system must be maintained separately. In other words, if the Video Scaler combines the audio and video into a single HDMI output, the scaler will be useful only for the video stream, while a separate audio switch will be required to switch between the in-room microphone and a DVD player, for example. Having the audio and video on separate paths enables you to have a non-audio transmitting application, like a presentation, as the active video while you are able to maintain the audio path for your microphone so that the participants are able to hear you talk through your ideas.

Make sure that the video scaler provides the capability to switch between the various inputs in real time so that you can move from one media source to the next during your conference quickly and easily. Some units include infrared remote control support, in which case you'll want to be sure that the Scaler box is visible from where you will be conducting your conference, or that the unit comes with an IR replicator. The boxes are typically small and unobtrusive and may be mounted inside (or on top) of the cabinet housing the HD-100.

## Finding the right fit

Once you've identified the devices that you would like to be able to integrate into your VidyoConferences, take a moment to investigate the video outputs of each device and make a list. Now

it's just a matter of finding the video scaler that meets your requirements. While any commercially available video scaler supporting the HDMI standard at 720P should work with the VidyoRoom system, the following is a list of devices we have successfully used in our labs.

	<b>TV One 1T-AVPC-HDMI</b>	<b>Cypress CP-2551</b>	<b>Terk HDMI-31 Smart HDMI Switch (3 X 1)</b>
<b>VIDEO INPUTS</b>			
HDMI		1	3
VGA	1	1	NA
Component	1	1	NA
S-Video	NA	1	NA
Composite	1	NA	NA
<b>VIDEO OUTPUTS</b>			
HDMI	1	1	1
<b>EXTERNAL CONTROL</b>			
RS-232	NA	1	NA
Infrared - remote	Yes	Yes	NA

### Scalers vs. VidyoRoom Products Compatibility

**Product Compatibility Table**

	HD-220A	HD-100B	HD-220B	HD-100C	HD-220C
<b>TV One 1T-AVPC-HDMI</b>					
HDMI	✗	■	■	■	■
VGA	✗	■	■	■	■
Component	✗	✗	■	■	■
<b>Cypress CP-2551</b>					
HDMI	✗	■	■	■	■
VGA	✗	■	■	■	■
Component	✗	■	■	■	■
S-Video	✗	■	■	■	■
<b>Terk HDMI-31 Smart HDMI Switch (3 X 1)</b>					
HDMI	■	■	■	■	■

■ Passed ✗ Didn't Pass

### Conclusion

We hope that this information will help you unleash your VidyoRoom system's full potential by easily and cost effectively integrating the video source devices you rely on most. For more information or additional ideas on how to get the most out of your VidyoRoom system, please contact your local Vidyo sales engineer.

**For more information: 1.866.99.VIDYO**