



Video Conferencing Software for Small Conference Rooms

1. Solution Overview and Requirements

Solution Overview

- With the continuous development of Internet technology, there is a growing demand for telecommuting, online education, and cross-border meetings. In order to meet these demands, it is crucial to provide an efficient, stable and secure video conferencing solution. This solution aims to provide a comprehensive video conferencing solution to meet the needs of different users, improve communication efficiency and minimize meeting costs.



Project Requirements

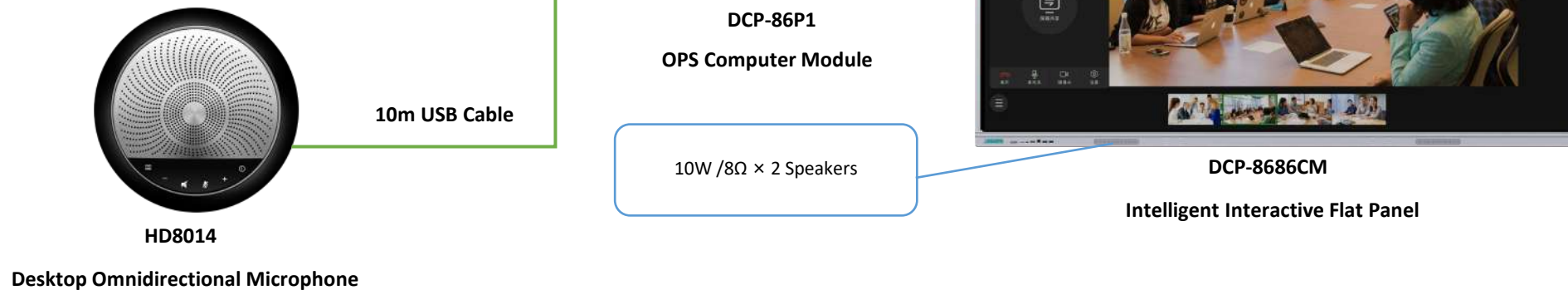
- With high-definition image quality, high stability and reliability, efficient interaction and high security.
- Support multi-user online audio and video calls, real-time interaction and screen sharing for improved communication efficiency.
- Support a variety of terminal equipment access to meet the needs of different users.
- Meet the needs of large multi-party meetings, group discussion-type meetings, point-to-point meetings, remote training and so on.

2.1 Solution 1 -- Video Conferencing Software + Intelligent Interactive Flat Panel

Video Conferencing (Software)

- The conference room is 8 meters long, 5 meters wide and 3 meters high; 40 square meters in size.
- The intelligent interactive flat panel has a built-in 4K and 12-megapixel HD wide-angle camera.
- The intelligent interactive flat panel has built-in 10W/8Ω × 2 speakers.
- The omnidirectional microphone is positioned on the desktop and connected to the intelligent interactive flat panel with a USB cable, and an optional OPS computer (with soft terminal installed) is compatible with the mainstream remote video conferencing software in the market.

No.	Model	Product Name	Quantity
1	HD8014	Desktop Omnidirectional Microphone	1 PC
2	DCP-8686CM	Intelligent Interactive Flat Panel	1 PC
3	DCP-86P1	OPS Computer Module	1 PC



2.2 Omnidirectional Microphone

Effective Sound Pickup Distance

- With a radius of 6m.



HD8014

Desktop Omnidirectional Microphone

Transmission Mode

- Using a USB-to-Type-C data cable.
- With a wired transmission distance of 10m.

Effective Sound Pickup Distance

- With a radius of 6m.



HD8014W

Desktop Omnidirectional Microphone

Transmission Mode

- Using wireless 2.4G.
- With a wireless transmission distance of 30m.

NO.	Features	HD8014	HD8014W
1	High-intelligibility audio: using 16kHz upstream audio sampling rate, 48kHz downstream sampling frequency for a clearer and purer sound.	√	√
2	Excellent sound pickup and amplification: using built-in high-performance 3A algorithm for two-way communication without delay and lag, with an effective sound pickup radius of 6m.	√	√
3	Outstanding audio algorithm: using heavy noise reduction technology for full-duplex echo cancellation of physical noise reduction + algorithm noise reduction, dynamic noise suppression, automatic gain control and other voice processing technologies.	√	√
4	High-pitch amplifier: with built-in full-range high-power speaker, for 105dB amplification volume and larger coverage radius.	√	√
5	Better compatibility: support a variety of video conferencing software, such as Cloudroom, BizConf, Tecent Meeting, ZOOM, DingTalk, HST, Vidy, Webex, Skype for business, and Google hangout.	√	√
6	Touch buttons and multi-color function identification: using an array of light strips to support color indication, with touch buttons in different colors to indicate different states.	√	√
7	Ultra-long battery life: with a high-capacity lithium battery of 3200MAH for 6H ultra-long battery life.	×	√
8	Can be expanded and cascaded: support cascade to cover a conference room within 80 square meters.	×	√

2.3 Intelligent Interactive Flat Panel -- 4 Size Options



DCP-8698CM

98 inch

Display size: 2160.5 × 1217.3mm
Suitable for a 50-100m² conference room
with 25-50 people.

DCP-8686CM

86 inch

Display size: 1895 × 1065.9mm
Suitable for a 25-50m² conference room
with 15-25 people.

DCP-8675CM

75 inch

Display size: 1649.6 × 927.9mm
Suitable for a 15-25m² conference room
with 10-15 people.

DCP-8665CM

65 inch

Display size: 1428.4 × 803.5mm
Suitable for a 8-15m² conference room with
no more than 10 people.

3.1 Solution 2 -- Video Conferencing Software + 360° Panoramic Intelligent Camera

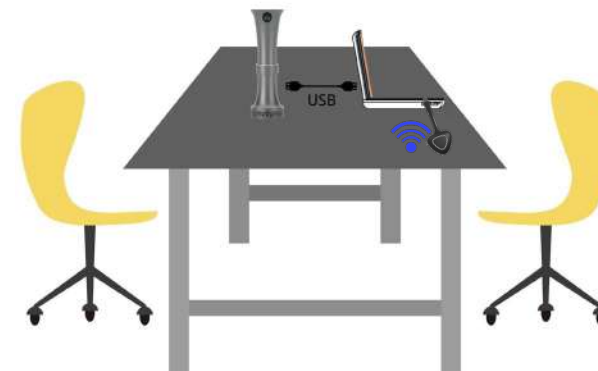
Video Conferencing (Software)

- The conference room is 6 meters long, 5 meters wide and 3 meters high; 30 square meters in size.
- Video conferencing software: you can use ZOOM, Google Meet, Tencent Meeting, DingTalk, etc.
- Just connect to an external network or WIFI for ease of use.



DC2802
360° Panoramic Conference
Camera

No.	Model	Product Name	Quantity
1	DC2802	360° Panoramic Conference Camera	1 PC
2	DCP-8686	Intelligent Interactive Flat Panel	1 PC
3	DCP-86WCS1	Wireless Screen Mirroring Device	1 PC



3.2 Immersive 360° Panoramic Intelligent Audio and Video All-in-One



DC2801

360° Panoramic Conference Camera



DC2802

360° Panoramic Conference Camera

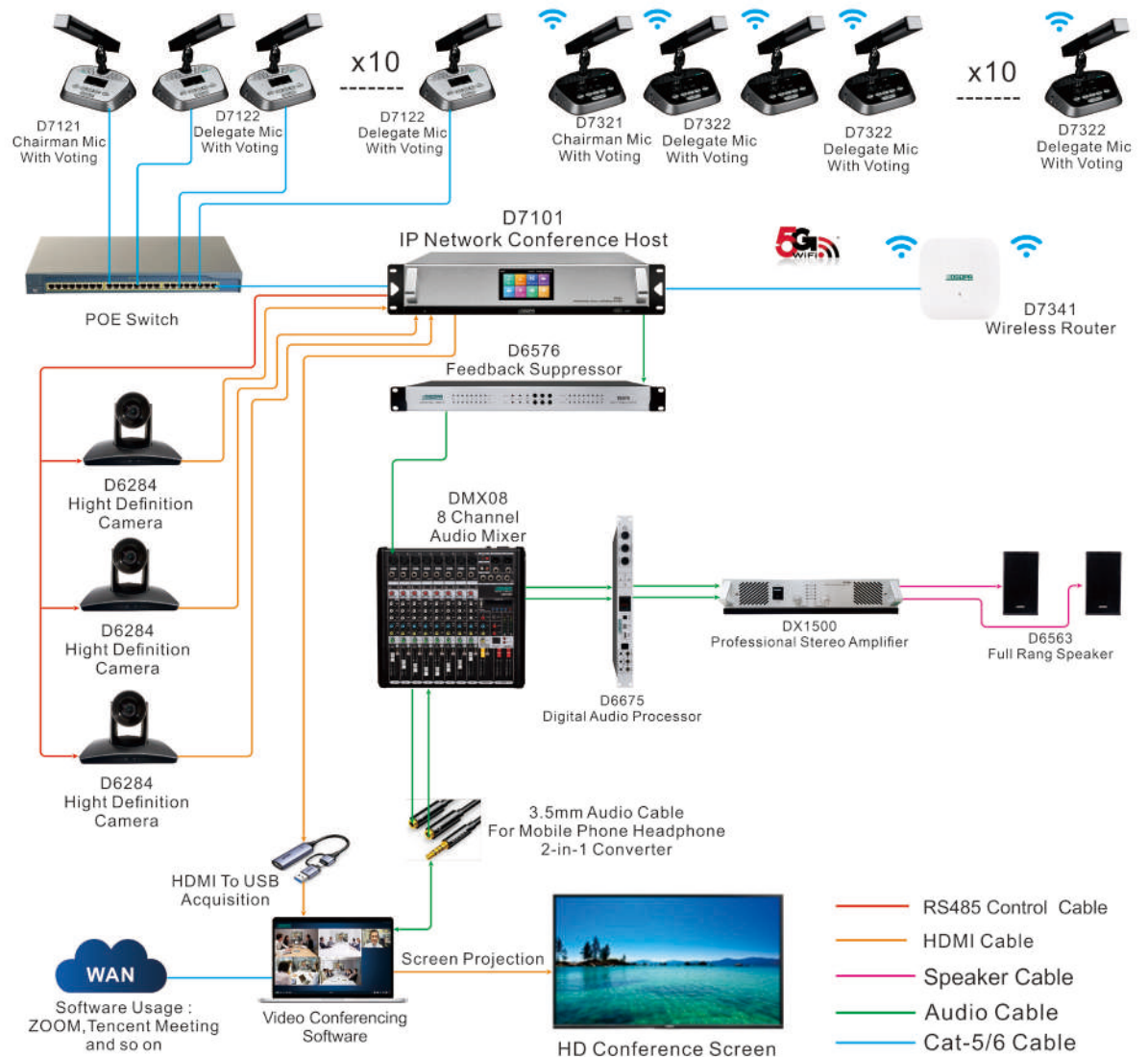
NO.	Features	DC2801	DC2802
1	360° panoramic camera: using four 1/2.8-inch 2-megapixel CMOS, each two of which are arranged at a 90° angle for a 360° panoramic view.	√	√
2	Built-in ultra-long sound pickup: full-duplex algorithm, 3-5 meters omnidirectional free sound pickup for better sound and clearer, fuller and more authentic communication.	√	√
3	Intelligent sound source positioning, spokesman screen tracking: Using built-in intelligent analysis algorithm. Listen to the voice to locate the position, automatically track the spokesman and switch the spokesman screen. It ensures that the spokesman is always clearly in the screen, making the center of the meeting more focused.	√	√
4	High-fidelity speaker: 4.2W MAX full-range high-fidelity speaker with professional acoustic design to minimize sound interference and deliver extraordinary sound effects.	×	√
5	Multiple image display modes: meeting mode: close-up + panorama; cruise mode: cruise + panorama; live mode: upper and lower half screen.	√	√
6	With a remote controller and OSD menu: rich OSD menu for participants to flexibly adjust the audio and video parameters.	×	√
7	Plug and Play: Connected to a computer or commercial display with a universal TPYE-C interface for out-of-the-box access and UVC control.	√	√
8	Compatible with a variety of cloud video conferencing tools: widely compatible with cloud video conferencing platforms, such as Tencent Meeting, DingTalk, Feishu, Zoom, GoTo Meeting, Google Meet, Microsoft Teams, Cisco Webex, and BlueJean.	√	√

4.1 Solution 3 -- Video Conferencing Software + Sound Reinforcement System

80m² Conference Room

- Video conferencing software: you can use ZOOM, Google Meet, Tencent Meeting, DingTalk, etc.
- Just connect to an external network or WIFI for ease of use.
- It is required to use an HDMI-to-USB capture card and a 3.5mm-to-phone/headphone audio cable converter.

No.	Model	Product Name	Quantity
1	D7101	IP Network Conference Host	1 PC
2	D7121	Desktop Speaking and Voting Chairman MIC	1 PC
3	D7122	Desktop Speaking and Voting Delegate MIC	10 PCS
4	D7321	Wireless Speaking and Voting Chairman MIC	1 PC
5	D7322	Wireless Speaking and Voting Delegate MIC	10 PCS
6	D7341	Wireless Router	1 PC
7	D6576	Feedback Suppressor	1 PC
8	DMX08	8-Channel Audio Mixer	1 PC
9	D6675	Digital Audio Processor	1 PC
10	DX1500	Professional Stereo Amplifier	1 PC
11	D6563	Full-Rang Speaker	2 PCS
12	D6284	High Definition Camera	3 PCS



4.2 Zoom Meeting -- Connection Operation

Audio Part - Connecting Cable

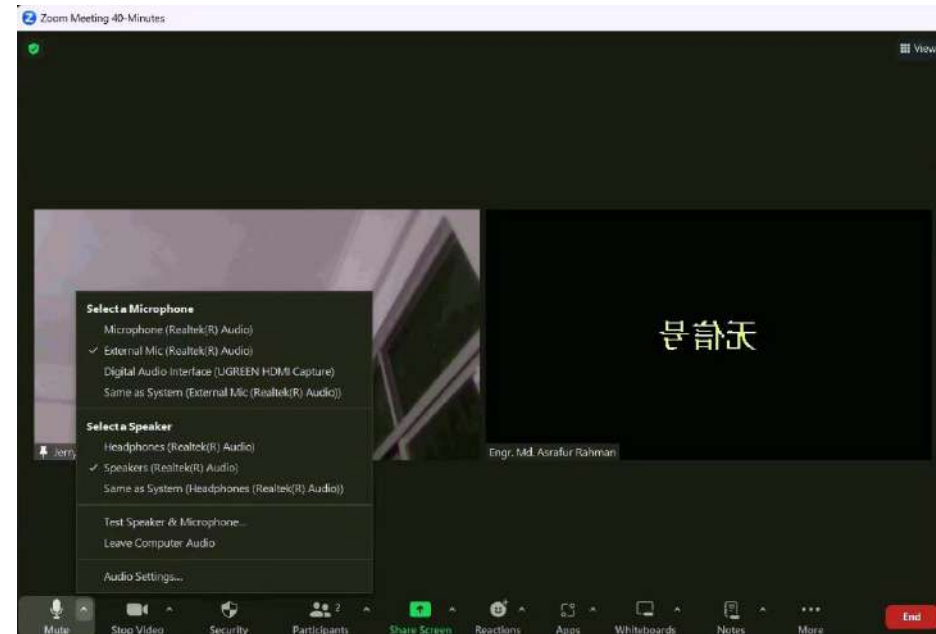
- Generally, the computer only has one audio port. If you want to input the microphone sound to the computer and output the computer sound to the speaker system, you need to use an “3.5mm-to-phone/headphone audio cable converter”, as shown below.



3.5mm-to-Phone/Headphone Audio Cable Converter

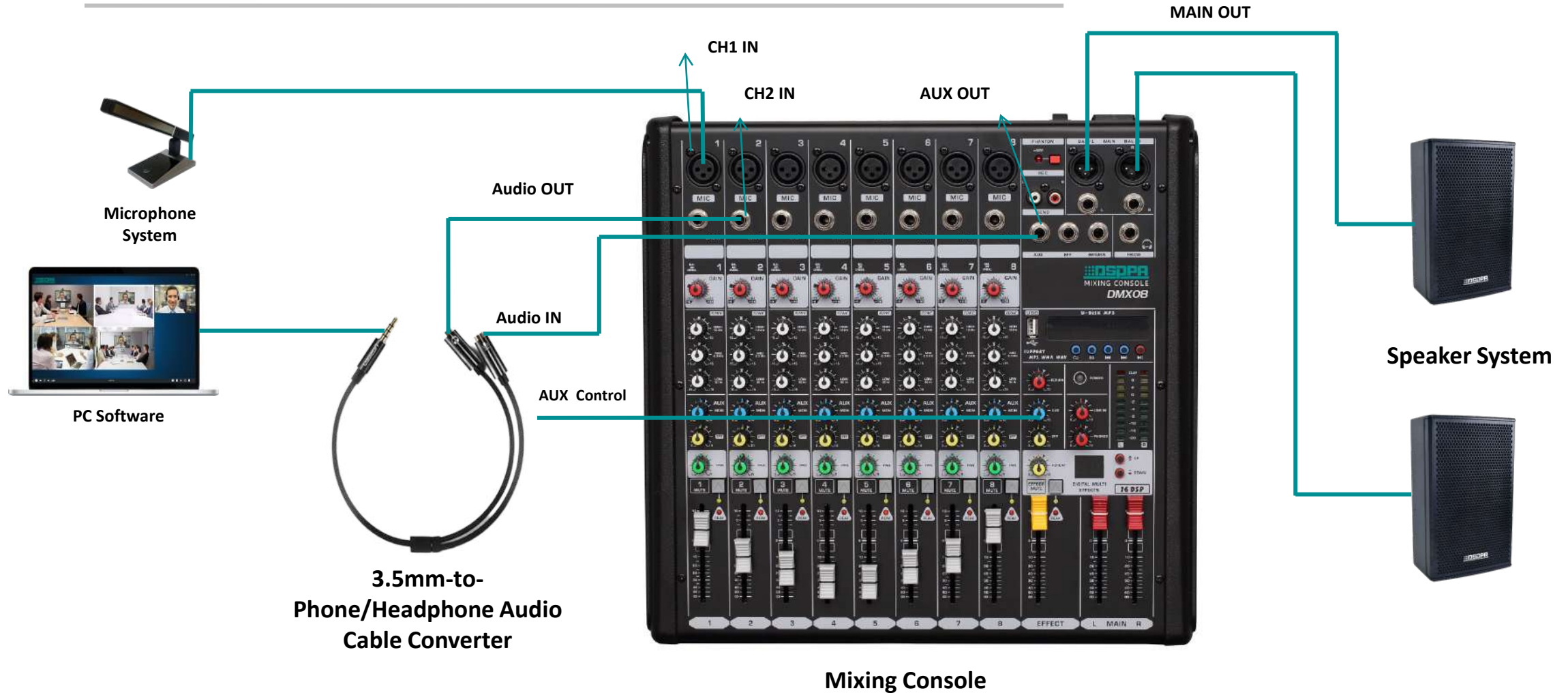
Audio Part - Software Settings

- In the “Zoom Meeting” software, hold a meeting with others, as shown below.
- Find Audio Settings in the lower left corner; select a microphone: select an external audio; select a speaker: select a headphone audio.
- Once selected, you can use a conference microphone for video conferencing.



4.3 Zoom Meeting -- Connection Operation

- In order to avoid the computer sound loopback, we use AUX OUT to output to the computer, which is separate from the output of the sound reinforcement system.
- When using the mixing console, turn off the AUX volume of the CH2 to control that the computer audio is not sent back to the computer from the AUX OUT.



4.4 Zoom Meeting -- Connection Operation

Video Part - Connecting Cable

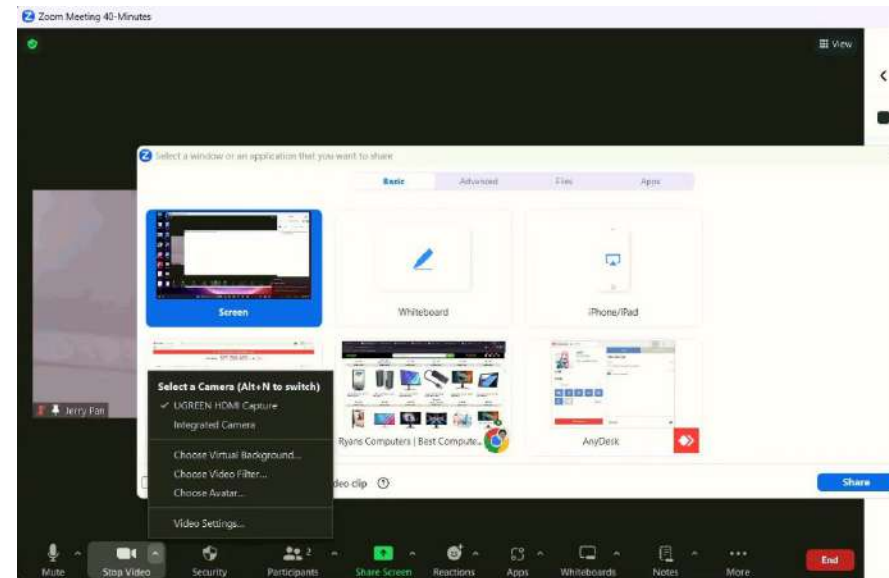
- Generally, the computer has no HDMI port that can be directly connected to the camera input. If you want to input the camera screen to the computer and transfer the screen to the video conferencing, you need to use an "HDMI-to-USB Capture Card", as shown below.



HDMI-to-USB Capture Card

Video Part - Software Settings

- In the "Zoom Meeting" software, hold a meeting with others, as shown below.
- Find Video Settings in the lower left corner; select a camera: select an external HDMI camera.
- Once selected, you can use an external camera for video conferencing.



4.5 Zoom Meeting -- Connection Operation

- The conference tracking camera is connected to the microphone host for linkage tracking of conference microphones, and then the screen is output to the computer.
- Note: The video screen access needs to use “HDMI-to-USB capture card”.



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