CA400

All-in-one Conference Solution

Frequently Asked Question & Troubleshooting

Version History

Version number	Author	Date	Notes
0.1	michael w. ch.	1/12/2024	Draft
0.2	michael w. ch.	1/15/2024	Troubleshooting added
0.3	michael w. ch.	1/23/2024	Updates in red
0.4	Glora. Ning.	2/1/2024	Scaling ration doesn't match
0.5	Glora. Ning.	2/7/2024	Re-pairing method
0.6	Glora. Ning.	4/1/2024	Fix spelling

Version number	Author	Date	Notes
0.7	Glora. Ning.	4/7/2024	Add check version
0.8	Glora. Ning.	4/19/2024	Add LED status detail
0.9	Glora. Ning.	6/4/2024	Fix some error
1.0	Glora. Ning.	7/10/2024	Add No.28 back screen answer
1.1	Glora. Ning.	9/13/2024	Add No.28 more info H2C caveats Add Q18 camera mirro answer
1.2	Lauren. Wu	7/24/2025	Add Q31 CA400 & Software Audio Conflicts

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PRODUCT SHORT INTRO

CA400 is an ALL-IN-ONE solution enables speakerphone, screen-sharing and wireless camera.No additional software needed!

The solution contains following components:

- **MS10:** Screen-sharing Speakerphone
- **RC10:** Receiver Hub
- **CM70**: 4K UHD Camera

SOLUTION HIGHLIGHTS

Easy to deploy

No complicated system integration needed

Hassle-free meeting preparation

One USB-C enables speakerphone, screen-sharing and wireless camera

Plug-n-play

No software installation needed

PRODUCT KEYWORDS

MS10+RC10

- 4K wireless screen-sharing
- 4-meter voice pickup
- 3W speaker
- 1080p wireless camera
- One cable plug-n-play

CM70

- 4K UHD camera
- 8MP 30 fps
- 5X digital zoom
- Auto-framing + ePTZ
- UVC standard

SOLUTION POSITIONING

Market segment

USB Room Devices

Definition: USB peripherals that allow the option of BYOD or USB connectivity with an in-room computer. The DIY approach relies on multi-vendor components for a low-cost and flexible alternative.

User's scenario and Use cases

Designed for small-to-medium meeting rooms, i.e. Meeting room space **smaller than 32 meter²** and capacity as **2-10 people**.
Meeting rooms for group meetings and equipped with a HDMI enabled displays.
Ad-hoc ideation and meetings for agile collaboration and scheduled meetings across multiple use cases including immersive experiences

Target users

- **End-buyers:**
  IT or Operation department which make decisions about how to Build and Deploy meeting rooms
- **End-users:**
  Including in-house employees and visitors.

FAQ: PRODUCT DESIGN

Q1: Any software installation needed?

A:
No. The devices are USB plug-n-play devices. It's compatible with most mainstream Unified Communications services and Video Conferencing software. And the devices support the computer/laptop equipped with full-feature USB Type-C or USB Type-C/USB-A plus HDMI.

Q2: What if the user doesn't have full-feature USB Type-C in the computer/laptop?

A:
In the box, we've prepared the solution for this situation. As for those older computers/laptops, when there is no full-featured USB Type-C port, usually, there should be an HDMI and an USB-A/C ports ready. The H2C converter cable is used to convert from USB Type-C to HDMI (for DP signal) and USB-A/C (for power).

Q3: Is there any battery equipped in the MS10 device?

A:
No. The use case is designed for fixed meeting rooms, instead of portable scenarios. The device works only when MS10 is connected to the computer/laptop, and the power can be supplied by the computer/laptop. So a battery is not essential for this device. Meanwhile, this design gets rid of those regulation hassles related to the embedded battery.

Q4: What is the transmitting protocol used in the wireless solution?

A:
Wi-Fi 5G, i.e. 801.a/n/ac. It's connected via Wi-Fi Direct, and no internet connection or LAN needed.

Q5: Can I use other USB cameras to collaboration with this solution?

A:
Yes, most UVC, USB Video Class, cameras can be supported, including normal webcams or conferencing cameras. But in some conditions, the manufacturer may have some configurations for its specific purpose, and this may cause some incompatible issues. It's recommended to utilize FANVIL's camera, CM70 as the whole solution works perfectly with it in the box.

Q6: What's the resolution of CM70 camera?

A:
As an UVC camera, CM70 support 4K UHD output (Effective-pixel reaches 8 megapixels).
But as a wireless camera, due to the bandwidth and performance limitation, we limited it to 1080p to ensure the video transmission as smooth as possible.

Usually, this resolution is good enough since most of the conferencing services supports only 720p or lower in the free version/service.

Q7: When I use the remote control of CM70 camera to configure the settings, the "Settings menu" can be seen in the video out? Why can't the "Settings" and "video image" be separated?

A:
This camera is designed to be as friendly as a consumer electronic component. The configuration has no software installation involved, but a ease-of-use remote control.
To make this happen, the configuration is presented as an OSD UI for users, instead of requiring another software installed on the PC to make the settings. (Note. Most of the webcams or conferencing cameras need a PC application for configuration.)
And on the platform we've chosen for this camera, there is only one stream which can be output. So, we embed the OSD UI to the video image, and render it as a single video stream. This is why we can't separate the settings and video image.
Though it seems to be a limitation, we assume that won't give users big problems since the configuration settings are not frequently used.

Q8: Why don't you design the product as MS10 speakerphone that directly connects to the display via HDMI and utilize the speaker on the TV/display?

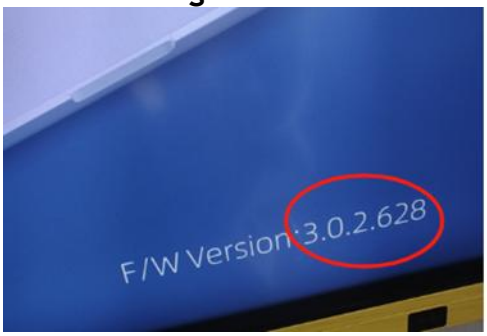
A:
1. This is a product for SMALL-to-MED meeting room (smaller than 32 sq. meters, and attendees under 10), and usually, in this environment, users won't connect their computers to the TV to utilize the TV speaker for the conference calls but utilize a personal PC's speaker or a speakerphone... A speakerphone should be loud enough.
2. We wish to establish a wireless environment for users to utilize screen-sharing, speakerphone and wireless camera all at once. The intention of the question is kind of awkward since it increases one unnecessary cable connection in small-to-mid meeting rooms.
3. The algorithm for our noise/echo cancelation is based on integrated microphones and speakers. If another speaker is utilized, then the performance of the microphone can be impacted.

FAQ: CONNECTION & TROUBLESHOOTING

Q9: How to check the firmware version?

A: After connecting successfully for receiver and speakerphone,to check the version number on lower right corner of the screen.

Q10: Wh0y can't I see the device signal when I connect the receiver to the TV/display via HDMI?



A:
Please check whether the source of the TV / display is selected for the correct HDMI port. Usually, it's set on the TV / display remote control (TV) or Source selection page (IFPD).

Q11: Why do I see yellow-light on the "screen-sharing button" and the screen display "NO SINGLE RECEVIED Keep your laptop awake and running " ?

A:
Please check whether the laptop USB interface has a full-featured Type C port. If it does not have a full-featured Type C port, please use an H2C adapter cable to share the screen.

MS10 LED indicator:
Flashing Green: Connecting in progress.
Static Green: Connection succeeds, ready for screens-haring.
Static Yellow: No DP signal from the laptop port.
Static Red: Three troubleshooting methods for connection failure:
1.Re-plug the Speakerphone.
2.Receiver is not powered, please re-plug and ensure the Receiver indicator light shows static white.
3.The Receiver and Speakerphone are not paired. Please ensure they are the original paired units,Otherwise please re-pair.

Laptop USB Type Specification Table

USB-C Connector		Data Transfer	Display	Power
USB 2.0 480 Mbps	Normal	○	×	×
	PD Enabled	○	×	○
USB 3.1 Gen1 5 Gbps	Normal	○	×	×
	PD Enabled	○	×	○
USB 3.1 Gen2 10 Gbps	Normal	○	×	×
	PD Enabled	○	×	○
DisplayPort 5-10 Gbps	Normal	○	○	×
	PD Enabled	○	○	○
Thunderbolt 20-40Gbps PD Enabled DisplayPort		○	○	○

Q12: I'm using a laptop connected with MS10 by H2C. What if the USB-A/C and HDMI ports are on the opposite sides?

A:
An additional USB extension cable is required to extend the USB-A/C. The extension cable is included in the box.

Q13: Can this solution work with mobile phones or Android tablets?

A:
We don't claim it. But some advanced mobile phones/tablets supports DP-out via USB Type-C may work well on screen-sharing.
However, each mobile phone / tablet has its own permission system in its Android design, so the DP output may meet some difficulties while trying to mirror the screen via the connected cable.
At present, Samsung phones may have some complicated process to get them work. Apple iPhones work with iPhone 15 or later ones, as Huawei or other Android phones can only support this in some newer or higher models.

Q14: What's the differences between regular webcams and CM70

A:
Regular webcams are designed for PERSONAL usage as the companion of PCs or laptops for better image quality in personal video communication. The webcams are implemented with relatively narrow FOV since it's for personal. Some

advanced webcams have sharp focus DOF, Depth of Field, fancy effects and face recognition.
As for the conference cameras, such as CM70, they are made for GROUP video conferences. Usually, a conference camera is equipped with a wide-angle FOV, Field of View, to better capture the whole view in the meeting room. In the meantime, some advanced conference camera are integrated with a very useful feature called 'Auto-framing'. This feature takes advantage of AI to identify faces and bodies to crop the blank image out and focus on the meeting attendees. CM70 is one of the high-quality conference camera with ultra-wide-angle FOV, 4K UHD resolution and a smooth auto-framing experience.

Q15: What's the differences between PTZ cameras and CM70?

A:
PTZ cameras are designed for medium to large meeting rooms. Usually, it's implemented with optical-zoom to better capture people who is far from the camera position. Most PTZ cameras are relatively expensive, and they require system integration to be set up in a large meeting room system.
As for CM70, it's designed for small-to-medium meeting rooms. Due to the limitation of the room size, optical zoom is over-spec to get clear image quality in this kind of environment. Same as other regular conference cameras, CM70 is equipped with digital-zoom. In the meantime, auto-framing is made for e-PTZ to simulate the effect of what the PTZ camera can provide.

Q16: Why do I see blurry image while utilizing CM70 in a video conference call?

A:
Please check two things first:
1. Open the 'Camera 'app on the computer/laptop system. In regular situations, the video image should be quite clear. If it's still blurry, then the camera can malfunction.
2. A transparent sticker is pasted on the lens cover while packaging it for manufacturing. Please make sure it is removed.
If the image is clear, then it's possible due to the Video Conferencing service. In most cases, to ensure the connection and bandwidth are stable, the services have some kind of proprietary mechanism to adaptively adjust the bit-rate of the video. If the bit-rate is low, the video image becomes blurry compared to situations. The idea of the design is to secure audio above all others.
This often happens when multiple remote sites attend the same video conference, or low-bandwidth on local network.

Workaround solution will be:
1. If there is a paid service, subscribe to it to get better CDN service and preserve bandwidth for your Video conference performance.
2. Try to locate more bandwidth for your video conferencing environment to avoid the limitation from your side.

Q17: Why do I see a black / blank image while utilizing CM70 (but I can still see the setting menu invoked by the Camera Remote Control?

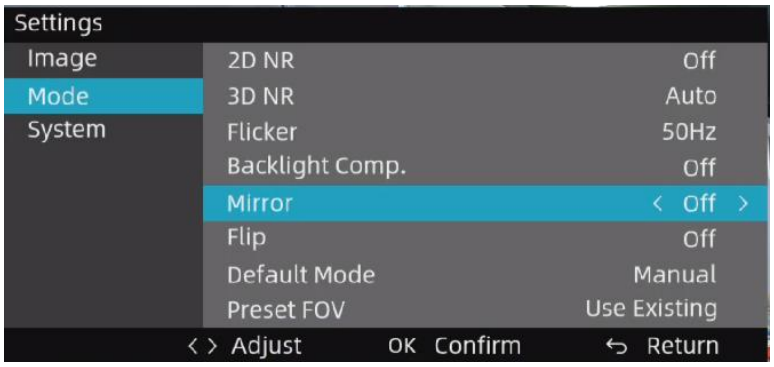
A:
It is highly possible that the privacy shutter is closed. Please rotate the lens cover to open it.

Q18: When I use CM70 remote control to configure the settings of the camera, it shows a mirror flipped menu. Why?

A:
This can be caused by the application being turned 'Mirror view 'ON.
Either turn the "Mirror view" in the application/service to "OFF" or press the "Left" button on the Remote Control of the Camera to correct this situation.

Some more info:
Usually, people are used to seeing themselves in the "Mirror view", because most of the time, we can only see ourselves in the mirrors. Meanwhile, it's more natural for people to interact, such as doing gestures, in the preview, "Mirror view" can be more natural for users.
But in the meeting environment, the other attendees won't be used to the "Mirror view", due to the fact that it's horizontal flipped from what people see in the real world.

This gives a challenge for camera/conferencing application makers. It needs to satisfy both personal and group scenarios. So in most of the implementations, no matter how the users set for "Mirror view", the setting only affects the "Preview"



of the service/application's, but always sends "non-mirrored" image to the other conferencing attendees.
It leads to the local preview and the image sent out in the application/service can be different when the "Mirror view" is set as "ON".
This sometimes confuses the users.

Q19: Any chance to convert my current language on the UI to another one?

A:

The language can be changed one after one by pressing the button on the back of the receiver (RC10) which is on the Quick Installation Guide as well.
Basically, the default language is English, but it's probably the one who sent you a used set, and it was set to Simplified Chinese…
Receiver LED indicator:
Flashing Green: Connecting in progress.
Static Green: Connection succeeds, ready for screen-sharing.
Static White: Working.

Q20: It seems that MS10 and RC10 are messed up after testing. What should I do?

A:
1. Check if the SN# on the sticker of both devices are the same. If so, then it's paired devices.
2. Refer steps re-paring below.

Q21: How to re-pairing the devices?

A:
After powering on, press the back button of RC10, and press the screen-sharing button and mute button of MS10 at the same time, then press for 5s to release; Enter automatic pairing later. After successful pairing, you can continue to press the screen-sharing button to use the screen-sharing.

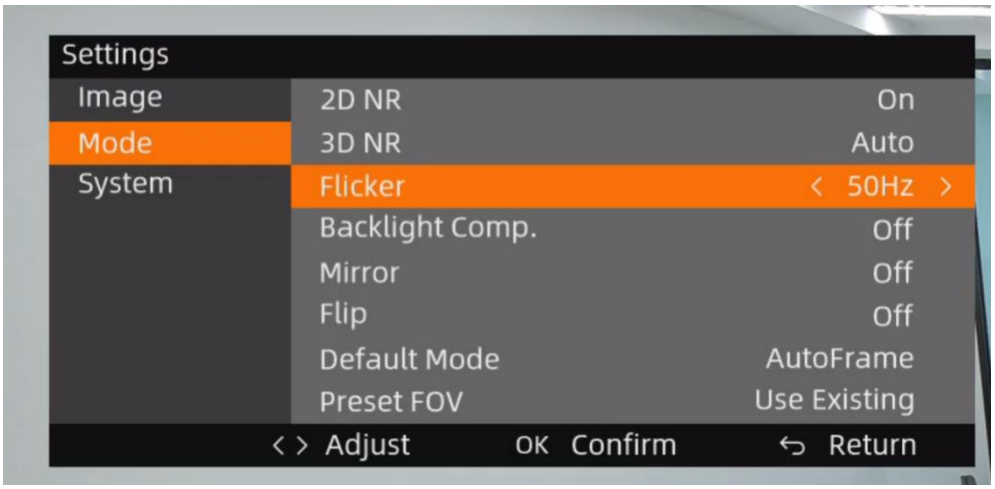
Q22: Why do I see red-light on the "screen-sharing button" after re-pairing the devices?

A:
The red-light means "No pairing information" or "Pairing information erased".

More info:
Button on the back of RC10:
Short-press is for language switching,
Long-press for 5-10s is for pairing, and
Long-press for 10+s is to erase previous pairing information
When it's not related to above situation, then the user may need to consult the IT department who's responsible for the networking system. Check to see whether Wi-Fi 5G is deployed and disabled C1Rxxx wireless signal. If so, then it needs to be enabled.

Q23: Why do I see the camera image flicking?

A:
In camera "Settings", switch the Flicker value between 50Hz and 60Hz to see whether this situation is resolved. This is caused by the variety of electrical system in different countries.



Q24: Why does the computer resolution become lower while connecting to MS10?

A:
It's caused by the resolution setting in the computer system. The user can set the resolution for the screen-sharing target in the computer system.
While the computer is connected to the screen-sharing target, such as MS10 or a external display, the computer system should remember the resolution settings of each individual.
The default resolution of MS10 is 3480*2160, so called 4K.

Q25: Why does the scaling ratio on computer be changed while connecting or unplug to MS10?

A: The same caused as previous question: adjust the scaling ratio setting are on your computers system. In the different windows version, the performance is various. If the above situation occurs on your computer, there are two situations:

1. In the duplicate mode, resolution and scaling remain the same both without and with MS10 connected.
2. In the extended display, set the screen 2 resolution and scaling ratio on your computer screen settings that what you want.

Therefore, you won't trouble about scaling ration not match while using MS10.

Q26: Why do I see black stripe on both side after screen-sharing?

A:
The aspect ratio of the computer screen is fixed by the system settings. When the user sees this kind of situation, it's usually caused by a 16:10 screen setting. And most computer and display is designed for 16:9. When the aspect ratio of the screen-sharing target and the computer source is different, the stripe may appear to fill out the blank space in "Duplicate mode". On Windows system, if the user choose "Extended display - WIN+P" mode, this can be resolved.

Q27: Why can't the device be identified when upgrading RC10?

A:
Please make sure that you are using a data-transferring enabled USB Type-C cable.

Q28: After connecting MS10, the computer's display back out, What should I do?

A:
1. MS10 as a Plug & play device, will not alter Windows settings, and in the testing environment, the tester may test several devices with several different firmware versions. The computer system remembers EDID, and it will remember the settings of the device in the last time connected.
When this happens, connect MS10 to the computer, and press "WIN+P" to switch to duplicated mode, and unplug-n-plug the device again.
2. Double click "Delete_hidden_device.cmd" to erase older EDID record.
More info:
https://www.reddit.com/r/Windows11/comments/18qqxck/windows_11_laptop_always_boots_on_second_screen/

https://answers.microsoft.com/en-us/windows/forum/all/second-display-constantly-stutteringturning-on-and/4a5561dc-3d57-4e86-b80d-a52f62b0c0ae

https://learn.microsoft.com/en-us/troubleshoot/windows-client/shell-experience/display-configuration-reverts-second-screen-only-resume-standby

https://community.spiceworks.com/t/windows-10-reverts-to-display-only-on-secondary-monitor-on-start-up/621280

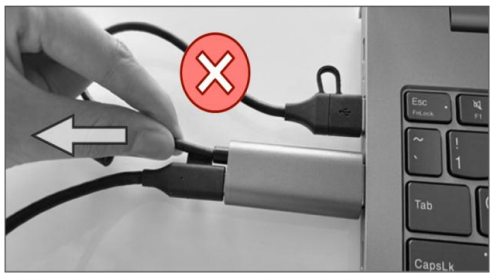
https://www.reddit.com/r/Windows11/comments/18qqxck/windows_11_laptop_always_boots_on_second_screen/

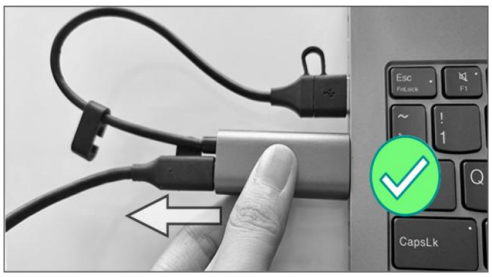
Q29: Is there any number of characters limitation for localization?

A:
Yes, 60 characters for single line. Graphic icon cannot be bigger than the original design region.

Q30: Are there any caveats to H2C?

A:
Sure.In order to extend the life of the H2C converter, when you pull out the H2C cable, please pull out while holding the body. Try not to directly pull the cable.





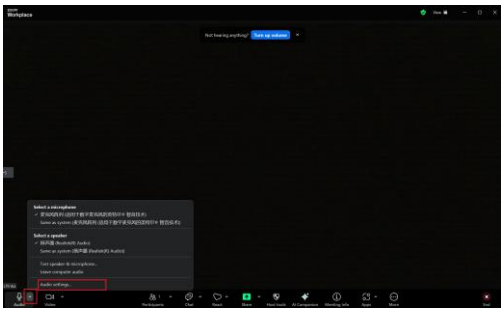
Q31: How to resolve audio conflicts between CA400 and conferencing software?

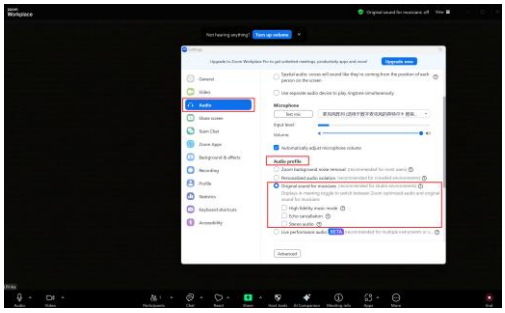
A:
The CA400-MS10 screen-sharing speakerphone is equipped with built-in echo cancellation and noise reduction features. Meanwhile, mainstream conferencing platforms such as Zoom, Teams, Google Meet, and Webex also offer their own voice processing options, including echo cancellation and noise suppression. When both the MS10 device and the conferencing platform have these features enabled simultaneously, algorithm conflicts may occur, resulting in distorted audio, interrupted speech, or degraded overall sound quality—negatively impacting the meeting experience.

To ensure optimal audio performance, we recommend disabling the noise reduction or echo cancellation settings on the conferencing platforms when using the CA400 and following our recommended voice settings to fully leverage the capabilities of the CA400.

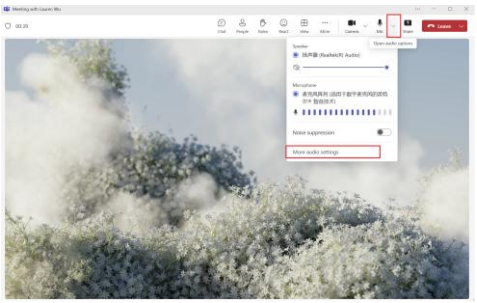
Specific steps are as follows:

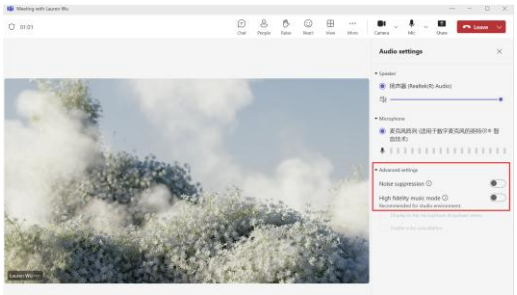
Zoom:
1. Click the dropdown menu next to the microphone icon.
2. Select “Audio Settings…”
3. Go to the “Audio” tab.
4. Find “Audio Profile”, then check “Original sound for musicians”.
   (1) Uncheck “High fidelity music mode”.
   (2) Uncheck “Echo cancellation”.
   (3) Uncheck “Stereo audio”.



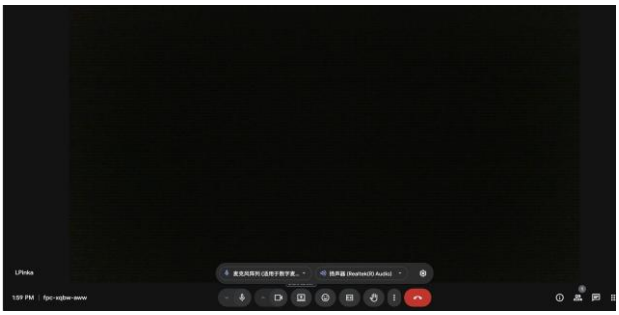


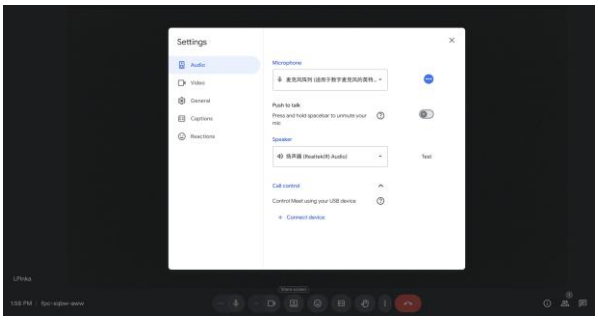
Teams:
1. Click the dropdown menu next to the microphone icon.
2. Select “More audio settings”.
3. Turn off “Noise suppression” and “High fidelity music mode”.





Google Meeting: No operation required.





Webex:

1. Click the dropdown menu next to the microphone icon.
2. Select “Audio Settings…”.
3. Under the “Audio” tab, click “Intelligent Audio” and choose “Music Mode”.

