



WiiM Ultra: Hi-Res Music Streamer

Digital Hub For Your Music

Model Name: WiiM Ultra
Model Number: ASR004

Table of Contents

1. Introduction.....	3
Typical Use Cases.....	4
Other Devices Needed to Use the WiiM Ultra.....	6
Audio Devices Work with the WiiM Ultra.....	7
2. What's in the Box.....	8
3. Technical Specifications.....	9
4. WiiM Ultra Controls, Interfaces, and Lights.....	12
Front Panel Controls and Lights.....	12
Back Panel Interfaces.....	13
WiiM Voice Remote.....	15
LED Status Lights.....	17
5. How to Get Started.....	18
Connect the WiiM Ultra's Audio Output.....	18
Connect the WiiM Ultra's Audio Input.....	26
Use 12V Trigger Out.....	33
Power On the WiiM Ultra.....	34
Download and Install the WiiM Home App.....	35
Set Up the WiiM Ultra.....	36
Configure the WiiM Ultra in the WiiM Home App.....	46
Fill Your Home with Sound.....	47
6. WiiM Ultra Configuration.....	48
Select Audio Input Source and Configure Audio Input.....	48
Select Audio Output Interface.....	50
Adjust Audio Output Settings.....	52
Adjust Subwoofer Settings.....	54
Room Correction.....	55
Equalizer (EQ).....	56
7. Audio Output/Input via Bluetooth.....	57
Audio Input via Bluetooth.....	57
Audio Output via Bluetooth.....	58
8. USB Media Library.....	60
9. Voice Control.....	61
10. Direct Control via Your Favorite App.....	62
Spotify Connect.....	62
TIDAL Connect.....	63

Amazon Music Cast (Alexa Cast).....	64
Google Cast Audio.....	65
DLNA.....	66
11. All Music in One App.....	67
12. Multi-room Audio and Stereo Pairing.....	68
WiiM Multi-room Audio and Stereo Pairing.....	68
Amazon Alexa Multi-room Audio.....	70
Google Cast Multi-room Audio.....	71
13. Advanced Features.....	72
Firmware Updates.....	72
Use Ethernet Instead of Wi-Fi.....	72
14. FAQ and Support.....	73
FAQ.....	73
Support.....	75
15. Public Network Interfaces and Services.....	76
LAN Interface.....	76
Wi-Fi Interface.....	77
Bluetooth Interface.....	78
16. Important Safety Instructions.....	79
17. CE/FCC/IC/TELEC/Brazil/KC Statements.....	81

1. Introduction

At WiiM, our mission is to provide the simplest and most affordable Hi-Fi, lossless audio systems. Each product we design features top-tier craftsmanship and an intuitive user interface.

The WiiM Ultra, our flagship music streamer, serves as the central digital hub for your audio ecosystem. Boasting audiophile-grade components, rich audio connections, and a vibrant 3.5-inch full-color touchscreen, it delivers Hi-Res streaming, advanced room correction, and smart home integration. The WiiM Ultra seamlessly connects to a variety of devices, including turntables, TVs, headphones, AV receivers, subwoofers, smart speakers, wired or wireless headphone, and more, offering a comprehensive and versatile audio solution.

Equipped with the ESS Sabre ES9038 Q2M premium DAC, it delivers industry-leading low distortion and wide dynamic range, featuring a Signal-to-Noise Ratio (SNR) of 121 dB (A-wt) and a Total Harmonic Distortion plus Noise (THD+N) of -116 dB across sample rates from 44.1k to 192k, courtesy of its ultra-low noise clock and optimized power and circuit design. Additionally, it features a cutting-edge TI Burr-Brown PCM1861 ADC, which achieves a 110 dB SNR for analog-to-digital conversion, ideal for input sources like turntables, MP3 players, and TVs. The high-fidelity headphone amplifier TPA6120A2 supports a wide range of headphones.

Simply connect the WiiM Ultra to your stereo receiver, amplifier, or powered speakers, and control it using the user-friendly WiiM Home app or popular platforms like Spotify, TIDAL, Amazon Music, or any Google Cast-enabled apps. Voice control is also a breeze through compatible Echo and Google Home devices, as well as the Alexa app, and Google Home app.

Create synchronized groups with Echo, Google Home, other Alexa-compatible devices, or additional WiiM devices, and stream music throughout your home or playing different tracks in separate rooms.

Elevate your audio gear with the smart capabilities of the WiiM Ultra, and enjoy incomparable convenience and fidelity.

Typical Use Cases

The WiiM Ultra is designed to enhance your existing audio setup by adding wireless streaming capabilities and smart features. Here are a few common use cases for the WiiM Ultra:

- **Upgrade Your Favorite Legacy Audio Systems:** If you have a traditional stereo system or speakers that you want to integrate into your Spotify, TIDAL, local Music library, Google Cast, Amazon Alexa, DLNA, Roon, or WiiM ecosystem, the WiiM Ultra allows you to wirelessly stream music to those speakers. It bridges the gap between your older audio equipment and the modern world of streaming music.
- **High-Quality Audio:** It supports bit-perfect, high-resolution audio formats and delivers rich, detailed sound, enhancing the listening experience of your existing audio system.
- **Streaming Services and Music Libraries:** The WiiM Ultra allows you to access various streaming services such as Spotify, Amazon Music, or TIDAL, bringing a wide range of music to your existing audio setup. You can also connect it to your personal music library stored on a computer, network-attached storage device, or USB disk for seamless playback.
- **Podcasts and Internet Radio:** In addition to streaming music, the WiiM Ultra provides access to a wide range of podcasts and internet radio stations. You can browse through different genres, podcasts, or specific radio stations to enjoy on your existing audio system.
- **Multi-Room Audio:** The WiiM Ultra seamlessly integrates with other 3rd party popular smart speakers and components, or another WiiM device, allowing you to create a whole-home audio system with synchronized music playback in multiple rooms.
- **Smart Home Integration:** The WiiM Ultra supports voice control through platforms like Amazon Alexa or Google Assistant, allowing you to control your music hands-free and integrate with other smart home devices.
- **Vinyl or CD Integration:** If you have a turntable or CD player that you want to incorporate into your WiiM system, the WiiM Ultra can connect to the analog or digital outputs of these devices. This enables wireless audio streaming to other speakers via another WiiM device, allowing you to relish the sound throughout your entire home, all in sync.
- **Home Theater Integration:** The WiiM Ultra can be used as a bridge between your home theater system and the WiiM ecosystem. By connecting the Ultra to your AV receiver or soundbar, you can stream music wirelessly to your home

theater speakers and synchronize audio playback with other WiiM devices for a cohesive audio experience.

Other Devices Needed to Use the WiiM Ultra

To use the WiiM Ultra, you will need a few essential devices and components. Here's a list of what you'll need:

- **Audio System:** The WiiM Ultra is designed to connect to an existing audio system. This can be a stereo system, powered speakers, passive speakers with an amplifier/receiver, or a home theater setup with an AV receiver, or soundbar. Make sure you have the appropriate audio system in place.
- **Wi-Fi Network:** The WiiM Ultra requires a stable Wi-Fi network connection to function. Ensure that you have a reliable Wi-Fi network available in the area where you plan to set up the WiiM Ultra. You'll need the Wi-Fi network credentials during the setup process.
- **Smartphone or Tablet:** You'll need a compatible smartphone or tablet (iOS or Android) with the WiiM Home app installed. The WiiM Home app is used for initial setup, configuration, and control of the WiiM Ultra.
- **Power Source:** The WiiM Ultra needs to be connected to a power source using the included power cable. Ensure that you have an electrical outlet nearby to power the device.
- **Ethernet Cable** (optional): While the WiiM Ultra primarily connects to your Wi-Fi network, it also has an Ethernet port. If you prefer a wired connection for added stability, you can use an Ethernet cable to connect the WiiM Ultra directly to your router or network switch.

These are the core components required to use the WiiM Ultra. It's important to have an audio system that you want to integrate with the Ultra, a stable Wi-Fi or wired network, and a compatible device with the WiiM Home app for setup and control.

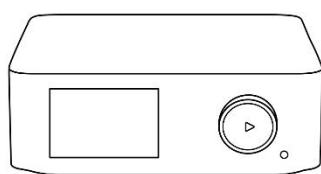
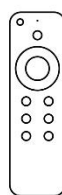
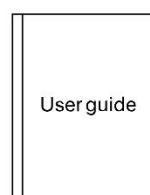
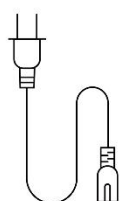
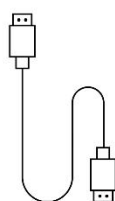
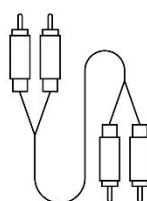
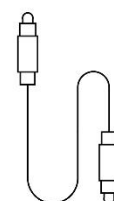
Audio Devices Work with the WiiM Ultra

The WiiM Ultra can work with your audio source devices, smart speakers, and other legacy stereo systems, DAC, amplifier, speakers, or soundbars etc. The audio source device includes TV, record player and MP3 player. The block diagram below shows how you can connect your audio system with the WiiM Ultra.



2. What's in the Box

- | | | |
|----|--------------------------------|-----|
| 1. | WiiM Ultra | x 1 |
| 2. | WiiM Voice Remote | x 1 |
| 3. | Quick start guide | x 1 |
| 4. | Phono ground adapter | x 1 |
| 5. | 100~240V AC power cable (1.5m) | x 1 |
| 6. | HDMI cable (1.5m) | x 1 |
| 7. | RCA audio cable (1.5m) | x 1 |
| 8. | Optical audio cable (1.5m) | x 1 |

**1****2****3****4****5****6****7****8**

3. Technical Specifications

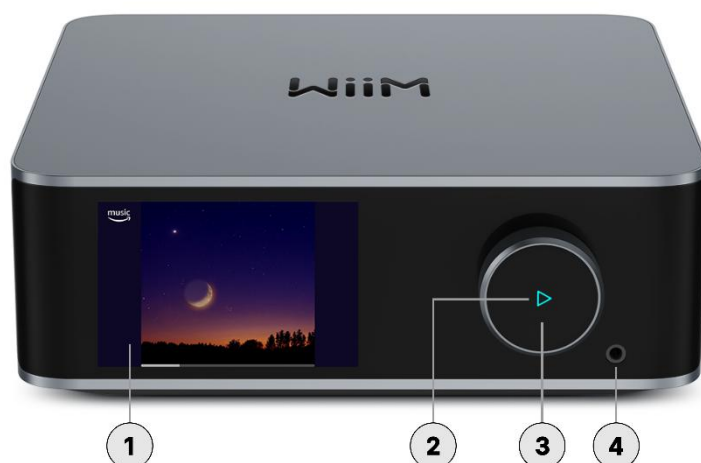
Category	Specification
Audio Amplification	No
Main Purpose	Connected to amplifier or powered speaker for streaming
Pair with a Sub	Yes
USB Port (Storage/Audio Out)	Yes
Wireless Connectivity	Wi-Fi 6 (Upgradeable to Wi-Fi 6E via software update)
Bluetooth	BT 5.3
Ethernet	Yes
DAC IC	ESS ES9038 Q2M
Analog Out SNR	121 dB
THD+N (Analog Out)	-116 dB (0.00015%)
Analog Input (ADC)	Up to 192k, 24 bit
Google Cast Audio	Yes
Group with Nest Speakers and Display	Yes
Group with Echo Speakers and Display	Yes
Alexa Multi-room with UHD	Yes
Group with HomePods	No
Works with Alexa	Yes
Works with Google	Yes
Works with Siri	No
Group with WiiM Devices	Yes

AirPlay 2	No
2-Way Bluetooth	Yes
Room Ready	Yes
DLNA	Yes
Spotify Connect & TIDAL Connect	Yes
Gapless Playback	Yes
10-Band Graphic and Parametric EQ	Yes
RoomFit™ Room Correction	Yes
WiiM Music Streaming Platform	Yes
CPU	Quad Core A53
DRAM	512 MB
Flash	512 MB
Audio Input Ports	HDMI ARC: <ul style="list-style-type: none"> ● Up to 192kHz/24-bit. ● Supports Stereo PCM and Dolby Digital, but not DTS.
	Optical In: <ul style="list-style-type: none"> ● Up to 192kHz/24-bit. ● Supports Stereo PCM and Dolby Digital, but not DTS.
	Line In: <ul style="list-style-type: none"> ● 2 Vrms ● Analog signal, converted to digital via ADC (up to 192kHz/24-bit)
	Phono In (MM/MC): <ul style="list-style-type: none"> ● Gain: 41dB MM / 59dB MC ● MM: THD+N -75dB, SNR 76dB@5mV ● MC: THD+N -58dB, SNR 56dB@0.5mV ● RIAA accuracy: < ±0.5dB / 20Hz - 20kHz

Audio Output Ports	Line Out: <ul style="list-style-type: none"> ● Maximum output: 2.1V RMS ● SNR: 121 dB (A-wt) ● THD+N (1 kHz): 0.00018% (-115 dB) for 44.1k to 192k ● FR curve: +/- 0.05 dB
	Optical Out (up to 192 kHz/24-bit)
	COAX Out (up to 192 kHz/24-bit)
	USB Out: <ul style="list-style-type: none"> ● Up to 192kHz/24-bit ● UAC 2.0 ● DC 5V/1.5A power output
	Sub Out (2.0 Vrms)
	Headphone Out: <ul style="list-style-type: none"> ● 300 ohms: SNR (119 dB), THD+N (-99 dB) ● 32 ohms: SNR (119 dB), THD+N (-92 dB)
External USB Storage	Access personal media library and use it as a media server for other WiiM and DLNA devices. Support FAT32, NTFS, and EXT4 file systems.
12V Trigger Out	<ul style="list-style-type: none"> ● 3.5 mm port ● Load-carrying capacity: DC 12V/200mA
LED	Four-color status LED - Red, Green, Blue, and White
Control	3.5-inch touchscreen, volume knob, play/pause, setup, and more
Weight	3.13 lbs (1.42 kg)
Dimension	8.3 in x 7.87 in x 2.83 in (211 mm x 200 mm x 72 mm)
Power Input	100-240V AC input, 50/60 Hz, 0.5A Max

4. WiiM Ultra Controls, Interfaces, and Lights

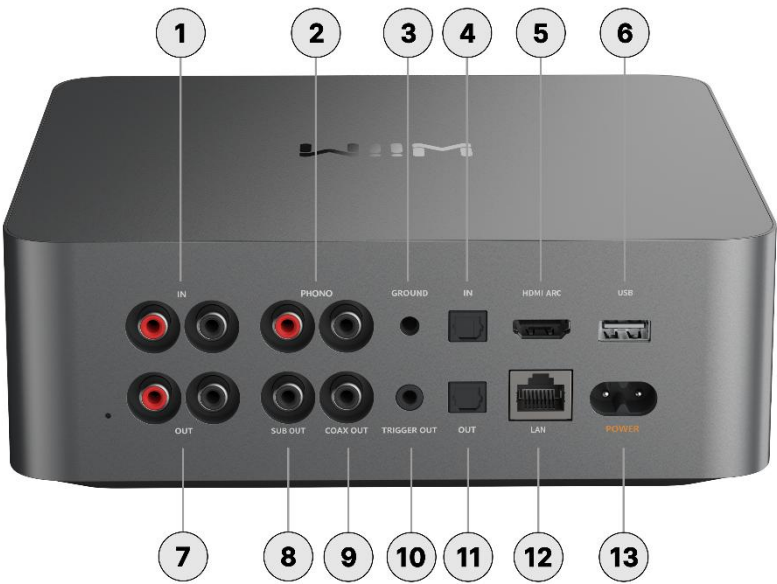
Front Panel Controls and Lights



Each numbered control or interface on the front panel is explained below:

- | | | |
|-------|----------------------|--|
| ① | LCD Display | A 3.5-inch touchscreen provides playback status and enables direct control of the WiiM Ultra. |
| <hr/> | | |
| ② | LED Indicator | A four-color LED (RGBW) indicator to display the operational status of the WiiM Ultra.
For more information, see LED Status Lights . |
| <hr/> | | |
| ③ | Volume Knob | <p>Push:</p> <ul style="list-style-type: none">● Play/Pause● Wi-Fi setup or Bluetooth pairing (push and hold for 3 seconds)● Restore to the factory setting (push and hold for 10 seconds) <p>Turn clockwise: Increase volume</p> <p>Turn anti-clockwise: Decrease volume</p> |
| <hr/> | | |
| ④ | Headphone Out | Connects to an external headphone. |

Back Panel Interfaces



Each numbered control or interface on the back panel is explained below:

1	LINE IN	Connects to external audio sources such as CD players, audio players, and TVs for analog audio input.
2	PHONO IN	A dedicated input for connecting a turntable.
3	GROUND	A connection port used to ground the turntable to reduce hum or noise.
4	OPTICAL IN	Connects to external audio sources, such as a TV or PC, for digital audio input. It supports audio input of up to 192 kHz/24-bit.
5	HDMI ARC	Connects to a TV for audio input. It supports Stereo PCM, Dolby Digital (DTS is not supported).
6	USB	USB IN: Allows connection to USB storage devices for playing audio files directly. <i>Note: USB audio input is not supported.</i>

USB OUT: Outputs high quality audio to an external DAC or other audio device with a USB audio input.

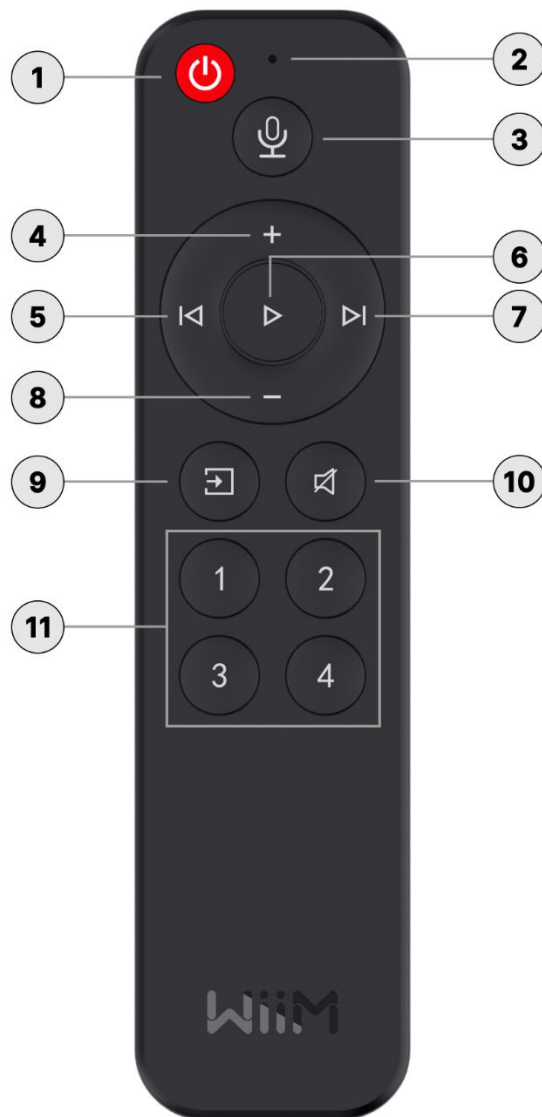
Note: Use a USB hub to connect both **USB IN** and **USB OUT** simultaneously.

7	LINE OUT	Outputs analog audio, ideal for connecting to an external amplifier, powered speakers, or audio receiver.
8	SUB OUT	Connects to a powered subwoofer and outputs a signal at 2.0 Vrms.
9	COAX OUT	Outputs digital audio up to 192 kHz/24-bit with low jitter.
10	12V TRIGGER OUT	3.5 mm port for cable connection to your amplifier for automated power control. Load-carrying capacity: DC 12V/200mA Note: Consult your amplifier's user guide for specifics on utilizing its 12V trigger input.
11	OPTICAL OUT	Outputs high-quality digital audio up to 192 kHz/24-bit with low jitter.
12	LAN	10/100Mbps Ethernet port
13	Power Input	100-240V AC input, 50/60 Hz, 0.5A Max

WiiM Voice Remote

You can use the provided WiiM Voice Remote to effortlessly control the WiiM Ultra.

For detailed instructions, refer to [How to Set Up Your WiiM Voice Remote](#).



Each numbered control on the WiiM Voice Remote is explained below:

- | | | |
|-------|-------------------|--|
| 1 | Standby | Press to put the WiiM Ultra into standby mode. |
| <hr/> | | |
| 2 | Microphone | Capture voice commands. |

3	Voice Control	Press and hold to give voice commands.
---	----------------------	--

4	Volume Up	Press to increase the speaker volume.
---	------------------	---------------------------------------

5	Previous	Press to return to the previous playback or restart the current playback.
---	-----------------	---

6	Play/Pause	Press to start or pause the current playback.
---	-------------------	---

7	Next	Press to skip to the next playback.
---	-------------	-------------------------------------













8	Volume Down	Press to decrease the speaker volume.
---	--------------------	---------------------------------------

9	Source Switch	Press to change the input source.
---	----------------------	-----------------------------------

10	Mute/Unmute	Press to mute or unmute the speakers.
----	--------------------	---------------------------------------

11	Preset Shortcuts	Press buttons 1~4 to play the corresponding presets.
----	-------------------------	--

LED Status Lights

LED Color/Pattern		State
Fast Flashing White		Boot-up
Slow Flashing White		OUBE/Ready to setup
Slow Flashing Green		Bluetooth ready to pair
Fast Flashing White and Green		Connecting to Wi-Fi
Solid White		Connected to Wi-Fi
Solid Green		Bluetooth mode, paired
Solid Light Green		Line-in mode/Phono-in mode
Solid Orange		Optical-in mode/ TV mode
Slow Flashing White and Green		OTA update
Slow Flashing White and Red		Restore to factory settings
Solid Yellow		No network
Slow Flashing Red		Faulty error

5. How to Get Started

Before using your WiiM Ultra, follow these main steps to set it up:

1. Connect the WiiM Ultra to your audio device.
2. Power on the WiiM Ultra.
3. Download and install the WiiM Home app on your mobile device.
4. Use the WiiM Home app to connect the WiiM Ultra to your network.
5. Configure the WiiM Ultra in the WiiM Home app to suit your preferences.

By completing these steps, your WiiM Ultra will be ready for use. The following sub-chapters will provide detailed instructions for each step.

Connect the WiiM Ultra's Audio Output

The WiiM Ultra offers six distinct audio output interfaces to connect to your DAC, amplifier, headphones, stereo receiver, subwoofer, and powered speakers. These include:

- [Analog Line Out](#)
- [Digital Optical Out](#)
- [COAX Out](#)
- [USB Out](#)
- [Sub Out](#)
- [Headphone Out](#)

In addition to audio output via the above physical interfaces, the WiiM Ultra can also output audio via Bluetooth. For detailed instructions, see [Audio Output via Bluetooth Out](#).

Notes:

- The WiiM Ultra outputs audio to only one of these interfaces at a time, aside from the optional **Sub Out**.
- Selecting the appropriate audio output port is crucial to ensure sound output. Incorrect selection may result in no audio.
- For bit-perfect audio output, opt for the digital audio output and activate **Fixed Volume Output**, disable EQ and mono audio in the WiiM Home app's device settings.
- You have two ways to control the volume of your system:
 - *Control the volume directly from your AV receiver or amplifier when **Fixed Volume Output** is set on the WiiM Ultra.*

- *Control the volume through the WiiM Home app, but make sure to disable **Fixed Volume Output**. (Recommended Method)*

Scenario 1: Line Out (Powered Speakers, Amplifiers, AV Receivers)

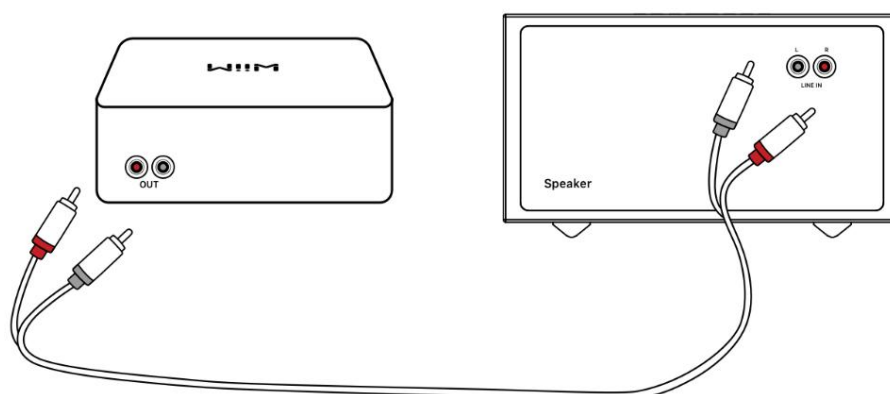
The **LINE Out** interface on the WiiM Ultra is typically used to connect to the external audio equipment, e.g., powered speakers, amplifiers, or AV receivers to output high-quality analog audio playback.

Cable Requirement: Use an RCA stereo cable as below:



Cable Connection Steps:

1. Connect the red and white RCA connectors on one end of the cable to the corresponding **Line Out** ports on the WiiM Ultra.
2. Connect the red and white RCA connectors on the other end of the cable to the corresponding **Line In** ports on your external device.



Scenario 2: Optical Out (Soundbars, DACs, or AV Receivers)

The **Optical Out** interface on the WiiM Ultra is typically used to connect to the external device, e.g., soundbars, DACs, or AV receivers, to output digital audio playback.

Cable Requirement: Use a TOSLINK optical cable as below:

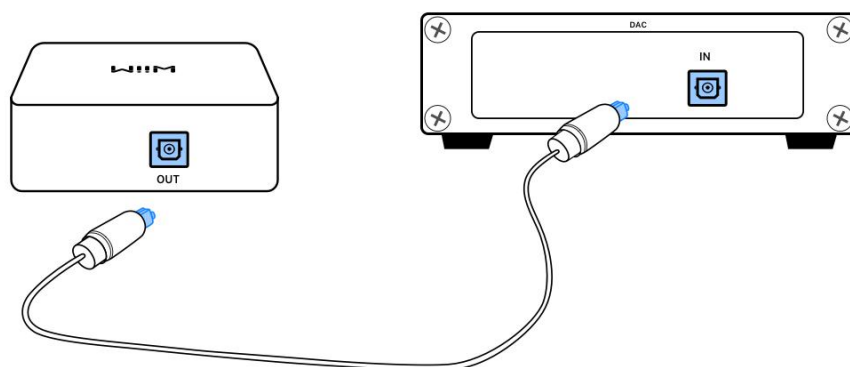


Cable Connection Steps:

1. Plug one end of the optical cable into the **Optical Out** port on the WiiM Ultra.

Note: Please ensure the insertion direction of the optical cable matches the port. Incorrect insertion may damage the optical door.

2. Plug the other end of the cable into the **Optical In** port of your external device.



Scenario 3: COAX Out (DACs, AV Receivers, or Amplifiers)

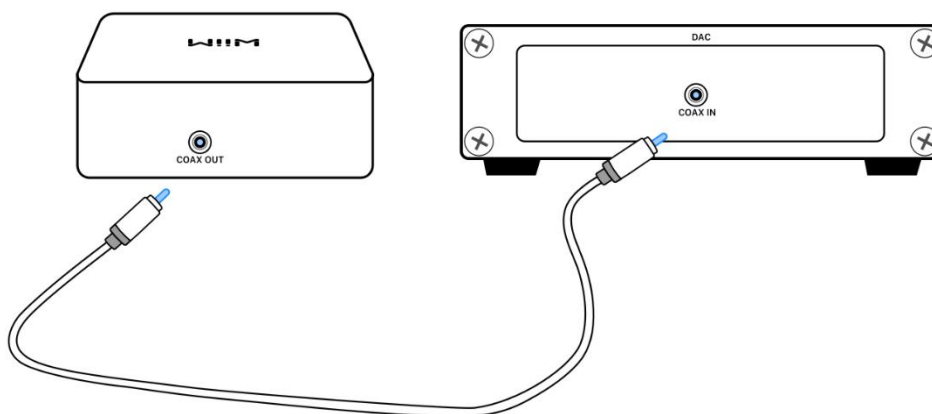
The **COAX Out** interface on the WiiM Ultra is typically used to connect to the external device, e.g., DACs, AV receivers, or amplifiers supporting coaxial input.

Cable Requirement: Use a Coaxial digital audio cable with 75-ohm impedance as below:



Cable Connection Steps:

1. Plug one end of the coaxial cable to the **COAX Out** port on the WiiM Ultra.
2. Plug the other end of the cable to the **COAX In** port of your external device.



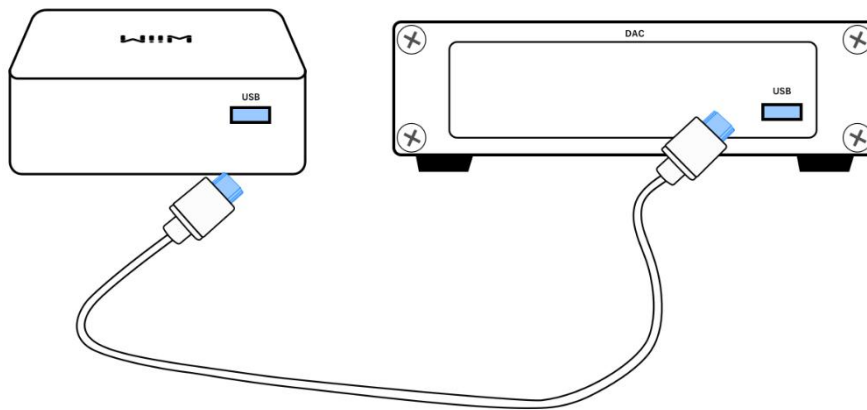
Scenario 4: USB Out (DACs or Amplifiers)

The **USB Out** port on the WiiM Ultra is typically used to connect to the external device, e.g., DACs or amplifiers that support USB audio input.

Cable Requirement: Use a USB cable

Cable Connection Steps:

1. Plug one end of the USB cable into the **USB** port on the WiiM Ultra.
2. Plug the other end of the cable into the **USB** input port of the DAC or amplifier.



Scenario 5: Sub Out (Powered Subwoofer)

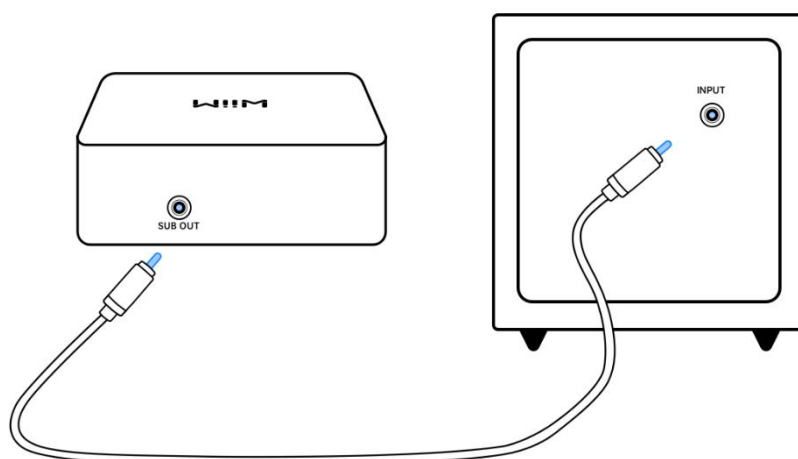
The **Sub Out** interface connects to a powered subwoofer for enhanced bass.

Cable Requirement: Use an RCA mono cable with 75-ohm impedance:



Cable Connection Steps:

1. Connect one end of an RCA cable to the **Sub Out** port on the WiiM Ultra.
2. Connect the other end of the RCA cable to the input on your powered subwoofer. If your subwoofer has two RCA inputs, opt for the one marked **LFE** or **Mono**.



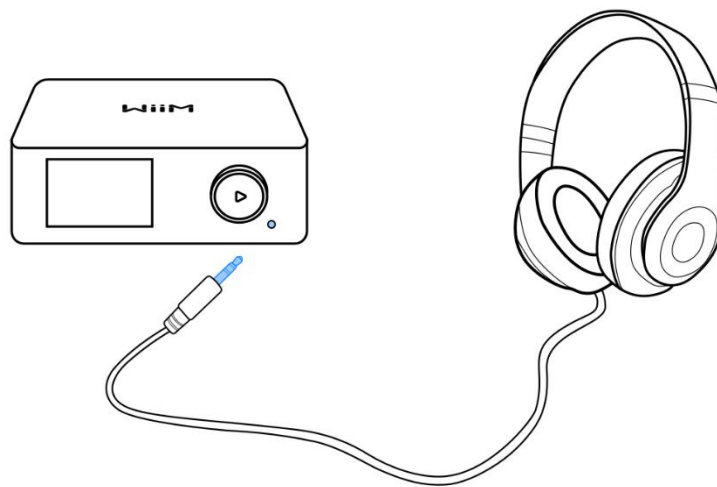
Scenario 6: Headphone Out (Headphones)

The **Headphone Out** port on the WiiM Ultra connects headphones.

Cable Requirement: Use a 3.5mm stereo audio cable.

Cable Connection Steps:

1. Plug the 3.5mm audio cable into the **Headphone Out** port on the WiiM Ultra.
2. Plug the other end into the input port of your headphone.



Connect the WiiM Ultra's Audio Input

The WiiM Ultra features four distinct audio input interfaces:

- [Analog Line In](#)
- [Digital Optical In \(TOSLINK\)](#)
- [HDMI ARC](#)
- [Phono In](#)

The WiiM Ultra acts as both a preamplifier and a network audio transmitter via Wi-Fi or Ethernet. You can stream analog audio inputs from sources such as CD players, vinyl players, TVs, or computers to any other WiiM devices, either individually or in multiple combinations.

In addition to physical input interfaces mentioned above, you can also stream audio from an external device (e.g., smartphones or tablets) to the WiiM Ultra via Bluetooth. For detailed instructions, see [Audio Input via Bluetooth](#).

Notes:

- *The **Optical In** and **HDMI ARC** interfaces on the WiiM Ultra support **PCM** and **Dolby Digital 5.1** audio formats. Please ensure that the audio source device connected to the WiiM Ultra is set to output audio in **PCM** or **Dolby Digital 5.1** format. Otherwise, you may not hear sound.*
- *To connect your TV to the WiiM Ultra using an HDMI cable, select HDMI port on your TV labeled HDMI ARC. Please note that connecting to other HDMI ports will not transmit sound to the WiiM Ultra.*
- *You can also enable the **Auto-sensing** feature on the WiiM Ultra to automatically play your **Line In**, **Optical In**, or **HDMI ARC** source when the WiiM Ultra detects a signal. You can enable this feature from the WiiM Home app.*
- *The WiiM Ultra has a built-in EQ to process the audio input based on your taste. You can also control the audio volume using the WiiM Home app remotely without altering the input source volume.*

Scenario 1: Analog Line In Audio Source Input (CD Player, Turntable with a Built-in Preamp, or PC)

The **Line In** interface on the WiiM Ultra is typically used to connect to a CD Player, Turntable with a built-in preamp, or PC to receive analog audio input.

Cable Requirement: One of the following two types of cables might be used.

- An RCA-to-RCA cable as below:

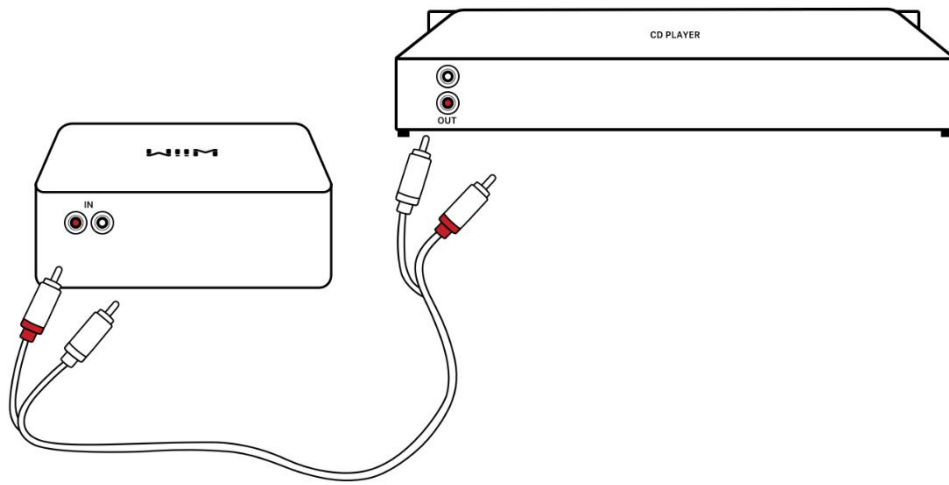


- An Aux-to-RCA cable as below:



Cable Connection Steps:

1. Plug RCA connectors on one end of the cable into the **Line In** port on the WiiM Ultra.
2. Plug the other end of the cable into the the **AUX** or **Line Out** port on your audio source (CD player, vinyl player, TV, or PC).



Scenario 2: Optical In Audio Source Input (TV or PC)

The **Optical In** interface on the WiiM Ultra is typically used to connect to a TV or PC to receive audio input.

Cable Requirement: use a TOSLINK optical cable as below:

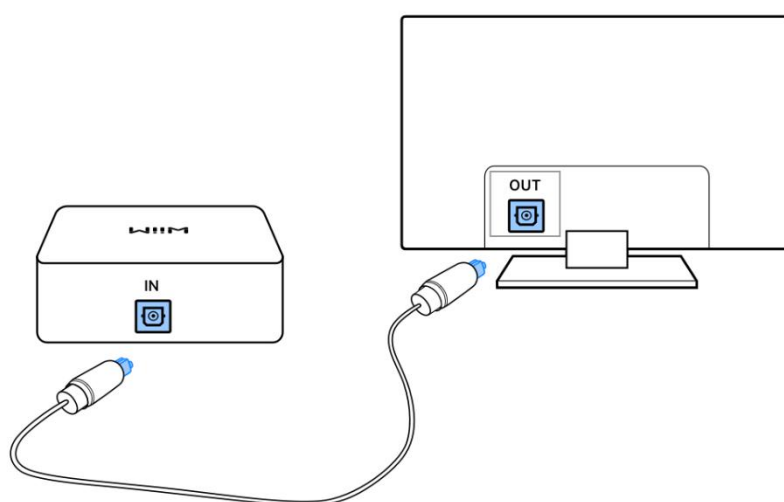


Cable Connection Steps

1. Plug one end of the optical cable into the **Optical In** port on the WiiM Ultra.

Note: Please ensure the insertion direction of the optical cable matches the port. Incorrect insertion may damage the optical door.

2. Plug the other end of the cable into the **Optical Out** port on the TV or PC.



Note: The **Optical In** interface on the WiiM Ultra supports **PCM** and **Dolby Digital 5.1** audio formats. Please ensure that the audio source device connected to the WiiM Ultra is

*set to output audio in **PCM** or **Dolby Digital 5.1** format. Otherwise, you may not hear sound.*

Scenario 3: HDMI ARC Audio Source Input (TV)

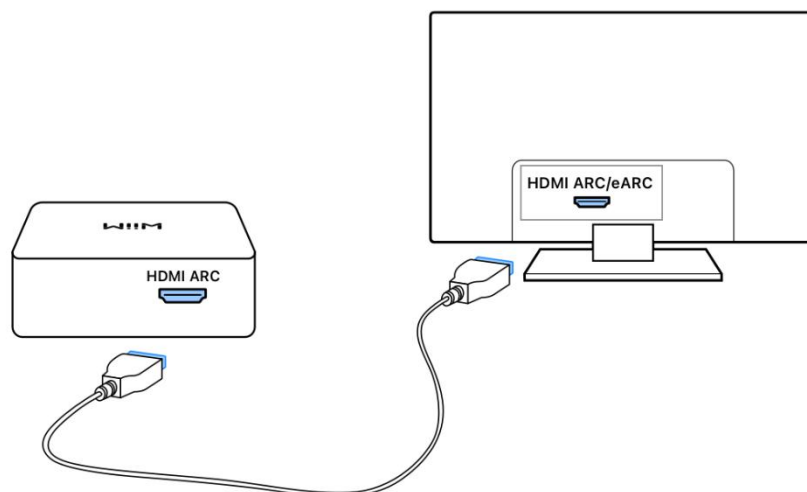
The **HDMI ARC** interface on the WiiM Ultra is typically used to connect to a TV to receive audio input.

Cable Requirement: use an HDMI cable as below:



Cable Connection Steps

1. Plug one end of the HDMI cable to the **HDMI ARC** port on the WiiM Ultra.
2. Plug the other end of the cable to the **HDMI ARC/eARC** port on the TV.



Note: The **HDMI ARC** interface on the WiiM Ultra supports **PCM** and **Dolby Digital 5.1** audio formats. Please ensure that the audio source device connected to the WiiM Ultra is set to output audio in **PCM** or **Dolby Digital 5.1** format. Otherwise, you may not hear sound.

Scenario 4: Phono In Audio Source Input (Turntable)

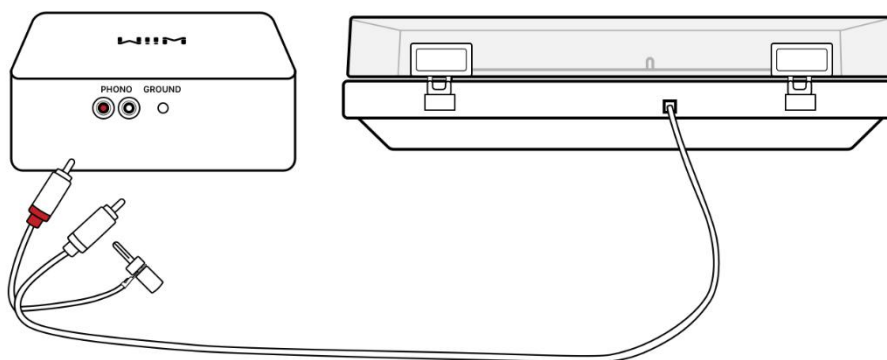
The **Phono In** port on the WiiM Ultra is specifically designed to connect to a turntable without a built-in preamp.

Cable Requirement:

- Use a turntable RCA cable.
- If the turntable has a ground wire, the provided PHONO ground adapter is needed.

Cable Connection Steps:

1. Connect the red and white RCA connectors on one end of the cable to the corresponding **Phono In** ports on the WiiM Ultra.
2. Connect the other end of the cable to the corresponding output port on the turntable.
3. If your turntable has a ground wire, attach it to the provided **Phono ground adapter** and plug the adapter into the **Ground** port on the WiiM Ultra.



Use 12V Trigger Out

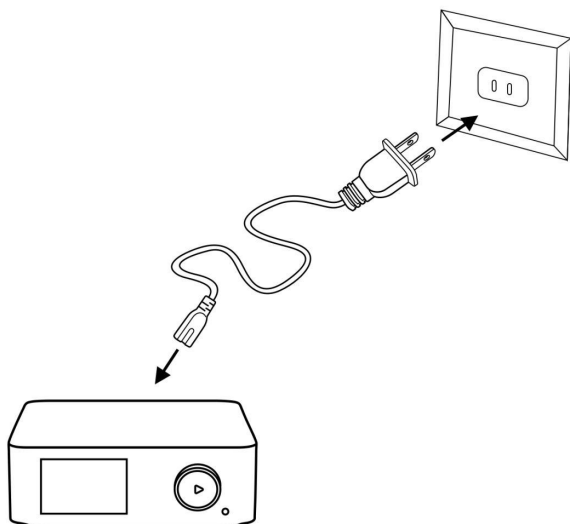
You can use the **12V Trigger Out** port on the WiiM Ultra to automatically power on or off external audio devices, such as amplifiers or DACs, based on the WiiM Ultra's status.

To achieve this, connect the **12V Trigger Out** port on the WiiM Ultra to the **12V Trigger In** port on the external audio device using a compatible cable.

For more information, refer to [How to Use the 12V Trigger Out](#).

Power On the WiiM Ultra

Connect the provided power adapter to the **Power Input** port and then plug it into a power outlet. It supports a voltage range of 100~240V, 50/60 Hz, with a current up to 0.5A. This ensures your device operates safely and efficiently.



Download and Install the WiiM Home App

- For an iOS or Android device, scan the following QR code to download the app:



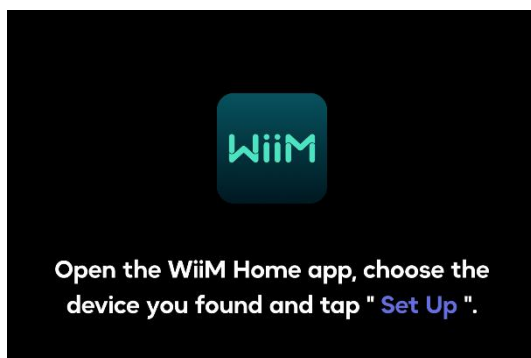
- The beta version is also available for Windows and Mac OS. Download it [here](#).

Set Up the WiiM Ultra

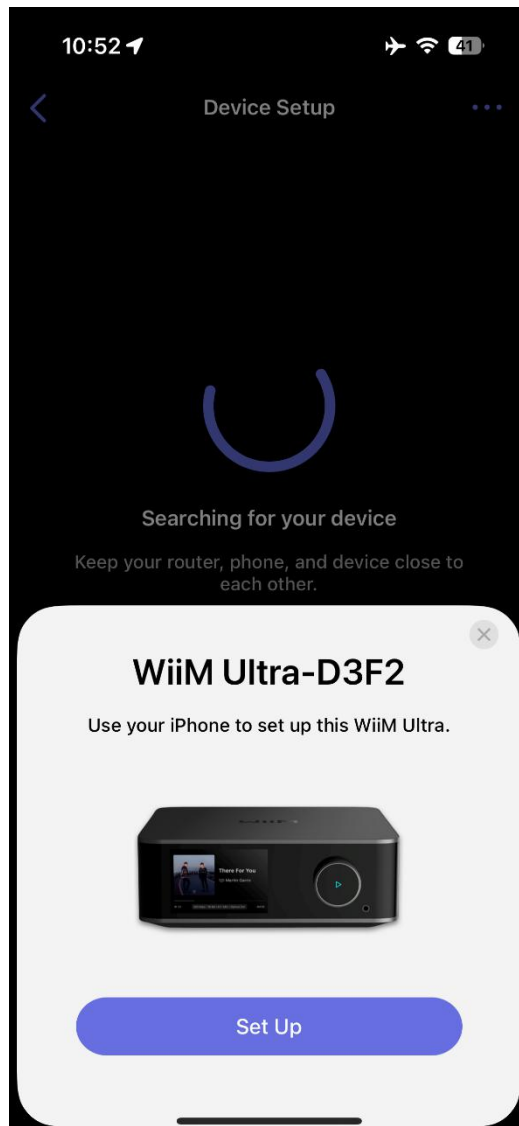
You need to set up the WiiM Ultra via Wi-Fi or Ethernet using the WiiM Home app. If you choose to connect via Wi-Fi, make sure you have your network password ready. This will ensure a smooth and efficient setup process.

WiiM Ultra Setup via Wi-Fi

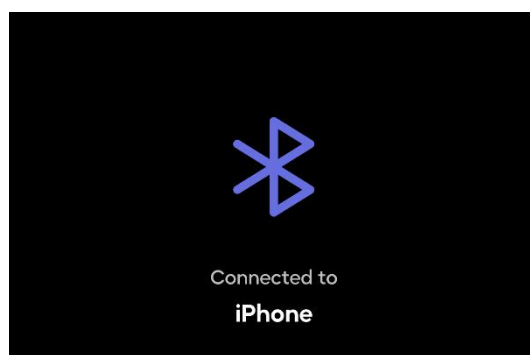
1. When the **Set Up** prompt appears on the WiiM Ultra's screen, open the WiiM Home app on your smartphone or tablet.



2. When the **Set Up** pop-up appears in the app, tap it to start the setup.

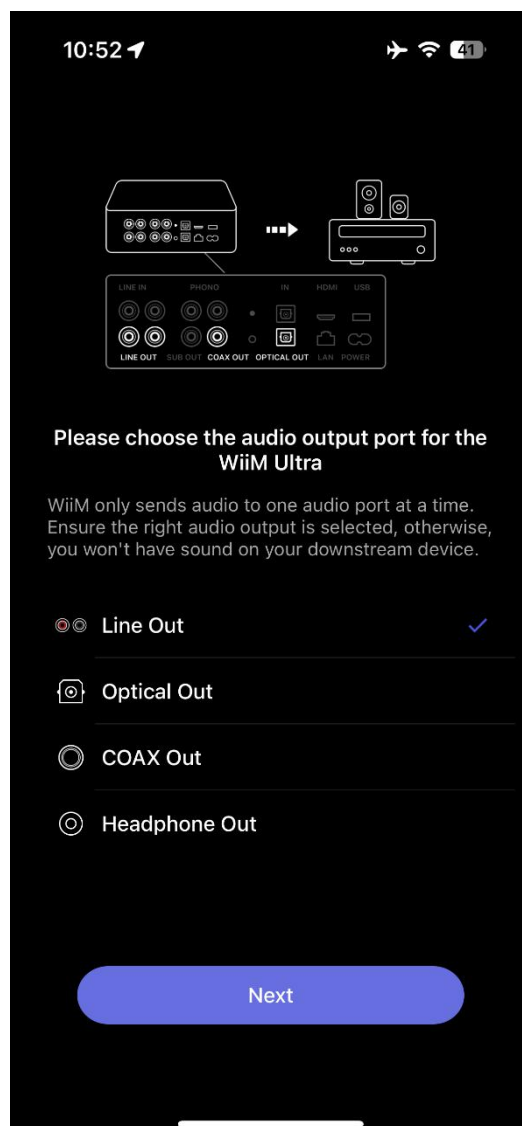


You will see the following prompt on the WiiM Ultra's screen.

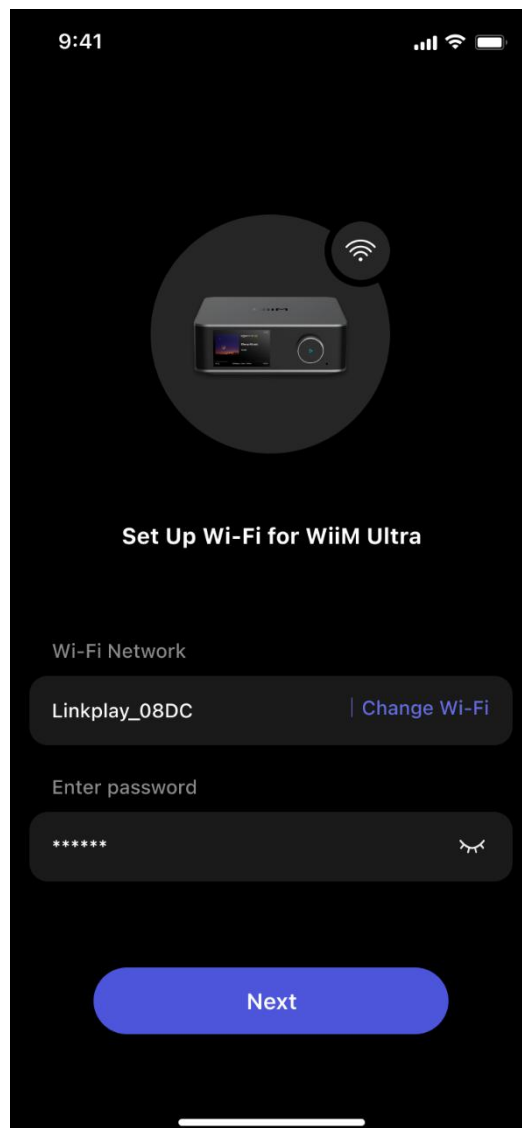


3. Follow the on-screen instructions to complete the setup:

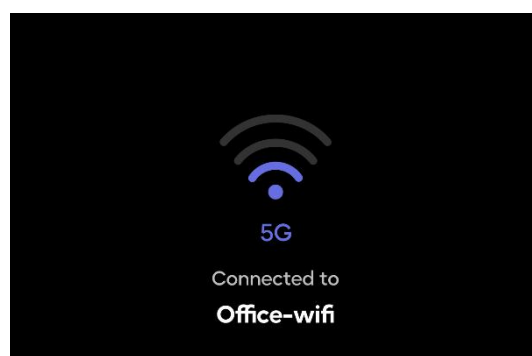
- a) Select the right audio output interface corresponding to the output connection in [Connect to WiiM Ultra's Audio Output](#).



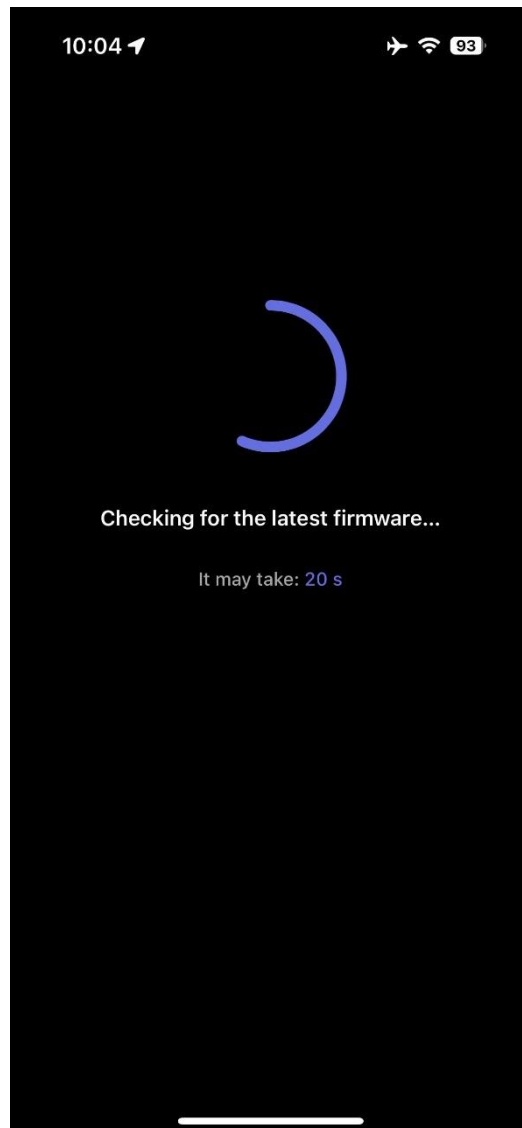
- b) Connect the WiiM Ultra to the same Wi-Fi network as the WiiM Home app.



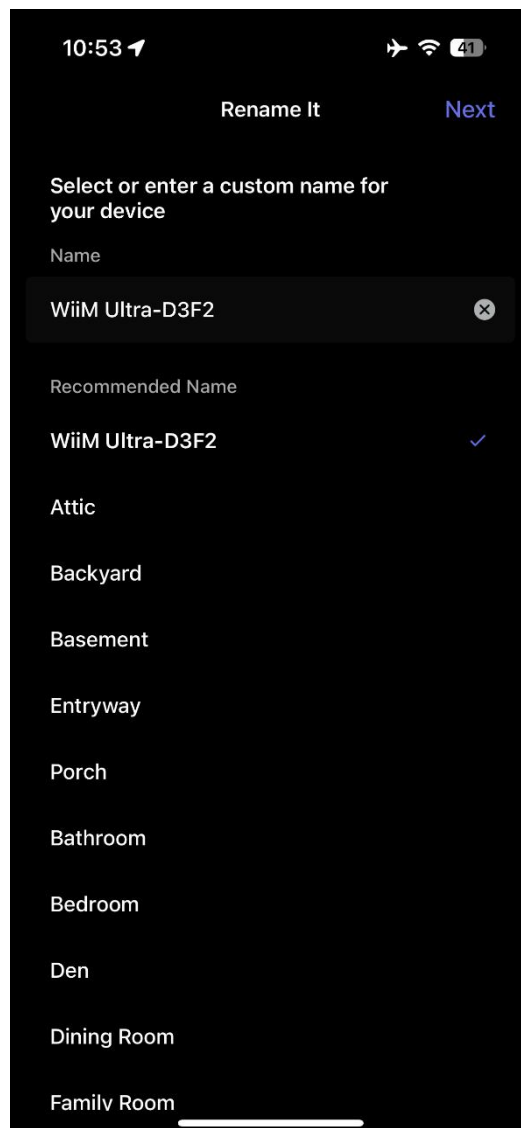
When the WiiM Ultra is successfully connected to the Wi-Fi network, you will see the following prompt on the WiiM Ultra's screen.



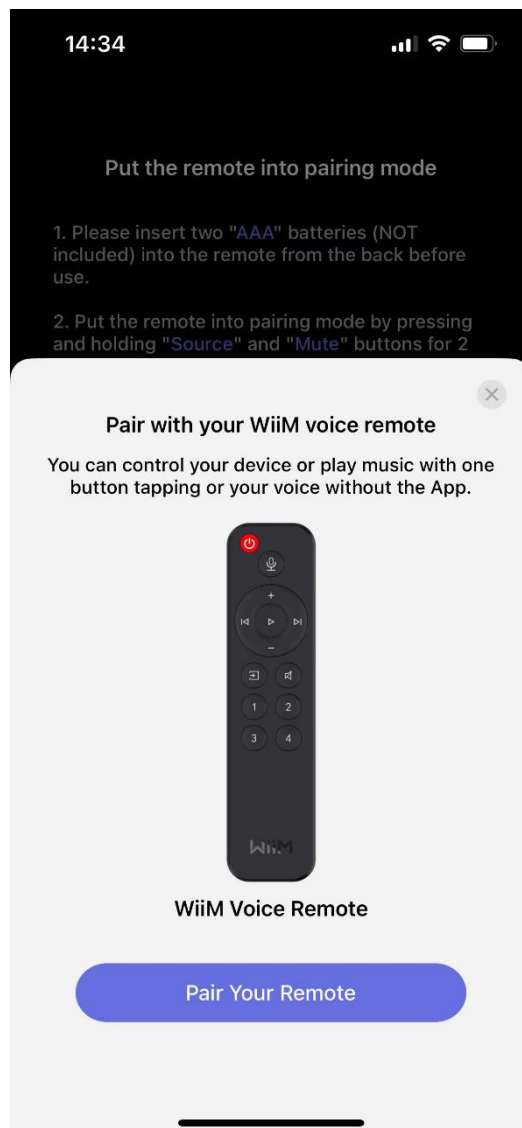
- c) Check and update the WiiM Ultra's firmware.



d) Rename the WiiM Ultra.

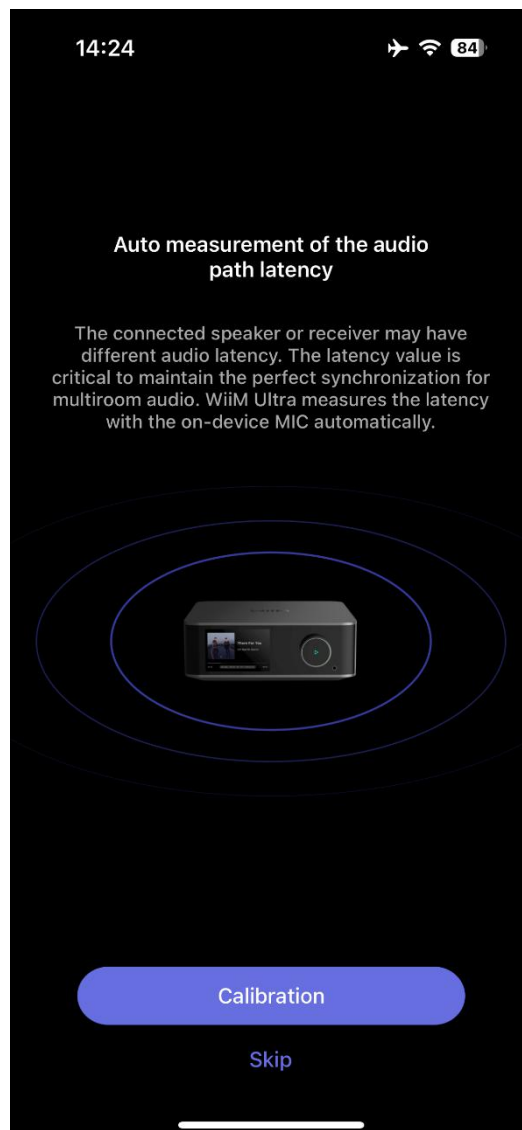


- e) Set up the WiiM Voice Remote with the WiiM Ultra.

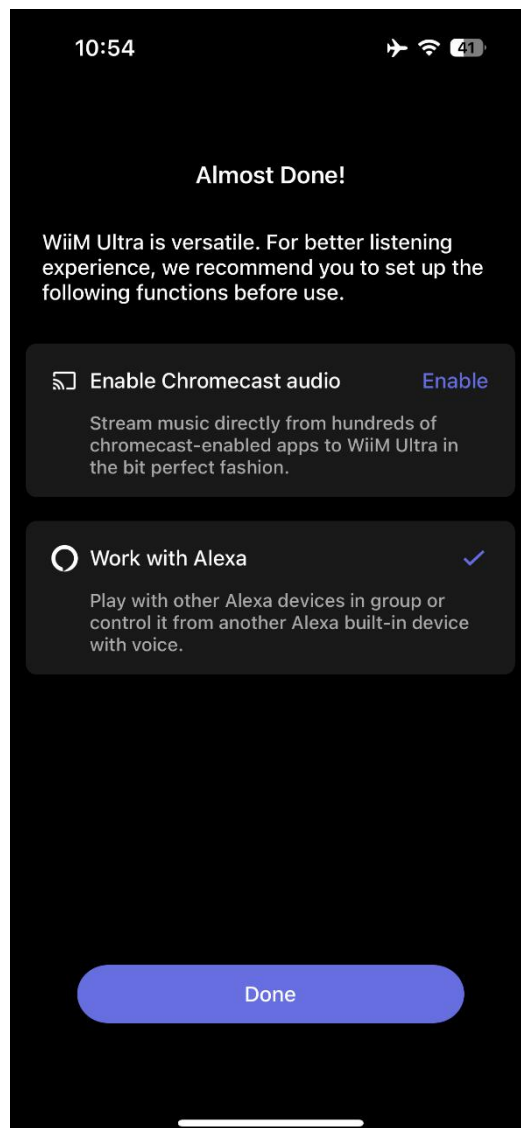


For detailed instructions, refer to [How to Set Up Your WiiM Voice Remote](#).

- f) Calibrate the audio path latency.



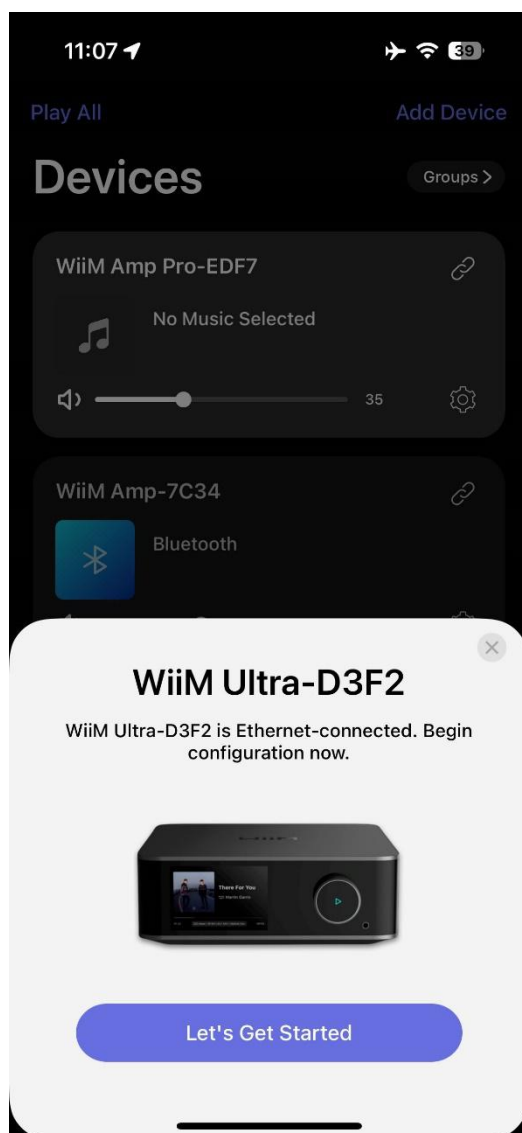
- g) Set up Google Cast and Amazon Alexa.



WiiM Ultra Setup via Ethernet

1. Connect an Ethernet cable to the WiiM Ultra.
2. Open the WiiM Home app on your smartphone or tablet.
3. When the **Let's Get Started** pop-up appears in the app, tap it to start the setup.

Note: If the **Let's Get Started** pop-up does not appear, tap **Add Device** in the top-right corner to trigger it.



4. Follow the on-screen instructions to complete the setup.

Configure the WiiM Ultra in the WiiM Home App

Once the WiiM Ultra is set up, configure it in the WiiM Home app, including settings for audio input, audio output, subwoofer, room correction, and EQ adjustments.

For detailed instructions, see [WiiM Ultra Configuration](#).


Fill Your Home with Sound

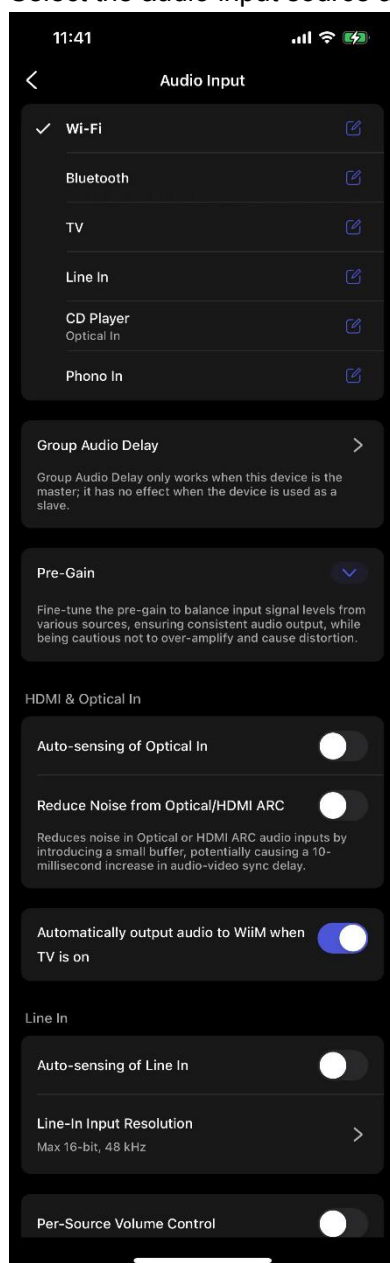
Now, play music from your favorite audio sources, such as a TV, amplified turntable, CD player, or MP3 player. Alternatively, immerse yourself in your favorite music and radio stations through seamless Wi-Fi or Bluetooth streaming.

Connect multiple WiiM devices to enjoy synchronized music throughout your home. Expand your listening experience by grouping with Alexa-enabled or Google Cast-enabled devices, including Amazon Echo and Google Home, for a seamless multi-room audio setup. For more information, see [Multi-room and Stereo Pairing](#).

6. WiiM Ultra Configuration


Select Audio Input Source and Configure Audio Input

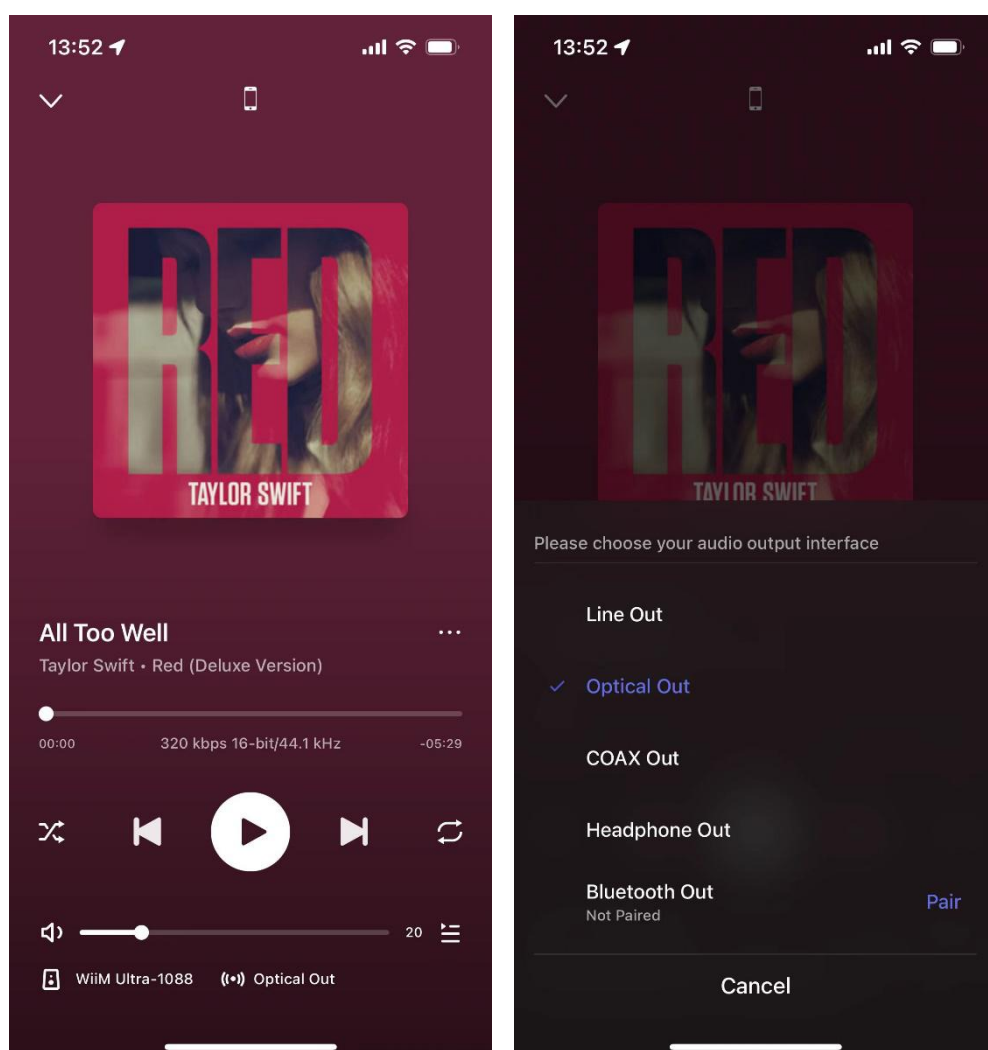
1. Open the WiiM Home app.
2. Navigate to the **Devices** tab.
3. Tap the **Device Settings** icon  of the WiiM Ultra.
4. Under the **Sound** section, select **Audio Input**.
5. Select the audio input source and adjust related settings.




Select Audio Output Interface

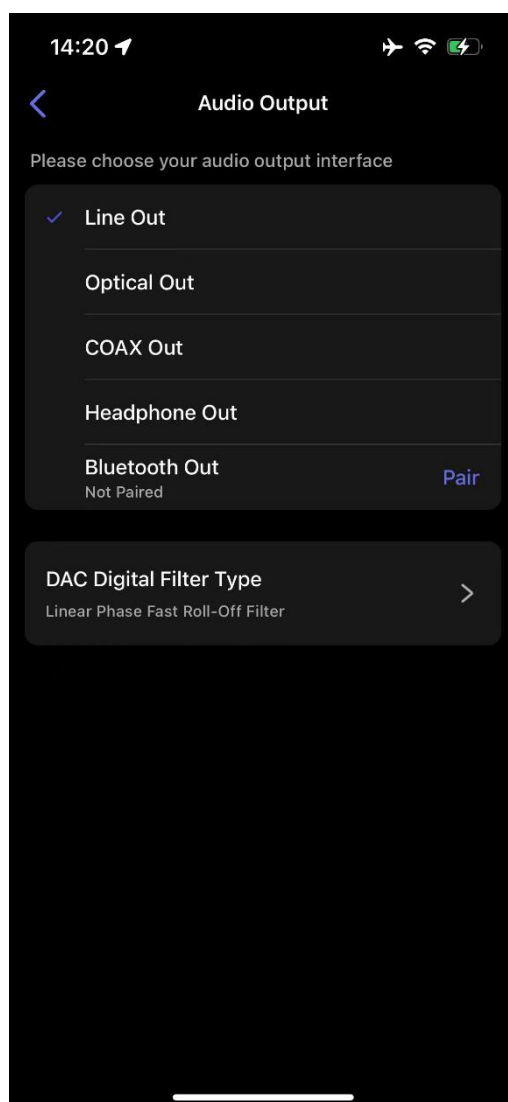
Option 1: Select Audio Output Interface from Now Playing

1. Open the WiiM Home app.
2. Go to the **Now Playing** page.
3. Tap the  icon at the bottom and select the output interface.




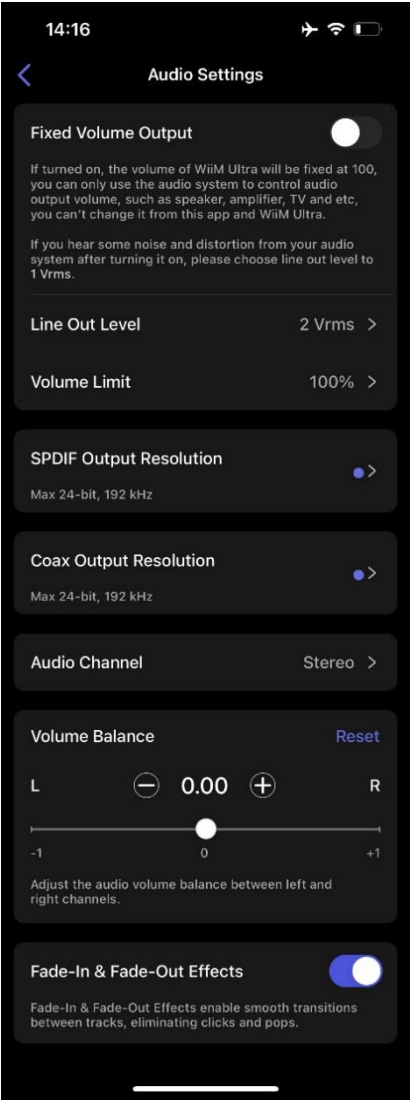
Option 2: Select Audio Output Interface from Device Settings

1. Open the WiiM Home app.
2. Navigate to the **Devices** tab.
3. Tap the **Device Settings** icon  of the WiiM Ultra.
4. Under the **Sound** section, tap **Audio Output**.
5. Select the output interface and adjust settings (e.g., DCA filter type for Line Out, Sample Rate Switch Latency for Optical Out and COAX Out).



Adjust Audio Output Settings

1. Open the WiiM Home app.
2. Navigate to the **Devices** tab.
3. Tap the **Device Settings** icon  of the WiiM Ultra.
4. Under the **Sound** section, select **Audio Settings**.
5. Adjust audio output settings depending on your preference and output interface:
 - Fixed Volume Output
 - Line Out Level
 - Volume Limit
 - SPDIF Output Resolution and Coax Output Resolution
 - Audio Channel
 - Volume Balance
 - Fade-In and Fade-Out effects



Adjust Subwoofer Settings

If you connect a subwoofer to the WiiM Ultra, navigate to **Device Settings > Subwoofer** in the WiiM Home app to enable and adjust the subwoofer settings. This will ensure the subwoofer operates seamlessly with your audio system for optimal sound quality.

For detailed instructions, refer to [Tutorial: Tuning Subwoofer Settings on WiiM Devices for Optimal Sound Quality](#).

Room Correction

You can use the Room Correction feature in the WiiM Home app to enhance audio quality by adapting to your room's unique acoustic properties. This feature minimizes unwanted audio issues such as echoes, reflections, and standing waves, delivering a more balanced and accurate listening experience.

For detailed instructions, see [Room Correction Guide](#).

Equalizer (EQ)

You can enhance your audio experience with the Per-Source EQ feature in the WiiM Home app.

Choose from 24 preset EQ settings for quick adjustments, utilize the 10-band Graphic EQ (GEQ) for intuitive control, or fine-tune your sound with the 10-band Parametric EQ (PEQ) for precise and detailed customization.

For detailed instructions, see [EQ Guide](#).

7. Audio Output/Input via Bluetooth

Audio Input via Bluetooth

With Bluetooth, you can stream tunes from various devices like smartphones, tablets, TVs, and laptops. To start streaming, first pair your device with the WiiM Ultra.

You can select any of the following options to pair your device with the WiiM Ultra:

- **Option 1: Bluetooth Pairing Using Volume Knob**

Press and hold the **Volume Knob** on the WiiM Ultra for 3 seconds to initiate pairing mode.

- **Option 2: Bluetooth Pairing Using WiiM Voice Remote**

Press and hold the **Play** button on the WiiM Voice Remote for 3 seconds to initiate pairing mode.

- **Option 3: Bluetooth Pairing Using WiiM Ultra's On-Screen Menu**

Tap **Input** and select **Bluetooth** on the WiiM Ultra's screen to initiate pairing mode.

- **Option 4: Bluetooth Pairing Using WiiM Home App**

If the WiiM Ultra is connected to your network, you can initiate Bluetooth pairing mode in the WiiM Home app by selecting **Bluetooth** as your source input in the **Browse** tab.


In this case, if there's no device connected to the WiiM Ultra, the app will initiate pairing mode for WiiM Ultra automatically.

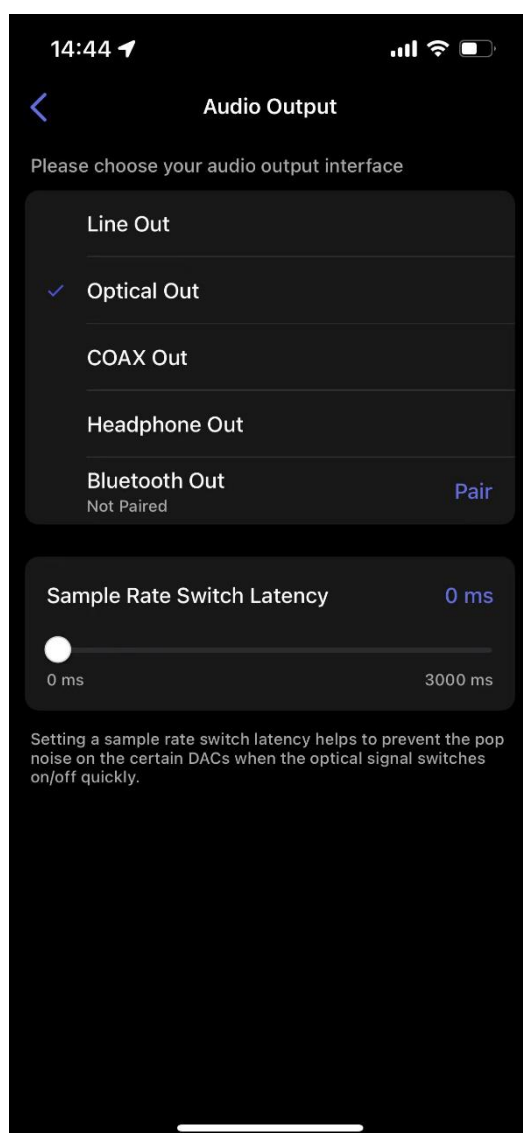
Note: The Bluetooth feature is compatible with A2DP and AVRCP profiles, and supports both SBC and AAC codecs.

Audio Output via Bluetooth

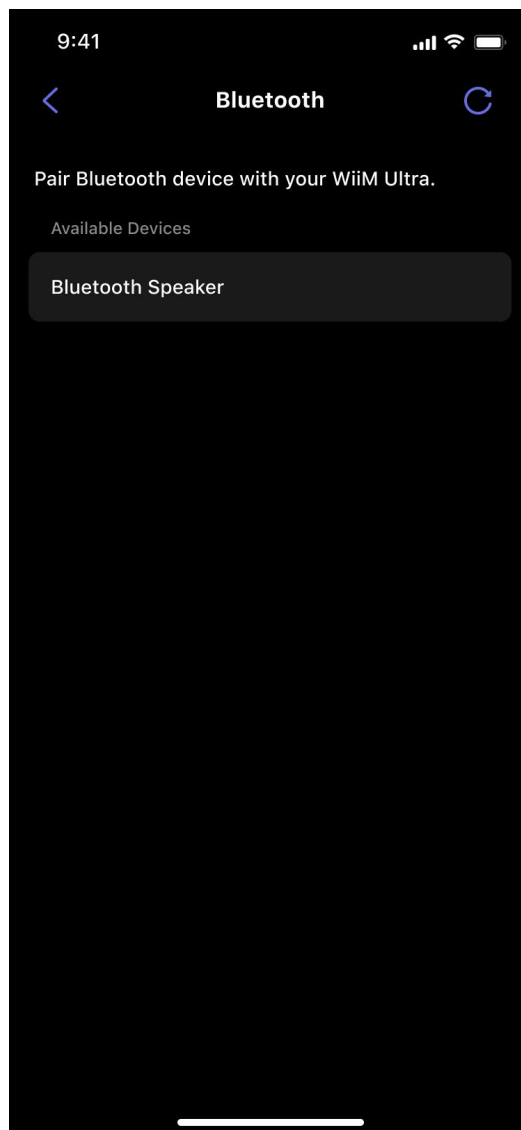
You can use the WiiM Ultra as a Bluetooth source device, enabling seamless pairing with your Bluetooth speaker, headphone, or earphone.

Follow these steps to complete the Bluetooth pairing procedure for audio output:

1. Open the WiiM Home app on your iOS or Android device.
2. Select the **Devices** tab.
3. Tap the **Device Settings** icon  of the WiiM Ultra.
4. Select **Audio Output**, then tap **Pair** next to **Bluetooth Out** to initiate pairing.



5. Select the desired external Bluetooth device (e.g., a speaker) to pair.



You can also complete this procedure by selecting the Bluetooth output from the **Now Playing** page. For details, see [Select Audio Output Interface](#).

8. USB Media Library

The USB port on the WiiM Ultra allows you to play music directly from a connected USB drive or HDD, enabling convenient access to your stored music library.

For more details, refer to [Building and Managing Your Advanced USB Media Library](#).

9. Voice Control

Navigate and control the WiiM Ultra with voice commands to search, play, stop, or skip music and more.

The WiiM Ultra supports the following voice control services:

- **Amazon Alexa**

Refer to [How to Use Amazon Alexa with Your WiiM Device](#) for instructions.

- **Google Voice Assistant**

Refer to [How to Control WiiM Device via Google Assistant](#) for instructions.

10. Direct Control via Your Favorite App

You can stream from your favorite apps directly to your WiiM Ultra with the following approaches.

Spotify Connect

Spotify Connect is a way of playing Spotify through your wireless-compatible device over Wi-Fi or Ethernet. That means you can play your favorite tunes anywhere in the house without the need for convoluted Bluetooth pairing between devices whenever you want to listen to music.

Spotify Connect works from smart phone, tablet or PC that functions as a remote control for Spotify. Both free and premium account are supported. For more information, visit [Spotify Connect](#).

Using Spotify Connect ensures the best audio quality and streaming experience on the WiiM Ultra.



Multi-room and Stereo Pairing

To use Spotify Connect for multi-room or stereo pairing, follow these instructions:

1. Group multiple WiiM devices in the WiiM Home app. For instructions, see [WiiM Multi-room Audio and Stereo Pairing](#).
2. Stream Spotify to the grouped devices. The group name will match the group lead device.

License Information

The Spotify software is subject to third-party licenses, which can be found [here](#).

TIDAL Connect

TIDAL is a global music streaming platform bringing fans closer to artists through unique experiences and the highest sound quality. Stream your favorite music seamlessly from the TIDAL app straight to your devices in the highest possible quality.

TIDAL Connect allows you to stream music from the TIDAL app to compatible devices. It's similar to Apple AirPlay and Spotify Connect in that it lets users stream music to connected devices from within the app. This means you can use your smartphone or computer as a controller to play music on the WiiM Ultra.

How to Use TIDAL Connect:

1. Launch the TIDAL app on your mobile device.
2. Play a song and go to the **Now Playing** screen.
3. Tap the **Cast** icon at the top right.
4. Select your WiiM device from the list.

Amazon Music Cast (Alexa Cast)

Alexa Cast is a feature that allows you to play and control music on any of your Alexa devices from your Amazon Music iOS or Android app. You can discover all your Alexa devices from your music app. Your devices do not need to be on the same Wi-Fi network as your mobile device. You can target any device from anywhere. Once you pick a target device, the music you selected on your app will start playing on the chosen device. You can now follow along on your app. When you tap skip on your app, your device skips to the next track. Your app becomes a remote control for the device.

WiiM Ultra and Alexa Cast

The WiiM Ultra is one of the first devices that support Alexa Cast with bit-perfect output up to 192 kHz/24-bit. You can stream Amazon Music Ultra HD directly from the native Amazon Music to the WiiM Ultra, delivering the highest possible audio quality.

How to Use Alexa Cast

1. **Log In:** Ensure you are logged into your Amazon account for Alexa on the WiiM Home app.
2. **Update:** Have the latest version of the Amazon Music app.
3. **Cast Music:** On the **Now Playing** screen, tap the **Casting** icon in the top right.
4. **Select Device:** Choose the WiiM Ultra from the list.

Control Options

- **Voice Control:** Use voice commands to control music on the device.
- **App Control:** Switch between voice and app control for convenience.
- **Stop Casting:** To stop casting and resume playing on your phone, open the device list and tap the disconnect button.

Amazon Alexa Multi-room Audio

Amazon Alexa can also be used for multi-room audio, allowing you to play music in sync on multiple speakers from compatible brands and WiiM Ultra using the Amazon Alexa app.

For detailed instructions, see [Amazon Alexa Multi-room Audio](#).

Google Cast Audio

Google Cast audio allows you to instantly stream your favorite music, radio, or podcasts from Google Cast-enabled apps on your mobile device to your speakers over Wi-Fi or Ethernet.

Setting Up Google Cast

1. **Enable Google Cast:**
 - Once you have set up the WiiM Ultra, enable Google Cast from the WiiM Home app.
2. **Stream Music:**
 - Open a compatible app (e.g., Spotify, Apple Music, TIDAL, Amazon Music, YouTube Music, Deezer) on your smartphone or tablet and tap the **Cast** button.
 - Select your WiiM Ultra and start streaming audio.
3. **Use Chrome Browser:**
 - Cast any audio from your Chrome browser by selecting the **Cast** option in the menu.

Google Cast Multi-room Audio

Google Cast can also be used for multi-room audio, allowing you to play music in sync on multiple speakers from compatible brands and WiiM Ultra using the Google Home app.

For detailed instructions, see [Google Cast Multi-room Audio](#).

DLNA

DLNA (Digital Living Network Alliance) sets standards for home networking devices to communicate and share media files seamlessly. The WiiM Ultra is a DLNA-compatible digital media renderer (DMR). When a USB drive is plugged to the WiiM Ultra, it also functions as a Digital Media Server (DMS), allowing any DLNA-enabled client to access the music stored on the drive.

How It Works

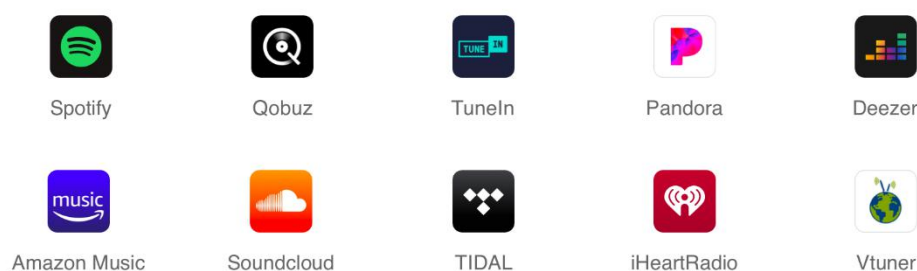
When connected to the same network as your other DLNA devices or apps, the WiiM Ultra automatically appears in the menus of these networked components. Your computer and other media devices will discover and recognize the WiiM Ultra without any additional setup.

Controlling and Streaming

You can control the WiiM Ultra from other DLNA digital media players or controllers. Additionally, you can stream content from DLNA digital media servers directly to the WiiM Ultra, with no extra configuration required.

11. All Music in One App

With the free WiiM Home app, you can control your content and WiiM devices from one place. The app supports many popular music streaming services such as Spotify, iHeartRadio, TIDAL, Amazon Music, SoundCloud, Qobuz, Pandora, Deezer, TuneIn, and more.



The WiiM Home app offers the follow features:

- **Stream from Any Source:** Enjoy seamless playback from streaming services, NAS, or other connected storage.
- **All-in-One Control:** Manage your music services and devices effortlessly in a single app for complete, centralized control.
- **Customized Listening Experience:** Tailor your listening experience with adjustable EQ settings, sleep timers, and scheduled music alarms.
- **Effortless Discovery:** Instantly find and save your favorite tracks using WiiM's universal search, scanning through all your music sources.
- **Whole Home Music:** Enjoy multi-room music by grouping devices for synchronized playback or play different music on each speaker.
- **Built-in Support Center Access:** Quickly access our Support Center directly within the app, giving you instant assistance whenever you need it.

For more information, refer to [WiiM Home App User Manual](#).

12. Multi-room Audio and Stereo Pairing

With the WiiM Ultra, it's easy to build your wireless multi-room sound system with Amazon Echo (or Alexa built-in devices) or Google Home. You can create an even more flexible multi-room sound system with multiple WiiM devices for your existing audio devices.

Notes:


- *Alexa and Google Cast multi-room must be set up using the Alexa app and Google Home app, respectively.*
- *Alexa and Google Cast multi-room features support network-based music services only.*
- *To enable multi-room audio for other input sources, such as **Line In**, **Optical In**, **HDMI**, or **Bluetooth**, the multi-room group must consist exclusively of WiiM devices.*

WiiM Multi-room Audio and Stereo Pairing

With our proprietary multi-room technology, the WiiM Ultra supports all types of audio inputs—Wi-Fi/Ethernet, Bluetooth, analog Line In, Phono In, digital Optical In, and HDMI ARC—as sources for your multi-room system.

WiiM Multi-room Setup

For example, to set up a multi-room system with the **Line In** source input, follow the steps below:

1. Insert the line-in cable into the **Line In** port on the WiiM Ultra.
2. Connect the other end of the cable to the **Line Out** port on your source device, e.g. a record player.
3. Open the WiiM Home app.
4. Go to the **Browse** tab, then under the **Source Input** section, select **Line In** as the audio source.
5. Set up a multi-room music group with the WiiM Ultra:
 - a) Go to the **Devices** tab and select the WiiM Ultra connected to your source device.
 - b) Tap the **Group** icon  in the upper right corner of the device box.
 - c) Choose other desired WiiM devices to include in the multi-room audio group.

Now, the music from the connected device will play across your multi-room music group.



You can follow the same procedure to set up a WiiM multi-room system with any other source input supported by your source device.



WiiM Stereo Pairing

In addition, you can group two speakers connected to two WiiM devices as a stereo pair for a wider, more immersive sound stage. This feature supports all input options, ensuring compatibility with virtually every music listening preference.

To use stereo pairing, follow the steps below:

1. Set up two WiiM devices.
2. Open the WiiM Home app.
3. Select a WiiM device and tap the **Group** icon  in the upper right corner.
4. Select the other WiiM device, then tap **Done**.
5. Tap the  icon and set the two WiiM devices to **L** and **R**, respectively.
6. Go to the **Browse** tab, then select your music to play.

Amazon Alexa Multi-room Audio

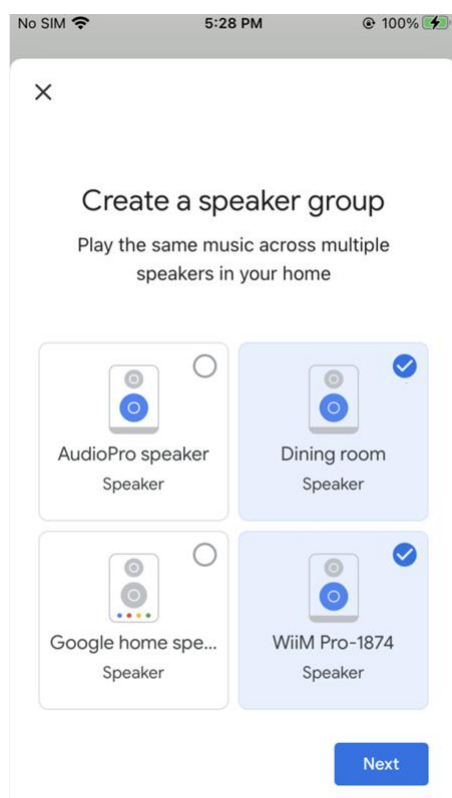
1. Open the Amazon Alexa app on your smartphone or tablet.
2. Tap **Devices** at the bottom of the screen.
3. Tap the **+** icon in the top right corner of the screen.
4. In the menu that appears, choose **Combine speakers**, then select **Multi-room music**.
5. Select the **Echo** and WiiM devices you want to include in your multi-room music setup, then tap **Next**.
6. Assign a group name for the multi-room music setup (e.g., "Bedroom").
7. Follow the on-screen prompts to complete the setup.

Note: When used with Amazon Echo or other Amazon devices, the WiiM Ultra functions as an audio receiver and cannot transmit its physical audio inputs (e.g., **Line In** or **Optical In**) to these Amazon devices over Wi-Fi.

Google Cast Multi-room Audio

You can group the WiiM Ultra with other Google Home or Google Cast enabled devices to play the same music on all devices via the Google Home app.

1. Open the Google Home app.
2. Tap the **+** icon in the top left corner.
3. Tap **Create speaker group** to create a speaker group.
4. Select the devices that are in the same network.



5. Assign a name to your group (e.g., "Living Room").
6. Stream music to the group.

Note: When using with Google Cast audio devices, the WiiM Ultra functions as an audio receiver and cannot transmit its physical audio inputs (e.g., **Line In** or **Optical In**) to these Google Cast audio devices.

13. Advanced Features


Firmware Updates

- The WiiM Ultra updates automatically when connected to your network
- Updates occur silently between 2:00 a.m. and 5:00 a.m. local time, with no sound or notifications during the process. Upon opening the app after the upgrade, you'll see the latest updates applied to the WiiM Ultra.

Use Ethernet Instead of Wi-Fi

When an Ethernet cable is connected, the WiiM Ultra will automatically switch off Wi-Fi to use the Ethernet network.

To confirm the active connection:

1. Open the WiiM Home app.
2. Go to the **Devices** tab and tap the **Device Settings** icon  of the WiiM Ultra.
3. Select **Network Status** to view the current network connection.

14. FAQ and Support

FAQ

If you experience problems with the audio streamer, try these solutions first:

- **What can I do if my device has Wi-Fi connection issues during setup?**

Please see [Troubleshooting: How to Resolve Wi-Fi Connection Issues During WiiM Setup](#) for step-by-step solutions.

- **What can I do if my WiiM Home App can't find the device?**

- Make sure your network is available and the device is powered on properly.
- Check if the LED on the device is solid white and check for any prompt on WiiM Ultra's screen.
- Make sure your smartphone/tablet and WiiM Ultra are connected to the same Wi-Fi network.
- Make sure you have the latest version of the WiiM Home app on your smartphone/tablet.
- Try restarting your smartphone/tablet, WiiM Ultra, and router.
- If still can't find, reconfigure the device to the network.

For details, see [Troubleshooting: WiiM Device Not Found in WiiM Home App](#) for step-by-step solutions.

- **What can I do if my device has no sound?**

If you're not getting any sound from your WiiM Ultra, please check the following:

- **Volume Levels:** Ensure that the volume is turned up both in the WiiM Home app and on your external device (e.g., AV receiver) connected to the WiiM Ultra.
- **Input Source:** Make sure the correct input source is selected on your receiver or device that corresponds to the output of the WiiM Ultra.
- **Audio Output Selection:** Confirm that the correct audio output is selected in the WiiM Home app.
- **Physical Connections:** Verify that all physical connections between the WiiM Ultra and your receiver or device are plugged in correctly and securely.

- **Audio dropout or no sound on network streaming?**

If you experience no sound with streaming, please check if the progress bar of music app or WiiM Home app is moving.

- **Check network connectivity:** Ensure the signal of your WiiM Ultra is strong. Move the WiiM Ultra closer to your wireless router or access point to improve the signal strength.
- **Restart your network devices:** Power cycling your network devices, including your router, modem, and WiiM Ultra, can often resolve connectivity issues.
- **Update firmware and software:** Ensure that your WiiM Ultra and all devices involved in the streaming have the latest firmware and software updates installed.
- **Reset the WiiM Ultra:** As a last resort, you can try performing a factory reset on your WiiM Ultra and set it up again.

- **How can I reset my device?**

- Press and hold the volume knob for 10 seconds until you will hear the voice prompts of “Restore to factory setting” and see the light flashing red and white. The WiiM Ultra's screen will also display "Restore to factory setting".
- Factory reset clears all source, volume, and network settings for WiiM Ultra and returns it back to the original factory settings.

- **What can I do if my device cannot power on normally?**

- Check the device LED status and ensure it's on.
- Ensure the original power adapter is used.

Support

If you are unable to resolve your issue, please follow one of the methods below to reach out to us for assistance:

- **WiiM Home app:** Go to **More > Feedback** or **More > FAQ** to submit a ticket. You will receive email response from WiiM Support in the next 24 hours.
- **FAQ Website:** Find more FAQ at <https://faq.wiimhome.com/en/support/solutions>.
- **Email:** Send an email to support@wiimhome.com for assistance.
- **WiiM Ultra Support Website:** Visit <https://wiimhome.com/support/wiimUltra>.

15. Public Network Interfaces and Services

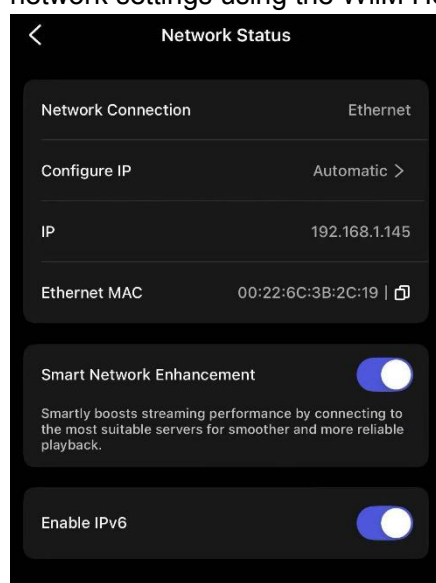
This chapter describes the public network interfaces (LAN, Wi-Fi, and Bluetooth) on the WiiM Ultra and the services they support.

LAN Interface

The LAN interface allows the device to connect to a wired network via an Ethernet cable, providing a stable and high-speed connection for reliable streaming and control.

Note: When connected via Ethernet, the WiiM Ultra will automatically disable the Wi-Fi connection to prioritize the wired network. If the Ethernet cable is disconnected, the device will automatically reconnect to the Wi-Fi network.

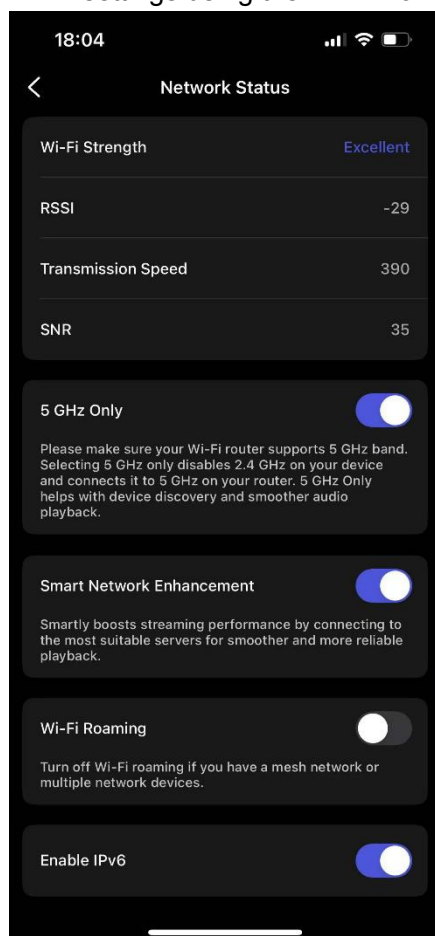
- **Physical Port:** An RJ-45 Ethernet port (10/100 Mbps).
- **Supported Protocols/Services:**
 - **DHCP:** By default, when connecting the WiiM Ultra to the LAN using an Ethernet cable, the device will automatically configure the network connection via DHCP (Dynamic Host Configuration Protocol) to obtain an IP address.
 - **mDNS:** Allows the WiiM Ultra to be discovered within the local network.
 - **UPnP/DLNA:** Enables media sharing and control with compatible devices.
- **Configuration:** Once connected, you can view the connection status and adjust network settings using the WiiM Home app.



Wi-Fi Interface

The Wi-Fi interface allows the device to connect to a wireless network, providing flexible setup and streaming options without the need for a wired connection.

- **Supported Standards:** IEEE 802.11a/b/g/n/ac/ax (2.4GHz and 5GHz bands)
- **Supported Protocols/Services:**
 - **Wi-Fi Client Mode:** By default, the WiiM Ultra is set to Wi-Fi Client Mode, automatically connecting to a known Wi-Fi network.
 - **AP Mode:** Allows the WiiM Ultra to be set up via Wi-Fi. The AP mode is automatically enabled when the WiiM Ultra enters setup mode.
 - **mDNS:** Allows the WiiM Ultra to be discovered within the local network.
 - **UPnP/DLNA:** Enables media sharing and control with compatible devices.
- **Configuration:** Once connected via Wi-Fi, check connection status and modify Wi-Fi settings using the WiiM Home app.



Bluetooth Interface

The Bluetooth interface is used for both Wi-Fi setup and audio streaming.

- **Supported Protocols/Services:** Bluetooth 5.3 LE (A2DP Sink and A2DP Source)
 - **BLE Broadcasting:** BLE broadcasting is automatically enabled during Wi-Fi setup, allowing the WiiM Home app to discover the device and connect it to the Wi-Fi network. For details, see [WiiM Ultra Setup via Wi-Fi](#).
 - **A2DP Sink:** Supports receiving audio streams from mobile devices, tablets, etc., for audio playback via Bluetooth.
 - **A2DP Source:** Output audio to Bluetooth speakers or headphones for wireless audio streaming.
- **Configuration:** Bluetooth pairing is required for audio streaming. For details, see [Audio Output/Input via Bluetooth](#).

16. Important Safety Instructions

IMPORTANT: RETAIN FOR FUTURE REFERENCE, READ CAREFULLY

1. Read these instructions. Keep these instructions. Heed all warnings. Follow all instructions.
2. Do not use this apparatus near water.
3. Clean only with a dry cloth.
4. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
5. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
6. Only use attachments/accessories specified by the manufacturer.
7. Unplug this apparatus during lightning storms or when unused for long periods of time
8. Refer all servicing to qualified personnel. Servicing is required when the apparatus has been damaged in any way, such as external power supply, power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
9. To reduce the risk of fire or electrical shock, do NOT expose this product to rain, liquids or moisture.
10. Do NOT expose this product to dripping or splashing, and do not place objects filled with liquids, such as vases, on or near the product.
11. Keep the product away from fire and heat sources. Do NOT place naked flame sources, such as lighted candles, on or near the product.
12. Do NOT make unauthorized alterations to this product.
13. Do NOT use in vehicles or boats.
14. Use this product only with the power supply provided.
15. Where the mains plug or an appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable.
16. Due to ventilation requirements, does not recommend placing the product in a confined space such as in a wall cavity or in an enclosed cabinet.
17. Contains small parts which may be a choking hazard. Not suitable for children under age 3.
18. This product contains magnetic material. Consult your physician on whether this might affect your implantable medical device.

19. Do not place or install the bracket or product near any heat sources, such as fireplaces, radiators, heat registers, or other apparatus (including amplifiers) that produce heat.

17. CE/FCC/IC/TELEC/Brazil/KC Statements

FCC/IC Statement

RF Exposure Information: The equipment complies with FCC/IC RSS-102 radiation exposure limits set forth for an uncontrolled environment. The equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

This device complies with Part 15 of the FCC Rules and contains license-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS standard(s). Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications or changes to this equipment. Such modifications or changes could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

For radio equipment operates in 5150-5850MHz

High power radars are allocated as primary users of the 5.25 to 5.35 GHz and 5.65 to 5.85 GHz bands. These radar stations can cause interference with and/or damage to LE LAN (Licence-Exempt Local Area Network) devices. No configuration controls are provided for this wireless equipment allowing any change in the frequency of operations outside the FCC grant of authorization for US operation according to Part 15.407 of the FCC rules.

The device for operation in the band 5150-5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems; for devices with detachable antenna(s), the maximum antenna gain permitted for devices in the bands 5250-5350 MHz and 5470-5725 MHz shall be such that the equipment still complies with the e.i.r.p. limit; for devices with detachable antenna(s), the maximum antenna gain permitted for devices in the band 5725-5850 MHz shall be such that the equipment still complies with the e.i.r.p. limits specified for point-to-point and non-point-to-point operation as appropriate.

Transmitters in the 5.925-7.125 GHz band are prohibited from operating to control or communicate with unmanned aircraft systems.

Énoncé d'exposition aux rayonnements FCC/IC

L'équipement est conforme aux limites d'exposition aux rayonnements FCC/IC RSS-102 établies pour un environnement non contrôlé. L'équipement doit être installé et utilisé avec une distance minimale de 20cm entre le radiateur et votre corps.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence.

L'exploitation est autorisée aux deux conditions suivantes:

- (1) l'appareil ne doit pas produire de brouillage, et
- (2) l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Les radars de puissance élevée sont attribués comme utilisateurs principaux des fréquences de 5,25 à 5,35 GHz et Bandes de 5,65 à 5,85 GHz. Ces stations radar peuvent causer des interférences avec Et/ou dommages aux périphériques LE LAN (réseau Local exempté de licence). Non non Des contrôles de configuration sont fournis pour cet équipement sans fil permettant toute Modification de la fréquence des opérations en dehors du FCC octroi d'autorisation Pour les opérations américaines conformément à la partie 15.407 des règles de la FCC.

Les dispositifs fonctionnant dans la bande 5150-5250 MHz sont réservés uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux; le gain maximal d'antenne permis pour les dispositifs utilisant les bandes 5250-5350 MHz et 5470-5725 MHz doit se conformer à la limite de p.i.r.e.; le gain maximal d'antenne permis (pour les dispositifs utilisant la bande 5725-5850 MHz) doit se conformer à la limite de p.i.r.e. spécifiée pour l'exploitation point à point et non point à point, selon le cas.

Il est interdit d'utiliser les émetteurs de la bande de 5,925 à 7,125 GHz pour contrôler les systèmes d'aéronef sans pilote ou communiquer avec eux.

CAN ICES-003(B)/NMB-003(B)

IC: 30828-ASR004

FCC ID: 2BABF-ASR004

CE Statement

RF exposure information: The Maximum Permissible Exposure (MPE) level has been calculated based on a distance of $d=20$ cm between the device and the human body. To maintain compliance with RF exposure requirement, use product that maintain a 20cm distance between the device and the human body.

Do not use the device in the environment at too high or too low temperature,
never expose the device under strong sunshine or too wet environment.

The suitable temperature for the product and accessories is 0°C - 40°C .

Operating frequency range and maximum transmit power

Bluetooth: 2402MHz ~ 2480MHz, <9.11 dBm EIRP

WLAN 2.4GHz: 2412MHz ~ 2472MHz, <20 dBm EIRP

WLAN 5GHz: 5150MHz ~ 5725MHz, <20 dBm EIRP

5745MHz ~ 5825MHz, <13.98 dBm EIRP

WLAN 6GHz: 5955MHz ~ 6415MHz, <20 dBm(EIRP)

This product can be used across EU member states

	AT	BE	BG	CH	CY	CZ	DE	DK
	EE	EL	ES	FI	FR	HR	HU	IE
	IS	IT	LI	LT	LU	LV	MT	NL
	PL	PT	RO	SE	SI	SK	TR	UK(NI)
	UK							

The device for operation in the band 5150-5350 MHz and 5955-6415MHz are only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems.

EU Regulatory Conformance

Hereby, Linkplay Technology Inc. Corporation declares that this device is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU.

For the declaration of conformity, see wiimhome.com/wiimUltra/Doc_RED.



TELEC Statements

According to radio law, the 5.2/5.3/6GHz band is limited to indoor use.

電波法により 5.2/5.3/6 GHz 帯は屋内使用に限ります。

Declaration of Compliance

The manufacturer declares that the product is compliant with:

- The deemed security requirements specified in Schedule 1 of The Product Security and Telecommunications Infrastructure (Security Requirements for Relevant Connectable Products) Regulations 2023 ("Security Requirements").

Visit the web site: [PSTI Statement of Compliance](#).

Brazil's statement

Este equipamento não tem direito à proteção contra interferência prejudicial e não pode causar interferência em sistemas devidamente autorizados.

Para maiores informações, consulte o site da ANATEL: www.gov.br/anatel/pt-br/

KC Certification



전자파적합등록번호: R-R-L8P-ASR004

제품명칭: WiiM Ultra Hi-Res Audio Streamer

모델명: ASR004

정격입력: 100-240V AC, 50/60Hz

제조업체: Linkplay Technology Inc. 중국

제조년월: 별도표시