

# WiiM



## WiiM Ultra Hi-Res Music Streamer

**Model Name: WiiM Ultra**  
**Model Number: ASR004**

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## 1. INTRODUCTION

At WiiM, our goal is to offer you the simplest and most affordable Hi-Fi, lossless audio systems. Every product we create showcases top-tier design and an intuitive user interface.

With our patented audio streaming solution integrated into all our premium products and user-friendly mobile apps, you can effortlessly enjoy music throughout your entire home.

Introducing the WiiM Ultra, an exceptionally versatile network music streamer that stands out in the market. With features like Google Chromecast, Spotify Connect, TIDAL Connect, DLNA, Roon Ready, MQA, Alexa Cast, and seamless playback of Hi-Res 192k/24-bit lossless audio, it transforms your stereo system. Enjoy cloud-based music services or your own library via Wi-Fi or Ethernet.

Simply plug the WiiM Ultra into your stereo receiver, DAC, or amplifier, and control it using the user-friendly WiiM Home App, popular platforms like Spotify, TIDAL, Amazon Music, or any Chromecast-enabled apps. Voice control is also a breeze through iPhone, HomePod, compatible Echo and Google Home devices, as well as the Alexa App, Google Home, or Apple Home App.

Create synchronized groups with HomePods, Echoes, Google Home devices, other Alexa-compatible devices, or additional WiiM Minis, Pros or Pro Plus, streaming music throughout your home or playing different tracks in separate rooms. Boasting both digital and analog audio inputs and outputs, the WiiM Ultra seamlessly integrates with your existing stereo setup.

Elevate your audio gear with the smart capabilities of the WiiM Ultra, delivering high-fidelity, gapless music through the exceptional innovation of WiiM.

## 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:

- I. **Upgrade your Favorite Legacy Audio Systems:** If you have a traditional stereo system or speakers that you want to integrate into your Google Chromecast, Amazon Alexa or LinkPlay 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.
- II. **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.

- III. **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 or network-attached storage device for seamless playback.
- IV. **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.
- V. **Multi-Room Audio:** The WiiM Ultra seamlessly integrates with other 3<sup>rd</sup> party popular smart speakers and components, or another WiiM/Linkplay device, allowing you to create a whole-home audio system with synchronized music playback in multiple rooms.
- VI. **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.
- VII. **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.
- VIII. **Home Theater Integration:** Elevate your entertainment experience effortlessly with the WiiM Ultra's HDMI ARC port. Plug in your TV and immerse yourself in rich stereo sound for shows, movies, and video games. Craving that extra oomph? Simply add a powered subwoofer to take your audio to cinematic levels. With minimal setup required, the WiiM Ultra offers a seamlessly integrated AV system that turns your living room into a home theater paradise.

## OTHER DEVICES NEEDED TO USE WIIIM 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 adapter and 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.

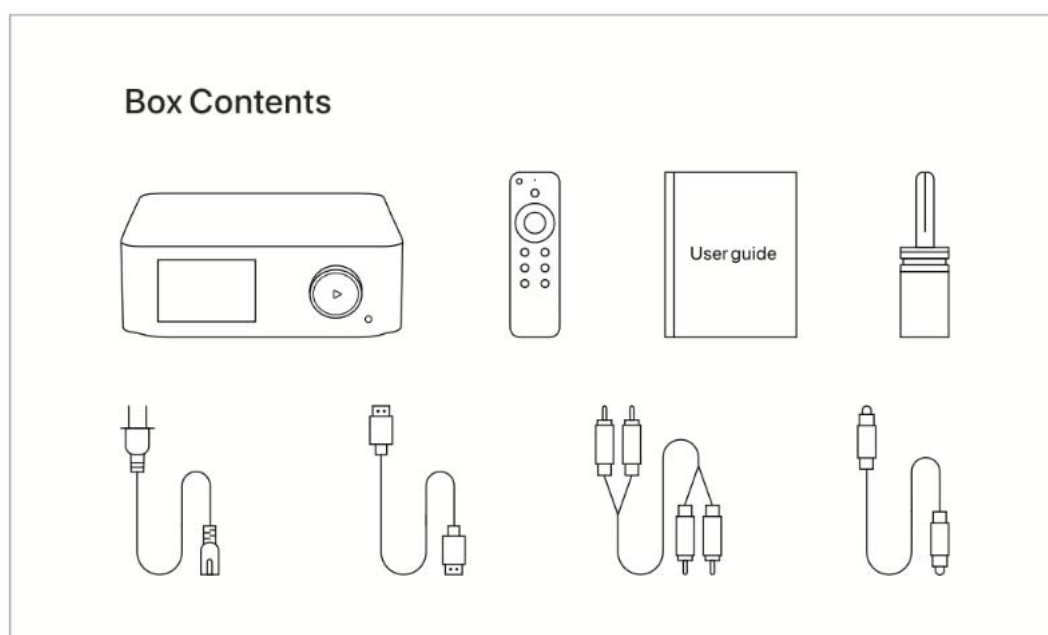
These are the core components required to use the WiiM Ultra. It's important to have an audio system that you want to integrate with the WiiM Ultra, a stable Wi-Fi network, and a compatible device with the WiiM Home app for setup and control.

## **AUDIO DEVICES WORK WITH 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 BOX

- WiiM Ultra
- Bluetooth voice remote
- Quick start guide
- 100~240V AC power cable
- HDMI cable
- RCA audio cable
- Optical audio cable
- Phono ground adapter



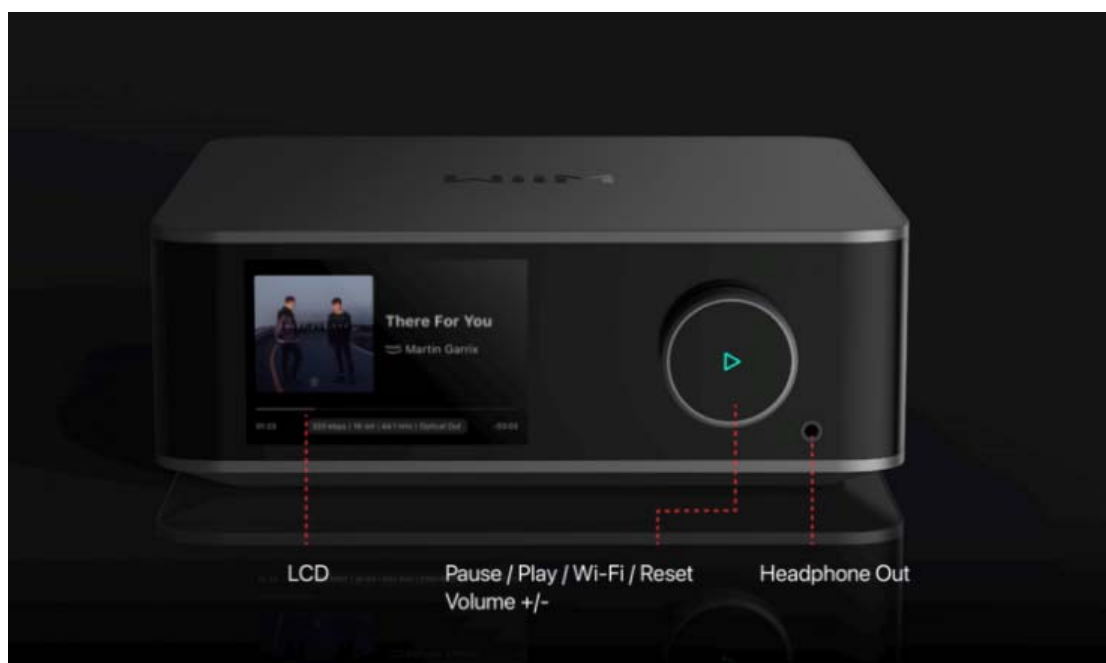
### 3. TECHNICAL SPECIFICATIONS

Feature	Description
Power Input	100-240V 50/60Hz AC Power
Audio Quality	Digital Audio Output: Bit-perfect output, up to 192 kHz, 24-bit with digital optical or coaxial output. Analog Audio Output: It supports up to 384 kHz, 32-bit with its internal DAC. You won't lose precision when using volume control with analog output for 16-bit or 24-bit audio.
Network	802.11 b/g/n/ac 2.4 GHz and 5 GHz dual bands Wi-Fi, 802.11ax 6GHz band 10/100M Ethernet
Bluetooth	Bluetooth 5.3, A2DP, AVRCP Support SBC, AAC Codec
Audio Input	1 x Analog RCA Line IN, 2 Vrms, 96 kHz/24-bit, 1 x SPDIF Optical IN, up to 192kHz/24-bit 1 x HDMI ARC, 1 x USB, UAC2.0 up to 192kHz/24-bit, UAC2.0, 1 x Phono in
Audio Output	1 x Analog RCA Line OUT, 1 x Digital optical (SPDIF) OUT, 1 x Digital Coaxial OUT, up to 192kHz/24-bit, 1 x Subwoofer Output, 1 x Headphone Output
Audio Codec	MP3, AAC, ALAC, APE, FLAC, WAV, WMA, OGG, AIFF
Streaming Protocol	Chromecast Audio, DLNA, Spotify Connect, TIDAL Connect, Amazon Music Casting, Qplay 2.0, Squeezeelite, Roon Ready
Streaming Services in App	Spotify, Amazon Music, Deezer, TuneIn, Tidal, Qobuz, SoundCloud, Pandora, iHeartRadio, vTuner, Napster, Sound



	machine, etc.
<b>Button</b>	Capacitive touch buttons – Play/Pause, Volume +, Volume -, 1 x Preset
<b>Weight</b>	50.1 oz (1420g)
<b>Dimension</b>	200 x 213 x 72mm

## 4. CONTROLS



## BUTTONS AND INPUT/OUT INTERFACE

Buttons / IO Interface	Functions
Power	100-240V 50/60Hz AC Power
Display	3.5-inch IPS display with touch control
Volume Knob	Push down to Play/Pause, network or Bluetooth pairing, or restore to the factory setting Turn clockwise: Increase volume Turn anti-clockwise: Decrease volume
Preset	Start to play the preset content (short press) or save the favorite content as the preset (long press)
Analog audio in	Standard RCA
Analog audio out	Standard RCA
Digital Optical In	Optical audio input up to 192 kHz/24-bit
Digital Optical audio out	Optical audio output up to 192 kHz/24-bit
Phono in	Phono input
Headphone out	3.5mm headphone output
Digital Coax audio out	Digital coaxial port up to 192 kHz/24 bit
HDMI ARC	Stereo PCM
Sub Out	Connect to the powered subwoofer, 2.0 Vrms
USB	USB in: USB host for storage USB out: DC 5V/1.5A
Mic	Activated solely for the purpose of automatically calculating audio latency to ensure seamless multiroom synchronization. This includes compatibility with various platforms like Alexa MRM, Chromecast MRM, and Linkplay MRM. The MIC is engaged only during latency measurement.
12 V trigger	3.5 mm port for cable connection to turns on your stereo or receiver

	Load-carrying capacity: DC 12V/200mA Note: Consult your amplifier's user guide for specifics on utilizing its 12V trigger input.
<b>LAN</b>	10/100Mbps Ethernet port

## 5. HOW TO SET UP

### CONNECT AUDIO INPUT to IN PORT ON WiiM ULTRA

The WiiM Ultra features two distinct audio input interfaces: the analog LINE IN, the digital optical (TOSLINK) SPDIF IN and HDMI ARC.

This versatile device functions as both a preamplifier and a network audio transmitter through Wi-Fi or Ethernet. You have the capability to stream analog audio input from sources such as CD players, vinyl players, TVs, or computers to other WiiM Ultra, Pro, or Mini devices either singly or in multiple combinations.

Scenario 1: Analog Audio Source Input (CD Player, Vinyl Player, or Computer)

Connect your source device to the WiiM Ultra's LINE IN port using a line-in cable. One of two types' cable as the follows might be used, i.e., RCA to RCA or Aux to RCA.

Connect to WiiM Ultra's Line IN port





Connect to CD player, vinyl player, TV or computer

Steps to set up the WiiM Ultra with the line-in input:

(Perform step 3/4/5 after WiiM Home App is installed)

1. Insert the line-in cable into the LINE IN port located at the back of the WiiM Ultra.
2. Connect the other end of the cable to the AUX or LINE OUT port on your audio source device (CD player, vinyl player, TV, or computer).
3. In the WiiM Home app, navigate to the 'Browse' tab, choose 'Select source on device,' then opt for 'LINE IN' to set it as your audio distribution source.
4. For creating a multiroom music group with your WiiM Ultra, access the Devices section in the WiiM Home app. Select the WiiM Ultra linked to your LINE-IN device, tap the group button (displaying a "link" icon within a box) in the upper-right corner of the device box, and choose the WiiM Ultra you wish to transmit audio to.
5. Once done, the music from the device connected to the WiiM Ultra will play across your multiroom music group.

#### Scenario 2: Digital Audio Source Input (TV or PC)

Connect your source device to the WiiM Ultra's SPDIF IN (optical) port using an optical cable or HDMI ARC with an HDMI cable.



Steps to set up the WiiM Ultra with the optical or HDMI IN are the same as Line-in, replacing Line-in with Optical IN or HDMI.

**Notes:**

- To connect your TV to the WiiM Ultra using an HDMI cable, please select HDMI port on your TV marked as 'HDMI ARC'. Please note that connecting to other HDMI ports will not transmit sound to the WiiM Ultra.
- You can also enable "Autosense" on the WiiM Ultra to automatically play your Line-In, Optical-In or HDMI ARC source when WiiM Ultra detects a signal. You can enable this feature from the WiiM Home App.
- WiiM Ultra has a built-in EQ to process the audio input based on your taste. You can also control the audio volume in the App remotely without adjusting your audio input.
- Some source devices may require a preamp. For example, some turntables do not have a preamp built-in, so you will need to connect your turntable to an external preamp and then connect the preamp to WiiM Ultra.

## CONNECT WIIIM ULTRA'S AUDIO OUT PORT

The WiiM Ultra features three distinct audio output interfaces that offer flexibility in connecting your DAC, amplifier, or powered speaker. These interfaces include the analog LINE out, the digital optical (TOSLINK), and the Coaxial port. It's important to note that the WiiM Ultra is designed to output audio through a single one of these audio output options.

Setting Up WiiM Ultra Audio Output:

(Note: Perform steps 3, 4, and 5 after installing the WiiM Home App)

1. Depending on your preferred audio equipment, select the appropriate connection method: RCA cable, optical cable (TOSLINK), or COAX.
  - a. For RCA cable, plug it into the LINE OUT port on the back of the WiiM Ultra.
  - b. For optical cable (TOSLINK), plug it into the SPDIF OUT port.
  - c. For Coaxial cable, plug it into the COAX port.
2. Connect the other end of the cable to your audio equipment (DAC, amplifier, or powered speaker).
3. Within the WiiM Home App on your iOS or Android device, designate the desired output port. Remember that the WiiM Ultra only outputs audio through one of these options.
4. Enhance sound quality with customized sound equipment connection:
  - a. EQ settings
  - b. Calibration (latency from the WiiM Ultra to speaker)
  - c. Test music playback
5. You're now ready to begin playing audio on your selected output devices.

### Notes:

- *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 the 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:*
  - *Utilize your AVR or amplifier for volume control (When the 'Fixed Volume Output' is set on the WiiM Ultra).*
  - *Control volume through the WiiM Home App, but remember to disable fixed volume output for this option.*

use your own linear power supply, please ensure it can support 5V, 1.5A or higher power.



## FILL YOUR HOME WITH SOUND

Immerse yourself in your favorite music and radio stations through seamless Wi-Fi or Bluetooth streaming. With multiple WiiM Ultra devices, enjoy music throughout your entire home. Alternatively, connect stereo components like an amplified turntable, CD player, or MP3 player, and simultaneously cast music to multiple WiiM Ultra, WiiM Pro, or WiiM Mini connected speakers.

Expand your audio experience by grouping with -enabled devices, Amazon Echo, or Google Home, creating a synchronized whole-home audio setup across multiple rooms. Note that grouping with non-WiiM or LinkPlay devices requires the respective apps like Alexa or Google Home.

It's important to mention that when using Amazon Echo, or Google Home devices, the WiiM Ultra functions as the audio receiver. Please be aware that it cannot transmit its physical audio input (via Line-In or Optical-In) to non-WiiM devices like Amazon Echo, or Google Home devices over Wi-Fi.

## USE 12 V TRIGGER OUT

The WiiM Ultra raises the voltage on the 12v trigger rail as soon as the music playback starts. It lowers the trigger's voltage two and a half minutes after playback stops. The responsiveness of the connected amplifier to this voltage change varies based on the manufacturer and their individual timeout settings.

For external DAC or amplifier, the 12 V trigger can be utilized to detect music start or stop events. Please consult your device's manual that features with trigger input for details.

## AUDIO OUTPUT VIA BLUETOOTH OUT

You can use the WiiM Ultra as a Bluetooth source device, enabling seamless pairing with your Bluetooth speakers.

Bluetooth Pairing Procedure for Audio Output:

- 1) Launch the WiiM Home App on your iOS or Android device.
- 2) Select '**Device**' Tab and tap the gear icon for device settings.
- 3) Select the '**Audio Output**' setting and opt for '**Bluetooth**' to establish a connection with an external Bluetooth receiver, such as an amplifier or speaker.
- 4) Start playing music.



## 6. VOICE CONTROL

With voice control, you can navigate and interact with your device to search, play, stop, or skip music and more.

When voice control is configured, you can speak commands as you would act by touch.

### WORKS WITH ALEXA

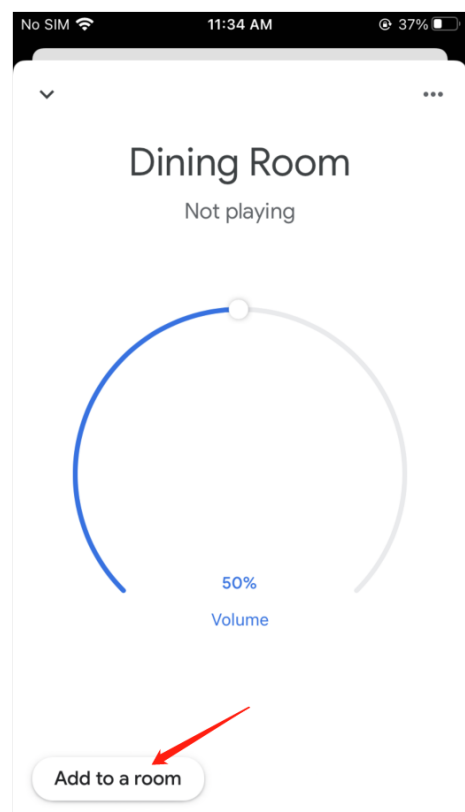
Download the Amazon Alexa App and turn on Amazon devices or 3<sup>rd</sup> party Alexa built-in devices.

- Setup your Amazon account for your WiiM device  
If your WiiM device is not logged into your Amazon account in the WiiM Home App,
  - Open WiiM Home App, click "Browse -> Amazon Alexa -> Sign in to Amazon."
  - Log in to your Amazon account
- Open the Amazon Alexa app
- Tap the "Devices" at the bottom of the page.
- Tap the "+" in the top right corner.
- Tap "Combine speakers," then select "Multi-room music."
- Select the configured Echo or other Amazon devices and the configured WiiM Ultra device
- Click "Next" and choose the group name (i.e., Bedroom)
- Amazon Alexa app prompts that the group has been created.
- Try "Alexa, play some music in the Bedroom" for the multi-room audio with Echo.
- Or
- Choose the WiiM device as the preferred speaker. Thus, you don't need to say your device name when using Alexa.

### WORKS WITH GOOGLE VOICE ASSISTANT

Let's assume you've set up your Google Home and WiiM Ultra separately. Now, you must link them together in the Google Home app for Android or iOS:

- Open the Google Home app, and you will find the WiiM Ultra enabled as a Chromecast audio device under "Local devices."
- Tap the name of the WiiM Ultra and enter the device control UI.
- Tap the "Add to a room" button under the volume circle to add WiiM Ultra to one room.
- You can use voice to control the WiiM Ultra with your Google Home or Android devices.



## 7. DIRECT CONTROL VIA YOUR FAVORITE APP

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

Depending on your mobile devices and music service, there may be multiple ways to stream from your music app to WiiM devices. I.e., if you use Spotify App on iOS device, Spotify Connect gives you better audio quality and liberate your phone for other tasks.

### SPOTIFY CONNECT

Spotify Connect is a way of playing Spotify through your wireless-compatible device over Wi-Fi. 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. Go to [Spotify.com/connect](https://www.spotify.com/connect) to learn more. It's the best way to play Spotify on WiiM device giving the best possible audio quality and streaming experience.



The Spotify Software is subject to third-party licenses found here:  
<https://www.spotify.com/connect/third-party-licenses>

To use Spotify Connect with multiroom or stereo pairing, you can first group multiple WiiM devices on WiiM Home App then stream Spotify to the grouped devices. The group name is the same as the group master device.

### 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 TIDAL App straight to your devices in the highest possible quality.

TIDAL Connect is a feature that 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 WiiM device.

WiiM Ultra also supports MQA decoder for the TIDAL Connect up to 24-bits/96 kHz if you subscribe to TIDAL Hi-Fi+ tier. If your external DAC or Amplifier can support MQA decoder or render, you can get even higher sample rate/bit depth than 24-bit/96 kHz.

To use Tidal Connect, you need to launch the Tidal App on your mobile device. Then find and play a song you like and head to the 'Now Playing' screen. Touch on the 'cast' icon at the top right on the 'Now Playing' screen and select a 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 is one of the first devices that support Alexa Cast with bit-perfect output up to 192 kHz/24-bit. Thus, you can listen to your Amazon Music Ultra HD directly from the native Amazon Music to WiiM Ultra in the highest possible quality.

To use this, please log in to your Amazon account for Amazon Alexa on the WiiM Home App. Also, make sure you have the latest version of the Amazon Music app. Next, on the "Now Playing" screen, you will see a casting icon in the top right. Tapping the icon will bring up the list of all your available Alexa devices for you to select.

Once you have started casting, you can still use voice to control the music playing on the device. You can switch between using your voice and your App based on your convenience. When you want to stop casting to a device and resume playing on your phone, you will have to pull up the device list and tap the disconnect button.

## **CHROMECAST AUDIO**

Chromecast audio lets you instantly stream your favorite music, radio, or podcasts from your favorite Chromecast-enabled apps on the mobile device to your speakers over Wi-Fi. Once you have set up WiiM Ultra, you can enable Chromecast from the WiiM Home companion app. Then, open a compatible app on your smartphone or tablet and tap the Cast button. This will allow you to select your WiiM Ultra and start streaming audio to it.

Most music apps on both iOS and Android already support Chromecast such as Spotify, Apple Music, TIDAL, Amazon Music, YouTube Music and Deezer. You can also cast any audio from your Chrome browser by selecting Menu > Cast.

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

## **DLNA**

DLNA stands for Digital Living Network Alliance. It is a trade organization that sets standards and guidelines for home networking devices, including PCs, smartphones, tablets, smart TVs, Blu-ray Disc players, home theater receivers, and media streamers, among others. When a DLNA certified device is added to a home network, it can automatically communicate and share media files with other connected DLNA products on the network.

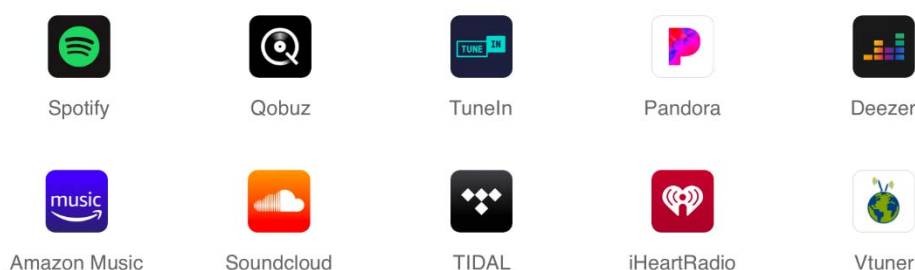
WiiM Ultra is the DLNA digital media render. When it's connected to the same network as your other DLNA devices or apps, it appears in the menus of other networked components. Your computer and other media devices discover and recognize the WiiM Ultra without any setup.

You can control the WiiM Ultra from other DLNA digital media player or controller. You can also play content to the WiiM Ultra from other DLNA digital media servers, all without additional setup.

## 8. ALL MUSIC IN ONE APP

With the free WiiM Home App, you can control your content and devices from one place. We support many popular music streaming services in the App, such as Spotify, iHeartRadio, Tidal, Amazon Prime Music and Unlimited, SoundCloud, Qobuz, Pandora, Deezer, TuneIn & more to come. You can also play music stored in your mobile device, local network media servers, or personal cloud server.

The App supports the unified search across multiple music services and your local network for artist, track, station, playlist, etc. It's a powerful tool to discover your favorite content from your online and local library.



The WiiM Home App supports equalization (EQ) with two options: 24 EQ presets or a 10-band graphical EQ. These EQ settings can be assigned to different sources, such as AUX in, Optical or HDMI in, online music, or Bluetooth streaming.

The App has twelve music presets that allow you to save your favorite station, playlist, album, etc., and access them later with the preset button on the Pro Plus, remote, or the App with one tap.



## 9. MULTIROOM AND STEREO PAIRING

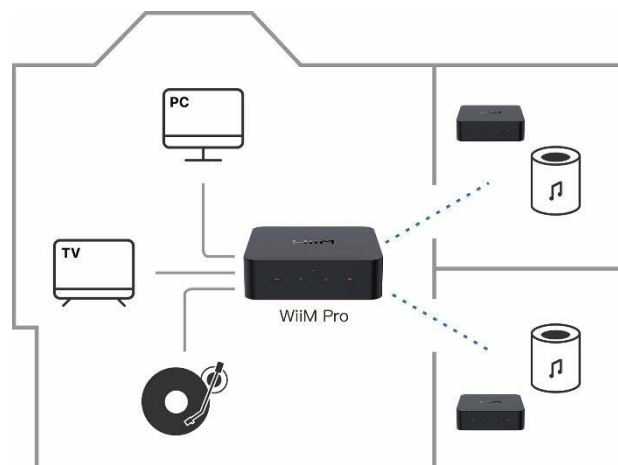
With the WiiM Ultra, it's easy to build your wireless multiroom sound system with Amazon Echo (or Alexa built-in devices) or Google Home. You can create an even more flexible multiroom sound system with multiple WiiM Ultra, Pros Minis, and your existing audio devices.

### LINKPLAY MULTIROOM/STEREO PAIRING

With our proprietary multiroom scheme, all types of audio input, including Wi-Fi, BT, analog Line in, or digital SPDIF in, can be used as the audio source for the multiroom system.

In addition, you can group two speakers connected with WiiM devices as a stereo pair for a wider, more immersive sound stage. It supports all four input options too. Thus, it can work with almost every music listening option.

To use this, please follow the steps below.



- Configure two or more devices.
- Open WiiM Home App.
- Select the device and click the plus sign in the upper right corner “+”
- Select the other WiiM device, click “Done”
- Click the LR icon “L” and set the device to “L/R/LR”
- Select Browse tab, choose your music to play.

### AMAZON ALEXA MULTIROOM

**TIP:** Download Amazon Alexa App and get ready with Echo or other Amazon devices.

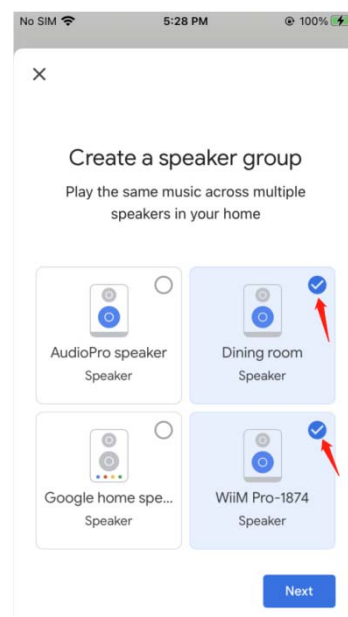
For detailed steps please refer to 6.1.

Since the WiiM Ultra is an Alexa Cast audio receiver, not a transmitter, it can't transmit the Line-in HDMI, or Optical-in audio to other Alexa-enabled devices such as Echo.

## MULTIROOM WITH CHROMECAST AUDIO DEVICES

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

- Enter Google Home App, tap the “+” in the top left corner
- Tap “Create speaker group” to create a speaker group
- Select the devices that are in the same network
- Give a group name
- Stream music to the group



Since the WiiM Ultra is a Chromecast audio receiver, not a transmitter, it can't transmit the Line-in, HDMI ARC or Optical-in audio to other Chromecast audio devices such as Google Home.

## 10. AUDIO INPUT VIA LINE IN OR SPDIF IN

Unlock the full potential of the WiiM Ultra by employing it as a preamplifier and network audio transmitter via Wi-Fi or Ethernet. You can seamlessly stream analog or digital audio input from devices like CD players, vinyl players, TVs, or computers to other WiiM connected devices or Sonos.

To set up your WiiM Ultra with Line-IN:

1. Insert the line-in cable into the LINE IN port on the WiiM Ultra's rear.
2. Connect the other end of the cable to your record player.
3. In the WiiM Home app, navigate to 'Browse' tab > Select source on device > LINE IN, and designate LINE IN as the audio source.
4. Form a multiroom music group with your WiiM Ultra. In the WiiM Home app, go to Devices and choose the WiiM Ultra linked with your LINE-IN device. Tap the group button (depicted by a "link" icon within a box) at the upper right corner of the device box. Select the desired WiiM Ultra for audio transmission.

Upon completion, the music from the connected device will play across your multiroom music group.

You can follow the same procedure using the SPDIF input port of the WiiM device if your source device offers a digital audio output via SPDIF.

Additionally, you can enable the "Autosense" feature on the WiiM device, allowing it to automatically play your Line-In, HDMI ARC or Optical-In source upon detection of a signal. This feature can be activated within the WiiM Home App.

The WiiM device features a built-in EQ to tailor audio input to your preferences. Moreover, you can control audio volume remotely through the app, eliminating the need to adjust the audio input directly.

Note that certain source devices may require a preamp. For instance, some turntables lack a built-in preamp, necessitating connection to an external preamp before linking to the WiiM Ultra.

## 11. AUDIO OUTPUT VIA LINE/SPDIF/COAX/BT OUT

There are three separate audio output interfaces on WiiM Ultra that you can use to connect your DAC, Amplifier, or powered speaker. These are the analog LINE out, the digital optical (TOSLINK), and the Coaxial port. Please note that WiiM Ultra only outputs audio to one of the audio outputs.

It's important to select the correct audio output port. Otherwise, you may not be able to hear the sound.

If you want the bit-perfect audio output, please use the digital audio output and enable the fixed volume output. You can do so from the device setting on the WiiM Home App.

Thus, you have two ways to control the volume of your system.

- Control volume from your AVR or amplifier (Fixed volume output)
- Control the volume from the WiiM Home App. To do so, you need to turn off the fixed volume output.

### AUDIO OUTPUT VIA SPDIF/COAX/LINE OUT

- Depending on the output you prefer to use, plug the SPDIF/RCA/COAX end of the cable into the corresponding output port on the WiiM Ultra.
- Open the WiiM Home App on your iOS or Android device.
- Start playing on the output devices.

### AUDIO OUTPUT VIA BT OUT (BT sourcing mode)

- Open the WiiM Home App on your iOS or Android device.
- Select Device Tab, and tap the device setting gear icon.
- Tap the Audio Output setting and select Bluetooth to connect to an external Bluetooth device (such as an amplifier or speaker)
- Start playing music.

## **12.       STREAM AUDIO WITH BLUETOOTH**

With Bluetooth wireless technology, you can stream tunes from various devices like smartphones, tablets, TVs, and laptops. To start streaming, first pair your device with the WiiM Ultra. Initiate pairing mode by holding down the volume '+' and '-' buttons simultaneously for 2 seconds.

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

## **13.       ADVANCED FEATURES**

### **FIRMWARE UPDATES**

- WiiM Ultra updates automatically when connected to your Wi-Fi network.
- Upgrades happen from 2:00-5:00 a.m. in your time zone. During the silent upgrade, there will be no sound and no indication. Upon opening the App, you will see the latest updates made to 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 which connection is active, open the WiiM Home App, go to the 'Browse' tab, and scroll down to the 'Select Audio Source' section at the bottom. If Ethernet is being used, it will display 'Ethernet' instead of 'Wi-Fi.'

## 14. FAQ

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

- 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 the LED on the device is solid white.
  - Make sure your device 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 device.
  - Try restarting your device, WiiM Ultra, and router.
  - If still can't find, reconfigure the device to the network.

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

If you are not getting any sound from your WiiM Ultra, make sure you have checked the following things:

- The volume level on both the WiiM Home app and your receiver or device that you have connected to WiiM Ultra.
  - The input source on your receiver or device that matches the output of WiiM Ultra.
  - The right audio output from WiiM Ultra is selected on the WiiM Home App.
  - The physical connections between WiiM Ultra and your receiver or device, are plugged in correctly and securely.
- 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 or 5V, 2A rating USB power adapter is used.

## SUPPORT

If you are unable to resolve your issue, please send us a ticket through the App or send us an email about the issue you're experiencing.

WiiM Home App: Settings > Feedback, Settings > FAQ  
Website: [faq.wiimhome.com/support/solutions](https://faq.wiimhome.com/support/solutions)  
Email: [support@wiimhome.com](mailto:support@wiimhome.com)  
Product User Guides: [wiimhome.com/guides](https://wiimhome.com/guides)

## RESETTING WIIIM ULTRA

Press and hold the play/pause for 10s until you will hear the voice prompts of "Restore to factory setting" and see the light flashing red and white.

Factory reset clears all source, volume, and network settings for WiiM Ultra and returns it back to the original factory settings.

## 15. IMPORTANT SAFETY INSTRUCTIONS

IMPORTANT, RETAIN FOR FUTURE REFERENCE: READ CAREFULLY

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with a dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
10. Only use attachments/accessories specified by the manufacturer.
11. Unplug this apparatus during lightning storms or when unused for long periods of time
12. 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.
13. To reduce the risk of fire or electrical shock, do NOT expose this product to rain, liquids or moisture.
14. 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.
15. Keep the product away from fire and heat sources. Do NOT place naked flame sources, such as lighted candles, on or near the product.
16. Do NOT make unauthorized alterations to this product.
17. Do NOT use in vehicles or boats.
18. Use this product only with the power supply provided.
19. Where the mains plug or an appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable.
20. 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.
21. Contains small parts which may be a choking hazard. Not suitable for children under age 3.
22. This product contains magnetic material. Consult your physician on whether this might affect your implantable medical device.
23. 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.



## 16. CE/FCC/IC 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, <10.0 dBm(EIRP)

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

WLAN 5GHz: 5150MHz ~ 5825MHz, <20 dBm(EIRP)

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

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.

	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							

**This product can be used across EU member states.**

**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.

