miccus®

Miccus® Home RTX PRO
Long Range Wireless Audio
Transmitter or Receiver

miccus®

| CH1 | aptX-HD | aptX | 3.5mm | TX |
| CH2 | aptX-LL | Optical | HDMI | RX |

Model No.: MHRTX-PRO
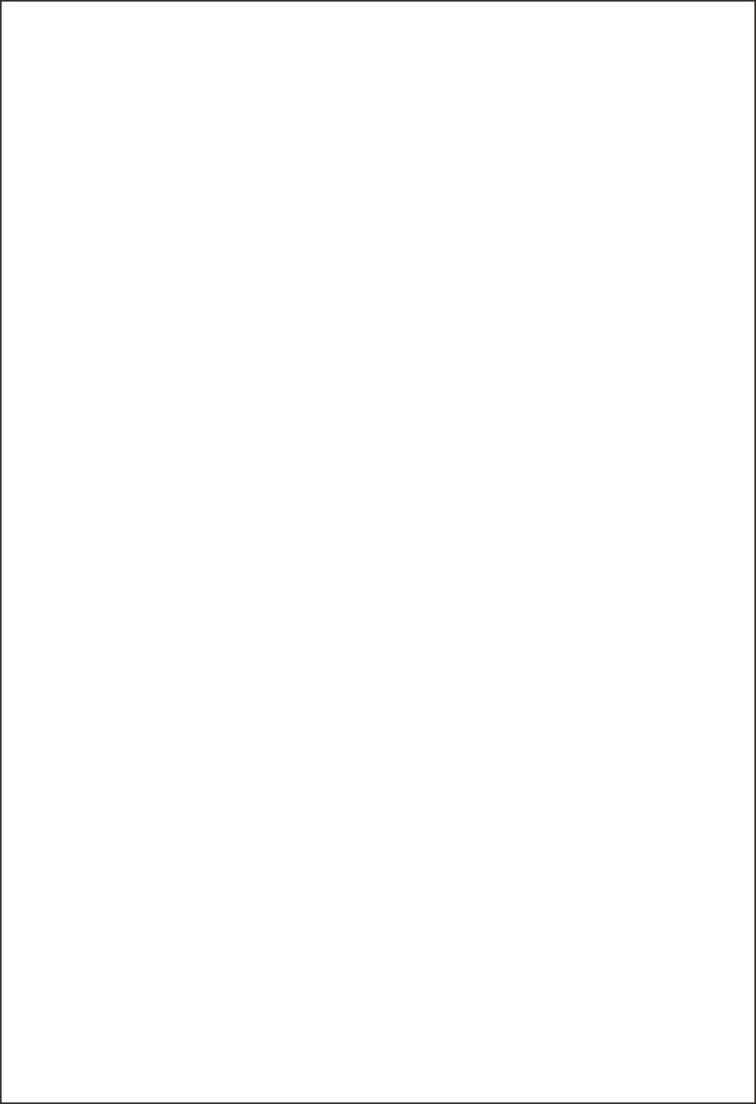
Welcome to the Miccus Home RTX Pro

The Miccus® Home RTX Pro is the world's first long range, Bluetooth transceiver featuring HDMI support. Add cutting edge Bluetooth® technology to your TV, AV Receiver or Stereo Equipment. Featuring:

- ➢ Bluetooth®5.1
- ➢ HDMI support, extracts digital audio embedded in HDMI source and transmits to your Bluetooth Headphone or Speaker
- ➢ aptX-HD, stream 24bit music quality for a "better than CD" experience
- ➢ Dual link, stream two simultaneous aptX Low Latency or aptX-HD audio channels.
- ➢ Display screen indicating status
- ➢ Voice prompts making device easy to use
- ➢ Automatic Optical or HDMI audio pass thru, send TV audio to both your RTX Pro and your soundbar without a splitter
- ➢ HDMI, Optical, 3.5mm and RCA support

Use the same audio source and daisy chain two or more Home RTX Pro's together; double or even triple the number of low latency audio streams available for use.

Product Overview

Antenna

Status Indicators

TX / RX Switch

Voice Prompt Speaker

On / Off Pairing

LL / HD Switch
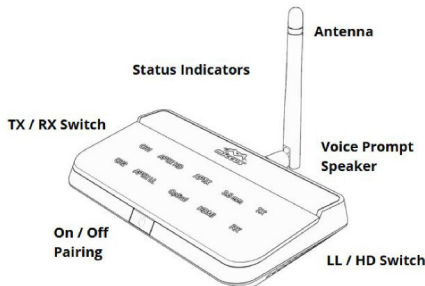
What's in the Box?

- • Miccus® Home RTX Pro
- • Dipole Antenna
- • HDMI Cable

- Optical cable
- AUX/3.5mm Cable
- USB C charging data cable
- USB Power Supply

Quick Reference Guide

FUNCTION	INSTRUCTIONS
Power On	1. Plug in using USB cable & power adapter provided OR 2. Press 〰 button for 1s OR
Power Off	1. Unplug USB cable 2. Press 〰 button for 5 seconds (Hold & ignore voice prompts until "Power Off" is heard and lights turn off)
TRANSMIT Audio to Bluetooth Headphones or Speakers	Slide to TX
RECEIVE Audio on wired audio gear from Phone, Laptop, etc	Slide to RX
Automatic Bypass, Transmit Bluetooth and listen to wired speakers at the same time	Slide to TX, Insert Optical or HDMI cable （Press the button for Optical or HDMI mode）
Watch TV, Movies or Gaming	Slide to LL for aptX Low Latency before usage (Use with aptX Low Latency supported devices)
Listen to Music in High Definition	Slide to HD for aptX HD before usage (Use with aptX HD supported devices)
Pair to New Bluetooth device	1. Press 〰 button for 2 seconds to start pairing mode. 2. CH1 will start flashing rapidly while making a Bluetooth connection to a new device. 3. CH1 will turn solid when connected
Connect to Last Paired Device, Auto-Reconnection	1. Power on RTX Pro 2. CH1 will flash slowly. "Searching for last paired device" announced.
Switch between Optical and HDMI	1. Select Optical by pushing the selector IN on the RTX Pro back, "Optical Mode" announced 2. Select HDMI by pressing the selector so it releases OUT, "HDMI mode" announced
To Turn Voice Guide On or Off	3. Turn on RTX Pro in TX mode 4. Press 〰 to start pairing mode (CH1 will flash rapidly)

	5. While CH1 flashing, press 〰️ 2 times
	6. Press and hold 〰️ until lights turn off (approx 5 sec).
Factory Reset	1. **Power on RTX Pro in TX mode**
	2. **Power off RTX Pro by holding 〰️ until "Power Off" is heard.**
	3. **Power on RTX Pro by pressing 〰️ until hearing "Pairing Memory is Reset."**

LED Indicators:

The Home RTX Pro communicates via LED indicator lights.   Following is a handy guide for your reference.

Indicator	Status
CH1/CH2 Flashing	Searching for Last Paired Device
CH1/ CH2 Rapid Flashing	Pairing Mode, Searching for New Device
CH1 Solid	CH1 connected 1st Device
CH2 Solid	CH2 connected 2nd Device
aptX-HD	aptX-High Definition active
aptX-LL	aptX-Low Latency active
aptX	aptX active
3.5mm	3.5mm active
OPTICAL	Optical Mode active
HDMI	HDMI Mode active
TX	Ready to Transmit (send audio to Bluetooth headphones or speakers)
RX	Ready to Receive (receive audio from phone on wired stereo, speakers, etc)

Bluetooth® Codec / Speed:

The following chart details the audio speed of each Bluetooth codec the Home RTX Pro supports.

BLUETOOTH CODEC	AUDIO LATENCY
aptX Low Latency	38ms (+ or – 5ms)
aptX	70ms (+ or – 10ms)
aptX HD	150ms (+ or - ?)
SBC	220ms (+ or – 50ms)

If you want to watch TV, aptX Low Latency streams without noticeable delay or lip sync problems.

If you want the best audio sound quality, select aptX HD.

➢ NOTE: Your paired device MUST also support the codec selected. If you select LL, your headphones must also support aptX Low Latency.

The Home RTX Pro will automatically pair at the highest quality codec that BOTH devices support.

When paired with two sets of aptX Low Latency headphones, the Home RTX Pro will stream in aptX Low Latency to BOTH headphones. Many other adapters drop aptx LL codec when paired to 2 devices.

Getting Started

Attach the Antenna

On the back of the Home RTX Pro, remove the white cover and attach the antenna. Turn clockwise until slightly snug. Position the antenna upright.

Connect to Power

The Home RTX Pro needs to be connected to a power source, it does not have a battery.

1. We recommend connect to a wall plug with a provided USB charger that supports 5V/1000Ma.
2. Or connecting it to the USB port on the TV / PC / or Receiver you are using it with so it will turn ON or OFF with your gear.

When connected via USB Power, it will automatically power on and search for last paired device.
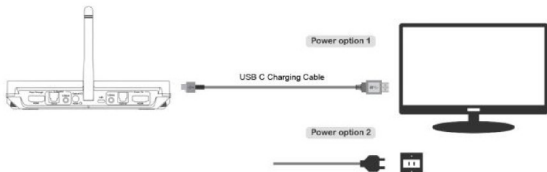
HOW TO SETUP:

Your audio goal determines your setup:

If you want to listen to your TV / PC with Bluetooth headphones / speaker, see "Use as Transmitter."

If you want to listen to your TV with Bluetooth headphones while others listen to wired speakers, see "Bypass" under "Use as Transmitter."

If you want to listen to music from your phone or tablet on non-Bluetooth wired speakers, see "Use as Receiver."

1. Use as Transmitter:

Wirelessly connect & transmit TV, Stereo, or Computer Audio to Bluetooth Headphones or Speakers

Connect to TV, PC or Stereo

Check your OUTPUT options on your audio gear. The RTX Pro supports HDMI, Optical and AUX connections. To use with RCA Out jacks, purchase a separate RCA cable / adapter.


JACK OPTIONS
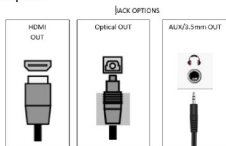
NOT SUPPORTED: 3.5mm AUX In, RCA IN, or Coaxial OUT.

HDMI Out

HDMI is the preferred choice if your TV or audio source (cable/ satellite/ tv box) has an HDMI Out port.

With HDMI input port, the Home RTX Pro extracts digital audio embedded in HDMI source. It wireless transmits directly to your Bluetooth Headphone or speaker for premium audio quality.

1. On the RTX Pro back, push the HDMI selector so it sticks out.

2. On RTX Pro screen, you should see CH1, (Codec), HDMI, TX lights. Codec light will depend on the codec of your paired device.

3. Plug the HDMI cable into the "HDMI Out" port on the back of your TV.

4. Plug the other end into the RTX Pro "From TV" HDMI Port.
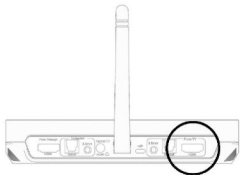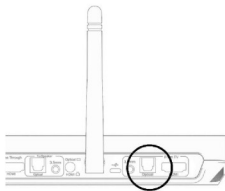
5. Verify HDMI light is solid green.

   NOTE: Miccus HDMI does not support HDMI ARC.

Optical Out

1. On the RTX Pro, push in the Optical selector on the back.

2. On RTX Pro screen, you should see CH1, (Codec), OPT, TX lights. (Codec light will depend on the codec of your paired device.)

3. Plug the Optical cable into the "Digital Audio Out" or "Optical Out" port on the back of your TV.

4. Plug the other end into the RTX Pro "From TV" Optical Port.

5. Verify OPT light is solid green.

   NOTE: If there is no sound, check your TV Audio settings. Some TVs automatically complete these steps for you, some don't.

   - Set Audio Output to either External Speaker, Optical Audio Out, Audio Out/Optical or Optical Out (wording varies between TVs).

   - Set Audio Format to PCM for BOTH HDMI and Digital formats. May be under Expert Settings or Sound depending on your TV settings.

Dolby/DTS should be off, Bluetooth does not handle Dolby / DTS Digital. LG TVs may need Dolby Atmos turned off.

- After settings have been changed, turn off the transmitter and wait 5 seconds. Turn it back on after all settings completed.

Auxiliary 3.5mm Out

1. Plug the 3.5mm Auxiliary Cable into the "Headset" or "AUX" port on your TV

2. Plug the other end into the RTX Pro "From TV" 3.5mm port.

3. Verify 3.5mm light is green

4. If there is no sound:

   - Check your TVs Sound Settings: Audio Output should be set to Wired Headphones or Headset

   - Test the TV's AUX jack with a pair of wired headphones to make sure it's the correct audio out port.

RCA Out

Note: You need to purchase an RCA to 3.5mm cable / adapter separately.

1. Plug the Red / White RCA cables to your TV's RCA Audio Out.

2. Plug the 3.5mm AUX cable to the 3.5mm female cable

3. Plug the other end into the RTX Pro "From TV" 3.5mm port.

4. Verify the 3.5mm light is green.

5. If there is no sound

   - Make sure you've used the TV Red/White ports labeled "Audio Out." Other Red/White ports will NOT work.

   - Check your TVs Sound Settings: Set Audio Output to "External Speakers."

BYPASS

Use our premium BYPASS feature (in TX mode for Optical or HDMI connection):

1. If your TV is wired to your sound system (i.e. Soundbar, AV Receiver, external speaker), or

2. If you would like your TV audio to be heard on BOTH your Bluetooth headphones AND your sound system so that your family or friends can hear the TV as well.

Otherwise, proceed to Check TV OUTPUT Options below.
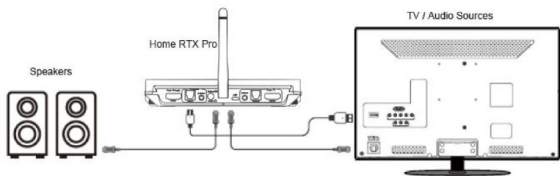
Your audio setup is easy with Automatic Bypass. Use the RTX Pro AND your wired Soundbar at the same time, no need for splitters or rewiring your setup.

➢ NOTE: For use with either Optical or HDMI connection.

1. Switch to TX mode.
2. Connect audio source (TV, DVD) to Home RTX Pro "Optical In" or "HDMI In" with appropriate cable
3. Connect your sound bar to Home RTX Pro "Optical Out" with your own optical or HDMI cable

Make sure you are using same type of input/ output connections.
● If you're using the HDMI cable with TV, use the HDMI cable to connect to sound system.
● If you're using the OPTICAL cable with TV, use OPTICAL cable to connect to sound system.

Using Bypass Mode:
1. Hear from BOTH your Headphones and Sound System, switch should be TX mode.
2. Hear from ONLY Sound System: Turn off your headphones.
3. Hear from ONLY the Headphones: Turn off your Sound System.

TX: Pair & Connect to Bluetooth Headphones / Speakers

1. On the left side, slide to TX

2. On the right side, slide to LL or HD. Choose LL for Low Latency (no delay), HD for High Definition.

    NOTE: Paired device MUST support selected codec.

3. To pair (Wirelessly Connect) with Bluetooth Headphones or speakers,

    ✓ Make sure any previously paired devices, Bluetooth headphones, speakers, adaptors are turned off so the Home RTX Pro looks for a NEW device.

    ✓ Set your headphones or speaker to pairing mode (refer to your user manual) and bring close to the RTX Pro, within 3 ft of each other

    ✓ Press ⌒⌒ button for 2s, CH1 button will rapidly flash and "Pairing" is announced.

    ✓ Wait for the devices to connect, up to 30 seconds or more

✓ Once connected, the CH1 light should be SOLID. You will hear "Connected. Ready for use."

4. To begin streaming, play and adjust your audio volume at the audio source, your TV, Stereo, or computer. Enjoy!

Use as a Receiver

Wirelessly receive audio from your phone, PC or tablet on your non-Bluetooth Home Stereo or Sound System

1. On the left side, slide to RX
2. On the right side, slide to LL or HD.

   NOTE: Paired device must support selected codec.

3. Connect to non-Bluetooth device with AUX or Optical cable. On back of RTX Pro, use "To Speaker" ports.

4. To pair (Wirelessly Connect) with Your Bluetooth-enabled Phone, PC, or Tablet

   ✓ Make sure any previously paired devices, phones or other adaptors are turned off so the RTX Pro looks for a NEW device.

   ✓ Press ⌒⌒ button for 2s, CH1 button will rapidly flash blue. "Pairing" announced

   ✓ Turn on Bluetooth on your phone or other device and bring devices close together. Select Miccus Home RTX Pro from the Bluetooth menu. (i.e. iPhone tap "Settings" →"General" →"Bluetooth" →"On") If a passkey is needed, use "0000."

   ✓ Wait for the devices to connect, up to 30 seconds or more

   ✓ Once connected, the CH1 light will stop flashing and become solid. You will hear voice prompt "Connected. Ready for use."

5. To begin streaming, simply press play on your audio source, adjust your volume and enjoy!

Pair and Connect Two Devices Simultaneously

If you want to pair to a second device, follow these steps:

1. Pair your first Bluetooth device (follow instructions in Use as Transmitter or Use as Receiver)
2. Pair the 2nd device:

   • Set your 2nd device to pairing mode (refer to your user manual) and bring close to the RTX Pro, within 3 ft of each other
   • Press the ⌒⌒ button for 2 seconds, CH2 will rapidly flash
   • WAIT for the devices to connect. This may take up to 30 seconds or more.
   • Once connected, the CH2 light will turn solid. You will hear "Connect. Ready for use."
   • Both CH1 and CH2 lights should be solid green.

Note: In RX mode, two phones or tablets can be paired at the same time, but only one device can play music at a time. You must stop the music on one device to play on the other.

How to use 2 Home RTX Pro as a pair?

Increase your range even further by pairing 2 Home RTX Pros as a pair. Choose one as a Transmitter (TX) and the other as a receiver (RX).

To make pairing easier, turn off other nearby Bluetooth devices to avoid accidentally pairing to other devices.
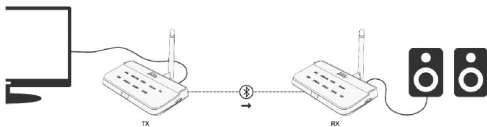
1. Set the TX Pro to transmitter mode – Slide to TX

2. Set the RX Pro to receiver mode – Slide to RX

3. Select the same codec priority on BOTH RTX Pros – Slide LL/HD to "LL" or "HD" priority

4. Set BOTH units to pairing mode – Press ⌃⌃ for 2 seconds until the LEDs (TX on TX Pro and RX or RX Pro) flash rapidly

5. Keep Pros close together and wait. When connected, you will hear the voice prompt "Connected. Ready for use" from both Pros.

Reconnect

Reconnection is easy. After the RTX Pro is paired to a device, it will automatically look for that device. Simply power on the RTX Pro and it will search for the last paired device.

Troubleshooting

Cannot pair?
1. Fully charge your headphones or speakers for faster pairing. Many times, a charged battery resolves pairing issues.
2. Make sure the device you want to connect to is in Bluetooth Pairing Mode and that other Bluetooth devices nearby are turned off.
3. Make sure the RTX Pro and the device are right next to each other.

Pairing Apple Devices
To pair Airpods:
1. Apple products prioritize connecting with other Apple devices first.
2. To pair airpods, turn off Bluetooth on other Apple devices (iPhones, iPads) so they will pair with a new device.

Audio Delay?

For aptX Low Latency to send audio without lag, BOTH the transmitter and receiver need to support aptX Low Latency codec.

1. If Low Latency codec is active, "aptX-LL" will be lit. If not, the RTX Pro is using another codec, thus the delay.
2. Flip the LL/HD switch to "LL" for Low Latency

No Sound?

1. Make sure the CH1 light is SOLID. If yes, it is connected and ready to use.
2. Adjust your audio volume on the TV or headphones.
3. Check the cables to make sure they are connected to the correct jacks.

No Sound – Optical Connection?

After checking the above steps and your using optical connection, check your TV Audio settings. Some TVs automatically complete these steps for you, some don't.

1. Set Audio Output to either External Speaker, Optical Audio Out, Audio Out/Optical or Optical Out (wording varies between TVs).
2. Set Audio Format to PCM for BOTH HDMI and Digital formats. May be under Expert Settings or Sound depending on your TV settings. Bluetooth does not handle Dolby / DTS Digital. LG TVs may need Dolby Atmos turned off.
3. After settings have been changed, turn off the transmitter and wait 5 seconds. Turn it back on after all settings completed.

If Short Range / Audio Drops/ Interference?

1. Make sure antenna is attached securely and upright.
2. Make sure paired device is fully charged for full signal power.
3. Reduce RF interference
   - Always use the included USB cable with ferrite core to help eliminate electrical noise
   - Move RTX away from routers, microwaves, Apple TVs, older stereo receivers / amplifiers, cordless phones, TV sticks, etc.
   - Place a book underneath the RTX
4. Move the RTX Pro away from physical obstacles, avoid metal, cement or plaster. Move metal objects such as keys or coins away.
5. Reduce the number of surrounding wireless devices and plug some devices into the router via cables.
6. Reset Wi-Fi frequency:
   - Turn off your internet, all WiFi devices including the router, phones into air plane mode, etc.
   - Set up your Bluetooth pathway. Turn on your Home RTX Pro and paired device, stream audio for about 15 minutes.
   - Turn Wi-Fi router back on. Continue to let the Bluetooth stream for about 15 minutes after turning on the Wifi.
   - The Wifi will detect the frequency used by Miccus and automatically select a different frequency.
7. If the above don't help, "Re-Pair" the devices for a new connection. Delete the existing connection on each device and start the pairing process again.

Factory Reset:

If the RTX Pro is not working as expected, REBOOT the RTX Pro - Unplug the USB power cable, wait a few seconds, and replug. OR

Do a Factory Reset

1. Power on RTX Pro in TX mode

2. Power off RTX Pro by holding 〰️ until "Power Off" is heard.

3. Power on RTX Pro by pressing 〰️ until hearing "Pairing Memory is Reset."

Product Specifications

Bluetooth version: 5.1

Support profiles: A2DP, AVRCP

Audio Codec: aptX HD, aptX LL, aptX, SBC

Interface: HDMI, Optical, AUX, USB-C

Support Pass Through – HDMI / Optical (TX Mode)

Support Dual Link of aptX Low Latency or aptX HD at the same time

Operating Range: Class 1, up to 240ft, 80m

Optical Audio Support: PCM/LPCM @ 48KHz (Set your TV audio to PCM/LPCM)

Optical Mode Supported sampling rate: <=48KHz, 24bit

Operating Frequency: 2.402 GHz to 2.480 GHz

USB Power: DC5.0V/1000mA

Size: 152 x 85 x 26.5mm

Weight: 97g

Care and Maintenance

- To keep from damaging the Miccus Home RTX Pro internal circuitry, avoid exposure to liquid, moisture and humidity.

- Extreme temperatures can shorten the life of electronic devices.

- Don't use abrasive cleaning solvents to clean the RTX Pro.

- Do not dispose of the RTX Pro in fire as it will result in an explosion.

- Avoid contact with sharp objects. They may scratch or damage the Miccus Home RTX Pro.

- Do not drop. Dropping the Miccus Home RTX Pro can damage the internal circuit.

FCC Information

This device complies with Part 15 of the FCC rules. 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.
Federal Communications Commission (FCC) Statement:

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 TV 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.

Warning Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user authority to operate the equipment. Tested to comply with FCC standard: FOR HOME OR OFFICE USE. This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This device and its antenna(s) must not be co-lated or in conjunction with any other antenna or transmitter.