# FlooGoo<sup>™</sup> FMA120 Bluetooth Audio Source Dongle

User Guide v2.1

Flairmesh Technologies

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## Introduction



LED status	Explanation
Flash slowly	Idle
Flash fast	Searching for pairing
Flash 2 times in 2 seconds	Connected, audio idle
Flash 3 times in 2 seconds	Audio or broadcast streaming

The FMA120 is a dual-mode Bluetooth 5.4 USB audio source dongle designed to upgrade audio sources such as phones, laptops, TVs, and other devices. It introduces advanced features like the aptX<sup>™</sup> Adaptive and Lossless codecs, as well as Auracast<sup>™</sup> broadcast audio functionality. Additionally, it supports lowenergy (LE) audio unicast for both music and voice, ensuring compatibility with Bluetooth headsets, speakers, earbuds, and hearing aids.

### Trademarks

• aptX<sup>™</sup> is a trademark of Qualcomm Technologies International, Ltd., registered in the United States and other countries.

The dongle acts as a standard USB audio device with both speaker and microphone channels. When it is activated as the audio input and output device by either a PC or a TV supporting USB audio, the dongle sets up a Bluetooth audio connection to transmit audio to/from the remote device. For instance, in applications like Zoom/Teams, which use both the microphone and

speaker channels, classic Bluetooth headsets utilize the Hands-Free Profile (HFP), while LE audio headsets use the Telephony and Media Audio Profile (TMAP). In both scenarios, a two-way audio call is established on the headset.

The FMA120 can also function as an **Auracast receiver**, allowing legacy phones, Bluetooth headphones, earbuds, or hearing aids to receive the latest Auracast broadcasts. For setup instructions, please refer to the dedicated manual for receiver mode:

FMA120 Auracast Receiver Mode User Manual

## **Quick Start**

When using the dongle for the first time, it will automatically search for nearby Bluetooth headsets. Ensure your headsets are in pairing mode and positioned close to the dongle, as it prioritizes pairing with the nearest device.

Note: Before pairing any LE Audio-enabled headsets, earbuds, or hearing aids, please open the FlooCast app and enable the option "Prefer using LE Audio for dual-mode devices". This ensures optimal compatibility and performance.

## **Advanced Functionalities**

### FlooCast Desktop App

To access the advanced functions of the dongle, please download the corresponding host app for your system.

For Windows, you can download the app from the Microsoft Store at the following link:

### FlooCast on Microsoft Store

For Mac, we provide compiled app available for download at the following links. Alternatively, you can run it from the source code on GitHub.

AppleSilicon Intel For Linux, the app is available as an open-source GitHub repository provided below:

### FlooCast on GitHub

#### Update the FMA120's firmware

As more Bluetooth earbuds, headsets, and hearing aids are released after the dongle's launch, we continue to improve the firmware to ensure compatibility and performance. When you first open the FlooCast app, it will automatically check if a newer firmware version is available for your dongle.

🚮 FlooCast				– o ×
Audio Mode				Window
O High Quality (one-to-one)	◯ Gaming (one-to-one)	OBroadcast		
Dongle State	LE Audio State	Codec in Use		Minimize to System Tray
Pairing	Disconnected	None		QuitAnn
Prefer using LE audio for dual-mo	ode devices (Must be disabled for aptX	™ Lossless)	OFF	Quit App
LE Broadcast - Changes Take Effect	After Restart			Settings
Public broadcast (Must be enable	d for compatibility with Auracast™)			🖌 LED 🛛 🗖
Broadcast high-quality music, oth	nerwise, voice (Must be disabled for co	ompatibility with Auracast™)	OFF	🗹 aptX™ Lossless 🛛 🔗 🖉
Encrypt broadcast; please set a ke	y first		OFF	
Broadcast Name, maximum 30 chara	acters Flood	Goo_A21772		
Broadcast Key, maximum 16 charact	ers Input	a new key then press <enter></enter>		₩ - ElooCoo <sup>™</sup>
Most Recently Used Devices				FIOOGOO
Add device			Clear All	γ
			A 1	Copyright© 2023~2024 Flairmesh Technologies
				<u>Inird-Party Software Licenses</u> Support Link
				Version 1.1.4
				Device Firmware Upgrade
				New Firmware is available 1.0.8 -> 1.1.2
				• • • • • • • • • • • • • • • • • • •
		Cli ale	the statute	a la a d dha a a an Communa
		CIICK	to dow	nioad the new firmware

**Note:** The **"Device Firmware Update"** button is available **only** in the version of the app from the **Microsoft Store**.

After downloading the firmware, please ensure the following:

- Unzip the file into a local folder (avoid using cloud-synced folders like Microsoft OneDrive or Google Drive).
- Make sure the full folder path contains only English characters (no special or non-English symbols).

Inside the folder, you'll find a ReadMe.txt file with a brief summary of the firmware update process. The firmware itself is provided as .bin files. In some cases, there may be two .bin files included—these are automatically handled by the FlooCast app. As long as both files stay in the same folder, you don't need to worry about choosing the correct one.

Example of the unzipped firmware folder:

$\Box$ > Downloads > FMA120_1.1.2	> DFU	Searc	ch DFU	
Î	≡ View × ···			
Name	Date modified	Туре	Size	
imes Earlier this year				
📓 ReadMe.txt	4/20/2025 12:47 AM	TXT File	7 KB	
FMA120_1_1_2G.bin	4/20/2025 12:44 AM	FTE Binary Export File	1,966 KB	
FMA120_1_1_2.bin	4/20/2025 12:14 AM	FTE Binary Export File	1,950 KB	

Next, click the "Device Firmware Upgrade" button and select the firmware (.bin) file to begin the update.

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Audio Mode			Window
O High Quality (one-to-one)	◯ Gaming (one-to-one)	OBroadcast	
Dongle State	LE Audio State	Codec in Use	Minimize to System Tray
ldle	Disconnected	None	
Prefer using LE audio for dual-mode o	levices (Must be disabled for aptX™ Los	sless)	Quit App
LE Broadcast - Changes Take Effect Afte	r Restart		Settings
Public broadcast (Must be enabled fo	r compatibility with Auracast™)		
🚮 Open Firmware file		× 🎽	aptX <sup>™</sup> Lossless
← → ∽ ↑ 🗖 « FMA12.	• DFU ~ C	:h DFU 🔊	
Organize 🔻 New folder			ש⊿ FlooGoo™
Earlier	this year FMA120_1_1_2G.bin	411 •	Copyright© 2023~2024 Flairmesh Technologies.
	FMA120_1_1_2.bin		Support Link
			Version 1.1.4
			Device Firmware Upgrade
Accounting 📌			New Firmware is available 1.0.8 -> 1.1.2
ranson 🖈			
🗖 dfu 🖈			
File name: FMA1	20_1_1_2.bin v Bin f	files (*.bin) V Dpen V Cancel	
Use FlooGoo dongle on COM79			

The app will display the update progress as a percentage.

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Audio Mode				Window
O High Quality (one-to-one)	◯ Gaming (one-to-one)	<ul> <li>Broadcast</li> </ul>		
Dongle State	LE Audio State	Codec in Use		Minimize to System Tray
Idle	Disconnected	None		0.24
Prefer using LE audio for dual-mode d	levices (Must be disabled for	aptX <sup>™</sup> Lossless)	OFF	Quit App
LE Broadcast - Changes Take Effect After	Restart			Settings
Public broadcast (Must be enabled for	compatibility with Auracast	[ <sup>™</sup> )		LED ON CON
Broadcast high-quality music, otherwi	ise, voice (Must be disabled f	for compatibility with Auracast™)	OFF	☑ aptX <sup>™</sup> Lossless
Encrypt broadcast; please set a key first	t		OFF	
Broadcast Name, maximum 30 characters	5 I	FlooGoo_A21772		
Broadcast Key, maximum 16 characters				w - ElooCoo™
Most Recently Used Devices				FIDOGOO
Add device			Clear All	δογ
				Copyright© 2023~2024 Flairmesh Technologies.
				Third-Party Software Licenses
				Support Link
				version 1.1.4
				Device Firmware Upgrade
				Upgrade progress 7%
Use FlooGoo dongle on COM79				

Wait until the new firmware version, such as "Firmware 1.1.2", appears below the "Device Firmware Upgrade" button to confirm the update was successful.

🚮 FlooCast				– o ×
Audio Mode				Window
O High Quality (one-to-one)	<ul> <li>Gaming (one-to-one)</li> </ul>	⊖ Broadcast		
Dongle State	LE Audio State	Codec in Use		Minimize to System Tray
Pairing	Disconnected	None		Quit Arr
Prefer using LE audio for dual-mo	de devices (Must be disabled fo	or aptX™ Lossless)	OFF	Quit App
LE Broadcast - Changes Take Effect A	After Restart			Settings
Public broadcast (Must be enabled	d for compatibility with Auraca	st™)		LED DH ON
Broadcast high-quality music, oth	erwise, voice (Must be disabled	for compatibility with Auracast™)	OFF	aptX <sup>™</sup> Lossless
Encrypt broadcast; please set a key	y first		OFF	
Broadcast Name, maximum 30 chara	cters	FlooGoo_A21772		
Broadcast Key, maximum 16 characte	ers	Input a new key then press <enter< td=""><td>&gt;</td><td>w - ElooCoo™</td></enter<>	>	w - ElooCoo™
Most Recently Used Devices				FIOOGOO
Add device			Clear All	δογ
				Copyright© 2023~2024 Flairmesh Technologies.
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				Version 1.1.4
				Device Firmware Upgrade
				Firmware 1.1.2
			-	
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### **Initiating Pairing and Managing Connections**

To manually start a new pairing, click the **"Add Device"** button under the **"Most Recently Used Devices"** section. The dongle will begin scanning for nearby Bluetooth headsets that are in pairing mode and will automatically connect to the closest compatible device. Once connected, the device name will appear in the list along with previously used devices.

- For classic Bluetooth audio devices, do not enable the option "**Prefer** using LE Audio for dual-mode devices". This is also the recommended setting for most devices that support aptX Lossless.
- For LE Audio devices—including hearing aids—and to use the LC3 codec for lower latency and improved voice call quality compared to classic A2DP/SBC, please refer to the section titled "Using FMA120 with LE Audio Devices".

🚮 FlooCast				– 🗆 X
Audio Mode				Window
<ul> <li>High Quality (one-to-one)</li> <li>Dongle State</li> <li>Audio streaming</li> </ul>	○ Gaming (one-to-one) LE Audio State Disconnected	<ul> <li>O Broadcast</li> <li>Codec in Use</li> <li>aptX<sup>™</sup> Lossless @ 44.1kHz 1023Kbps R</li> </ul>	SSI -54dBm	Minimize to System Tray
Prefer using LE audio for dual	-mode devices (Must be disab	led for aptX™ Lossless)	OFF	Quit App
LE Broadcast - Changes Take Eff Public broadcast (Must be ena Broadcast high-quality music, Encrypt broadcast; please set a	ect After Restart abled for compatibility with A otherwise, voice (Must be dis a key first	uracast™) abled for compatibility with Auracast™)		Settings ✓ LED
Broadcast Name, maximum 30 cl Broadcast Key, maximum 16 cha	haracters	FlooGoo_A21772 Input a new key then press <enter></enter>		w ⊲ ElooGoo™
Most Recently Used Devices Add device			Clear All	
Xiaomi Buds 5			•	Copyright© 2023~2024 Flairmesh Technologies. <u>Third-Party Software Licenses</u> <u>Support Link</u> Version 1.1.4 Device Firmware Upgrade Firmware 1.1.2

### Using FMA120 in different modes

The dongle supports three modes: High Quality, Gaming, and Broadcast.

- **High Quality**: Prioritizes the best available audio codec supported by the connected device to deliver the highest sound fidelity.
- **Gaming**: Optimized for low latency by selecting codecs and parameters that reduce audio delay—ideal for gaming or real-time applications.
- **Broadcast**: Enables the dongle to function as an **Auracast™ transmitter**, allowing audio to be broadcast to multiple compatible receivers.

**Note:** Do not use "Gaming" mode with hearing aids, as this mode is not supported by hearing aid devices and may result in connection or audio issues.

The currently active codec and sample rates for both speaker and microphone are shown in the **"Codec in Use"** panel. The overall status of the dongle is displayed in the **"Dongle State"** panel, while the **"LE Audio State"** panel reflects the status of the LE audio connection.

Dongle State	Description
Idle	The dongle is not connected to any device and is in
	standby mode.
Pairing	The dongle is actively searching for nearby devices to pair
	with.
Connecting	The dongle is attempting to establish a connection with a
	paired device.
Connected	The dongle is connected, but no audio is currently being
	transmitted.
Audio Starting	The dongle is initiating a playback (audio streaming)
	session.
Audio Streaming	The dongle is actively streaming audio.
	Note: In gaming mode, this state is shown even when the
	microphone is also active.
Audio Stopping	The dongle is terminating the current audio stream.
Voice Starting	The dongle is setting up a voice communication session,
	including microphone input.
Voice Streaming	The dongle is streaming two-way voice communication
	(e.g., for calls or meetings).
Voice Stopping	The dongle is terminating the current voice
	communication session.

The table below displays the preferred audio codec when supported by the remote device under high-quality and gaming mode. If the preferred codec is not supported by the remote device, SBC is the default for classic Bluetooth devices, while LC3 is the default for LE audio devices.

	Music	Bi-directional Voice		
	Classic BT	Classic BT	LE Audio	
High- quality	aptX™, HD, Adaptive/Lossless*/SBC	aptX Adaptive/Lossless*/LC3*	aptX Voice mSBC/CVSD	LC3*
Gaming	aptX Adaptive/SBC	aptX Lite/LC3*	aptX Voice mSBC/CVSD	aptX Lite/LC3*

\* aptX<sup>™</sup> Lossless will be activated automatically when connected to a compatible device. To ensure proper operation, please check that the audio output sample rate on your host operating system is set to **44.1 kHz** or **48 kHz** in the sound settings. Confirmed compatible devices include:

Bose QuietComfort Ultra, Bowers & Wilkins Pi8, Cambridge Melomania P100, Creative Aurvana Ace 2, Denon PerL Pro, Earfun Air Pro 4, NuraTrue Pro, Sennheiser MOMENTUM True Wireless 4, Sonos Ace, and Xiaomi Buds 5.

\* Support for aptX<sup>™</sup> Adaptive and aptX<sup>™</sup> Lossless at 48 kHz over LE Audio is enabled starting from firmware version 1.0.8.8.

\* For supported LE audio device with LC3 codec, please refer to section titled "LE Audio Compatibility and Supported Devices".

### **Device Settings and Persistence**

All configuration changes—including paired device information—are saved directly to the dongle, allowing you to switch it to another PC without needing to run the FlooCast app again. Most settings take effect immediately, while broadcast-related changes are applied the next time the dongle is powered on.

The FlooCast app is primarily used for initial pairing and configuration. Once setup is complete, the dongle will automatically reconnect to the most recently used device without requiring the app.

### **Dual-Mode Support**

The FMA120 supports both classic Bluetooth and the latest Bluetooth Low Energy (LE Audio) headsets. For devices that are compatible with both modes, you can use the app to choose your preferred connection method—either classic Bluetooth or LE Audio—for optimal performance based on your use case.

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Audio Mode	Window
O High Quality (one-to-one)	
Dongle State Codec in Use	Minimize to System Tray
Audio streaming Unicast streaming aptX <sup>™</sup> Adaptive @ 48.0KHz	QuitAnn
Prefer using LE audio for dual-mode devices (Must be disabled for aptX <sup>™</sup> Lossless)	Quit App
LE Broadcast - Changes Take Effect After Restart	Settings
Public broadcast (Must be enabled for compatibility with Auracast™)	🗹 LED 🛛 🗖
Broadcast high-quality music, otherwise, voice (Must be disabled for compatibility with Auracast <sup>™</sup> )	🗹 aptX™ Lossless 🛛 🗖
Encrypt broadcast; please set a key first	
Broadcast Name, maximum 30 characters FlooGoo_A21772	
Broadcast Key, maximum 16 characters Input a new key then press <enter></enter>	w⊲ ElooGoo™
Most Recently Used Devices	51100000
Add device Clear All	γ
Xiaomi Buds 5	Copyright© 2023~2024 Flairmesh Technologies.
	Inird-Party Software Licenses
	Version 1.1.4
	Device Firmware Upgrade
	Firmware 1.1.2
Use FlooGoo donale on COM79	

### Using FMA120 with LE audio devices (hearing aids)

To pair LE audio devices such as Samsung Buds 2/3 Pro, Sony LinkBuds S, WH-1000XM5/6, ReSound Nexia, Jabra Enhance Pro 20, Oticon Intent, Philips HearLink 9050, or Starkey Edge AI hearing aids, please follow these steps:

1. Disable Competing Connections

If your device (e.g., hearing aids) has previously been paired with a mobile phone, tablet, PC, or accessories such as ConnectClip or a TV adapter, please temporarily turn off those devices or disable their Bluetooth. These devices may automatically reconnect when the hearing aids enter pairing mode, which can interfere with the FMA120 pairing process.

2. Clear Previous Connections

Open the FlooCast app and click the "Clear All" button to remove any existing paired devices.

3. Enable LE Audio Mode

Turn on the "**Prefer using LE audio for dual-mode devices**" option in the FlooCast app.

4. Put Device into Pairing Mode

Ensure the target device is in Bluetooth pairing mode. Refer to the manufacturer's instructions for how to activate pairing on your specific model.

5. Maintain Close Proximity (if required)

Some hearing aids, such as the Philips HearLink 9050, must be placed within 20 cm of the FMA120 to pair successfully due to manufacturer-imposed restrictions. Most Bluetooth headsets, earbuds, and speakers support a typical pairing range of 1–2 meters.

6. Start Pairing

Click the "Add Device" button in the FlooCast app to begin the pairing process.

\* If you're unable to pair a supported device, please check whether the FMA120 is plugged into a USB port near another USB 3.0 device (such as an external HDD or SSD). USB 3.0 devices are known to emit interference in the Bluetooth frequency range, which can disrupt pairing. If this is the case, try connecting the FMA120 to a different USB port—preferably one farther from other USB 3.0 devices.

\* Some docking stations may interfere with pairing due to the limited signal strength of hearing aids. Please try plugging the FMA120 directly into a USB port on the PC for pairing. Once paired, you can use the FMA120 with the docking station for streaming.

For most LE audio devices, including hearing aids, start pairing in "High Quality" mode. Once pairing is complete, Auracast<sup>™</sup> will automatically enable when switching to "Broadcast" mode, if supported.

**Note:** Do not use **Gaming mode** with hearing aids, as this mode is not supported by most hearing aid devices and may prevent proper audio streaming.

For Sony Linkbuds S, WH-1000XM5/6, please use Sony's "SoundConnect" app to switch them from classic Bluetooth to LE Audio mode before pairing.

Due to current firmware limitations, the FMA120 supports only one pair of LE Audio true wireless (TWS) earbuds or hearing aids at a time when used with non-Qualcomm devices—such as those from Samsung, Sony, and most hearing aid manufacturers.

### Using FMA120 with Voice Call Applications (Zoom, Teams, etc.)

When using the FMA120 with voice call applications such as Zoom or Microsoft Teams, please follow these steps:

- Open the audio or microphone settings in the application.
- Ensure that **"FMA120"** is selected as the **microphone input device**.

In "**High Quality**" mode, once the microphone channel is successfully enabled, the "**Dongle State**" on the FlooCast app will display "**Voice Streaming**", if it shows "**Audio Streaming**", it means only playback is active and the microphone is not yet in use.

Settin	gs	Devices					
ŝ	General	Audio					
·p:	Appearance		A				
Q	Notifications and activity	<u>به</u>	۲. Audio settings				
8=	Accounts and orgs		Speaker	Speakers (7- FMA120)			
ĉ	Privacy		Microphone	Microphone (7- FMA120)			
Ŷ	Accessibility		<b>.</b>		a <b>—</b>		
<b>Q</b>	Devices		Automatically adjust	. mic sensitivity	On 💽		
<b>a</b> =	People		Sync device buttons This lets you use all the	buttons on your device. The Teams	On 🔵		
$\Leftrightarrow$	Plans and upgrades		button will always work.				
o.	Teams Insider program						
		9	Noise suppression		On 🔵		

🕼 FlooCast				– o ×
Audio Mode				Window
<ul> <li>High Quality (one-to-one)</li> </ul>	◯ Gaming (one-to-one)	⊖ Broadcast		
Dongle State	LE Audio State	Codec in Use		Minimize to System Tray
Voice streaming	Unicast streami	ng LC3 @ 16	.0 16.0KHz	OuitAnn
Prefer using LE audio for dual-mode d	evices (Must be disabled fo	or aptX™ Lossless)		Quit App
LE Broadcast - Changes Take Effect After	Restart			Settings
Public broadcast (Must be enabled for	compatibility with Auraca	st™)		LED DN
Broadcast high-quality music, otherwi	se, voice (Must be disabled	I for compatibility with Auracas	t™) OFF	aptX <sup>™</sup> Lossless
Encrypt broadcast; please set a key first	t		OFF	
Broadcast Name, maximum 30 characters	;	FlooGoo_B18E70		
Broadcast Key, maximum 16 characters		Input a new key then press <e< td=""><td>NTER&gt;</td><td>ש⊲ FlooGoo</td></e<>	NTER>	ש⊲ FlooGoo
Most Recently Used Devices				
Add device			Clear All	Copyright© 2023~2024 Flairmesh Technologies.
Nexias hø				Third-Party Software Licenses
				Support Link
				Version 1.1.4
				Device Firmware Upgrade
				Firmware 1.1.2.2
			-	
Use FlooGoo dongle on COM81				

### LE Audio Compatibility and Supported Devices

### Supported Earbuds and Headsets

The FMA120 has been tested and confirmed to work with the following LE Audio-enabled devices:

- Creative
  - Aurvana Ace 2 (aptX Lite)
  - Zen Air Pro
- Samsung
  - Galaxy Buds 2 Pro
  - Galaxy Buds 3 Pro
  - Galaxy Buds 3
- Sony
  - LinkBuds S
  - INZONE Buds
  - 。 WH-1000XM5
  - WH-1000XM6 (requires firmware version 1.1.2.2 or newer)
- Technics
  - EAH-AZ100
- Xiaomi
  - Redmi Buds 6 Pro

### Supported Hearing Aids

The FMA120 also supports many LE Audio hearing aids, making it a versatile option for both streaming and voice communication:

- Beltone Serene
- Jabra Enhance Pro 20
- Jabra Enhance Pro 30 (requires firmware version 1.1.2.8 or newer)
- Oticon Intent
- Philips HearLink 9050
- ReSound Nexia 9
- ReSound Vivia 9 (requires firmware version 1.1.2.8 or newer)
- Rexton Reach
- Starkey Edge AI 24
- TruHearing 7 Advanced, TH 7 Premium
- Signia 5IX, 7IX

### Notes:

• For the best experience, ensure your hearing aids are updated to the latest firmware version.

### Using FMA120 as an Auracast Transmitter

The FMA120 is <u>officially listed</u> by the Bluetooth SIG as an Auracast Transmitter.

🚮 FlooCast				– 🗆 X			
Audio Mode				Window			
⊖ High Quality (one-to-one)	◯ Gaming (one-to-one)	<ul> <li>Broadcast</li> </ul>					
Dongle State	LE Audio State	Codec in Use		Minimize to System Tray			
Audio streaming	Broadcast stream	ing LC3		QuitAnn			
Prefer using LE audio for dual-mode	Quit App						
LE Broadcast	Settings						
Public broadcast (Must be enabled f	LED ON CON						
Broadcast high-quality music, other	GATT Client						
Encrypt broadcast; please set a key f	v⊲ ElooGoo™						
Broadcast Name, maximum 30 characte	FlooGoo_A21772						
Broadcast Key, maximum 16 characters Input a new key then press <enter< td=""><td>Commister 2022 2024 Eleinment Technologia</td></enter<>				Commister 2022 2024 Eleinment Technologia			
Most Recently Used Devices	Copyright© 2023~2024 Fiairmesh Technologies.						
Add device			Clear All	Support Link			
Galaxy Buds2 Pro				Version 1.1.1			
				Device Firmware Upgrade			
				Firmware 1.0.8			
				Disconnect and reconnect the dongle to			
				will function independently without the app.			
			-				
			-				

To Start Broadcasting with the FMA120:

- 1. Select FMA120 as your PC's playback/output device.
- 2. Start playing any audio (e.g., music) to activate the broadcast.
- 3. Once the "LE Audio State" changes to "Broadcast Streaming", the broadcast is live.
- 4. You can now tune into the stream using the name shown in the "Broadcast Name" field. To customize the broadcast name, simply change it to your preferred one and reset the dongle for the change to take effect.

There are five settings for LE audio broadcast.

### Public broadcast (Auracast<sup>™</sup>)

When enabled, the public audio broadcast feature is activated. The dongle then acts as a PBS. PBS (Public Broadcast Source) is designed for broadcasting to devices without pairing. When disabled, the dongle is tailored for paired devices, intended for sharing audio with one or two friends or family members. It operates then as a BMS (Broadcast Media Sender).

### **Broadcast high-quality music**

When enabled, the dongle will use a 48 kHz sample rate for music content during broadcasting. When disabled, the dongle will utilize a 24 kHz sample rate for voice content.

For hearing aids, please disable this option, as these devices support a maximum sample rate of 24k.

### **Encrypt broadcast**

If enabled, an encryption code is used to restrict access to the broadcast content, like a Wi-Fi access code, and only those receivers that know the code can access it.

### **Broadcast Name**

This is a human-readable string for the receiver to distinguish between multiple nearby broadcasters.

### **Broadcast Key**

This is an encryption code to be used in the broadcast. When the input code length is less than 16 bytes, it will be padded to 16 bytes with zeros.

Broadcast receiving can be automatically enabled when an Auracast-enabled headset, earbuds, speaker, or hearing aid is paired with the FMA120 in "**High Quality**" mode, and the mode switches to "**Broadcast**". This eliminates the need for a phone to set up the receiving device when only one (or one pair) of devices is used.

For hearing aids, please consult your device manufacturer to confirm whether a firmware update is needed to enable Auracast reception. For example, ReSound Nexia 9 hearing aids require firmware version 9.68 or later to support Auracast.

To set up Auracast reception, you have three options:

- 1. Use a compatible Android device A newer Android phone that supports Auracast natively.
- 2. Use a companion app Some device manufacturers offer apps that assist with Auracast setup.
- 3. Use another FMA120 Configure a second <u>FMA120 in Auracast receiver</u> <u>mode</u>.

The following screenshots show a typical setup using option 1 on a Samsung Galaxy S23.





## **Specification & Features**

- Bluetooth V5.4, Class 1 Bluetooth v5.4, +15dBm BR/LE TX power, -97dBm BR and -100.5dBm BLE 1M sensitivity
- Dual-mode, compatible with Bluetooth Classic HFP/A2DP headsets/speakers and future LE audio hearables
- Qualified design, supporting A2DP, AVRCP, TMAP, PBP (Auracast)
- Optimized with Qualcomm<sup>®</sup> Snapdragon<sup>®</sup> Sound for robust connectivity and ultra-low latency
- Supports aptX<sup>™</sup>, aptX HD, aptX Adaptive, and aptX Adaptive Lossless audio codecs
- USB-A connector with composite device capabilities, including HID and virtual COM port, allowing audio playback and voice call control from Bluetooth headsets and earbuds
- Firmware upgrade via USB for easy updates
- LE Audio Gaming mode with Voice back Channel for ultra-low latency (25.5ms)
- LE Audio Unicast Music with media control (MCP)
- LE Audio Unicast Voice with call control (CCP)
- LE Broadcast source supports Telephony and Media Audio Profile (TMAP) and Public Broadcast Profile (PBP)
- Volume control using VCP (Virtual COM Port)
- Microsoft Teams compatibility
- CE/FCC/RCM
- Contains FCC ID 2A22WFMB120
- USB-A plug, 5V 100mA
- Operational Temperature: -40°C to +70°C
- Dimensions: 38.6mm x 19.5mm x 6.8mm
- Item weight: 3.8g
- Package weight: 6.8g
- Package size: 10cm x 6.2cm x 0.8 cm

## **Troubleshooting Q&A and Support**

**Q**: The LED doesn't flash or light up when I insert it into a USB port.

A: FlooGoo FMA120 can be inserted into a USB-A socket from both sides, but it only works when the correct side is used. Check if the golden connectors on FMA120's USB connector are contacting the receptors of the USB port when inserted.

Q: How can I improve the working range with my headset/earbuds?

A: You may try using a USB extension cable to relocate FMA120 to a higher and better position.

**Q:** Will a USB 3.0 device—such as an external HDD or SSD—interfere with the dongle?

A: Yes, this is a known issue. USB 3.0 devices can generate electromagnetic interference in the 2.4 GHz range, which may affect Bluetooth audio streaming performance.

Q: Can I use the dongle with Raspberry Pi, smart TV and projector?

A: FMA120 functions as a standard USB audio device. With the latest version of Raspbian, it is detected automatically. You can use command "aplay -l" to verify if it has been recognized successfully. For Android-based smart TV or projectors, please activate the developer mode and ensure that "Disable USB audio routing" is not enabled.

Q: Do I need to keep the FlooCast app running to use the dongle?

A: No, you don't need to keep the FlooCast app running to use the dongle. The dongle retains its settings, allowing you to set it up on one host and use it on another.

**Q:** How do I enable the aptX codec, including aptX HD and Adaptive, when using a compatible headset?

A: The dongle will automatically select the best codec when connecting to a compatible headset, you can confirm the chosen codec in the "Codec in Use" panel in the desktop app.

**Q:** How do I enable the aptX Adaptive Lossless codec when using a compatible headset?

A: It will be enabled automatically when connected with a compatible headset. Please also confirm if the sample rate is 44100Hz or 48000Hz in the "Default Format" in the Windows sound device properties. You can find this setting by navigating to "Settings->Sound->Device properties->Additional device properties->Advanced". If the sample rate is set to 96000Hz, aptX Adaptive will be used instead.

**Q:** aptX Lossless is still not enabled after checking all the settings on the Windows/host PC.

A: Please disable "Spatio Audio" and "Multipoint" in the headset's app if lossless mode cannot be enabled.

Q: Why isn't the FMA120 listed on www.aptx.com?

A: When we release the product, we expect it to primarily appeal to users interested in the new LE audio features, such as Auracast. The FMA120 is <u>officially listed</u> by the Bluetooth SIG as an Auracast Transmitter. We are committed to using the latest codec from the chip vendor and regularly updating the FMA120's firmware to ensure it supports the most up-to-date features.

Q: I already have a standard Bluetooth adapter, will FMA120 conflict with it?

A: No, the FMA120 runs all its functions, including the Bluetooth stack, within the embedded high-performance processors inside. It doesn't require additional drivers on the host, so it won't conflict with other Bluetooth adapters.

Q: Do I need to reset the dongle to apply a new setting?

A: Depending on the firmware, switching between high-quality and gaming modes usually takes effect immediately. However, for other settings changes, such as parameters for broadcast, a reset is recommended.

Q: Where can I find the latest firmware for the dongle?

A: You can find the latest firmware through the <u>Support Link</u>, which is also accessible from the desktop app.

### Q: What if I encounter other issues?

A: You can contact us via email at <a href="mailto:support@flairmesh.com">support@flairmesh.com</a>.

### Installation Instructions for FlooCast (Linux Users)

- If you are familiar with Git and Github, you can use the following command to download the source codes of the app: # git clone <u>https://github.com/Flairmesh/FlooCast.git</u>
- 2. Alternatively, you can click "Download ZIP" to get a copy of the source codes. The button can be accessed in the drop-down menu under "<> Code", shown as the green button in the following picture.

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- Install Python if you haven't already. The latest version can be downloaded from <u>here</u>.
- 4. Open a Terminal (on Mac, you can use Spotlight to search for "Terminal") window, and enter the following commands to install required modules:

# python3 -m pip install wxPython

# python3 -m pip install pyserial

# python3 -m pip install serial-tool

- # python3 -m pip install certify
- # python3 -m pip install PIL

# python3 -m pip install urllib

5. In the Terminal window, change the current directory to where the FlooCast app is downloaded (on Mac, it might be downloaded to the User's Download folder), then run the application:
# cd Downloads/FlooCast-master
# python3 main.py

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