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FeinTech AX310 HDMI 2.1 Audio Extractor Owner's Manual

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Owner's Manual
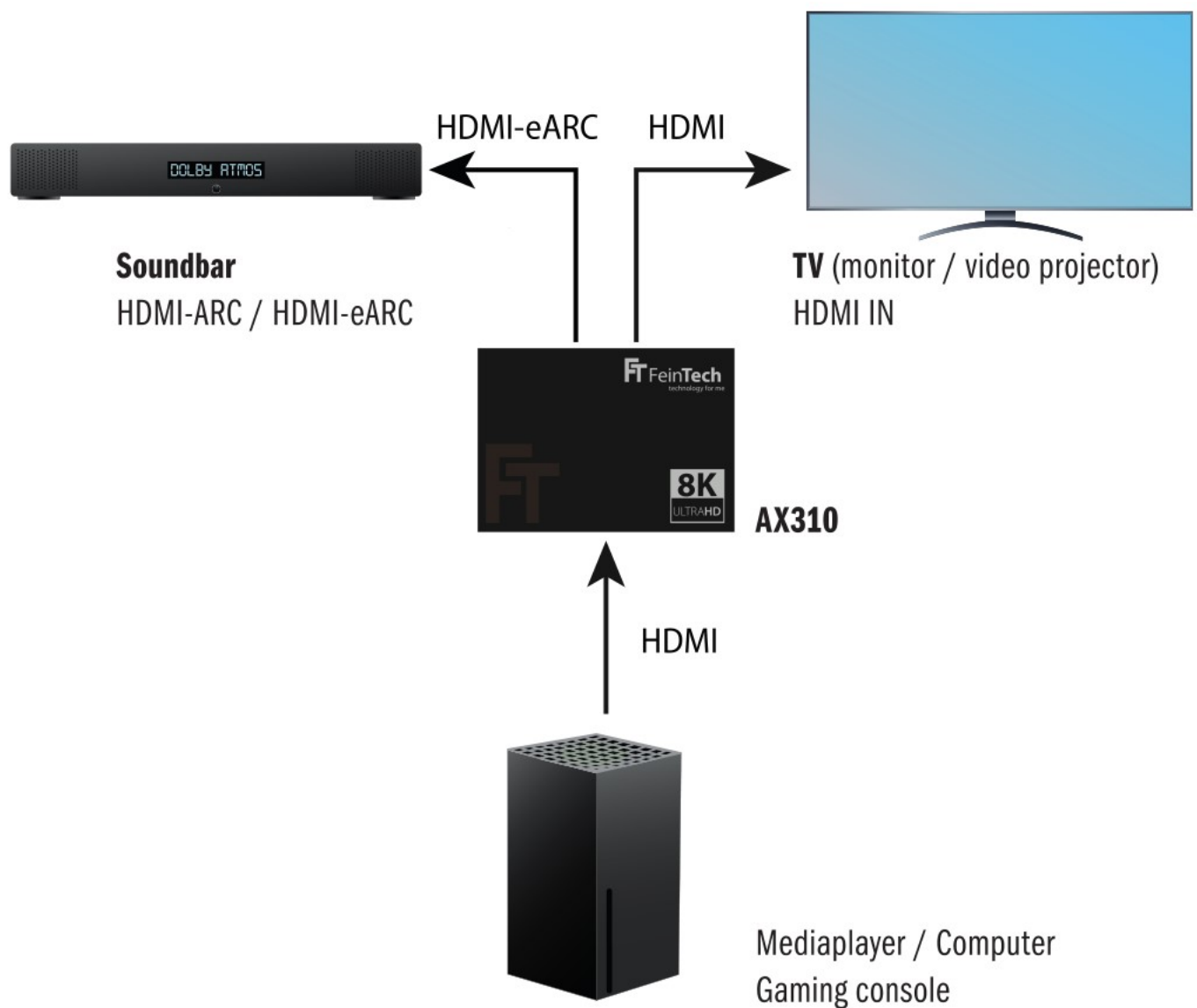
AX310
HDMI 2.1 Audio Extractor (eARC)

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AX310
HDMI 2.1 Audio Extractor (HDMI eARC) for BK Ultra-HD, with EDID Management

Instruction manual and technical information

Dear customer,
Thank you for purchasing this high quality product. For optimal use and safe operation, please read these instructions before use. Please keep the manual as a reference for future reference.

Functions:

- HDMI audio extractor for sound output from a HDMI source or TV (HDMI-ARC/eARC)
- Audio output to a Sound bar with HDMI eARC port
- EDID management for controlling the maximum audio and video formats

Safety instructions

- Please do not cover the housing or power supply unit and do not install the device to avoid overheating.
- Keep away from heat sources, fire, water and moisture.
- Do not place any heavy objects on the device or the connection cables.
- Do not open or drill holes in the housing.
- Only use the power supply unit supplied or ensure identical performance data when replacing it.
- Only clean the surface of the device with a soft, dry cloth. Do not use abrasive cleaning agents, petrol or similar.
- If the appliance is not used for a longer period of time or if it malfunctions, please unplug it from the mains.

Service

The unit must be inspected by qualified personnel in the following cases.

- Objects or liquids have entered the unit.
- The unit does not operate normally or the performance has changed.
- The unit has been dropped or the casing is damaged.

Unplug the appliance and do not operate it any more. Do not attempt to repair or open the unit yourself. Contact trained specialists or contact the seller or FeinTech Service, e.g. by e-mail to **service@feintech.eu**.

Installation and operation

1. Connect your HDMI source (e.g. Bluray player) to the HDMI IN SOURCE input.
2. Connect an HDMI sink (e.g. TV, video projector, monitor) to the HDMI TV output.
3. Connect the HDMI eARC port of your soundbar to the HDMI eARC OUT port
4. Connect the power supply unit to the AX310 and plug it into a power socket. Then switch on your display, followed by the external player.

Caution: When plugging and unplugging the HDMI cables, make sure that the plug contacts are not dirty or damaged. Make connections without power and switch on the devices only after they have been connected. Please also ensure that the HDMI cables are of good quality – especially for 4k transmission.

ARC/eARC button

If you have a TV or video projector with HDMI-eARC/ARC connector, use this port to connect the AX310. Then switch on eARC on the AX310. When the player is active, its audio signal is output via the soundbar. When playing TV apps or from the TV receiver, this sound is played via the soundbar.

HDMI cable

Note that the higher the data rate of the AV signal, the more critical the cable length becomes. This is because the bandwidth requirement increases and higher frequencies are used. The higher a frequency is, the more it is attenuated in the cable. For an 8K resolution or 4k 120Hz we recommend a maximum of 2 m cable length at the inputs and the output. If you need longer distances, you can use special HDMI cables with fibre optic data lines or active cables. For 4K 60Hz, the cables can be up to 5 m long, for Full-HD up to 15 m. Please note that a reliable transmission of eARC Audio is only possible up to 10 m total cable length.

EDID switch and management

Via EDID (Extended Display Identification Data), a TV, AV receiver or projector connected via HDMI signals its capabilities (including supported picture resolution and sound formats) to the source player. Then the HDMI source automatically outputs the best supported signal. This is to play only video or audio formats that can be processed. With the EDID switch, you can set which EDID is to be used for your configuration.

In the COPY position, the EDID of the display is used. This means that the input device behaves as if it is connected directly to the display. When connected to a monitor or video projector without speakers, no sound, or only stereo sound, can therefore be played. Then change the EDID via the dip switches according to the maximum desired audio format.

The EDID mode is set via the 3 dip switches:

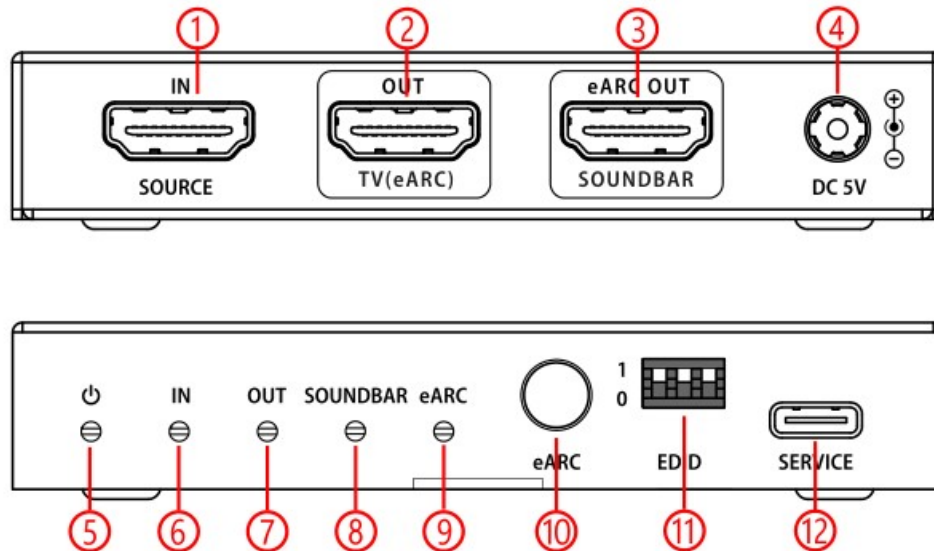| Dip	Video	Audio
111	COPY*	COPY*
001	COPY*	Audio 5.1 DTS/Dolby/PCM 2.0
000	COPY*	Audio 7.1 DTS/Dolby/HD/PCM7.1 **(recommended)**
110	4K 60Hz 4:4:4	Audio PCM 2.0
101	FRL12G 8K HDR	Audio PCM 2.0
100	FRL12G 8K HDR	Audio 5.1 DTS/Dolby/PCM 2.0
011	FRL12G 8K HDR	Audio 7.1 DTS/Dolby/HD/PCM7.1
010	FRL12G 8K Dolby Vision	Audio 7.1 DTS/Dolby/HD/PCM7.1

*COPY means, the original EDID data of the connected display is used FRL12G allows a maximum data rate of 48 Gbps,

Notes:
7.1 audio formats such as Dolby TrueHD or DTS-HD as well as the 5.1 audio format DTS are not processed by some TVs. If the EDID setting nevertheless forces the output, such a TV will remain mute. If a video format that is too high and not supported by the display is forced, the screen may show no signal. In doubt please use EDID mode 111 or 000. When changing the EDID switch, note that it may be necessary to restart the connected player. If you do not achieve the desired output or display, please proceed as follows:

- Switch on the desired EDID mode.
- Disconnect all units from the mains for a few seconds.
- Then plug in the mains plugs and switch on the devices. Do this in the following order: TV / projector, soundbar, HDMI audio extractor, HDMI source

Connections, Displays & controls

1. HDMI IN input for connecting the external player
2. HDMI OUT connector, for connecting the TV, monitor or video projector (use HDMI ARC/eARC port if available)
.
3. HDMI eARC OUT port for the connection to the soundbar's eARC port
4. DC 5V, connection for 5 V power supply.
5. Power LED, lights when the device is powered
6. IN LED, lights up when the active source is connected
7. OUT LED, the LED lights up when a signal is output to connected display
8. SOUNDBAR LED, lights up when a soundbar is connected to the HDMI eARC OUT port
9. eARC LED, lights up when ARC or eARC is active and the sound from the TV is sent to the soundbar. The ARC LED flashes if an error in CEC communication occurs and there is no output. If the LED is off, the sound of the player is transmitted.
10. eARC button, switches between sound from the TV or from the player. Press and hold for 5 seconds to switch the HDMI 2.1 Audio Extractor off, press again to switch it back on.
11. EDID dip switch
12. SERVICE, USB-C interface for service purposes and firmware update

eARC LED flashing?

The AX310 is equipped with an eARC function. If the connected TV or video projector is connected to our device with its HDMI-eARC or HDMI-ARC port, the internal sound of these displays can also be output via the sound system. This means you can play sound from the internal TV receiver (cable TV or satellite TV) or TV apps via the sound system. To do this, the eARC function is activated and the eARC LED lights up permanently. If the eARC LED flashes instead, there is an error. Depending on the connected display, you can rectify or ignore this. This flashing can have the following causes:

- The TV or projector is not connected to its HDMI-ARC or HDMI port, but to another HDMI connection. Then reconnect the HDMI cable and use the connection labelled HDMI-ARC or HDMI-eARC on your TV or video projector.
- A video projector or monitor is connected that does not support HDMI-ARC or HDMI-eARC. Then leave eARC switched off. Such a display usually does not have its own apps to play videos and eARC is not required.
- HDMI-eARC or HDMI-ARC is switched off on the TV or video projector. Or the HDMI-CEC device control is switched off (also called Anynet+ at Samsung, Simplink at LG, Braviasync at Sony, Easylink at Philips, Vieralink at Panasonic). Please switch on the function.
- The HDMI cable between the eARC port of the extractor and the ARC/eARC port of the display must be fully wired and support ARC/eARC. Some older cables, cables with repeaters or HDMI extenders cannot do this. Very long HDMI cables of 15 metres or more can also cause such a problem. Change the cable if you also want to play the internal TV sound via the sound system. (Note: when using HDMI eARC, interference such as sound dropouts can occur with cable lengths over 10 m. eARC is only intended for short cable lengths).
- The player with active HDMI-CEC is switched off, but the display is active. If this bothers you, press and hold the eARC LED for 5 seconds and the extractor will switch off. Pressing eARC again switches the extractor back on.

eARC must be active in order to use the HDMI-CEC control and thus conveniently control the soundbar volume with the remote control of your player or TV, for example. The eARC LED then lights up permanently. If you are using a computer monitor or similar display, HDMI-CEC control is not possible because such a monitor does not usually support the control commands. In rare cases, you may still be able to control everything as desired and the eARC LED will still flash. You can then ignore it. Even if the eARC LED flashes, the sound of the player can be extracted without restriction.

Disposal of the packaging

The packaging of the unit consists of recyclable materials. Please return it to your local recycling system. Please contact your dealer or a municipal waste disposal facility / recycling centre for information on current disposal methods.

Disposal of the appliance

Old appliances are not worthless waste. Valuable raw materials can be recovered through environmentally friendly disposal. At the end of its service life, this product must not be disposed of with normal household waste, but must be taken to a collection point for the recycling of electrical and electronic equipment.

The symbol on the product, the instructions for use or the packaging indicates this. The materials are recyclable according to their labelling. By reusing, recycling or otherwise recovering old appliances, you are making an important contribution to protecting our environment.

CE Declaration of Conformity

This product complies with EU directives and may only be used in conjunction with shielded cables. We, Spreewald Kommunikationstechnik GmbH, hereby declare that this device complies with the Low Voltage Directive 2014/35/EU, the EMC Directive 2014/30/EU and the RoHS Directive 2011/65/EU. The formal declaration of conformity is available at https://feintech. eu/ce or on request.

Information according to REGULATION (EU) 2019/1782 for the power supply

Importer:
Spreewald Kommunikationstechnik GmbH
HR B 1107 Cottbus
Radensdorfer Hauptstr. 45 a, 15907 Lübben, Germany

Manufacturer:
Shenzhen Huoniu Technology Co., Ltd., Block No. 5, The 4th Industrial Zone, Xitian Community, Gongming Town, 518106 Shenzhen, Guangdong

Model code: HNAD050100X1

Input voltage 100–240 V

Input AC frequency 50/60 Hz

Output voltage 5 V DC

Output current 1.0 A

Output power 5.0 W

Average efficiency in operation 75.91 % (230V, 50Hz)

Power consumption at no load 0.071 W (230V, 50Hz)

Operation Temperature	Betriebs-Temperaturbereich	-5° C bis +40° C
Operation humidity	Betriebs-Luftfeuchtigkeit	20 – 90 % RH (nicht kondensierend)
HDMI compliance	HDMI-Version	HDMI 2.1
Signal input	Signal-Eingang	HDMI
Copy protection	Unterstützter Kopierschutz	HDCP 2.3
Data rate	Daten-Übertragungsrate	48 Gbit/s (Maximum)
Supported video resolution	Unterstützte Videoformate	up to 8K 60Hz YUV 4:2:0 12-bit, 4K 120Hz RGB/YUV 4:4:4 12-bit
Supported HDMI 2.1 features	Unterstützte Funktionen	VRR, ALLM, QMS, QFT, SBTM
Signal outputs	Signal-Ausgänge	HDMI, HDMI eARC
Colour space	Farbraum	RGB, YUV 4:4:4, 4:2:2; 4:2:0
Supported colour depth	Unterstützte Farbformate	3 x 8 Bit - 10 Bit - 12 Bit
HDR	HDR (High Dynamic Range)	HDR10, HDR10+,HLG, Dolby Vision
HDMI-CEC pass	HDMI-CEC Durchleitung	yes, TV > Source & soundbar
HDMI-ARC/eARC	HDMI-ARC/eARC	yes
Supported audio formats	Unterstützte Audio Formate	DTS, DTS-HD (incl. DTS-X), Dolby True-HD (incl. Atmos), Dolby Digital Plus, AC3 (Dolby Digital), LPCM 2.0 – 7.1, Dolby MAT, DSD
Recom. HDMI cable length	Empfohl. HDMI-Kabellänge	in < 2 m, out < 2 m (8K) in < 5 m, out < 5 m (4K 60Hz)
Power consumption	Leistungsaufnahme	< 4.2 W
Power supply	Netzteil	5 V DC, 1 A
Size (W×L×H)	Abmessungen (B×L×H)	95 x 68 x 18 mm
Net weight	Nettogewicht	180 g

Hersteller / verantwortliche Person	Spreewald Kommunikationstechnik GmbH Radensdorfer Hauptstr. 45 a 15907 Lübben (Spreewald) · Germany info@feintech.eu · www.feintech.eu WEEE-Reg.-Nr. DE15618234
Manufacturer /responsible person Produttore / persona responsabile	
Fabricant /personne responsable Fabricante / persona responsable	

info@feintech.eu • **www.feintech.eu**

Documents / Resources

	FeinTech AX310 HDMI 2.1 Audio Extractor [pdf] Owner's Manual AX310, AX310 HDMI 2.1 Audio Extractor, HDMI 2.1 Audio Extractor, Audio Extractor, Extractor

References

- **FT** [FeinTech | Dein Spezialist für Audio, Video & HDMI | Offizieller Shop](#)
- **FT** [CE Konformitätserklärungen - FeinTech](#)
- [**User Manual**](#)