



X-SPDIF3
USB Digital Audio Interface

User Manual

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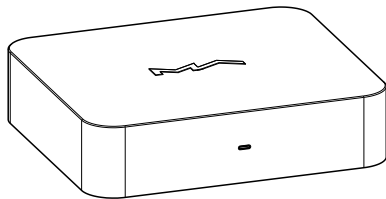
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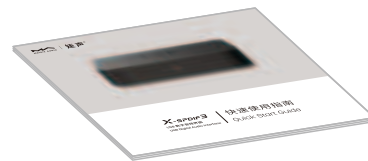
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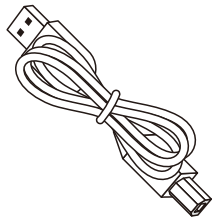
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Product



Quick start guide

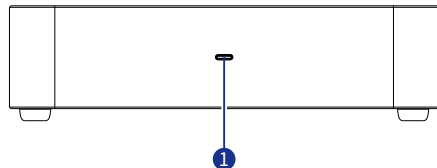


USB cable



Warranty card

Front panel



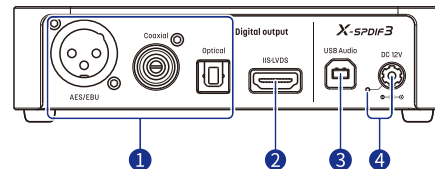
① LED indicator

- Not Playing
- PCM
- DSD DoP
- DSD Native

Note : When the USB port is not connected or the connected device has no driver, the X-SPDIF3 is under a status of unable to work, the LED will not light up, the unit will stay standby.

The DSD status indicates the input data stream format of DSD, not the output data format from the IIS-LVDS port.

Rear panel



① Optical / Coaxial / AES

The optical, coaxial and AES ports output up to 24Bit/192kHz PCM signal conforming to S/PDIF standard and 1Bit/DSD64 signal under DoP standard.

Note : When the front-end device is outputting Native DSD, the S/PDIF output ports will turn off, the Native DSD signal only output from IIS-LVDS port.

② IIS-LVDS port

The ground wire of IIS-LVDS port is electrical isolated with the ground of USB input and power input.

The IIS-LVDS port outputs a maximum 32Bit/768kHz sampling rate PCM signal, DSD64/128/256/512 signal on Native DSD standard, and DSD64/128/256 signal on DoP standard.

③ USB Audio port

Windows7/8/10/11 system environment is required to install supplied drivers.

Mac OS X10.6.4 or above is not required to install drivers.

Most Android devices work with this product via an OTG cable.

The iOS devices work with this product via a Lightning to USB Camera Kits.

④ External power input and LED indicator

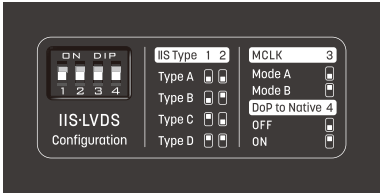
When the product works with devices with low USB output current such as mobile phones or tablets, an external power supply is required. The USB bus power will be disconnected automatically when an external power supply is connected, the LED indicator will light up.

Note : Please note the polarity of the DC power plug, the output voltage of the power supply should not be higher than 12V, otherwise the device will be damaged.

Bottom

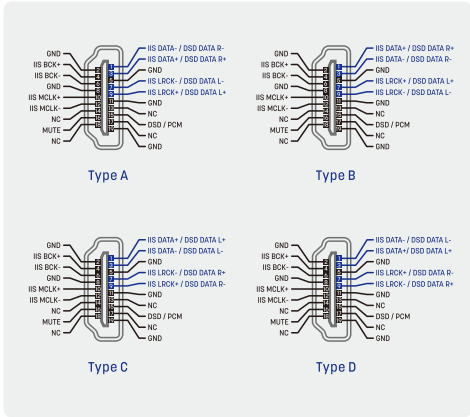
IIS·LVDS port configuration

The functions of IIS·LVDS port can be set up by the DIP switches on the bottom of the unit. As shown below:



1. IIS·LVDS port definition settings

The pin definition of IIS·LVDS port can be set up by the DIP switches on the bottom of the unit. The definition diagrams are shown below:



2. MCLK mode switch

By setting this DIP switch to ON, the MCLK frequency will be fixed at 128fs, to match the ESS series D/A chips which are working under synchronous mode. The output frequencies are shown in the table below. When the DIP switch is ON, the correspondence frequencies are in column Mode B. When the DIP switch is OFF, the frequencies are in column Mode A.

The MCLK output frequencies will conform to the frequency standards listed in the table below :

Sampling Rate (kHz)	Mode A		Mode B	
	MCLK (fs)	Frequency (MHz)	MCLK (fs)	Frequency (MHz)
44.1	512	22.579	128	5.644
48	512	24.576	128	6.144
88.2	256	22.579	128	11.289
96	256	24.576	128	12.288
176.4	128	22.579	128	22.579
192	128	24.576	128	24.576
352.8	128	45.158	128	45.158
384	128	49.152	128	49.152
705.6	64	45.158	64	45.158
768	64	49.152	64	49.152

3. DoP code conversion

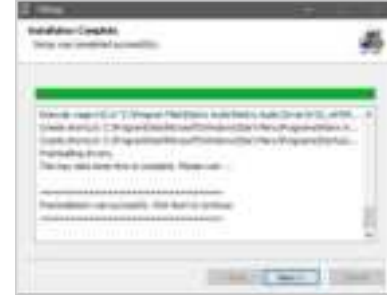
When playing DSD audio through DoP, set this DIP switch to ON to convert the DoP data to Native DSD data and output from the IIS·LVDS port. Set this switch to OFF, the DSD data will output in the same format with the front-end device. (This setting will not take effect immediately when current DSD audio is playing, it takes effect on the next track.)

1. Install X-SPDIF3 drivers for Windows.

Double click the driver setup file, then click "Next".



After installation, click "next".



Select the installation path and click "Install".



Click "Finish" to complete the installation.



2. macOS does not need a driver. Select "MATRIX Audio X-SPDIF3" as the output device in Sound Preferences.



Technical specifications

Sampling rates of Optical/Coaxial/AES ports

PCM 16-24Bit/44.1kHz, 48kHz, 88.2kHz, 96kHz, 176.4kHz, 192kHz

DSD 64(DoP)

Sampling rates of IIS·LVDS port

PCM 16-32Bit/44.1kHz, 48kHz, 88.2kHz, 96kHz, 176.4kHz, 192kHz, 352.8kHz,
384kHz, 705.6kHz, 768kHz

DSD 64/128/256/(DoP) , DSD 64/128/256/512(Native)

Power supply specifications

USB bus power supply : 5V/500mA

External power supply : DC 12V, ≥ 400 mA

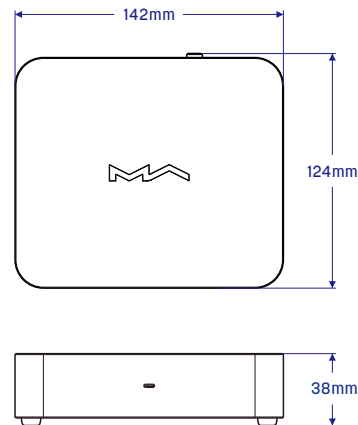
Power supply plug : Outer diameter 5.5mm; inner diameter 2.1mm
(+ for inner, - for outer)

Note : The input power supply should not be higher than 12V, otherwise the product could be damaged. The USB bus power supply will be disconnected when the external power supply is connected. An external power supply is required when using the product with low USB output current devices such as mobile phones or tablets.

Other specifications

Weight : 1kg

Dimension : 142×124×38mm (W×L×H, including protruding parts)



HIGH PERFORMANCE AUDIO

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