



EN

Mini-i Pro 2S

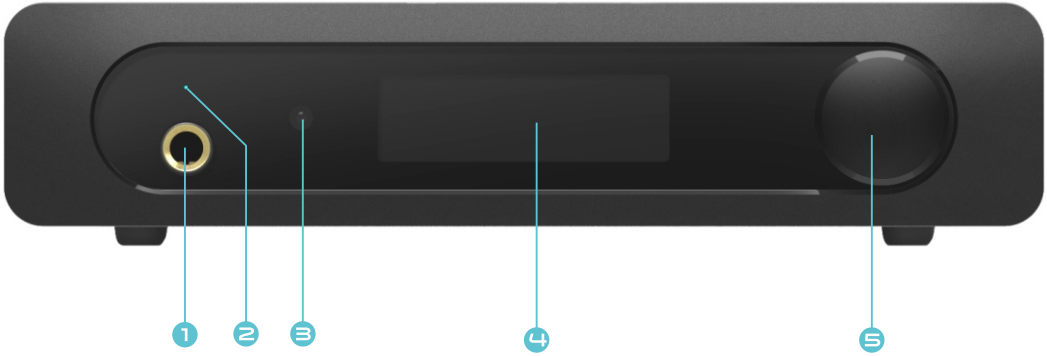
Manual

www.matrix-digi.com

Overview

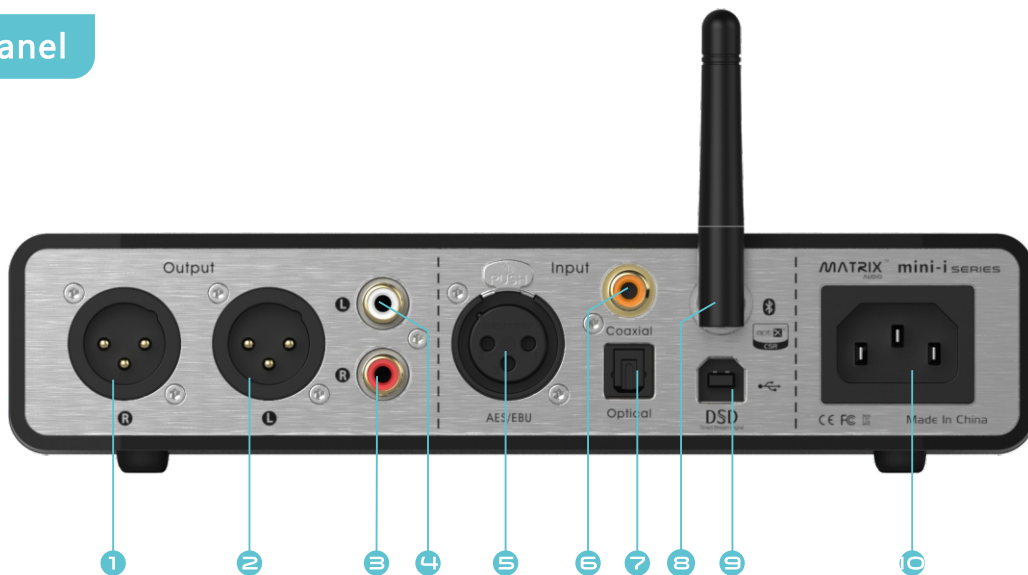
- Brand new ESS SABRE PRO series ES9026PRO top D/A chip
- XMOS U Series asynchronous USB chip
- LME49720 ultra-low distortion op-amp
- TPA6120 ultra-low distortion headphone amplifier
- Audio dedicated sealed transformer, include 10 groups LDO, two groups of them is ultra-low-noise LDO
- The newly designed display interface is clear and intuitionistic, split-screen display to show the different status information
- Real-time display the sample rate, bit rate and DSD playback method
- APTX lossless transmission of Bluetooth, CD grade sound experience
- SPDIF input support DSD, can transfer the DSD 64 digital audio signal via Optical, Coaxial, AES under DoP method
- Sample rate support up to 32 Bit/384kHz PCM signal and 1Bit/DSD256 signal playback
- The internal firmware of XMOS, MCU, and FPGA can be updated by client-side via USB port

Front Panel



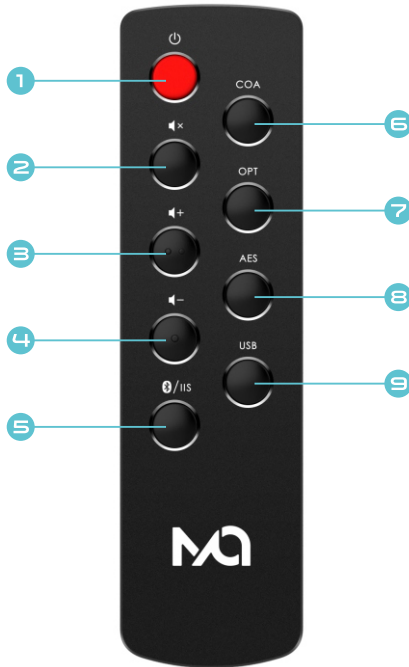
- ① Headphone Jack
- ② Standby/Bluetooth LED Indicator
- ③ IR Receiver Window
- ④ Screen
- ⑤ Control Knob

Rear Panel



- ① Right Channel Analog XLR Output
- ② Left Channel Analog XLR Output
- ③ Right Channel Analog RCA Output
- ④ Left Channel Analog RCA Output
- ⑤ AES Input
- ⑥ Coaxial Input
- ⑦ Optical Input
- ⑧ Bluetooth Antenna
- ⑨ USB Input
- ⑩ AC Power Input

RM2 Remote Control



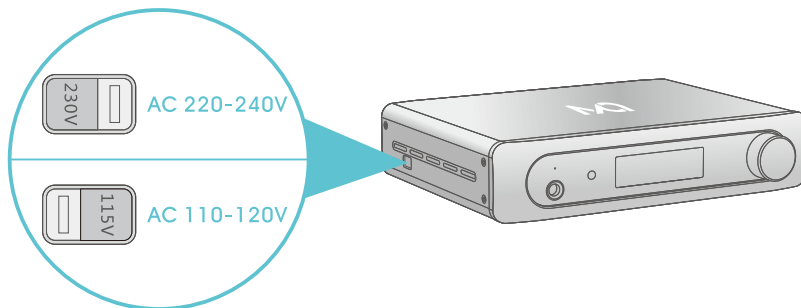
- 1 Standby/Power on
- 2 Mute
- 3 Volume+
- 4 Volume -
- 5 Bluetooth
- 6 Coaxial
- 7 Optical
- 8 AES/EBU
- 9 USB

Long press any button for 2 seconds into the auto scan mode.

RM2 remote control use a CR2032 button battery, battery life is about 1 year; please replace the battery if you found the remote distance becomes noticeably shorter.

AC Power

Mini-i Pro 2S compatible with AC100-120V and AC220-240V two voltage specifications, please set the voltage switch according to your local voltage environment before using, as shown below:



115V position is fit for AC100V-120V 50/60Hz

230V position is fit for AC220V-240V 50/60Hz

Please ensure the input voltage is in the right range before using, the incorrect voltage input can damage your Mini-i Pro 2S.

For reducing the noises and get the best playback quality, please use the three-phase power cable which is include the ground terminal, and ensure the ground is reliable connection.

Usage and Settings

- Power On/Standby

Connected the power plug to the Mini-i Pro 2S, the red LED indicator will be lit up, press the knob to power on, the red LED indicator goes out and screen light up into the work mode; long press the knob for about two seconds into the standby mode.

- Switching Input Channels

Channel switching interface, as shown below:



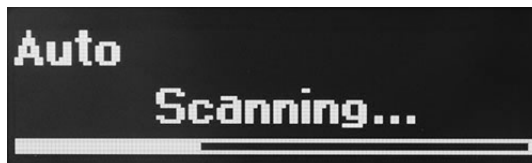
1. Manual selection mode:

Repeat to press knob to switch input channel between Coaxial, Optical, AES, USB and Bluetooth.

Usage and Settings

2. Auto Scan Mode :

Press knob and choose "Auto" , the screen display "Scanning" , as shown below:



At this case, Mini-i Pro 2S will automatically scan 5 input channels, channel of signal which is connect first will be locked immediately, it will continue to scan the other channels until the current channel signal is lost. Mini-i Pro 2S always locked the signal which is scan in the first when there have several inputs been connected, so we suggest to use auto scan mode when there just have one input connected.

There will display an auto scan logo on the right of channel's name when the channel is locked by auto scan mode.



- Memory Channel

Mini-i Pro 2S will automatically memory the currently selected channel, when you power on next time that will recover the channel which it memorized.

Usage and Settings

- Signal Lock

The currently selected channel is no signal, as shown below:



The currently selected channel signal is locked, as shown below:



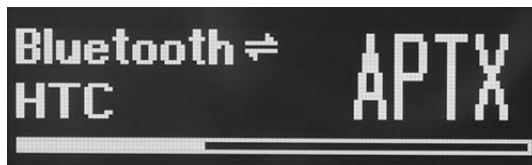
When play back the DSD files, the screen will display the DSD playback method, DoP method or ASIO Native method, as shown below:



- Bluetooth Settings

Searching the Bluetooth device from your mobile phone or other device which is support Bluetooth function, you will find a device named Matrix Audio in your Bluetooth device list, choose Matrix Audio complete the connection, and the blue LED indicator will light up after the connection is completed. Mini-i Pro 2S will automatically connect your device which is connected in last time when you power on, if you want to connect other device to Mini-i Pro 2S via Bluetooth, please disconnect the current connection.

Press the knob to choose the Bluetooth, the interface as shown below :



The current connection device name will display on the left side and the name is limited to 10 characters, just support English letters and Arabic numerals.

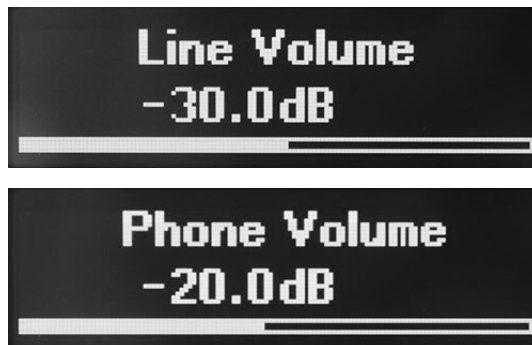
The right side displays the Bluetooth transmitting method, APTX, AAC or SBC.

Note: The APTX transmission method required both the transmitting and receiving device are support APTX function.

Usage and Settings

- Volume Control

Mini-i Pro 2S both have line output and headphone output two independent volume, rotate volume knob to adjust current output volume; volume control interface will display which channel you have controlled and the decibel of current volume, as shown below:



- Memory Volume


Mini-i Pro 2S can automatically store the volume, when power on again it will restore the volume you used in last time.

In order to protect your hearing and avoid startle by excessive volume, if the headphone volume set above -20dB that it will restore to -20dB after reboot the device or replug in the headphone. If the headphone volume set less than -20dB that it will restore to the actual volume which you set in last time.

The line output volume just restore to the actual volume which you set in last time

Usage and Settings

- Mute Control

Use the mute button on the remote control for activating the mute, there will have a “x” icon on the screen after the mute activated.

- Headphone Output

Mini-i Pro 2S have a standard of 1/4'headphone jack, plug in the headphone the line output will mute under the PRE mode.

The 1/4'headphone jack is a stereo jack, please do not connect in a mono plug, otherwise, it has the risk to damage your device.

- Setup Menu

Press the knob to turn off the device and keep pressing for about two seconds into the setup menu, turn the knob to switch configuration items, press the knob to convert the items of current configuration options.

A total of 12 configuration items, as follow:

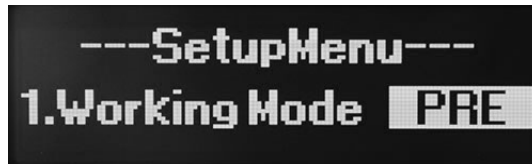
1. Working Mode

PRE mode, line output gain adjustable, and have the headphone output, but when the headphone is plugged in that the line output will be automatically muted.

DAC mode, the line output gain will be fixed at the standard level, headphone output off

PRE : PRE Mode (default)

DAC: DAC Mode



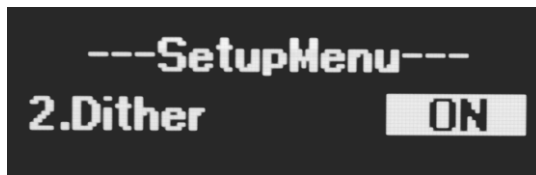
Usage and Settings

2.Dither

Configure to turn on the dither function,turn on the function can effectively reduce the quantizing distortion.

ON(default)

OFF



3. PCM Filter

7 different frequency response digital filters can be configured, set filters to get a different sound performance.

MOD1 : Fast roll-off,minimum phase filter(default)

MOD2 : Slow roll-off,minimum phase filter

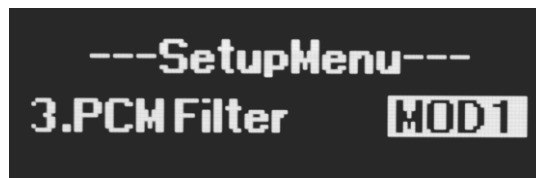
MOD3 : Fast roll-off,linear phase filter

MOD4 : Slow roll-off,linear phase filter

MOD5 : Brickwall filter

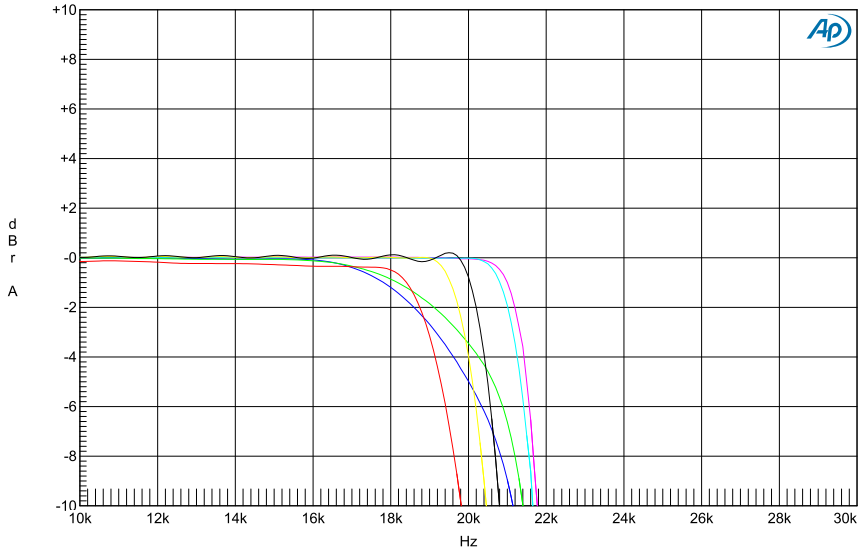
MOD6 : Hybrid,fast roll-off,minimum phase filter

MOD7 : Apodizing,fast roll-off,linear phase filter



Usage and Settings

The frequency response curve of 7 kinds filter as follows:



Sweep	Trace	Color	Line Style	Thick	Data	Axis	Comment
1	1	Magenta	Solid	1	DSP Anlr.Level A	Left	mod1_fast roll-off,minimum
2	1	Blue	Solid	1	DSP Anlr.Level A	Left	mod2_solw roll-off,minimum
3	1	Cyan	Solid	1	DSP Anlr.Level A	Left	mod3_fast roll-off,linear
4	1	Green	Solid	1	DSP Anlr.Level A	Left	mod4_slow roll-off,linear
5	1	Yellow	Solid	1	DSP Anlr.Level A	Left	mod5_brickwall
6	1	Red	Solid	1	DSP Anlr.Level A	Left	mod6_hybrid
7	1	Black	Solid	1	DSP Anlr.Level A	Left	mod7_apodizing

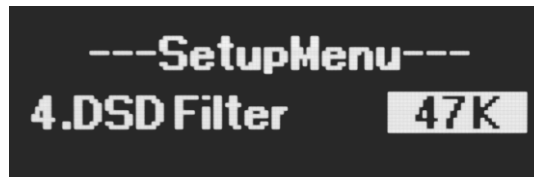
Requires DSP. Uses DSP generated - Sine(D/A) - and analyzed frequency sweep for rapid (<2 seconds) measurement. Can be even faster if the lowest frequencies are not included. F4 to capture the 1kHz reference. Optimize for a detailed

(Tested at 44.1KHz)

4.DSD Filter

Setting the cut-off frequency of DSD digital filter

47K(default), 50K, 60K, 70K

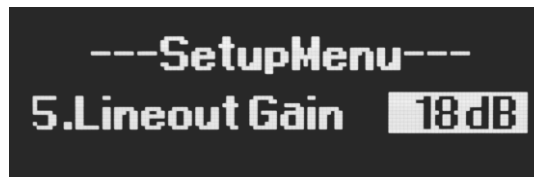


5.Line Output Gain

Set the PCM line output gain.

0dB(default)

+18dB

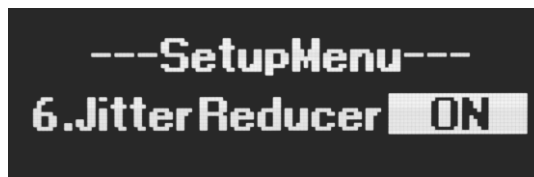


6.Jitter Reducer

Setting the internal time-base jitter elimination circuit to on or off

ON: Turn on the jitter reducer

OFF: Turn off the jitter reducer



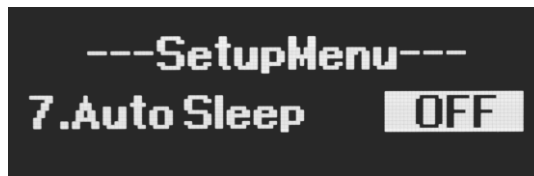
7.Auto Sleep

Setting no signal automatic standby function is enabled and the activation time.

OFF:Turn off the no signal automatic standby function (default)

5min: Automatic into standby when no signal over 5 minutes

10min: Automatic into standby when no signal over 10 minutes

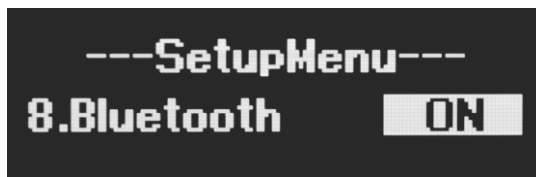


8. Bluetooth

Setting Bluetooth function on or off.

ON: Turn on Bluetooth function, the channel selection items will be added an extra Bluetooth channel (default).

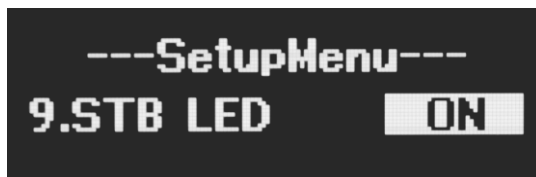
OFF: Turn off Bluetooth function, Bluetooth channel will no longer display in channel selection items.



9. Standby LED

ON (default)

OFF



10.Load Default

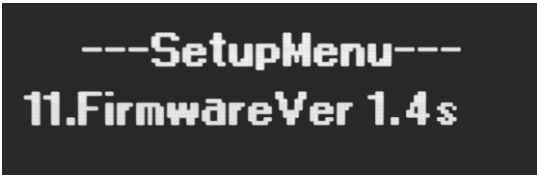
Press the knob in this option, the user settings, boot channel and the boot volume in the storage will be cleared; all the settings are restored to the default values.



```
---SetupMenu---  
10.Load Default
```

11.Firmware Version

Displays the current firmware version.

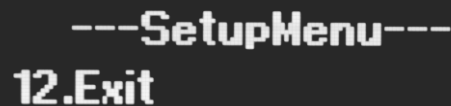


```
---SetupMenu---  
11.Firmware Ver 1.4s
```

12. Exit

Save above setting and exit setup menu.

In this option press the knob, all of these settings are saved to storage and reset.



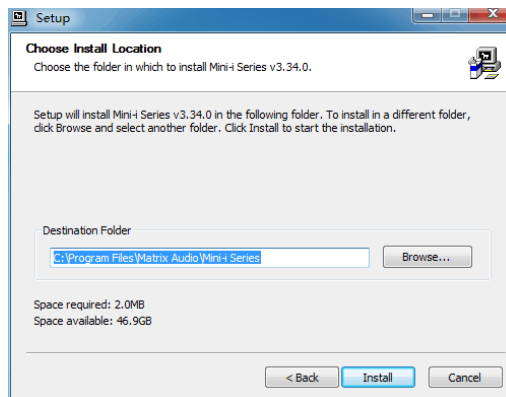
```
---SetupMenu---  
12.Exit
```

Driver Installation and Software Configuration

1. The Windows driver installation of Mini-i Pro 2S
Double-click the driver installation file, and select "Next".



Please select the installation path and select "Install".

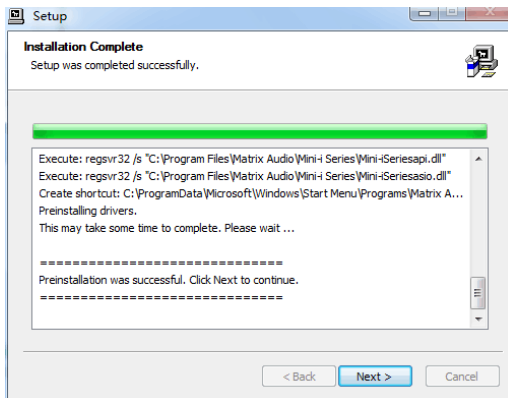


Driver Installation and Software Configuration

Choose "Always trust the software from Matrix Electronic Technology Co., LTD" in the pop-up dialog box and select "installation".

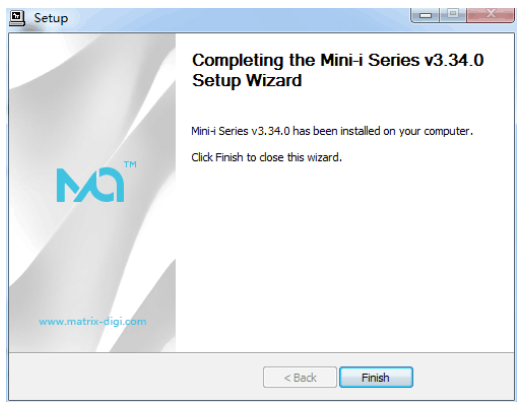


Installation is completed, select "next".



Driver Installation and Software Configuration

Select "Finish", the driver installation is completed.



2. Mac OS X without having to install drivers. Please select the audio device directly to "Mini-i Series" in System Preferences.



Technical Specifications

Digital Input

AES :	PCM	16-24Bit/44.1kHz、	48kHz、	88.2kHz、	96kHz、	176.4kHz、	192kHz
	DSD	DSD64(DoP)					
COAXIAL:	PCM	16-24Bit/44.1kHz、	48kHz、	88.2kHz、	96kHz、	176.4kHz、	192kHz
	DSD	DSD64(DoP)					
OPTICAL:	PCM	16-24Bit/44.1kHz、	48kHz、	88.2kHz、	96kHz、	176.4kHz、	192kHz
	DSD	DSD64(DoP)					
USB:	PCM	16-32Bit/44.1kHz、	48kHz、	88.2kHz、	96kHz、	176.4kHz、	192kHz、
			352.8kHz、	384kHz			
	DSD	DSD64/DSD128(DoP) DSD64/DSD128/DSD256(ASIO Native)					
Bluetooth:	PCM	16Bit/48kHz	APTX/AAC/SBC				
Bluetooth Version:	Bluetooth V4.0						
Frequency Band:	2.402GHz -2.480GHz						
Power Level:	Class II						
Operating Distance:	10-15m						
Delay:	< 20ms						

Technical Specifications

System Support

Windows 7/8/8.1/10 systems need to install the supplied drivers

Mac OS X above version without installing drivers

Most Android devices can be used via OTG cable

The iOS devices can be used via the Lightning to USB Camera Kits

Analog Output

XLR

SNR : 123dB A-Weighting

THD+N : < 0.0003% at 1kHz A-Weighting

Frequency Response : 20Hz-20kHz(+0.01dB/-0.02dB)

Crosstalk : > -130dB at 1kHz

XLR output : 4Vrms Fixed at 0dBFS DAC MODE
0-4Vrms Adjustable at 0dBFS PRE MODE

RCA

SNR : 120dB A-Weighting

THD+N : < 0.0005% at 1kHz A-Weighting

Frequency Response : 20Hz-20kHz(+0.01dB/-0.02dB)

Crosstalk : > -126dB at 1kHz

RCA Output : 2Vrms Fixed at 0dBFS DAC MODE
0-2Vrms Adjustable at 0dBFS PRE MODE

Technical Specifications

Headphone Output

SNR:	116dB A-Weighting
THD+N :	<0.0007% at 1kHz A-Weighting at 300ohms 25mW
Frequency Response :	20Hz-20kHz(+0dB/-0.1dB)
Crosstalk :	> -126dB at 1kHz
Output Impedence :	10ohms
Output Power :	820mW at 33ohms at THD+N=0.1% 210mW at 300ohms at THD+N=0.1% 110mW at 600ohms at THD+N=0.1%

Power

Power Voltage:	230V position is fit for AC220V-240V 50/60Hz 115V position is fit for AC100V-120V 50/60Hz
Power Consumption:	<10W

Other Specifications

Dimension:	168x 205x 47 (L×W×H, including the protruding part)
Weight:	1.3kg

Customer Service

From the purchase date, we provide you one-year-limited warranty , warranty does not contain accessories.

Any fault caused by product quality problems during the warranty period, not include fault caused by wrong use, negligence, accidental damage and unauthorized modifications or replace components, we will provide free maintenance.

For more information, please visit www.matrix-digi.com.



MATRIXTM
AUDIO

Ver.202210

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