2 in 6 out/3 in 6 out/4 in 8 out audio processor

Instructions for use

V1.0

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本公司保留产品变更的权利，产品如有变更，恕不另行通知。本手册中产品图例及外观效果仅供参考，以实际产品为准。

说　　明:

在三角形内，用箭头表示的“闪电”标记表示警告用户此处机内为危险电压，使用时请必备接地并注意操作。

三角形内用惊叹号标注的是提醒用户为重要操作，请严格依照使用说明进行。

请勿擅自打开本体

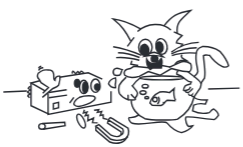
本体中使用了高压元件。请勿打开外壳，试图检查或改装本体，以免遭受电击的危险。由于用户的改装而引起机器性能下降或是误操作，将不属产品质量保证范围之内。

请注意保持良好通风，通风孔不应覆盖如报纸、桌布和窗帘等物品而妨碍通风，如果是机柜式安装，请保留前后通风孔云至少10cm的间隙。

不要损坏电源线

在插上或是拔下电源线时请握住电源线的插头部份。不要用湿的手去拔取或触摸电源线，这会导致短路或是触电事故。不要将电源线铺设在本体和家具之下，物体之间。也不要将电源线和其他的电源线捆在一起，不要让电源线打结或是将其放置在人经常走动的地方。

严禁水滴和异物



切勿从本体的通气孔或其他开口处插入或掉入如发夹、铁钉和硬币之类的金属物以及诸如纸张、火柴之类的易燃物，因为这会引起误操作或是火灾和电击。请不要将本品暴露于雨淋或潮湿的地方，产品上也不要放置诸如花瓶、鱼缸之类的物品。万一水滴或异物进入了本体，请让维修中心或经销商做一次检查。

万一发现异常

在使用时万一发现有异常的噪音或气味产生，请立即关闭电源，从插座上拔下电源线，并向经销商或维修中心咨询，要求做一次检查。维修人员在维修本产品时，产品内部标有标记的元器件只能使用同等规格的元器件予以更换。

当长期不使用时

当您长时间不使用时，请关掉电源并从电源插座上拔下电源线。这将防止由于本体的意外情况而引起的火灾。

2. Product Introduction

Thank you very much for choosing our company's audio signal processor. This processor embodies our company's valuable design and business philosophy in the field of professional sound augmentation for decades. Its excellent audio expression, special audio processing technology, competitive cost-effectiveness, stability and durability characteristics guarantee your interests well.

This product is a multi-channel audio processor, from 2 to 4 to 8 to 8. Use ADI's fourth generation SHARC floating point DSP with powerful audio processing capabilities. In terms of operation, the user's convenience is fully considered. The channel group link can be adjusted, or copying can be performed, and even multiple online devices can be grouped or channel parameter copying can be performed.

The rich external interfaces greatly meet the requirements of flexible call in various application scenarios, central control or scenarios. Can be widely used in professional sound reinforcement venues, such as linear array speaker processing, conference rooms, courts, auditoriums and multi-functional halls

2.1 Audio Characteristics This device adopts a 96KHz sampling rate, a resolution of 24-bit high-performance Δ-ΣA/D and D/A conversion technology, and uses ADI's fourth generation floating-point DSP. Each input includes gain control, feedback suppression, 10-segment parameter equalization, dynamic equalization, frequency divider, compressor, delayer and noise gate. Each output contains matrix mix, 10

Segment parameter equalization, frequency divider, compressor,

2.2 User interface front panel: LCD display indicates the device IP address and current preset number and related information\Backboard: Flexible adaptation from 2 in 4 out to 4 in 8 out, 232/485 interface and RJ45 network interface

Control software: The PC control software equipped with this device can run on the Win10 64bit operating system. Using this software through the RJ45 network interface

Flexible configuration of equipment. It can also implement the import and export of single or overall mode data, providing great convenience for engineering applications

2.3. Other features All input/output interfaces adopt complete RF and electrostatic protection circuits to ensure the reliable operation of the equipment. In addition, based on more than ten years of professional sound reinforcement design application experience, our company has provided a variety of recommended configurations to facilitate user engineering applications. Users can download configuration data of various application scenarios and common speakers through our company's website.

3. Unpack the packaging

As part of our quality system control, each product is carefully packaged before leaving the factory. After unpacking, please carefully check for physical damage to the product. To facilitate future transportation and ensure product safety and performance, please keep all packaging materials and items. Once you find that the machine is physically damaged, please inform the distributor immediately to provide written proof of the damage.

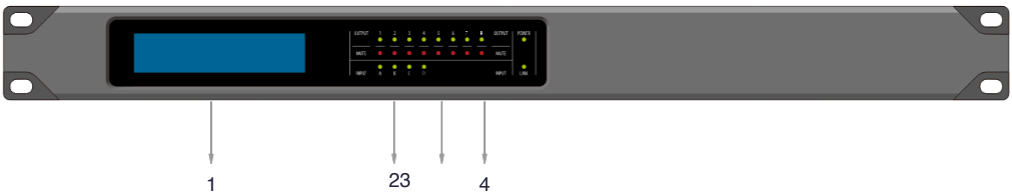
4. AC power requirements

Please carefully check whether the local power grid voltage is consistent with the equipment mark before powering on.

This equipment is a Class 1 equipment and should be used on a power grid power outlet with a protective ground connection. This equipment uses a power plug and an appliance coupler as a disconnecting device, which should be kept easy to operate.

The fuse of this device is built-in. If the fuse is damaged, please replace it with the same model of fuse (*Before replacing the fuse, please make sure that the power cord of this device has been disconnected from the power grid to ensure your personal safety).

4 in and 8 out without button panel (including 2~4 inputs, 2~8 outputs)



1. LCD display: display the current preset number and name, the main volume of the device or the total mute state

2. power and online indicators (the indicator light is on after online, and flashes

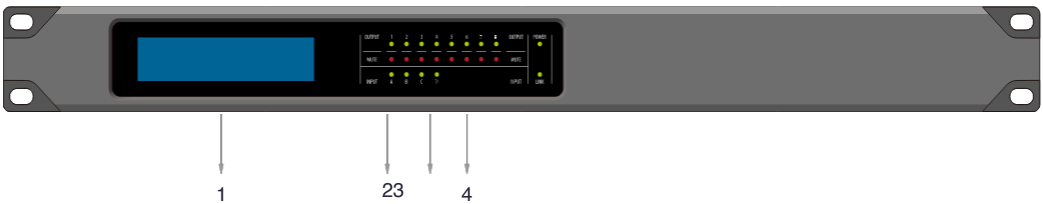
3. Input channel signal (upper row of green light) and mute indicator (lower row of red light) [Note: 3-channel input models do not have D-channel indicator]

Note that the input signal indicates the input of this device. Even if the input is muted, if there is a signal input outside, the corresponding indication is still valid

4. Output channel signal (upper green light) and mute indicator (lower red light) [Note: 6-channel output models do not have 78-channel indicators]

Note that the output signal indicates the output of this device. If the output is silent, the corresponding channel signal indicator light will be off.

4-in 8 with button panel (including 2~4 inputs, 4~8 outputs)



1. LCD display: display the current preset number and name, the main volume of the device or the total mute state

2. Function buttons and main knob adjustment area: preset calls and settings, menu selection, etc.

3. Input channel signal (upper green light) and mute indication (lower red light) [Note: 3-channel input models do not have D-channel indicator] Note that the input signal indicates the input of this device. Even if the input is muted, if there is a signal input externally, the corresponding indication is still valid. Input channel mute and channel selection edit key

4. Output channel signal (top green light) and mute indicator (bottom red light) [Note: 6-channel output models do not have 78-channel indicator light] Note that the output signal indicates the output of this device. If the output is muted, the corresponding channel signal indicator light will be off.

Input channel mute and channel selection edit keys

5.1 Panel display main

00:Auto.....
192.168.0.56 0.0DB

Audio ProcessorConnected
.....

The above line shows the current preset number and its name (No. 0 is automatically saved and cannot be deleted). The following line shows the device IP address and total volume or mute MUTE status after online display as shown in Figure 2. The panel button is disabled. If the current online editing status is currently available, the following line flashes.

5.2 Panel

MUTE:(INA~IND/OUT1~OUT8): Input/output channel mute control IN/

OUTPUT:(INA~IND/OUT1~OUT8): Input/Output Channel Edit Selection

6. Backplane connection characteristics

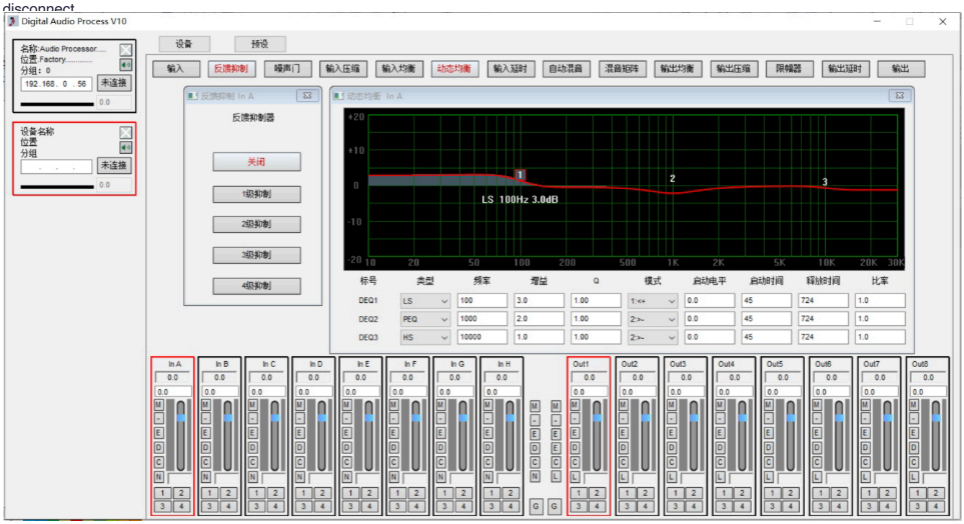
4 in and 8 out of the backplane (including 2~8 inputs, 4~8 outputs)

1. Power	Press the upper part (lower part lifted up) to turn on the power supply of the device, otherwise turn off the power supply.
s, power input socket	Three cores (the power plug needs to be reliable grounded to ensure safety) use the tail power cord
3. RS232/485 port	Online or used to connect external components such as central control and panel to realize external control of equipment
4. Network interface	Connect to the local area network to realize online debugging of computers and devices on the network and set up 6 or 8
5. Audio signal output	outputs, and real electronic balance output (if the negative end is grounded, the positive end is output twice to ensure that the total output remains unchanged)
6. Audio signal input	3-channel or 4-channel audio input, balanced input

7. PC software and its operations

7.1 Software main interface

After opening the software, automatically search the device list on the left, click the "Not Connected" button to go online, click the "Connected" button to disconnect



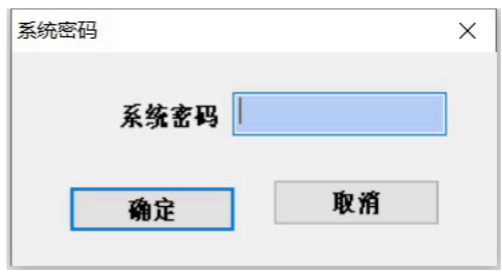
PC software can configure and manage single or multiple online devices through the network. Device parameters can be stored in device or computer files. Up to 250 devices can be online at the same time, making it convenient to switch and edit in real time. Flexible parameter editing and marshalling and coordination provide great convenience for users to quickly set up. *** To ensure the security of equipment data, you need to enter a password when performing online operations (online default password: 000000)

7.2 Software module

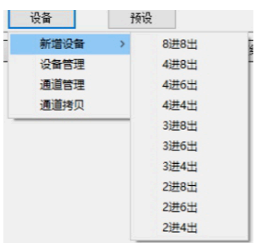
7.2.1 On the left is the online device list, including: IP address, device name, location and grouping, total volume and mute settings

7.1 The software main interface operates online, and the 000000)

The input interface is as follows



7.2.2 "Device" menu, including new virtual device and device information management, channel management and channel copying

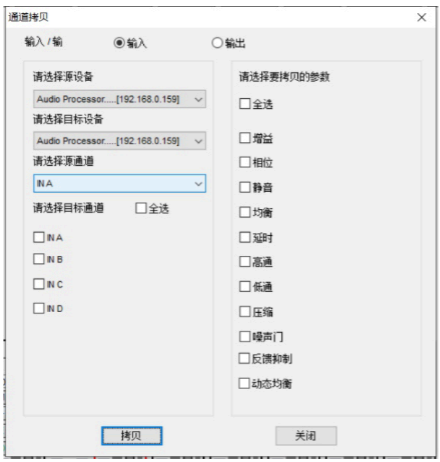


7.2.3 a: "Device Management" interface [You can change the IP and related information when it is not online, and all editable changes can be made after online]

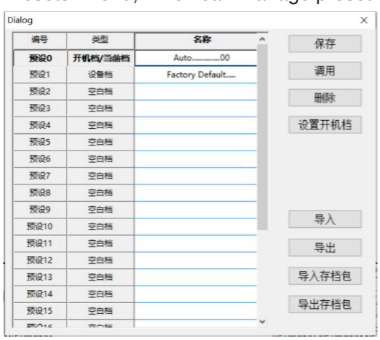
You can view the device hardware and firmware version to view or change the device information to change the device network configuration to change the system password or panel password system password default is 000000 panel password default is 00000

The left MAC address can be used as the RS485 control address code

7.2.3 b: "Channel Copy" interface [Only after online: you can select copy source device, destination device and each parameter to copy separately]



7.2.4 "Presets" menu, which can manage preset data files stored in the device



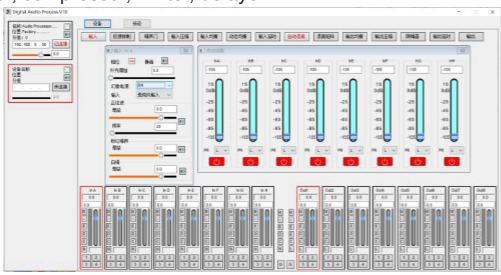
0: Automatic transmission. When the current transmission is in 0, all parameters are automatically saved and cannot be deleted or saved; 1: Factory default, it cannot be deleted or overwritten to save; 2~23: User archives can be deleted or saved; Startup file: cannot be deleted. After setting it to the boot file, use this file configuration parameters to import/export archives when the configuration parameters are opened for the next time: only the current file can be operated, and can be exported and stored in the computer.

Or import a single archive from the computer to the current file of the device (need to be saved manually)

Import/export archive package: Export user archives from 0 to 23 are stored in computer files

Or import from the computer archive package to the device (save to the device FLASH) *Note*: Importing the archive package will overwrite all parameters in the device! ! !

7.3 The input of the signal processing module includes signal generator, feedback suppressor, noise gate, frequency divider, equalizer and dynamic equalization, compressor, delay output includes automatic mixing (only available in 8*8 models) mixing matrix, frequency divider, equalizer, compressor, limiter, delayer



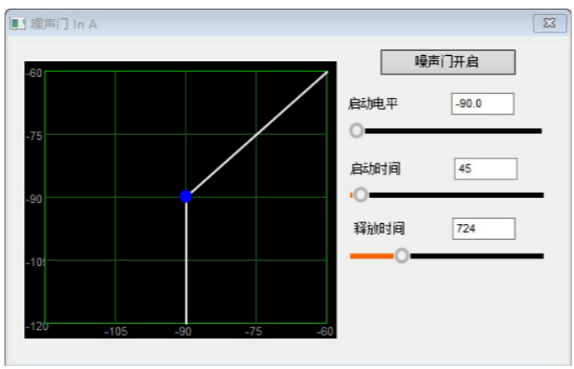
7.3.1 The signal generator input A~D4 signal can be selected for internal signal generator or external analog/digital input signal generator. It can be selected for sinusoidal, pink noise or white noise. The three signal amplitudes are adjustable and the switching state is controllable.

! ! ! To avoid switching the impact sound, it is strongly required to first turn on the device total mute opening after the setting is completed before turning off the total mute enable output! ! !

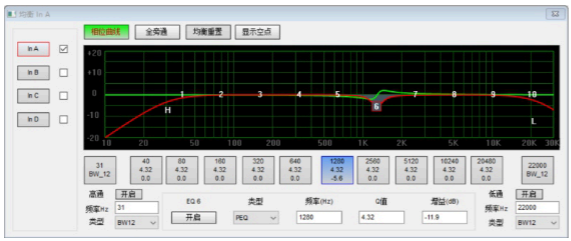
Note: When using the internal signal generator, in order to avoid system loud sound pressure damage,

Be sure to ensure that the volume is set to -40dB or below before starting! ! !

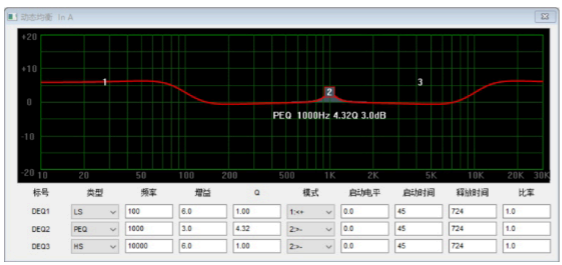
7.3.2 The noise gate input A~D4 channels each have a noise gate processor. It is recommended to turn on to avoid the excessive noise floor of the front-end device in the system affecting the startup time, release time and startup threshold. It is recommended to set the startup time a little larger (slow start) and the release time a little smaller (fast release), so that the first sound is incomplete when the language is reinforcing.



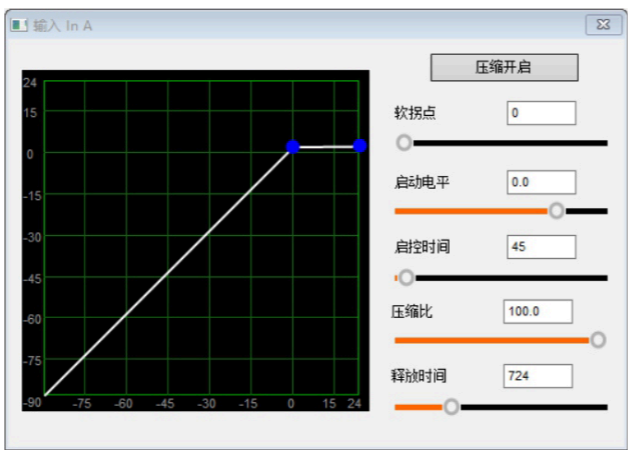
7.3.3 Input/output equalizer and high-pass and low-pass filters, high-pass HPF type ButterWorth/Bessel/LinkWitz from -6dB/otc to -48dB/oct, frequency 20~22000Hz adjustable 10-segment parameter equalizer type PEQ/LSLV/HSLV/Allpass-1/2, 5 types are available, frequency, Q value, and gain are adjustable



7.3.4 Input channel dynamic equalizer three segments, filter type LowShelf/Peaking/HighShelf or off, you can set boost or decay greater than the threshold, or you can set boost or decay lower than the threshold



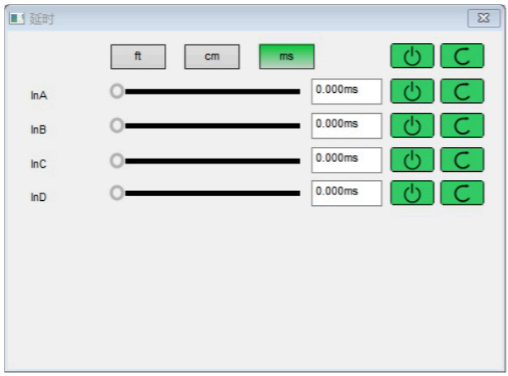
7.3.5 Input/output channel compressor, can set the soft inflection point on or off, the start level, the start time and release time can be flexibly set, the compression ratio is 1~100 (>20 is equivalent to the limiter)



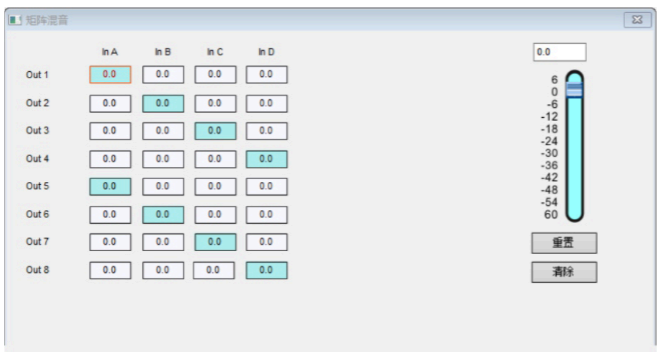
7.3.6 Output FIR filter settings (rightmost part of the equalization frequency division interface) FIR filter type: high-pass, bandpass, low-pass, direct-through, external import parameters, you can preview the FIR amplitude and phase frequency response curve 250Hz: lower boundary frequency, only high-pass and bandpass effective 20000Hz: upper boundary frequency, only low-pass and bandpass effective FIR filter order: 256~512Taps attenuation: only Kaiser&Sinc&Sine valid, 21~120dB, and FIR type is not turned off OFF or external Ext time window function: Rect/Kaiser/Sinc/Hanning/Hamming/Blackman/Blackman-harr/

Blackman-Nutt/Nuttal/Kaiser-Bessel/Sine in total

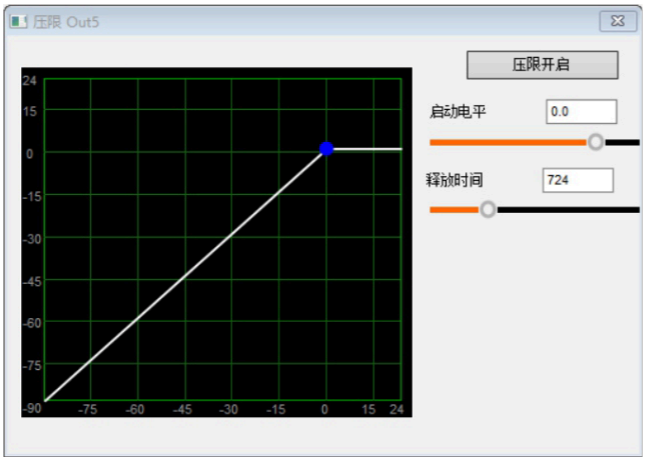
7.3.6 Input/Output Delay, up to 1000ms, adjustment accuracy of 0.02ms can be set to be valid or direct. The delay unit can be set to ft, cm or ms



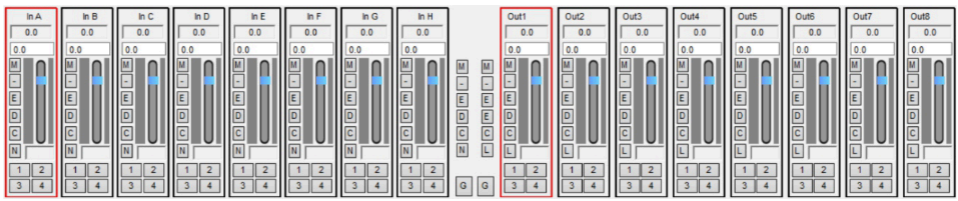
7.3.7 The matrix mixing input signal can be arbitrarily assigned to any output channel. The gain can be set. You can also choose to turn off or turn on the left mouse button and double-click the corresponding block in the figure to enable or close the routing. Select a routing point to adjust the gain on the right side.



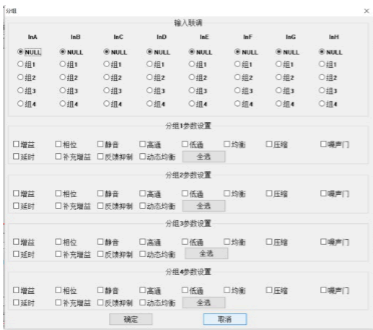
7.3.8 The output limiter protects the rear-level amplifier and speaker equipment to ensure that the equipment is operating normally and not damaged. The limiter can be optionally switched on or off the threshold level and release time of the limiter to be adjustable.



7.3.9 Signal indicators and volume, function switches and marshalling quick panel input signals can be arbitrarily assigned to any output channel, gain can be set, or can be turned off or on



The signal bar on the left is the signal VU indication, the middle is the gain fader, the right is the compression amount of the compressor/limiter, the uppermost number shows the compression amount, the middle number is the gain amount, and the bottom is the signal size value. The bottom is the signal size value. This panel can quickly realize the switch settings of mute, gain control, phase, compressor, noise gate, equalizer, limiter, and delay. The two G-marshalling buttons in the middle can set the input and output marshalling functions, and all parameters of each channel can be selected whether to participate in the marshalling link.



8.1. Audio-related issues

No power on:	Is the machine power cord plugged in firmly? Is the power switch on?
Unable to be online	Although this device can be discovered across network segments, the establishment of TCP connection must be within the same LAN segment. Please change the IP address of the device and your computer in the same network segment.
No sound output:	Please check if the output channel volume is turned off or muted? Or is the output channel matrix mix configuration correct? Or check whether the low-cut frequency in the channel is set too high or the high-cut frequency is set too low?
Sound defects:	Please check whether the channel volume is set too low? Or check if the audio cable is wired correctly? Are the settings of compressive limit, noise gate, EQ, etc. reasonable?
Distortion or overload	Please check whether the input signal is too large or the device volume is set too large. You can use the VU display (including CLIP/LIMITER indication) under the system menu of the PC control software to determine whether the system level is appropriate.

8.2. Connection problems with RS-232/485 and network RJ45 terminals

If you use the RS-232 or RS-485 ports on the backplane, please connect both ends to reliable connection.
If you use the RJ-45 network port on the backplane, please make sure to connect directly to the computer or to the switch or wireless AP device LAN port. Online default password: 000000 Network online mode: When the computer network port is directly connected, the computer network card needs to be set to a manual IP address (not automatically obtained). Subnet mask

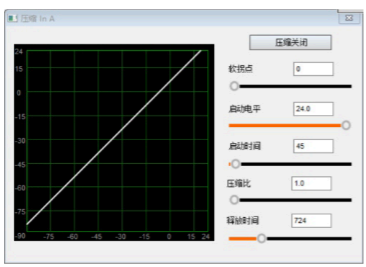
It is recommended to set it to 255.255.0.0 to facilitate quick search of devices in different network segments and perform online operations; when the device is connected to a wireless AP or switch, the device must be in the same network segment as the LAN. If you are not in the same network segment, you need to change the device to the same network segment.

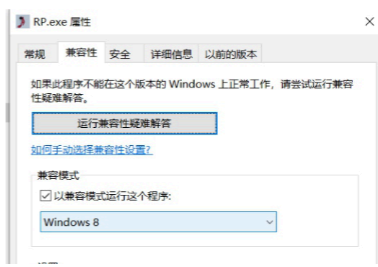
8.3. The sound is loud and small or intermittent

If the threshold of the noise gate is set too high, when the sound source signal is relatively small and the noise gate threshold is not opened enough, it may cause the sound to be intermittent. Please lower the noise gate threshold (this value needs to be set reasonably according to the signal source noise status at the front end of the device)

8.4. Program compatibility issues

If the compressor, noise gate, limiter and EQ curve display offset is due to WINDOWS compatibility issues, the following solutions are adopted: 1) WIN7 and below systems, choose WIN98/ME mode compatible; 2) WIN10 and VESTA systems, choose WIN8 mode compatible;





测试条件：正常工作环境，平衡输入+4dBu@1kHz正弦模拟信号，音量0dB，所有功能BYPASS直通状态

数字采样率及精度	96kHz 24bit AD/DA 400MHz 32bit浮点DSP
频率响应	20Hz~20kHz ±0.3dB
THD+N	<0.003% @1kHz
ADC&DAC动态范围	>115dB
输入阻抗（平衡式）	10kΩ
输出阻抗（平衡式）	100Ω
通道间串音	<-100dB@1kHz
最大输入电平	>20dBu@1kHz
最大输出电平	>20dBu@1kHz
本底噪声	<-93dBu
系统延时	<2ms
信号发生器	正弦，粉噪和白噪声
信号处理功能	输入噪声门、10段均衡、动态均衡、分频器、压缩器及延时输出矩阵混音、10段均衡、分频器、压缩器、限幅器及延时

电源要求：	~220V，50Hz/60Hz，功耗<20W
外观尺寸(W×D×H)：	483× 268×45 (mm)
净重：	3.5kg
使用环境温度：	0°C~+40°C
存储环境温度：	-10°C~ + 60°C

附件：

电源线：	1根
用户手册和控制软件：	U盘1PCS

※本说明如有更改,恕不另行通知