



D-Drive 1.2k4h series

Multi-Function Network DSP

Power Amplifier

User Manual

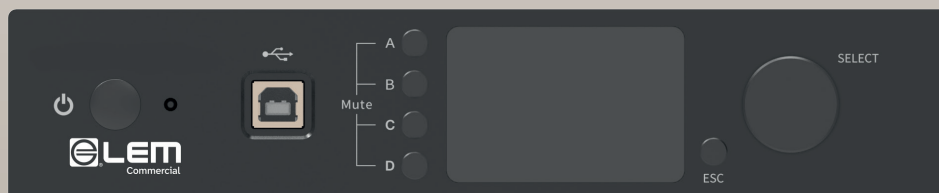


Table of Contents

Chapter 1 Introduction.....	4
Chapter 2 Technical Specifications.....	5
Chapter 3 Functional Structure.....	7
Chapter 4 Introduction to WEB Interface.....	9
Chapter 5 Using the WEB Interface.....	9
5.1 Operating Environment.....	9
5.2 Operating Steps.....	9
Chapter 6 WEB Interface Description.....	10
6.1 Local Area Network (LAN)	11
6.2 Control Panel.....	12
6.2.1 Device Name, Current Preset and Master Volume.....	12
6.2.2 Amplifier Status and Matrix Mixing Settings.....	12
6.2.3 Local/Network Audio IP Address.....	13
6.2.4 Input Channel Interface.....	13
6.2.5 Output Channel Interface.....	14
6.2.6 Power Limiting / Amplifier Real-time Load Status.....	15
6.2.7 Network Audio Output Settings.....	16
6.3 DSP Flowchart.....	16
6.4 Signal Source Input.....	17
6.5 DSP Input.....	17
6.5.1 Test Signal.....	17
6.5.2 Noise Gate.....	18
6.5.3 Compressor.....	18
6.5.4 Expander.....	19
6.5.5 PEQ / High-pass and Low-pass Filters.....	19
6.5.6 DEQ (Dynamic Equalizer).....	21
6.5.7 Input Delay.....	22
6.6 FIR.....	22
6.7 Matrix Mixing.....	23
6.8 DSP Output.....	23

6.8.1 Delay	23
6.8.2 Output PEQ	24
6.9 Speaker Parameters	25
6.9.1 Speaker Parameters FIR	25
6.9.2 Speaker Parameters PEQ / High-pass and Low-pass Filters	25
6.9.3 Speaker Parameters Delay	26
6.9.4 Speaker Parameters Gain	26
6.9.5 Speaker Parameters Compressor	26
6.9.6 Speaker Parameters Limiter	27
6.10 Presets	27
6.10.1 Scene Presets	27
6.10.2 Speaker Presets	28
6.11 Settings	29
6.11.1 Device Information	29
6.11.2 Network Information	30
6.11.3 Security Settings	30
6.11.4 Gain Limiting	31
6.11.5 Network Drive	31
6.11.6 GPIO	32
Chapter 7 Application Introduction	32
7.1 Bridging Application Introduction	32

Chapter 1 Introduction

This device is a multi-function network DSP digital power amplifier that enables real-time remote monitoring of the amplifier status and real-time configuration of various DSP functions such as compressor, expander, limiter, noise gate, parametric equalizer, matrix routing and delay. Its clean WEB interface offers customers a simple setup and operating experience, and it is suitable for a wide range of application environments.

Applications

- Performing Arts Center ● Theater
- Gymnasium / Stadium ● Hotel
- Convention Center ● Shopping Mall
- Retail Store ● Restaurant

Features

- ◆ Standard 4-channel AES67; optional DANTE network audio
- ◆ Network TCP/IP control, supporting management of multiple devices
- ◆ Remote power on/off
- ◆ Color LCD display
- ◆ Built-in DSP digital processor
- ◆ Supported connection method: TCP/IP
- ◆ Real-time remote monitoring of amplifier operating status
- ◆ Amplifiers can be identified on site via the WEB interface
- ◆ Supports free switching between Bridge and Matrix modes
- ◆ Amplifier gain adjustable from 26 to 44 dB, set via WEB interface or color LCD screen
- ◆ Standard FIR function, supporting 4×2048 Taps
- ◆ Power-on state configurable: Power On / Standby
- ◆ Constant-voltage and constant-impedance support: 70V, 8Ω, 4Ω
- ◆ WEB interface control; devices can be identified via Mconsole 3.0 software and the WEB interface can be opened via hyperlink
- ◆ Wide voltage range operation: 100–240VAC

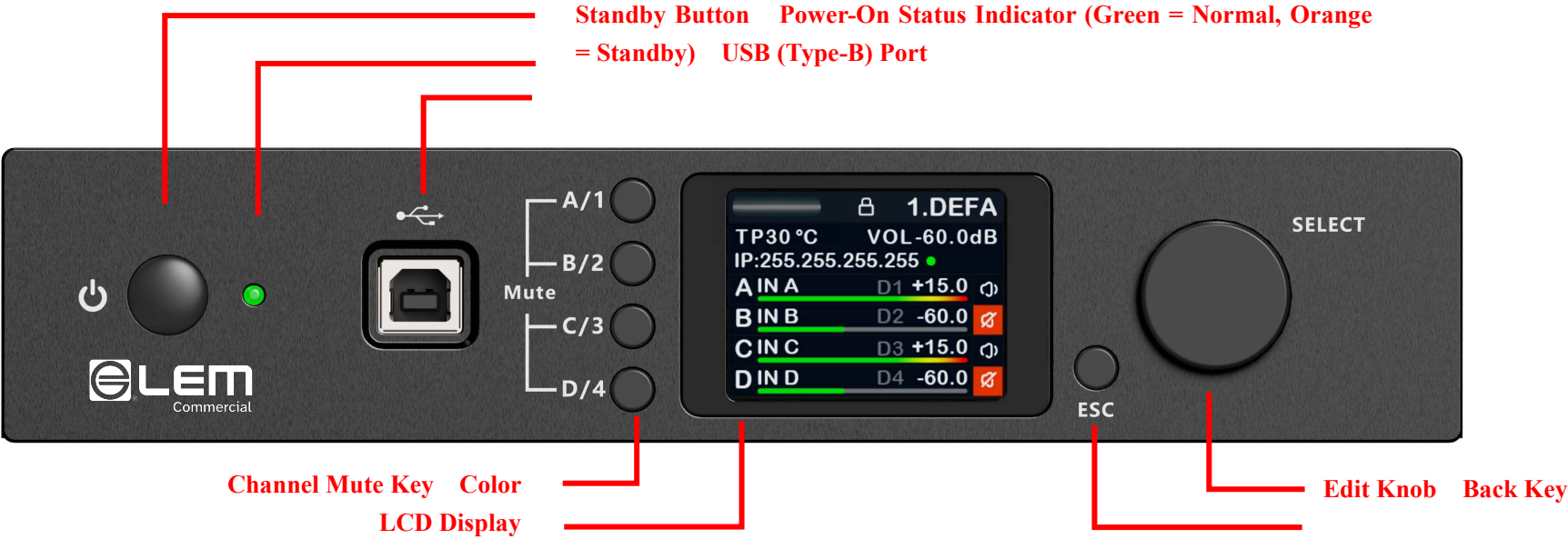
Chapter 2 Technical Specifications

Input Sources:	Analog, DANTE (optional), AES67, AES3, Pink Noise, White Noise, Sine Wave
Input Volume:	Mute, Phase, Level Detection
Input EQ:	15-band parametric equalizer
Input Noise Gate:	Attack time 1~2895ms, Release time 1~2895ms, Threshold -90dBu~0dBu
DSP Matrix:	4×4 matrix
DSP Output EQ:	10-band parametric equalizer
Input / Speaker Parameter Crossover:	Butterworth and Bessel slopes 6~48; Linkwitz slopes 12~48
Delay:	Input delay: 4×2000ms DSP output delay: 4×2000ms
Speaker Parameter Delay	4×200ms
Speaker Parameter EQ:	15-band parametric equalizer
Input / Speaker Parameter Compressor:	Soft knee, threshold, attack time, compression ratio, release time
Speaker Parameter Limiter:	Threshold -90dBu~8.2dBu, Release time 1~2895ms
Output Volume:	Mute, Phase, Level Detection
DSP Presets:	80 preset locations
Control Method:	Ethernet
Network Specification:	TCP/IP, 100Base-TX, RJ45
Number of Channels:	4
Power:	4×150W@8Ω 4×250W@4Ω
Bridged Power:	2×450W@8Ω
Minimum Output Impedance:	4Ω per channel, 8Ω in bridge mode
Input Connectors:	Phoenix terminal inputs ×4
Output Connectors:	Phoenix terminal outputs ×4
Cooling:	Intelligent fan temperature control
Gain:	26~44dB
Maximum Input Level:	19dBu (6.904V)
Signal-to-Noise Ratio:	91dB @ 32dB gain
Frequency Response:	20Hz ~ 20kHz (±0.5dB) @ 1W, 8Ω
THD+N:	<1% @ 1W to full power
Sampling Rate:	96K/24bit

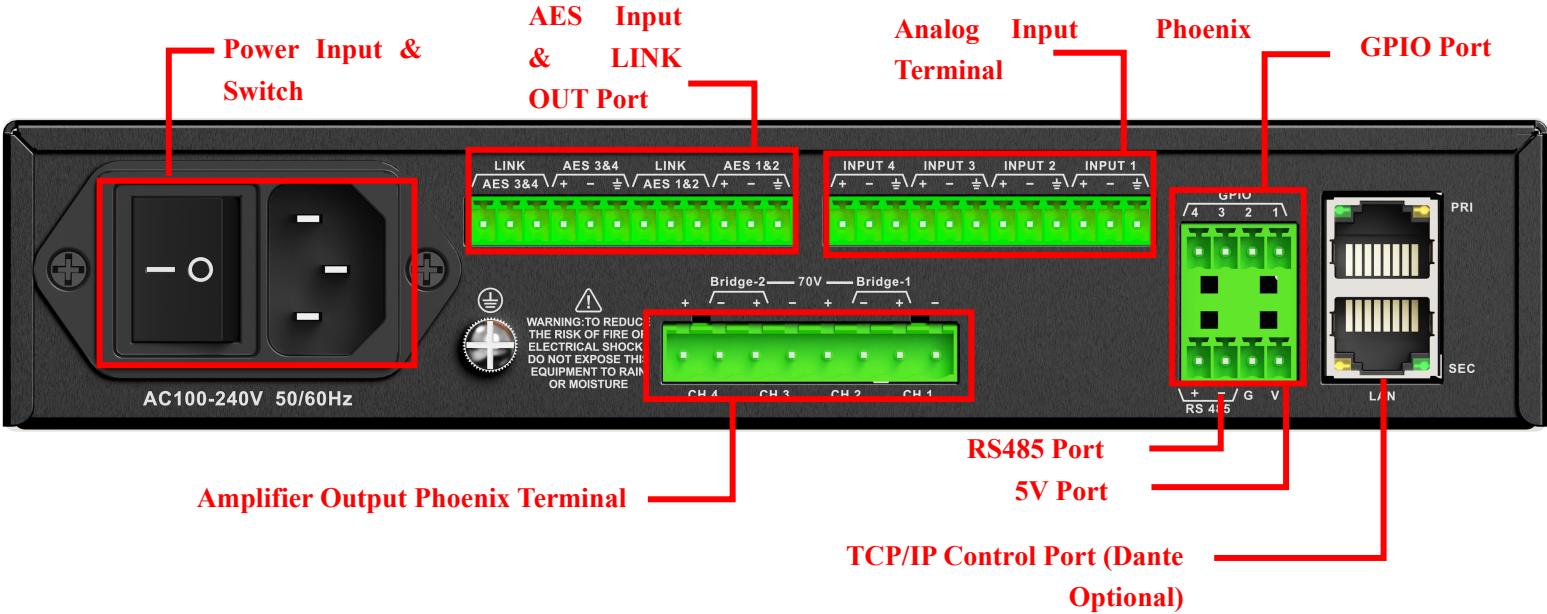
Multi-function Network DSP Power Amplifier

Channel Isolation:	<-83dB @ 1KHz, 0dBu
Damping Factor:	55
Common Mode Rejection Ratio (CMRR):	>60dB @ 1KHz, 0dBu
Input Impedance:	20K Ω
Operating Modes:	Bridge, Free Matrix
Remote Control:	Remote power-on, standby, DSP monitoring
Amplifier Monitoring:	Amplifier monitoring: temperature, power, voltage, current
Constant Voltage / Constant Impedance:	70V, 8 Ω , 4 Ω
DANTE (optional):	4-channel DANTE
Display:	320×240 pixels, IPS hard screen, color
Audio Source Topology:	Phoenix terminal AES LINK OUT
Protection:	Audio limiter, over-temperature, DC, high-frequency, short-circuit, back-EMF, peak current limiter, inrush current limiter, power-on delay, circuit breaker protection, power supply over-voltage/under-voltage protection
Net Weight:	2.5KG
Gross Weight:	3.5KG
Device Dimensions:	305mm×220mm×44.5mm
Packaging Dimensions (single unit):	360mm×340mm×70mm
Packaging Dimensions (7 units per carton):	555mm×415mm×470mm
Gross Weight per Carton (7 units)	26KG
Power Supply:	AC 100~240V 50Hz/60Hz

Front Panel



Rear Panel



Chapter 4 Introduction to WEB Interface

The WEB interface allows users to interact quickly with all parameters of one or more devices, and to save device configuration parameters to disk files. This provides a highly convenient means of configuring preset scenes for multiple devices or different venues, as well as switching and restoring parameters. This product features high operating efficiency and a clear interface structure. Its UI uses a self-developed control library and can be customized and modified according to customer needs, enhancing the user experience.

Chapter 5 Using the WEB Interface

5.1 Operating Environment

Using any Web browser on Windows, macOS, HarmonyOS, Kylin OS, as well as iOS/Android phones and tablets, enter the device IP to connect and configure.

5.2 Operating Steps

Simply enter the device IP to directly enter the interface and start debugging.

Notes:

The default IP assignment method of this device is DHCP. If the device is not connected to a router, the initial IP is 169.254.X.X with a mask of 255.255.0.0. Set the computer's IP address to the same subnet as the device (i.e., IP: 169.254.X.X, mask: 255.255.0.0). The device IP can be viewed on the screen after power-on.

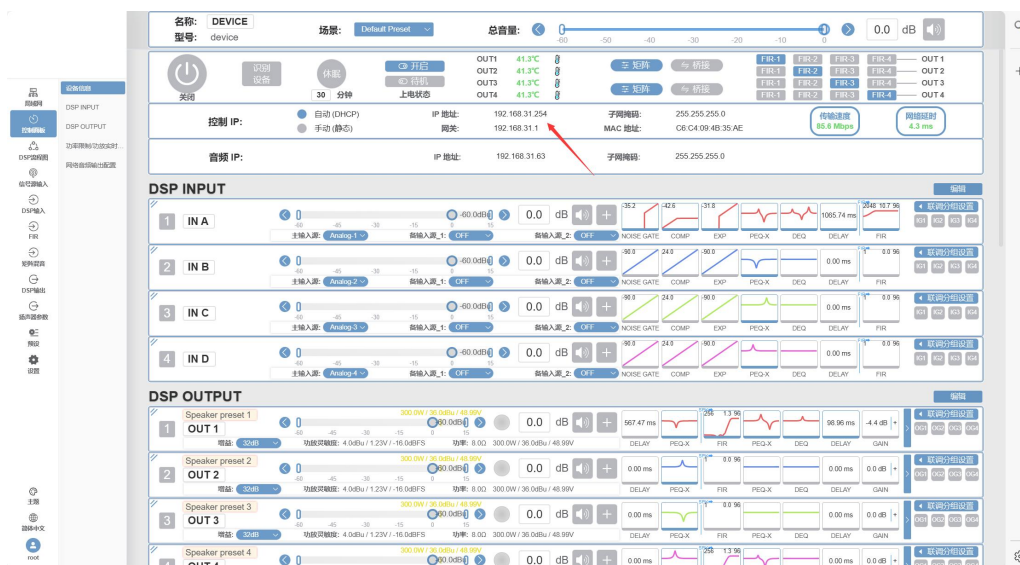


Figure 1.1

Chapter 6 WEB Interface Description

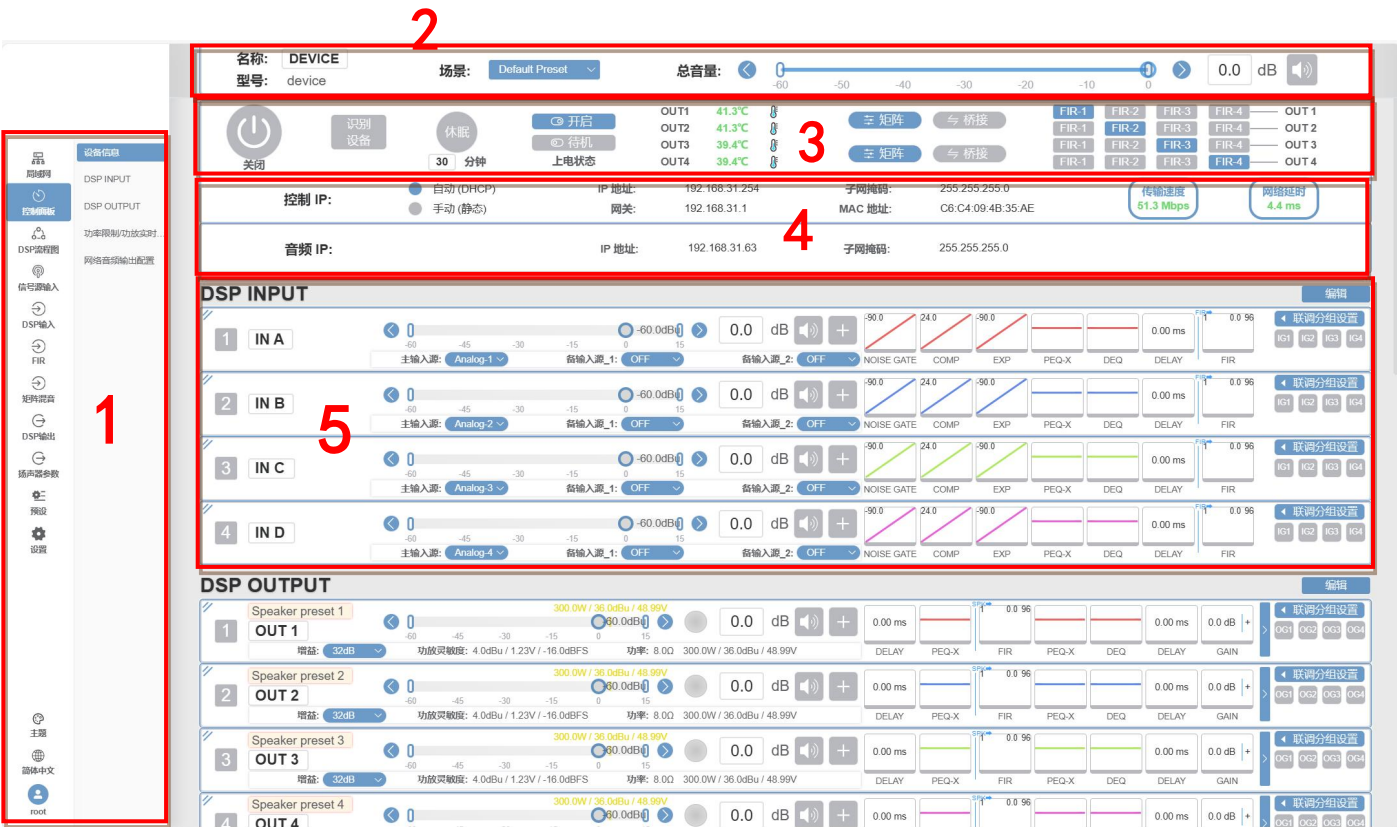


Figure 1.2

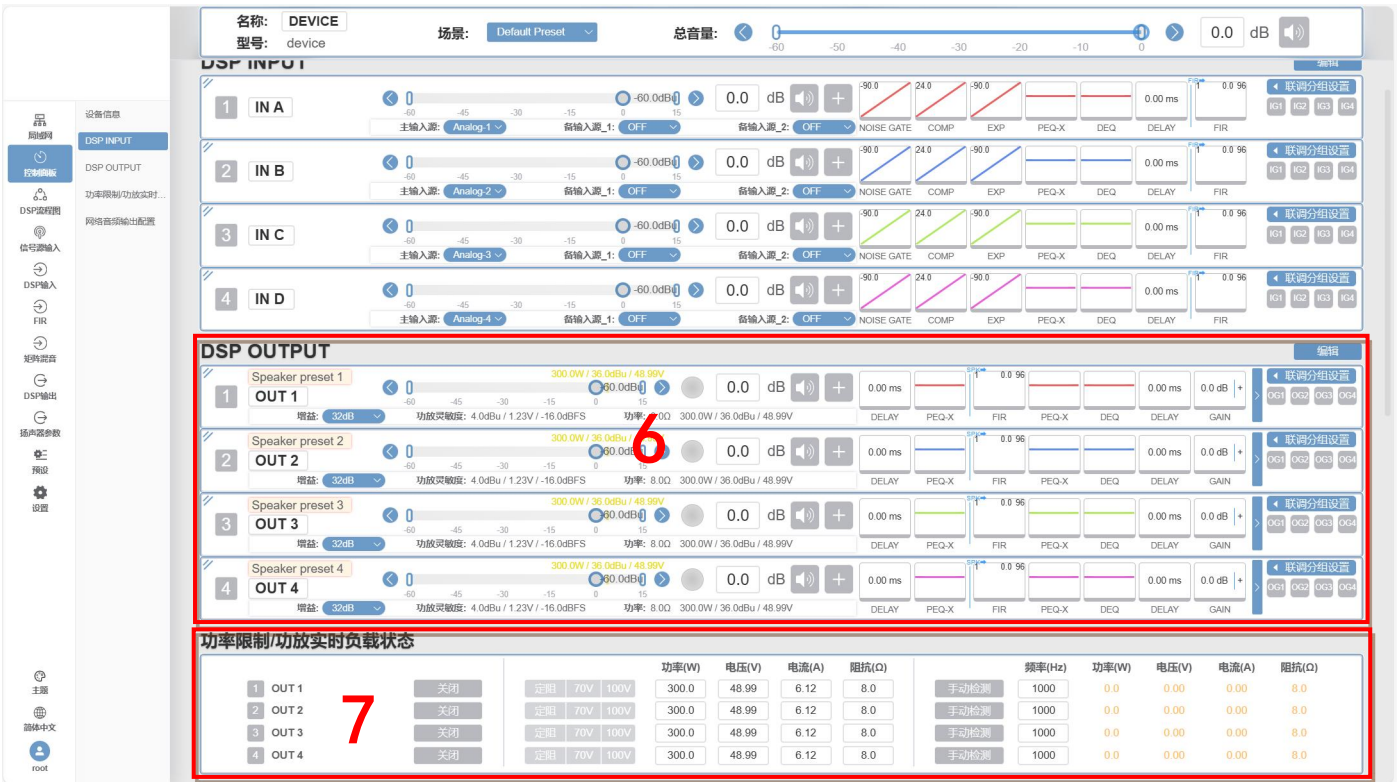


Figure 1.3

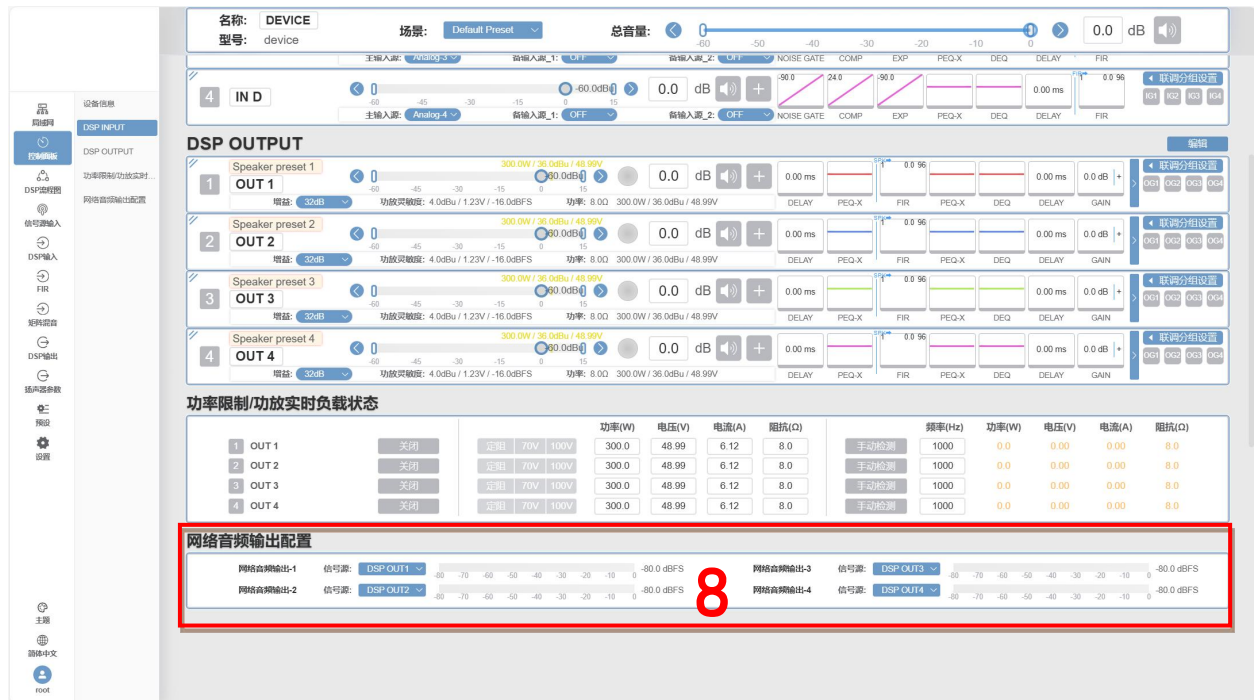


Figure 1.4

As shown in Figures 1.2, 1.3 and 1.4, the modules corresponding to the red text positions in the main software interface are as follows:

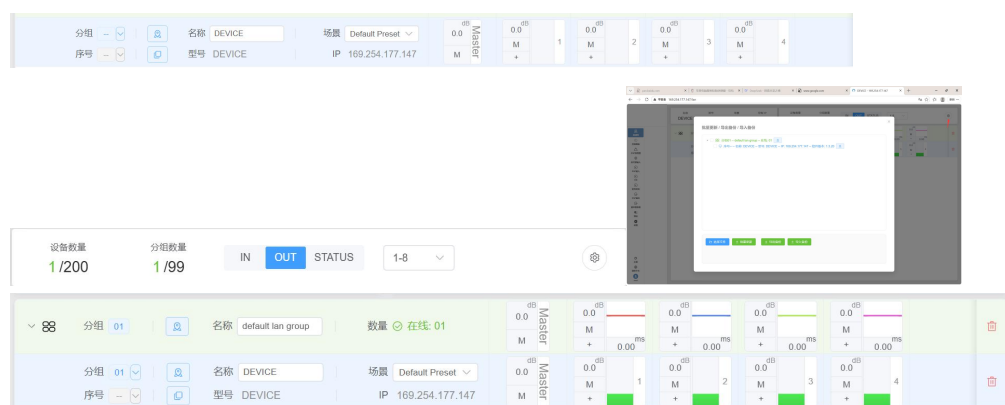
- (1) Menu Bar
- (2) Device name, current preset and master volume control
- (3) Amplifier status and matrix mixing settings
- (4) Local / network audio IP address
- (5) Input channel interface
- (6) Output channel interface
- (7) Amplifier limiting / amplifier real-time load status interface
- (8) Network audio output configuration

6.1 Local Area Network (LAN)

When multiple devices are connected to the same LAN, the LAN interface of the WEB interface shows all devices.

名称	型号	场景	控制 IP
DEVICE	DEVICE	Default Preset	169.254.177.1

presets.



6.2.1 Device Name, Current Preset and Master Volume



Figure 1.6

名称: **DEVICE**

型号: device

- ① As shown in Figure 1.6, click the device name to rename the device.
- ② Click Scene to quickly recall the preset you need.
- ③ Here you can adjust the master volume by sliding, mute or unmute the device directly, or enter the volume level in the text box.

场景: **Default Preset**

总音量:  0.0 dB 

6.2.2 Amplifier Status and Matrix Mixing Settings

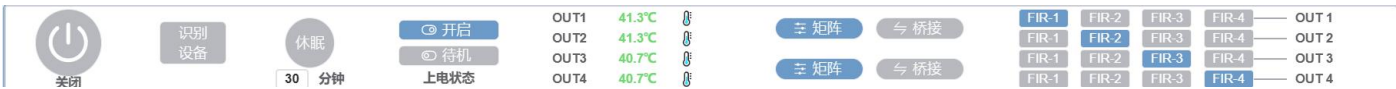
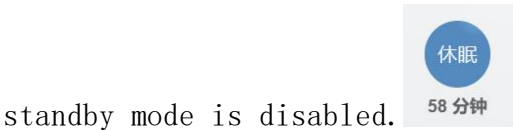


Figure 1.7

- ① As shown in Figure 1.7, click to switch the device between POWER ON and STANDBY. Gray indicates POWER ON state, and blue indicates STANDBY state.



- ② Click; blue and gray will alternately flash, causing the display and status LED of the connected device to flash, allowing you to quickly locate your connected device in the 'amplifier device stack'.



- ③ Click to set whether the device enters standby. The standby time can be set as desired. Blue indicates standby is enabled: if no signal is input within the set time, the amplifier will be muted, and it resumes when a signal is input. Gray indicates

- ④ You can select the power-on state; after selection, the device will directly switch to the selected state when the hard power



switch is turned on.

- ⑤ Here you can view the real-time temperature of each channel.

OUT1	41.3°C	
OUT2	41.3°C	
OUT3	40.7°C	
OUT4	40.7°C	

- ⑥ Click to quickly switch the operating mode. Two modes are available: Bridge and

Matrix.



6.2.3 Local/Network Audio IP Address

控制 IP:	☒ 自动 (DHCP) ☐ 手动 (静态)	IP 地址: 192.168.31.254 网关: 192.168.31.1	子网掩码: 255.255.255.0 MAC 地址: C6:C4:09:4B:35:AE	传输速度: 86.0 Mbps	网络延时: 5.6 ms
音频 IP:		IP 地址: 192.168.31.63	子网掩码: 255.255.255.0		

Figure 1.8

Figure 1.8 shows whether IP assignment is manual (static) or automatic (DHCP), as well as the network audio IP address. On the right, the transfer speed and network latency allow

you to monitor the stability of the network connection in real time.

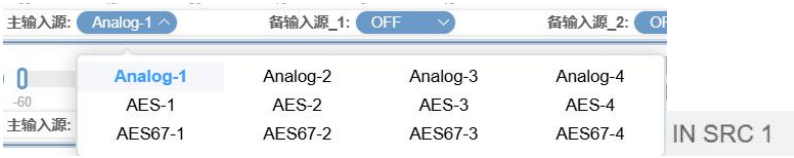
6.2.4 Input Channel Interface



Figure 1.9

Figure 1.9 shows the input channel list, where you can adjust phase, mute and volume, and which provides 3-backup function and channel coordinated-adjustment function. It can also display the name of the input signal.

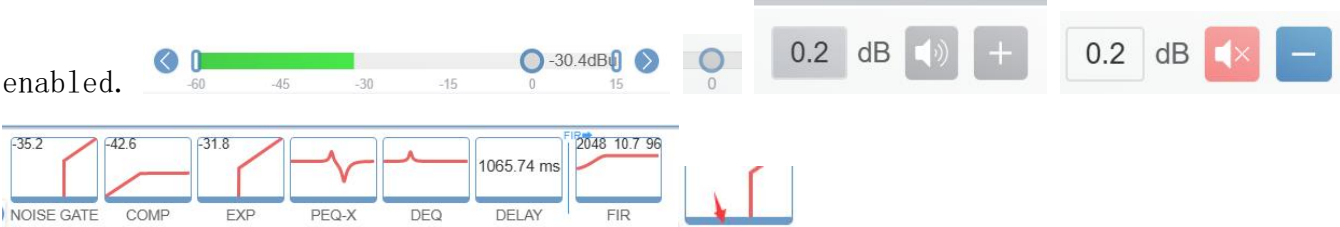
- ① Click to modify the channel name; Chinese and other characters are supported.
- ② Click Main/Backup audio source to select signal input from other channels. The name can be modified in the signal source input interface.



- ③ Here you can perform coordinated adjustment for DSP input groups. Clicking Coordinated Adjustment Group Settings also lets you select the parameters to adjust for



- ④ Here you can see the level of the input signal. The circle represents the channel gain; slide left/right to adjust the volume. You can also set the channel volume, mute and phase here. Gray indicates unmuted and positive phase, red indicates muted, and blue indicates inverted phase. The DSP input parameters can be displayed here; clicking a module jumps directly to the parameter setting interface, where blue indicates the function is



6.2.5 Output Channel Interface



Figure 1.10

Figure 1.10 shows the output channel list, where you can adjust phase, mute and volume, set gain, and use the DSP output grouped coordinated-adjustment function. It can also display the level of the output signal.

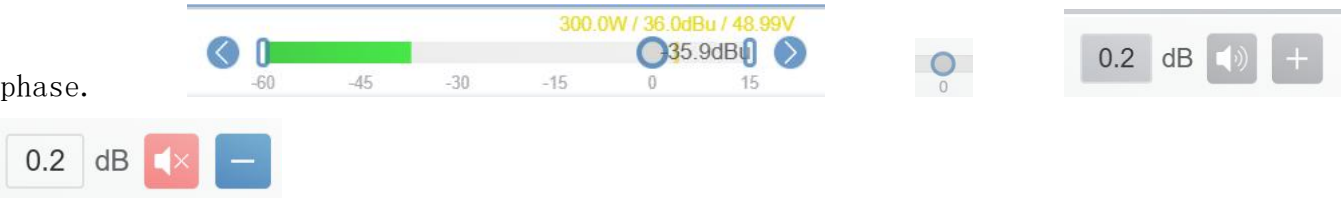
① Click to modify the channel name; Chinese and other characters are supported. **OUT 1**

② Click Gain; the gain range is 26~44 dB. The amplifier sensitivity varies with the gain setting, and three unit conversions are available. This area displays the limiting power set for the current channel, along with the corresponding voltage and level; it lights up yellow when limiting is active. The red part of the level bar represents the amount of compression, the specific value of which can be seen in the red text below. The yellow part on the level bar indicates the position of the currently set limiting value on the bar, with the specific parameter displayed above the level

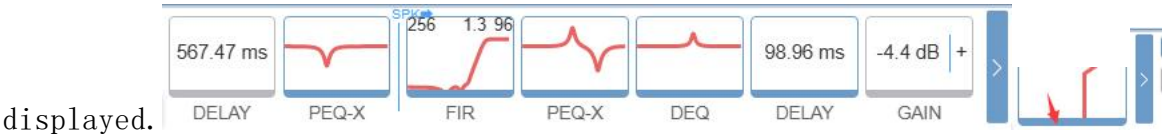


③ Here you can perform grouped coordinated adjustment (coordinated adjustment of DSP outputs). Clicking Coordinated Adjustment Group Settings also lets you select the parameters to adjust for different groups.

④ Here you can see the level of the output signal. The circle represents the channel gain; slide left/right to adjust the volume. You can also set the volume, mute and phase of the DSP output channel here. Gray indicates unmuted and positive phase, red indicates muted, and blue indicates inverted



The DSP output parameters and speaker parameters can be displayed here. Clicking a module jumps directly to the parameter setting interface, where blue indicates the function is enabled. Click this to view other speaker parameters that are not



6.2.6 Power Limiting / Amplifier Real-time Load Status



Figure 1.11

As shown in Figure 1.11 above, you can select as needed. In matrix mode, the impedance can be set to a minimum of 4 Ω . If a 4 Ω speaker is connected, the impedance must be manually changed to 4 Ω so that the real-time power display works correctly. You can also quickly set constant-voltage 70V and 100V. Click Manual Test to output a sine wave, whose frequency can be set as desired. The real-time current and voltage can be monitored



6.2.7 Network Audio Output Settings

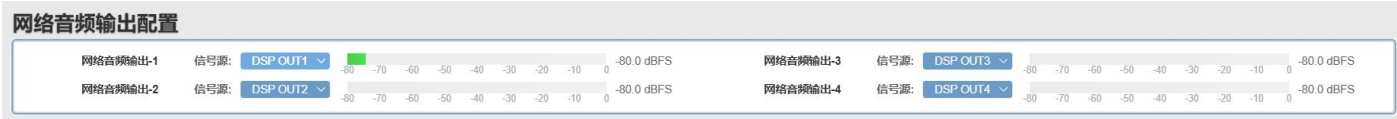


Figure 1.12

This is the transmitter for the AES67 signal. Click the signal source to select



different signals to transmit.

6.3 DSP Flowchart



Figure 1.13



Figure 1.14

Figures 1.13 and 1.14 are the flowcharts of the entire DSP amplifier. The flowchart also shows the setting of every device parameter. Clicking a DSP function module jumps to the specific location of the selected DSP function.

DEQ

6.4 Signal Source Input



Figure 1.15



Figure 1.16

The signal source interface includes analog input channels, AES input channels and AES67/DANTE input channels. All channel names can be modified, and the modified names are synchronized to the DSP input interface of the control panel. The gain can be adjusted here,

ranging from -15 to 15 dB, and the delay ranges from 0 to 20 ms.

6.5 DSP Input

6.5.1 Test Signal



Figure 1.17

Select Sine Wave, Pink Noise or White Noise in the input source, then set the corresponding parameters in the test signal settings according to your requirements to test the channel.

In the test signal generation settings, the gain value for generating each of the three test signals can be set. The switch button to the right of each test signal controls whether the test signal is active: blue indicates on, and gray indicates off. Additionally, the frequency of the sine wave can be set.

6.5.2 Noise Gate

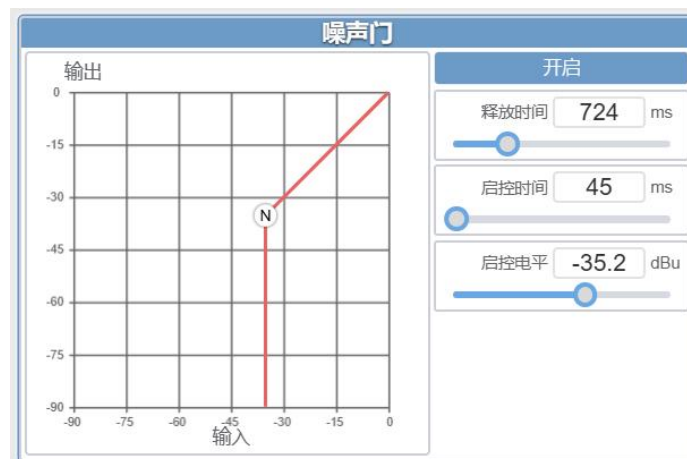


Figure 1.18

As shown in Figure 1.18 above, click the Noise Gate switch in the upper right corner to enable or disable the noise gate function for the channel input signal. Blue indicates on, and red indicates off. The attack time, release time and threshold are the parameters corresponding to the noise gate function; each can be adjusted by dragging the slider or

entering a value in the numeric box.



When the noise gate function is enabled, the point in the chart on the left can be dragged diagonally to adjust the values.



6.5.3 Compressor

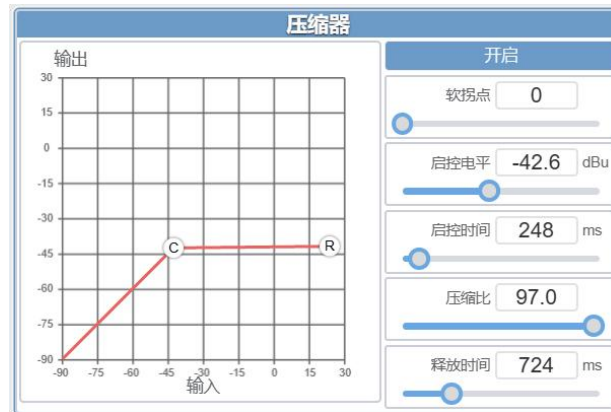


Figure 1.19

Soft Knee: With a soft knee, compression does not start abruptly at the set ratio once the signal reaches the threshold. Instead, there is a gradual transition region around the threshold within which the compression ratio changes gradually from 1:1 (i.e., no compression) to the set ratio.

Threshold: When the signal level exceeds this value, the compressor/limiter begins to reduce gain. Any signal exceeding the threshold is regarded as an overshoot signal and its level is normally reduced. The further the signal exceeds the threshold, the more its level is attenuated.

Compression Ratio: The ratio determines how much the overshoot signal is attenuated toward the threshold level. The smaller the compression ratio, the easier it is for the signal to exceed the threshold. Once the signal exceeds the threshold, the compression ratio determines the ratio between the change in the input signal and the change in the output signal. For example, with a compression ratio of 2:1, if the input signal exceeds the threshold by 2 dB, the portion of the output signal exceeding the threshold changes by only 1 dB. A compression ratio of 1:1 means the compressor does not attenuate the signal proportionally. The adjustable range of the compression ratio is 1 to 20.

Attack Time and Release Time: To preserve a natural onset, it is usually desirable that the initial portion of the level pass through the compressor unaffected (or only slightly affected). To achieve this, the compressor's reaction time must be slowed down. Likewise, if the signal gain drops rapidly by a large amount and recovers quickly, a pumping effect occurs. The compressor's attack time and release time are designed to avoid this. The attack

time determines how fast the gain reduction occurs, while the release time determines how fast the gain recovers.

Output Gain: Also called the gain compensation fader. If the compressor significantly reduces the signal level, you may need to increase the output gain to maintain the volume. This boost is applied uniformly to all parts of the signal, independent of the other compressor parameter settings.

6.5.4 Expander

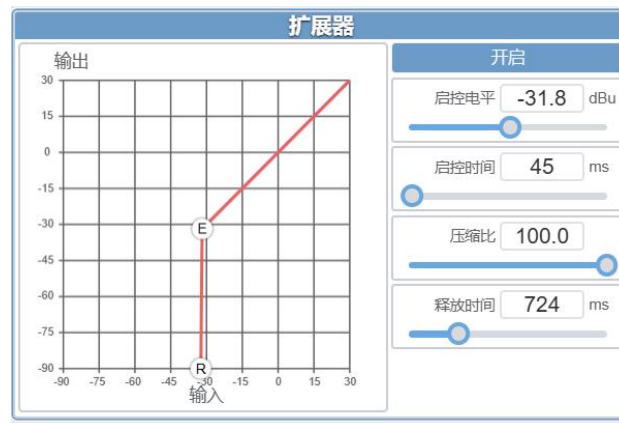


Figure 1.20

Threshold: The signal must exceed this level to open the expander (allow the signal to pass). In practice, it is generally set to the level of the ambient noise.

Attack Time: The duration of the input signal above the threshold required to open the expander. A faster attack time allows the expander to open more quickly on transients.

Compression Ratio: The slope of the gain curve below the threshold point. As the ratio is set higher, the action approaches that of a gate.

Release Time: The time required for the gain to recover to a value below the threshold after the input signal falls below the threshold.

6.5.5 PEQ / High-pass and Low-pass Filters



Figure 1.21

① The functions of the top buttons are as follows:

- Phase Curve: Displays the phase curve of the current channel.
- Show Control Points: Shows or hides all equalizer control points.
- All Bypass: Simultaneously enables or disables all equalizers (EQ) of the current channel.
- EQ Preset: Saves the current equalizer settings to the computer, and recalls to overwrite the existing equalizer parameters.
- Copy: Copies the current equalizer parameter values, which can be pasted to other input channels.
- Paste: Used together with the Copy button; pastes the equalizer parameter values copied by the Copy function into the current channel.
- Reset: Resets the equalizer parameters to their default values.

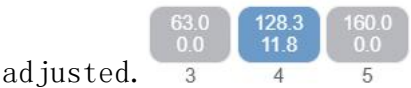
② Multi-channel EQ curve display



As shown in Figure 1.21 above, the switches at the top control the display of the EQ curve for each channel. When enabled, the curve of the corresponding channel is drawn in the EQ curve chart.

③ EQ controls

As shown in Figure 1.21 above, below the curve chart, all EQ controls and their detailed values are displayed, which can be used to locate the position of the controls. Combined with the EQ parameter adjustment items below, the parameter values of each EQ can be precisely



④ EQ parameter adjustment items



As shown in Figure 1.21 above, below the EQ controls are the EQ parameter adjustment

items, which precisely control parameters such as EQ on/off, type, frequency, Q value and gain.

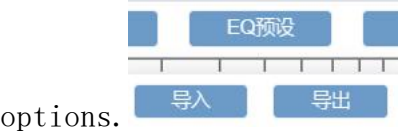
⑤ High-pass and low-pass filters

As shown in Figure 1.21 above, the high-pass or low-pass sections shown in the lower left and right corners control the on/off state, the frequency of the high-pass/low-pass



⑥ EQ preset button

As shown in Figure 1.21 above, clicking the EQ Preset button pops up the Import and Export



6.5.6 DEQ (Dynamic Equalizer)

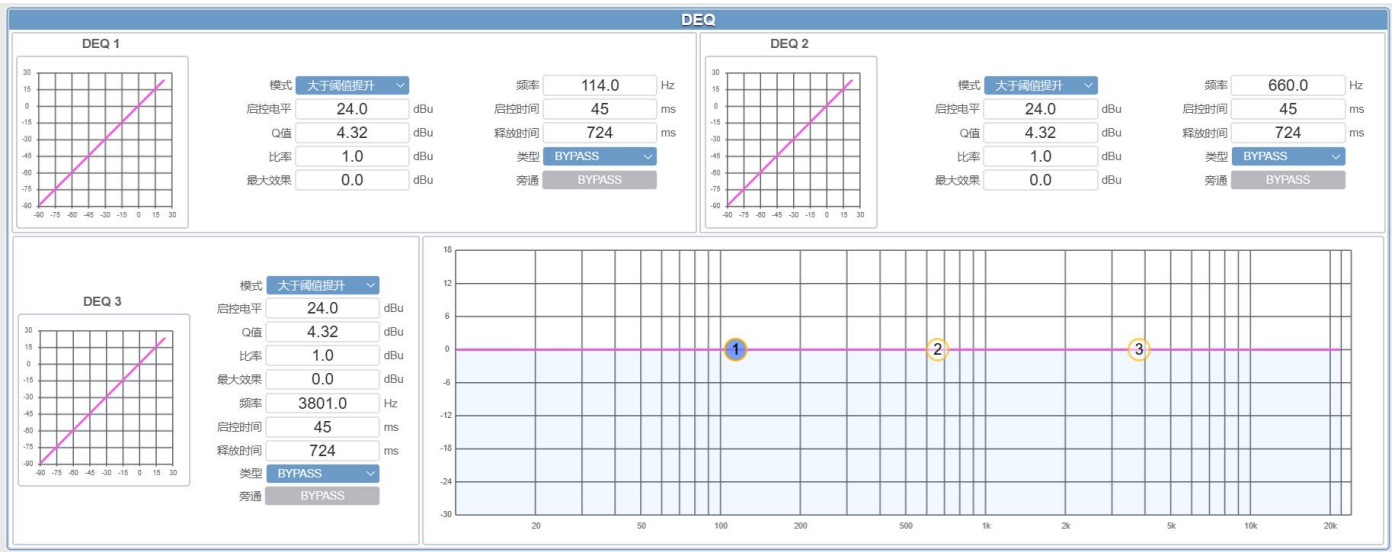
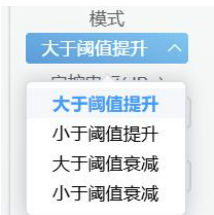


Figure 1.22

1. Click to switch freely between channels.
2. Four modes are supported: boost above threshold, boost below threshold, cut above threshold, and cut below threshold.



3. Click to turn off the DEQ function, cancel bypass, and enable the DEQ

function. 旁通 BYPASS

4. Threshold: -90~24dBu. When the signal at that frequency reaches the threshold value, the function takes effect.

Q Value: 0.27~15, the Q value range at the varying frequency point.

Ratio: 1~100, controls the adjustment proportion of the dynamic change; the larger the value, the more obvious the adjustment.

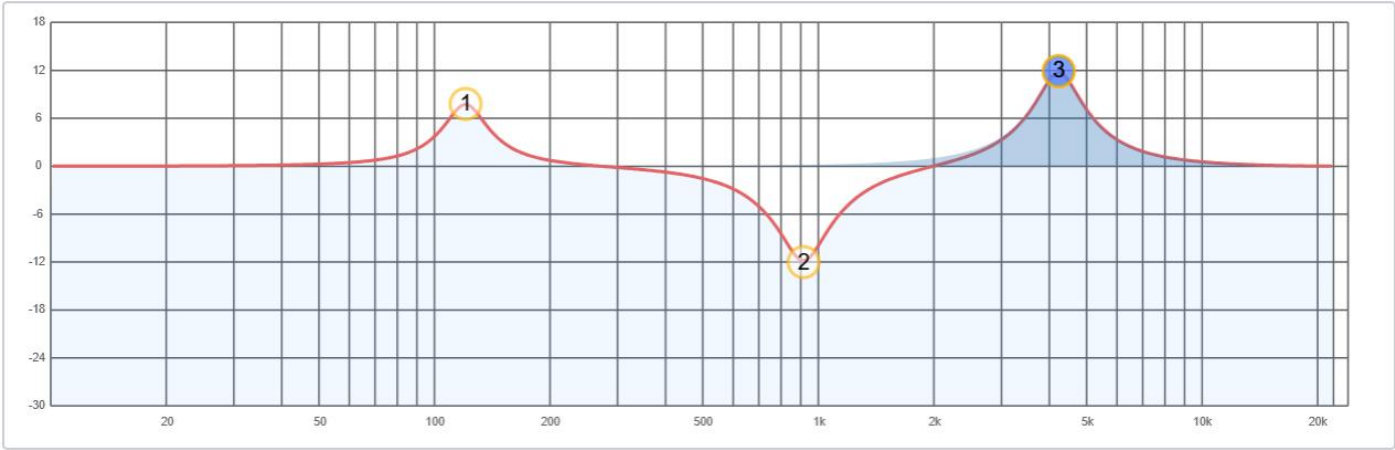
Maximum Effect: 0~12, the limit value for boosting or cutting according to the selected mode.

Attack Time: 1~2895, the delay before the boost or cut takes effect.

Frequency: Sets the center frequency point at which the effect takes place.

Release Time: The duration for which the effect continues.

The above are all DEQ parameters, which can be set by modifying the numeric boxes. The set parameters can be displayed in the curve. 114.0



6.5.7 Input Delay



Figure 1.23

As shown in Figure 1.23 above, the delay control contents of all input channels are listed. Drag the slider on the left to intuitively adjust the delay value of the corresponding channel, or enter the value in the numeric box. On the right is the on/off switch of the delay function: red indicates off and blue indicates on. The Reset button on the far right directly resets the channel delay to its default value. Meters and feet are both converted units of

milliseconds. 600.47 ms ↺

6.6 FIR



Figure 1.25

Import: Imports the curve set at 96K sampling rate into the device.

Export: Exports and saves the FIR curve.

Phase Curve: Can display the phase curve of the FIR.

Bypass: The default state is bypass. The curve takes effect only after bypass is turned off.

Clear: Clears the FIR curve.

6.7 Matrix Mixing



Figure 1.24

In the figure above, the right side corresponds to the output channels and the upper side corresponds to the input channels. The numeric boxes with values are the mixing buttons for input and output channels. When a mixing button is lit (double-click the numeric box to switch its state), the signals of that input channel and output channel are mixed.

The figure above includes the matrix mixing gain, Reset button and Clear button. Click a numeric box on the left, then drag the matrix mixing gain slider or enter a value in the numeric box to adjust the gain value of that matrix cell. Clicking the Reset button resets the matrix mixing function to the initial one-to-one state. Clicking the Clear button clears the entire matrix mixing function, leaving no correspondence between device inputs and outputs.

6.8 DSP Output

6.8.1 Delay



Figure 1.27

As shown in Figure 1.27 above, the delay control contents of all output channels are listed. Drag the slider on the left to intuitively adjust the delay value of the corresponding channel, or enter the value in the numeric box. On the right is the on/off switch of the delay function: red indicates off and blue indicates on. The Reset button on the far right directly resets the channel delay to its default value. Meters and feet are both converted units of milliseconds.

6.8.2 Output PEQ



Figure 1.26

① The functions of the top buttons are as follows:

Phase Curve: Displays the phase curve of the current channel.

Show Control Points: Shows or hides all equalizer control points.

All Bypass: Simultaneously enables or disables all equalizers (EQ) of the current channel.

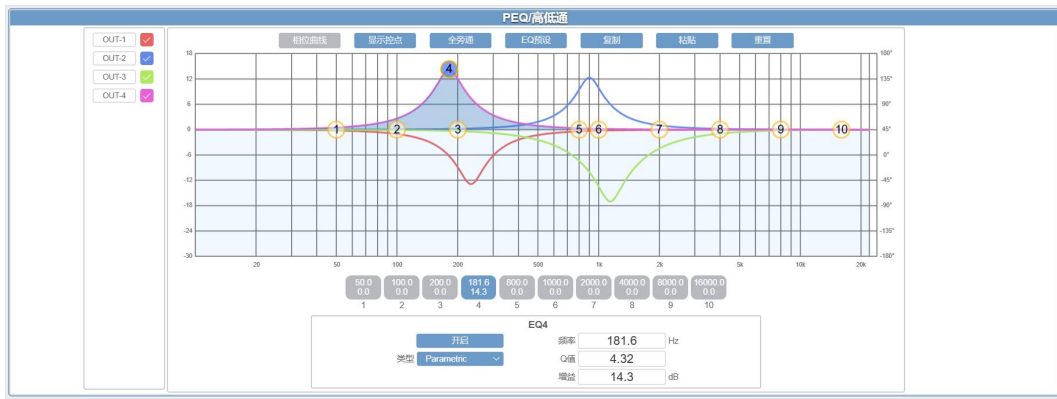
EQ Preset: Saves the current equalizer settings to the computer and recalls to overwrite the existing equalizer parameters.

Copy: Copies the current equalizer parameter values, which can be pasted to other input channels.

Paste: Used together with the Copy button; pastes the equalizer parameter values copied by the Copy function into the current channel.

Reset: Resets the equalizer parameters to their default values.

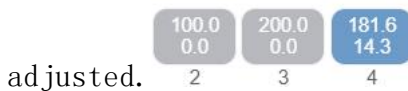
② Multi-channel EQ curve display



As shown in Figure 1.26 above, the switches at the top control the display of the EQ curve for each channel. When enabled, the curve of the corresponding channel is drawn in the EQ curve chart.

③ EQ controls

As shown in Figure 1.26 above, below the curve chart, all EQ controls and their detailed values are displayed, which can be used to locate the position of the controls. Combined with the EQ parameter adjustment items below, the parameter values of each EQ can be precisely



adjusted.

④ EQ parameter adjustment items



As shown in Figure 1.26 above, below the EQ controls are the EQ parameter adjustment items, which precisely control parameters such as EQ on/off, type, frequency, Q value and gain.

⑤ EQ preset button

As shown in Figure 1.26 above, clicking the EQ Preset button pops up the Import and Export



options.

6.9 Speaker Parameters

6.9.1 Speaker Parameters FIR

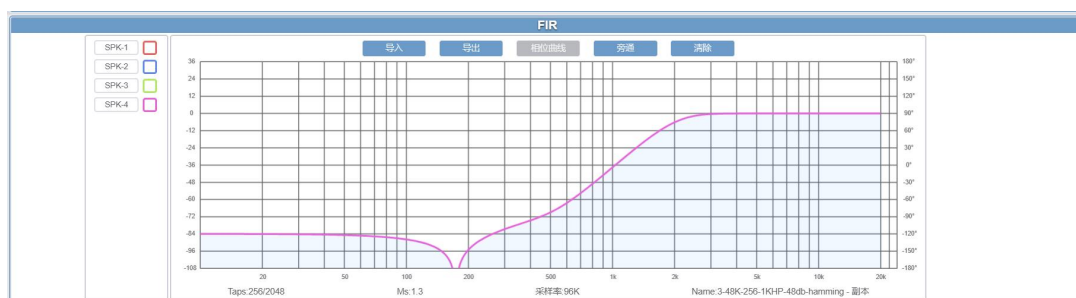


Figure 1.28

The function and operation are the same as in 6.7.

6.9.2 Speaker Parameters PEQ / High-pass and Low-pass Filters



Figure 1.29

The function and operation are the same as the input PEQ in 6.5.5.

6.9.3 Speaker Parameters Delay



Figure 1.30

The function and operation are the same as the input delay in 6.5.7.

6.9.4 Speaker Parameters Gain



Figure 1.31

Click here to modify the channel name. To change the gain, drag the scroll bar or enter a value in the text box. You can also set the phase and mute. This is the speaker parameter coordinated adjustment; its usage is the same as the DSP input and DSP output coordinated

adjustment. OUT SPK 4 -11.4 dB

6.9.5 Speaker Parameters Compressor

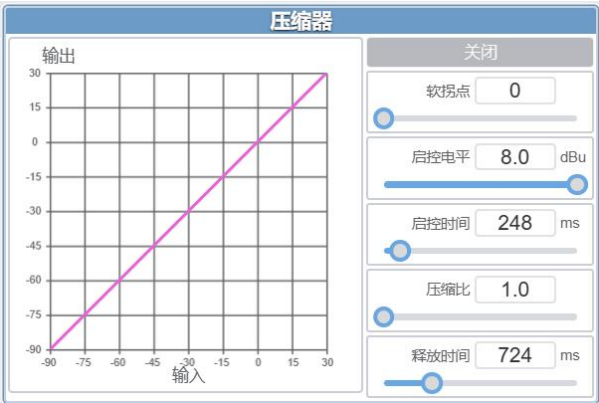


Figure 1.32

The function and operation are the same as the input compressor in 6.5.3.

6.9.6 Speaker Parameters Limiter

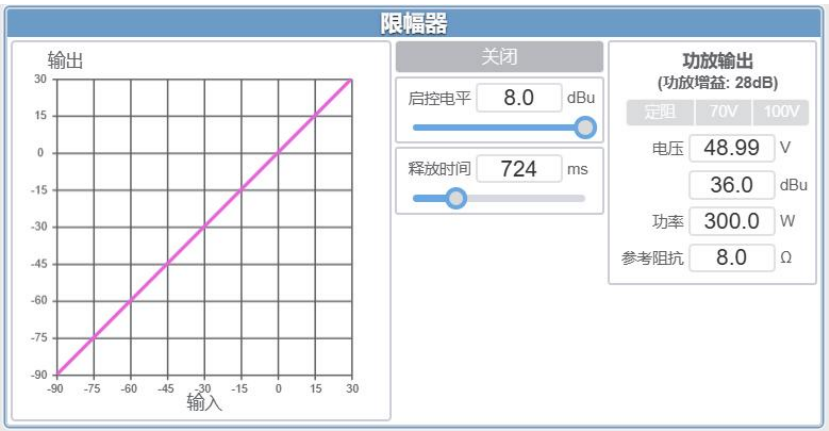


Figure 1.33

Threshold: When the signal level is below the threshold, the limiter does not process the signal and it passes normally. When the signal level reaches or exceeds the threshold, the limiter changes the signal amplitude according to its internal algorithm.

Release Time: The time required for the gain to recover to a value below the threshold after the input signal falls below the threshold.

6.10 Presets

6.10.1 Scene Presets



Figure 1.34

As shown in the figure above, the preset slots are on the left of the preset interface. '0 Auto' is a system preset slot that cannot be used directly. '1 (Default)' is the device's default preset; it can only be recalled, not deleted or overwritten, and recalling it restores all device parameters to the factory defaults. The other preset slots can be freely used for save, recall, delete and other operations.

The function buttons on the right side of the preset interface are as follows:

Save: Saves the current device parameters to the selected preset.

Recall: Recalls the selected preset into the current device parameters.

Delete: Deletes the selected preset parameters.

Clear: Clears all preset parameter records other than the system presets.

Set as Power-on Preset: Sets the selected preset slot as the preset that the device will automatically recall to operate on the next power-on.

Lock Preset: Sets a password to lock the saved preset.

Unlock Preset: Enter the set password to unlock the preset.

Import Preset: Imports a single device parameter file from the computer system, directly overwriting the existing parameter data.

Export Preset: Saves the current device parameters to the computer system, generating a single device parameter preset file.

Import Preset Package: Imports a parameter package containing multiple presets from the computer system.

Export Preset Package: Exports the parameters of all preset slots in the device presets to the computer system, generating a parameter package file with multiple presets.

6.10.2 Speaker Presets

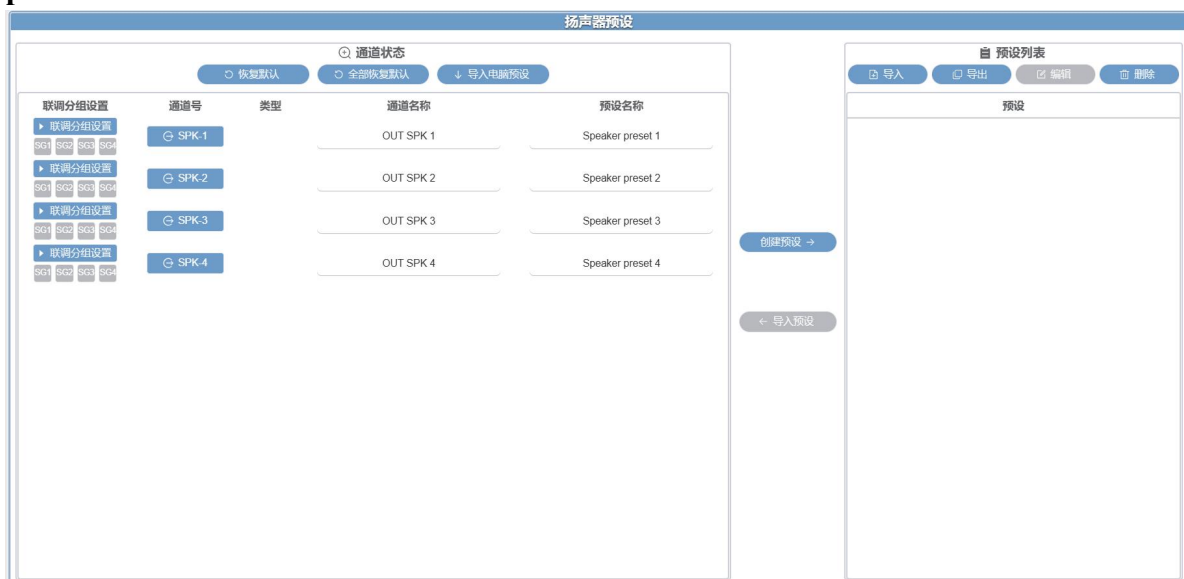


Figure 1.35

Restore Default: Select a channel to restore its default settings.

- Restore All Defaults: Restores all channels to their default settings.
- Create Preset: Select a channel to create, save data and protect data.
- Import Preset: Imports the configured preset into a channel.
- Import: Imports multiple preset files into the preset list at the same time.
- Export: Exports the saved speaker presets; multiple presets can be selected for export.
- Edit: Click the preset to be edited. Edit the required functions and modify the protection state.
- Delete: Deletes an existing preset.

6.11 Settings

6.11.1 Device Information



Figure 1.36

In Figure 1.36, you can modify the device name and view the program version and other information. In Backup, select the information to be backed up, then click Export after checking the items. Import Backup imports a previously exported backup file into the device. Update is the program upgrade: after importing the program, when the upload progress reaches 100%, wait about 5 seconds and the device will upgrade successfully and restart



automatically.

6.11.2 Network Information



Figure 1.37

The figure above allows you to set the device to DHCP or a static IP. In DHCP mode, the device must be connected to a router that can assign IP addresses; if it is not connected, the system automatically assigns a local IP of 169.254.X.X. After any modification, you must click Update for the change to take effect.

6.11.3 Security Settings

Figure 1.38

Figure 1.38 shows the three-level user, screen lock and verification code setting interface.

1. Among the three user levels, the root user has the highest privileges and can manage both admin and user accounts, while the admin user can also manage user accounts. The default user can be changed; each login is performed with the selected user. Blue indicates on and gray indicates off. When enabled, a password is required every time the WEB interface is opened. The default accounts are root/admin/user and the default password is 8888. If you need to change the account or password, you can modify and save them here. Personal information can be filled in here for future contact. Interface customization allows senior users to configure the interface for junior users. Editable interfaces have a green icon in the upper right corner; unchecking it hides the interface. After editing, click Confirm in the upper right corner of the web page

2. The password can only be four Arabic numerals, which helps prevent data leakage. If you need to cancel the screen lock after setting it, simply click Unlock. The default verification code password is 8888. When operating on the WEB interface, many operations require this

3. Identification Code: When a machine leaves the factory and has not had an identification code set, no lock icon is shown for the identification code. Once an identification code is set, an obvious lock icon can be seen. Machines without an identification code can freely transfer backups, presets or preset packages, EQ presets

and speaker parameters to each other without restriction.

Importing a backup file into another machine covers three cases:

Case 1: A backup file exported from a device without an identification code can be imported normally into a machine with an identification code. After the import is complete, if the backup file is exported again, it will then contain the identification code. (Note: In this case, only backups can be transferred. Presets or preset packages, EQ presets and speaker parameters require the same identification code to be transferred.)

Case 2: The target machine already has an identification code set, but it differs from the identification code in the backup file. Direct import will show a file format error. To transfer data, the identification codes of the two machines must be set to be the same.

Case 3: If a backup file without an identification code is imported into a device with an identification code, it also cannot be imported.

6.11.4 Gain Limiting

Figure 1.39

The figure above shows the upper and lower gain limits, including those for the input/output channels and the master volume. They can be changed to the desired gain ranges. The master volume gain ranges from a minimum of -60 dB to a maximum of 0 dB. The input/output channel gain ranges from a minimum of -60 dB to a maximum of 15 dB.

6.11.5 Network Drive

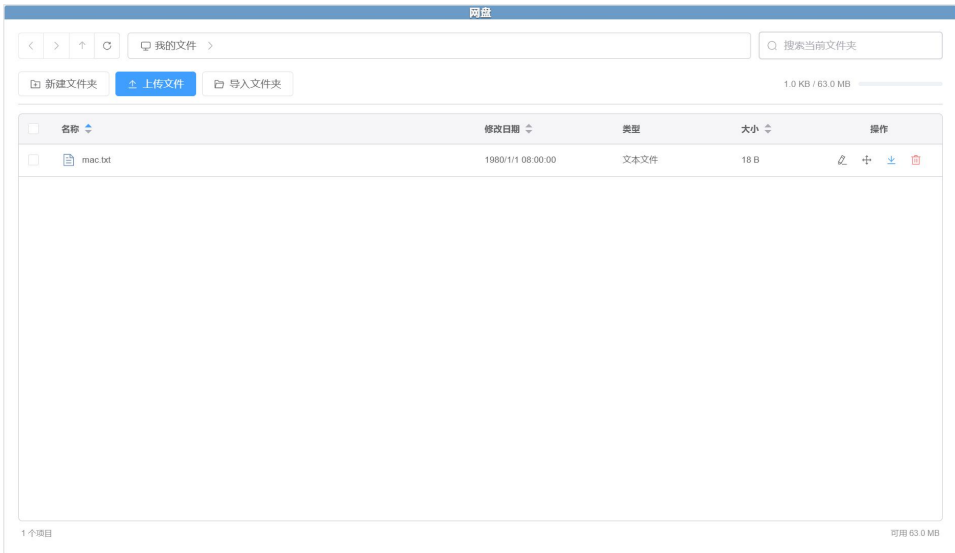


Figure 1.40

The network drive has a storage capacity of 63 MB, and a USB flash drive connected via the USB port shares the same storage as the network drive on the WEB interface.

6.11.6 GPIO

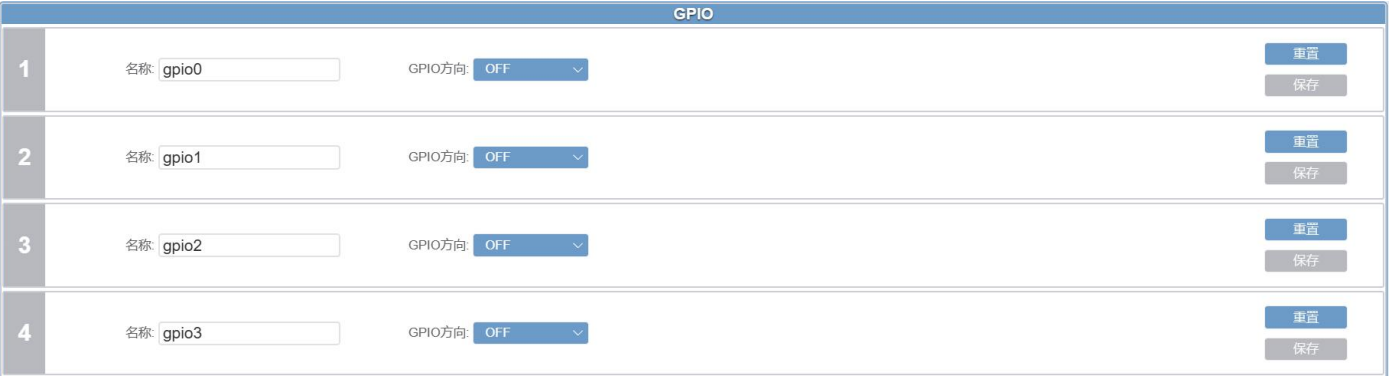


Figure 1.41

The device has four GPIO interfaces. Here you can set the name of each GPIO and the function of the interface. After setting, click Save.

Chapter 7 Application Introduction

7.1 Bridging Application Introduction

Wiring Diagram

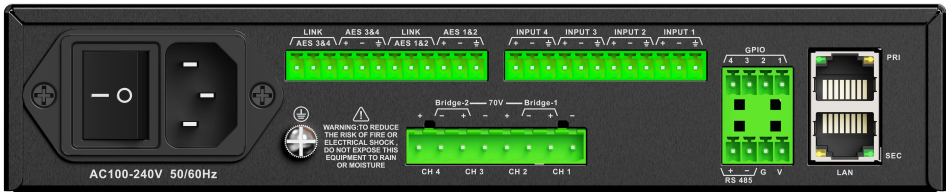


Figure 1-42

Multi-function Network DSP Power Amplifier

As shown in Figure 1-42, using the wiring of a constant-voltage speaker as an example, according to the silkscreen, connect the positive terminal of the speaker to '1+' of channel 1 on the output Phoenix terminal OUT1&2, and connect the negative terminal of the speaker to '2-' of channel 2 on the output Phoenix terminal OUT1&2. Similarly, channels 3 and 4 are connected in the same way. (Note: This model only supports constant-voltage 70V in bridge mode.)

WEB Configuration Diagram



Figure 1-42

After wiring is complete, select the corresponding channel in the WEB control panel interface and set it to bridge mode. Then configure it in 'Power Limiting / Amplifier Real-time Load Status' according to the speaker parameters.

