adertech

PAMP-170PROCD

2x35W Class D Audio Amplifier with Dante



User manual

VER 1.0

Thank you for purchasing this product

We have done everything possible to ensure that our equipment pleases our consumers. When solving any problems in the operation and connection ADERTECH equipment, it is best to contact authorized companies and specialists who work with our equipment. Our equipment is intended for professional use, so you have professional skills in using such equipment. ADERTECH is a manufacturer of a wide range of multimedia solutions.

Surge protection device recommended

This product contains sensitive electrical components that may be damaged by electrical spikes, surges, electric shock, lighting strikes, etc. Use of surge protection systems is highly recommended in order to protect and extend the life of your equipment.

Caution

The network cable connection method required for this product is direct connection. Please do not cross connect.

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1. Introduction

This product is designed as a two-channel amplifier using class D amplifier technology. It can be used for powering low impedance (4Ω/8Ω) stereo systems with a maximum power of 2x 35 Watts or 1x 70 Watts (Mono). It features Dante® 2-channel digital inputs and outputs, and 2-channel balanced or unbalanced analog inputs and outputs.
Analog input supports microphone input as well as 48V phantom power for condenser microphones. This product built-in audio DSP for gain, mixing, matrixing, equalizer, volume and delay control. This amplifier can be controlled via RS-232, TCP/IP and Web GUI. This product is suitable for a vast range of AV installations.

2. Features

☆ Advanced 70W Class-D audio amplifier with Dante® integration
☆ 2x 35W@4/8ohm, 1x 70W@4/8ohm
☆ Dante® 2x2 and AES67 audio input/output supported
☆ Balanced/unbalanced analog input and output for cascading connection
☆ Dante® 2CH digital audio, balanced or unbalanced line level analog and AMP outputs
☆ Supports microphone input with 48V phantom power
☆ Audio DSP processing includes gain, ducking, mixing, matrixing, equalizer, volume and delay control
☆ Audio output supports 8 band PEQ adjustment (with +15dB/-15dB gain), and a maximum of 50ms delay setting
☆ Auto standby mode (0~100 minutes can be set) with signal sensing
☆ Local 5-12V input trigger for disabling amplifier output
☆ Integrated web page function, which can control the local machine and query the working status of the product through the web page
☆ Supports network control function, slave devices in the same network segment can be controlled through the set host
☆ Dante audio support: 44.1kHz, 48kHz, 88.2kHz, and 96kHz sampling rates @ 16/24bit
☆ Dante audio delay supports settings of 2, 3, 4, 5 or 10ms
☆ Flexible control via front panel buttons, RS-232, TCP/IP and Web GUI
☆ Power via PoE or local DC power supply (Amplifier power limited when using PoE)

3. Package Contents

① 1x 2x35W Class D Audio Amplifier
② 2x 6pin-3.5mm Phoenix Connector (male)
③ 1x 5pin-3.5mm Phoenix Connector (male)
④ 1x 4pin-5.08mm Phoenix Connector (male)
⑤ 2x Mounting Ear
⑥ 4x Machine Screw
⑦ 1x 36V/2.5A Multinational Power Supply (1.5 meters)
⑧ 1x User Manual

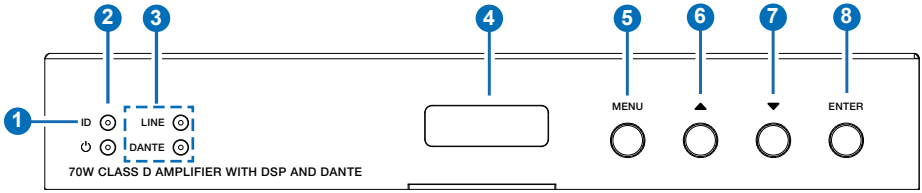
4. Specifications

Technical	
Network Bandwidth	100M
Audio Latency	Configurable Dante® device latency: (Supports 2, 3, 4, 5 or 10ms configurable using Dante Controller) Configurable AMP/analogue output latency: (0~50ms)
Output Power	2x35W@4/8ohm Stereo, 1x70W@4/8ohm Mono
Amplifier Type	Class D
Audio Format	Dante® [Dante/AES67 digital audio in/out, PCM 2CH 44.1K-96kHz 16/24Bit] LINE IN [Analog audio, Balanced/unbalanced, Max input level 24dBu] MIC IN [Analog audio, Balanced/unbalanced, Min input level -35dBV] LINE OUT [Analog audio, Balanced/unbalanced, Max output level 2V RMS] AMP OUT [Analog audio, Balanced 2CH, Max output power 2x35W @4/8ohm Stereo, 1x70W@4/8ohm Mono]
Line/Mic Input Audio	
Input Impedance	20K Ohm balanced 10K Ohm unbalanced
Input Level	Max 24dBu (12.28Vrms) @ balanced line audio Max 18dBu (6.14Vrms) @ unbalanced line audio Min -35dBV (17.78mVrms) @ balanced mic audio
Line Output Audio	
Output Impedance	600 Ohm balanced 300 Ohm unbalanced
Output Level	Max 2V RMS @ balanced audio Max 2V RMS @ unbalanced audio
Frequency Response	20Hz to 20kHz (-/+0.5dB)
Dynamic Range	>100dB@0dBu, 1kHzA-weighted
Audio S/N Ratio	>100dB@0dBu, 1kHzA-weighted
Audio THD+N	< 0.01% at +4dBu, 1KHz
Audio Output Delay	<1ms
Transmission Distance	328ft/100m (CAT6/6A/7)
ESD Protection	IEC 61000-4-2: ±8kV (Air-gap discharge) , ±4kV (Contact discharge)

Connection	
Input	1x MIC/LINE IN [6pin-3.5mm phoenix connector]
Output	1x LINE OUT [6pin-3.5mm phoenix connector] 1x 4/8Ω AMP OUT [4pin-5.08mm locking phoenix connector]
Control	1x RS-232 [3pin-3.5mm phoenix connector, API commands control] 1x TRIGGER [2pin-3.5mm phoenix connector, high/Low level configurable to disable amp out] 1x DANTE/IP [RJ45 connector, PoE+/PD (Class 8 IEEE 802.3bt)] [Dante/AES67, Web GUI and TCP/IP]
Mechanical	
Housing	Metal Enclosure
Color	Black
Dimensions	180mm [W]×118mm [D]×28mm [H]
Weight	670g
Power Supply	(1) 36V/2.5A 4PIN Locking Power Supply (2) PoE++ Type 4 Class 8
Power Consumption (Max)	94.6W (Test with 1k sine wave, audio amplifier output is connected to 4Ω resistance)
Operating Temperature	0°C ~ 40°C / 32°F ~ 104°F
Storage Temperature	-20°C ~ 60°C / -4°F ~ 140°F
Operating Humidity	20%~80% (relative humidity, non-condensing)
Storage Humidity	10%~90% (relative humidity, non-condensing)

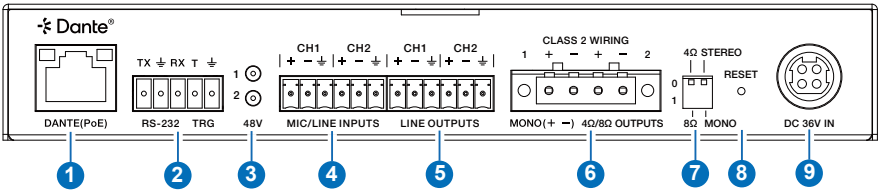
5. Operation Controls and Functions

5.1 Front Panel



No.	Name	Function Description
1	Power LED	▪ Green ON: The system is powered up (PoE or DC power supply). ▪ Red ON: The system is in standby mode. ▪ OFF: The system is powered off.
2	ID (show me) LED	This LED indicates the presence of the product. ▪ Flash: Device identification ▪ OFF: No device identification It can be controlled through Web GUI or API command. For example, when selecting the “On” option for “DANTE Identification” on the System page of the Web GUI, the ID (show me) LED on the front panel will flash, so that you can find the corresponding machine in the system.
3	LINE/DANTE LED	Input signal source indicators. When the DANTE or LINE IN port detects signal input, the corresponding green DANTE/LINE LED will be on.
4	LCD screen	The LCD screen displays the status information of the product. With menu buttons operation, the user can query the software version, or set the input gain, DHCP on/off, output audio volume.
5	MENU button	Used to query/set various function of the product, including input gain adjustment, network setting, output audio volume adjustment, software version query.
6	UP button	Press the UP button to select the previous item.
7	DOWN button	Press the DOWN button to select the next item.
8	ENTER button	Press the ENTER button to confirm and execute the operation.

5.2 Rear Panel



No.	Name	Function Description
1	DANTE port	Dante® network port, supporting PoE, with the following two functions: (1) Dante® audio input and output port. (2) Web GUI and TCP/IP control port.
2	RS-232/TRG port	RS-232: Serial control port, used for RS-232 signal pass-through or controlling this product via API commands.
		TRG: Trigger signal input port, effective at rising edge voltage and falling edge voltage. When the input trigger is detected, the amplifier will enter the protected mode (mute the audio). For details, please refer to the input trigger settings on the System page of Web GUI.
3	48V Phantom power LEDs	Two 48V Phantom power indicators. ▪ Green ON: Phantom power on. ▪ OFF: Phantom power off.
4	MIC/LINE INPUTS port	▪ LINE analogue audio input port, supporting balanced/unbalanced 2CH, with a Max input level of 24dBu. ▪ MIC analogue audio input port, supporting balanced/unbalanced 2CH, with a Min input level of -35dBV.
5	LINE OUTPUTS port	LINE analogue audio output port, supporting balanced/unbalanced 2CH, with a Max output level of 2V RMS.
6	AMP OUT port	Analogue audio output port, supporting balanced 2CH, with Max output power 2x35W@4/8ohm Stereo, 1x70W@4/8ohm Mono. 1+/1- and 2+/2- are for Low Impedance (4/8ohm) Stereo Speakers. 1+/1- is for Low Impedance (4/8ohm) Mono Speaker.
7	AMP output mode DIP switch	**Speaker Lo-Z Impedance Select:** Toggle up the left switch to connect the 4Ω speaker, or toggle down the left switch to connect the 8Ω speaker. **Speaker Lo-Z Connection Select:** Toggle up the right switch for stereo dual channel output, or toggle down for bridged mono output.
8	RESET button	▪ Short press this button to reset the product. ▪ Press and hold this button for 3 seconds to restore to factory default settings (excluding the network). ▪ Press and hold this button for 10 seconds to restore to factory default settings (including the network).
9	DC 36V IN	DC 36V/2.5A power input port.

6. Audio Amplifier Output

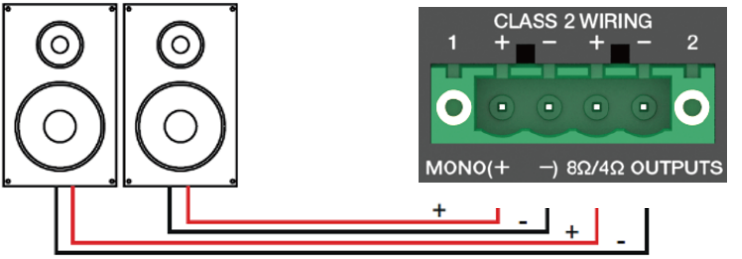
The audio amplifier can output the same power at both 4 ohms and 8 ohms. The amplifier output power varies depending on the input power supply or PoE adapter connected to it, it does this by adjusting the internal gain to allow you to get most of the amplifier. Please ensure that you select the correct impedance option via the speaker impedance selection switch on the rear of the device.

Power Source	4/8ohm Stereo	4/8ohm Mono
36V/2.5A DC	2x 35W	70W
PoE++ Type 4 Class 8	2x 25W	50W
PoE++ Type 4 Class 7	2x 20W	40W
PoE++ Type 3 Class 6	2x 15W	30W
PoE++ Type 3 Class 5	2x 10W	20W
PoE+ Type 2 Class 4	2x 5W	10W

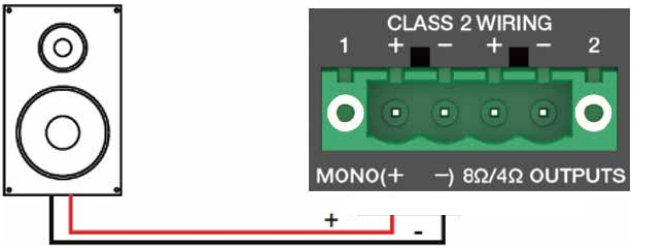
7. Speaker Connections

The audio amplifier only supports Low Impedance (4-8ohm) speakers. It is necessary to configure the Speaker Impedance Switch as well as wire up the speakers according to the specific speakers you are using. Wiring examples for each of the available configurations are as follows:

Low Impedance (4/8ohm) Stereo Speakers:
Speaker Lo-Z Impedance Select: [0] = 4Ω, [1] = 8Ω
Speaker Lo-Z Connection Select: [0] = STEREO



Low Impedance (4/8ohm) Mono Speaker:
Speaker Lo-Z Impedance Select: [0] = 4Ω, [1] = 8Ω
Speaker Lo-Z Connection Select: [1] = MONO

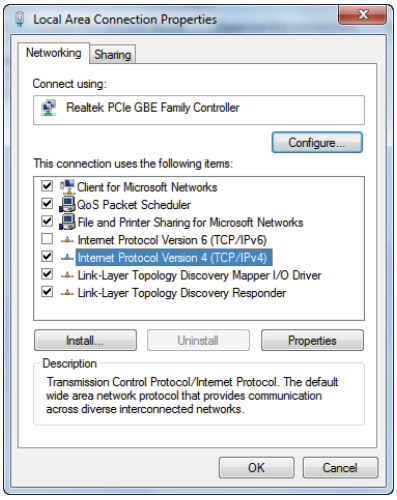


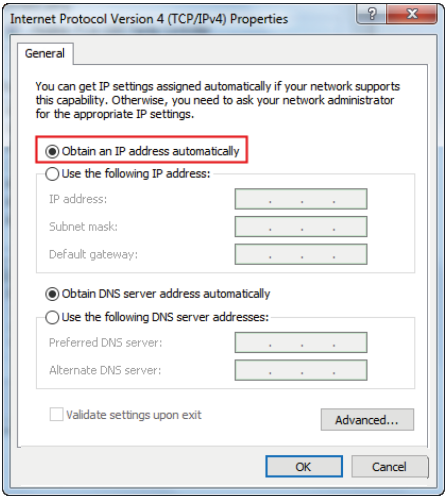
8. Dante® Web GUI User Guide

The audio amplifier can be controlled by the built-in Dante® Web GUI. The operation steps are as following.

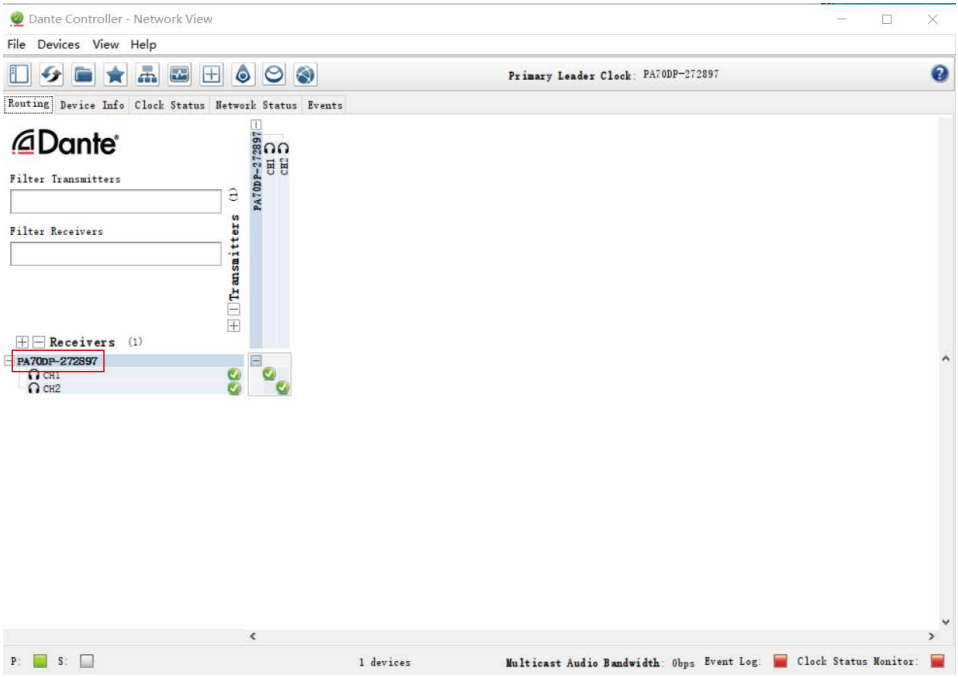
Step 1: Connect the DANTE port of the amplifier to the Ethernet Switch.

Step 2: Connect the PC to the same Ethernet Switch, and set the Network connection setting of PC to be “Obtain an IP address Automatically”.

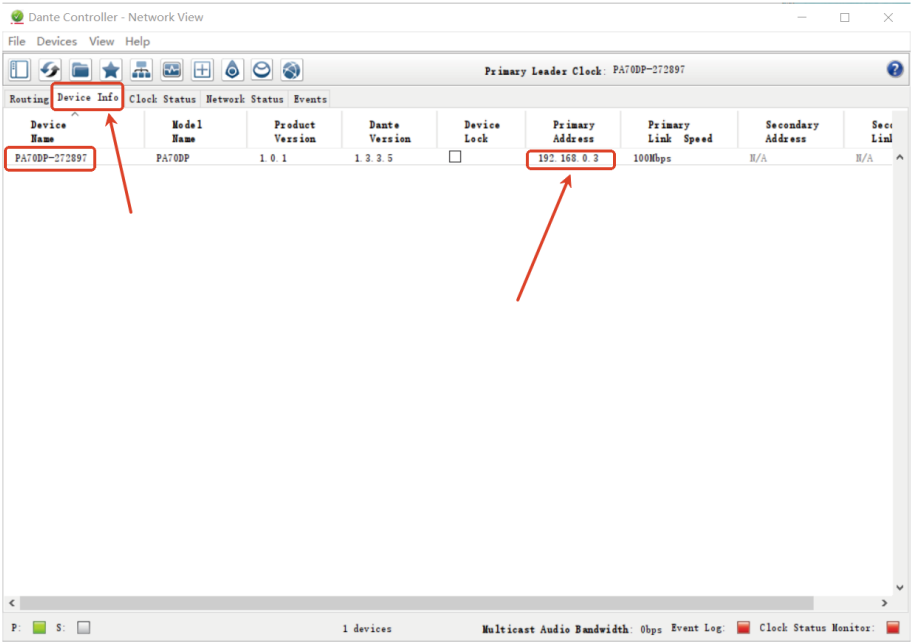




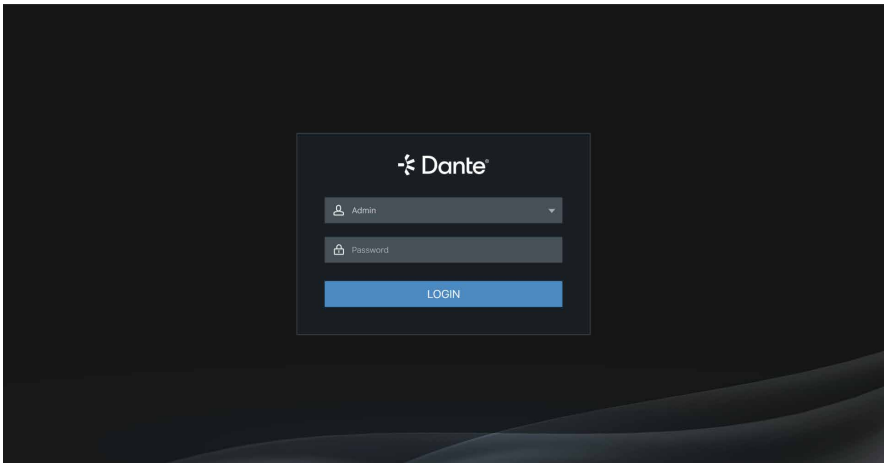
Step 3: Open the Dante® Controller software on the PC, and find the Dante® device on the Routing page, as shown in the figure below.



Step 4: Click the Device Info tab to check the IP address of the Dante® device.



Step 5: Input the IP address of Dante® device into your browser on the PC to enter the login interface of the Dante® Web GUI.

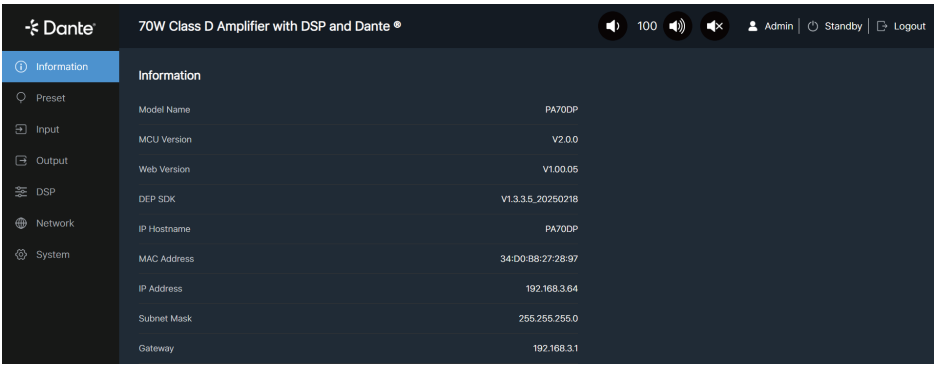


The default usernames and passwords are as below:

Username	Password
Admin	1234
User	1234

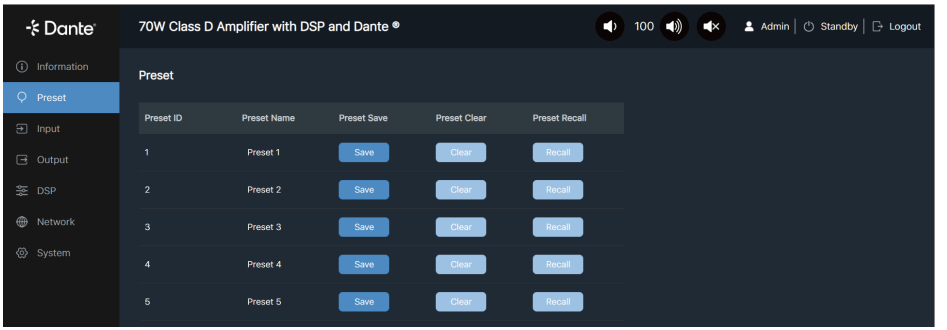
Step 6: Select the default username “Admin” and input the password “1234”, then click the “LOGIN” button to enter the Information page of Dante® Web GUI.

■ Information Page



The Information page provides basic information about the product, such as model name, MCU version, Web version, DEP SDK, IP Hostname and network configuration information.

■ Preset Page



Up to 5 preset scenes can be set on the Preset page.
① **Preset Name:** You can name the preset scene.
② **Preset Save:** Click the Save button to save the scene.
③ **Preset Clear:** Click the Clear button to clear the saved scene.
④ **Preset Recall:** Click the Recall button to recall the saved scene.

■ Input Page

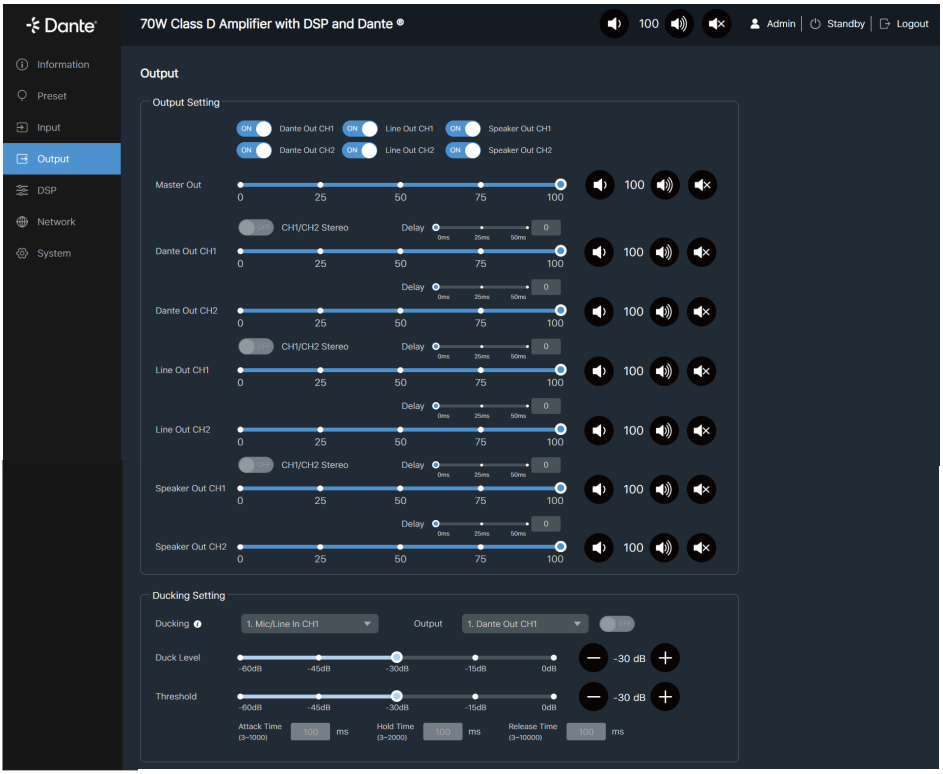


Input Setting

① **Dante In CH1/Dante In CH2:** You can respectively set the volume or mute/unmute the input audio for Dante In CH1/Dante In CH2. Besides, you can click the CH1/CH2 Stereo switch to turn on/off the stereo mode.

② **Mic/Line In CH1/Mic/Line In CH2:** You can respectively set the volume or mute/unmute the input audio for Mic/Line In CH1/Mic/Line In CH2. Besides, you can click the CH1/CH2 Stereo switch to turn on/off the stereo mode, click the drop-down list of CH1/CH2 Sensitivity to select the sensitivity value (+24dBu/+14dBu/0dBu/-18dBu/-35dBu), or click the Phantom Power switch to turn on/off the Phantom Power. When the Phantom Power switch is turned on, the Mic/Line In CH1/Mic/Line In CH2 port on the rear panel of the audio amplifier can supply power to the connected MIC.

■ **Output Page**



Output Setting

① **Master Out:** You can respectively set the output volume or mute/unmute the output audio for Dante Out CH1/Dante Out CH2/Line Out CH1/Line Out CH2/Speaker Out CH1/Speaker Out CH2, or set several/all of them together when turning on corresponding options synchronously.

② **Dante Out CH1/Dante Out CH2/Line Out CH1/Line Out CH2/Speaker Out CH1/Speaker Out CH2:** Click the CH1/CH2 Stereo switch to turn on/off the stereo mode. In addition, you can respectively set the delay, increase/decrease the audio or mute/unmute the audio.

Note: When the stereo mode is turned on, the CH1 and CH2 channels will not delay synchronously.

Ducking Setting

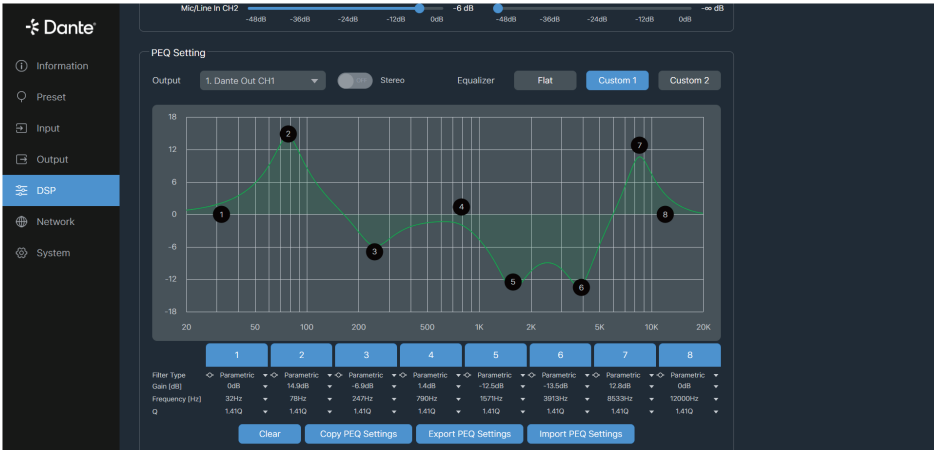
① **Ducking:** Click the drop-down list to select the ducking input channel. Clicking the switch can turn on/off the ducking function.
② **Output:** Click the drop-down list to select the output channel.
③ **Duck Level:** Click to set the ducking level.
④ **Threshold:** Click to set the threshold.
⑤ **Attack Time [3~1000]:** Input values to set the attack time.
⑥ **Hold Time [3~2000]:** Input values to set the hold time.
⑦ **Release Time [3~10000]:** Input values to set the release time.

■ DSP Page



Audio Matrix

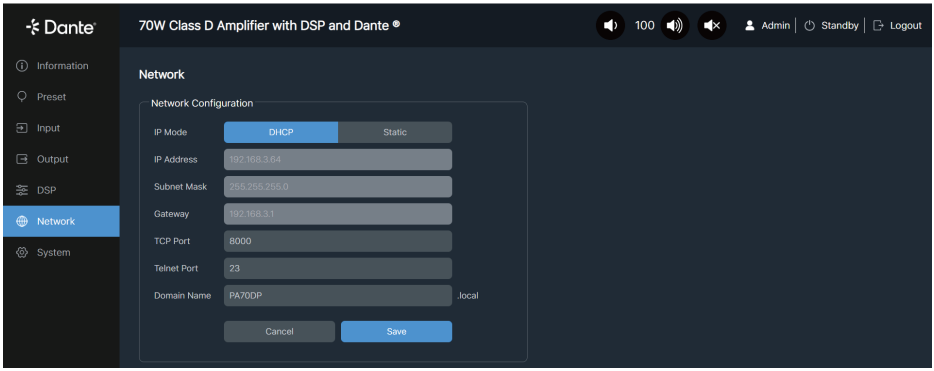
① **Inputs:** The product features four audio input channels (Dante In CH1/Dante In CH2/ Mic/Line In CH1/Mic/Line In CH2) and supports two channels of audio mixing (Mixer 1/2). Therefore, there are six audio signal sources for audio output channels (Dante Out CH1/ Dante Out CH2/Line Out CH1/Line Out CH2/Speaker Out CH1/Speaker Out CH2). One audio source can be selected by one or multiple output channels clicking the corresponding grid.
② **Outputs:** The product features six audio output channels (Dante Out CH1/Dante Out CH2/ Line Out CH1/Line Out CH2/Speaker Out CH1/Speaker Out CH2). Only one audio source can be selected for each audio output channel to perform one-to-one switching.
③ **All Outputs:** Select one audio input channel by clicking the corresponding grid, then the corresponding audio input source will be output through all output channels synchronously.
④ **Mixer 1/2:** Two channels of audio mixing (Mixer 1/2) are supported. You can respectively set the audio volume of Dante In CH1/Dante In CH2/Mic/Line In CH1/Mic/Line In CH2 to adjust the audio of Mixer 1/2, then click the corresponding grid to select one or multiple output channels to output the mixing audio.
⑤ **Legend:** The blue grid indicates that the corresponding input/output channel is selected; The grey grid indicates that the corresponding input/output channel is not selected.



PEQ Setting

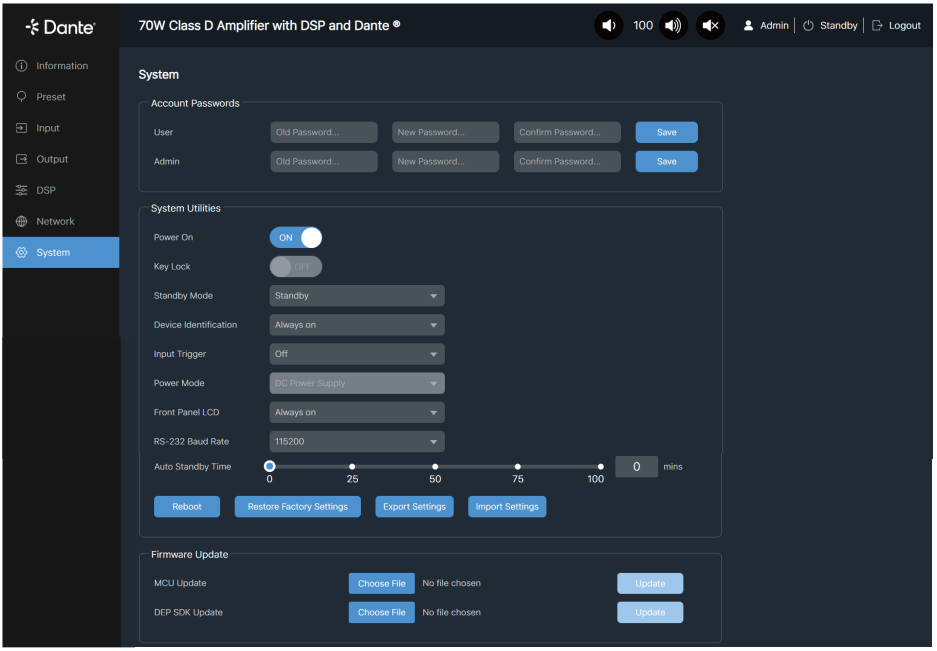
① **Output:** Click the drop-down list to select the output channel.
② **Stereo:** Click the switch to turn on/off the stereo mode.
③ **Equalizer:** Click the buttons to set the equalizer.
Flat: Set all EQ to 0db.
Custom1: Set EQ for custom 1.
Custom2: Set EQ for custom 2.
④ **1/2/3/4/5/6/7/8:** 8 band buttons of PEQ. Blue grid indicates that the corresponding band is selected, and then you can set the parameters for it. For example, you can click the drop-down icon to set the filter type, gain, frequency and Q value respectively.
⑤ **Clear:** Click the button to clear the settings.
⑥ **Copy PEQ Settings:** Click the button to copy PEQ settings.
⑦ **Export PEQ Settings:** Click the button to export PEQ settings.
⑧ **Import PEQ Settings:** Click the button to import PEQ settings.

■ Network Page



Network Configuration: Select to set the IP Mode (DHCP/Static). When Static is selected, you can manually set the IP Address, Subnet Mask and Gateway as required, then click “Save” to take effect. When DHCP is selected, the system will search and fill the IP Address with the one assigned by the router automatically.
In addition, you can set the TCP Port, Telnet Port and Domain Name.
Note: The Domain Name “PA70DP.local” can be used to login to the Dante® Web GUI.
After setting up, click “Save” to take effect, or you can click “Cancel” to cancel the setting.

■ System Page



Account Passwords: You can modify the login password for User and Admin. After setting up, click “Save” to take effect.

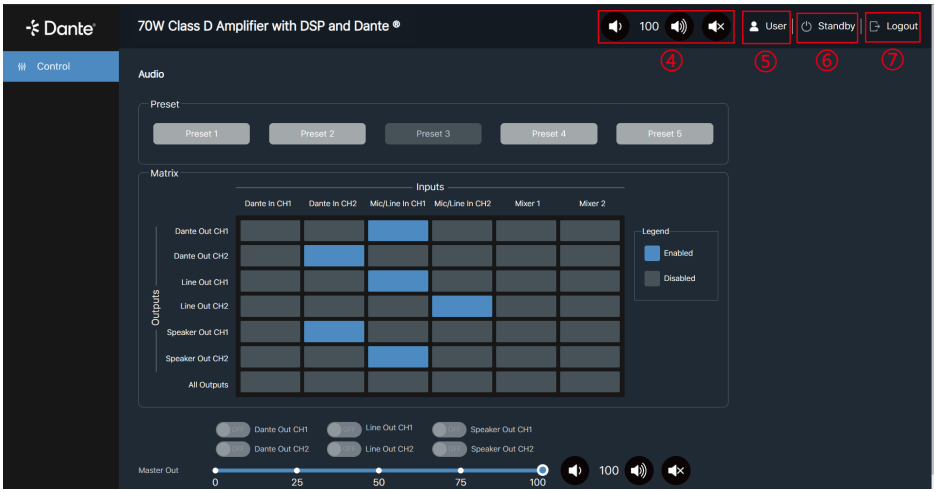
System Utilities

① **Power On:** Click the switch to power on/off the amplifier.
② **Key Lock:** Click the switch to lock/unlock the front panel buttons.
③ **Standby Mode:** Click the drop-down list to select the standby/sleep mode.
④ **Device Identification:** Click the drop-down list to set the display status of the ID LED on the front panel of the amplifier.
⑤ **Input Trigger:** Click the drop-down list to set the input trigger mode (Off/High Level/Low Level). If high level is set as the input trigger mode, when the TRG port of the audio amplifier detects a high level, the amplifier will enter the protected mode and mute the audio.
⑥ **Power Mode:** Click the drop-down list to set the power mode. When the audio amplifier is powered by DC, the Power Mode is fixed as “DC Power Supply” and no other modes can be selected. When the audio amplifier is powered by PoE, the two PoE modes are selectable and the default mode is PoE Class 0.
⑦ **Front Panel LCD:** Click the drop-down list to set the display time (Always on/Off/15s/30s/60s) of LCD on the front panel of the audio amplifier. When 15s/30s/60s is selected, the LCD will turn off after 15s/30s/60s if there is no operation.
⑧ **RS-232 Baud Rate:** Click the drop-down list to set the RS-232 baud rate.
⑨ **Auto Standby Time:** Drag the slider to set the auto standby time.
Reboot: Click this button to reboot the amplifier.
Restore Factory Settings: Click this button to restore the amplifier to factory settings.
Export Settings: Click this button to export configuration files.
Import Settings: Click this button to import configuration files.

Firmware Update: You can update the firmware. Click “Choose File” to select the update file, then click “Update” to start update. When the progress bar reaches 100%, the update is complete.

In the Login interface, select the username “User” and input the password “1234”, then click the “LOGIN” button to enter the User page.

■ **User Page**

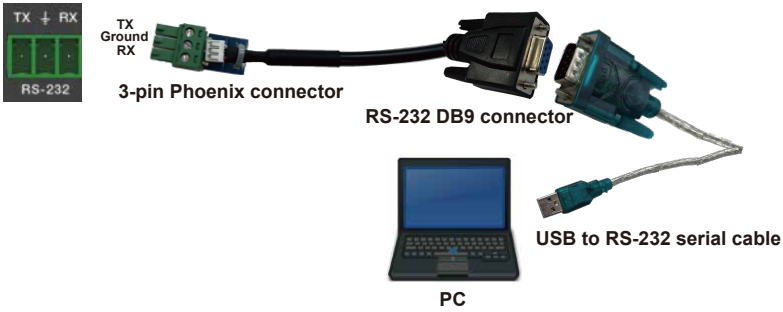


You can do the following operations on the User page:
① **Preset:** Recall the preset application scenes.
② **Matrix:** Set the audio matrix in the same way as the DSP page of Admin account.
③ **Master Out:** Set the audio volume or mute/unmute the audio for Master Out. You can turn on/off the switch of Dante Out CH1/Dante Out CH2/Line Out CH1/Line Out CH2/ Speaker Out CH1/Speaker Out CH2 to respectively set the output volume or mute/unmute the output audio.

Besides, you can do the following operations in the upper right corner of each page.
④ Display and set the audio volume of Master Out. Click the volume icons to increase/ decrease the audio volume of Master Out, or click the mute icon to mute/unmute the audio of Master Out. When muted, the mute icon displays red.
⑤ Display the current username (User or Admin).
⑥ Click the power icon to power on the switch or set it in standby mode.
⑦ Click the logout icon to logout and return to the login interface.

9. RS-232 Control Command

The product also supports RS-232 command control. Connect the RS-232 port of the product to a PC with a 3-pin phoenix connector cable and an RS-232 to USB cable. The connection method is as follows.



Then open a Serial Command tool on PC to send ASCII commands to control the product. The ASCII command list about the product is shown as below.

ASCII Command

Communication Protocol:
RS-232 Baud rate: 115200 (default), Data bits: 8bit, Stop bits:1, Parity bit: none
TCP/IP port: 8000

x - Parameter 1, y - Parameter 2

Command Code	Function Description	Example	Feedback	Default Setting
System Setting				
?	Get the list of all commands	?	List all API commands	
help	Get the list of all commands	help	List all API commands	
get type	Get device model	get type	PA70DP	
get status	Get device current status	get status	Please refer to the note at the end of the list.	
get fw version	Get firmware version	get fw version	GUI: V1.00.01 MCU: V2.0.0 DEP: V1.3.5_20250101	
set power on	Power on the device	set power on	Power on System Initializing... Initialization Finished! GUI: V1.00.01 MCU: V2.0.0 DEP: V1.3.5_20250101	
set power off	Power off the device	set power off	Power off	
get power	Get current power state	get power	power on /power off	
set reboot	Reboot the device	set reboot	Reboot… System Initializing... Initialization Finished! GUI: V1.00.01 MCU: V2.100 DEP: V1.3.5_20250101	
set reset	Reset system settings to default (Should type "Yes" to confirm, "No" to discard)	set reset	Sure to Reset System Settings To Default? Type "Yes" after next prompt to confirm…	
set reset all	Reset system and network settings to default (Should type "Yes" to confirm, "No" to discard)	set reset all	Sure to Reset System and Network Settings To Default? Type "Yes" after next prompt to confirm…	
set auto stb x	Set system auto standby time x=0: Auto standby off x=[1-100]: Auto standby time (mins)	set auto stb 10	Auto standby time: 10mins	10
get auto stb	Get system auto standby time	get auto stb	Auto standby time: 10mins	
set lcd on/off/15/30/60	Set LCD always on or auto turn off in power on state or turn on 15s/30s/60s	set lcd on set lcd off set lcd 15 set lcd 30	LCD: on LCD: off LCD: 15s	60s
get lcd	Get LCD on/off status	get lcd	LCD:60s	
set idled on/off/15/30/60	Set ID LED on or auto turn off in power on state or turn on 15s/30s/60s	set idled on set idled 15 set idled 30	ID LED: on ID LED:15s	off
set trigger on/off x	Set trigger on/off with trigger level:x x=0: Low Level (0V) Mute Output x=1: High Level (5-12V) Mute Output	set trigger on 1 set trigger off	Trigger on with high level Trigger off	off
get trigger	Get trigger on/off status	get trigger	Trigger on with high level	

Command Code	Function Description	Example	Feedback	Default Setting
set rsb x	Set serial port baud rate to xbps x=(115200,57600,38400,19200, 9600,4800)	set rsb 115200	Baud rate: 115200	115200
get rsb	Get serial port baud rate	get rsb	Baud rate: 115200	
set key lock on/off	Set front panel key lock on/off	set key lock off	Key lock: off	on
get key lock	Get front panel key lock on/off status	get key lock	Key: lock on	
set amp mode x	Set amplifier power mode:x x=1: PoE++ Type 4 Class 8 x=2: PoE++ Type 4 Class 7 x=3: PoE++ Type 3 Class 6 x=4: PoE++ Type 3 Class 5 x=5: PoE+ Type 2 Class 4	set amp mode 1 set amp mode 2	Error: AMP is DC power supply, adjusting the AMP power is invalid. AMP power mode: PoE Class 0	0
get amp mode	Get amplifier power mode	get amp mode	AMP power mode: PoE Class 0	
Input Setting				
set input x stereo on/off	Set input: x stereo mode on/off x=[0-2] 0: All Inputs, 1: Dante In CH1/2, 2: Mic/Line In CH1/2	set input 1 stereo on	Dante In CH1/2 stereo mode: on	Off
get input x stereo	Get input:x stereo mode on/off status x=[0-2] 0: All Inputs, 1: Dante In CH1/2, 2: Mic/Line In CH1/2	get input 1 stereo	Dante In CH1/2 stereo mode: on	
set input x gain y	Set input:x gain to y x=[0-4] 0: All Inputs, 1: Dante In CH1, 2: Dante In CH2, 3: Mic/Line In CH1, 4: Mic/Line In CH2 y=[-12~12]dB Input gain value, Step=0.1dB	set input 1 gain 10	Dante In CH1 gain: 10dB	0
get input x gain	Get input:x gain value x=[0-4] 0: All Inputs, 1: Dante In CH1, 2: Dante In CH2, 3: Mic/Line In CH1, 4: Mic/Line In CH2	get input 1 gain	Dante In CH1 gain: 10dB	
set input x sensitivity y	Set input:x sensitivity to y x=[3-4] 3: Mic/Line In CH1, 4: Mic/Line In CH2 y=[1-6] 1: +24dBu, 2: +14dBu, 3: +4dBu, 4: 0dBV, 5: -18dBV, 6: -35dBV	set input 3 sensitivity 1	Mic/Line In CH1 sensitivity: +24dBu	0dBV
get input x sensitivity	Get input:x sensitivity x=[3-4] 3: Mic/Line In CH1, 4: Mic/Line In CH2	get input 3 sensitivity	Mic/Line In CH1 sensitivity: +24dBu	
set input x phantom power on/off	Set input:x 48V phantom power on/off x=[3-4] 3: Mic/Line In CH1, 4: Mic/Line In CH2	set input 3 phantom power on	Mic/Line In CH1 phantom power: on	Off
get input x phantom power	Get input:x 48V phantom power status x=[3-4] 3: Mic/Line In CH1, 4: Mic/Line In CH2	get input 3 phantom power	Mic/Line In CH1 phantom power: on	

Command Code	Function Description	Example	Feedback	Default Setting
set input x gain+ set input x gain+y	Increase input:x gain by y x=[0-4] 0: All Inputs, 1: Dante In CH1, 2: Dante In CH2, 3: Mic/Line In CH1, 4: Mic/Line In CH2 y=[0.1-24]: Steps, y can be empty (Step=1dB)	set input 1 gain+ set input 1 gain+5	Dante In CH1 gain: 1dB Dante In CH1 gain: 5dB	
set input x gain- set input x gain-y	Decrease input:x gain by y x=[0-4] 0: All Inputs, 1:Dante In CH1, 2:Dante In CH2, 3:Mic/Line In CH1, 4:Mic/Line In CH2 y=[0.1-24]:Steps, y can be empty (Step=1dB)	set input 1 gain- set input 1 gain-5	Dante In CH1 gain: -1dB Dante In CH1 gain: -5dB	
set input x mute on/off	Set input:x mute on/off x=[0-4] 0: All Inputs, 1: Dante In CH1, 2: Dante In CH2, 3: Mic/Line In CH1, 4: Mic/Line In CH2	set input 1 mute on	Dante In CH1 mute: on	Off
get input x mute	Get input:x mute on/off x=[0-4] 0: All Inputs, 1: Dante In CH1, 2: Dante In CH2, 3: Mic/Line In CH1, 4: Mic/Line In CH2	get input 1 mute	Dante In CH1 mute: on	
Output Setting				
set master member <abcdef>	Set master output member (a/b/c/d/e/f=0-1) a/b/c/d/e/f=0: Exclude the member a/b/c/d/e/f=1: Include the member a: Dante Out CH1 b: Dante Out CH2 c: Line Out CH1 d: Line Out CH2 e: Speaker Out CH1 f: Speaker Out CH2	set master member <111111>	Master member: 111111	111111
get master member	Get master output member	get master member	Master member: 111111	
set master vol x set vol x	Set master output volume to x x=[0-100] volume value	set master vol 50 set vol 50	Master volume: 50	50
get master vol get vol	Get master output volume	get master vol get vol	Master volume: 50	
set master vol+ set vol+ set master vol+y set vol+y	Increase master output volume Increase master output volume by y y=[1-100]: Steps, y can be empty (Step=1dB)	set master vol+ set vol+ set master vol+5 set vol+5	Master volume: 51 Master volume: 51 Master volume: 55 Master volume: 55	
set master vol- set vol- set master vol-y set vol-y	Decrease master output volume Decrease master output volume by y. y=[1-100]: Steps, y can be empty (Step=1dB)	set master vol- set vol- set master vol-5 set vol-5	Master volume: 49 Master volume: 49 Master volume: 45 Master volume: 45	
set master mute on/off set mute on/off	Set master output mute on/of	set master mute on set mute on	Master mute: on	Off
get master mute get mute	Get master output mute on/off status	get master mute get mute	Master mute: on	

Command Code	Function Description	Example	Feedback	Default Setting
set output x stereo on/off	Set output:x stereo mode on/off x=[0-3] 0: All Outputs, 1: Dante Out CH1/2, 2: Line Out CH1/2, 3: Speaker Out CH1/2	set output 1 stereo on	Dante Out 1/2 stereo mode: on	Off
get output x stereo	Get output:x stereo mode on/off status x=[0-3] 0: All Outputs, 1: Dante Out CH1/2, 2: Line Out CH1/2, 3: Speaker Out CH1/2	get output 1 stereo	Dante Out 1/2 stereo mode: on	
set output x vol y	Set output:x volume to y x=[0-6] 0: All Outputs, 1: Dante Out CH1, 2: Dante Out CH2, 3: Line Out CH1, 4: Line Out CH2, 5: Speaker Out CH1, 6: Speaker Out CH2 y=[0-100] volume value	set output 5 vol 50	Speaker Out CH1 volume: 50	50
get output x vol	Get output:x volume value x=[0-6] 0: All Outputs, 1: Dante Out CH1, 2: Dante Out CH2, 3: Line Out CH1, 4: Line Out CH2, 5: Speaker Out CH1, 6: Speaker Out CH2	get output 5 vol	Speaker Out CH1 volume: 50	
set output x vol+ set output x vol+y	Increase output:x volume by y x=[0-6] 0: All Outputs, 1: Dante Out CH1, 2: Dante Out CH2, 3: Line Out CH1, 4: Line Out CH2, 5: Speaker Out CH1, 6: Speaker Out CH2 y=[1-100]: Steps, y can be empty (Step=1)	set output 5 vol+ set output 5 vol+5	Speaker Out CH1 volume: 51 Speaker Out CH1 volume: 55	
set output x vol- set output x vol-y	Decrease output:x volume by y x=[0-6] 0: All Outputs, 1: Dante Out CH1, 2: Dante Out CH2, 3: Line Out CH1, 4: Line Out CH2, 5: Speaker Out CH1, 6: Speaker Out CH2 y=[1-100]: Steps, y can be empty (Step=1)	set output 5 vol- set output 5 vol-5	Speaker Out CH1 volume: 49 Speaker Out CH1 volume: 45	
set output x mute on/off	Set output:x mute on/off x=[0-6] 0: All Outputs, 1: Dante Out CH1, 2: Dante Out CH2, 3: Line Out CH1, 4: Line Out CH2, 5: Speaker Out CH1, 6: Speaker Out CH2	set output 5 mute on	Speaker Out CH1 mute: on	Off

Command Code	Function Description	Example	Feedback	Default Setting
get output x mute	Get output:x mute on/off status x=[0-6] 0: All Outputs, 1: Dante Out CH1, 2: Dante Out CH2, 3: Line Out CH1, 4: Line Out CH2, 5: Speaker Out CH1, 6: Speaker Out CH2	get output 5 mute	Speaker Out CH1 mute: on	
set output x delay y	Set output:x delay:y x=[0-6] 0: All Outputs, 1: Dante Out CH1, 2: Dante Out CH2, 3: Line Out CH1, 4: Line Out CH2, 5: Speaker Out CH1, 6: Speaker Out CH2 y=[0-50]: Delay Time, Millisecond	set output 5 delay 50	Speaker Out CH1 delay: 50ms	0
get output x delay	Get output:x delay value x=[0-6] 0: All Outputs, 1: Dante Out CH1, 2: Dante Out CH2, 3: Line Out CH1, 4: Line Out CH2, 5: Speaker Out CH1, 6: Speaker Out CH2	get output 5 delay	Speaker Out CH1 delay: 50ms	
set output x duck on/off y lv a1 th a2 at t1 ht t2 rt t3	Set output:x ducking on/off (with source:y, level:a1, threshold:a2, attack time:t1, hold time:t2, release time:t3) x=[0-6] 0:All Outputs, 1:Dante Out CH1, 2:Dante Out CH2, 3:Line Out CH1, 4:Line Out CH2, 5:Speaker Out CH1, 6:Speaker Out CH2 y=[1-2] 1:Mic/Line In CH1, 2:Mic/Line In CH2 a1=[-60~0]: Duck level value (Step=1dB) a2=[-60~0]: Threshold value (Step=1dB) t1=[3-1000]: Attack time (Step=1ms) t2=[3-2000]: Hold time (Step=1ms) t3=[3-10000]: Release time (Step=1ms)	set output 1 duck off set output 2 duck on 1 lv -9 th -12 at 100 ht 1000 rt 100	Dante Out CH1 ducking: off Dante Out CH2 ducking: Mic/Line In CH1, duck level: -9dB, threshold: -12dB, attack time: 100ms, hold time: 1000ms, release time: 100ms	Off
get output x duck	Get output:x ducking status x=[0-6] 0: All Outputs, 1: Dante Out CH1, 2: Dante Out CH2, 3: Line Out CH1, 4: Line Out CH2, 5: Speaker Out CH1, 6: Speaker Out CH2	get output 1 duck get output 2 duck	Dante Out CH2 ducking: off Dante Out CH2 ducking: Mic/Line In CH1 with duck level: -9dB, threshold: -12dB, attack time: 100ms, hold time: 1000ms, release time: 100ms	

Command Code	Function Description	Example	Feedback	Default Setting
DSP Setting				
set output x from y set output x1 x2... from y	Set output:x from y1 y2... x=[0-6] 0: All Outputs, 1: Dante Out CH1, 2: Dante Out CH2, 3: Line Out CH1, 4: Line Out CH2, 5: Speaker Out CH1, 6: Speaker Out CH2 y=[1-6] 1: Dante In CH1, 2: Dante In CH2, 3: Mic/Line In CH1, 4: Mic/Line In CH2, 5: Mixer 1, 6: Mixer 2	set output 5 from 1 set output 5 6 from 1	Speaker Out CH1 from: Dante In CH1 Speaker Out CH1, Speaker Out CH2 from: Dante In CH1	
set output x remove from y set output x1 x2... remove from y	Set output:x remove from y1 y2... x=[0-6] 0: All Outputs, 1: Dante Out CH1, 2: Dante Out CH2, 3: Line Out CH1, 4: Line Out CH2, 5: Speaker Out CH1, 6: Speaker Out CH2 y=[1-6] 1: Dante In CH1, 2: Dante In CH2, 3: Mic/Line In CH1, 4: Mic/Line In CH2, 5: Mixer 1, 6: Mixer 2	set output 5 remove from 1 set output 5 6 remove from 1	Dante Out CH1 from: none Dante Out CH2 from: Mic/Line In CH2 Line Out CH1 from: none Line Out CH2 from: Mic/Line In CH2 Speaker Out CH1 from: Mixer 1 Speaker Out CH2 from: Mixer 2	
get output x from	Get output:x source from x=[0-6] 0: All Outputs, 1: Dante Out CH1, 2: Dante Out CH2, 3: Line Out CH1, 4: Line Out CH2, 5: Speaker Out CH1, 6: Speaker Out CH2	get output 5 from	Speaker Out CH1 from: Dante In CH1	
set mixer x from <y1 y2 y3 y4>	Set mixer:x from y1 y2 y3 y4 x=[0-2] 0:All, 1:Mixer 1, 2:Mixer 2 y1=[-48~0]dB for Dante In CH1 y2=[-48~0]dB for Dante In CH2 y3=[-48~0]dB for Mic/Line In CH1 y4=[-48~0]dB for Mic/Line In CH2 y1 y2 y3 y4 can be off (Step=1dB)	set mixer 1 from <-14 -14 -14 -14> set mixer 2 from <-14 off -14 off>	Mixer 1: <-14 -14 -14 -14> Mixer 2: <-14 off -14 off>	-∞dB
get mixer x from	Get mixer:x source from x=[0-2] 0:All, 1:Mixer 1, 2:Mixer 2	get mixer 0 from	Mixer 1: <-14 -14 -14 -14> Mixer 2: <-14 off -14 off>	
set output x eq preset y	Set output:x eq preset y x=[0-6] 0: All Outputs, 1: Dante Out CH1, 2: Dante Out CH2, 3: Line Out CH1, 4: Line Out CH2, 5: Speaker Out CH1, 6: Speaker Out CH2 y=[1-3] 1: Flat, 2: Custom1, 3: Custom2	set output 1 eq preset 2	Dante Out CH1 PEQ: Custom1	

Command Code	Function Description	Example	Feedback	Default Setting
get output x eq preset	Get output:x PEQ preset status x=[0-6] 0: All Outputs, 1: Dante Out CH1, 2: Dante Out CH2, 3: Line Out CH1, 4: Line Out CH2, 5: Speaker Out CH1, 6: Speaker Out CH2	get output 1 eq preset	Dante Out CH1 PEQ: Custom1	
set output x eq y on/off	Set output:x EQ index:y on/off x=[0-6] 0: All Outputs, 1: Dante Out CH1, 2: Dante Out CH2, 3: Line Out CH1, 4: Line Out CH2, 5: Speaker Out CH1, 6: Speaker Out CH2 y=[0-8]: EQ index 0:All	set output 1 eq 0 on	Dante Out CH1 EQ all: on	Off
get output x eq	Get output:x EQ on/off status x=[0-6] 0: All Outputs, 1: Dante Out CH1, 2: Dante Out CH2, 3: Line Out CH1, 4: Line Out CH2, 5: Speaker Out CH1, 6: Speaker Out CH2	get output 1 eq	Dante Out CH1 EQ all: on	
set output x eq stereo on/off	Set output:x EQ stereo mode (same EQ settings) on/off x=[0-3] 0: All Outputs, 1: Dante Out CH1/2, 2: Line Out CH1/2, 3: Speaker Out CH1/2	set output 1 eq stereo on	Dante Out CH1/2 EQ stereo mode: on	Off
get output x eq stereo	Get output:x EQ stereo mode (same EQ settings) on/off status x=[0-3] 0: All Outputs, 1: Dante Out CH1/2, 2: Line Out CH1/2, 3: Speaker Out CH1/2	get output 1 eq stereo	Dante Out CH1/2 EQ stereo mode: on	
set output x eq y typ t frq z val aa q bb	Set output:x EQ index:y TYP t to FRQ z VAL aa Q bb x=[0-6] 0: All Outputs, 1: Dante Out CH1, 2: Dante Out CH2, 3: Line Out CH1, 4: Line Out CH2, 5: Speaker Out CH1, 6: Speaker Out CH2 y=[0-8]: EQ index 0:All t=[1-5] 1: Parametric, 2: Lowpass, 3: Highpass, 4: Low Shelf, 5: High Shelf z=[20-20000]: Frequency value (Step=1Hz) aa=[-15~15]: Gain value (Step=0.1dB) bb=[0.02~16]: Q value (Step=0.01)	set output 1 eq 1 typ 1 frq 200 val -18 q 0.02	Dante Out CH1 EQ 1: Type: 3, Frequency: 200Hz, Value: -18dB, Q: 0.02	

Command Code	Function Description	Example	Feedback	Default Setting
get output x eq setting	Get output:x EQ index:y value x=[0-6] 0: All Outputs, 1: Dante Out CH1, 2: Dante Out CH2, 3: Line Out CH1, 4: Line Out CH2, 5: Speaker Out CH1, 6: Speaker Out CH2	get output 1 eq	Dante Out CH1 EQ 1: Type: 3, Frequency: 200Hz, Value: -18dB, Q: 0.02 2: Type: 1, Frequency: 500Hz, Value: 3dB, Q: 0.7 3: Type: 1, Frequency: 1000Hz, Value: 3dB, Q: 0.7 4: Type: 1, Frequency: 200Hz, Value: 3dB, Q: 0.7 5: Type: 1, Frequency: 5000Hz, Value: -3dB, Q: 0.7	
set output x eq clear	Clear output:x EQ setting x=[0-6] 0: All Outputs, 1: Dante Out CH1, 2: Dante Out CH2, 3: Line Out CH1, 4: Line Out CH2, 5: Speaker Out CH1, 6: Speaker Out CH2	set output 1 eq clear	Clear Dante Out CH1 EQ	
set output x eq copy to y	Set output:x EQ copy to y x=[1-6] 1: Dante Out CH1, 2: Dante Out CH2, 3: Line Out CH1, 4: Line Out CH2, 5: Speaker Out CH1, 6: Speaker Out CH2 y=[0-6] 0: All Outputs, 1: Dante Out CH1, 2: Dante Out CH2, 3: Line Out CH1, 4: Line Out CH2, 5: Speaker Out CH1, 6: Speaker Out CH2	set output 1 eq copy to 2	Set Dante Out CH1 EQ copy to Dante Out CH2	
Preset Setting				
set preset save x	Save the current unit's settings to the specified preset:x All settings except network setting. x=[1-5]: Preset 1 - Preset 5	set preset save 1	Save to preset 1	
set preset recall x	Recall preset:x into unit All settings except network setting. x=[1-5]: Preset 1 - Preset 5	set preset recall 1	Recall preset 1	
set preset clear x	Clear preset:x All settings except network setting. x=[1-5]: Preset 1 - Preset 5	set preset clear 1	Clear preset 1	
Network Setting				
get ipconfig	Get the current IP configuration	get ipconfig	IP mode: DHCP IP: 192.168.62.106 Subnet mask: 255.255.255.0 Gateway: 192.168.62.1 TCP/IP port: 8000 Telnet port: 23 MAC: 6C:DF:FB:0C:B3:8E (Static: 169.254.100.200 255.255.0.0 169.254.100.1)	
get mac addr	Get network MAC address	get mac addr	MAC: 6C:DF:FB:0C:B3:8E	

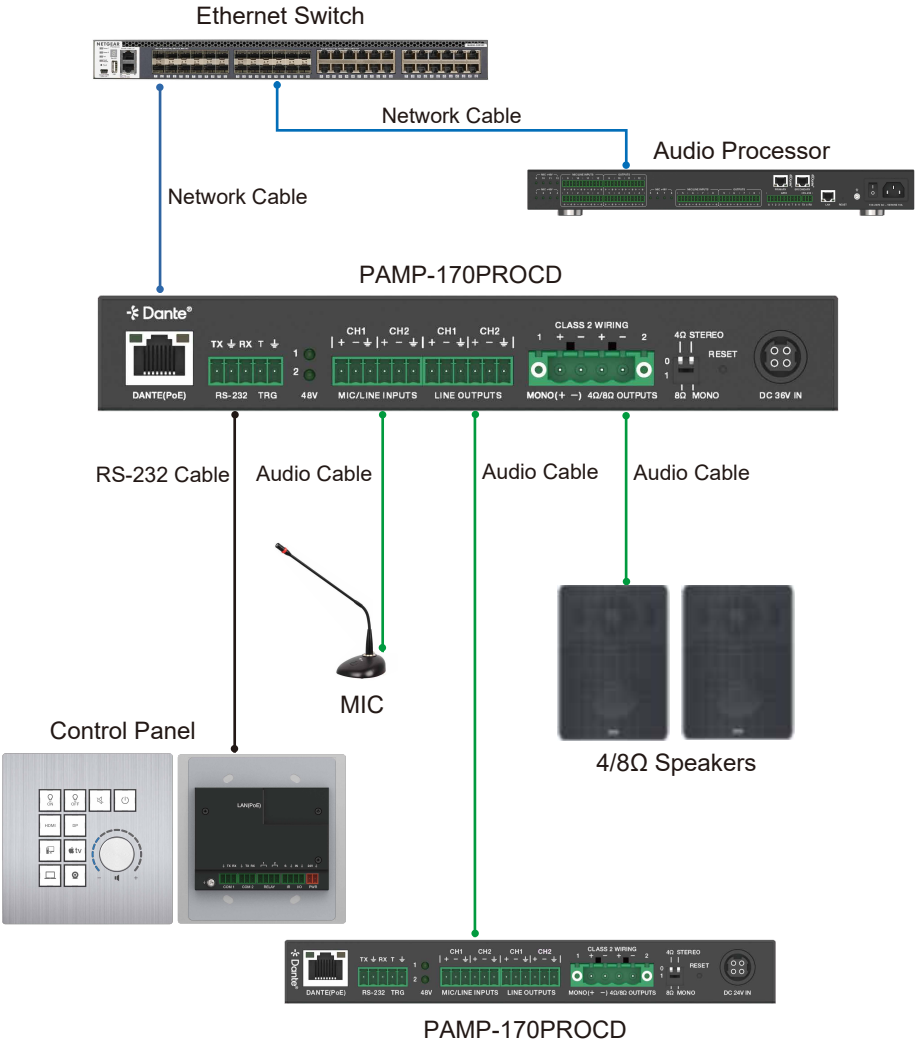
Command Code	Function Description	Example	Feedback	Default Setting
set ip mode x	Set network IP mode to static IP or DHCP x=[0-1] 0. Static, 1. DHCP	set ip mode 0	IP mode: Static (Please use "s net reboot!" command or repower device to apply new config!)	1
get ip mode	Get network IP mode	get ip mode	IP mode: DHCP	
set ip addr xxx.xxx.xxx.xxx	Set network IP address	set ip addr 192.168.1.100	IP address: 192.168.0.100 (Please use "s net reboot!" command or repower device to apply new config!) DHCP on, Device can't config static address, set DHCP off first.	
get ip addr	Get network IP address	get ip addr	IP: 192.168.0.100	
set subnet xxx.xxx.xxx.xxx	Set network subnet mask	set subnet 255.255.255.0	Subnet Mask: 255.255.255.0 (Please use "s net reboot!" command or repower device to apply new config!) DHCP on, Device can't config subnet mask, set DHCP off first.	
get subnet	Get network subnet mask	get subnet	Subnet Mask: 255.255.255.0	
set gateway xxx.xxx.xxx.xxx	Set network gateway	set gateway 192.168.1.1	Gateway: 192.168.1.1 (Please use "s net reboot!" command or repower device to apply new config!) DHCP on, Device can't config gateway, set DHCP off first.	
get gateway	Get network gateway	get gateway	Gateway: 192.168.1.1	
set tcp/ip port x	Set network TCP/IP port (x=1~65535)	set tcp/ip port 8000	TCP/IP port: 8000	8000
get tcp/ip port	Get network TCP/IP port	get tcp/ip port	TCP/IP port: 8000	
set telnet port x	Set network telnet port (x=1~65535)	set telnet port 23	Telnet port: 23	23
get telnet port	Get network telnet port	get telnet port	Telnet port: 23	
set net reboot	Reboot network modules	set net reboot	Network reboot… Search for IP, Please wait ...! IP mode: DHCP IP: 192.168.62.106 Subnet mask: 255.255.255.0 Gateway: 192.168.62.1 TCP/IP port: 8000 Telnet port: 23 MAC: 6C:DF:FB:0C:B3:8E (Static: 169.254.100.200 255.255.0.0 169.254.100.1)	
set net hostname xxxx	Set network hostname to xxxx (x=[32 characters max])	set net hostname 1234	Hostname: 1234	
get net hostname	Get network hostname	get net hostname	Hostname: 1234	

Command Code	Function Description	Example	Feedback	Default Setting
Password Setting				
set admin password x	Set admin login password (x=[16 characters max])	set admin password 1234	admin password: 1234	1234
get admin password	Get admin login password	get admin password	admin password: 1234	
set user password x	Set user login password (x=[16 characters max])	set user password 1234	user password: 1234	1234
get user password	Get user login password	get user password	user password: 1234	

Note: The feedback of the command of "r status" is as following.

```
==========================================================================================
Status Info 70W Class D Amplifier
Web V1.0.01 MCU V2.0.0 DEP V1.3.3.5_20250101

Power   LCD   ID_LED   Key_Lock   Trigger   Amp_Mode   Speaker        Auto_Standby   Baud
On      60s   Off      On         Low       DC         4ohm/STEREO    10min          115200

Input   Name           Stereo   Phantom_Power   Sensitivity   Gain(dB)   Mute   Mixer_1(dB)   Mixer_2(dB)
01      Dante_In_CH1   Off      -               -             0          Off    -14           Off
02      Dante_In_CH2   Off      -               -             0          Off    -14           Off
03      Mic/Line_In_CH1   Off   On              -18dBV        0          Off    Off           -14
04      Mic/Line_In_CH2   Off   On              -35dBV        0          Off    Off           -14

Output   Name             FromIn   Stereo   Volume   Mute   Delay(ms)
01       Dante_Out_CH1    03       Off      50       Off    0
02       Dante_Out_CH2    04       Off      50       Off    0
03       Line_Out_CH1     01       Off      50       Off    0
04       Line_Out_CH2     02       Off      50       Off    0
05       Speaker_Out_CH1  01       Off      50       Off    0
06       Speaker_Out_CH2  02       Off      50       Off    0

Duck   Name             On/Off   Ducking      Level(dB)   Threshold(dB)   Attack(ms)   Hold(ms)   Release(ms)
01     Dante_Out_CH1    On       Mic_In_CH1   -6          -12             100          1000       100
02     Dante_Out_CH2    On       Mic_In_CH1   -6          -12             100          1000       100
03     Line_Out_CH1     On       Mic_In_CH1   -6          -12             100          1000       100
04     Line_Out_CH2     On       Mic_In_CH1   -6          -12             100          1000       100
05     Speaker_Out_CH1  On       Mic_In_CH1   -6          -12             100          1000       100
06     Speaker_Out_CH2  On       Mic_In_CH1   -6          -12             100          1000       100

TCP/IP   Telnet   MAC
8000     0023     6C:DF:FB:0C:B3:8E

DHCP     IP               Gateway          SubnetMask
On       192.168.062.111  192.168.062.001  255.255.000.000
(Static: 192.168.000.100  192.168.000.001  255.255.000.000)
==========================================================================================
```

10. Connection Diagram



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