

DMX208A Network Audio Processor Manual



Safety Instructions

(Directives regarding fire, electric shock, or personal injury)

WARNING - When using this electrical product, basic precautions should always be followed:

1. To reduce the risk of injury, close supervision is necessary when the product is used near children.
2. Do not use this apparatus near water, for example, near a bathtub, washbowl, kitchen sink, in a wet basement, or near a swimming pool or lake.
3. This product may be capable of producing sound levels that could cause permanent hearing loss. Do not operate for a long period at a high volume level or at a level that is uncomfortable. If you experience any hearing loss or ringing in the ears, you should consult an audiologist.
4. The product should be located in a place with good ventilation.
5. The product should be located away from heat sources such as radiators, heat registers, or other products that produce heat.
6. The product should be connected to a power supply only of the type described in the operating instructions or as marked on the product. Ensure that the external adapter provides good power quality to avoid interference with the machine's operation.
7. Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings. The apparatus shall not be exposed to dripping or splashing, and no objects filled with liquids, such as vases, shall be placed on the apparatus.
8. Refer servicing to qualified service personnel under the following conditions:
 1. Objects have fallen, or liquid has been spilled into the product;
 2. The product has been exposed to rain;
 3. The product does not appear to operate normally or exhibits a marked change in performance;
 4. The product has been dropped, or the enclosure damaged.
9. Do not attempt to service the product beyond what is described in the user-maintenance instructions. All other servicing should be referred to qualified service personnel.

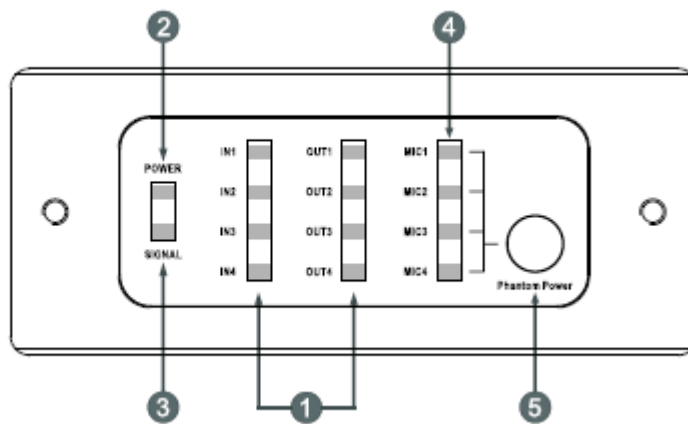
1. Product Introduction

Thank you for purchasing this network audio processor featuring high integration, performance, scalability, and flexible control.

1.1 Features

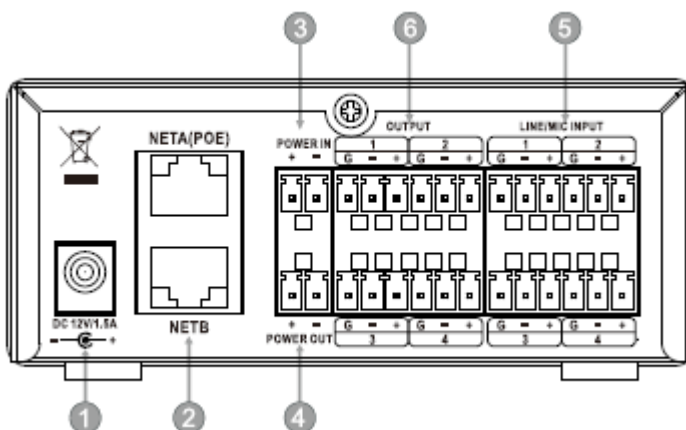
- 48kHz / 96kHz sampling rate
- High-performance AD/DA with low distortion, wide dynamic range
- Network connectivity with intuitive control software for real-time monitoring
- 4 MIC/LINE inputs, 4 balanced outputs
- 4 AES67 network inputs/outputs
- Adjustable input sensitivity (0/15/20/24dB) with independent 48V phantom power
- Independent input/output volume control ($-\infty$ to +12dB)
- Dual Gigabit Ethernet ports (POE-AF supported)
- POWER LINK interface for multi-unit power daisy-chaining
- 14 status LEDs, phantom power switch
- Rack-mountable (4 units in 1U)

1.2 Front Panel



- **Level meters:** IN1-4 (inputs), OUT1-4 (outputs). Red indicates clipping.
- **POWER:** Red LED indicates power on
- **SIGNAL:** Green=network connected, Orange=disconnected
- **Phantom Power:** MIC1-4 LEDs show phantom power status
- **Phantom power button:** Toggles phantom power per channel

1.3 Rear Panel



- **DC 12V/1.5A power input**
- **NETA(POE)/NETB:** Gigabit Ethernet ports
- **POWER IN/OUT:** Daisy-chain power connectors
- **Balanced/unbalanced audio I/O**

1.4 System Connection

2. Functional Description

2.1 Power On

- Power adapter/POE connection lights POWER LED
- 20-second boot process
- SIGNAL LED flashes green (connected) or orange (disconnected)

2.2 Phantom Power Control

- **Channel selection:** Press Phantom Power button to cycle through channels (selected channel flashes red)
- **Turn the Phantom Power on/off:** Hold button for 3s on selected channel

2.3 Factory Reset

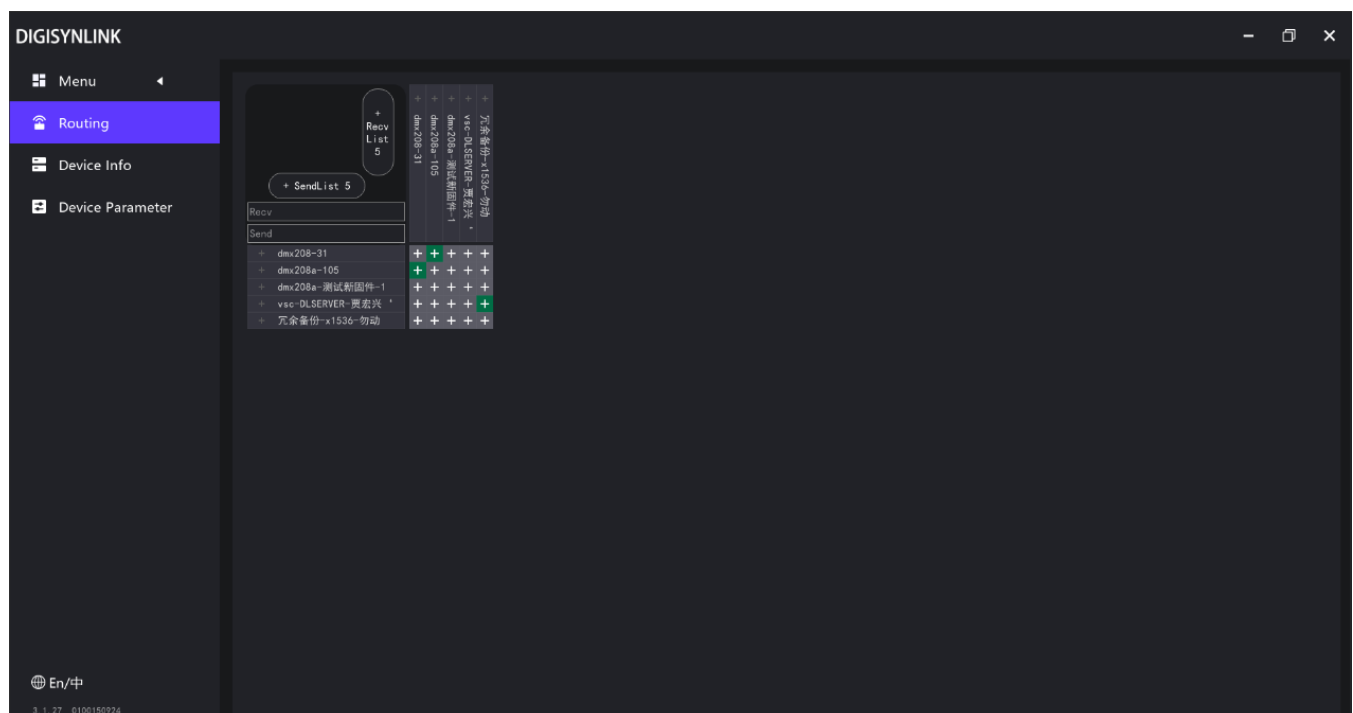
Hold Phantom Power button for 10s until all LEDs flash red twice.

2.4 Device Locator

Hold button for 5s to highlight device in GUI.

3. PC Software Control

3.1 Connection



Software auto-discovers devices on same LAN.

3.2 Device Info

The screenshot shows the DIGISYNLINK software interface with the 'Device Info' menu selected. The main area displays a table of devices with their names, types, IDs, IP addresses, synchronous states, PPM values, master/slave status, clock priorities, and versions.

Device Name	Device Type	Device ID	IP Address	Synchronous State	PPM	Master/Slave	Clock Priority	Version
dmx208-31	DMX208	dmx208-31	192.168.10.248	locked	-6	Slave	128	3.1.3
dmx208a-105	DMX208A	dmx208a-105	192.168.10.250	locked	0	Master	128	3.1.3
dmx208a-测试新固件-1	DMX208A	dmx208a-2303e1bb	192.168.10.254	locked	3	Slave	128	3.1.4
vsc-DLSEVER-贾宏兴	VSC	vSndCard-a6999cce	192.168.10.172	locked	0	Slave	NA	NA
冗余备份-x1536-勿动	X1536A0D	x1536a0d-dbf6a90	192.168.10.244	locked	-7	Slave	128	3.1.3

Displays ID, IP, clock status, firmware etc.

3.3 Parameters

DIGISYNLINK

Menu

Routing

Device Info

Device Parameter

Device Name	Device Type	Device ID	Sampling Rate	Packet Time	Recv/Send Bandwidth	Latency	Temperature	Elapsed Time	Default
dmx208-31	DMX208	dmx208-31	48000	0.25ms	0.0/0.0 Mbps	5ms	68.5°C	227:14:25	
dmx208a-105	DMX208A	dmx208a-105	48000	0.25ms	0.0/0.0 Mbps	5ms	68.8°C	227:14:25	
hznwin10-vsc	VSC	v5ndCard-a4b39bdf	48000	1.00ms	0.0/0.0 Mbps	5ms	NA	NA	
mod4-test	MOD4D	mod4d-66077e8	48000	0.25ms	6.3/0.0 Mbps	5ms	72.1°C	0:9:51	
vsc-DLSERVER-贾宏兴	VSC	v5ndCard-a6999cce	48000	1.00ms	0.0/2.0 Mbps	4ms	NA	NA	
vsc-蒋	VSC	v5ndCard-f6e1d3e9	48000	1.00ms	0.0/6.3 Mbps	4ms	NA	NA	
冗余备份-x1536-勿动	X1536A0D	x1536a0d-db6fa90	48000	0.50ms	2.0/0.0 Mbps	5ms	64°C	96:42:17	

Shows sample rate, network latency, uptime.

3.4 Configuration

Device (dmx208a-105)

Device Config Stream DSP Volume Latency Clock Log Status

Device Information

Device Name: dmx208a-105 Device ID: dmx208a-105 Device Type: DMX208A

Sampling Rate: 48000 Latency: 5ms Packet Time: 0.25ms

Sample Bit Depth: 32 Bits

Device Address

IP Address: 192.168.10.250 DHCP Settings: Automatic IP Reset IP settings

3.4.1 Analog I/O Settings

Device (dmx208a-105)

Device Config Stream DSP Volume Latency Clock Log Status

Input Channel Output Channel

AnalogIn1 AnalogIn2 AnalogIn3 AnalogIn4 NetIn1 NetIn2 NetIn3 NetIn4

模拟输入1 模拟输入2 模拟输入3 模拟输入4 in1 in2 in3 in4

0 -12 -24 -36 -48 -60 -60 dBFS 0 dB 0 dB 0 dB 0 dB

Mute MidGain PhantomPower

Channel gain/mute controls

3.4.2 IP Configuration

Device (dmx208a-105)

Device Config Stream DSP Volume Latency Clock Log Status

Device Information

Device Name: dmx208a-105 Device ID: dmx208a-105 Device Type: DMX208A

Sampling Rate: 48000 Latency: 5ms Packet Time: 0.25ms

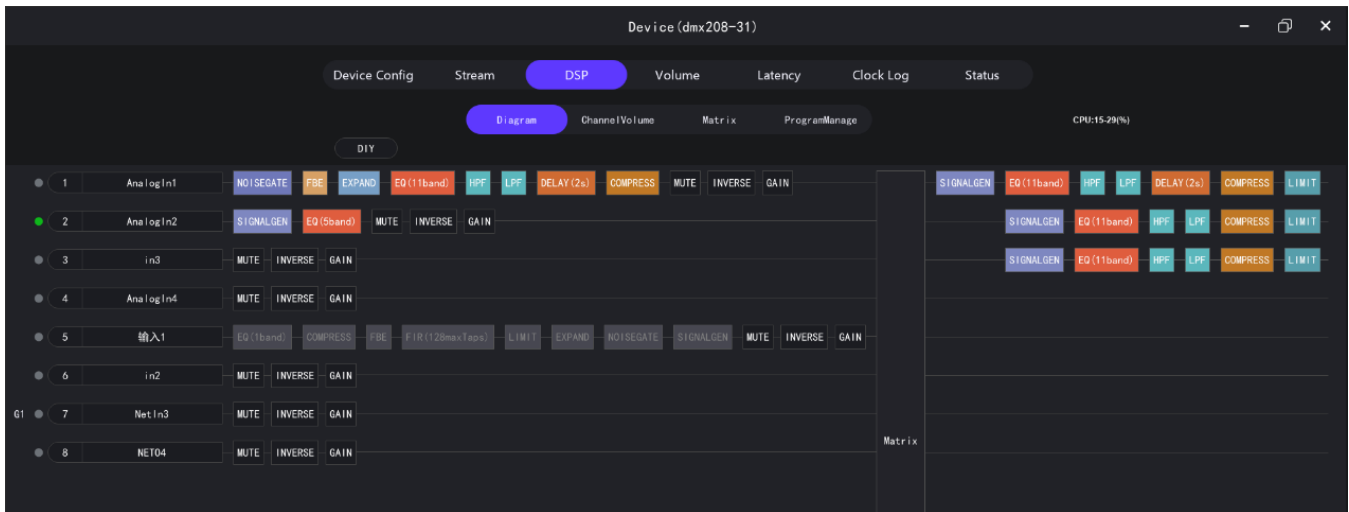
Sample Bit Depth: 32 Bits

Device Address

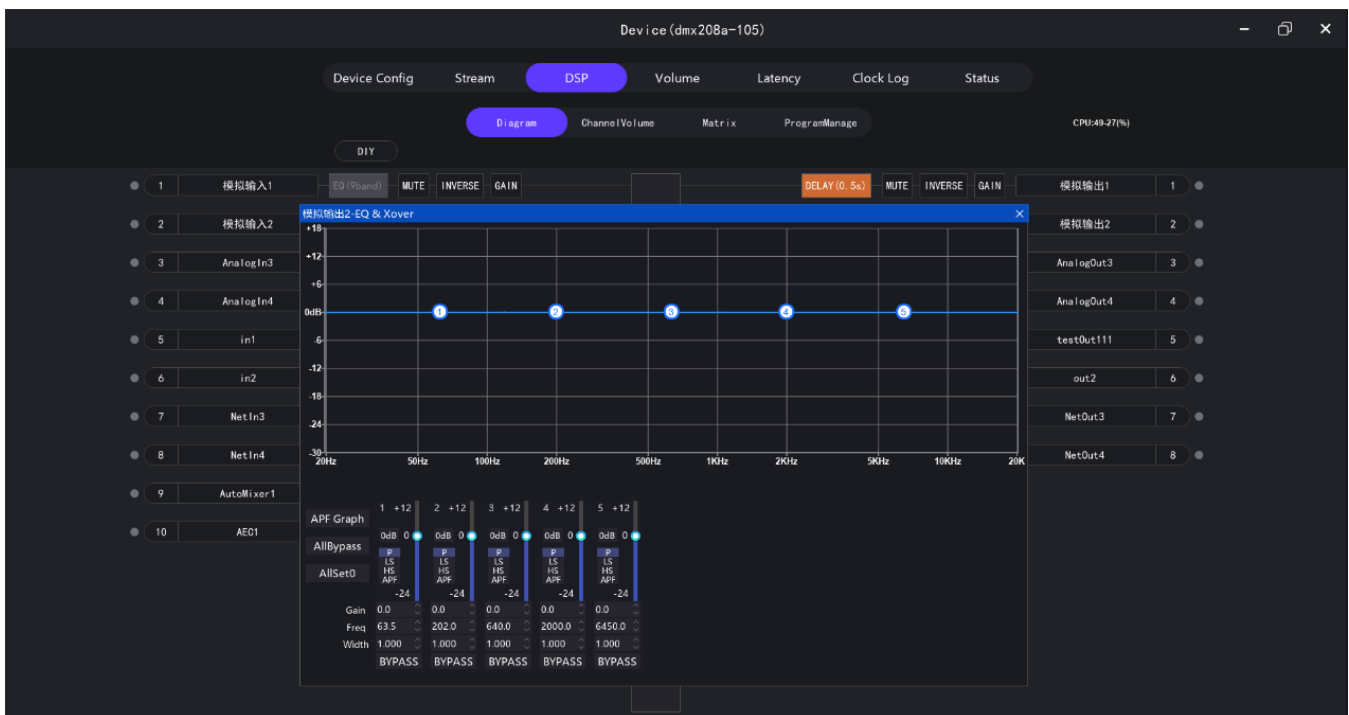
IP Address: 192.168.10.250 DHCP Settings: Automatic IP Reset IP settings

Static/DHCP IP settings

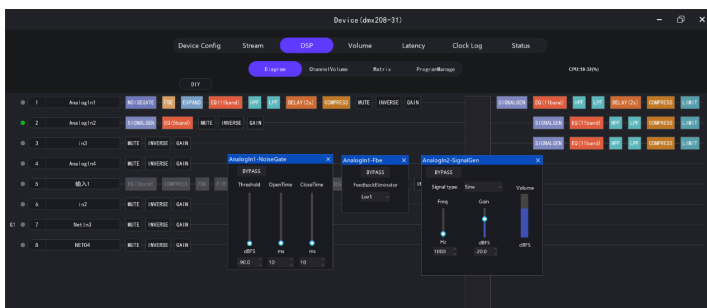
3.5 DSP Functions



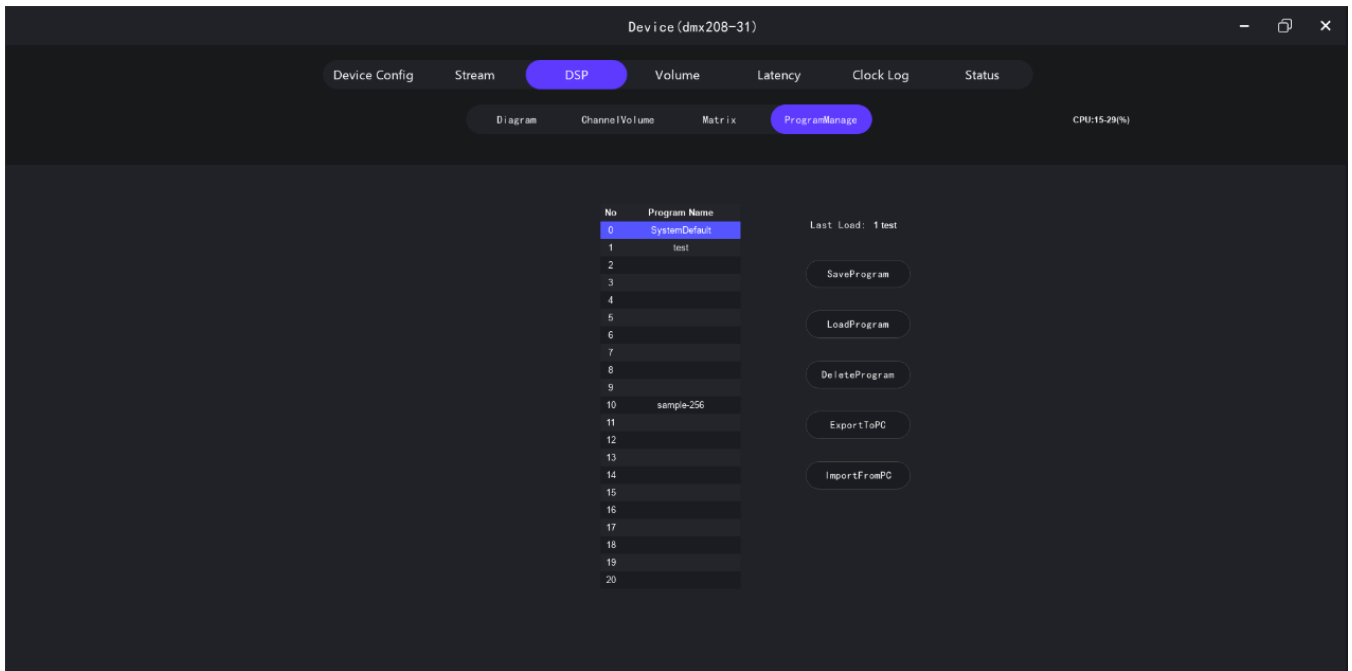
- **Channel selection:** Analog/Network I/O
- **CPU monitor:** (keep <85%)
- **PEQ:** with graphical display



- **Volume, HP/LP filters**
- **Delay:** (0-1000ms, max 4 channels)
- **Feedback suppression:** (Off/1-3)
- **Noise gate, limiter, compressor**
- **FIR filters**
- **Matrix routing**

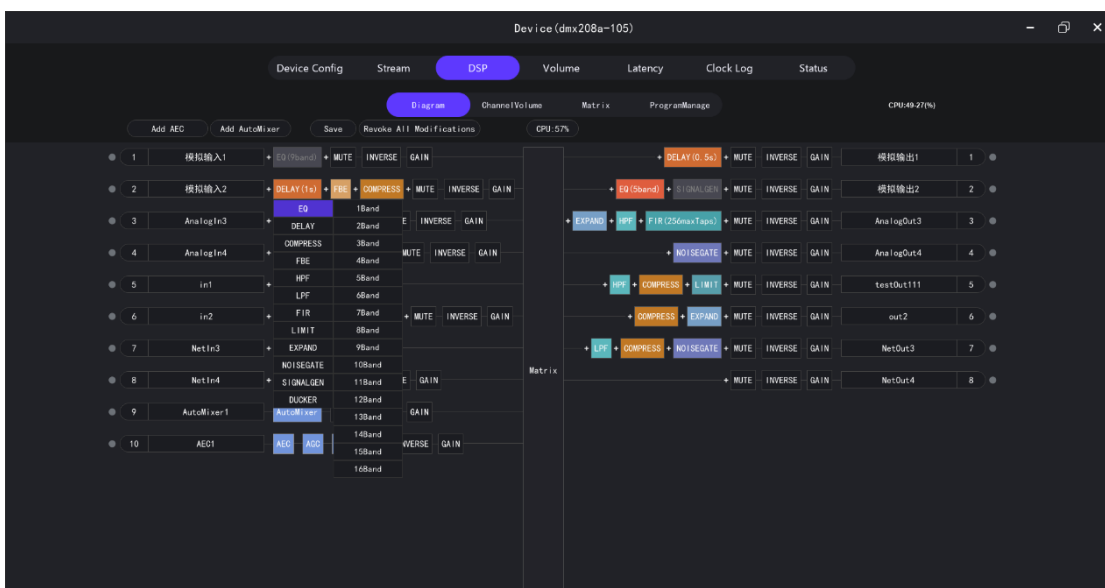
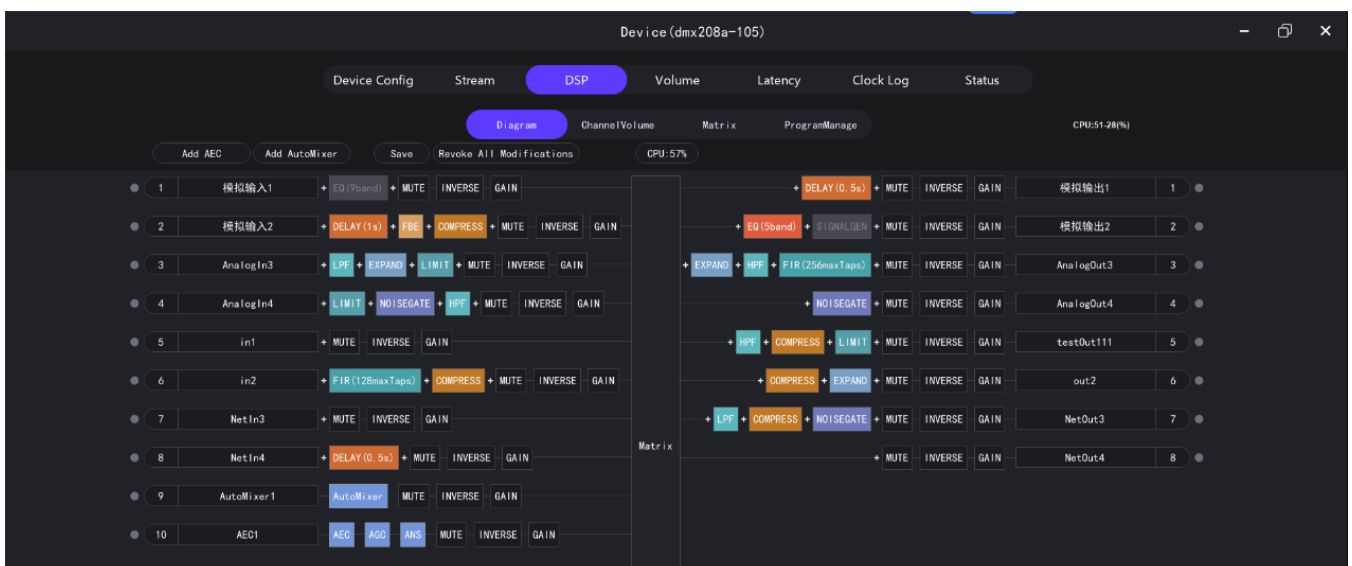


- **Optional AEC/AGC/ANS**



Save/load/import/export configurations

3.5.2 Custom DSP



Build custom signal chains with CPU monitoring

4. Networking Notes

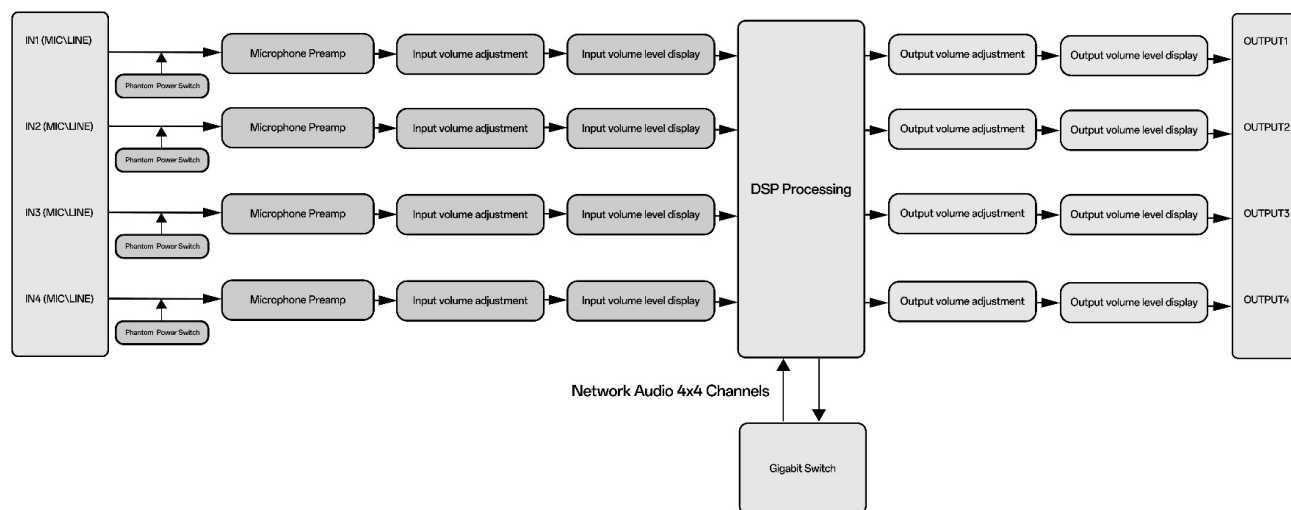
Critical precautions:

1. Verify power adapter specifications
2. Avoid EMI-heavy environments
3. Common failure causes:
 1. Router issues
 2. Firewall blocking
 3. Insufficient permissions
 4. IP conflicts (ensure unique IPs in same subnet)
4. Restart PC after software installation

5. Troubleshooting

Symptom	Solution
No power LED	1. Check power/PoE connection 2. Verify adapter output 3. Inspect POWER LINK
No network connection	1. Check cables (green=good, orange=bad) 2. Verify software version 3. Check IP subnet
Device unresponsive	1. Confirm IP subnet 2. Test network 3. Check switch/router
IP mismatch	1. Verify physical connection 2. Check static IP 3. Test DHCP
No output	1. Confirm input signal 2. Check wiring 3. Verify mute/volume 4. Check matrix

6. Signal Flow



7. Specifications

	Parameter	Specification
Audio	Analog I/O	4in/4out
	Network I/O	4in/4out, Gigabit Switching
	Network latency	1/2/5/6ms
	Sample rate	48kHz / 96kHz
	SNR	98dB@+4dBu, 0dB gain 85dB@+4dBu, 24dB gain

	THD+N	0.005%@1kHz
	Crosstalk	90dB
	Frequency response	±0.2dB 20Hz-20kHz
	Max input level	+14dBu (THD+N≤1%)
	Max output level	+14dBu (THD+N≤1%)
	Dynamic range	110dB, A-weighted
	Gain range	0dB / 15dB / 20dB / 24dB
	CMRR	≥50dB@1kHz
	Phantom power	48V, 10mA
	Mute function	Silent switching
Power		Adapter/PoE-AF 12V DC 1.5A Daisy-chain (max 2 units)
Physical	Dimensions	108 × 149 × 45mm
	Weight	0.54kg

Specifications subject to change without notice

--	--	--

--	--	--

--	--	--

--	--	--