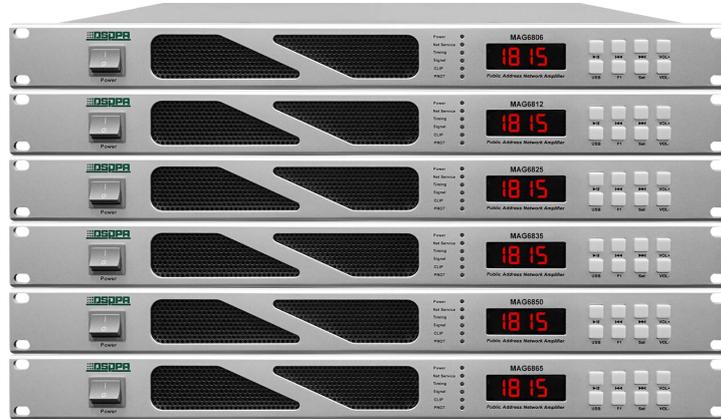


# MAG6806 MAG6812 MAG6825 MAG6835 MAG6850 MAG6865

## 1U IP Network Amplifier



### Description

MAG68 series network amplifier is a kind of network fully digital analog-digital signal processor supporting 100/10Mbps self-adaptive TCP/IP network transmission protocol; with the design of double network backup, it is allowed to access to any switch simultaneously. Furthermore, this machine has the functions of network line fault detection and automatic selection in order to improve the reliability.

The remote audio data stream is able to output the audio signal through this machine, and the host is subject to the intelligent control; in this machine, there is a built-in MP3 player with USB interface and SD card port, so as to play MP3 programs on this machine without playing network audio stream signals; there is a channel of auxiliary audio input interface used for connection to other audio source equipment (e.g. DVD); there is a channel of auxiliary audio output interface used for connection to other amplifiers and extension of the power. There is also a channel of microphone interface used for local paging and so on.

### Features

- This machine is made of high-grade aluminum-alloy frosted panel.
- Can be mounted to any place accessible to the network. With the network transmission protocol developed independently by DSPPA, it can achieve the dynamic audio data transmission. With dual network interface redundancy design, it is possible to work crossing the network segments.
- There is a built-in high-efficiency digital amplifier with 100V constant voltage output, resulting in the efficiency higher than 90%.
- There are the MP3 player, USB port and SD port, which are used to play the local programs.
- The maximum output power of the amplifier shall be 60W, 120W, 250W, 350W, 500W and 650W respectively.
- The eye-catching design of the digital display screen is able to display not only the time of the clock, but also the time of the playing progress.
- With the time frame synchronization mechanism, it can achieve real-time synchronization of the clock

of the machine and the clock of the network host.

- The built-in infrared receiving module is under the control of the infrared remote controller, easy to use.
- The panel integrates 5 status indicators to show the working conditions clearly.
- On the panel, there are 8 shortcut buttons, facilitating the daily use of the local user.
- It has the built-in offline local timing-point playing function, so as to back up and store the timing programs into the SD card, and back up the timing-point programs automatically.
- Outside the machine, there are a channel of AUX line input, a channel of microphone input, and a channel of AUX line output, in order to facilitate the expansion of the other local sound source broadcasting and expansion of local power.
- Outside the machine, there are the two override output interfaces including EMC 24V and short-circuit dry contact to connect the audio controller of the loudspeaker, or the intelligent power supply.
- It is equipped with the peripheral equipment expansion interface, which is used to connect 86-box on-demand color screen, double 86-box help intercom panel, dual-purpose intercom panel, and the Bluetooth audio receiver.
- On demand: After connecting the 86-box on-demand color screen, it is possible to achieve the local on-demand of the mass program library of the host.
- Paging: After connecting the 86-box on-demand color screen, it is possible to implement the real-time paging for the selected zone.
- Intercom: After connecting the help intercom panel, it is possible to achieve help intercom.
- Bluetooth audio receiving: After connecting the Bluetooth extender, it is possible to receive the Bluetooth audios, so as to enable the school and marketplace to achieve the sound amplification of the local wireless microphone with the Bluetooth wireless microphone.
- There is a mixed relation between the external line input and the program source for network playing. The local microphone and AUX input will turn on the amplifier by detecting the size of the input signal.
- It is allowed to tailor the linkage trigger function and 100V local emergency line input, in order to facilitate the access to the local public address system for firefighting.
- It has the network playing function, so that it is possible to play the program sources distributed by the network host or audio streams of the network audio collector.
- It is possible to play the background music, emergency paging, and alarm signal from the system host. The network program source has the priority management function at the level 7 or above, and it is classified into the background broadcast, business broadcast, and emergency broadcast.
- The decoding chip with high-fidelity CD tone is used to support 16-bit MP3/WMA/WAV/PCM audio stream data decoding with sampling rate at 48KHZ to the maximum extent.
- Fully digital design with advantages such as high performance, high fidelity, and high audio transmission indicator.
- There is built-in watchdog function to guarantee the normal operation of the equipment effectively.
- With the industrial-level chip design, it has wide range of working temperature for outdoor installation and use.
- There is the built-in DSP sound effect processing chip to achieve the function of high and low pitch adjustment, so it is suitable for compensation in different environments so as to further improve the broadcasting indicator.
- It adopts the high-performance network processing chip and independently developed real-time processing system, so that the Boot time is less than 0.1S, and the time for connection to the network host is less than 2S, resulting in the high real-time capacity; the time delay for broadcasting of real-time program is less than 0.2S.
- The self-developed real-time operating system has strong real-time performance, and the broadcast program sounds of multiple network players are synchronized in real time, and there is basically no time difference between them.
- The independently developed network data stream decoding algorithm, microphone paging, and

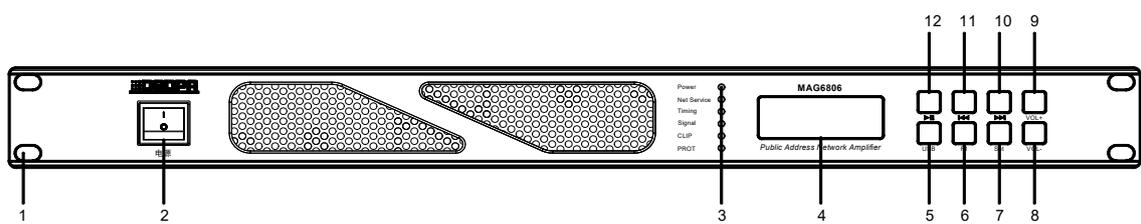
external line broadcasting are used to realize the strong real-time capacity. The time delay after keeping the paging state for more than 24 hours will be less than 0.5S.

- The independently developed network data correction algorithm is used to guarantee the accuracy of the data receiving while guaranteeing the real-time of the data transmission, stable and reliable.
- The local output volume and local playing status are controllable.
- The source priority and priority depth of the network source, local line source, and local microphone source can be set via the network.

## Specifications

Item		Parameters					
Model		MAG6806	MAG6812	MAG6825	MAG6835	MAG6850	MAG6865
AUX IN	Input Sensitivity	350 mV±50mV					
	Freq. Resp.	80Hz-15kHz(±3dB)					
	Distortion	≤1 %					
	SNR	≥77 dB					
AUX OUT	Rated Output	1000 mV±100mV					
	Freq. Resp.	80Hz-15kHz(±3dB)					
	Distortion	≤1%					
	SNR	≥75 dB					
MIC IN	Input Sensitivity	5mV±1 mV					
	Freq. Resp.	80Hz-15kHz (±3dB)					
	Distortion	≤1%					
	SNR	≥71dB					
USB/SD/NET Play MP3	Freq. Resp.	80Hz-15 kHz(±3dB)					
	Distortion	≤1%					
	SNR	≥77dB					
100V Constant Voltage Output	Rated Output	60W	120W	250W	350W	500W	650W
	Freq. Resp.	80Hz-15kHz(±3dB)					
	Distortion	≤1%					
	SNR	≥77dB					
SD Card Capacity		32GB					
USB Capacity		32GB					
Rated Power Consumption		90W	150W	340W	440W	600W	780W
Power Supply		AC220V/50Hz					
Over Current, Overheat, Over Voltage Protection		Satisfied					
Display Screen		Digital screen					
Gross Weight		5.15kg	5.15kg	5.65kg	5.65kg	6.2kg	6.45kg
Net Weight		3.75kg	3.75kg	4kg	4kg	4.5kg	4.8kg
Outer Dimension (L×W×H mm)		523×335×90				523×397×90	
Machine Dimension (L×W×H mm)		483×270×45				483×330×45	

Front Panel



1. Mounting Holes

2. Power Switch

3. Signal LED

- ◆ Power: Power LED. It will be on when powered on and turned on.
- ◆ Net Service: Net LED. It will be on when the machine is connected to the host successfully.
- ◆ Timing: Timing point LED. The amplifier can execute the edited timing points on the host when separated from the host. The LED will be on when the terminal is able to perform the timing points without the host.
- ◆ Signal: Amplifier output level LED. It will be on when the amplifier has signal output, and it will turn brighter when the volume increases and darker when the volume decreases.
- ◆ CLIP: CLIP LED. It will be on when the output signal is too large.
- ◆ PROT: Protection LED. It will be on when there is over current, over heat or short circuit in the amplifier.

4. Digital Display Screen and IR Remote Receiving Window

The digital display screen shows the working status of the machine and the status of network information. The infrared remote receiving window is embedded in the lower left corner of the display screen, and it can bring the machine under control with the infrared remote controller.

5. "USB" Button

- ◆ USB Play/Stop Button; press the button to exit the setting status when setting the IP.

6. "F1" Button

- ◆ Used to switch among AUX IN, MIC IN and MP3 when adjusting the volume.

7. "Set" Button

- ◆ Set button. Long press the button to enter the IP checking status, and press again to enter the IP setting status.

8. "VOL-" Button

- ◆ Used to turn down the volume in the play mode; used to switch parameters selected for checking in the IP checking mode; used to add or subtract parameters in the IP setting mode.

9. "VOL+" Button

- ◆ Used to turn up the volume in the play mode; used to switch parameters selected for checking in the IP checking mode; used to add or subtract parameters in the IP setting mode.

10. ▶▶▶ Button

- ◆ Used to select the next song program in the play mode; used to move right one screen/right one bit, and select parameters for checking/setting in the IP setting mode.

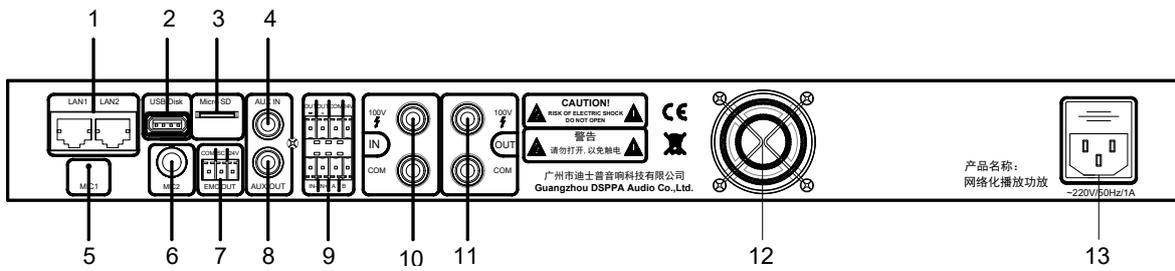
11. ◀◀◀ Button

- ◆ Used to select the previous song program in the play mode; used to move left one screen/left one bit, and select parameters for checking/setting in the IP setting mode.

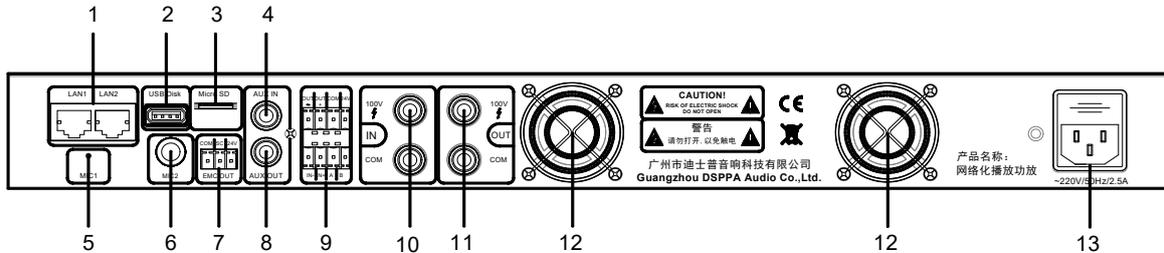
12. ▶|| Button

- ◆ Play/Pause button. It is used to play / pause the program when playing local MP3 programs; used to save the setting result when setting the IP.

## Rear Panel



MAG6806/MAG6812 Rear Panel



MAG6825/MAG6835/MAG6850/MAG6865 Rear Panel

### 1 Network Interface (LAN1/LAN2)

Dual network interface design to connect the network switch, support hand-in-hand function

### 2 USB Interface (USB Disk)

Insert a USB or LAN connect a mobile hard disk with MP3 programs to provide program sources for the built-in MP3 player.

### 3 SD Card Slot (Micro SD)

Insert a SD card with timing points to provide audio sources for the timing points when the terminal is offline.

### 4 AUX IN

Connect an audio source device (e.g. DVD) to extend program sources for the machine.

### 5 MIC1 Pickup Window

The signal is input from this window when the host performs live monitoring.

### 6 MIC2 Interface

Connect a microphone to achieve local paging or live speaking.

### 7 EMC Override OUT

The signal from this interface is controlled by the host.

### 8 AUX OUT

Connect other amplifiers to extend the power.

### 9 Expansion Port

Used to expand or customize other functions. It can be used to expand help intercom expansion controller, network on-demand terminal, GPS time calibrator module, wireless remote controller, Bluetooth panel, and Bluetooth microphone control panel. The terminal provides DC voltage power supply for connected devices, which should be connected one by one as required. Please refer to the user manual of the connected device for the connection method.

### 10 100V Constant Voltage IN

Connect other constant voltage amplifier inputs for backup.

### 11 Amplifier OUT (100V)

The machine has a built-in 1×60W digital amplifier, with output power of 60W respectively to connect multiple constant voltage speakers. But the total power of speakers to be connected cannot be greater than 60W. See below for connection methods.

### 12 Fan Port

### 13 Power IN & Fuse Holder

Provide working power for the machine. If the fuse is blown, please replace it with a fuse of the same specification. If it blows continuously, it means there is a short-circuit fault inside the machine. Please remove the fault before replacing the fuse.