MAG6895

Network Amplifier (1U)

Description

The 100V network amplifier MAG6895 is a kind of network fully digital analog-to-digital signal processor based on 100/10Mbps self-adaptive TCP/IP network transmission protocol; with the design of dual network backup, it is allowed to access to any switch simultaneously. Also, the device features network line fault detection and automatic selection for improved reliability.

The device can output remote audio data streams as audio signals, which is intelligently controlled by the host. The device has a built-in MP3 player, a USB interface and an SD card slot, which allows you to play MP3 programs on the device without playing network audio stream signals. It is provided with an auxiliary audio input interface for connecting other audio source equipment (e.g. DVD), and an auxiliary audio output interface for connecting other amplifiers to expand the power, as well as a microphone interface for local paging.

Features

- Made of high-grade aluminum alloy brushed panel.
- Can be mounted to any place accessible to the network. Adopt the network transmission protocol developed independently by DSPPA for dynamic audio data transmission. With dual network interface redundancy design, it is possible to work across network segments.
- There is a built-in high-efficiency digital amplifier with 100V constant voltage output, resulting in the efficiency higher than 90%.
- There is a MP3 player, a USB port and an SD port, which are used to play the local programs.
- The eye-catching digital display screen is designed to display both clock time and playback progress time.
- With the time frame synchronization mechanism, it can synchronize the clock of the device with the clock of the network host in real time.
- 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, and can back up and store the timing programs into the SD card, and back up the timing-point programs automatically.
- It has an AUX line input, a microphone input, and an AUX line output for easy expansion of local sound source and local power.

- It has two override output interfaces including EMC 24V and short-circuit dry contact, to connect the audio controller of the loudspeaker, or to connect the intelligent power supply.
- It is equipped with the peripheral equipment expansion interface, which is used to connect 86-bottom-case on-demand color screen, double 86-bottom-cases help intercom panel, dual-purpose intercom panel, and the Bluetooth audio receiver.
- On demand: After connecting the 86-bottom-case 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-bottom-case on-demand color screen, it is possible to implement the real-time paging to 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 schools and shopping malls 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 value 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 can 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, service broadcast, and emergency broadcast.
- It adopts the decoding chip with high-fidelity CD tone to support 16-bit MP3/WMA/WAV/PCM audio stream data decoding with sampling rate at 48KHZ to the maximum extent.
- It adopts fully digital design with advantages such as high performance, high fidelity, and high audio transmission indicator.
- It has 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.
- It has a built-in DSP sound effect processing chip to control the treble and bass, so it is suitable for compensation in different environments, further improving broadcasting indicators.
- 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; and the time delay for real-time program broadcasting 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.
- It adopts the independently developed network data stream decoding algorithm, microphone paging, and external line broadcasting to realize the strong real-time capacity. The time delay after keeping the paging state for more than 24 hours is less than 0.5S.
- It adopts the independently developed network data correction algorithm to guarantee the accuracy of the data receiving while guaranteeing the real-time data transmission, which is 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

Model		MAG6895
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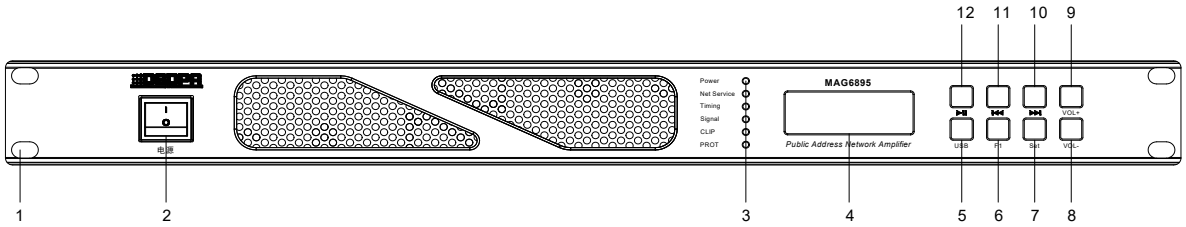
AUX IN	Input Sensitivity	350mV±50mV
	Frequency Response	80Hz-15kHz(±3dB)
	Distortion	≤1 %
	SNR	≥77dB
AUX OUT	Rated Output	1000mV±100mV
	Frequency Response	80Hz-15kHz(±3dB)
	Distortion	≤1 %
	SNR	≥75dB
MIC IN	Input Sensitivity	5mV±1mV
	Frequency Response	80Hz-15kHz(±3dB)
	Distortion	≤1 %
	SNR	≥71dB
USB/SD/NET MP3 Playback	Frequency Response	80Hz-15kHz(±3dB)
	Distortion	≤1 %
	SNR	≥77 dB
100V Constant Voltage Output	Rated Output Power	1000W
	Frequency Response	80Hz-15kHz(±3dB)
	Distortion	≤1 %
	SNR	≥77dB
Supported SD Card Capacity		32GB
Supported USB Flash Disk Capacity		32GB
Rated Consumption Power		1300W
Power Supply		AC220V/50Hz
Over Current, Overheat, Over Voltage Protection		Satisfied
Display Screen		Digital Screen
Gross Weight		7.77kg
Net Weight		6.12kg
Package Dimensions (L×W×H mm)		525×490×105
Machine Dimensions (L×W×H mm)		483×400×44

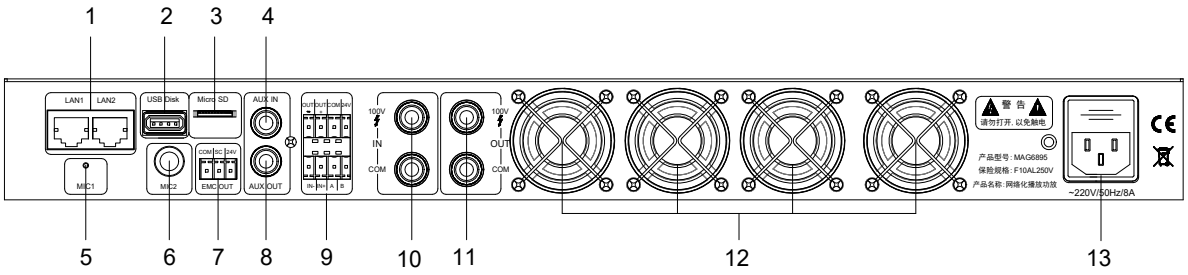
Front Panel



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 and and the host are connected to the network 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.
   - CILP: 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



1. **Network Interface (LAN1/LAN2)**
   Dual network interface design to connect the network switch.
2. **USB Interface (USB Disk)**
   Insert a USB or 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 audio source equipment (such as DVD player) for expanding the program source of the unit.
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 Output**
   The signal output from this interface is controlled by the host.
8. **AUX OUT**
   Connect other amplifier for expanding the power.
9. **Expansion Interface**
   Used for expanding or customizing additional functions. It supports expansion for emergency help intercom controllers, network on-demand terminals, GPS time synchronization modules, wireless remote controllers, Bluetooth panels, and Bluetooth microphone control panels. This terminal provides DC power supply to connected devices. The wiring must correspond to the equipment as required, with connections made according to the user manual of connected devices.
10. **100V Constant Voltage Audio Input**
    Connect other constant voltage amplifier inputs for backup.
11. **Amplifier Output Port (100V)**
    The device has a built-in 1×1000W digital amplifier, with the output power of 1000W. It can connect multiple constant voltage speakers separately. But the total power of speakers to be connected cannot be greater than 1000W. See below for connection method.
12. **Fan Port**
13. **Power Input Connector & 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.

Remote Controller

The remote controller is shown on the right.

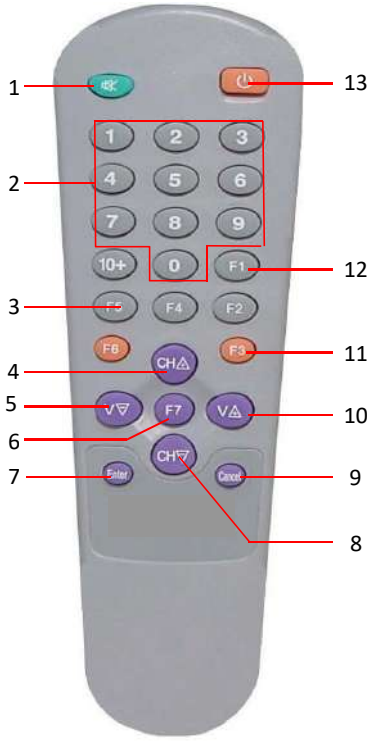


Figure (3)

1. Mute Button

2. Number Buttons:

Used when setting the IP address and setting parameter values.

3. F5:

When inserting a USB flash drive, press the F5 button to play/stop.

4. Previous Song Button:

CH+ is used to select the previous program of the music played currently.

5. Volume -:

V- is used to decrease the output volume of the terminal.

6. F7: Play/Pause Button:

Press the button repeatedly to switch between on-demand and pause.

7. Enter Button:

In idle state, press the Enter button to adjust the output.

Bass component (cycling from 0 to 15).

8. Next Song Button:

CH- is used to select the next program of the music played currently.

9. Cancel Button:

In idle state, press the Cancel button to adjust the output.

Treble component (cycling from 0 to 15). In other states, press the Cancel button to cancel.

10. Volume +:

V+ is used to increase the output volume of the terminal.

11. F3:

IP address checking/setting button. Press the button to enter the checking state, then press the CH+/CH- button to select the parameter to be checked, and press F3 to enter the setting state; after setting, press the Enter button to save changes, otherwise, the setting is invalid. Press the Cancel button to exit without saving.

12. F1: Volume Setting Button:

Select the sound source to be modified. After selecting, press V+ and V- to modify the volume. (AUXI indicates auxiliary input, MIC1 indicates microphone input, and MP3 indicates network sound source or USB flash drive).

13. Standby Button