

MAG6812F MAG6825F MAG6835F

Four-Channel Network Digital Amplifier



Description

The four-channel network digital power amplifier is a fully digital signal processing amplifier based on the TCP/IP transmission protocol. It can connect to any network switch and features network line fault detection and automatic switching to ensure higher reliability. The device adopts a silver anodized aluminum alloy front panel, an industrial-grade gray iron chassis, and a 2U rack-mount design.

Features

- With time frame synchronization mechanism, the local clock and the network host clock are synchronized in real time;
- The front panel integrates four groups of status indicators, each group consisting of five LEDs: Net, Timing, Signal, CLIP, and PROT.
- Supports network audio playback, capable of playing program sources distributed by the network host

or audio streams from network audio collectors.

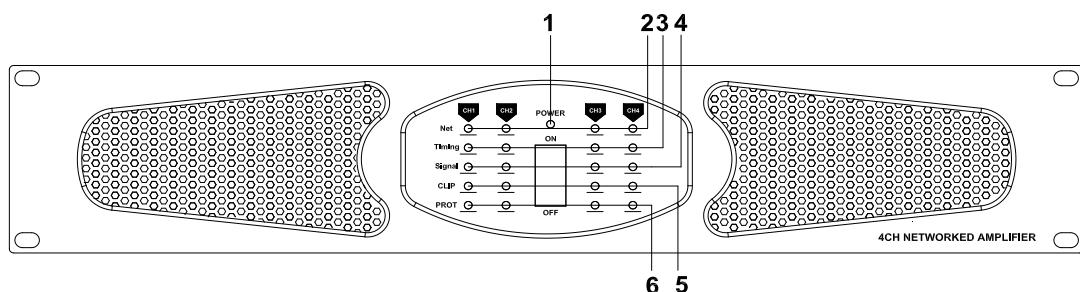
- It can play background music, emergency paging and alarm signals from the system host, which can be divided into three categories: background broadcasting, business broadcasting and emergency broadcasting;
- Built-in watchdog function, effectively ensuring the normal operation of equipment;
- Adopts a high-fidelity CD-quality decoding chip, supporting decoding of MP3/WMA/WAV/PCM audio stream data with a maximum sampling rate of 48kHz and 16-bit resolution.
- The self-developed real-time operating system has strong real-time performance, and the broadcast sounds of multiple network players are synchronized in real time, and there is basically no time difference between them.
- Adopt self-developed network data error correction algorithm to ensure the real-time transmission of data and the accuracy of received data, ensuring stable and reliable operation.
- Built-in offline local scheduled playback function, scheduled program backup is stored in the SD card, and scheduled program is fully automatically backed up;
- Provides four AUX line inputs/outputs and four MIC inputs/outputs for convenient local audio source expansion and power extension.
- MIC input sensitivity switchable between 5mV and 100mV, compatible with passive, wireless, or active microphones.
- Supports 100V constant-voltage output (two terminals of the 8-pin 7.62mm barrier terminal block.)
- Supports 100V constant-voltage backup (two terminals of the 8-pin 7.62mm barrier terminal block.)
- Equipped with four RJ45 network ports (no hand-in-hand connection supported).
- Through the WEB page, network configuration, password login, and system settings can be performed, including: language setting (Chinese and English optional), login setting, offline scheduled playback function setting, amplifier standby mode setting, 100V constant-voltage backup function setting, and audio source priority setting (AUX, MIC, and Network are the three types of audio sources. When the priority levels are set the same, the output will be mixed, without mix level adjustment. By default, the lower-priority audio source is muted.)

Specifications

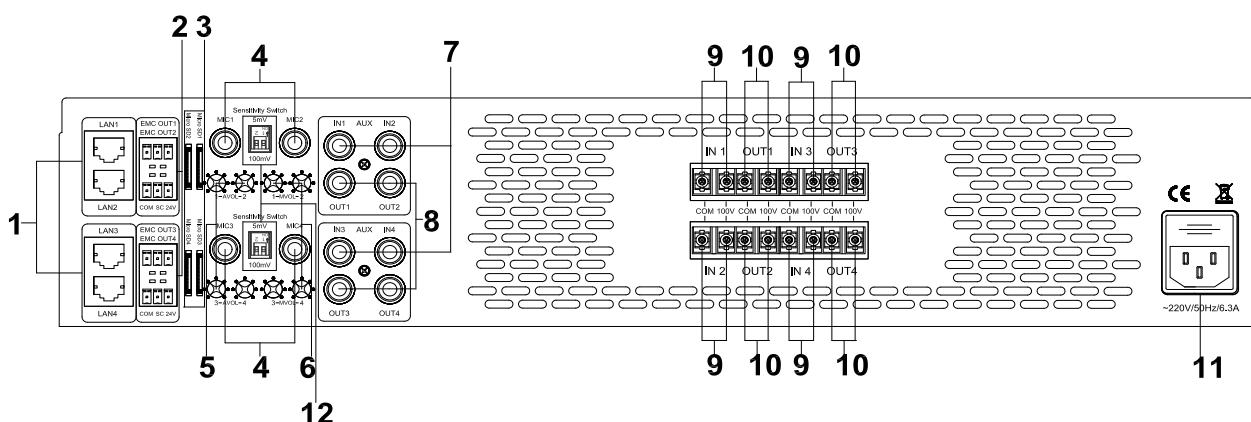
Model		MAG6812F	MAG6825F	MAG6835F
AUX IN	Rated Output Power	4*120W	4*250W	4*350W
	Input Sensitivity		330mV±50mV	
	Frequency Response		80Hz~15KHz (±3dB)	
	Distortion		≤1%	
AUX OUT	SNR		≥ 80dB(A-weighted)	
	Rated Output		1000mV±100mV	
	Input Sensitivity		5mV±1mV / 100mV±10mV	
MIC Input	Frequency Response		80Hz~10KHz (±3dB)	
	Distortion		≤1%	
	SNR		≥ 75dB(A-weighted)	
	Frequency Response		80Hz~15KHz (±3dB)	
SD/NET	Distortion		≤1%	
	SNR		≥80dB	
	Frequency Response		80Hz~15KHz (±3dB)	
100V Constant				

Voltage Output	Distortion	$\leq 1\%$	
SD Card Capacity	SNR	$\geq 75\text{dB(A-weighted)}$	
Power Supply		32G	
Overcurrent, Overheating and Overvoltage Protection		Support	
Rated Power Consumption	620W	1190W	1720W
Gross Weight	10kg	10kg	10.5kg
Net Weight	8.8kg	8.8kg	9.45kg
Package Size (LxWxH mm)	600x535x155mm		
Machine Size (LxWxH mm)	483x420x88mm		

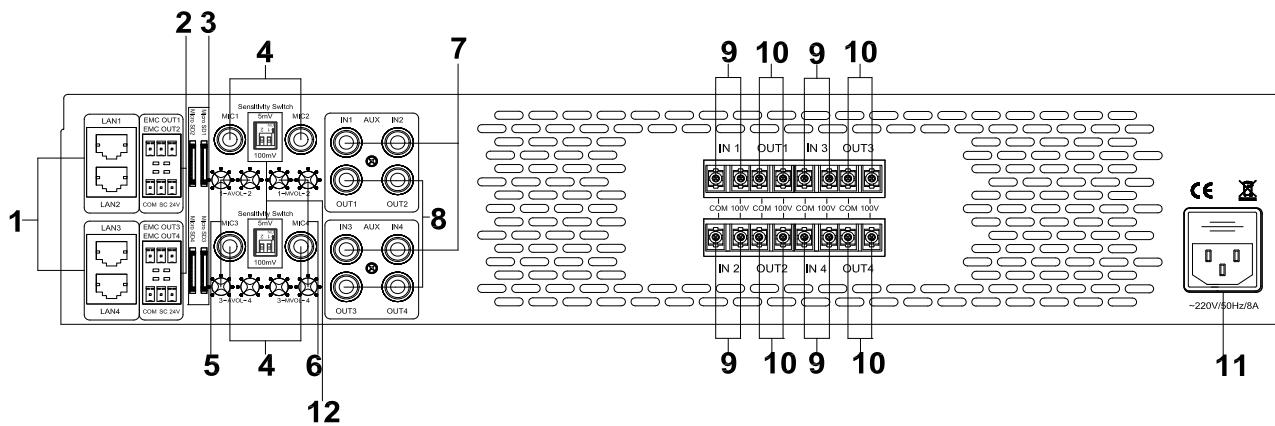
Front / Rear Panel



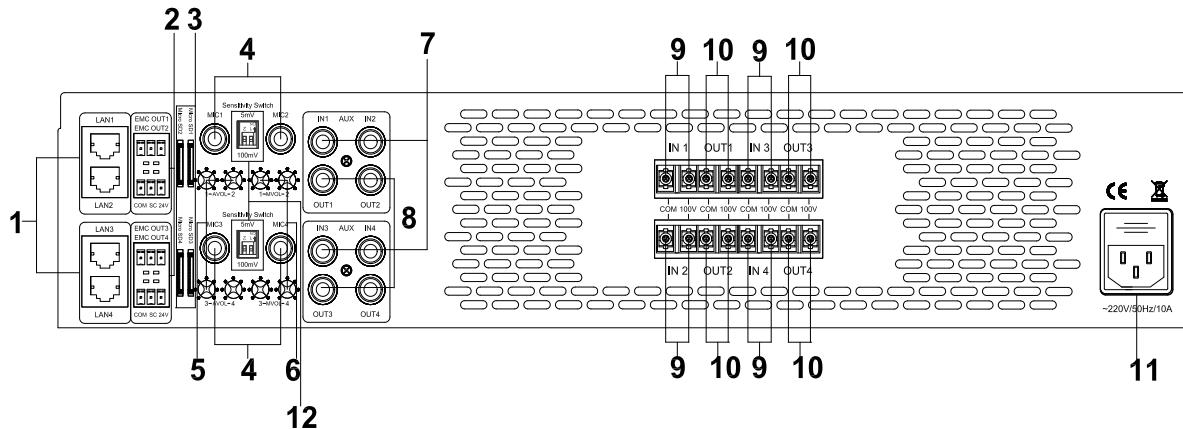
- 1. POWER:** Power indicator. When the power is connected and switched on, the indicator lights up red.
- 2. Net:** Network indicator. When the amplifier is successfully connected to the host through the network, the indicator lights up green. (It flashes when there is an IP conflict.)
- 3. Timing:** This power amplifier can execute the pre-edited timing points from the host device independently without being connected to it. When the terminal is executing timing points independently, the indicator lights up green. (Flashes during timing point download.)
- 4. Signal:** Shows the amplifier output level. When powered on, the indicator lights green. It illuminates when there is an output signal; as the volume increases, the light becomes brighter, and as the volume decreases, it dims gradually.
- 5. CLIP:** Voltage limit function indicator, when the voltage limit function indicator is on, it means that the output signal is too large, and the voltage limit circuit takes effect.
- 6. PROT:** Power amplifier protection indicator light, this indicator light will light up when the power amplifier is protected against overcurrent, overheating, short circuit and other faults.



MAG6812F Rear Panel



MAG6825F Rear Panel



MAG6835F Rear Panel

1. Network Interface (LAN1/ LAN2/ LAN1/LAN2)

This product is designed with four network ports and is connected with network switches.

2. EMC Override Playback Output (EMC OUT 1 / EMC OUT 2 / EMC OUT 3 / EMC OUT 4)

The signal output by this interface is controlled by the host. Each 24V-COM output can provide 1A current, while SC-COM is a dry contact capable of handling 1A.

3. SD Card Slot (Micro SD 1 / Micro SD 2 / Micro SD 3 / Micro SD 4)

Insert the SD card that stores the host timing point into this jack. When the terminal goes offline, the audio source is provided at the given timing point.

4. MIC Input Interface (MIC1 / MIC 2 / MIC 3 / MIC 4)

5. AUX Volume Control Knob (1-AVOL-2/3-AVOL-4)

6. MIC Volume Control Buttons (1-MVOL-2/3-MVOL-4)

7. AUX Input Interface (IN1 / IN 2 / IN 3 / IN 4)

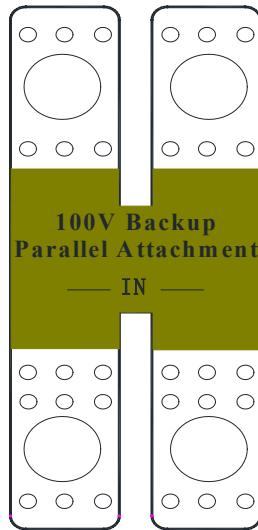
8. AUX Output Interface (OUT 1 / OUT 2 / OUT 3 / OUT 4)

Connect other amplifiers to expand the power of this terminal.

9. 100V Constant Voltage External Audio Input

Connect to the 100V input of another amplifier for backup use of this terminal.

Note: This device can be used with the 100V Backup Parallel Attachment. If the two external 100V constant-voltage audio inputs are identical, you may use this attachment. Once installed, it combines the two 100V backup inputs, allowing both backup channels to be fed with a single wiring connection. (When using this attachment, please ensure proper matching between input and output power.)



PCB Panel (100V Backup Parallel Attachment)

PCB Panel Usage: Loosen the screws of two 100V constant voltage external audio input terminals, then insert the 100V Backup Parallel Attachment. At this point, the two input circuits can function as one. After insertion, tighten the previously loosened screws to secure the 100V Backup Parallel Attachment in place.

10. Local Amplifier Output Port (100V)

The unit integrates 4×120W, 4×250W, and 4×350W digital power amplifiers. The output ports deliver 120W, 250W, and 350W respectively, supporting connection to multiple constant-voltage speakers.

11. Power Input Socket and Fuse Holder

Provide working power for this machine. If the fuse is blown, please replace it with a fuse of the same specification; if the fuse continues to blow, there is a short-circuit fault inside the machine. Please remove the fault and replace the fuse.

12. 2-Bit DIP Switch

Adjustable MIC input sensitivity between 100mV and 5mV. 100mV is compatible with wireless microphone or wireless intercom receiver, while 5mV is suitable for dynamic or electret microphones.