

# MAG2108

## Digital Central Controller



### Description

This product integrates high-quality programmable media player, FM radio, 8-channel programmable partition, 4-channel programmable power supply, program-controlled microphone console, over-the-horizon wireless remote control, fire linkage and other functions in one, supports RS485 bus, MODE BUS communication protocol, and the control and management of peripheral equipment, as well as the third-party system integration. It can flexibly realize functions such as background music playback, unattended timing + fixed point + fixed track (music/alarm) playback, program control, on-demand, insertion, remote control playback, and automatic microphone trigger linkage. It is suitable for background music playback, unattended alarm, and temporary broadcast in such places as schools, kindergartens, factories, supermarkets, stores, cafes, parks, communities, etc.

This product adopts 2U industrial chassis design. It is provided with 2-channel amplifier input terminals (connected to amplifier), 8-channel programmable partition output terminals (connected to speakers), 4-channel programmable AC220V power outputs, 1-channel short-circuit dry contact trigger signal, and 3-channel RS485 interfaces (expand peripheral equipment).

### Features

- Adopt ARM+DSP chip architecture, embedded RTOS operating system, 4.3-inch capacitive touch screen, graphical interface, full touch operation.
- Support PC-side editing of timing programs and custom remote control functions.
- With powerful timing function, using automatic compensation RTC clock chip, accurate to seconds, free realization: timing + fixed point + fixed track.
- Adopt RS485 control bus, MODE BUS protocol, and two-way communication, to control peripheral equipment and to be controlled, and support third-party online control to facilitate third-party system integration (optional).
- Support remote paging station console access, which can realize remote call, audio access, on-demand,

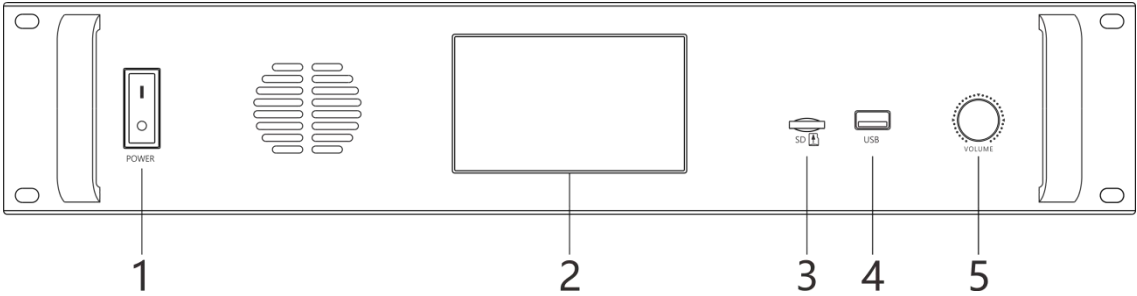
zone control, power control and other operations.

- 6. With fire emergency broadcast function, support local all-zone trigger and external fire collector trigger. The trigger action can be customized for each external fire trigger signal. Support adjacent layer alarm.
- With internal integrated 4G Flash memory chip, directly welded on the circuit board, never fall off, safe and reliable. Can expand external TF card, with the maximum up to 32G.
- Using high-speed USB2.0 interface, the computer can directly access the host memory and TF card to upload and download music files and program files.
- This machine can browse song lists and custom playlists, displayed in Chinese, with scrolling subtitles for long file names, and do not need to generate song lists or numbers on the computer.
- Support computer programming and local manual programming. Support 4 sets of programs, and each program can be programmed with 180 timing points.
- With internal integrated FM radio function. Support preset, automatic search, manual search and other functions.
- With 1 local microphone input, 2 AUX inputs, 4 audio outputs, and 1 remote microphone signal synchronous output.
- The remote microphones can be connected individually or connected hand in hand. All 3 COM ports can be connected, and up to 16 remote paging microphones can be connected.
- The local microphone can support mixing, automatic mute avoidance, automatic volume reduction and avoidance, automatic amplifier zone trigger, automatic resume after speaking, etc. All functional configurations used can be configured in "System Settings".
- Support functions such as local editing, browsing, and temporary running of timing tasks, making it convenient and quick to set various running tasks.
- Support simple mixer function, with touch screen analog mixing faders to intuitively adjust the volume of each audio source.
- With powerful decoding ability, support multiple audio encoding formats, such as MP3, WMA, WAV, etc.
- The stored music files are not limited by the number only related to the storage capacity. All music files can be viewed at will without any restrictions.
- Can control peripheral equipment such as CD, radio, partitioner, power sequencer, override power supply, fire collector and so on.
- Support long-distance remote control (>300m) (optional).
- Integrated with 8-channel programmable zones, 4-channel programmable power supplies.
- Support user password login management, and user-defined password.
- Adopt highly integrated dual-core decoding ARM+DSP+DAC system-on-chip.
- The host has Help and Wiring Guide for quick start.
- Can realize functions such as remote microphone, on-demand, and insertion, and can automatically resume after the playback is over.
- After a power failure, restarting the machine can automatically resume task execution.

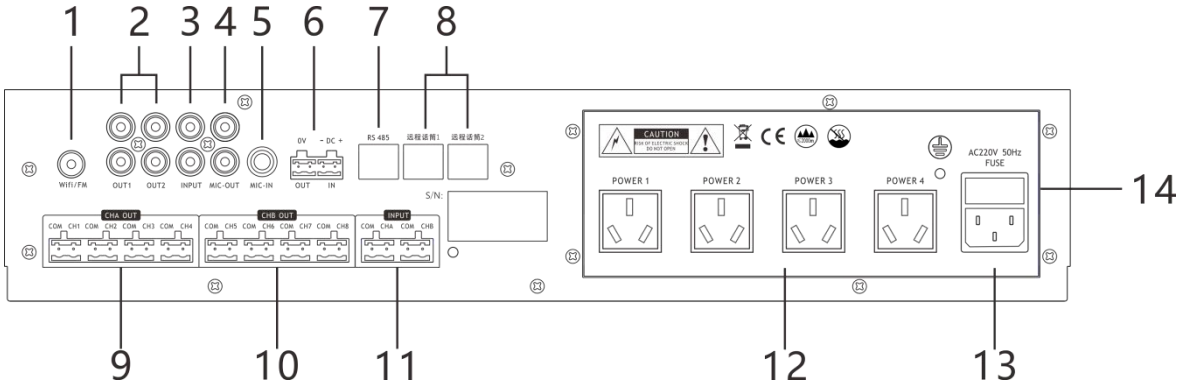
Specifications

Model	MAG2108
Storage Mode	Built-in 4G flash disk or external TF card
Audio Format	MP3, WMA, WAV, etc.
Radio Mode	FM 87.0-108MHz
Output	LINE 500mV Unbalanced
SNR	≥85dB
Distortion	< 0.1%(1KHz)
Frequency Response	20Hz-20KHz±3dB
Controllable Power Output	-220V/50Hz < 3A
Net Weight	5kg
Gross Weight	6kg
Dimensions (mm)	485×350×90 mm

Front / Rear Panel



- 1. Power switch: Turn on or off the power.
- 2. Monitor port: There is a built-in monitor speaker, which is used to monitor the playback content of the program, and the user can turn it on/off.
- 3. 4.3-inch true color capacitive touch display screen: The display screen displays all information dynamics of the system and implements touch operation.
- 4. TF card slot: TF card slot, where you can insert a TF card to expand the storage capacity, with the maximum up to 32G.
- 5. USB port: Connected to the computer with a USB cable to download music/timing program files to the machine.
- 6. Master volume knob: Adjust the total output volume.



- 1. Antenna interface: The wireless remote control antenna/FM radio antenna is connected to this interface.

2. Audio output interfaces: The 4-channel audio output interfaces are connected to the audio input interfaces of the amplifier.
3. Line input interface: External audio input interface, connected to external audio input, such as CD player, computer audio output, etc.
4. Program-controlled microphone synchronous output interface: Output the audio signal of the program-controlled microphone, which can be independently connected to the paging amplifier.
5. MIC input port: The microphone input is connected to this port.
6. Dry contact output: The short circuit output terminal is connected to the short circuit input terminal of the short circuit trigger device. The dry contact short circuit output can be programmed to trigger the power sequencer, etc.
7. Dry contact short circuit input: The short circuit input terminal is connected to the short circuit output terminal of other equipment to trigger the alarm broadcast in all zones.
8. RJ45 interface: RS485 bus interface, connected to program-controlled microphone or peripheral equipment through network cable, such as controlled CD, controlled power sequencer, controlled partitioner, etc.
9. 4-channel programmable power outputs: The programmable power sockets can provide AC220V/50Hz, and the power output current not more than 3A.
10. Group A zone output: 1~4 zones are group A programmable zones, and the corresponding power input is the amplifier A input.
11. Group B zone output: 5~8 zones are group B programmable zones, and the corresponding power input is the amplifier B input.
12. Amplifier B input: Connected to the amplifier B power output terminal.
13. Amplifier A input: Connected to the amplifier A power output terminal.
14. AC220V power input socket: Connected to the working power of the machine from this interface. When connecting, insert the plug on the machine first, and then connect the power grid.

## System Diagram

