WEP5501

Cloud Broadcast System

Description

Cloud Broadcast System is a highly integrated and intelligent public broadcasting system based on computer network technology, constructed in a modular and layered architecture.

The system employs fully digital transmission, primarily using wide area networks (WAN) as the transmission medium, while also supporting multi-network transmission in combination with local area networks (LAN). It adopts a distributed broadcasting approach, enabling multi-point control within LAN environments without being rigidly constrained by the host device. Under WAN conditions, the host serves as the core service unit. The system integrates multiple transmission methods, breaking the limitations of traditional public broadcasting systems that only support downstream transmission, single-network deployment, and centralized control from a control room. It boasts robust interactive capabilities.

The Cloud Broadcast Host is compatible with various functional terminals, including playback terminals, on-demand terminals, paging terminals, and one-touch emergency assistance terminals. The host itself integrates an audio source player, preamplifier, timer, equalizer, and can be expanded with fire alarm interfaces, zone controllers, 4G network modules, FM radio, and FM modulation functions. It also features powerful audio matrix capabilities.

The Cloud Broadcast System is suitable for diverse applications such as airports, ports, university campuses, schools, large-scale event venues (e.g., expo parks), sports stadiums, industrial parks, parks, rail transit systems, village broadcasting networks, emergency broadcasting, and highways, demonstrating exceptional performance characteristics.

Features

Product Features

- A fully-featured Cloud Broadcast System.
- Fully digital transmission with expandable network transmission capability, featuring approximately

200ms delay for public network broadcasts and 40ms delay for LAN broadcasts.

- Leverages existing network infrastructure for rapid deployment and cost efficiency, achieving multi-line transmission convergence.
- Breaks through the limitations of traditional public address systems that only support downstream transmission, single-network architecture, and centralized control from equipment rooms, offering robust interactive functionalities.
- Supports unlimited zoning with flexible partition and group combinations that can be reconfigured anytime without additional wiring.
- Enables scheduled programming playback, operating automatically per predefined schedules for unattended operation. Supports manual or timed playback of various audio source types for daily schedule bells. Independent timing per zone allows simultaneous playback of different programs at varying volume levels across partitions.
- Terminal playback options: Host can sequentially download scheduled audio sources to terminals, or terminals can independently request programs from the host.
- Priority interruption paging: Central control room can page individual or all partitions via host. Telephone paging becomes available with telephone module integration.
- Intercom functionality: In multi-zone systems, concurrent one-to-many terminal paging is possible across partitions, with direct terminal-to-terminal paging communication.
- Remote Control: Accessible via any LAN or public network-connected computer without software installation—full system operation and modifications available through web browsers.
- Includes fire control center interface for automatic alarm interruption, supporting both short-circuit alarms (alarm cards) and network signal alarms. Active alarms display fire icons on corresponding partition interfaces for clear status visibility.
- Automatic playback resumption upon terminal reconnection, with instant partition information updates after modifications.
- Features more intuitive, user-friendly operation with drawer-style full keyboard input for real-time partition/group name editing.

System Features

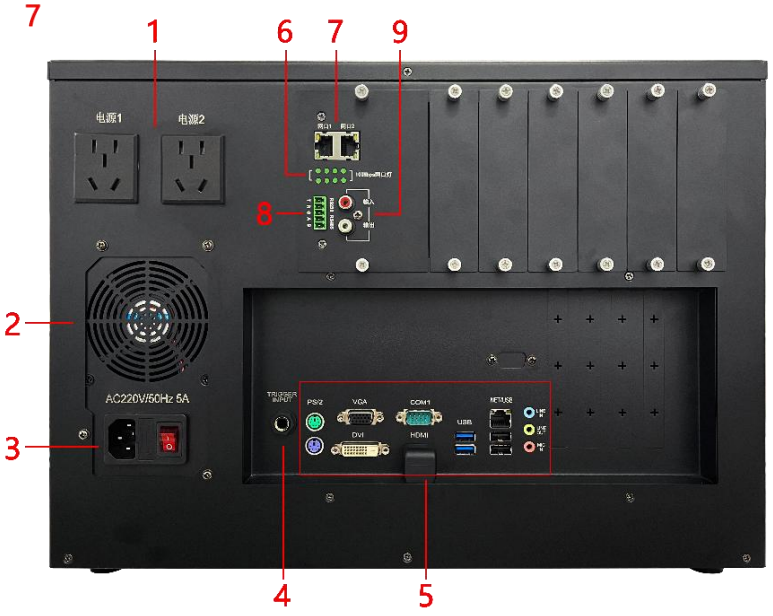
- 17-inch large color screen with touch panel control;
- Equipped with one-touch power switch and password login to ensure system security and stability;
- Powerful broadcasting matrix with built-in large-capacity program source storage, customizable according to user needs;
- One-touch triggering for full-area alarm and manual alarm functions;
- Zone monitoring function enabling real-time operation and volume control of terminal playback status in each zone;
- Zone paging function allowing direct paging to specific zones from the main unit;
- Newly added zone registration to prevent unauthorized system access;
- Programmable auto power on/off for user convenience; automatic screen saver for energy-saving operation;
- Built-in recording function for users to create program sources via local recording or remote PC file transfer;
- Timed control function with editable timing points on the main unit;
- Integrated drawer-style keyboard and touch mouse for PC-like ease of use;
- Expandable audio input channels via network paging terminals;
- Modular design supporting various expansion modules for flexible customization and easier maintenance;
- Industrial-grade SSD + HDD hybrid storage for faster boot speed;
- High-end industrial server motherboard design with dual-network redundancy backup.

Specifications

Model	WEP5501
Screen Size	17 inches
Control Method	Touch-sensitive
Working Environment	Ambient temperature: 5-35° C; Relative humidity: ≤75%; Atmospheric pressure: 86-106kpa
Timed Power Supply Load Capacity	Single-channel current: 2A
Signal-to-Noise Ratio for System Audio Signal	LINE: >70dB; MIC: >60dB
Distortion Level for System Audio	1kHz<0.5%
Standard Input/Output Level for System Audio Signals	LINE : 500mV±20mV; MIC :10mV±2mV / 0dBV
Self Power Consumption	AC 220V/50Hz/120W
Package Dimensions (L x W x H mm)	580x390x350
Machine Dimensions (L x W x H mm)	483x350x320
Gross Weight/Net Weight	23kg/16kg

Product Information

1. 17-inch touch display screen.
2. Handheld microphone hook.
3. 4-pin aviation connector for handheld microphone.
4. USB*2 communication ports.
5. Emergency self-locking switch (with protective cover).
6. Keyboard and mouse pull-out handle.
7. Illuminated power-on button.



1. Controlled power supply output: AC220V-2A.
2. Fan cooling vent, caution for burns.
3. Power input interface: AC220V/50Hz 5A.
4. Remote control power-on interface, short-circuit for 3 seconds to turn on/off.
5. Motherboard interface (functions as per silkscreen instructions).
6. Network interface card insertion indicator light.
7. Dual network ports, redundant design.
8. 1 RS485 channel, 1 RS232 channel.
9. Audio input/output ports, input sensitivity 500mV, output amplitude 1000mV.

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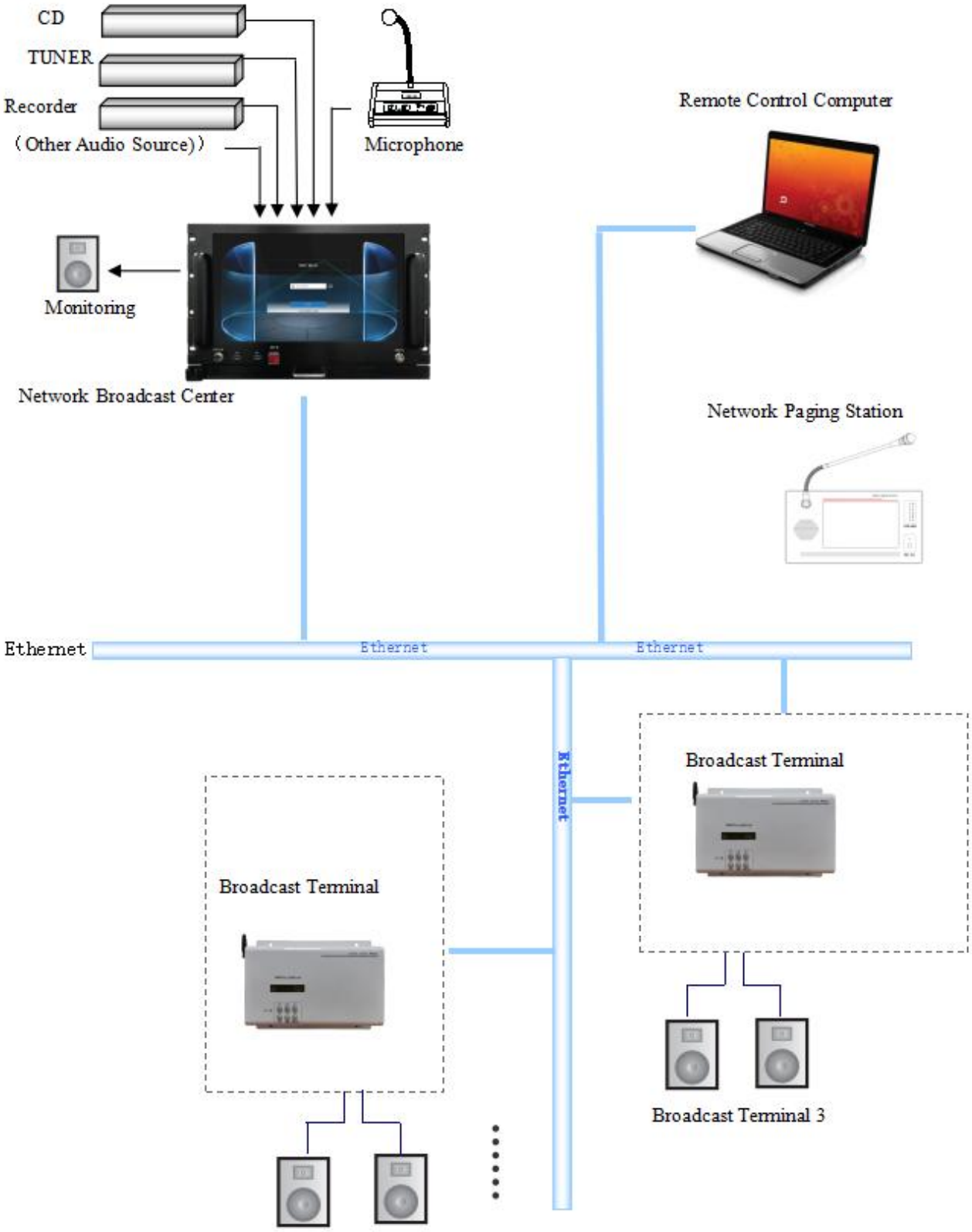
Connection Diagram



Note:

The above diagram provides a schematic illustration of connecting a simple application for the device.

The diagram is for illustrative purposes only. For specific connections, please refer to the system connection diagram at the application site.

The device is connected and integrated into the existing network within the system. By configuring the corresponding server address, it can communicate with the cloud broadcasting platform system and issue paging commands to designated zones.