System Solution_CM801+D7821
Professional Conference System
for Conference Rooms

System Solution Overview

- In modern society, audio performance plays a vital role in conferences and live events. With advancements in technology and evolving user demands, the use of mixers and wireless audio systems has become increasingly widespread. In conference settings, clear and high-quality audio enhances communication and meeting efficiency, while in mobile applications, professional audio equipment not only boosts the impact of live performances but also improves the overall audience experience.

- This solution provides a comprehensive application plan for mixers and wireless microphones, suitable for various conference rooms and mobile scenarios of different scales, ensuring optimal sound quality and user experience across diverse environments.

Project Requirements

- Ensure excellent microphone pickup performance with no interference or noise.

- The mixer should support multi-channel control and offer comprehensive audio processing capabilities (e.g., equalization, reverb).

- Guarantee compatibility between wireless microphones and the mixer, with support for multiple signal connection options.

- The interface should be intuitive and user-friendly for different operators (e.g., meeting organizers, live sound technicians).

- The system should be adaptable to various environments, including fixed meeting rooms and large-scale mobile events like stage performances.

Conference Room Sound Reinforcement System Configuration

System Configuration

Training Room: 200-300㎡
System Composition: Speech system + professional sound reinforcement system

System Function: Mobile sound reinforcement using handheld wireless microphones, with audio source mixing and adjustment performed via the mixer.

System Advantages:

- **High-fidelity Sound Quality:** The D7821 wireless microphone features a dynamic cardioid pickup head with wide frequency response and low distortion, ensuring clear and accurate vocal reproduction. Combined with the CM801 mixer's high signal-to-noise ratio and low-noise circuit design, the system delivers clean and pristine audio performance in indoor environments.
- **Stable & Reliable Performance:** The D7821 operates on the UHF band and adopts PLL (Phase-Locked Loop) technology, offering 160 selectable channels with strong anti-interference capability and frequency stability, ensuring reliable signal transmission even in complex indoor environments. The CM801 mixer features a mute switch and electronically controlled channel functions, allowing quick response to unexpected issues such as feedback howling.
- **Easy Operation:** The D7821 features a one-touch automatic frequency matching function that quickly locks onto interference-free channels. The CM801 mixer's LED signal indicators, PFL (Pre-Fade Listen) monitoring, and intuitive control interface simplify operation, enabling users to get started quickly.
- **Flexible & Versatile:** The CM801 features multifunctional input/output interfaces supporting various device connections to meet the needs of different conference scenarios. Dual-mode Bluetooth and USB support enable convenient background music playback, recording, and real-time monitoring.
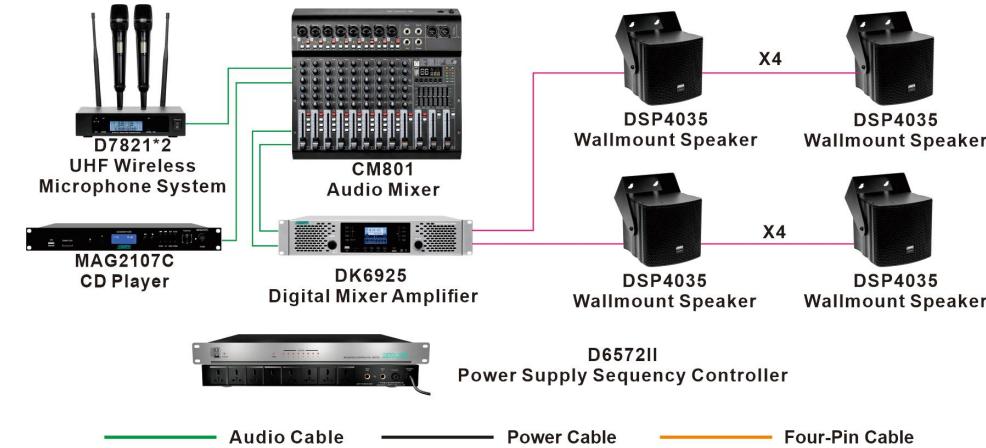
No.	Model	Product Name	Quantity
1	D7821	True Diversity UHF Wireless Microphone System	1
2	CM801	8 Channels Mixer	1
3	DK6925	2X250W Digital Stereo Conference Mixer Amplifier	4
4	DSP4035	60W Coaxial Wall Mount Speaker	8
5	D6572II	8 Channel Power Supply Sequency Controller	1
6	MAG2107C	1U CD player with USB/FM/Bluetooth	1

Mobile Performance System Configuration

System Configuration

Performance Venue: 300–500 m²
System Composition: Speech system + professional sound reinforcement system
System Functions: Supports multiple audio playback sources including CD, USB, SD, Bluetooth, and radio signals; handheld microphones provide mobile sound reinforcement, with audio mixing and adjustment managed via the mixer.
System Advantages:

- **Long-Distance Stable Transmission:** The D7821 utilizes the UHF band and PLL (Phase-Locked Loop) technology to provide a stable transmission range of up to 150 meters, meeting the needs of small indoor and outdoor performances.
- **Strong Anti-Interference Capability:** With 160 selectable channels and a one-touch automatic frequency matching function, the D7821 combined with the CM801's high-pass filter effectively copes with complex electromagnetic environments outdoors, ensuring stable signals and pure sound quality.
- **Adapted for Outdoor Environments:** The CM801's wide operating temperature range and the D7821's weather resistance enable reliable performance amid outdoor temperature variations. The CM801's independent gain control reduces crosstalk between multiple devices, enhancing audio clarity.
- **Convenient & Efficient:** The D7821's one-touch automatic frequency matching and network setup functions, combined with the CM801's intuitive user interface, simplify the construction and debugging process of indoor and outdoor performances.
- **Excellent Sound Quality & Coverage:** The LA-1280 features a precision crossover design with 3 × 44mm tweeters, 6 × 5.5" midrange drivers, and 2 × 12" woofers. Its wide frequency response and high sensitivity deliver clear and powerful audio with a maximum sound pressure level of 135dB, easily covering large venues and maintaining strong sound penetration even in noisy environments. The enclosure is coated with a polyurea waterproof and scratch-resistant finish, offering protection against water, dust, and humidity. This ensures stable performance in harsh outdoor conditions such as rain, wind, and sand, providing reliable sound reinforcement for outdoor events.
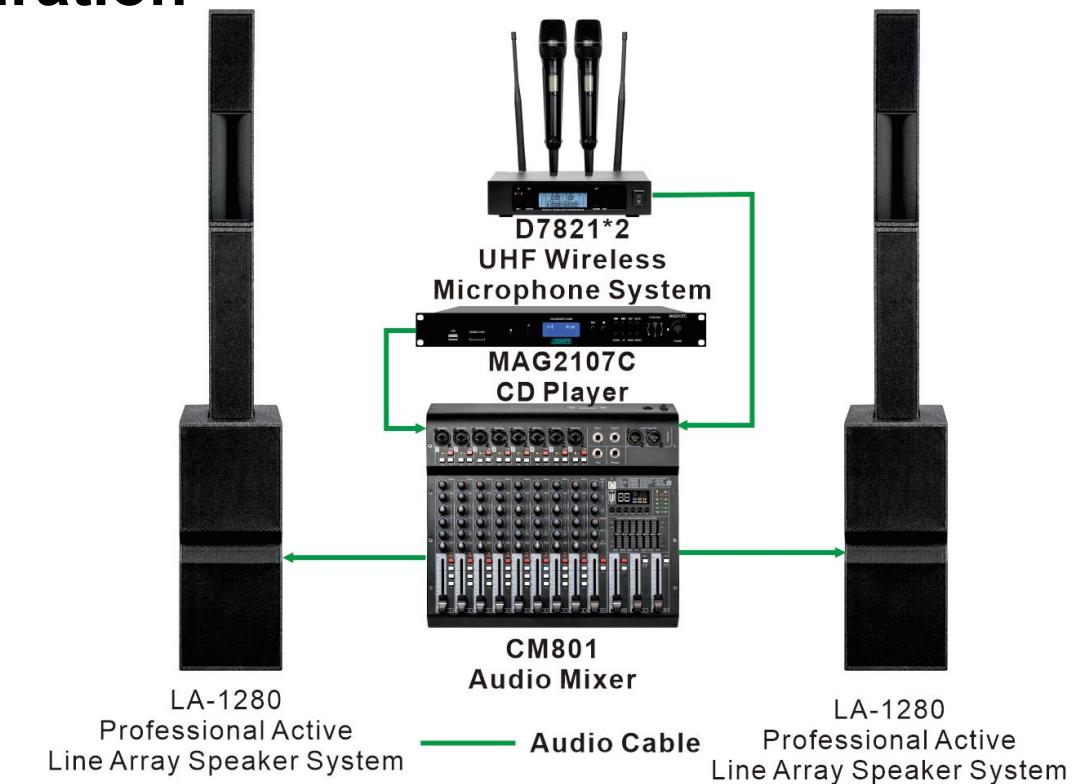
D7821*2
UHF Wireless Microphone System

MAG2107C CD Player

CM801 Audio Mixer

LA-1280 Professional Active Line Array Speaker System

Audio Cable

LA-1280 Professional Active Line Array Speaker System

No.	Model	Product Name	Quantity
1	D7821	True Diversity UHF Wireless Microphone System	1
2	CM801	8 Channels Mixer	1
3	MAG2107C	1U CD player with USB/FM/Bluetooth	1
4	LA-1280	800W+800W Professional Active Line Array Speaker System	2

Product Advantages_CM801 Compact 8-Channel Multi-Functional Mixing Console

● Flexible and Versatile I/O Interfaces

Compatible with a Wide Range of Devices: Supports both Mic and Line inputs, allowing connection to condenser microphones, instruments, and line-level devices. Equipped with a PAD switch to accommodate different input levels.

Diverse Output Options: Features AUX out, FX send, PHONES monitoring jack, and main L/R outputs, meeting various needs such as stage monitoring, external effects processing, and headphone monitoring.

● Professional Audio Processing Capability

7-Band Stereo Equalizer: Offers precise adjustment of high, mid, and low frequencies, with a high-pass filter to eliminate unwanted low-frequency noise.

Dynamic Control Functions: Includes gain adjustment, pan control, mute switch, and electronic channel control to ensure accurate signal processing.

● Convenient Modern Connectivity

Dual-Mode Bluetooth/USB Support: Enables both Bluetooth wireless connection and direct USB connection to a computer for music playback or recording, with seamless mode switching (Bluetooth/USB/Recording).

Real-Time Monitoring and Recording: Equipped with a PHONES monitoring jack (supports high-impedance headphones) and USB recording capability, allowing for on-site monitoring and multitasking.

● Efficient Operation and Stability

Intuitive Control Design: Features LED signal indicators, PFL (Pre-Fader Listen) monitoring, and main fader level control for streamlined operation.

Reliable Power Management: Supports DC regulated power switching, adaptable to various power environments, with a wide operating temperature range (0°C to 45°C).

● Unique Features and Expandability

Independent Stereo Suppression Function: Minimizes crosstalk for enhanced audio clarity.

Low-Power Drive: Energy-efficient design suitable for long-duration performances or recording sessions.

Highly Compatible Technical Specifications: Input impedance (Mic: 2.5kΩ / Others: 10kΩ) and high signal-to-noise ratio (channel isolation: 82dB) ensure high-quality signal transmission.

● Wide Range of Applications

Wide Range of Applications
Ideal for live performances, studio recording, and outdoor sound reinforcement—particularly effective in high-frequency noise environments such as outdoor lighting setups—meeting the demands of professional audio control.

Product Advantages_D7821 True Diversity UHF Wireless Microphone System

▶ **UHF Wireless Microphone System**
▶ **Mixing Console**
▶ **Speaker**

● Professional Wireless Transmission Performance:

UHF Band (610–690MHz): Offers 160 selectable channels with strong anti-interference capability, supporting simultaneous operation of multiple systems.

Long-Distance Stable Transmission: Provides an effective range of up to 150 meters (in open environments), featuring built-in PLL (Phase-Locked Loop) technology for frequency stability (±0.005%).

● Smart & Convenient Operation:

Automatic Frequency Matiching Technology: One-touch auto scan with infrared pairing quickly locks onto interference-free channels.

Multi-Device Synchronization: Supports network multiple receivers, ideal for large-scale events with multiple microphones.

● High-Fidelity Sound Quality

Wide frequency response (45Hz–16kHz) with a dynamic cardioid microphone capsule, low distortion (THD ≤ 0.5%), and a signal-to-noise ratio ≥ 105dB.

Dual Output Interfaces: XLR balanced output (for interference resistance) and 6.3mm unbalanced output, compatible with various audio equipment.

● Long Battery Life and Portable Design:

**8-hour operation:** Handheld transmitter powered by two AA batteries;

Real-time Battery Monitoring: The receiver displays transmitter battery status to prevent performance interruptions.

Product Advantages_DSP4035 Coaxial Wall Mount Speaker

Mini Design

LF: 1x4.5"
HF: 1x1"

Frequency Response
90Hz~20KHz

Dispersion
90°Hx90°V

Aluminium Enclosure

Model	DSP4035
Driver Units	LF: 1×5" (1" Voice Coil), HF: 1×1" (1" Voice Coil)
Rate Power	60W
Frequency Response	100Hz~20KHz (±6dB)
Recommended Amplifier	100W into 8 Ohms
Sensitivity	95dB
Max.SPL	118dB/1m
Nominal Impedance	8Ohms
Coverage Pattern	90°H × 90°V
Enclosure Material	Multi-layer Composite Plywood
Enclosure Finish	Painted
Grille	Powder-coated Steel Grille
Connector	1×NL4 Socket
Dimensions (H×W×D)	165×165×165mm
Weight	3kg

Mounting Method

Firstly: fix two nails from the wall according to the size of the hanging hole.

Make sure the nails are positioned in this location.

Once fixed, attach the speaker in the direction shown in the diagram above.

180°

Adjust the hanging angle with the screws (Note: Loosen both sides simultaneously).

Adjustable Angle (0-180°)
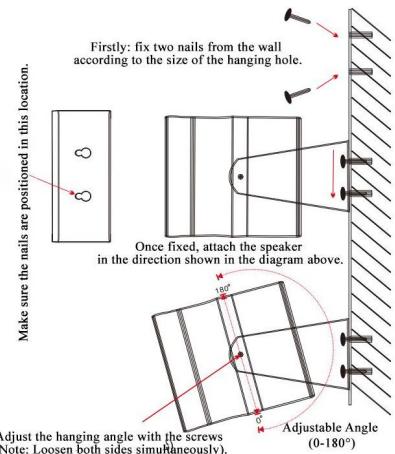
- With a compact size that saves space and preserves the clean layout of conference rooms, the speaker supports wall-mounted installation with an adjustable angle (0–180°), allowing it to adapt to various room configurations and flexibly direct sound coverage for even distribution.
- High-Definition Voice Performance: Wide frequency response covers the core vocal range, ensuring clear and natural speech. The coaxial driver design reduces phase distortion, enhancing accurate voice localization.
- Wide Coverage and Interference Resistance: 0° × 90° dispersion angle provides broad coverage of the conference table area, minimizing sound dead zones. The multi-layer laminated plywood enclosure suppresses resonance, reduces background noise interference, and improves speech clarity.
- The DSP4035 prioritizes superior speech intelligibility while offering flexible installation, uniform coverage, durability, and aesthetic appeal. It is an ideal sound reinforcement solution for small to medium conference rooms, training rooms, and auditoriums—especially suited for voice-centric applications.

Product Advantages_LA-1208 Active Line Array Loudspeaker
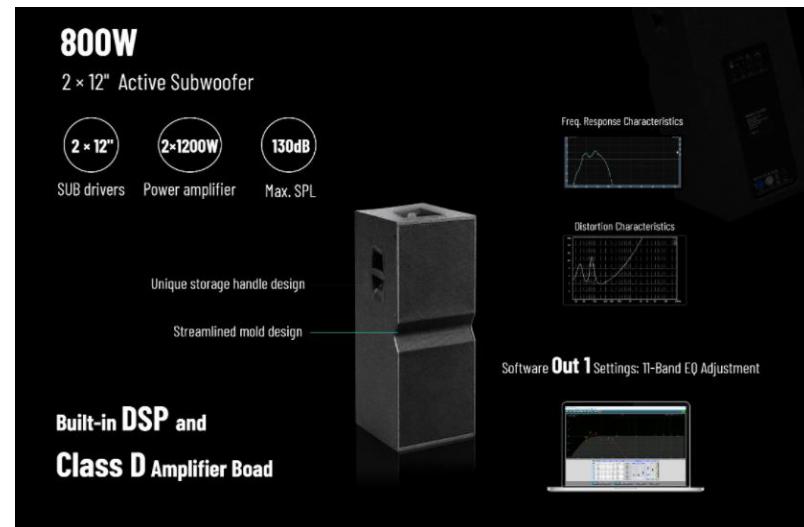
The Professional Active Line Array Speaker System is designed for demanding applications that require exceptional sound quality and sound reinforcement performance. Whether in large conference rooms, outdoor performance venues, or school auditoriums, it delivers powerful and crystal-clear audio with ease.

Application Scenarios

Performances

Conference Rooms

Multifunctional Halls

Banquet Halls

Recording Studios

The system is ideal for performances, conference rooms, multifunctional halls, banquet halls, and recording studios.

CREATING THE BEST

SOUNDING THE WORLD

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