

ALF-SUK4-8K  
VIDEO DISTRIBUTION WITH AUDIO AND CONTROL



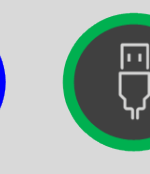
HDMI



LAN



DANTE



USB 2.0



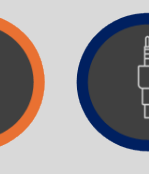
USB-C



HDBT



SPEAKER



AUDIO

## The Solution

The solution is designed to distribute a single HDMI source, (supporting resolutions of up to 8K) to four displays while delivering associated audio through ceiling loudspeakers and providing centralized control of both displays and audio.

Users start the system via the ALF-IP6 controller, which powers on the displays, unmutes the amplifier, and lets the room audio to a predetermined level on the ALF-MA15075D amplifier.

When an HDMI source is connected to the ALF-SUK4-8K distribution amplifier, the signal is displayed on all four displays. The ALF-SUK4-8K de-embeds the HDMI audio and outputs a balanced analogue signal, which is connected to the line-level input of the ALF-MA15075D amplifier.

ALFC-606 2-way 6-inch ceiling loudspeakers are connected to the 70/100V output of the ALF-MA15075D amplifier for audio playback. In this configuration, four ceiling loudspeakers are connected; however, additional loudspeakers may be added depending on tap settings. A 20–25% headroom margin must always be maintained when calculating the total speaker load.

Audio playback levels can be controlled via the ALF-IP6 controller, which adjusts the ALF-MA15075D output level.

When the system is no longer in use, the ALF-IP6 keypad/button controller can power off the displays and mute or switch off the amplifier output.

## ALF-IP6 Controller overview

The ALF-IP6 is a programmable wall-mounted keypad controller designed for simple and intuitive AV system control. Featuring six configurable buttons, it allows users to manage key room functions such as display power, input selection, volume control, and system on/off. The unit communicates over IP and includes RS-232 and dual IR ports for flexible integration with displays, switchers, and amplifiers. Its clean, low-profile design makes it ideal for meeting rooms, training spaces, classrooms, and hospitality environments requiring reliable, straightforward control.

## ALF-SUK4-8K Overview

The ALF-SUK4-8K is a high-performance HDMI distribution amplifier that splits a single HDMI input to up to four displays, supporting resolutions up to 8K. It provides reliable simultaneous signal distribution and includes built-in HDMI audio de-embedding with multiple output options, including balanced analogue, optical (Toslink), and RCA stereo outputs. This makes it ideal for meeting rooms, training spaces, and digital signage applications requiring high-resolution video distribution with flexible audio integration.

## ALF-MA15075D Overview

The ALF-MA15075D is a compact 1U Class-D digital mixing amplifier designed for both low- and high-impedance systems. It delivers  $2 \times 75W$  at  $4/8\Omega$  or  $150W$  at 70/100V, making it ideal for distributed commercial audio applications. Its Class-D design ensures energy efficiency, low heat output, and reduced inrush current, with automatic standby to minimize power consumption. It features Dante, optical, balanced analogue inputs, and two microphone inputs with phantom power support, along with stereo low-impedance, 70/100V, and balanced line-level outputs. Integrated DSP includes a five-band graphic EQ, TCP/IP web control, trigger input, and front-panel status LEDs, ensuring flexible control and efficient system integration.

## ALF-TSC6 Overview

The ALF-TSC6 is a versatile table-mounted connectivity hub that combines power outlets, USB charging, HDMI, USB-C, networking, and audio cables in a sleek, durable, easy-to-install enclosure. Its slidable cover and brushed aluminum design make it ideal for maintaining a clean, professional conference table surface.

## Solution Bill of Quantities

- 1 x ALF-IP6 Controller
- 1 x ALF-TSC6 Table Box/AV Interface
- 1 x ALF-SUK4-8K Distribution Amplifier
- 1 x ALF-MA15075D Amplifier
- 8 x ALFC-606 Ceiling Loudspeakers
- 1 x ALF-HDMI 6/10ft HDMI Cable
- 4 x ALF-HDMI 35/50ft HDMI Cables

### Third Party Equipment

- 4 x Displays
- 4 x Display mounting brackets
- 1 x PoE Network Switch

## Solution Use Cases

### 1. Multi-Display Presentation Room

This system is ideal for a corporate boardroom or training center where presenters need to display content across multiple projectors and flat-panel displays simultaneously. A laptop or PC connects to the system, distributing HDMI signals to four displays while also feeding audio to ceiling speakers for clear room reinforcement. Built-in control-panel integration allows presenters to control presentation audio levels, mute/unmute audio, or lower screens without needing technical assistance. This results in smooth, professional presentations suited for leadership meetings and client pitches.

### 2. Multi-Display Training Room

In corporate training/learning spaces, this solution supports instructor models where instructors present educational multi-media content to attendees. The system allows content from a laptop or PC to be displayed on multiple displays along associated presentation audio. Instructors can connect their device quickly, rely on automated audio routing, and use a single wall control panel to manage the session. This setup creates a flexible learning environment that adapts to learning, group discussions, and multimedia demonstrations.

### 3. Hospitality or Conference Venue Breakout Room

For hotels, convention centers, and event venues, this configuration provides a reliable and scalable AV distribution platform for guest events. Staff or presenters can plug in at the table box, with the system distributing HDMI signals to four displays while also feeding audio to ceiling speakers for clear room reinforcement. Built-in control-panel integration allows presenters to control presentation audio levels, mute/unmute audio, or lower screens without needing technical assistance. The system handles audio amplification and display switching. This reduces setup time for event staff and offers a polished, user-friendly experience for guests who may have little or no AV expertise.