# Case Study

# 4K Digital Signage Player for Video Wall

## Real-time financial market information display

Deploying video walls in financial institutions offers a variety of advantages. Video walls enhance visual communication, providing a dynamic platform to display real-time market data, financial news, and investment trends. Besides, the flexibility to switch between different content types ensures that the video wall and the venue can serve multiple purposes, from showcasing investment portfolios to hosting presentations, making it a versatile tool for financial institutions.

## Challenges

The customer was looking for a 4K digital signage player to build a curved LED video wall in the lobby of the Taiwan Stock Exchange Corporation (TWSE), a financial institution responsible for operating and advancing the domestic securities market. The signage player is required to support four display outputs and have two LAN ports. Remote management of power on/off and built-in hardware EDID (Extended Display Identification Data) simulation is also essential.

**Main Requirements**
- High performance Intel® Core™ processor
- Four HDMI with 4K resolution at 60Hz
- Two LAN ports
- Supports hardware EDID simulation
- Scheduling power on/off
- Windows 10 IoT with Intel vPro function
- Supports AUO Curved LED Display

## Leveraging four HDMI 2.0 outputs for a high-resolution video wall

Axiomtek has proposed its **DSP511**, a 4K digital signage player with four HDMI 2.0 ports, one GbE LAN and one 2.5G LAN port. The high-performance signage device DSP511 is powered by the 11th Gen Intel® Core™ i5/i3 processors (codename: Tiger Lake UP3). It provides M.2 Key B and Key E slots to establish a wireless connection. Moreover, it supports Axiomtek's exclusive Remote Device Management (RDM) software, which provides a highly efficient and cost-effective smart solution with comprehensive remote management capabilities.

## Application
### Flexible video wall presenting real-time trade market information

The Taiwan Stock Exchange has deployed a curved video wall consisting of four screens in the lobby. To build a dynamic video wall displaying real-time stock information, it needs a 4K digital signage player with four HDMI outputs to display the content and a 2.5G LAN port to present the real-time information. As the venue is multi-purpose, it is sometimes used for receiving VIP guests and sometimes used to hold press conferences. So, switching contents between screens with consistent resolution and frequency with fixed EDID is an edge of the DSP511. Importantly, the DSP511 supports remote management to schedule power on/off, making operators' work easier.

## System Configurations of the DSP511

- 11th gen Intel® Core™ i5 processor (code name: Tiger Lake UP3)
- One DDR4-2666 SO-DIMM for 16GB of memory
- Four HDMI 2.0 in support of 4K resolution
- Four USB, one 2.5G LAN and one GbE LAN
- One M.2 Key E 2230 slot for Wi-Fi/Bluetooth
- One M.2 Key B 3052 slot for 5G/LTE
- One M.2 Key M 2280 slot for storage
- Win10 IoT operating system
- Supports Remote Device Management (RDM)

## Why Axiomtek

Axiomtek's advanced digital signage player products provide our customers with high-computing performance, 4K resolution support for dynamic graphics/video experiences, ultra-compact design, simplified installation, and RDM remote management to lower total cost of ownership and higher return on investment.

"We are delighted to share our outstanding experience collaborating with Axiomtek. Its DSP511 digital signage player not only meets but exceeds our stringent requirements, boasting flawless integration with its exceptional remote management software suite. Its technical service played a pivotal role in

resolving the technical issues promptly, minimizing downtime and maximizing productivity," said the engineering manager of the customer.

## About Axiomtek Co., Ltd.

Axiomtek has experienced extraordinary growth in the past 30 years because of our people, our years of learning which resulted in our tremendous industry experience, and our desire to deliver well-rounded, easy-to-integrate solutions to our customers. These factors have influenced us to invest in a growing team of engineers including software, hardware, firmware, and application engineers. For the next few decades, our success will be determined by our ability to lead with unique technologies for AIoT and serve our key markets with innovatively-designed solution packages of hardware and software – coupled with unmatched engineering and value-added services that will help lessen the challenges faced by our systems integrator, OEM and ODM customers and prospects alike. We will continue to enlist more technology partners and increase collaborations with our growing ecosystem who are leaders in their fields. With such alliances, we will create synergy and better deliver solutions, value, and the expertise our customers need.