Solution Brief

Hospitality, Retail, Restaurant, Transportation

JWIPC Uses Intel® Core® Processors for Multi-Screen Digital Signage

The company's K115D5 Digital Signage Player can drive up to four 4K resolution displays using Intel® Core™ i5 processors with built-in Intel® Iris® Xᵉ Graphics

The market for digital signage is evolving, driven by 4K resolution, multi-screen applications in retail, advertising, corporate communications, education, hospitality, entertainment, healthcare and transportation.

Digital signage players are the key systems that drive these applications. They handle media processing and playback, and work with content management systems to send content to the right screen. These systems also offer advanced features such as scheduling and remote management.

To keep smooth playback and interactivity in high-resolution, multi-screen applications, digital signage players are adding more compute power. This enables them to offer the performance needed for key use cases including immersive and high-definition LED video walls, self-service kiosks, and interactive signage.

To meet these needs, JWIPC, an Intel® Industry Solutions Builders Partner, has developed the K115D5 Digital Signage Player that is powered by the Intel® Core™ i5 processor. This processor has built-in Intel® Iris® Xᵉ Graphics for smooth decoding performance and display output. The processor provides the compute power to drive HDMI connectivity to up to four 4K displays (at 60Hz) or one 8K display.

Delivering High-Definition Playback

The K115D5 has a sleek, compact design that fits seamlessly into modern environments and supports Windows 11 and Linux operating systems. The player features four-channel UHD display output to power sharper, more engaging video walls and multi-screen layouts.

The compact K115D5 includes numerous I/O interfaces including five USB 3.0 ports, a USB Type-C port, two RS232 COM1/2 connectors, and a microphone input. The player can support remote locations or outdoor digital signage applications with its built-in SIM card slot.

The K115D5 can interface with supplementary edge computing devices that offer value-add capabilities, such as store management or customer management.

Flexible Wireless And Wired Connectivity

To ensure fast, stable connectivity for real-time content updates across dispersed deployments, the system has two RJ-45 ports for Ethernet connectivity up to 2.5GbE. The built-in M.2 Key E 2230 slot and Mini PCIe Wi-Fi/BT slot offers additional options for Wi-Fi connections. Users can choose from a variety of Wi-Fi adapters including the Intel® Dual Band Wireless-AC 3165 (2.4 GHz and 5GHz Wi-Fi 5), Intel® Wi-Fi 6 AX101, or Intel® Wi-Fi 6E AX210.

For security, the solution features trusted platform module with a microcontroller that ensures the K115D5 boots safely from trusted hardware and software.

Figure 1. Front view of K115D5 digital signage player.

Because it uses Intel Core i5 processors, the K115D5 players can optionally use the security and remote management feature in Intel vPro® platform. Included in this platform are Intel vPro® Security, which secures applications and data below the OS, and uses AI for advanced threat detection. Another Intel vPro feature is Intel® Active Management Technology, which can remotely update, diagnose, and repair a K115D5 even if it is powered off.

Intel® Core™ Processor Boosts Graphic Output

Featuring a high-performance processor with up to 24 cores and 32 threads and integrated Intel® Iris® Xᵉ Graphics capabilities, the Intel® Core™ processor family is optimized for the compute-intensive work of a digital signage player including display interactivity that is especially important in way finding kiosks and other applications. The processor has long-life availability and support.

The processor offers PCIe 5.0 connectivity, DDR5-5600 memory support, and backwards compatibility. These features power a wide range of use cases across industries, including AI-enabled immersive experiences in retail. These processors offer extended product lifecycles for up to 10 years of availability and Windows 11 IoT Enterprise Long-Term Servicing Channel (LTSC) 2024.

Conclusion

Behind the high-definition flat panel displays that educate, immerse and compel audiences is a digital signage player that has the performance and software features to ensure quality video. The K115D5 player from JWIPC uses the CPU and graphics processing capabilities of the Intel Core i5 processor to give its player the smooth video delivery across four 4K displays. With security and manageability built into the Intel Core i5 processor, the K115D5 can be used in a wide range of applications.

Learn More

JWIPC Website

K115D5 Datasheet

Intel vPro®

Intel® Core™ Processors

Intel® Industry Solutions Builders

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