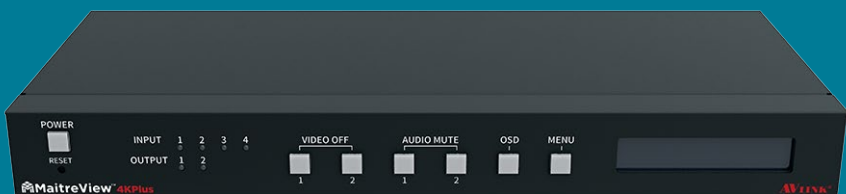


AV LINK's 8K/4K Multiwindow Video Processors Driven by AMD Kintex™ Ultrascale™ Devices

AMD Kintex UltraScale Devices Help the AV LINK MaitreView™ Family Switch Seamlessly Between Video Sources



PARTNER



INDUSTRY

Pro AV / Electronics

CHALLENGES

AV LINK set out to create a tool that provided users in corporate, education, healthcare, military, and other industries, a better way to collaborate and accelerate decision making.

SOLUTION

MaitreView™ video processors deliver multiwindow 8K and 4K/60Hz HDMI video to two screens, driven by AMD Kintex UltraScale devices.

RESULTS

The Kintex UltraScale solution offered a cost-effective solution with excellent performance that enabled fast prototyping and fast time-to-market.

AMD TECHNOLOGY AT A GLANCE

AMD Kintex UltraScale

AV LINK designs and manufactures 4K and 8K “multi-window” video processors that enable seamless switching between video sources.

Its MaitreView™ family upgrades meeting spaces by offering an industry-leading architecture and up to 8K-ready video connectivity and processing, based on AMD FPGA devices.

The technology allows users to make the best use of visual space on a screen to enhance collaboration by allowing multiple video sources to be displayed across one or more screens.

CHALLENGE

AV LINK was looking to create a device that enabled flexible, multi-window video displays, with seamless switching between sources.

Their vision was to build a tool that provided users in corporate, education, healthcare, military, and other settings a better way to collaborate and accelerate decision making. To support these markets, the device had to be robust and easy to use and offer low-latency performance.

Depending on the market, some applications require very high resolution, uncompressed images for better diagnostics. Other applications require flexibility with real-time drag-and-drop layouts.

SOLUTION

The MaitreView™ multi-video processor delivers multiple, high-quality video inputs to two screens. The solution features an on-screen display to identify and manage inputs/outputs, real-time drag-and-drop capabilities, uncompressed focus, and adjustable borders for each region of the screen.

The product comes in three versions. The MaitreView™ 8K Pro and 4K Pro offer seamless switching with 8K and 4K/60Hz HDMI multiwindow video processing, respectively, and unlimited screen layouts. The MaitreView™ 4KLite is an entry-level version of the MaitreView™ 4KPro, offering up to six layouts.

The MaitreView™ family is driven by AMD Kintex UltraScale FPGAs. AV LINK started working with AMD FPGAs six years ago. “The AMD chipset is very flexible and it allows us to easily add more features and functions when we need to,” said the company’s vice president, Burt Lee.

AMD Kintex UltraScale devices provide exceptional price/performance per watt at 20nm and include the highest signal processing bandwidth in a mid-range device. It is ideal for DSP-intensive processing used in medical imaging, 8K/4K video, and wireless applications.

RESULT

“The AMD Kintex UltraScale family offered us cost-effective, FPGA-based solutions with extraordinary performance,” Lee said. “We were able to implement seamless switching between different windows and our engineers were able to produce a rapid prototype that helped us bring a full product line to market as soon as we could.”

Lee added that the technical support and service from AMD distributor, Anstek, was also very good and enabled them to get to market quickly, and on budget.

AV LINK's MaitreView™ video processors are used in a variety of applications. For example, in education, the system can promote better engagement in the classroom by allowing teachers and students to view multiple files at the same time. For healthcare, the system can enhance collaboration and allow doctors to perform comparative analysis of images side by side, as well as accurately display detailed scans for better diagnostics.

MaitreView™ systems can also be used in concert halls, theaters, and stadiums with large entertainment and information displays. The systems can deliver venue-wide advertising, or display a live feed from inside the stadium at concession stands, so visitors don't miss any of the action. AV LINK's application programming interface allows customization for all types of entertainment applications, while providing the flexibility to scale in the future.

Lee also mentioned the tool is ideal for security and smart-city applications, and in other fields that can benefit from multi-window displays of high-resolution data, such as fashion, architecture, and creative services.

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About AV LINK

Since 1988, AV LINK has been a professional provider in the Pro AV industry with expertise in 4K and 8K video processing algorithms driven by FPGAs. AV LINK serves customers in various applications including hospitality, industry, transportation, entertainment, esports, retail, houses of worship, education, healthcare, corporate, government, etc. For more information about how AV LINK grows your business, visit the AV LINK website at www.avlinksystem.com, [Youtube](#), [LinkedIn](#), and [Twitter](#) pages.

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