



## DELTACAST Delivers Real-Time, Low-Latency Video Capture and Streaming Cards with AMD on Board

AMD Adaptive SOMs and FPGAs Help DELTACAST Boost Performance and Ease-of-Use for its Video I/O PCIe Boards and Camera Control Boards

### PARTNER

**DELTACAST**  
VIDEO SOLUTIONS FOR DEVELOPERS

### INDUSTRY

Pro AV / Broadcast

### CHALLENGES

DELTACAST was looking to build a solution to accelerate and simplify video capture and streaming in live broadcast applications.

### SOLUTION

DELTACAST uses AMD FPGAs, adaptive SoCs, and SOMs to transport, capture, and stream real-time video for broadcasting, live events, immersive museum experiences, and healthcare.

### RESULTS

AMD technology enables DELTACAST video cards to deliver rapid video transport and processing for demanding workloads, including media servers merging Unreal Engine's real-time rendering capabilities with live video inputs captured by DELTACAST cards, and augmented reality imaging for surgical applications.

### AMD TECHNOLOGY AT A GLANCE

AMD Kria™ SOM, Kintex™ 7, Kintex UltraScale+™, and Artix™ UltraScale+ FPGAs

DELTACAST enables real-time 4K/8K video processing and transport through a wide range of video capture and streaming cards, software, and accessories.

For live video applications, the company offers a line of SDI, HDMI, DisplayPort, and IP ST-2110 video cards. Now fully compatible with Unreal Engine 5, it allows media server users to seamlessly merge Unreal Engine's real-time rendering capabilities with live video inputs captured by DELTACAST cards. This capability is particularly useful in LED wall-based virtual production studios.

"We are an enabler for video," said Gérald Olivier, head of product marketing at DELTACAST. "Video is everywhere today. We transport, capture, and stream video for sports broadcasting, live events, and immersive experiences in museums. We're also active in healthcare, assisting surgeons during operations with augmented reality."

"All of our video cards include some form of FPGA-based AMD technology," Olivier said. "It's in the DNA of our company."

### CHALLENGE

DELTACAST provides solutions to interoperability issues and standards evolution through a unified SDK and new products.

"We provide a layer of abstraction for the video interface so that OEMs can focus

on their application, and we take care of the video," Olivier said.

Another big challenge in the video capture market is latency. "You don't want delay between what you see on stage and what is displayed on the screen for example," Olivier said. "Our product can deliver up to sub-frame latency."

### SOLUTION

DELTACAST has been using AMD FPGAs since the company was founded in 1986. Today, the company uses a wide array of AMD FPGAs and SOMs in its video I/O PCIe boards and camera control boards, including Kintex™ 7, Kintex UltraScale+™, and Artix™ UltraScale+ FPGAs, and Kria™ system-on-modules (SOMs). "These AMD products were chosen for the superior quality, with features such as an excellent signal-to-noise ratio," Olivier said.

DELTACAST started in the broadcast space, but Olivier says the company is expected to expand its broadcast solutions to the medical market.

"AI can generate augmented reality on top of a video image," Olivier said. "Some doctors might want to overlay the 3D reconstruction of an organ during robotic surgery, or place graphics over an endoscope image to identify polyps and help with cancer diagnosis. Our video card is an enabler to allow the addition of these real-time overlays."

Olivier said DELTACAST devices are used in encoders to broadcast signals overseas during international sporting events. In museums, the devices are embedded in media servers and help create immersive experiences for visitors. One customer is using AMD-powered DELTACAST video cards to help with 3D projection mapping on the façade of a building. The company also provides electronic design support to the space industry to help with Earth and sun observations.

He added that DELTACAST stands out by offering premium, long-term support and focusing on high-density applications, including video cards that can go to 4x 4K or 16x HD signals captured on single PCIe slot. The company also has solutions to help the broadcast industry move from SDI connectivity for video to IP (Ethernet) connectivity.

## RESULT

Thanks to the rapid processing capabilities of AMD, DELTACAST has been able to deliver solutions for a variety of demanding video applications.

Olivier said DELTACAST is also an AI enabler. “To enable AI you need very low latency. Today our customers are developing their own AI algorithms to create augmented reality, and we enable it with the lowest latency. We capture video and receive graphics

information from the AI and then deliver video out to the display with minimum latency,” he said.

“AMD technology has helped DELTACAST create compelling solutions for video capture and streaming applications with high port densities, delivering the high-performance and low latency that helps us truly stand out from the competition,” Olivier said.

“The ability to adapt our products to the specific needs of our customers, who might operate in niche markets or face particular constraints, relies on the capacity of AMD components to offer quality, reprogrammability, and scalability from the outset,” Oliver added. “AMD has significantly contributed to our success through their quality components, their scalability, and their commitment to excellence, and enables us to offer solutions perfectly aligned with the technical requirements of the market. Additionally, their strong technical support and attentive listening have accelerated the development of our projects, thereby strengthening our confidence in the reliability of our solutions.”

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### About DELTACAST

Founded in 1986, DELTACAST is a leader in the design and manufacturing of live video transport and processing solutions for OEMs and developers. Its solutions deliver high quality and low latency to serve the most-demanding applications in TV broadcasting, ProAV, medical, aerospace, and other markets. For more information, please visit DELTACAST online at: [www.DELTACAST.tv](http://www.DELTACAST.tv).

### About AMD

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