

PanaCast Live is the first fully integrated, portable professional video system for live broadcasting of uncompressed 4K 3D video at 60 frames per second with built-in 12G SDI output capability.

PanaCast Live plugs directly into the broadcasting system infrastructure commonly used in the broadcasting and production of professional sports and entertainment events via the industry-leading 12G SDI output connection. It is designed for indoor and outdoor use with an IP54-compliant industrial design.

The video is delivered in uncompressed format (YUV422) over the 12G SDI interface, for maximum visual fidelity. Stereo audio input from a professional audio sub-system can also be integrated within the 12G SDI stream for delivery to the broadcasting infrastructure.

### How It Works

PanaCast Live integrates the PanaCast fundamentals via the onboard PanaCast Vision Processor (PVP) to create a ready-to-broadcast 3D video stream with a natural looking 180° field of view.

It is a personal and portable device, easily carried around an event to deliver content from close to the action vantage points, to bring a new level of audience engagement experiences at scale to audiences worldwide, with high profile, world-class events.

The PanaCast ultra low latency, flow-through architecture is implemented in the on-board PanaCast Vision Processor to synchronize, stitch and optimize the video streams from the six cameras precisely and in real time, with mathematically-correct cylindrical projection, to create a single 4K 3D frame (with the standard left eye/right eye top/bottom format for subsequent rendering on to smart phone 3D viewing apps).

PanaCast Live also integrates a USB3 interface and can deliver the 180° 3D 4K video at 50 frames per second with motion JPEG compression, for live streaming or recording / sharing of the content over popular services like Facebook and YouTube.

### Benefits

- 180° field of view
- Immersive 4K 3D video
- Real-time in-device stitching
- Captures 60 fps at 4K
- 12G SDI, USB 3 outputs
- 3D live broadcasting
- Immersive VR, AR and mixed reality experience

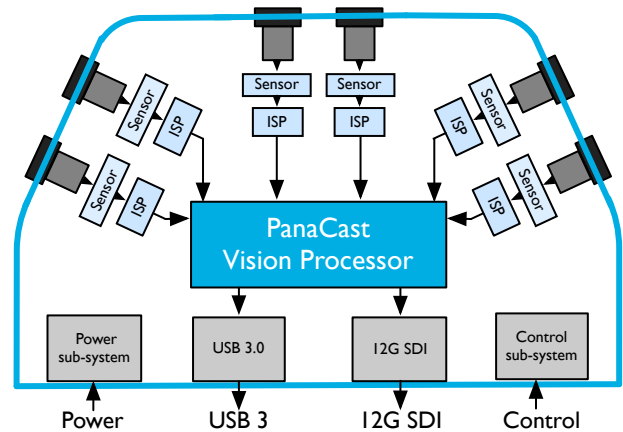


## Advanced Technology

PanaCast Live is a highly integrated array of six synchronized 13.1 Megapixel cameras. The output is stitched and optimized in real time in the onboard PanaCast Video Processor to deliver 4K 3D video with a 180° field of view delivered directly for input to broadcasting equipment via the latest generation 12G SDI interface, at 60 frames per second.

The system processes more than 2,340 Megapixels per second, with the industry-leading latency of less than 5 ms for dynamic seam stitching of individual video streams, to create the panoramic 180° field of view 4K video in 3D, with a natural (low distortion) perspective.

The system integrates high dynamic range technology via a unique signal processing algorithm which optimizes luminance across the whole 180° field of view in real time.



Simplified System Architecture for the PanaCast Live System

## Unique Value Proposition

In education and live broadcasting industry, a highly immersive experience can enhance participants' quality of engagement and learning in a compelling way, accelerating their interaction and the level of energy and commitment. PanaCast Live brings to life the experience of 3D objects and spaces for people physically remote from the place/space where the device or experience originates from. It enables a live telepresence experience for people connecting across distance in real time.

## System Specifications

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- 4K 3D Video: 3840 x 2160
- ~180° (H) x 54° (V)
- Frame rate up to 60fps
- Latency <= 5ms
- Video Format: YUV, Motion JPEG
- Image Sensor: 6 x (1/2.8", 13M)
- Lenses: 6 x F2.8
- Built-in High Dynamic Range (HDR) technology

### Interface

- 12G SDI
- USB 3
- External Audio Channel Inputs:  
2x Mini 3-Pin XLR Male

### System Information

- Width: 9 in (23 cm)
- Height: 1.9 in (5 cm)
- Length: 6.9 in (17.6 cm)

For more information, please visit [www.panacast.com/panacast-live/](http://www.panacast.com/panacast-live/)

## About Altia Systems



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Altia Systems®, a Cupertino-based company, is the creator of PanaCast® 2, the world's first Panoramic-4K plug-and-play camera system that delivers a 180° wide field of view, which replicates the natural human visual perspective. Funded by Intel Capital and other leading investors, Altia Systems' PanaCast 2, 2s, 3D VR and Live systems deliver real-time 180° Panoramic-4K, Panoramic-5K and 4K 3D video streams from integrated, synchronized and optimized multi-camera arrays.