Datasheet

OmnICam-360

ACQUISITION OF PANORAMIC UHD VIDEO
Fraunhofer HHI has developed a set of scalable multi-camera systems that can be used for capturing high-resolution 2D and 3D video panoramas for immersive applications. Three different versions of the OmniCam-360 are equipped with Micro HD or cinema cameras to provide panoramic UHD video content with a total resolution of about 10k x 2,5k pel or even 14k x 4,3k. The mirror-based OmniCam-360 enables an optimal solution for parallax-free stitching of 2D and 3D video panoramas in real time. The flexible system is suitable for many different 360-degree panoramic productions where a high resolution and quality is needed. The high performance, functionality and practicability have already been successfully proven in several commercial productions.

SELECTED 360 DEGREE UHD PRODUCTIONS
- FIFA World Cup™ final, Rio de Janeiro
- Internationales Stadionfest (ISTAF), Berlin
- Berlin Philharmonic's Concert (25th anniversary of the Fall of the Berlin Wall)
- First Panorama-Live-Streaming through the Philharmonics' Digital Concert Hall
- Herbert Grönemeyer concert, Waldbühne Berlin
- Bon Jovi Australian Tour, Brisbane
- Press conference at IAA, Frankfurt (in cooperation with Porsche)
- Red Carpet production at Berlinale, Berlin (in cooperation with ARRI and Audi)
The Real Time Stitching Engine (RTSE) is a PC-based solution that supports all the processes needed for the production of UHD panoramas from a given number of omnidirectional camera images, such as color matching, warping, stitching and blending. The RTSE is able to process up to 20 HD input streams in parallel with up to 60fps and 32 bit RGB-processing. Besides its highest native resolution of 10k x 4,5k, the RTSE supports different additional output formats:

- A down-sampled low-res panorama embedded in a regular HD frame that can be used for preview monitoring at the set, for viewing of dailies and editing of proxies in post-production;

- A HD or UHD frame that can be panned and zoomed within the high-res panorama to watch details of the panoramic content during live productions, to transmit partial HD frames out of the panoramic content in conventional broadcast environments or to allow user navigation in interactive applications;

- Multiple HD outputs by decomposing the full panorama into several overlapping HD tiles that can be encoded in parallel for live transmissions of entire high-res UHD content;

- A customized resolution to support different VR glasses so that the spectator is able to enjoy a truly immersive live screen.
## Datasheet

### OmniCam-360

**Spherical panorama**

### Camera-Typ

- IndieDICE

### NEW GENERATION

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
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<tbody>
<tr>
<td>Number of Camera</td>
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<tr>
<td>Number of Segments</td>
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<tr>
<td>H-FOV</td>
<td>360degree</td>
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<tr>
<td>V-FOV</td>
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<tr>
<td>Resolution</td>
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<tr>
<td>Lens</td>
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<tr>
<td>Recording Format Offline Stitching</td>
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<tr>
<td>After Effects Plug In</td>
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### DIMENSION
Datasheet

OmniCam-360 Cinema
Spherical panorama

**Camera-Typ**
ARRI Alexa MINI

**Number of Camera**
5+1

**Number of Segments**
5

**H-FOV**
360 degree

**V-FOV**
120 degree

**Resolution**
14k x 4,3k

**Lens**
ZEISS 15mm focus and iris (motorized) individual adjustable

**Stereo Base Line**
24, 25, 30

**Weight**
43kg

**Size (W x D x H)**
833mm x 876mm x 734mm

**Recording Format**
Real Time Stitching YUV422 10bit

**Recording Format**
Offline Stitching ARRIRAW

**After Effects Plug In**
yes

**DIMENSION**
Datasheet

OmniCam-360
3D
Spherical panorama

Camera-Typ
Indiecam GS2K

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<td>After Effects Plug In</td>
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DIMENSION
Highest quality for live application

CONTACT

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