FRAUNHOFER HEINRICH HERTZ INSTITUTE

PRESS RELEASE

Premiere at NAB: Fraunhofer HHI introduces the OmniCam-360 for recording 3D video panoramas in real time

At this year's NAB Show in Las Vegas, USA, the Fraunhofer Institute for Telecommunications, Heinrich Hertz Institute, HHI is introducing a 3D version of the OmniCam-360. This camera was developed to enable high-resolution 2D and, as of now, also 3D panorama recordings in real time. The new 3D camera technology will be presented at the Fraunhofer exhibition stand SU6716 from April 16 to 21.

The OmniCam-360 developed by Fraunhofer HHI is a series of scalable multi-camera systems with and without mirrors. It generates 2D and 3D panorama recordings that can be used for a wide variety of productions. The different versions of the OmniCam-360 are equipped with either 10 or 20 micro-HD cameras. Single exposures are corrected in real time and assembled into a parallax-free UHD video panorama with a resolution of approximately 10,000 times 2,000 pixels per channel.

At NAB, Fraunhofer HHI is presenting a whole family of 360 degree cameras for real time recordings in 2D und 3D which is based on the tried and tested OmniCam-360 technology.

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The production of real time recordings is made possible by a software-based solution developed especially at Fraunhofer HHI in the form of the Real Time Stitching Engine. This software supports all required processes for the production of UHD panoramas from a selected number of omnidirectional camera images, including color matching, warping, stitching and blending. The Real Time Stitching Engine assembles a seamless UHD panorama video in 2D or 3D from the various, parallel HD camera streams.

The OmniCam-360 has already been used for various panorama productions. Fraunhofer HHI is presenting the different OmniCam-360 versions in live application at the NAB. 2D and 3D recordings are being corrected in real time and transferred to virtual reality (VR) glasses on site. This allows viewers to enjoy an immersive visual experience.

The **Fraunhofer Heinrich Hertz Institute** is a world leader in the development of mobile and fixed broadband communication networks and multimedia systems. From photonic components and systems through fiber optic sensor systems to video coding and transmission, the Fraunhofer HHI works together with its international partners from research and industry. www.hhi.fraunhofer.de

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