

Advantech Accelerates 8K Virtual Reality Live Streaming at NAB 2017

Impact News Service

May 17, 2017 Wednesday

Copyright 2017 Impact Media Limited All Rights Reserved



Length: 853 words

Body

Washington: International Association of Broadcasting Manufacturers has issued the following news release:

Advantech (TWSE: 2395.TW) today unveiled the Virtual Reality capabilities of its **VEGA**-3304 encoding accelerator which will be demonstrated at the NAB Show in collaboration with its partner Hyper Immersion Technology as part of a Virtual Reality live streaming workflow. The **VEGA**-3304 is the first commercial-off-the-shelf accelerator to support 1-channel 8Kp60 or 4-channel 4Kp60 real-time HEVC Main 10 contribution-grade encoding with SDI acquisition. 360° Virtual Reality solution providers **can** leverage the **VEGA**-3304 to build compact, high quality VR live encoders that accelerate the next wave of innovation in the media industry.

Virtual Reality has the potential to fully transform viewers' experience but real mass adoption is likely to be subject to providing life-like quality live content which poses many infrastructure challenges. After stitching, a 360 degree video **can** surpass even 8K resolution and the quality of viewer experience will depend on keeping a high resolution throughout the contribution stages. Bandwidth optimization is crucial to carry this back to the central distribution processing elements over existing networks so HEVC plays a key role on VR live streaming enablement. However, the potential computational load of multiple 4K or even 8K HEVC encoding is a significant hurdle to overcome in real world deployments. Advantech's **VEGA**-3304 **can help**.

The **VEGA**-3304 is a commercial-off-the-shelf PCI Express adapter that streamlines development of live 4K and 8K-based solutions such as 360° Virtual Reality streaming by offloading heavy-lifting HEVC encoding tasks in server-based applications. **VEGA**-3304 is the world's first video processing accelerator able to perform real time, professional grade 1-ch 8K or 4-ch 4K HEVC 4:2:2 10-bit encoding in a low power PCI Express accelerator that also features optional SDI acquisition. When fitted with the 16x 3G-SDI capture option, the **VEGA**-3304 is a ¾ length double-wide PCIe x16 card compatible with standard server GPU slots and comes with Advantech's SDK which supports Linux and Windows operating systems. VR developers **can** leverage the FFmpeg tools provided by Advantech's SDK as well as its API to easily integrate the **VEGA**-3304 as if it was another software component.

"The **VEGA**-3304 makes significant progress on off-the-shelf available processing acceleration" said Emily Teng, **VEGA** Video Adapters Product Line Manager, Advantech. "Its impressive encoding quality combined with its unrivalled 8K capacity provides a powerful tool to Virtual Reality developers that now have a straightforward plug-in accelerator to deal with 360 degree video processing struggles."

Advantech Accelerates 8K Virtual Reality Live Streaming at NAB 2017

The live VR encoding capabilities of the **VEGA**-3304 will be demonstrated at Advantech's NAB booth SU11710, in Las Vegas, April 24-27, 2017 in collaboration with our partner Hyper Immersion Technology. Live feed from four 4K cameras mounted on a 360 degree rig will be acquired and encoded by one single **VEGA**-3304 to be stitched in real time creating the high quality 360 degree view which will be displayed on an HTC VIVE VR headset powered by VIVE Cinema for visitors to experience how hyper immersive VR feels. The demonstration emulates the live streaming cloud workflow proposed by Hyper Immersion Technology to simplify VR productions. Content producers just need to setup the 360° camera and compact live encoding systems onsite. Storage and real-time stitching are handled on the cloud and provided as a service which streamlines operations when producing VR content in live events such as sports and concerts.

"360° Virtual Reality needs to be at least 8K to create an immersive experience but such high resolution video is complex to manage from a real-time processing perspective" said Chaody Chen, CEO, Hyper Immersion Technology. "By leveraging Advantech's **VEGA**-3304, we are able to provide a cloud-based 8K 360° VR live streaming service that simplifies VR production while delivering high-quality content for a truly immersive experience."

About Advantech - Founded in 1983, Advantech is a leader in providing trusted, innovative products, services, and solutions. Advantech's **VEGA** Video Platforms and PCIe Adapter Cards are designed to boost video infrastructure performance from acquisition to distribution at the lowest power budget while fully complying with media industry needs. By providing access to the latest 4K/8K UHD video processing on commercial-off-the-shelf IT platforms we accelerate the deployment of next-generation, open and more efficient video solutions for the new IP workflows. Advantech's proven expertise in networking and computing solutions together with wide support for IP media interfaces and promotion of interoperable solutions through the AIMS alliance enables us to lead innovation in the IP transition of the industry and get our customers ahead of the curve. Advantech's standard product portfolio **can** be tailored to meet a range of system requirements, significantly reducing time-to-market effort for our customers.

Classification

Language: ENGLISH

Publication-Type: Newswire

Journal Code: INS

Subject: BUSINESS & PROFESSIONAL ASSOCIATIONS (78%); ALLIANCES & PARTNERSHIPS (77%)

Industry: VIRTUAL REALITY (92%); STREAMING MEDIA (89%); NETWORK SERVERS (87%); BROADCASTING INDUSTRY (78%); BANDWIDTH (77%); 3G WIRELESS (77%); NETWORK SOFTWARE (71%); COMPUTER SOFTWARE (67%); COMPUTER OPERATING SYSTEMS (64%)

Load-Date: August 1, 2017