

Jan 7, 2020

Panasonic Develops World's First¹ HDR Capable UHD VR Eyeglasses



Osaka, Japan – Panasonic Corporation today announced that it has developed the world's first¹ High Dynamic Range (HDR) capable ultra high definition (UHD) virtual reality (VR) eyeglasses which boasts a comfortable fit that makes users feel as if they were wearing eyeglasses.

With anticipation of the forthcoming full-fledged commercial services of the fifth generation (5G) mobile communications system, a number of new services using VR glasses are expected to be offered, including for VR sports viewing and engaging virtualtravel experiences. While conventional VR glasses with high-quality images and high sound quality provide users with highly immersive simulated experiences, these glasses tend to be big in size and require users to strap them to their head with a headband, which could cause wearer discomfort.

For the new VR glasses, Panasonic has developed a high performance display device in cooperation with Kopin Corporation², which is a leading manufacturer of display devices for VR glasses. In addition, Panasonic's audio and visual technologies have been incorporated into this new device, including signal processing technologies cultivated through the development of video equipment such as TVs and Blu-ray Disc players, acoustic technologies of Technics audio products, and optical technologies used in LUMIX digital cameras. These technologies enabled Panasonic to achieve compact and lightweight VR glasses offering high-quality images and optimal sound that deliver realistic sensations drawing the user into the images projected before their eyes, while in the comfort of wearing eyeglasses.

Main features of the developed product

(1) UHD high-quality images device capable of displaying HDR images

- Equipped with a micro OLED panel co-developed by Kopin Corporation² and Panasonic
- Achieved natural and smooth images without "Screen door effect", which is a visual artifact of displays, where the fine lines separating pixels become visible in the displayed image

(2) High-quality sound capable of the reproduction over a wide range of frequencies from ultra-low to high

- The adoption of Technics' original dynamic driver using magnetic fluid allows the accurate stroke of the diaphragm and achieves ultra low distortion reproduction.

(3) Compact and lightweight body enabling the device to be worn in comfort without the need for a headband

- The adoption of an optical module newly developed by Kopin Corporation,² 3M Company,³ and Panasonic allows the display of natural and distortion-free images in super single focus. A compact and lightweight design achieved an eyeglass-like shape.

Gearing up for the forthcoming full-scale commercial 5G services, Panasonic will continue to further develop the new VR glasses so that they can be used in a variety of applications, thereby creating new customer value.

Panasonic will exhibit the VR glasses as a reference product at its booth during CES 2020 to be held in Las Vegas, Nevada, US from January 7 to 10, 2020.

1. The world's first HDR capable VR eyeglasses as of this announcement on January 7, 2020 (Panasonic data).
2. Kopin Corporation is headquartered in Massachusetts, US, and develops and sells key devices for wearable headset products.
3. 3M Company is a global corporation headquartered in Minnesota, US, which supplies chemical and electrical materials to a wide variety of industries ranging from household goods to automobiles.

About Panasonic

Panasonic Corporation is a worldwide leader in the development of diverse electronics technologies and solutions for customers in the consumer electronics, housing, automotive, and B2B businesses. The company, which celebrated its 100th anniversary in 2018, has expanded globally and now operates 582 subsidiaries and 87 associated companies worldwide, recording consolidated net sales of 8.003 trillion yen for the year ended March 31, 2019. Committed to pursuing new value through innovation across divisional lines, the company uses its technologies to create a better life and a better world for its customers. To learn more about Panasonic: <https://www.panasonic.com/global>.

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