

Slim, lightweight binocular smart glasses

-Ricoh's thin plastic light guide makes the glasses wearable for long periods-

Tokyo, August 3, 2020 – Ricoh Company, Ltd. (hereafter Ricoh) announced today that it has developed binocular smart glasses that are a type of wearable terminals (hereafter referred to as “smart glasses”) and weigh only 49 grams. The world’s lightest* smart glasses use Ricoh’s proprietary optical technology and will be on display at the SID Display Week 2020 Symposium, an international academic meeting to be held online from August 3 to 7 (Ricoh’s presentation will be on August 5, US Pacific daylight time, Section 26.4). Ricoh is seeking partnerships for commercialization and is eager to further develop the technology for more practical applications.

* Based on Ricoh’s investigation as of the time of the announcement.

Ricoh’s smart glasses work with PCs and smartphones to overlay digital information in the wearer’s field of view. These have a wide range of potential applications—for example, providing work instructions for medical personnel, construction workers, and manufacturing. They can also provide navigation assistance for the general public. To meet the needs of general tasks in offices, shops, and factories, as well as of individuals, the technology essential for smart glasses must provide a wide field of view that accommodates displaying adequate information while being light enough to wear all day.

Ricoh’s new smart glasses feature an originally developed thin and lightweight plastic light guide plate. This technology allows the glasses to weigh only 49 grams while providing a wide field of view equivalent to a 30-inch screen installed 1 meter away. Conventional smart glasses weigh as much as 3 times more than convention glasses with the weight primarily on the nose because their display units are integrated with the lenses; Ricoh’s unique optical system allows the display units to be placed near the user’s temples, are light weight, and well balanced. These features are derived from the rich optical technologies Ricoh has cultivated through the development of projectors and cameras. Also, Ricoh has cooperated with an eyeglass manufacturer to give the smart glasses the familiar design of general eyewear, so they can be worn comfortably throughout the day.

The new technology will free users from the restrictions of place and wearing discomfort, giving access to needed information anytime and anywhere. By uniting the real world with digital

information, Ricoh continues to provide its customers with valuable digital services while developing innovative products and solutions for various workplaces and lifestyles.



Relevant Information

(Technical page) Smart Glasses

https://www.ricoh.com/technology/institute/research/tech_smart_glasses.html

| About the Ricoh Group|

Ricoh is empowering digital workplaces using innovative technologies and services enabling individuals to work smarter. For more than 80 years, Ricoh has been driving innovation and is a leading provider of document management solutions, IT services, communications services, commercial and industrial printing, digital cameras, and industrial systems.

Headquartered in Tokyo, Ricoh Group operates in approximately 200 countries and regions. In the financial year ended March 2020, Ricoh Group had worldwide sales of 2,008 billion yen (approx. 18.5 billion USD).

For further information, please visit www.ricoh.com