



AR Device Weight Reduced Using SCHOTT RealView® 1.9 – September 25, 2021

A new optical glass significantly reduces weight of Augmented Reality (AR) waveguides, maintaining highest standard in glass quality and enabling pristine quality of the virtual image. Users' field of view (FoV) increases nearly 10 degrees with improved Refractive Index (RI) of 1.9 in comparison to current AR devices using glass wafers with refractive index (RI) glass of 1.8. One of the most significant drawbacks to AR devices is the goggle's weight, which can cause discomfort, especially on the user's nose. With a new 20% lighter RI 1.9 high-index glass wafer, SCHOTT can reduce a wearable's overall weight by roughly 7%. SCHOTT RealView® 1.9 lightweight doesn't sacrifice image quality or durability, even with the dramatic reduction in density. This innovation will be featured at the China International Optoelectronic Exposition (CIOE) in September.

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Figure 1: SCHOTT RealView®



Source: Schott

The weight cut is mainly due to a reduced density of the material. The result: AR devices that offer highest wearing comfort while not compromising in image quality thanks to the 1.9 high-refractive index.

SCHOTT's manufacturing ecosystem partners have proven compatibility with the new wafers. [Inkron](#), Finland, has developed an index-matching nano-imprintable resin. Compatibility with nanoimprint mass production equipment of both the new SCHOTT RealView® 1.9 lightweight and the new resin has been demonstrated by [EV Group](#) (EVG), a leading supplier of nanoimprint lithography (NIL) equipment for high-volume manufacturing.

<https://www.oled-a.org/ar-device-weight-reduced-using-schott-realviewreg-19-092621.html>