The extended reality (XR) near-eye display market, which comprises augmented reality (AR), virtual reality (VR), and mixed reality (MR) applications, will grow to 139 million units in 2028.

Displays for VR applications are the mainstream in current near-eye display shipments, showing a 73.9% increase in 2022. Considering the complexity of AR displays and optical engines, Omdia believes it will take another three to five years for AR display technology to mature.

XR display revenue will grow by over 300%, from $1.8bn in 2023 to $7.2bn in 2028.

Traditional glass-based display technology, such as OLED and LCD displays, will, for now, dominate VR near-eye display applications through size reduction as well as increased resolution, and refresh frequency rates. Higher-resolution silicon-based displays are starting to take off in the AR applications category and will gradually gain considerable market share in the VR market.
**Report coverage**

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**Frequency, time period**

- Annual forecasts
- Seven-year forecasts

**Measures**

- Unit/revenue/area
- Market share
- Average selling price

**Regions, markets**

- Worldwide
- Includes US/China/Japan/Korea/Taiwan

**Near-eye device list**

- Brand
- Platform
- Display technology
- Backplane technology
- Size and resolution
- Refresh rate

**Display technology coverage**

- OLED display
- LCD display
- Laser-beam scanning
- Digital light processing
- OLED on silicon (OLEDoS)
- Liquid crystal on silicon (LCoS)
- LED on silicon (LEDoS)

**Lens technology coverage**

- Fresnel and pancake lenses
- Surface relief grating (SRG) waveguide
- Light-guide optical element

**Brand manufacturers/OEMs/ODMs for smartphone, notebooks, tablet PCs**

- Product planning managers
- Procurement managers

**Display panel suppliers**

- Product marketing
- Strategic planning managers

**Display component suppliers**

- End-product tracking
- Evolution of supply chain and technology

**Competitive technology suppliers**

- Display technologies
- Lens technologies

**Investment community**

- Fund managers/investors/analysts with interest in display companies

**Brand manufacturers/OEMs/ODMs for smartphone, notebooks, tablet PCs**

- Makers and shipments
- Long-term forecasts

**About Omdia**

Omdia is a global technology research powerhouse, established following the merger of the research division of Informa Tech (Ovum, Heavy Reading, and Tractica) and the acquired Omdia technology research portfolio.* We combine the expertise of more than 400 analysts across the entire technology spectrum, covering 150 markets. We publish over 3,000 research reports annually, reaching more than 14,000 subscribers, and cover thousands of technology, media, and telecommunications companies. Our exhaustive intelligence and deep technology expertise enable us to uncover actionable insights that help our customers connect the dots in today’s constantly evolving technology environment and empower them to improve their businesses—today and tomorrow.

*The majority of Omdia technology research products and solutions were acquired by Informa in August 2019 and are now part of Omdia.