

# **Global Augmented Reality (AR) and Virtual Reality (VR) Display Market Size Study by Technology (AR, VR), Device (HMD, Hologram, HUD, Projectors), Display Technology (DLP, LCD, LCOS, Micro-LED, OLED), End-User (Aerospace & Defense, Automotive, Commercial, Consumer, Education, Energy, Enterprise, Healthcare), and Regional Forecasts 2022-2032**

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## **Abstracts**

Global Augmented Reality (AR) and Virtual Reality (VR) Display Market is valued approximately at USD 4.20 billion in 2023 and is anticipated to grow with a healthy growth rate of more than 17.99% over the forecast period 2024-2032. AR and VR technologies provide immersive experiences by overlaying digital information onto the real world or creating completely simulated environments, respectively. The integration of these technologies with display systems has revolutionized multiple sectors, including gaming, e-commerce, healthcare, and education. The surge in remote work and virtual collaboration needs, especially highlighted during the COVID-19 pandemic, has further accelerated the demand for advanced AR/VR display technologies. Retail and e-commerce sectors are leveraging these technologies to offer virtual trial rooms and product demos, thereby enhancing the consumer shopping experience. Despite the high costs and complex manufacturing processes associated with AR/VR devices, market players are striving to develop cost-effective and high-quality display technologies. As technological advancements continue, enhancements in display resolution, field of view, and user comfort are expected, leading to more sophisticated applications such as simulation-based training, remote surgeries, and therapeutic treatments in healthcare.

AR technology merges the physical world with digital enhancements, allowing users to interact with augmented information while remaining aware of their surroundings. Various AR display types, including head-up displays (HUD), handheld displays, and spatial displays, are utilized across different industries for their unique capabilities. Conversely, VR technology immerses users in a fully digital environment, requiring devices such as head-mounted displays (HMDs) and cave automatic virtual environments (CAVE) to deliver 360-degree experiences. These immersive displays are particularly beneficial for applications in research and commercial settings.

Holograms represent the pinnacle of digital reality, with applications spanning retail, healthcare, and other industries. The increasing demand for realistic AR/VR displays for holographic projections promises substantial commercial opportunities. HUDs, especially in automotive and defense sectors, enable operators to access critical data without diverting their attention, thereby driving the demand for high-resolution AR/VR displays. Projectors equipped with AR/VR displays are transforming the film, events, and education sectors by offering dynamic, viewer-centric experiences. These displays must adapt to environmental conditions to maintain visual quality, which is a focus area for ongoing research and development.

The key regions considered for the global Augmented Reality (AR) and Virtual Reality (VR) Display Market study include Asia Pacific, North America, Europe, Latin America, and Rest of the World. North America is a dominating region in the Augmented Reality (AR) and Virtual Reality (VR) Display Market in terms of revenue due to significant investments in research and development. The region holds a major share of the global market, with applications in gaming, healthcare, and military sectors. Whereas, the market in Asia Pacific is anticipated to grow at the fastest rate over the forecast period owing to the driven by substantial contributions from local electronic companies and increasingly investing in AR/VR technologies. Also, several companies focusing on high-resolution displays to meet the demands of the AR/VR market.

Major market players included in this report are:

Barco N.V.

BOE Technology Group Co., Ltd.

eMagin Corporation

Google LLC

Holoeye Photonics AG

Innolux Corporation

Jasper Display Corp.

Kopin Corporation

Kura Technologies

Lenovo Group Limited

The detailed segments and sub-segments of the market are explained below:

By Technology:

- AR
- VR

By Device:

- HMD
- Hologram
- HUD
- Projectors

By Display Technology:

- DLP
- LCD
- LCOS
- Micro-LED
- OLED

By End-User:

- Aerospace & Defense
- Automotive
- Commercial
- Consumer
- Education
- Energy
- Enterprise
- Healthcare

Application

- Advertising & Marketing
- Gaming
- Maintenance
- Manufacturing
- Simulation & Training
- Sports & Entertainment

By Region:

North America

- U.S.
- Canada

Europe

- UK
- Germany
- France
- Spain

- Italy
- ROE

Asia Pacific

- China
- India
- Japan
- Australia
- South Korea
- RoAPAC

Latin America

- Brazil
- Mexico
- RoLA

Middle East & Africa

- Saudi Arabia
- South Africa
- RoMEA

Years considered for the study are as follows:

Historical year – 2022

Base year – 2023

Forecast period – 2024 to 2032

Key Takeaways:

- Market Estimates & Forecast for 10 years from 2022 to 2032.
- Annualized revenues and regional level analysis for each market segment.
- Detailed analysis of geographical landscape with Country level analysis of major regions.
- Competitive landscape with information on major players in the market.
- Analysis of key business strategies and recommendations on future market approach.
- Analysis of competitive structure of the market.
- Demand side and supply side analysis of the market.

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