

Virtual Retinal Display Market Report by Technology (Optics, Driver and Controller Electronics, Light Source, and Others), Application (Aerospace, Medical, Gaming and Entertainment, Sports, Training and Simulation, and Others), and Region 2024-2032

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Abstracts

The global virtual retinal display market size reached US\$ 20.0 Billion in 2023. Looking forward, IMARC Group expects the market to reach US\$ 241.9 Billion by 2032, exhibiting a growth rate (CAGR) of 31.3% during 2024-2032.

A virtual retinal display (VRD) refers to a head-mounted display device that utilizes low-energy lasers to directly show a picture onto the human retina. It offers user with the illusion of watching a standard-sized display floating several feet away. A virtual retinal display provides numerous benefits, such as enhanced brightness, high contrast, improved resolution, and low power consumption. As a result, it finds a wide range of applications across numerous industries, including healthcare, military, aviation and tactical, engineering, gaming and entertainment, sports, etc.

Virtual Retinal Display Market Trends:

The increasing demand for enhanced user experience, better content connectivity, and improved Field of View (FoV) while maintaining high levels of privacy is primarily driving the global virtual retinal display market. In addition to this, the rising adoption of virtual and augmented reality in the gaming sector along with the growing integration of VRD with gaming consoles, smartphones, and laptops is further propelling the market growth. Moreover, the widespread utilization of VRD in the healthcare sector with potential applications in therapeutics and surgical procedures is acting as a significant growth-inducing factor. Additionally, the elevating employment of VRD in the engineering industry for providing field employees with access to crucial information, including

operational protocols and circuit diagrams, in real-time is also augmenting the growth of the market. Besides this, the expanding usage of VRD in training and simulation activities in the aerospace sector as it saves costs by mimicking the experience and eliminates the requirement for physical setup, is positively influencing the market growth. Furthermore, the extensive R&D activities for the introduction of advanced VRD technology that offers radiation protection to mitigate any health risk are also propelling the global market. In the coming years, the emerging popularity of lightweight and compact devices that create images with high resolution and in real-time is expected to drive the global virtual retinal display market.

Key Market Segmentation:

IMARC Group provides an analysis of the key trends in each sub-segment of the global virtual retinal display market report, along with forecasts at the global, regional and country level from 2024-2032. Our report has categorized the market based on technology and application.

Breakup by Technology:

- Optics
- Driver and Controller Electronics
- Light Source
- Others

Breakup by Application:

- Aerospace
- Medical
- Gaming and Entertainment
- Sports
- Training and Simulation
- Others

Breakup by Region:

- North America
- United States
- Canada
- Asia-Pacific
- China

Japan
India
South Korea
Australia
Indonesia
Others
Europe
Germany
France
United Kingdom
Italy
Spain
Russia
Others
Latin America
Brazil
Mexico
Others
Middle East and Africa

Competitive Landscape:

The competitive landscape of the industry has also been examined along with the profiles of the key players being Avegant Corp., Himax Technologies Inc., Innovega Inc., Magic Leap Inc., Omnivision Technologies Inc., Optinvent, QD Laser and Vuzix Corporation.

Key Questions Answered in This Report

1. What was the size of the global virtual retinal display market in 2023?
2. What is the expected growth rate of the global virtual retinal display market during 2024-2032?
3. What are the key factors driving the global virtual retinal display market?
4. What has been the impact of COVID-19 on the global virtual retinal display market?
5. What is the breakup of the global virtual retinal display market based on the application?
6. What are the key regions in the global virtual retinal display market?
7. Who are the key players/companies in the global virtual retinal display market?

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