

TECH OFFER

Augmented Reality Artificial Intelligence Glasses



KEY INFORMATION

TECHNOLOGY CATEGORY:

Healthcare - Telehealth, Medical Software & Imaging

Infocomm - Augmented Reality, Virtual Reality &
Computer-Simulated Environments

Infocomm - Video/Image Processing

TECHNOLOGY READINESS LEVEL (TRL): **TRL9**

COUNTRY: **SINGAPORE**

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OVERVIEW

Augmented Reality (AR) Artificial Intelligence (AI) Glasses are transforming the landscape of industrial and field applications. Designed to streamline processes and improve efficiency, these glasses are a ground-breaking solution to the necessity of instant, accurate, and engaging data presentation.

Housed in a pioneering, lightweight design, these AR AI Glasses effectively address the challenges faced with conventional AR devices, including their bulky nature, short-lived battery life, and limited connectivity. By ensuring an incredibly low heat signature, extended battery life, and compatibility with Wi-Fi, 4G, and 5G networks, these glasses have been developed with users' comfort and usability in mind, ensuring efficient performance throughout the day.

These glasses are a valuable asset to a variety of sectors, such as manufacturing, logistics, healthcare, and construction, that value precision, efficiency, and safety. By seamlessly integrating sophisticated technologies like AR and AI into everyday operations, the glasses eliminate the need for extensive staff retraining or major procedural changes. They provide real-time information, enhance remote collaboration, and come with built-in security features like facial recognition, promising to fundamentally change how tasks are executed within these industries.

TECHNOLOGY FEATURES & SPECIFICATIONS

The AR AI Glasses blend advanced software and state-of-the-art hardware -

Hardware:

- **Featherweight Design:** The glasses weigh at a mere 46g, ensuring all-day comfort.
- **Robust Build:** Designed to endure, these glasses are IP67 rated and explosion-proof, making them ideal for a variety of demanding environments.
- **Minimal Heat Signature:** A top heat signature of $\leq 40^{\circ}\text{C}$ prevents discomfort during extended use.
- **Extended Battery Life:** The glasses offer 3.5 hours of continuous operation, which can be boosted to 10 hours with an auxiliary power bank.

Software:

- **Uninterrupted Connectivity:** These glasses are designed to support Wi-Fi, 4G, and 5G networks, ensuring seamless connectivity and data transfer.
- **Secure Communications:** These glasses are designed to provide secure communication channels, offering a reliable platform for data exchange.
- **Tailored Application Development:** The technology supports the development of custom applications, allowing solutions to be tailored to unique business needs.
- **Remote Collaboration:** Leveraging a SaaS Platform, these glasses are designed to support remote assistance, monitoring, training, and assessment.
- **Step-by-step SOP Support:** This technology can break down complex procedures into manageable step-by-step instructions using video, image, and text.
- **Facial/Object Recognition:** A key feature that validates objects/identity of individuals.

Optimal technology partners encompass the entire value chain, ranging from AR/VR application developers for software improvements, to hardware manufacturers responsible for producing and upgrading the glasses. Network service providers too can play a crucial role in enhancing connectivity. Industries such as manufacturing, logistics, healthcare, and security, where operational efficiency and precision are paramount, represent key sectors that would benefit from this technology.

POTENTIAL APPLICATIONS

The AR AI Glasses has a broad array of potential applications across diverse sectors, from manufacturing and logistics to healthcare and construction.

- **Manufacturing:** These glasses can streamline operations through real-time communication and guidance, allowing for remote collaboration and training. The in-built SOP functionality can simplify complex assembly procedures, minimizing errors and bolstering productivity.
- **Logistics:** These glasses can transform inventory management, tracking, and overall operations by providing real-time information access and facilitating remote collaboration. The result is a more efficient and streamlined logistic operation.
- **Healthcare:** The remote collaboration functionality of the glasses can be a boon for telemedicine. It allows for remote consultations, training, and guidance, ensuring that distance is no longer a barrier to quality healthcare.
- **Construction:** These glasses can enhance on-site safety by providing step-by-step SOPs to workers. In addition, real-time patrolling and threat assessment become feasible with these glasses.

The products that can leverage this technology are not confined to the glasses themselves. They extend to software solutions tailor-made for specific industries to maximize the use of AR AI Glasses.

MARKET TRENDS & OPPORTUNITIES

The augmented reality (AR) and artificial intelligence (AI) market, which includes devices such as this AR AI Glasses, is poised for a significant growth.

The industrial sector is undergoing a significant shift towards digitization and automation. This evolution calls for innovative, technology-driven solutions, such as this AR AI Glasses. By enhancing worker safety, boosting efficiency, and refining processes, these glasses offer immense value to industries ranging from manufacturing and logistics to healthcare and security.

With the advent of 5G, rapid and secure data transmission and seamless communication to and from compatible devices, such as these glasses, has become a possibility and this further increases their market adoption.

UNIQUE VALUE PROPOSITION

These AR AI Glasses represents a significant improvement over traditional AR technology, featuring an array of cutting-edge specifications tailor-made for industrial and field environments. These glasses depart from the norm, offering a solution that is not only lightweight and comfortable but also resilient and specifically designed for enduring use in demanding work scenarios. These AR AI Glasses offer the following unique benefits -

- Lightweight and comfortable design for long term usage.
- Remote collaboration capability.
- Inbuilt facial recognition feature.
- Support for customized application development to allow modifications to suit unique operational needs.
- Compatibility with Wi-Fi, 4G and 5G networks to leverage evolving communication technologies.
- Secure and seamless data sharing and communication.