3D Structured Light Module Company

Article Overview

Key manufacturers of 3D structured light modules include ams OSRAM, Osela, Zivid, LG Innotek, Sunny Optical, Jiaxing UPhoton Optoelectronics, Orbbec Inc, and several others, serving applications from industrial inspection to face recognition.

Leading Manufacturers and Their Offerings

ams OSRAM provides high-accuracy structured light systems, including VCSEL laser arrays, projection optics, and diffractive optics. Their solutions support rapid market deployment and scalable production, with expertise in system design, assembly, and integration for applications like smartphone face recognition . Osela specializes in laser line projectors and structured light modules for high-precision 3D/2D machine vision. Their products feature superior beam shaping, high reliability, and customizable laser modules suitable for industrial inspection, automotive safety, and life sciences . Zivid offers bundled 3D vision solutions, including cameras, accessories, and software for industrial automation. Their structured light systems enable robotic bin-picking, assembly, inspection, and depalletization, providing fast processing and high-quality 3D point clouds .

Other Notable Manufacturers

The global market also includes LG Innotek, Sunny Optical, Jiaxing UPhoton Optoelectronics, Orbbec Inc, CloudWalk Technology, Guangzhou Tuyu Technology, Rockchip Electronics, Goertek Optical Technology, Wuxi V-Sensor Technology, and Angstrong Tech. These companies provide modules for applications such as face recognition, object scanning, and industrial inspection, with varying capabilities in terms of resolution, pattern projection, and integration .

Market Overview

The 3D structured light module market is growing rapidly, valued at approximately USD 303-296 million in 2023-2024 and projected to reach USD 504-533 million by 2030-2031, with a CAGR of around 8.4-8.6% . This growth is driven by increasing adoption in consumer electronics, industrial automation, and robotics.

Applications

Structured light modules are widely used for:

o Face recognition in smartphones and security systems
o Industrial inspection for quality control and defect detection
o Object scanning for 3D modeling and reverse engineering

o Robotics and automation for bin-picking, assembly, and warehouse operations These modules work by projecting a specific light pattern (dots, stripes, or grids) onto an object and capturing the reflected pattern to reconstruct high-precision 3D information .

Conclusion

For sourcing 3D structured light modules, companies like ams OSRAM, Osela, Zivid, LG Innotek, and Sunny Optical are among the top providers, offering a range of products suitable for industrial, consumer, and research applications. The market is expanding, with multiple manufacturers providing specialized solutions tailored to different technical requirements and regional demands .

3D Structured Light Modules Market Insights Global 3D Structured Light Modules market size was valued at USD 298

From automotive safety to life sciences, Osela lasers power innovation across industries worldwide. Backed by deep optical

Structured Light 3D Sensing 3D facial recognition is an emerging market with the most secured way for access control. Himax

LIPSedge(TM) L Series is the most compact 3D structured light camera on the market today with big

Structured Light 3D Camera The Rindo series of 3D cameras based on structured light technology are ideal for inspection and

Explore the booming 3D structured light modules market, driven by access control, smartphones, and smart retail.

Before we dive into how structured-light 3D scanners are able to capture objects with such incredible speed and

Lumaxis designs and manufactures high-resolution structured light projector engines for 3D Metrology, Automated

ProPhotonix has designed the 3D PRO Lasers range as a structured light laser platform specifically for the

Learn more in our next 3D Scanning 101: Applications for Structured Light Scanning. Polyga"s Structured

Structured Lighting Solutions High performance, high reliability, and superior beam shaping capabilities in

3D Structured Light Module Company

Unlock precise 3D vision solutions with LIPS Corporation"s 3D structured light cameras - LIPSedge L210u module, L215u enclosed

Structured Light Module: Combination of diffractive and refractive optics for laser pattern generation in very high angles.

Structured light portable 3D scanners by Shining3D are fast, lightweight, and high-precision devices that represent the cutting edge

Mit den Structured Light-Systemen von ams OSRAM erzielen 3D-Bildgebungsanwendungen eine extrem hohe Genauigkeit. Die

The Starlight projector is the most compact, high performance, low cost structured light solution available for 3D

Web: https://morwarreconst.co.za