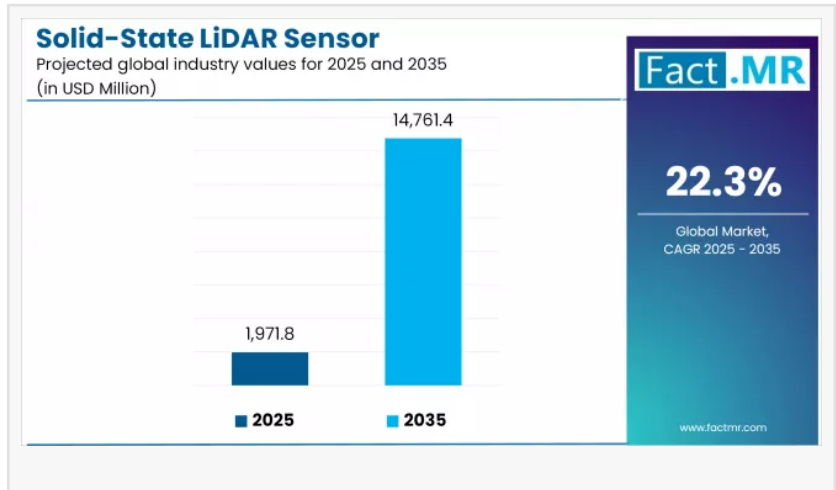


Solid State Lidar Sensor Market is Foreasted to Reach USD 14,761.7 Million By 2035 | Fact.MR Report

The Beam Steering Lidar Segment Is Projected To Grow At A CAGR Of 23.9%, Whereas Another Segment MEMS-Based Lidar Is Likely To Grow At 22.6%

ROCKVILLE, MD, UNITED STATES, August 14, 2025 /EINPresswire.com/ -- According to Fact.MR, a market research and competitive intelligence provider, the [solid-state LiDAR sensor market](#) was valued at USD 1,612.3 million in 2024 and is expected to grow at a CAGR of 22.3% during the forecast period of 2025 to 2035.



The market is experiencing a transformational boom, and is growing more concerned with beam precision, structural miniaturization, and application-specific flexibility. With an increasingly deeper integration of sensors across platforms, manufacturers are focusing on chip-level control, state of the art photonics, and thermal tolerance engineering in the drive to provide resilient and responsive detection of surrounding 3D environments.

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The current advancement in the MEMS design, optical phased array, and beam-steering logic has broadened the market of LiDAR technology-especially in smart city planning, surveillance, or off-grid mobility. The stakeholders are paying more attention to power-effective modular stacks of the sensors that will present high data accuracy with low latency and still possess the cost-performance balance. The OEMs are also moving to PoE-enabled plug and play sensor modules, to achieve scalable implementation in infrastructure and automotive spaces.

With increased pace of demand in edge computing, telecom-grade automation and industry 4.0 environments, solid-state LiDAR is squarely settling into its role as a next-generation perception platform, poised to displace legacy mechanical and power-greedy sensor sets. Alliances with car

giants, drone innovation companies and infrastructure automation companies are helping these vendors to make the shift toward mass production of their concept fast with the globe following suit in their leadership towards the adoption of next-gen sensors.

Key Takeaways from Market Study:

- The solid-state LiDAR sensors market is projected to grow at 22.3% CAGR and reach USD 14,761.7 million by 2035
- The market created an absolute \$ opportunity of USD 12,789.9 million between 2025 to 2035
- North America is a prominent region that is estimated to hold a market share of 31.2% in 2035
- Predominating market players are Leishen Intelligent Systems, SSLiDAR, Cygbot, XenomatiX, Aeva Technologies, RoboSense, Hesai Technology, Ouster, Innoviz Technologies, Valeo, Ibeo, Cepton Technologies, Luminar Technologies, RiegI, Beamagine, Ommatidia LiDAR, Voyant Photonics, LightlIC Technologies, SOS LAB, and LeddarTech
- North America is expected to create an absolute \$ opportunity of USD 4,012.0 million
“The solid-state LiDAR sensor market, propelled by the growing need of high-performance, compact sensing systems, integration and combination with low-power electronics, and continued development in photonic beam steering along with at-chip packaging,,” says a Fact.MR analyst.

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Market Development:

The industry is picking up with smart synergetics between photonic engineers, automotive OEMs, aerospace system integrators, as well as robotics platform developers. The capability of beam-steering ASICs, optical phased arrays and chip-scale LiDAR modules, among other advanced technologies, is increasing the feasibility of deployment as well as compatibility of design in diverse mobility and infrastructure applications. These new technologies make it possible to architect 3D sensing in modular, embedded, long-range edge systems, without being limited in size, power, or durability.

The companies are aligning their R&D pipelines with automotive-grade and MIL-STD reliability requirements and critically on the durability inside vibration, thermal cycle, or humidity environment. At the same time, other manufacturers are bringing to market solid-state versions of LiDAR designed to serve ground-based vehicles, drones, smart poles, and mobile robotics-addressing smart infrastructure, public safety, and battlefield logistics. LiDAR combined with AI-powered inference chips computing muscles, low-latency communication devices, and sensor

fusion development platforms also enable high precision mapping spatial perception in dynamic, out-of-grid, or mission-driven applications.

In June 2025, Innoviz Technologies launched its InnovizSMART Long-Range LiDAR system aimed at infrastructure and robotics applications, with a detection range of 400 meters and having a native PoE interface. Created to be quickly deployed into many urban, airborne, and autonomous use-cases it is a step towards ruggedized, long-range, high-density end-solutions that can be scaled to deployments.

More Valuable Insights on Offer

Fact.MR, in its new offering, presents an unbiased analysis of the solid-state LiDAR sensor market, presenting historical data for 2020 to 2024 and forecast statistics for 2025 to 2035.

The study reveals essential insights on the basis of the By Product Type (2D Solid-State LiDAR, 3D Solid-State LiDAR, and Multi-channel LiDAR), By Technology (MEMS-based LiDAR, Optical Phased Array, Flash LiDAR, and Beam Steering LiDAR), By Range (Short-range, Medium-range, and Long-range), By Application (Advanced Driver Assistance Systems (ADAS), Robots, Smartphones, Navigation & Mapping, Security & Surveillance, and Surgery), By End Use Industry (Automotive, Electronics, Aerospace & Defense, Healthcare, Industrial, Logistics & Warehousing, and Construction) across major regions of the world (North America, Latin America, Western Europe, Eastern Europe, East Asia, South Asia & Pacific, and Middle East & Africa).

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[LiDAR-sensor market](#) is expected to be valued at US\$ 2.42 billion in 2024 and is forecast to expand at a noteworthy CAGR of 14% by 2034

The global [IoT sensors market](#) to surge from \$33 billion in 2024 to \$181.7 billion by 2034, driven by 18.6% CAGR, marking substantial growth.

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