

# **Optical Modulators Market Forecasts to 2028 – Global Analysis By Type (Amplitude Modulator, Analog Modulators), Material (Optical Materials, Non-Optical Materials), Product (Active Optical Cables, Optical Engines) and By Geography**

<https://marketpublishers.com/r/OCF46294436EEN.html>

Date: September 2021

Pages: 150

Price: US\$ 4,150.00 (Single User License)

ID: OCF46294436EEN

## **Abstracts**

According to Statistics MRC, the Global Optical Modulators Market is accounted for \$29.60 billion in 2020 and is expected to reach \$58.12 billion by 2028 growing at a CAGR of 8.8% during the forecast period. Increased demand for fiber-coupled integrated optical modulators and rising demand for cloud-based storage are driving the market growth. However, poor reliability for spaceflight optical modulators, and high operating costs for handling optical modulators are hampering the growth of the market.

An optical Modulator is an optical system that applies a signal-controlled component exhibiting the electro-optic effect to change a light beam. Though, the modulation can be based on the beam's frequency, direction, and polarization or amplitude. This comprises mainly of one or two pocket cells, with added optical elements such as polarizers. The most common types of electro-optic modulators are phase modulators. Modulating a laser beam's strength as well as laser frequency stabilization are some of the market's main application areas for optical modulators.

Based on the end-user, the space and defense segment is going to have lucrative growth during the forecast period, due to the growing demand for technically advanced security and surveillance systems and increasing demand for drone-powered electro-optical surveillance & night-watch systems. The modern developments in the optics system have helped twenty-four-hour situational alertness, revolving rotation, defense gun guidance, and automated object recognition. Furthermore, the massive global military spending, with the armed forces obtaining different devices like optical systems,

as well as introducing new technologies in this field is contributing to the segment growth.

By geography, Asia Pacific is going to have high growth during the forecast period, owing to the progress of the telecommunications industry and growing investments in the 5G network that facilitate the optical modulators market growth in the province in upcoming years.

Some of the key players profiled in the Optical Modulators Market include Thorlabs Inc., Gooch & Housego Plc, Lumentum Operations LLC, AA Opto-Electronic, Fujitsu Optical Components Limited, Gooch & Housego PLC, Lightwave Logic, Hamamatsu Photonics K.K., APE GmbH, Versawave Technologies Inc., L3Harris Technologies Inc., AMS Technologies AG.

#### Types Covered:

Amplitude Modulator

Analog Modulators

Intensity Modulators

Optical Acousto Modulators

Phase Modulators

Polarization Modulators

Spatial Light Modulators

Liquid Crystal Modulators

#### Materials Covered:

Optical Materials

Non-Optical Materials

Fiber-Coupled Optical Modulators Materials

Free-Space Optical Modulators Materials

Products Covered:

Active Optical Cables

Optical Engines

Optical Multiplexers

Radio Frequency (RF) Circuits

Transceivers

Variable Optical Attenuators

Applications Covered:

Community Antenna Television (CATV)

Data Centers

Fiber Optic Sensors

Industrial Systems

Optical Communication

Camera

Distribution Channels Covered:

Offline

Online

End Users Covered:

Commercial

Consumer Electronics

Data Communication

Medical And Life Science

Space and Defense

Telecommunication

Regions Covered:

North America

US

Canada

Mexico

Europe

Germany

UK

Italy

France

Spain

Rest of Europe

Asia Pacific

Japan

China

India

Australia

New Zealand

South Korea

Rest of Asia Pacific

South America

Argentina

Brazil

Chile

Rest of South America

Middle East & Africa

Saudi Arabia

UAE

Qatar

South Africa

## Rest of Middle East & Africa

What our report offers:

Market share assessments for the regional and country-level segments

Strategic recommendations for the new entrants

Covers Market data for the years 2019, 2020, 2021, 2025 and 2028

Market Trends (Drivers, Constraints, Opportunities, Threats, Challenges, Investment Opportunities, and recommendations)

Strategic recommendations in key business segments based on the market estimations

Competitive landscaping mapping the key common trends

Company profiling with detailed strategies, financials, and recent developments

Supply chain trends mapping the latest technological advancements

Free Customization Offerings:

All the customers of this report will be entitled to receive one of the following free customization options:

### Company Profiling

Comprehensive profiling of additional market players (up to 3)

SWOT Analysis of key players (up to 3)

### Regional Segmentation

Market estimations, Forecasts and CAGR of any prominent country as

per the client's interest (Note: Depends on feasibility check)

### Competitive Benchmarking

Benchmarking of key players based on product portfolio, geographical presence, and strategic alliances

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