

Free Space Optic Communication Market By Platform (Space, Airborne, Ground), By Component (Transmitter, Transceiver, Receiver, Others), By Application (Mobile Backhaul, Disaster Recovery, Enterprise Connectivity, Defense, Satellite, Others): Global Opportunity Analysis and Industry Forecast, 2021-2031

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Report description:

The free space optic communication market size was valued at \$347.54 million in 2021, and is projected to reach \$4,787.96 million by 2031, registering a CAGR of 31.26%. Free space optic (FSO) communication is the wireless transmission of data via a modulated optical beam directed through free space, without fiber optics or other optical systems guiding the light. These types of communication systems are uniquely valuable in enabling fast and secure connectivity, both in terrestrial and non-terrestrial networks. The general idea of free-space optics relies on the transmission of invisible, eye-safe light beams. They are transmitted by a laser with light focused onto a highly sensitive photon detector, which serves as a receiver, equipped with a telescopic lens. FSO links have quite a simple construction, typically consisting of two identical heads enabling duplex data transmission. These heads are connected via interfaces directly to computers or with a telecommunications network.

The scope of the report discusses the potential opportunities for the key players to enter the free space optic communication market. Furthermore, it provides an in-depth analysis of the market, outlining current trends, key driving factors, and key areas of investment. The report includes Porter's five forces analysis to understand the competitive scenario of the industry and role of each stakeholder in the value chain. Moreover, it features the strategies adopted by key market players to maintain their foothold in the market.

The free space optic communication market is segmented on the basis of platform, component, application, and region. On the basis of platform, it is segmented into ground, space, and airborne. On the basis of component, the market is segmented into transmitter, transceiver, receiver, and others. In terms of application, the market is segmented into mobile backhaul, disaster recovery, enterprise connectivity, defense, satellite, and others. In terms of region, the market is divided into North America, Europe, Asia-Pacific, and LAMEA.

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The free space optic communication market is driven by the increase in demand for high-speed data transmission, need for secure communication channels, and rise in adoption of 5G technology. FSO communication systems can achieve data rates of up to several gigabits per second, making them suitable for applications such as mobile backhaul, enterprise connectivity, healthcare, defense, and security. The free space optic communication market is expected to grow at a significant pace during the forecast period owing to the surge in need for reliable and quick wireless communication as well as increase in demand for widespread digital connectivity.

The free space optic communication market players profiled in the report include EC System, FSONA Networks Corp., Axiom Optics, Wireless Excellence Limited, QinetiQ, ViaSat, Inc., Mostcom JSC, Mynaric, Collinear and Plaintree Systems Inc. These key players adopt several strategies such as new product launch and development, acquisition, partnership and collaboration and business expansion to increase their market share in the global digital multimeter market during the forecast period.

Key Benefits For Stakeholders

- This report provides a quantitative analysis of the market segments, current trends, estimations, and dynamics of the free space optic communication market analysis from 2021 to 2031 to identify the prevailing free space optic communication market opportunities.
- The market research is offered along with information related to key drivers, restraints, and opportunities.
- Porter's five forces analysis highlights the potency of buyers and suppliers to enable stakeholders make profit-oriented business decisions and strengthen their supplier-buyer network.
- In-depth analysis of the free space optic communication market segmentation assists to determine the prevailing market opportunities.
- Major countries in each region are mapped according to their revenue contribution to the global market.
- Market player positioning facilitates benchmarking and provides a clear understanding of the present position of the market players.
- The report includes the analysis of the regional as well as global free space optic communication market trends, key players, market segments, application areas, and market growth strategies.

Key Market Segments

By Platform

- Space
- Airborne
- Ground

By Component

- Transmitter
- Transceiver
- Receiver
- Others

By Application

- Mobile Backhaul
- Disaster Recovery
- Enterprise Connectivity
- Defense
- Satellite
- Others

By Region

- North America
- U.S.
- Canada
- Mexico
- Europe

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- UK
- Germany
- France
- Rest of Europe
- Asia-Pacific
- China
- Japan
- India
- South Korea
- Rest of Asia-Pacific
- LAMEA
- Latin America
- Middle East
- Africa
- Key Market Players
- ViaSat, Inc.
- mynaric
- Axiom Optics
- Wireless Excellence Limited
- Plaintree Systems Inc.
- QinetiQ Group plc
- Mostcom JSC
- FSONA Networks Corporation
- Collinear
- EC System

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