

Global Single Pair Ethernet Market research report

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Abstracts

[170 + Pages Research Report] Single Pair Ethernet Market surpass USD 4.6 billion by 2027 from USD 3.1 billion in 2019 at a CAGR of 9.1% in the coming years, i.e., 2019-31.

Product Overview

Single pair Ethernet is a standard that is gaining acceptance for low data rate sensor and control situations where it uses a single pair cable to reduce cost and ease installation. Single Pair Ethernet is aimed at low data rate applications such as industrial control and automotive applications for sensors and remote controls that only require very low data rates. The concept of single-pair Ethernet is aimed at the growing number of building automation installations, “smart” systems, and the Internet of Things, IoT where wired rather than wireless links are needed for greater reliability and security. With remote sensors, actuators, and switches requiring just a few bytes of data when they are polled or triggered, the full bandwidth of Ethernet is simply not needed. A host of applications are ideal for the Single Pair Ethernet systems: sensors for lighting, HVAC, access control, occupancy monitoring, and a host of other smart systems.

Market Highlights

Global Single Pair Ethernet market is expected to project a notable CAGR of 9.1% in 2027.

The global Single Pair Ethernet Market is experiencing significant growth on account of surging digitalization advancement in the hardware, devices, or services, growing preference towards cloud adoption, etc. Moreover, the surging investment by the large & small-medium enterprises in the communication solutions further expected to drive the growth of the market.

Global Single Pair Ethernet: Segments

Infrastructure & Device, Components segment to grow with the highest CAGR during 2019-31

Based on the types, the market is fragmented into Infrastructure & Device Components and Solutions & Services. The Infrastructure & Device, Components segment generated revenue of USD 1,784.9 million in 2020 and is expected to grow at the CAGR of 9.4% during the forecast period to reach a market valuation of USD 3,321.0 million by 2027F.

Industrial robots segment to grow with the highest CAGR during 2019-31

Industrial robots present high demands on cables and other supply lines for apparatus with which the robot fulfills its current task. Several axes are set in motion during an operation and bend or twist cables several thousand times during a working life. For this reason, cable manufacturers offer Ethernet cables specially optimized for these applications. The highly flexible cables have finer strands that can withstand significantly more work cycles. Analogous to this principle: the thinner the more flexible, SPE cables also offer significantly higher numbers of possible work cycles in robotic applications. This longer service life means considerable cost savings. In-vehicle construction, the subject of weight has always been of increased interest. Not only since more awareness of energy consumption and environmental pollution has been developed

Market Dynamics

Drivers

Fast, simple, and cost-effective solution

Single Pair Ethernet is a new technology that details how Ethernet can be sent via just one pair of copper wires. SPE allows for simultaneous power supply of terminal devices via PoDL in addition to data transmission via Ethernet connections (Power over Data Line). SPE is working on slim cabling/connection solutions that combine Ethernet and TCP/IP communications to minimize weight, save space, and enable the creation of an infrastructure for Industrial Internet of Things applications. T1 Industrial style according to IEC 63171-6 is a downsized SPE standard interface for industrial applications with the purpose of efficiently reaching every sensor and actuator in the field with slim SPE cables. The entire cabling system becomes simpler, and it can be erected much more quickly.

Growing Demand for Operational Technology

Operational technology systems are hardware and software that detect the cause of change by employing a physical instrument to monitor it directly. Supervisory Control and Data Acquisition (SCADA), Distributed Control Systems (DCS), Process Control Domains (PCD), and Programmable Logic Controllers (PLC) are some of the technologies used by Operational Technology (OT). It's widely utilized in industrial control systems, which can be found in places like power plants, paper mills, and other businesses. The Industrial Internet of Things (IIoT) has recently emerged as a result of the combining or convergence of operational technology and information technology (IT) systems (IIOT). The increasing adoption of automation, safety instrumented services, and technological improvements in hardware and software are all driving the growth of the operational technology industry. The market is growing due to increased usage of automated solutions and improved monitoring and control systems.

Restraint

Shorter range and lower data rates

Single Pair Ethernet was created to satisfy the needs of the car industry, which required smaller, lighter cables and connectors to transmit data from the various sensors used in adaptive cruise control, parking assistance, autonomous driving, and other onboard systems. Early SPE improvements were ideally suited to the smaller data loads and shorter distances necessary in automobile applications. Companies began to notice the technology's potential in other areas, particularly manufacturing and building automation, as the technology progressed, and the SPE Industrial Partner Network was born. Single Pair Ethernet is promoted as the 'foundation for developing the IIoT' by this manufacturer organization, which also supports standards for transmission protocols, cabling, and device components.

Global Single Pair Ethernet: Key Players

TE Connectivity

Company Overview, Business Strategy, Key Product Offerings, Financial Performance, Key Performance Indicators, Risk Analysis, Recent Development, Regional Presence, SWOT Analysis

HARTING

HIROSE

Würth Electronics

Phoenix Contact

SoftingAG

Belden

LEONI

MURR Elektronik

Other Prominent Players

Global Single Pair Ethernet: Regions

Global Single Pair Ethernet market is segmented based on regional analysis into five major regions: North America, Latin America, Europe, Asia Pacific, and the Middle East and Africa. North America dominates the Global Single Pair Ethernet market. Due to the early adoption of trending technologies, such as IoT, big data, DevOps, and Mobility, manufacturers in North America are keen to integrate IoT technologies in their processes. For instance: 55% of North American companies have adopted big data analytics to improve their operational efficiency, such as Boeing, IBM, and General Electric among others.

Global Single Pair Ethernet is further segmented by region into:

North America Market Size, Share, Trends, Opportunities, Y-o-Y Growth, CAGR – United States and Canada

Latin America Market Size, Share, Trends, Opportunities, Y-o-Y Growth, CAGR – Mexico, Argentina, Brazil, and Rest of Latin America

Europe Market Size, Share, Trends, Opportunities, Y-o-Y Growth, CAGR – United Kingdom, France, Germany, Italy, Spain, Belgium, Hungary, Luxembourg, Netherlands, Poland, NORDIC, Russia, Turkey, and Rest of Europe

Asia Pacific Market Size, Share, Trends, Opportunities, Y-o-Y Growth, CAGR – India, China, South Korea, Japan, Malaysia, Indonesia, New Zealand, Australia, and Rest of APAC

Middle East and Africa Market Size, Share, Trends, Opportunities, Y-o-Y Growth, CAGR – North Africa, Israel, GCC, South Africa, and Rest of MENA

Global Single Pair Ethernet report also contains analysis on:

Global Single Pair Ethernet Segments:

By Type

Infrastructure and Device Components

Solutions

Services

By Application

Industrial Robots

Access Control

Vehicles

Others

Global Single Pair Ethernet Dynamics

Global Single Pair Ethernet Size

Supply & Demand

Current Trends/Issues/Challenges

Competition & Companies Involved in the Market

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21. LEONI

22. MURR ELEKTRONIK

23. OTHER PROMINENT PLAYERS

Consultant Recommendation

**The above-given segmentations and companies could be subjected to further modification based on in-depth feasibility studies conducted for the final deliverable.

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