

Connector Types and Technologies Poised for Growth

Research Report P-606-23
October 2023



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Bishop & Associates has just released a new market research report that identifies 13 connector types that are expected to grow at a significantly faster rate than the general market over the next three to five years. **Connector Types and Technologies Poised for Growth** is an 18-chapter, 308-page report that defines the key characteristics of each connector, as well as typical applications, major manufacturers, along with projected market values and five-year CAGR. This report also reviews emerging trends and technologies that are likely to have a significant impact on connector design and applications over this same period.



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Despite the current unsettled economic and political environment, including elevated interest rates, the on-going wars in Ukraine, and Israel, potential takeover of Taiwan by China, and a highly contentious presidential election in 2024, development of advanced electronics continues at a furious pace. Potentially disruptive technologies such as artificial intelligence, autonomous transportation and quantum computing are driving manufacturers of electronic components to upgrade existing devices and introduce new products that can support them.

The imperative to constantly develop new interconnect technology to keep pace with escalating design requirements remains a core value of the electronic interconnect industry. The connector industry has continued to invest in the development and tooling of many upgraded and new connectors that support demands for faster speed, higher current, longer reach, improved signal integrity, and greater packaging density. Demand for increased Internet bandwidth and capacity is driving massive expansion of hyperscale data centers enabled by expanded use of fiber optic links and new architectures utilizing silicon photonics. The imperative to reduce system power consumption and resulting heat are also impacting connector selection.

The bump in personal computer sales stimulated by the pandemic work from home movement has ended as employers try to entice or mandate return to the office. On the other hand, the war in Ukraine and the Middle East is depleting the existing stockpile of weapons which should translate to improved business conditions in the advanced military equipment and arms market for several years.

Each of the 13 connector types and 15 technologies identified in this new report include a product description with key mechanical and electrical performance characteristics. This report also pinpoints significant packaging and semiconductor trends that are influencing the basic system architecture of next generation high-performance computing and data center networks. Emerging applications across multiple market segments are also identified. Global market values and forecasts covering the years 2022 through 2028, with a five-year CAGR, document our growth expectations for each product type.

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Issues explored in this report include:

1. Which existing connector types are poised for exceptional sales growth and why?
2. What new electronic products and technologies are driving connector growth?
3. Which industry segments will utilize these connectors? Will certain segments require the development of entirely new connectors to address specific applications?
4. Who are the leading manufacturers of these connectors? What competitive advantages do they offer?
5. Will advanced material technology change the way connectors are designed, fabricated, and utilized?
6. In which applications have the performance advantages of fiber optic interfaces reached applied cost parity with traditional copper circuits?
7. What improvements are connector manufacturers making in the performance of their flagship backplane connector families to support next generation applications?
8. What technology is a work in progress but introduces another solution to supporting next generation ASICs?
9. Which of the many pluggable small form factor transceivers are leading in high-bandwidth applications?
10. What factors may limit the use of pluggables in next generation high-performance applications?
11. How is the design imperative to reduce system power consumption translating to component selection?
12. Will new “cobots” or robots using AI technology fill the current gap in blue collar workers?
13. What potentially disruptive technologies may impact connector design and utilization over the next five years?
14. Which connectors defined by an updated industry standard or supported by an industry consortium show exceptional growth?

The term “connectivity” has become the mantra for the expanding universe of electronic devices that pervade our world today. People-to-people, machine-to-machine, as well as people-to-machine communication is spawning entirely new classes of electronic devices. Capabilities such as facial recognition, location awareness, and artificial intelligence can provide much enhanced interaction with our devices, while creating new vulnerabilities for hackers to target.

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Electronic connectors now play an increasingly critical role in the performance of the end device as well as the infrastructure that supports it. Development of a new connector typically is the result of an identified gap in the mix of current interfaces in terms of bandwidth, physical size, pin count, durability, current rating, termination method, and price. Connector manufacturers are constantly on the outlook for new technology that may require a unique set of performance requirements as well as disruptive technologies that could quickly make a current product obsolete.

Connectors and Technologies Poised for Growth provides useful insight on key interconnects and technologies that we anticipate will propel the electronics industry over the next five years.

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What's New ?

Bishop & Associates has recently completed several new research reports about the worldwide connector industry. A table of contents for each report can be found at <https://store.bishopinc.com>.

- ❑ **Report P-606-23** **Connector Types and Technologies Poised for Growth (October 2023) NEW**
- ❑ **Report M-121-23** **2023 Top 100 Connector Manufacturers (August 2023) NEW**
- ❑ **Report F-2023-01** **Connector Industry Forecast (July 2023) NEW**
- ❑ **Report M-720-23** **European Connector Market 2021, 2022, 2023F and 2028F (June 2023) NEW**
- ❑ **Report C-122-23** **2023 Connector Industry Yearbook (June 2023) NEW**
- ❑ **Report P-430-23** **World Circular Connector Market 2023 (May 2023) NEW**
- ❑ **Report M-700-23** **World Connector Market Handbook (March 2023) NEW**
- ❑ **Report P-780-23** **World RF Coax Connector Market (January 2023) NEW**
- ❑ **Report M-1200-22** **Military Ground Vehicle Market for Connectors (October 2022)**
- ❑ **Report P-799-22** **World Cable Assembly Market (September 2022)**
- ❑ **Report P-675-22** **Copper and Fiber Connectivity in the Data Center (July 2022)**
- ❑ **Report T-800-22** **2022 North American Cable Assembly Manufacturers (May 2022)**
- ❑ **Report M-1010-22** **World Automotive Connector Market (April 2022)**
- ❑ **Report P-420-22** **IC Sockets – Systems & Connector Forecast 2020-2030 (January 2022)**
- ❑ **Report P-520-21** **The World I/O Rectangular Connector Market 2021 (October 2021)**
- ❑ **Report M-310-21** **Instrumentation Market for Connectors (June 2021)**
- ❑ **Report P-410-21** **Computer Server Market Trends and Connector Use 2020 – 2030 (May 2021)**

THE BISHOP REPORT - CONNECTOR INDUSTRY YEARBOOK

An annual corporate subscription to [THE BISHOP REPORT](#) (12 issues) is available for \$2,950, which includes an unlimited number of subscribers and one PDF version of the *Connector Industry Yearbook* report (normally \$1,500).

The Bishop Report subscription includes access, through Bishopinc.com, to prior issues of The Bishop Report, 30-40 yearly News Briefs, Industry Financial Benchmarks, and various connector industry indices.

[Click here](#) to view an expanded report description, and a complete table of contents, for all Bishop & Associates' research reports.



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