

Hybrid Memory Cube Market valued at US\$1,233.443 million in 2022, to witness significant growth

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/EINPresswire.com/ -- According to a new report published by Knowledge Sourcing Intelligence, forecasted between 2022 and 2029, the [hybrid memory cube market](#) was valued at US\$1,233.443 million in 2022 and is anticipated to propel significantly over the coming years.



The Hybrid Memory Cube (HMC) market is at the forefront of technical innovation, marking a paradigm shift in-memory architecture. This cutting-edge technology has received a lot of interest and acceptance in a variety of industries because of its capacity to meet the growing need for high-performance computing and data-intensive applications. Unlike standard memory architectures, the Hybrid Memory Cube uses a layered 3D structure to provide quicker data transfer rates and lower power consumption. As the digital landscape evolves with advances in artificial intelligence, big data analytics, and

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high-performance computing, the Hybrid Memory Cube market is expected to rise significantly. Its ability to provide higher performance and efficiency positions it as a crucial participant in determining the future of memory systems, with implications for sectors ranging from telecommunications and data centres to consumer devices.

The hybrid memory cube market focuses on the development, manufacture, and selling of HMC technology. HMC is a sort of 3D memory that stacks vertically instead of horizontally. This provides better memory density and bandwidth than standard DRAM. HMC has a wide range of applications, including high-performance computing, networking, and artificial intelligence. Although the hybrid memory cube (HMC) business is still in its early stages, it is expected to expand rapidly in the next years. This is being driven by the increasing need for high-performance memory in a variety of applications. The primary drivers of the HMC market are the expansion of the high-performance computing industry, the rising usage of artificial intelligence,

and the demand for high-bandwidth memory in networking applications.

The market is witnessing multiple collaborations and technological advancements, for instance, in May 2023, Micron Technology, Inc. announced the introduction of extreme ultraviolet (EUV) technology to Japan. This advanced patterning technique would be used to build the 1-gamma (1y) node, the next generation of DRAM. Micron will be the first semiconductor manufacturer to bring EUV technology to Japan for manufacturing, with its Hiroshima facility playing an important role in the development of the 1-gamma node. Micron anticipates investing up to 500 billion yen in 1-gamma process technology over the next few years, with strong backing from the Japanese government, to allow the next wave of end-to-end technological innovation, such as fast-growing generative artificial intelligence (AI) applications.

Access sample report or view details: <https://www.knowledge-sourcing.com/report/hybrid-memory-cube-market>

Based on product the global hybrid memory cube market is divided into 2 GB, 4 GB, and 8 GB. The 8 GB category is expected to emerge as the leader in the future years. The growing need for more capacity and speed in data-intensive applications such as artificial intelligence, high-performance computing, and data analytics is expected to generate a desire for bigger memory capacities such as 8 GB. Furthermore, as technological improvements push the frontiers of computing capabilities, the 8 GB category is likely to meet the rising need for increased memory solutions, cementing its position as the top choice in the dynamic hybrid memory cube market.

Based on application the global hybrid memory cube market is divided into [graphics processing unit \(GPU\)](#), [central processing unit \(CPU\)](#), accelerated processing unit (APU), field-programmable gate array (FPGA), and application-specific integrated circuit (ASIC). The Graphics Processing Unit (GPU) segment is predicted to develop significantly within the hybrid memory cube (HMC) market. GPUs are critical for high-performance computing, gaming, and artificial intelligence applications that necessitate high bandwidth and low latency memory. HMC technology, with its 3D-stacked design and through-silicon via (TSV) technology, offers GPUs with the high bandwidth and low power consumption they require to work optimally. As demand for enhanced graphics and AI-driven applications rises, the GPU section of the HMC market is likely to expand significantly.

Based on end users the global hybrid memory cube market is divided into enterprise storage, telecommunications and networking, and others. The enterprise storage category is expected to dominate the worldwide hybrid memory cube (HMC) market. The rising need for high-performance computing solutions in data-intensive applications and the necessity for effective data storage and retrieval capabilities is projected to boost the use of HMC technology in corporate storage systems. As organizations rely more on sophisticated data analytics, artificial intelligence, and other data-centric applications, hybrid memory cubes' increased bandwidth and lower latency become critical for improving overall system performance. Furthermore, the enterprise sector's constant quest for better and quicker memory solutions to handle growing

data processing requirements puts it as a significant driver for the growth of the HMC market.

Based on geography the Asia Pacific region is projected to account for a substantial portion of the hybrid memory cube (HMC) market. This is due to several causes, including the region's significant presence in the electronics and semiconductor sectors, as well as rising demand for high-performance computing, gaming, and artificial intelligence applications in nations such as China, Japan, and South Korea. Furthermore, the increasing rise of cloud services and the adoption of sophisticated technologies in the Asia Pacific area are boosting the demand for high-bandwidth, low-power, and highly scalable memory solutions, making it an important market for HMC technology.

As a part of the report, the major players operating in the global hybrid memory cube market, that have been covered are Achronix Semiconductor Corporation, Arira Design Inc., Fujitsu Limited, Intel Corporation, Micron Technology Inc., Open-Silicon Inc. (SiFive Inc.), and Samsung Electronics Co. Ltd.

The market analytics report segments hybrid memory cube market using the following criteria:

- BY PRODUCT

- o 2 GB
- o 4 GB
- o 8 GB

- BY APPLICATION

- o Graphics Processing Unit (GPU)
- o Central Processing Unit (CPU)
- o Accelerated Processing Unit (APU)
- o Field-programmable Gate Array (FPGA)
- o Application-specific Integrated Circuit (ASIC)

- BY END-USE INDUSTRY

- o Enterprise Storage
- o Telecommunications and Networking
- o Others

- BY GEOGRAPHY

- o North America

- United States

- Canada
- Mexico
- o South America
 - Brazil
 - Argentina
 - Others
- o Europe
 - Germany
 - France
 - United Kingdom
 - Spain
 - Others
- o Middle East and Africa
 - Saudi Arabia
 - UAE
 - Israel
 - Others
- o Asia Pacific
 - Japan
 - China
 - India
 - South Korea
 - Indonesia
 - Thailand
 - Others

Companies Profiled:

- Achronix Semiconductor Corporation
- Arira Design Inc.
- Fujitsu Limited
- Intel Corporation
- Micron Technology Inc.
- Open-Silicon Inc. (SiFive Inc.)
- Samsung Electronics Co. Ltd.

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