Solid State Drive (SSD) Market Research Report—Forecast 2023

Global Solid-State Drive Market Research Report, by type (SSL, MLL, TLL), by Storage Interface (SATA, SAS, PCIe), by Storage Capacity (<250GB, 251GB-500GB, 501GB-1TB, >1TB), by Application (PCs, laptops, Data Centers), by End-user (Enterprise SSDs, Client SSDs) — Forecast till 2023

Market Synopsis

Worldwide the solid-state drive market is expected to grow from USD 21.78 billion in 2017 to USD 50.72 billion by 2023, at a compound annual growth rate (CAGR) of 15.13% during the forecast period. Solid State Drive is a new technology in the field of data storage and is alternative to the traditional storage device HDD. Increased use of the Internet, growing e-commerce industry, rapid advances due to digitalization, and increasing volume of media data transfer are expected to drive the market. However, the high costs of SSD compared to HDD might hamper the growth of the market as SSDs are approximately six to seven times more expensive than HDDs. Hybrid systems with HDDs are anticipated to present new opportunities for the market’s growth in the years to come. The market players are focusing on the development of higher capacity SSDs. Asia-Pacific is expected to witness the fastest growth in this market. The market in this region is driven by the increasing adoption of cloud computing among various enterprises and growth data volumes due to the increasing data centers in the region.

A solid-state drive, also known as an electronic disk or a solid-state disk, is a data storage device that uses assemblies of integrated circuit as a memory to store the data. Unlike hard disk drives, there are no moving components in SSDs and they retain data without consuming power using the NAND-flash memory chips.

The solid-state drives have various performance benefits, such as higher random access speed, multi-tasking ability, and higher reliability and durability as compared to its traditional counterpart. SSDs are a better option for data centers as they offer high speed, hierarchical storage and mass volume owing to their non-volatile memory technology. They also provide high-speed bus interface enabling high speed of data-transfer in enterprise systems.

Key players in the SSD market include companies such as Intel Corporation, Kingston Technologies, Micron Technology Inc, and Samsung Electronics Co. Ltd. Samsung Electronics recently launched a new product PM1643 with 30TB capacity which can be used in the next-generation enterprise storage systems.

Segmentation.

By type, the market is segmented into SLL (Single Level Cell), MLL (Multi-Level Cell) and TLL (Triple Level Cell).

By storage interface, the market is segmented SATA, SAS, and PCIe.

By storage capacity, the market is segmented into less than 250 GB, 251GB to 500GB, 501GB to 1 TB and more than 1 TB

By application, the market is segmented into PCs, laptops, data centers and others.

By end-users, the market is segmented into client and enterprise users, industrial and automotive.
By region, the market is segmented into North America, Europe, Asia-Pacific and the rest of the world.

Global Solid-State Drive Market, USD Billions

Source: MRFR Analysis

Regional analysis

The global market for solid-state drives is estimated to grow at a significant rate during the forecast period from 2018 to 2023. The geographical analysis of solid-state drives market is done for North America, Europe, Asia-Pacific, and the rest of the world.

North America is expected to dominate the SSD market due to increasing demand for advanced computing systems, adoption of cloud computing, and proliferating big data analytics. Asia-Pacific is the fastest growing market owing to the growing demand from countries such as China, Taiwan, India, and Japan. The market in this region is driven by the growing applications of cloud computing in enterprises and the growth of data centers.

Competitive Analysis

The solid state market has witnessed a major trend of new product development in the region. Companies use various organic as well as inorganic strategy to increase their market value. Many key players have adopted new product development as their chief organic strategy. Apart from this, companies such as Seagate Technology, Toshiba, Sandisk, and others are collaborating with each other for developing flash storage and solid-state drives. A hard drive manufacturer, Seagate Technology recently announced its strategic partnership with chip maker Micron Technology to manufacture next-generation solid state drives (SSDs).

Key players

Some eminent companies such as Samsung (South Korea), Intel (US), SanDisk (US), Micron Technology, Inc. (US), Toshiba (Japan), Lite-On (Taiwan), Western Digital (US), Fusion-io (US), Google (US), Kingston Technology (US), NetApp (US), OCZ (US) and IBM (US) are leading the solid-state drives market. Also, innovators such as Viking (US), Adata (Taiwan), Foremay (US), BiTMICRO Networks (US), and Crossbar (US), Diablo Technologies (Canada) and Violin Memory (US) are emerging players in the market.

Intended Audience

- Companies in the solid-state drive market
- Companies involved in the ecosystem of memory and storage businesses
- Government and financial institutions, as well as investment communities
- Analysts and strategic business planners
- End users that want to know more about solid state drives and the latest technological developments in this industry
TABLE OF CONTENTS

1 Executive Summary

2 Scope of the Report
2.1 Market Definition
2.2 Scope of the Study
2.2.1 Research Objectives
2.2.2 Assumptions & Limitations
2.3 Markets Structure

3 Market Research Methodology
3.1 Research Process
3.2 Secondary Research
3.3 Primary Research
3.4 Forecast Model

4 Market Landscape
4.1 Porter's Five Forces Analysis
4.1.1 Threat of New Entrants
4.1.2 Bargaining power of buyers
4.1.3 Threat of substitutes
4.1.4 Segment rivalry
4.2 Value Chain/Supply Chain of Global Solid-State Drive Market

5 Industry Overview of Global Solid-State Drive Market
5.1 Introduction
5.2 Growth Drivers
5.3 Impact analysis
5.4 Market Challenges

6 Market Trends
6.1 Introduction
6.2 Growth Trends
6.3 Impact analysis

7 Global Solid-State Drive Market by Type
7.1 Introduction
7.2 Single level cell
7.2.1 Market Estimates & Forecast, 2018–2023
7.2.2 Market Estimates & Forecast, by Region, 2018–2023
7.3 Multiple level cell
7.3.1 Market Estimates & Forecast, 2018–2023
7.3.2 Market Estimates & Forecast, by Region, 2018–2023
7.4 Triple level cell
7.4.1 Market Estimates & Forecast, 2018–2023
7.4.2 Market Estimates & Forecast, by Region, 2018–2023

8 Global Solid-State Drive Market by Storage interface
8.1 Introduction
8.2 SATA
8.2.1 Market Estimates & Forecast, 2018–2023
8.2.2 Market Estimates & Forecast, by Region, 2018–2023
8.3 SAS
9 Global Solid-State Drive Market by Storage capacity

9.1 Introduction

9.2 Less than 250GB

9.2.1 Market Estimates & Forecast, 2018–2023
9.2.2 Market Estimates & Forecast, by Region, 2018–2023

9.3 251GB to 500GB

9.3.1 Market Estimates & Forecast, 2018–2023
9.3.2 Market Estimates & Forecast, by Region, 2018–2023

9.4 501GB to 1TB

9.4.1 Market Estimates & Forecast, 2018–2023
9.4.2 Market Estimates & Forecast, by Region, 2018–2023

9.5 1TB and more

9.5.1 Market Estimates & Forecast, 2018–2023
9.5.2 Market Estimates & Forecast, by Region, 2018–2023

10 Global Solid-State Drive Market by Application

10.1 Introduction

10.2 PC

10.2.1 Market Estimates & Forecast, 2018–2023
10.2.2 Market Estimates & Forecast, by Region, 2018–2023

10.3 Laptop

10.3.1 Market Estimates & Forecast, 2018–2023
10.3.2 Market Estimates & Forecast, by Region, 2018–2023

10.4 Datacenter

10.4.1 Market Estimates & Forecast, 2018–2023
10.4.2 Market Estimates & Forecast, by Region, 2018–2023

10.5 Others

10.5.1 Market Estimates & Forecast, 2018–2023
10.5.2 Market Estimates & Forecast, by Region, 2018–2023

11 Global Solid-State Drive Market by End-User

11.1 Introduction

11.2 Client User

11.2.1 Market Estimates & Forecast, 2018–2023
11.2.2 Market Estimates & Forecast, by Region, 2018–2023

11.3 Enterprise User

11.3.1 Market Estimates & Forecast, 2018–2023
11.3.2 Market Estimates & Forecast, by Region, 2018–2023

11.4 Industrial

11.4.1 Market Estimates & Forecast, 2018–2023
11.4.2 Market Estimates & Forecast, by Region, 2018–2023

11.5 Automotive

11.5.1 Market Estimates & Forecast, 2018–2023
11.5.2 Market Estimates & Forecast, by Region, 2018–2023

12. Global Solid-State Drive Market by Region
12.1 Introduction

12.2 North America
12.2.2 Market Estimates & Forecast, by Type, 2018–2023
12.2.3 Market Estimates & Forecast, by Storage interface, 2018–2023
12.2.4 Market Estimates & Forecast, by Storage capacity, 2018–2023
12.2.5 Market Estimates & Forecast, by End-User, 2018–2023
12.2.6 US
12.2.6.1 Market Estimates & Forecast, by Type, 2018–2023
12.2.6.2 Market Estimates & Forecast, by Storage interface, 2018–2023
12.2.6.3 Market Estimates & Forecast, by Storage capacity, 2018–2023
12.2.6.4 Market Estimates & Forecast, by End-User, 2018–2023
12.2.7 Canada
12.2.7.1 Market Estimates & Forecast, by Type, 2018–2023
12.2.7.2 Market Estimates & Forecast, by Storage interface, 2018–2023
12.2.7.3 Market Estimates & Forecast, by Storage capacity, 2018–2023
12.2.7.4 Market Estimates & Forecast, by End-User, 2018–2023
12.2.8 Mexico
12.2.8.1 Market Estimates & Forecast, by Type, 2018–2023
12.2.8.2 Market Estimates & Forecast, by Storage interface, 2018–2023
12.2.8.3 Market Estimates & Forecast, by Storage capacity, 2018–2023
12.2.8.4 Market Estimates & Forecast, by End-User, 2018–2023

12.3 Europe
12.3.1 Market Estimates & Forecast, Country, 2018–2023
12.3.2 Market Estimates & Forecast, by Type, 2018–2023
12.3.3 Market Estimates & Forecast, by Storage interface, 2018–2023
12.3.4 Market Estimates & Forecast, by Storage capacity, 2018–2023
12.3.5 Market Estimates & Forecast, by End-User, 2018–2023
12.3.6 Germany
12.3.6.1 Market Estimates & Forecast, by Type, 2018–2023
12.3.6.2 Market Estimates & Forecast, by Storage interface, 2018–2023
12.3.6.3 Market Estimates & Forecast, by Storage capacity, 2018–2023
12.3.6.4 Market Estimates & Forecast, by End-User, 2018–2023
12.3.7 France
12.3.7.1 Market Estimates & Forecast, 2018–2023
12.3.7.2 Market Estimates & Forecast, by Type, 2018–2023
12.3.7.3 Market Estimates & Forecast, by Storage interface, 2018–2023
12.3.7.4 Market Estimates & Forecast, by Storage capacity, 2018–2023
12.3.8 Italy
12.3.8.1 Market Estimates & Forecast, by Type, 2018–2023
12.3.8.2 Market Estimates & Forecast, by Storage interface, 2018–2023
12.3.8.3 Market Estimates & Forecast, by Storage capacity, 2018–2023
12.3.8.4 Market Estimates & Forecast, by End-User, 2018–2023
12.3.9 Spain
12.3.9.1 Market Estimates & Forecast, by Type, 2018–2023
12.3.9.2 Market Estimates & Forecast, by Storage interface 2018–2023
12.3.9.3 Market Estimates & Forecast, by Storage capacity, 2018–2023
12.3.9.4 Market Estimates & Forecast, by End-User, 2018–2023
12.3.10 UK
12.3.10.1 Market Estimates & Forecast, by Type, 2018–2023
12.3.10.2 Market Estimates & Forecast, by Storage interface, 2018–2023
12.3.10.3 Market Estimates & Forecast by Storage capacity, 2018–2023
12.3.10.4 Market Estimates & Forecast, by End-User, 2018–2023
12.4 Asia-Pacific
12.4.1 Market Estimates & Forecast, Country, 2018–2023
12.4.2 Market Estimates & Forecast, by Type, 2018–2023
12.4.3 Market Estimates & Forecast, by Storage interface, 2018–2023
12.4.4 Market Estimates & Forecast, by Storage capacity, 2018–2023
12.4.5 Market Estimates & Forecast, by End-User, 2018–2023
12.4.6 China
12.4.6.1 Market Estimates & Forecast, by Type, 2018–2023
12.4.6.2 Market Estimates & Forecast, by Storage interface, 2018–2023
12.4.6.3 Market Estimates & Forecast, by Storage capacity, 2018–2023
12.4.6.4 Market Estimates & Forecast, by End-User, 2018–2023
12.4.7 India
12.4.7.1 Market Estimates & Forecast, by Type, 2018–2023
12.4.7.2 Market Estimates & Forecast, by Storage interface, 2018–2023
12.4.7.3 Market Estimates & Forecast, by Storage capacity, 2018–2023
12.4.7.4 Market Estimates & Forecast, by End-User, 2018–2023
12.4.8 Japan
12.4.8.1 Market Estimates & Forecast, by Type, 2018–2023
12.4.8.2 Market Estimates & Forecast, by Storage interface, 2018–2023
12.4.8.3 Market Estimates & Forecast, by Storage capacity, 2018–2023
12.4.8.4 Market Estimates & Forecast, by End-User, 2018–2023
12.4.9 Rest of Asia-Pacific
12.4.9.1 Market Estimates & Forecast, by Type, 2018–2023
12.4.9.2 Market Estimates & Forecast, by Storage interface, 2018–2023
12.4.9.3 Market Estimates & Forecast, by Storage capacity, 2018–2023
12.4.9.4 Market Estimates & Forecast, by End-User, 2018–2023
12.5 The Rest of the World
12.5.1 Market Estimates & Forecast, Country, 2018–2023
12.5.2 Market Estimates & Forecast, by Type, 2018–2023
12.5.3 Market Estimates & Forecast, by Storage interface, 2018–2023
12.5.4 Market Estimates & Forecast, by Storage capacity, 2018–2023
12.5.5 Market Estimates & Forecast, by End-User, 2018–2023
12.5.6 Middle East & Africa
12.5.6.1 Market Estimates & Forecast, by Type, 2018–2023
12.5.6.2 Market Estimates & Forecast, by Storage interface, 2018–2023
12.5.6.3 Market Estimates & Forecast, by Storage capacity, 2018–2023
12.5.6.4 Market Estimates & Forecast, by End-User, 2018–2023
12.5.7 Latin America
12.5.7.1 Market Estimates & Forecast, by Type, 2018–2023
12.5.7.2 Market Estimates & Forecast, by Storage interface, 2018–2023
12.5.7.3 Market Estimates & Forecast, by Storage capacity, 2018–2023
12.5.7.4 Market Estimates & Forecast, by End-User, 2018–2023
13 Company Landscape

14 Company Profiles

14.1 Samsung
14.1.1 Company Overview
14.1.2 Product/Business Segment Overview
14.1.3 Financial Updates
14.1.4 Key Developments

14.2 Intel
14.2.1 Company Overview
14.2.2 Product/Business Segment Overview
14.2.3 Financial Updates
14.2.4 Key Developments

14.3 Sandisk
14.3.1 Company Overview
14.3.2 Product/Business Segment Overview
14.3.3 Financial Updates
14.3.4 Key Developments

14.4 Micron Technology, Inc.
14.4.1 Company Overview
14.4.2 Product/Business Segment Overview
14.4.3 Financial Updates
14.4.4 Key Developments

14.5 Toshiba
14.5.1 Company Overview
14.5.2 Product/Business Segment Overview
14.5.3 Financial Updates
14.5.4 Key Developments

14.6 Lite-On
14.6.1 Company Overview
14.6.2 Product/Business Segment Overview
14.6.3 Financial Updates
14.6.4 Key Developments

14.7 Western Digital
14.7.1 Company Overview
14.7.2 Product/Business Segment Overview
14.7.3 Financial Updates
14.7.4 Key Developments

14.8 Fusion-Io
14.8.1 Company Overview
14.8.2 Product/Business Segment Overview
14.8.3 Financial Updates
14.8.4 Key Developments

14.9 Kingston Technology
14.9.1 Company Overview
14.9.2 Product/Business Segment Overview
14.9.3 Financial Updates
14.9.4 Key Developments

14.10 NetApp
14.10.1 Company Overview
14.10.2 Product/Business Segment Overview
14.10.3 Financial Updates
14.10.4 Key Developments

15 Conclusion

LIST OF TABLES

Table 1 Global Solid-State Drive Market, by Region, 2018–2023
Table 2 North America: Solid-State Drive Market, by Country, 2018–2023
Table 3 Europe: Solid-State Drive Market, by Country, 2018–2023
Table 4 Asia-Pacific: Solid-State Drive Market, by Country, 2018–2023
Table 5 Middle East & Africa: Solid-State Drive Market, by Country, 2018–2023
Table 6 Latin America Solid-State Drive Market, by Country, 2018–2023
Table 7 Global Solid-State Drive Market, by Region, 2018–2023
Table 8 North America Solid-State Drive Type Market, by Country, 2018–2023
Table 9 Europe: Solid-State Drive Type Market, by Country, 2018–2023
Table 10 Asia-Pacific: Solid-State Drive Type Market, by Country, 2018–2023
Table 11 Middle East & Africa: Solid-State Drive Type Market, by Country, 2018–2023
Table 12 Latin America: Solid-State Drive Type Market, by Country, 2018–2023
Table 13 Global Solid-State Drive Market, by Region, 2018–2023
Table 14 North America: Solid-State Drive Storage Interface Market, by Country, 2018–2023
Table 15 Europe: Solid-State Drive Storage Interface Market, by Country, 2018–2023
Table 16 Asia-Pacific: Solid-State Drive Storage Interface Market, by Country, 2018–2023
Table 17 Middle East & Africa: Solid-State Drive Storage Interface Market, by Country, 2018–2023
Table 18 Latin America: Solid-State Drive Storage Interface Market, by Country, 2018–2023
Table 19 Global Solid-State Drive Storage capacity, by Region, 2018–2023
Table 20 North America Solid-State Drive Storage Capacity Market, by Country, 2018–2023
Table 21 Europe Solid-State Drive Storage Capacity Market, by Country, 2018–2023
Table 22 Asia-Pacific: Solid-State Drive Storage Capacity Market, by Country, 2018–2023
Table 23 Middle East & Africa: Solid-State Drive Storage Capacity Market, by Country, 2018–2023
Table 24 Latin America: Solid-State Drive Storage Capacity Market, by Country, 2018–2023
Table 25 Global Solid-State Drive Application Market, by Region, 2018–2023
Table 26 North America: Solid-State Drive Application Market, by Country, 2018–2023
Table 27 Europe: Solid-State Drive Application Market, by Country, 2018–2023
Table 28 Asia-Pacific: Solid-State Drives Application Market, by Country, 2018–2023
Table 29 Middle East & Africa: Solid-State Drive Application Market, by Country, 2018–2023
Table 30 Latin America Solid-State Drive Application Market, by Country, 2018–2023
Table 31 Asia-Pacific: Solid-State Drive Market, by Country
Table 32 Asia-Pacific: Solid-State Drive Market, by Type
Table 33 Asia-Pacific: Solid-State Drive Market, by Storage interface
Table 34 Asia-Pacific: Solid-State Drive Market, by Storage capacity
Table 35 Asia-Pacific: Solid-State Drive Market, by End-User
Table 36 Middle East & Africa: Solid-State Drive Market, by Country
Table 37 Middle East & Africa: Solid-State Drive Market, by Type
Table 38 Middle East & Africa: Solid-State Drive Market, by Storage interface
Table 39 Middle East & Africa: Solid-State Drive Market, by Storage capacity
Table 40 Middle East & Africa: Solid-State Drive Market, by End-User
Table 41 Latin America: Solid-State Drive Market, by Country
Table 42 Latin America: Solid-State Drive Market, by Type