Data sheet

HPE SATA Read Intensive Solid State Drives

HPE 7.68TB SATA 6G Read Intensive SFF BC Multi Vendor SSD (P40501-K21)

What's new

- Offering 480 GB, 960 GB, 1.92 TB, 3.84 TB, and 7.68 TB storage capacities on selected models of SATA SSDs.

Overview

Do you need to accelerate the performance and deliver enterprise features at an affordable price?

HPE SATA Read Intensive (RI) Solid State Drives (SSDs) deliver enterprise features at an affordable price. HPE SATA RI SSDs deliver great performance for workloads high in reads such as boot/swap, web servers, and read caching. HPE SSDs are backed by over 3.35 million hours of testing and qualification [1] ensuring reliable, high performing drives. HPE Digitally Signed Firmware prevents unauthorized access to your data by providing the assurance that drive firmware comes from a trusted source. You can also monitor the lifespan of your SSD with HPE SmartSSD Wear Gauge to determine if any drives are at risk of failure.

Features

High Performance, Exceptional Reliability, and Efficiency for Faster Business Results

HPE SATA Read Intensive Solid State Drives are ideal for big data analytics, cloud computing, active archiving, database applications, and data warehousing.

HPE SSDs achieve higher IOPs to enhance the performance of your data center.

HPE SSDs maintain data accuracy with full data-path error detection.

Choose from a broad portfolio of enhanced solutions in a wide variety of capacities.

Support 6 Gb/s SATA

HPE Multi Vendor SSDs Offer Longer SKU Lifecycles and Immediate Availability on SATA SSDs

HPE enhanced its extensive SSD portfolio with a Multi Vendor SSD SKU offering that allows for extended SKU lifecycles, immediately available supply and preferably priced SATA SSDs.

HPE Multi Vendor SSD SKU offering ensures the SATA SSD selected, delivers the minimum level of performance published, or better.

Hewlett Packard Enterprise Solid State Drives are rigorously tested 3.35 million hours in various environments to achieve the quality standards you need.

Technical specifications	HPE 7.68TB SATA 6G Read Intensive SFF BC Multi Vendor SSD
Product Number	P40501-K21
Lifetime writes	9,111
Endurance DWPD (Drive Writes Per Day)	0.65
Read IOPS	Random Read IOPS (4KiB, Q=16)=65,000 Max Random Read IOPS (4KiB)=76,000@Q32
Write IOPS	Random Write IOPS (4KiB, Q=16)= 11,500 Max Random Write IOPS (4KiB)=11,800@Q64
Power (Watts)	2.76
Plug type	Hot Pluggable
Height	7 mm
Warranty	HPE Solid State Drives and Add-In Cards have a standard 3/0/0 warranty Customer Self Repair (CSR) subject to maximum usage limitations. Maximum usage limit is the maximum amount of data that can be written to the drive. Drives that have reached this limit will not be eligible for warranty coverage
Shipping weight	0.5 kg
Shipping dimensions	21.92 x 22.86 x 14.61 cm
Platform supported	HPE Storage Platforms, see QuickSpecs for more information
Capacity	7.68 TB
Drive form factor	SFF
Interface	SATA
Workload	Read Intensive
Carrier type	Basic Carrier

[1] HPE internal lab testing. 3.35 million hour test quant is derived from a combination of drive qualification test plans, specifically HDDQ spec-supplier responsibility to perform, HDDQ spec-HPE responsibility to perform, Reliability Demonstration Test (RDT) spec, CSI integration test spec and pilot test requirements.

HPE Services

No matter where you are in your transformation journey, you can count on HPE Services to deliver the expertise you need when, where and how you need it. From strategy and planning to deployment, ongoing operations and beyond, our experts can help you realize your digital ambitions.

Advisory & Professional services

Experts can help you map out your path to hybrid cloud and optimize your operations.

Managed services

HPE runs your IT operations, giving you unified control, so can focus on innovation.

Support services

Optimize your entire IT environment and drive innovation. Manage day-to-day IT operational tasks while freeing up valuable time and resources.

— **HPE Complete Care Service:** a modular service designed to help optimize your entire IT environment and achieve agreed upon IT outcomes and business goals. All delivered by an assigned team of HPE experts.

— **HPE Tech Care Service:** the operational service experience for HPE products. The service provides access to product specific experts, an AI driven digital experience, and general technical guidance to help reduce risk and search for ways to do things better.

— **HPE Multivendor Services:** Single point of accountability for managing on-site hardware and software support for multivendor products. HPE experts help manage your IT across technologies and platforms for HPE and non-HPE technologies, acting as the single point of contact for your IT operational needs.

Lifecycle Services

Address your specific IT deployment project needs with tailored project management and deployment services.

HPE Education Services

Training and certification designed for IT and business professionals across all industries. Create learning paths to expand proficiency in a specific subject. Schedule training in a way that works best for your business with flexible continuous learning options

Defective Media Retention is optional and allows you to retain Disk or eligible SSD/Flash Drives replaced by HPE due to malfunction.

GreenLake

GreenLake is the cloud to run and manage your entire hybrid landscape—private, public, and edge. It helps you to:

— Streamline IT Operations across compute, storage, and networking without the chaos

— Unify and secure data, as you move faster

— Accelerate AI, from pilot to production

The result: greater operational efficiency, lower TCO, and faster AI delivery—all from one unified, intelligent platform built for today's hybrid enterprise.

For additional technical information, available models and options, please reference the QuickSpecs

Visit HPE.com

Chat now

© Copyright 2026 Hewlett Packard Enterprise Development LP. The information contained herein is subject to change without notice. The only warranties for Hewlett Packard Enterprise products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. Hewlett Packard Enterprise shall not be liable for technical or editorial errors or omissions contained herein.

Parts and Materials: HPE will provide HPE-supported replacement parts and materials required to maintain the covered hardware.

Parts and components that have reached their maximum supported lifetime and/or the maximum usage limitations as set forth in the manufacturer's operating manual, product quick-specs, or the technical product data sheet will not be provided, repaired, or replaced as part of these services.

Image may differ from the actual product.

PSN1013333593SEEN, November, 2026.

HEWLETT PACKARD ENTERPRISE

hpe.com