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Data Sheet
Fujitsu PRAID EP520i

RAID Controller SAS 12Gbit/s 2GB cache based on Broadcom MegaRAID® for internal storage devices

The RAID concept (Redundant Array of Independent Disks) refers to several independent hard disks which form a large logical drive when switched together.
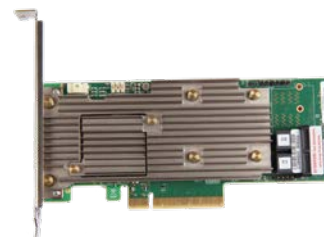
Redundancy information is calculated from several data blocks (except for RAID 0) and saved distributed to the individual hard disks. Your operating system no longer accesses the individual hard disks, but the array.

The actual objective of the RAID concept is to increase availability and prevent downtimes in the event of a hard disk failure. However, the theoretical security of the RAID concept is only as good as the RAID controller used. Benefit from the Fujitsu RAID controllers where technology, experience and practical implementation all ensure the security that your company needs in the event of an emergency.

PRAID EP520i

The Fujitsu RAID Controller PRAID EP520i with 2GB cache and 8x12Gbit/s SAS ports improves performance for storage intensive workloads such as databases and sets new speed and data security standards for internal storage drives. The new PRAID EP520i supports up to 8 SAS/SATA drives or up to 2 NVMe drives. NVMe is an interface with lower overhead, lower latency and drastically increased bandwidth and IOP's. The NVMe drive support will be available at a later date, but the SAS and SATA drives will benefit from the improved

performance and higher cache size.The RAID stack is based on the Broadcom MegaRAID® and offers high data throughput, a comprehensive fault tolerance function and user-friendly management options. Moreover, the Controller management is integrated seamlessly into the Fujitsu server management concept. All controller functions are supported by the Fujitsu ServerView RAID Manager. The PRAID EP520i is designed for 3, 6 and 12Gbit/s SAS as well as for 3 and 6Gbit/s SATA drives. Regardless of the drive speed, it delivers significant performance improvements in both read and write applications. The controller firmware also supports FastPath® without an additional license. FastPath® accelerates the use of SSD only configurations. The RAID controller supports all of the important RAID levels including RAID 6 and 60. The optional flash battery backup (FBU) combined with the already included TFM module ensures the integrity of the data stored in the cache on the RAID controller in case of a power outage. In this event, the data will be copied to a non-volatile flash memory (TFM). The TFM module is bundled with the controller, the FBU is optional. Important information for later upgrade from or downgrade to std. SAS controller: Specific cable sets per system can be required as L-Part, please refer to Paper Configurator, order tool or controller and system documentation. Orders ex factory are configured with appropriate cables.

Main Features	Benefits
Number of supported drives ■ 8 lines of 12Gbit/s SAS ports PCI Express® 3.0 RAID levels ■ SAS3516 12Gbit/s RAID-on-Chip	■ Connect up to 64 HDDs and SSDs ■ RAID levels 0, 1, 5 and 6 for more data security, RAID spans 10, 50 and 60 for more data security
Scalable performance ■ 8 lines of 8 Gbit/s PCIe Gen 3 for up to 2x x2 NVMe drives; 2GB 2133MHz DDR4 cache memory	■ NVMe is an interface with lower overhead, lower latency and drastically increased bandwidth and IOPS; Improves performance for storage intensive workloads (such as databases) and for certain load profiles like random access to databases (especially for SSD drives)
Simplified management ■ User Management Options	■ Seamless merging of the RAID management into system management

Technical details

Technical details

Controller Silicon	RoC (RAID on Chip) SAS3508
Controller type	RAID 5/6 Ctrl.
Operating system pre-installed	Information to released operating systems can be found in the server datasheets. Details can be found in the released drivers list on the support portal.
Released drivers list link	http://support.ts.fujitsu.com/Download/Index.asp
Number of ports	8 ports int.
Connector internal	2x SFF8643 (Mini-SAS HD)
Data transfer rate up to	12 Gbit/s; 8 Gbit/s
Bus type	PCIe 3.0
Bus width	x8
RAID Management	ServerView RAID Manager StorCLI (command-line interface) BIOS Configuration Utility

Key RAID Data Protection Feature	- RAID levels 0, 1, 5 and 6
	- RAID spans 10, 50 and 60
	- Maximum number of spans is 8
	- Online Capacity Expansion (OCE)
	- Online RAID level Migration (RLM)
	- Auto resume after loss of system power during array rebuild or reconstruction (RLM)
	- Fast initialization for quick array setup
	- Load Balancing
	- Configurable stripe size up to 1MB
	- Fast initialisation for quick array setup
	- Check consistency for background data integrity - Make Data Consistent (MDC)
	- Patrol read for media scanning and repairing
	- Up to 64 logical drives per controller
	- S.M.A.R.T support
	- Global and dedicated Hot Spare with Revertible Hot Spare support
	  - Automatic rebuild
	  - Enclosure affinity
	- Enclosure management
	  - SES (inband)
	  - SGPIO (outband)

RAID level	0, 1, 10, 5, 50, 6, 60
RAID cache backup unit	Optional FBU
RAID controller notes	based on SAS3516
Interface technology	SAS/SATA/PCIe-NVMe

Order code	Product Name	Height of bracket	RAID controller cache size	Number of Connectors
S26361-F4042-E202	PRAID EP520i	Low Profile (LP)	2 GB	2
S26361-F4042-E2	PRAID EP520i	Full Height (FH)	2 GB	2
S26361-F4042-L502	PRAID EP520i FH/LP	Full Height / Low Profile	2 GB	2

Order code	Product Name	Notes
S26361-F4042-E155	RAID Ctrl FBU option for PRAID EP5xx with 55cm cable	installed - Super-capacitor incl. cable
S26361-F4042-E183	RAID Ctrl FBU option for PRAID EP5xx with 83cm cable	installed - Super-capacitor incl. cable
S26361-F4042-E171	RAID Ctrl FBU option for PRAID EP5xx with 70cm cable for RX4770 M4	installed - Super-capacitor incl. cable
S26361-F4042-L110	RAID Ctrl FBU option for PRAID EP5xx with 25,55,83cm cable	installed - Super-capacitor incl. cable
S26361-F4042-L112	RAID Ctrl FBU option for PRAID EP5xx with 55cm cable for CX25x0 M4	installed - Super-capacitor incl. cable
S26361-F4042-L113	RAID Ctrl FBU option for PRAID EP5xx with 70cm cable for RX4770	installed - Super-capacitor incl. cable

Compliance

Compliance notes	According to the corresponding system
Compliance link	https://sp.ts.fujitsu.com/sites/certificates

More information

Fujitsu products, solutions & services

In addition to Fujitsu with PRAID EP520i, Fujitsu provides a range of platform solutions. They combine reliable Fujitsu products with the best in services, know-how and worldwide partnerships.

Fujitsu Portfolio
Build on industry standards, Fujitsu offers a full portfolio of IT hardware and software products, services, solutions and cloud offering, ranging from clients to datacenter solutions and includes the broad stack of Business Solutions, as well as the full stack of Cloud offering. This allows customers to leverage from alternative sourcing and delivery models to increase their business agility and to improve their IT operation's reliability.

Computing Products
www.fujitsu.com/global/products/computing/

Software
www.fujitsu.com/software/

More information

Learn more about Fujitsu PRAID EP520i, please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website.
http://www.fujitsu.com/primergy

Fujitsu green policy innovation

Fujitsu Green Policy Innovation is our worldwide project for reducing burdens on the environment.
Using our global know-how, we aim to contribute to the creation of a sustainable environment for future generations through IT.
Please find further information at http://www.fujitsu.com/global/about/environment

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