Data Sheet
FUJITSU PRAID EP400i / EP420i

RAID Controller SAS 12Gbit/s 1GB or 2GB cache based on LSI 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 EP400i / EP420i
The Fujitsu RAID ControllerPRAID EP400i with 8 ports sets new speed and data security standards for internal storage drives. The RAID stack is based on the LSI 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 EP400i is designed for backward compatibility with 3Gbit/s SAS as well as with 6Gbit/s and 3Gbit/s SATA hard drives. Regardless of the drive speed, it delivers significant performance improvements in both read and write applications. Due to the support of 64-bit addressing, a robust set of RAID features and demanding error tolerance functions the controller provides high RAID performance and data availability. Powerful online management service programs (Fujitsu ServerView RAID Manager), which are simple to operate and quick to install, provide the administrator with unparalleled flexibility and access to the arrays. The RAID controller supports all of the important RAID levels including RAID 6 and 60. The optional flash battery backup (FBU) combined with 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 FBU provides a low-priced alternative to an uninterruptible power supply (UPS) and, when compared to battery backup up units (BBU), enables a long-term, secure store of data and better serviceability. Always select FBU and TFM module in combination.
The Advanced Software Options in combination with Solid State Disks in front of HDD volumes can create high-capacity,high-performance controller cache pools, depending on the load profile. A free of charge test version is available at PRIMERGY-PM. Link: http://docs.ts.fujitsu.com/dl.aspx?id=c816a64f-8b6d-47df-ba31-836874f08c07

Main Features	Benefits
■ 12Gbit/s SAS ports PCI Express® 3.0 x8	■ Connect up to 240 HDDs and SSDs
■ LSISAS3108 12Gbit/s RAID-on-Chip	■ RAID levels 0, 1, 5 and 6 for more data security
■ 1GB / 2GB 1333MHz DDRIII cache memory	■ RAID spans 10, 50 and 60 for more data security
■ Optional Flash Backup Unit (FBU)	■ Ensures the integrity in case of power outage
	■ Long-term, secure store of data and better serviceability compared to BBU
■ User Management Options	■ Seamless merging of the RAID management into system management
■ RAID Advanced Software Options LSI CacheCade® and Fast Path.	■ Create high performance controller cache pools.

Technical details

Technical details

Controller Silicon	RoC (RAID on Chip) LSI SAS3108
Controller type	RAID 5/6 Ctrl.
Operating system	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
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
	- 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
	- Single controller multipathing (failover)
	- 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
	- Up to 64TB LUN support DDF-compliant
	- 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 LSI SAS3108
Interface technology	SAS/SATA

Order code	Product Name (FTS)	Height of bracket	RAID controller cache size	Number of Connectors	Notes
S26361-F5243-E1	PRAID EP400i	Matching to system	1 GB	2	installed
S26361-F5243-E2	PRAID EP420i	Matching to system	2 GB	2	installed
S26361-F5243-L1	PRAID EP400i	Full Height / Low Profile	1 GB	2	loose delivery
S26361-F5243-L2	PRAID EP420i	Full Height / Low Profile	2 GB	2	loose delivery

Options

Order code	Product Name (FTS)	Notes
S26361-F5243-E100	PRAID EP400i TFM	installed - Transportable Flash Module - contains flash memory and control logic for Flash Backup Unit (FBU) – required for FBU option
S26361-F5243-E125	RAID Ctrl FBU option with 25cm cable	installed - Super-capacitor incl. cable
S26361-F5243-E155	RAID Ctrl FBU option with 55cm cable	installed - Super-capacitor incl. cable
S26361-F5243-E170	RAID Ctrl FBU option with 70cm cable	installed - Super-capacitor incl. cable

Options

Order code	Product Name (FTS)	Notes
S26361-F5243-E200	PRAID EP420i TFM	installed - Transportable Flash Module - contains flash memory and control logic for Flash Backup Unit (FBU) – required for FBU option
S26361-F5243-E660	RAID Advanced Software Options: LSI CacheCade®, Fastpath®	installed - LSI CacheCade® and Fast Path for modular RAID controller and Mezzanine card with 1GB / 2GB cache Testkey available: PRIMERGY-PM
S26361-F5243-L110	RAID Ctrl FBU option with 25cm, 55cm, 75cm cable	installed - Super-capacitor incl. cable
S26361-F5243-L660	RAID Advanced Software Options: LSI CacheCade®, Fastpath®	option / loose delivery - LSI CacheCade® and Fast Path for modular RAID controller and Mezzanine card with 1GB / 2GB cache Testkey available: PRIMERGY-PM

Compliance

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

More information

Fujitsu OPTIMIZATION Services

In addition to Fujitsu with PRAID EP400i / EP420i, 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 EP400i / EP420i, please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website.
www.fujitsu.com/fts

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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