

# Data Sheet

## FUJITSU RAID Controller - SAS 6Gb/s RAID 5/6 512MB (D2616)

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.

**RAID Controller - SAS 6Gb/s RAID 5/6 512MB (D2616)**

The 8 port Fujitsu D2616 SAS/SATA RAID controller sets new standards in the fields of speed and data security for internal server memories. With a data transfer of up to 6Gb/s per port the PRIMEGY Modular RAID Controller family is extended to included the latest technology. The RAID stack is based on the LSI MegaRAID® and offers high data throughput, a comprehensive error tolerance function and user-friendly management options. Management of the controller is integrated seamlessly into the FTS management concept.

All controller functions are supported by the FTS ServerView RAID Manager. 6Gb/s SAS is designed for backward compatibility with 3Gb/s SAS as well as with 6Gb/s and 3Gb/s SATA hard drives. Regardless of the drive speed, 6Gb/s MegaRAID® controllers will deliver significant performance improvements in both read and write applications, as compared with their 3Gb/s predecessors. Other new features of the 6Gb/s SAS 2.0 controllers include greater signal integrity using Decision Feedback Equalization, support for more sophisticated SAS topologies using Expander Self-Discovery / Self-Configuration, and additional safeguards to enhance data protection. Due to the support of 64-bit addressing, a robust set of RAID features and demanding error tolerance functions this controller provides high RAID performance and data availability. Powerful online management service programs (FTS's 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. RAID 6 tolerates up to two simultaneous drive failures and thus also the option of managing non-recoverable media errors during rebuilds. This is especially advantageous if a large number of high-capacity hard disk drives are used for each RAID array. Consistency testing and Patrol Read, sophisticated background service processes, which locate and



| Main Features   | Benefits   |
|---|--|
| <ul style="list-style-type: none"><li>■ 6Gb/s SAS ports PCI Express® 2.0 x8</li><li>■ LSI SAS2108 6Gb/s RAID-on-Chip</li><li>■ 512MB 800MHz DDRII cache memory</li><li>■ Optional Battery Backup Unit (BBU)</li><li>■ User Management Options</li></ul> | <ul style="list-style-type: none"><li>■ Connect up to 8 HDDs (in future also up to 20 HDDs)</li><li>■ RAID levels 0, 1, 5 and 6 for more data security</li><li>■ RAID spans 10, 50 and 60 for more data security</li><li>■ For data security in case of power failure</li><li>■ Seamless merging of the RAID management into system management</li></ul> |

# Technical details

## Technical details

|                                  |   |
|----------------------------------|---|
| Controller Silicon               | RoC (RAID on Chip) LSI SAS2108  |
| 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       | <a href="http://support.ts.fujitsu.com/Download/Index.asp">http://support.ts.fujitsu.com/Download/Index.asp</a>   |
| Number of ports                  | 8 ports int.  |
| Connector internal               | SSF-8087  |
| Data transfer rate up to         | 6 Gbit/s  |
| Bus interface                    | PCIe 2.0 x8   |
| Bus type                         | PCIe 2.0  |
| Bus width                        | x8  |
| RAID Management                  | ServerView RAID Manager<br>MegaCLI (command-line interface)<br>WebBIOS  |
| Key RAID Data Protection Feature | RAID levels 0, 1, 5, and 6<br>RAID spans 10, 50 and 60<br>Online Capacity Expansion (OCE)<br>Online RAID Level Migration (RLM)<br>Auto resume after loss of system power during array rebuild or reconstruction<br>Configurable stripe size up to 1MB<br>Fast initialization for quick array setup<br>Check Consistency for background data integrity - Make Data Consistent (MDC)<br>Patrol read for media scanning and repairing<br>64 logical drive support<br>Configuration on Disk (COD)<br>S.M.A.R.T support<br>Global and dedicated Hot Spare with Revertible Hot Spare support<br>- Automatic rebuild<br>- Enclosure affinity<br>Enclosure management<br>- SES (inband)<br>- SGPIO (sideband) |
| RAID level                       | 0, 1, 10, 5, 50, 6, 60<br>0, 1, 5, 6  |
| RAID cache backup unit           | Optional BBU for selected systems<br>Optional BBU   |
| RAID controller notes            | (based on LSI SAS2108)  |
| Interface technology             | SAS/SATA<br>HDD SAS   |

| Order code        | Product Name                       | RAID controller cache size | Number of Connectors | Related product     |
|-------------------|------------------------------------|----------------------------|----------------------|---------------------|
| S26361-F3554-E512 | RAID Ctrl SAS 6G 5/6 512MB (D2616) | 512 MB Cache               | 2                    | PRIMERGY Server     |
| S26361-F3554-L512 | RAID Ctrl SAS 6G 5/6 512MB (D2616) | 512 MB Cache               | 2                    | PRIMERGY Server     |
| S26361-F3976-E3   | RAID Ctrl SAS 512MB (D2616)        | 512 MB Cache               | 2                    | CELSIUS Workstation |
| S26361-F3976-L3   | RAID Ctrl SAS 6G 5/6 512MB (D2616) |                            | 2                    | CELSIUS Workstation |

## Compliance

|                  |   |
|------------------|---|
| Compliance notes | According to the corresponding system   |
| Compliance link  | <a href="https://sp.ts.fujitsu.com/sites/certificates">https://sp.ts.fujitsu.com/sites/certificates</a> |

# More information

## Fujitsu products, solutions & services

In addition to Fujitsu with RAID Controller - SAS 6Gb/s RAID 5/6 512MB (D2616), 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/](http://www.fujitsu.com/global/products/computing/)

### Software

[www.fujitsu.com/software/](http://www.fujitsu.com/software/)

## More information

Learn more about FUJITSU Server RAID Controller - SAS 6Gb/s RAID 5/6 512MB (D2616), please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website.  
[www.fujitsu.com/primergy](http://www.fujitsu.com/primergy)

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2019-11-01 WW-EN

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