



RAID and Storage Options Available on Intel® Server Boards and Systems *based on Intel® 3200/5000 Chipset*

Revision 3.0

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Revision History

Date	Revision Number	Modifications
October 2006	1.0	Initial Release.
February 2007	2.0	Changed documentation format.
March 2009	3.0	Added server boards and systems based on Intel® 3200 chipset.

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1. RAID Options Available With Intel® Server Boards

- Software RAID = Intel® Embedded Server RAID Technology II, utilizing system processor(s) and memory.
- Matrix RAID = Intel® Matrix Storage Manager, utilizing system processor(s) and memory.
- Hardware RAID = Intel® Integrated RAID, utilizing dedicated Intel® I/O Processor 333 or LSI* 1078 SAS ROC, and dedicated memory for outstanding performance and reliability.

Intel® Server Board SKU	Storage Ports Supported	Storage Controller	RAID Types and Levels Supported
S5000PALR S5000XALR S5000PSLSATAR S5000XSLSATAR S5000XVNSATAR S5000VSASATAR S5000VSA4DIMMR	6 SATA ports	On-board ESB2 chip	Software RAID 0/1/10 standard Software RAID 5 with Intel® RAID Activation Key AXXRAKSW5
S5000PSLSASR S5000XVNSASR S5000VSASASR	2 SATA ports	On-board ESB2 chip	Software RAID 0/1 standard
	4 SAS ports <i>Up to 8 SAS or SATA drives via expander backplanes</i>	On-board LSI1064e SAS chip	Software RAID 0/1/10 standard Software RAID 5 with Intel® RAID Activation Key AXXRAKSW5
S5000PSLROMBR	6 SATA ports	On-board ESB2 chip	Software RAID 0/1/10 standard Software RAID 5 with Intel® RAID Activation Key AXXRAKSW5
	4 internal + 4 external SAS ports <i>Up to 16 SAS or SATA drives via expander backplanes</i>	ROMB SAS card	Hardware RAID 0/1/10/5/50 Requires Intel® RAID Activation Key AXXRAK18E and DIMM module Optional battery: Intel® RAID Smart Battery Backup module AXXRSBBU3
S5000VSASCSIR	6 SATA ports	On-board ESB2 chip	Software RAID 0/1/10 standard Software RAID 5 with Intel® RAID Activation Key AXXRAKSW5
	1 SCSI channel	SCSI card	Software RAID 0/1 standard
S5000VCLR	6 SATA ports	On-board ESB2 chip	Software RAID 0/1/10 standard
S5000VCLSASR	2 SATA ports	On-board ESB2 chip	Software RAID 0/1 standard
	4 SAS ports <i>Up to 8 SAS or SATA drives via expander backplanes</i>	On-board LSI1064e SAS chip	Software RAID 0/1/10 standard

Intel® Server Board SKU	Storage Ports Supported	Storage Controller	RAID Types and Levels Supported
S5400SF	6 SATA ports	On-board ESB2-E chip	Software RAID 0/1/10 standard Software RAID 5 with Intel® RAID Activation Key AXXRAKSW5
S3200SHV S3210SHLC S3210SHLX	6 SATA ports	On-board ICH9R chip	Software RAID 0/1/10 Matrix RAID 0/1/5

2. RAID Options Available With Intel® Server Systems

- Software RAID = Intel® Embedded Server RAID Technology II, utilizing system processor(s) and memory.
- Hardware RAID = Intel® Integrated RAID, utilizing dedicated Intel® I/O Processor 333 / LSI* 1078 SAS ROC and dedicated memory for outstanding performance and reliability.
- Matrix RAID = Intel® Matrix Storage Manager, utilizing system processor(s) and memory.

Intel® Server System SKU	Embedded / Integrated RAID		Drives Supported by Enclosure (on-board controller may not support some configurations)	Add-in RAID Card Support for Internal Drive
	Controller Type	RAID Types and Levels		
SR1500ALR	SATA On-board ESB2 chip	Software RAID 0/1 standard Software RAID 5 with Intel® RAID Activation Key AXXRAKSW5	Three hot-swap SAS/SATA 3.5-inch drives	Yes
SR1500ALSASR	SAS/SATA LSI1064e SAS chip on active backplane	Software RAID 0/1 standard Software RAID 5 with Intel® RAID Activation Key AXXRAKSW5	Three hot-swap SAS/SATA 3.5-inch drives	No
SR1560SF	SATA On-board ESB2 chip	Software RAID 0/1 standard	Two fixed SATA/SAS 3.5-inch drives	Yes
SR1560SFHS	SAS/SATA LSI1064e SAS chip on active backplane	Software RAID 0/1 standard Software RAID 5 with Intel® RAID Activation Key AXXRAKSW5	Three hot-swap SAS/SATA 3.5-inch drives	No
SR2500ALBRPR	SATA On-board ESB2 chip	Software RAID 0/1/10 standard Software RAID 5 with Intel® RAID Activation Key AXXRAKSW5	Six hot-swap SAS/SATA 3.5-inch drives <i>Sixth drive slot optional with ASR2500SIXDRV</i>	Yes
SR2500ALLXR	SAS/SATA LSI1068 SAS chip on active midplane	Software RAID 0/1/10 standard Hardware RAID 0/1/10/5/50 with Intel® RAID Activation Key AXXRAK18E and with Intel® RAID Mini-DIMM AXXMINIDIMM	Six hot-swap SAS/SATA 3.5-inch drives <i>Sixth drive slot optional with ASR2500SIXDRV</i>	No
SR1550ALR	SATA 6 ports only On-board ESB2 chip	Software RAID 0/1/10 standard Software RAID 5 with Intel® RAID Activation Key AXXRAKSW5	Eight hot-swap SAS/SATA 2.5-inch drives <i>Seventh and eighth drive slots optional with FXX25HDDCAR</i>	Yes

Intel® Server System SKU	Embedded / Integrated RAID		Drives Supported by Enclosure (on-board controller may not support some configurations)	Add-in RAID Card Support for Internal Drive
	Controller Type	RAID Types and Levels		
SR1550ALSASR	SAS/SATA LSI1068 SAS chip on active midplane	Software RAID 0/1/10 standard Hardware RAID 0/1/10/5/50 with Intel® RAID Activation Key AXXRAK18E and with Intel® RAID Mini-DIMM AXXMINIDIMM	Eight hot-swap SAS/SATA 2.5-inch drives <i>Seventh and eighth drive slots optional with FXX25HDDCAR</i>	No
SR1530CLR	SATA On-board ESB2 chip	Software RAID 0/1 standard	Two fixed SATA 3.5-inch drives	Yes
SR1530HCLR	SATA On-board ESB2 chip	Software RAID 0/1 standard	Three hot-swap SAS/SATA 3.5-inch drives	Yes
SR1530HCLSR	SAS/SATA On-board LSI 1064e SAS chip	Software RAID 0/1 standard	Three hot-swap SAS/SATA 3.5" drives	Yes
SR2520SAFR	SATA On-board ESB2 chip	Software RAID 0/1/10 standard Software RAID 5 with Intel® RAID Activation Key AXXRAKSW5	Six fixed SATA 3.5-inch drives	Low-profile only
SR2520SAXR	SATA On-board ESB2 chip	Software RAID 0/1/10 standard Software RAID 5 with Intel® RAID Activation Key AXXRAKSW5	Six hot-swap SATA 3.5-inch drives	Low-profile only No drive fault LEDs
SR2520SAXSR	SAS/SATA On-board LSI1064e SAS chip	Software RAID 0/1/10 standard Software RAID 5 with Intel® RAID Activation Key AXXRAKSW5	Six hot-swap SAS/SATA 3.5-inch drives	No
SR1530HSH SR1530SH	SATA On-board ICH9R chip	Software RAID 0/1 Matrix RAID 0/1/5	Three hot-swap SATA 3.5-inch drives	Yes

3. RAID Options Available With Intel® Server Chassis

- Hardware RAID = Intel® Integrated RAID, utilizing dedicated Intel® I/O Processor 333 / LSI* 1078 SAS ROC and dedicated memory for outstanding performance and reliability.
- IR RAID = Intel® IT/IR RAID, utilizing SAS chip resource for entry-level hardware RAID.

Intel® Server Chassis SKU with Optional Intel® RAID Accessory	Embedded / Integrated RAID		Drives Supported by Enclosure (on-board controller may not support some configurations)	Add-in RAID Card Support for Internal Drive
	Controller Type	RAID Types and Levels		
SR2500 with active midplane 2	SAS/SATA LSI1078 SAS chip	IR RAID 0/1/1E/10E standard Hardware RAID 0/1/10/5/50/6 with Intel® RAID Activation Key AXXRAKSAS2 and with Intel® RAID Mini-DIMM AXXMINIDIMM512	Six hot-swap SAS/SATA 3.5-inch drives <i>Sixth drive slot optional with ASR2500SIXDRV</i>	No
SR1550 with active midplane 2	SAS/SATA LSI1078 SAS chip	IR RAID 0/1/1E/10E standard Hardware RAID 0/1/10/5/50/6 with Intel® RAID Activation Key AXXRAKSAS2 and with Intel® RAID Mini-DIMM AXXMINIDIMM512	Eight hot-swap SAS/SATA 2.5-inch drives <i>Seventh and eighth drive slots optional with FXX25HDDCAR</i>	No