

## 32GB Computer memory DDR4 for ASRock X99 WS RDIMM





# verified quality memory5 years warrantywarranty details see last page

- ✓ 100% compatible
- free support on our hotline
- fast delivery

## PHS-memory® - computer memory with 100% quality

- many years of IT competence
- Free support for optimal configuration and product selection
- High availability through professional warehouse management
- Fast delivery in throughout Europe
- Short response times and professional order processing due to full digitalization throughout the entire process with complete traceability
- Incoming goods inspection include checks of the DRAMs, PCBs and the programmed SPDs in order to exclude possible errors (Controlled BOM).
- PHS-memory® brand memories guarantee 100% compatibility to the specified system.
- PHS-memory® memories can be used together with existing memories in the device depends on to the configuration rules of the system.
- The "fallback option" in the SPD of PHS-memory® allows DRAMs with higher clock rates to be operated together with older memory modules with lower clock rates within the system.
- Products with unique serial number for service and warranty
- Pre-sales and after-sales support by technically trained personnel



## Memory Specification



Memory size	32GB
Memory technology	DDR4
ECC support	ja
JEDEC Norm	PC4-17000R
DRAM Organization	2Gx4
Rank	2Rx4
Туре	RDIMM (ECC Registered)
Number of pins	288 Pin DIMM
Memory data transfer rate	2133MHz @ CL15
Voltage	1,2 Volt
Speciality	-
Board dimensions	133,35 x 31,25 (LxB mm)
Operating temperature	
Operating temperature	0° C - 85° C
Storage temperature	0° C - 85° C -40° C - +95° C
Storage temperature	-40° C - +95° C
Storage temperature RoHS compliant	-40° C - +95° C Yes

Note: The module specified in this datasheet is one of several possible configurations available under this part number.

Some details may differ from the specifications described here and the illustration, but have no negative influence on the functionality.



## System Specifications

The memory is 100% compatible with this sytem:

System manufacturer	ASRock
Device type	Motherboard-memory
Device family	Mainboard X
Device series	X99 Serie
Device name	X99 WS
Maximum memory*	2TB / 256GB according to manufacturer
Number of memory sockets	8

<sup>\*</sup> The specifications for the maximum memory upgrade may differ from those of the manufacturer ASRock. Often the information given in the manual for the maximum memory upgrade is not up to date. New memory technologies, bios updates or newer software versions often allow the use of memory modules with a higher capacity than specified by the manufacturer with the same performance and stability.

## Information on memory allocation

#### Which memory configuration is possible?

#### memory for Core i7 5th Generation CPU:

- Optimal performance is achieved by 4 or 8 identical memories per CPU.
- If an i7 processor is used, UDIMM memory modules must be installed.

#### memory for Xeon CPU:

- When using an XEON CPU, ECC and RDIMM memory must be used.
- The device supports ECC DIMM (with error correction code) or RDIMM (Registered DIMM) RAM memories. RDIMM memories are recommended when large memory capacities are to be achieved.
- The different memory technologies (ECC / RDIMM) may not be mixed.
- If a memory expansion is to be made with the already existing RAM memories, it must be checked which memory technology (ECC/ RDIMM) is already installed in the system.

CPU im System	UDIMM	UDIMM ECC	RDIMM	
Core i7-5960X	4GB UDIMM			
Core i7-5930K	8GB UDIMM			
Core i7-5820K	16GB UDIMM			
	32GB UDIMM			
Xeon E5-1600 v3		8GB UDIMM ECC	8GB RDIMM	



Xeon E5-2600 v3		16GB RDIMM
		32GB RDIMM
		64GB RDIMM DDP
		128GB RDIMM 3DS
		256GB RDIMM 3DS

## Information on memory installation

- Turn off the system
- Remove the plug of the power supply unit (if connected)
- Remove the battery, according to the user manual of the system
- Always ground yourself before touching electronic components
- Protect the memory module from static voltages:
  - Do not touch the gold pins of the memory module
  - Only touch the sides of the memory module
  - Use a grounding strap and/or ESD glove if possible

General installation instructions are supplied by E-Mail.



## Further memory options for ASRock X99 WS

4GB     SP159523     DDR4     UDIMM (Non-ECC unbuffered)     288 Pin DIMM     PHS-memory®       8GB     SP159524     DDR4     UDIMM (Non-ECC unbuffered)     288 Pin DIMM     PHS-memory®       8GB     SP159521     DDR4     RDIMM (ECC 288 Pin DIMM PHS-memory®)
ECC unbuffered)
8GB SP159521 DDR4 RDIMM (FCC 288 Pin DIMM PHS-memory®
Registered)
8GB SP159518 DDR4 UDIMM ECC 288 Pin DIMM PHS-memory® (ECC unbuffered)
16GB SP160756 DDR4 RDIMM (ECC 288 Pin DIMM PHS-memory® Registered)
32GB SP159520 DDR4 RDIMM (ECC 288 Pin DIMM PHS-memory® Registered)
64GB SP464121 DDR4 RDIMM (ECC 288 Pin DIMM PHS-memory® Registered) 3DS
128GB SP464122 DDR4 RDIMM (ECC 288 Pin DIMM PHS-memory® Registered) 3DS
256GB SP464123 DDR4 RDIMM (ECC 288 Pin DIMM PHS-memory® Registered) 3DS

## PHS-memory® warranty

Every PHS-memory® is equipped with a 5-years-warranty of perfect operation. If the RAM module is defective or fails within 5 years of purchase when used properly, you will receive an appropriate RAM module free of charge. If a suitable memory module is no longer available, we will refund the purchase price.

For more information on warranty and service please visit https://www.phs-memory.com/-W5Y



## Contact Information

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#### Product Datasheet | SP159520 32GB Computer memory for X99 WS



All information without guarantee. Technical changes and errors excepted. You can find current price information in our online shop at https://www.phs-memory.com