

# 4GB Computer memory DDR3 for Dell PowerEdge R510 UDIMM ECC





# Your benefits ✓ verified quality memory ✓ 5 years warranty Warranty 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	4GB		
Memory technology	DDR3		
ECC support	ja		
JEDEC Norm	PC3-10600E		
DRAM Organization	256Mx8		
Rank	2Rx8		
Туре	UDIMM ECC (ECC unbuffered)		
Number of pins	240 Pin DIMM		
Memory data transfer rate	1333MHz @ CL9		
Speciality	-		
Board dimensions	133,35 x 30 (LxB mm)		
Operating temperature	0° C - 85° C		
Storage temperature	-40° C - +95° C		
RoHS compliant	Yes		
SKU	SP122969		
EAN	4055069102796		

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	Dell
Device type	Server
Device family	PowerEdge
Device series	R500 Serie
Device name	PowerEdge R510
Maximum memory*	384GB / 256GB according to manufacturer
Number of memory sockets	12
Device series  Device name  Maximum memory*	R500 Serie  PowerEdge R510  384GB / 256GB according to manufacturer

<sup>\*</sup> The specifications for the maximum memory upgrade may differ from those of the manufacturer Dell. 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

#### Information on memory configuration

The following technical specifications should be considered in advance:

- 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.
- A higher memory clock of the memory module automatically adapts to the memory clock specified by the system. This can be the case especially with larger capacities.
- Memory slots without a processor may not be used.

Technologie	GB / Modul	Count	Total	
UDIMM ECC	8GB RAM	12	96GB	
RDIMM	32GB RAM	12	384GB	

Principles of memory assembly

- The memory slots are organised in groups of 3.
- Only max. 2 slots per group of 3 can be used for UDIMM ECC memory.
- Only a maximum of 2 slots per group of 3 can be equipped with 4Rank RDIMM memory.
- The different groups of 3 slots do not have to have the same capacities.

Memory configuration for good system performance

- Distribute the memory evenly among the memory slots and equally among the CPUs.
- Bei jeweils 3 gleichen memoryn pro 3er Steckplatzgruppe, ist die Performance until zum 3fachen schneller im Vergleich einer Bestückung der 3er Steckplatzgruppe with nur einem memory.
- If there is more than one CPU, the RAM per CPU should be populated identically (mirrored to the other CPU).



### 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 Dell PowerEdge R510

Size	SKU	Technology	Туре	Number of pins	Brand	Reference no.
4GB	SP122969	DDR3	UDIMM ECC (ECC unbuffered)	240 Pin DIMM	PHS-memory®	SNPYWJTRC/4G , A7303660
8GB	SP580187	DDR3	UDIMM ECC (ECC unbuffered)	240 Pin DIMM	PHS-memory®	
8GB	SP148170	DDR3	UDIMM ECC (ECC unbuffered)	240 Pin DIMM	PHS-memory®	SNP96MCTC/8G , A6960121
8GB	SP122970	DDR3	RDIMM (ECC Registered)	240 Pin DIMM	PHS-memory®	SNPP9RN2C/8G, A6996808, SNPPKCG9C/8G, A7990613
16GB	SP148172	DDR3	RDIMM (ECC Registered)	240 Pin DIMM	PHS-memory®	SNPMGY5TC/16 G, A6996789, SNP20D6FC/16 G, A6994465, JR5VJ, 319-1815, 370-23526
8GB	SP148171	DDR3	RDIMM (ECC Registered)	240 Pin DIMM	PHS-memory®	SNPP9RN2C/8G, A6996808, SNPPKCG9C/8G, A7990613
32GB	SP148174	DDR3	RDIMM (ECC Registered)	240 Pin DIMM	PHS-memory®	
16GB	SP148173	DDR3	RDIMM (ECC Registered)	240 Pin DIMM	PHS-memory®	SNPMGY5TC/16 G, A6996789, SNP20D6FC/16 G, A6994465, JR5VJ, 319-1815, 370-23526
32GB	SP148175	DDR3	RDIMM (ECC Registered)	240 Pin DIMM	PHS-memory®	

## 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

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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.it/-W5Y



#### Contact Information

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