

# 16GB Computer memory DDR4 for Gigabyte MB10-DS4 (rev. 1.3) 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	16GB		
Memory technology	DDR4		
ECC support	yes		
JEDEC Norm	PC4-2133P-E		
DRAM Organization	1Gx8		
Rank	2Rx8		
Туре	UDIMM ECC (ECC unbuffered)		
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	0° C - 85° C		
Storage temperature	-40° C - +95° C		
RoHS compliant	yes		
SKU	SP195461		
EAN	4055069639742		

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	Gigabyte	
Device type	Motherboard-memory	
Device family	Mainboard M	
Device series	MB10 Serie	
Device name	MB10-DS4 (rev. 1.3)	
Maximum memory*	128GB	
Number of memory sockets	4	

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

- Sie können entweder ECC UDIMM or RDIMM memory verwenden
- UDIMM ECC memory and RDIMM (Registered) server memory can not be shared.

# 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 Gigabyte MB10-DS4 (rev. 1.3)

Size	SKU	Technology	Туре	Number of pins	Brand	Reference no.
8GB	SP195465	DDR4	RDIMM (ECC Registered)	288 Pin DIMM	PHS-memory®	
8GB	SP195462	DDR4	UDIMM ECC (ECC unbuffered)	288 Pin DIMM	PHS-memory®	
16GB	SP195463	DDR4	RDIMM (ECC Registered)	288 Pin DIMM	PHS-memory®	
16GB	SP195461	DDR4	UDIMM ECC (ECC unbuffered)	288 Pin DIMM	PHS-memory®	
32GB	SP195464	DDR4	RDIMM (ECC Registered)	288 Pin DIMM	PHS-memory®	
32GB	SP464952	DDR4	UDIMM ECC (ECC unbuffered)	288 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 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

PHS-electronic gmbh - www.phs-memory.it - Karl-Götz-Str. 5 97424 Schweinfurt Germania

Phone: +49 9721 784678 E-Mail: info@phs-memory.it Web: www.phs-memory.it

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