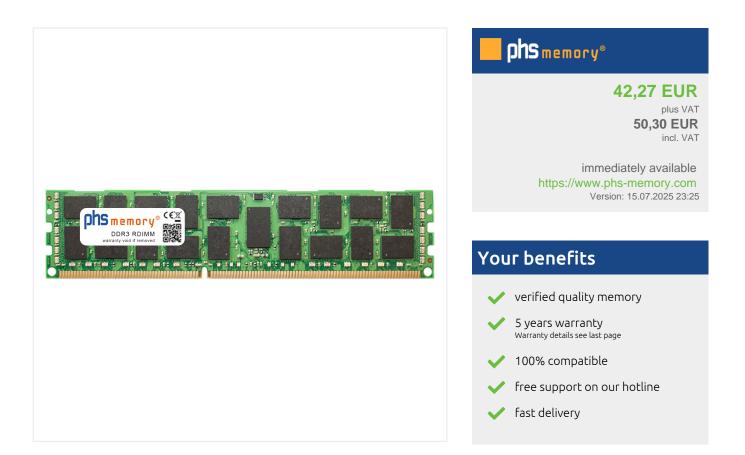


# 16GB Computer memory DDR3 for Supermicro X9DRE-TF+ RDIMM



### 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	DDR3		
ECC support	yes		
JEDEC Norm	PC3-12800R		
DRAM Organization	1Gx4		
Rank	2Rx4		
Туре	RDIMM (ECC Registered)		
Number of pins	240 Pin DIMM		
Memory data transfer rate	1600MHz @ CL11		
Speciality	-, DDP		
Board dimensions	133,35 x 30 (LxB mm)		
Operating temperature	0° C - 85° C		
Storage temperature	-40° C - +95° C		
RoHS compliant	yes		
SKU	SP261690		
EAN	4063369301214		

### overRAMing maximize your RAM



Most systems - including the Supermicro X9DRE-TF+ - can be upgraded with more memory than originally specified by the device manufacturer.

Therefore, our memory specialists continuously analyze new memory solutions in selected systems. Due to improved manufacturing technologies, new memories with higher performance and capacity will be tested for stability and functionality.

Then the new memory solutions are released for the respective systems. Use the benefits of larger computer memory capacity with the PHSmemory® overRAMing memory solutions.

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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	Supermicro		
Device type	Server-Mainboard		
Device family	Mainboard X		
Device series	X9D Serie		
Device name	X9DRE-TF+		
Maximum memory*	768GB ECC / 128GB according to manufacturer		
Number of memory sockets	24		
Annotation	ECC DIMM, Registered DIMM and Load Reduced LRDIMM memory modules must not be mixed. Per processor, 12 memories can be installed.		

\* The specifications for the maximum memory upgrade may differ from those of the manufacturer Supermicro. 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.

Memory modules with our overRAMing-symbol are approved by us for maximum memory expansion.

# Information on memory allocation

### Which memory configuration is possible?

Our memory team will be happy to help you choose the right memory and configure your server.

Technologie	RAM in maximaler capacity		
UDIMM ECC	128GB RAM 2 x (8 x 8GB ECC UDIMM)		
RDIMM 2Rank	384GB RAM 2 x (12 x 16GB RDIMM)		
RDIMM 4Rank	512GB RAM 2 x (8 x 32GB RDIMM)		
LRDIMM	1,5TB RAM 2 x (12 x 64GB LRDIMM)		

ECC DIMM, Registered DIMM and Load Reduced LRDIMM memory modules must not be mixed. Bei einer Aufrüstung sollten Sie deshalb wissen, welche memory bereits vorhanden sind, or komplett auf RDIMMcomputer memory upgrade.

#### Principles of memory assembly

- Pro CPU sind 4 memorykanäle vorhanden with jeweils 2 memoryslots
- Bei Einsatz of ECC UDIMM or 4Rank (4Rx..) RDIMM memoryn können nur jeweils 2 of 3 memoryslots pro memorykanal belegt werden
- ECC DIMM, Registered DIMM and Load Reduced LRDIMM memory modules must not be mixed
- memorysteckplätze for die kein Prozessor vorhanden ist dürfen nicht bestückt werden

#### Memory configuration for good system performance



- Verteilen Sie die memory gleichmäßig auf die memorysteckplätze and gleichmäßig auf die CPUs
- Wenn mehr als eine CPU vorhanden sind, sollten die memory pro CPU identisch (gespiegelt zur anderen CPU) bestückt werden.

### 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 Supermicro X9DRE-TF+

Size	SKU	Technology	Туре	Number of pins	Brand	Reference no.
4GB	SP261687	DDR3	UDIMM ECC (ECC unbuffered)	240 Pin DIMM	PHS-memory®	
8GB	SP261693	DDR3	RDIMM (ECC Registered)	240 Pin DIMM	PHS-memory®	
8GB	SP261688	DDR3	UDIMM ECC (ECC unbuffered)	240 Pin DIMM	PHS-memory®	
16GB	SP261690	DDR3	RDIMM (ECC Registered)	240 Pin DIMM	PHS-memory®	
32GB	SP261691	DDR3	RDIMM (ECC Registered)	240 Pin DIMM	PHS-memory®	
32GB	SP261689	DDR3	LRDIMM (ECC LR DIMM)	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 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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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