

# 64GB (2x32GB) Kit Computer memory DDR3 for Cisco UCS B460 M4 LRDIMM







## 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	DDR3		
ECC support	ja		
JEDEC Norm	PC3L-12800L		
DRAM Organization	2Gx4		
Rank	4Rx4 (4DRx4 DDP)		
Туре	LRDIMM (ECC LR DIMM)		
Number of pins	240 Pin DIMM		
Memory data transfer rate	1600MHz @ CL11		
Voltage	1,35 Volt		
Speciality	DDP 133,35 x 30 (LxB mm)		
Board dimensions			
Operating temperature	0° C - 85° C		
Storage temperature	-40° C - +95° C		
RoHS compliant	Yes		
SKU	SP233749		
EAN	4063369015999		

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	Cisco		
Device type	Server		
Device family	UCS		
Device series	B400 Serie		
Device name	UCS B460 M4		
Maximum memory*	3TB		
Number of memory sockets	96		
Annotation	You can use RDIMM and LRDIMM memories but not mixed with each other. By the upgrading, you should therefore know which memories already exist.		

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

- In the device, you can install RDIMM (Registered DIMM) or LRDIMM (Load Reduced DIMM) RAM memory modules. LRDIMM memory is recommended when aiming for large memory capacities.
- RDIMM memory modules cannot be used together with LRDIMM memories.
- If a memory expansion is to be used with existing RAM memories, it must be checked which memory technology (RDIMM / LRDIMM) is already installed in the device.
- Memory slots without a processor may not be used.

Technologie	max. Ram pro CPU	max. Ram 2 x CPU	max. Ram 4 x CPU 512GB (64 x 8GB UDIMM ECC)	
UDIMM ECC	128GB (16 x 8GB UDIMM ECC)	256GB (32 x 8GB UDIMM ECC)		
RDIMM	512GB RAM (24 x 32GB RDIMM)	1,5TB (48x 32GB RDIMM)	3,0TB (96 x 32GB RDIMM)	
LRDIMM	768TB RAM (24 x 32GB LRDIMM)	1,5TB (48 x 32GB LRDIMM)	3TB (96 x 64GB LRDIMM)	

#### Memory configuration for good system performance

- Optimal performance is achieved by 4 or 8 identical memories per CPU.
- When equipped with 8 DIMMs (1 DimmPerChannel), 16 DIMMs (2 DPC) or 24 DIMMs (3 DPC) per CPU, interleaving is optimally supported via the memory controllers and memory channels. This enables maximum performance in independent mode and lockstep mode.
- Assemblies with 2 DIMMs, 6 DIMMs or 10 DIMMs per CPU are not recommended.

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- Distribute the memory evenly among the memory slots and equally among the CPUs.
- 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 Cisco UCS B460 M4

Size	SKU	Technology	Туре	Number of pins	Brand	Reference no.
8GB	SP233752	DDR3	RDIMM (ECC Registered)	240 Pin DIMM	PHS-memory®	UCS- MR-2X082RY-E, UCS- MR-1X082RY-A, UCS- MR-1X082RY-E
16GB	SP233751	DDR3	RDIMM (ECC Registered)	240 Pin DIMM	PHS-memory®	UCS- MR-2X162RY-E, UCS- MR-1X162RY-E, UCS- MR-1X162RY-A
32GB	SP233749	DDR3	LRDIMM (ECC LR DIMM)	240 Pin DIMM	PHS-memory®	UCS- ML-2X324RY-E, UCS- ML-1X324RY-A, UCS- ML-1X324RY-E
32GB	SP466013	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 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 <a href="https://www.phs-memory.es/-W5Y">https://www.phs-memory.es/-W5Y</a>



## Contact Information

PHS-electronic gmbh - www.phs-memory.es - Karl-Götz-Str. 5 97424 Schweinfurt Alemania

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

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