

# 4GB Computer memory DDR3 for Panasonic ToughBook CF-D1 MK3 SO DIMM





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

- many years of IT competence
- Free support for optimal configuration and product selection
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- 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 technologyDDR3ECC supportnoJEDEC NormPC3L-12800STypeSO DIMMNumber of pins204 Pin DIMMMemory data transfer rate1600MHz @ CL11Voltage1,35 VoltSpeciality-Board dimensions67,6 x 30 (LxB mm)Operating temperature0° C - 85° CStorage temperature-40° C - +95° CROHS compliantyesSKUSP278347EAN4063369479296	Memory size	4GB
JEDEC Norm PC3L-12800S  Type SO DIMM Number of pins 204 Pin DIMM  Memory data transfer rate 1600MHz @ CL11  Voltage 1,35 Volt  Speciality - Board dimensions 67,6 x 30 (LxB mm)  Operating temperature 0° C - 85° C  Storage temperature -40° C - +95° C  RoHS compliant yes  SKU SP278347	Memory technology	DDR3
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Storage temperature -40° C - +95° C  RoHS compliant yes  SKU SP278347	Board dimensions	67,6 x 30 (LxB mm)
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<b>SKU</b> SP278347	Storage temperature	-40° C - +95° C
	RoHS compliant	yes
<b>EAN</b> 4063369479296	SKU	SP278347
	EAN	4063369479296
	SKU	SP278347

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	Panasonic
Device type	Laptop
Device family	ToughBook
Device series	CF-D1 Serie
Device name	ToughBook CF-D1 MK3
Standard memory	4GB (1x4GB)
Maximum memory*	32GB
Number of memory sockets	2

<sup>\*</sup>The specifications for the maximum memory upgrade may differ from those of the manufacturer Panasonic. 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 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 Panasonic ToughBook CF-D1 MK3

Size	SKU	Technology	Туре	Number of pins	Brand	Reference no.
4GB	SP278347	DDR3	SO DIMM	204 Pin DIMM	PHS-memory®	
8GB	SP278348	DDR3	SO DIMM	204 Pin DIMM	PHS-memory®	
16GB	SP278346	DDR3	SO DIMM	204 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.





### 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