

Dell EMC PowerVault ME484 JBOD Storage Enclosure

Support Matrix

Notes, cautions, and warnings

 **NOTE:** A NOTE indicates important information that helps you make better use of your product.

 **CAUTION:** A CAUTION indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.

 **WARNING:** A WARNING indicates a potential for property damage, personal injury, or death.

© 2018 – 2019 Dell Inc. or its subsidiaries. All rights reserved. Dell, EMC, and other trademarks are trademarks of Dell Inc. or its subsidiaries. Other trademarks may be trademarks of their respective owners.

Contents

1 Introduction.....	4
2 ME484 JBOD storage enclosure rules.....	5
3 ME484 JBOD server support.....	6
4 Management Tools.....	7
5 Supported ME484 JBOD storage enclosure firmware.....	8
6 Supported operating systems.....	9
7 Supported server HBAs.....	10
8 Supported physical disk drives.....	11
9 Dell EMC Storage Support Policy.....	13

Introduction

When an ME484 expansion enclosure is connected directly to a host server, the ME484 is referred to as an ME484 JBOD storage enclosure.

This Support Matrix provides the latest compatibility/interoperability information and the supported software, firmware, and hardware for an ME484 JBOD storage enclosure. This document supersedes all other documentation information.

For information about using the ME484 as an expansion enclosure, refer to the *Dell EMC PowerVault ME4 Series Storage System Support Matrix*.

i **NOTE:** This document refers to I/O modules as IOMs. Other Dell EMC documentation might refer to the I/O modules as Enclosure Management Modules (EMMs). For ME484 JBOD storage enclosures, these two terms are interchangeable because they refer to the same I/O modules.

ME484 JBOD storage enclosure rules

This following table lists some of the rules for ME484 JBOD storage enclosures:

Table 1. ME484 JBOD storage enclosure rules

Rule	ME484 JBOD
Maximum number of servers:	<ul style="list-style-type: none"> • 1 Windows server • 1 Linux server
Maximum SAS cable length	4 m
Maximum number of ME484 JBOD storage enclosures per host bus adapter (HBA)	2
Maximum number of HBAs per server	2
Recommended Windows failover policy. (On Windows systems, MPIO is required with multipath configurations).	Failover only
Recommended Linux Multipath Policy. (On Linux systems, Device Mapper Multipath is required with multipath configurations).	Failover

 **NOTE: Clustering is not supported in ME484 JBOD storage enclosure configurations.**

ME484 JBOD server support

An ME484 JBOD storage enclosure with 12 Gb SAS IOMs supports Dell PowerEdge 13th & 14th generation servers.

Management Tools

The ME484 JBOD storage enclosure is managed using the PowerTools Server Hardware Manager software. For more information, see the *PowerTools Server Hardware Manager Administrator's Guide* or the *PowerTools Server Hardware Manager Support Matrix* on [Dell.com/support](https://www.dell.com/support).

The ME484 JBOD storage enclosure is not integrated with Dell OpenManage or the Dell Remote Access Controller (iDRAC).

Supported ME484 JBOD storage enclosure firmware

ME484 JBOD storage enclosures contain two IOMs and both IOMs must be at the same firmware version.

The firmware version on each IOM must be updated individually because the IOMs do not automatically synchronize firmware versions.

Model	Minimum firmware version required
ME484 JBOD storage enclosure	5.2.0.26

Supported operating systems

The ME484 JBOD storage enclosure supports the following operating systems:

Table 2. Operating system support

Operating system	SAS host server	Notes and required hotfixes
Microsoft Windows		
Windows Server 2019	✓	Ensure you apply the latest OS updates.
Windows Server 2016 Server and Core	✓	Ensure you apply the latest OS updates.
Windows Server 2012 R2 Standard Server and Core	✓	Ensure you apply the latest OS updates.
Linux		
Red Hat Enterprise Linux 8.0	✓	Ensure you apply the latest OS updates.
Red Hat Enterprise Linux 7.x	✓	Ensure you apply the latest OS updates.
Red Hat Enterprise Linux 6.9 or later	✓	Ensure you apply the latest OS updates.
SUSE Linux Enterprise Server 12.x	✓	Ensure you apply the latest OS updates.
VMware		
VMware ESXi 6.5	✓	Ensure you apply the latest OS updates
VMware ESXi 6.0	✓	Ensure you apply the latest OS updates

Supported server HBAs

The ME484 JBOD storage enclosure supports the following server HBAs:

- Dell 12 Gbps SAS HBA (for Dell PowerEdge 13th & 14th generation servers)

You can download the supported HBA firmware and drivers from Dell.com/support. See the server Owner's Manual for HBA slot location and height requirements.

Table 3. Supported server HBAs

Vendor	Model	Component	Minimum version required
Dell	12 Gbps SAS HBA	Firmware	15.17.09.06
		Windows driver	2.51.21.2
		RHEL or SLES driver	22.00.04.00

Supported physical disk drives

The ME484 JBOD storage enclosure supports the following disk drive modules:

Table 4. Supported disk drive models for the ME484 JBOD storage enclosure

Dell P/N	Form Factor	Model	Capacity	Speed	Vendor	SED	Firmware
R1ND2	2.5"	MZILT960HAHQ0D3	960 GB	SSD	Samsung	No	DSF8
F0V FY	2.5"	MZILT1T9HAJQ0D3	1.92 TB	SSD	Samsung	No	DSF8
43PCJ	2.5"	PX05SVB048Y	480 GB	SSD	Toshiba	No	AS0E
N5PK6	2.5"	PX05SVB048Y	480 GB	SSD	Toshiba	No	AS0E
MW GK7	2.5"	PX05SRB096Y	960 GB	SSD	Toshiba	No	AS0E
24YF3	2.5"	PX05SRB096Y	960 GB	SSD	Toshiba	No	AS0E
0FYFW	2.5"	PX05SRB192Y	1.92 TB	SSD	Toshiba	No	AS0E
HDGG4	2.5"	PX05SRB192Y	1.92 TB	SSD	Toshiba	No	AS0E
1N61H	2.5"	PX05SVQ192B	1.92 TB	SSD	Toshiba	Yes	AX09
6K9P2	2.5"	PX05SVQ192B	1.92 TB	SSD	Toshiba	Yes	AX09
3PR5C	2.5"	KPM5XVUG480G	480 GB	SSD	Toshiba	No	B01C
H8X3X	2.5"	KPM5XRUG960G	960 GB	SSD	Toshiba	No	B01C
TDNP7	2.5"	KPM5XRUG1T92	1.92 TB	SSD	Toshiba	No	B01C
N85XX	2.5"	KPM5XRUG3T84	3.84 TB	SSD	Toshiba	No	B01C
DJY51	2.5"	KPM5WVUG1T92	1.92 TB	SSD	Toshiba	No	B318
XTH17	2.5"	ST900MP0026	900 GB	15K	Seagate	No	KT39
N9WXC	2.5"	ST900MP0126	900 GB	15K	Seagate	Yes	KSC8
G2G54	2.5"	ST1200MM0099	1.2 TB	10K	Seagate	No	ST33
JY57X	2.5"	DL1800MM0159	1.8 TB	10K	Seagate	No	ST53
RWR8F	2.5"	DL2400MM0159	2.4 TB	10K	Seagate	No	ST53
8YWH3	2.5"	ST2400MM0149	2.4 TB	10K	Seagate	Yes	SSE3
TMVN7	2.5"	ST2000NX0463	2 TB	7.2K	Seagate	No	NT32
Y6W8N	2.5"	ST2000NX0453	2 TB	7.2K	Seagate	Yes	NSF2
YKT0W	2.5"	AL14SXB90ENY	900 GB	15K	Toshiba	No	EE05
01M0D	2.5"	AL15SEB120NY	1.2 GB	10K	Toshiba	No	EF04
0WRRF	2.5"	AL15SEB18EQY	1.8 TB	10K	Toshiba	No	EF04
F9NWJ	2.5"	AL15SEB24EQY	2.4 TB	10K	Toshiba	No	EF04
NT1X2	3.5"	HUS726T4TALS200	4 TB	7.2K	HGST	No	PU01
44YFV	3.5"	HUS728T8TAL5200	8 TB	7.2K	HGST	No	RS01
07FPR	3.5"	HUH721010AL5200	10 TB	7.2K	HGST	No	LS17
9HXK6	3.5"	HUH721212AL5200	12 TB	7.2K	HGST	No	NS05
OJHTD	3.5"	HUH721212AL5205	12 TB	7.2K	HGST	Yes	NM05

Dell P/N	Form Factor	Model	Capacity	Speed	Vendor	SED	Firmware
5JH5X	3.5"	ST4000NM0295	4 TB	7.2K	Seagate	No	DT32
W5M2R	3.5"	ST4000NM0295	4 TB	7.2K	Seagate	No	DT32
M40TH	3.5"	ST8000NM0185	8 TB	7.2K	Seagate	No	PT52
VFP4M	3.5"	ST8000NM0185	8 TB	7.2K	Seagate	No	PT54
YF87J	3.5"	ST10000NM0256	10 TB	7.2K	Seagate	No	TT55
HV5CH	3.5"	ST10000NM0598	10 TB	7.2K	Seagate	No	RSL1
YMN53	3.5"	ST12000NM0158	12 TB	7.2K	Seagate	No	RSL1

Dell EMC Storage Support Policy

Level 1: Full Contractual Support

For tested devices listed in this Support Matrix, (and for the specific version listed), Dell EMC will provide solution support, under an active support contract assuming that all other components in the storage solution are also under contracted support with their respective manufacturers and that documented recommended design best practices are followed.

Level 2: Conditional Support

In addition to the product versions tested by Dell EMC and listed in this Support Matrix, the compatibility of comparable hardware models and newer firmware versions can be projected based upon the results for the systems actually tested and will be designated as "**conditionally supported**".

Dell EMC will provide full contractual support for the storage solution under an active support contract, assuming that all components in the storage solution are also under contracted support with their respective manufacturers and that documented recommended design best practices are followed.

Resolution of functional and/or performance issues may be out of Dell EMC's control. In such cases, these issues will need to be addressed by the applicable device or software/firmware vendor. Dell EMC may require, in its sole discretion, as a condition of continuing support, that the customer replace the component with one that was tested and/or upgrade/downgrade to a supported software version.

Examples of Conditional Support situations include, but are not limited to:

- If a switch or server adapter shares the same underlying ASIC or chipset and is from the same vendor as a tested configuration, then it may produce similar results.
- If a component is an identical model of a component listed, but differs in firmware version, then it may produce similar results for any firmware and/or drivers that are newer than those listed. For example, if version X of firmware has been tested and is listed as compatible, then versions newer than version X are expected to continue to work.

Failure of a "**conditionally supported**" component to provide the same service level as the similar device listed, unless Dell EMC has communicated end of support or a specific incompatibility for a particular product, firmware or software version, would be treated as a bug that needs to be fixed by the device or software/firmware vendor.

Level 3: Commercially Reasonable Effort

For components not listed within this Support Matrix, OR where customer has not, or is not willing to apply accepted Dell EMC recommended best practices for the specific storage family's SAN design and implementation, as long as the customer has an active support contract with the appropriate vendor(s), and an active support contract, Dell EMC will provide storage solution support for any untested component of the configuration, until such time as it is determined, in Dell EMC's sole discretion, that a problem lies within the untested component(s) or the way they interoperate with Dell EMC.

Once an untested component has been determined to be the source of the issue, Dell EMC will only provide support for the storage solution on a Commercially Reasonable Effort (CRE) basis. CRE support may be limited to certain days of the week and during normal business hours only.

Dell EMC does not guarantee that issues undertaken on a CRE basis will be resolved in a timely fashion, or at all. There is a possibility that the customer would need to replace an untested component or take the affected system out of production to resolve the issues.