

PowerEdge R7515 Information Update - Tech Sheet

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.

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Overview

The information in this document supersedes the information in the pertinent sections of the Installation and Service Manual, BIOS and UEFI Reference Guide, and Technical Specifications.

For a complete list of information, see the documents available at <https://www.dell.com/poweredgemanuals>.

Topics:

- [Revision history](#)

Revision history

This section provides a description of document changes.

Table 1. Document Revision history

Document Revision	Date	Description of changes
1	November, 2022	<ol style="list-style-type: none">1. Updated expansion card installation guidelines2. Updated PSU

Information Update

Topics:

- PSU specifications
- Expansion card installation guidelines

PSU specifications

The PowerEdge R7515 system supports the following AC or DC power supply units (PSU):

Table 2. PSU specifications

PSU	Class	Heat dissipation (maximum)	Frequency	Voltage
1600 W AC	Platinum	6000 BTU/hr	50/60 Hz	100—240 V AC
1600 W AC	Titanium	5840 BUT/hr	50/60 Hz	200-240 V AC
1100 W DC	NA	4416 BTU/hr	NA	-48 — -60 V DC
1100 W AC	Platinum	4100 BTU/hr	50/60 Hz	100—240 V AC
1100 W HVDC	Platinum	4100 BTU/hr	50/60 Hz	100—240 V AC
	NA	4100 BTU/hr	NA	200—380 V DC
750 W AC	Platinum	2891 BTU/hr	50/60 Hz	100—240 V AC, autoranging
750 W HVDC	Platinum	2891 BTU/hr	50/60 Hz	100—240 V AC, autoranging
	Platinum	2891 BTU/hr	NA	240 V DC
750 W AC	Titanium	2843 BTU/hr	50/60 Hz	200—240 V AC
495 W AC	Platinum	1908 BTU/hr	50/60 Hz	100—240 V AC, autoranging

- NOTE:** When selecting or upgrading the system configuration, to ensure optimum power utilization, verify the system power consumption with the Dell Energy Smart Solution Advisor available at [Dell.com/ESSA](https://www.dell.com/ESSA).
- NOTE:** Heat dissipation is calculated using the PSU wattage rating.
- NOTE:** This system is also designed to connect to the IT power systems with a phase-to-phase voltage not exceeding 230 V.
- NOTE:** If a system with 1600 W AC PSU operates at low line 100-120 V AC, then the power rating per PSU is derated to 800 W.
- NOTE:** If a system with 1100 W AC PSU or 1100 W mixed mode PSU operates at low line 100-120 V AC, and then the power rating per PSU is derated to 1050 W.

Expansion card installation guidelines

The following table describes the supported expansion cards:

Table 3. Expansion card riser configurations

Expansion card riser	PCIe slots on the riser	Processor connection	Height	Length	Slot width
Riser-1B (2U riser)	Slot 2	Processor 1	Full Height	Full Length	x16
Riser-1B (2U riser)	Slot 3	Processor 1	Full Height	Full Length	x16
Riser-1A (low profile riser right)	Slot 2	Processor 1	Low Profile	Half Length	x16
Riser-2 (low profile riser left)	Slot 3	Processor 1	Low Profile	Half Length	x16

NOTE: The expansion-card slots are not hot-swappable.

The following table provides guidelines for installing expansion cards to ensure proper cooling and mechanical fit. The expansion cards with the highest priority should be installed first using the slot priority indicated. All the other expansion cards should be installed in the card priority and slot priority order.

Table 4. Riser configurations: No riser – CPU

Card Type	Slot Priority	Maximum number of cards
LOM riser ; 2x1G BCM5720L (FXN)	1	1
LOM riser ; 2x10G BCM57416 (BASeT/ SFP+) (FXN)	1	1
LOM riser ; 2x25G (Broadcom)	1	1
GPU: Nvidia A2 16GB (LP)	5	1
GPU: Nvidia T4 16GB	5, 4	2
NVMe PCIe SSD	5, 4	2
Mellanox 100G (CX5/CX6 H100)	4, 5	2
Mellanox 25G (CX4LX DP/CX5 DP)	5, 4	2
Emulex (FC32 SP/DP)	4, 5	2
Emulex (FC16 SP/DP)	5, 4	2
Emulex (HBA FC32 1P S28)	5, 4	2
Qlogic (HBA FC32 SP/DP)	4, 5	2
Qlogic (HBA FC16 SP/DP)	5, 4	2
Qlogic 10G (SFP DP)	5, 4	2
Qlogic 25G (BaseT DP)	5, 4	2
Qlogic (HBA FC32 1P S28)	4, 5	2
Solarflare 25G (SFP DP)	5, 4	2
Intel 10G (BaseT DP)	5, 4	2
Intel 10G (SFP+ DP)	5, 4	2
Intel 1G (QP)	5, 4	2
Intel 25G SFP DP	5, 4	2
Intel 25G LP 2P S28	5, 4	2

Table 4. Riser configurations: No riser – CPU (continued)

Card Type	Slot Priority	Maximum number of cards
Broadcom 1G (QP)	5, 4	2
Broadcom 10G (BaseT DP)	5, 4	2
Broadcom 25G (SFP DP)	5, 4	2
PERC 10: External adapter (Dell)	4, 5	1
HBA: External adapter (Dell)	4, 5	1
Internal storage (BOSS)	5, 4	1
PERC 9: Mini mono (H730P/H330)	Integrated slot	1
PERC 10 : Mini mono (H740P)	Integrated slot	1
HBA :Mini mono (HBA330)	Integrated slot	1
PERC 10: External adapter (H840)	5, 4	2
PERC 10: External adapter (H840) (FH or LP)	5, 4	2
PERC 11: External adapter (HBA355E)	5, 4	2
HBA: External adapter	5, 4	2
LOM riser (2x1G)/(2x10G)/(2x25G)	1	1
Intel, NIC: 100Gb, CRD,NTWK,INTL,LP,100G,2P,Q28	4,5	2
Emulex, HBA: FC32, CRD,CTL,FC32,2P,LPE35002,EMX,L	4,5	2
Broadcom, NIC: 10Gb, CRD,NTWK,BCME,LP,10G,4P,BT	5,4	2
HBA: External Adapter, KIT,CRD,CTL,HBA,12GBPS-SAS	5,4	2

Table 5. Riser configurations: Riser 1A + Riser 2 – CPU

Card type	Slot priority	Maximum number of cards
LOM riser ; 2x1G BCM5720L	1	1
LOM riser ; 2x10G BCM57416 (BASeT/ SFP+)	1	1
LOM riser ; 2x25G (Broadcom)	1	1
NVMe PCIe SSD	2, 3	2
Mellanox 100G (CX5/CX6 H100)	3, 2	2
Mellanox 25G (CX4LX DP/CX5 DP)	2, 3	2
Emulex (FC32 SP/DP)	3, 2	2
Emulex (FC16 SP/DP)	2, 3	2
Emulex (HBA FC32 FH 1P S28)	2, 3	2
Qlogic (HBA FC32 SP/DP)	3, 2	2
Qlogic (HBA FC16 SP/DP)	2, 3	2
Qlogic 10G (SFP DP)	2, 3	2
Qlogic 25G (BaseT DP)	2, 3	2

Table 5. Riser configurations: Riser 1A + Riser 2 – CPU (continued)

Card type	Slot priority	Maximum number of cards
Qlogic (HBA FC32 FH 1P S28)	3, 2	2
Solarflare 25G (SFP DP)	2, 3	2
Intel 10G (BaseT DP)	2, 3	2
Intel 10G (SFP+ DP)	2, 3	2
Intel 1G (QP)	2, 3	2
Intel 25G SFP DP	2, 3	2
Broadcom 1G (QP)	2, 3	2
Broadcom 10G (BaseT DP)	2, 3	2
Broadcom 25G (SFP DP)	2, 3	2
PERC 10: External adapter (Dell)	2, 3	1
HBA: External adapter (Dell)	2, 3	1
Internal storage (BOSS)	2, 3	1
PERC 9: Mini mono (H730P/H330)	Integrated slot	1
PERC 10: Mini mono (H740P)	Integrated slot	1
HBA: Mini mono (HBA330)	Integrated slot	1
PERC 10: External adapter (H840)	2, 3	2
PERC 10: External adapter (H840) (FH or LP)	2, 3	2
PERC 11: External adapter (HBA355E)	2, 3	2
HBA: External adapter	2, 3	2
Intel,NIC: 100Gb, CRD,NTWK,INTL,LP,100G,2P,Q28	3,2	2
Intel NIC: 25Gb,CRD,NTWK,INTL,FH,25G,2P,S28,F1	2, 3	2
Emulex, HBA: FC32, CRD,CTL,FC32,2P,LPE35002,EMX,L	3,2	2
Broadcom, NIC: 10Gb, CRD,NTWK,BCME,LP,10G,4P,BT	3,2	2
HBA: External Adapter, KIT,CRD,CTL,HBA,12GBPS-SAS	3,2	2

Table 6. Riser configurations: Riser 1B – CPU

Card type	Slot priority	Maximum number of cards
LOM riser ; 2x1G BCM5720L	1	1
LOM riser ; 2x10G BCM57416 (BASeT/ SFP+)	1	1
LOM riser ; 2x25G (Broadcom)	1	1
FPGA: XILINX FH	3	1
GPU: AMD MI210 64GB 300W (FH)	3	1
GPU: Nvidia A30 24GB V2 (FH)	3	1

Table 6. Riser configurations: Riser 1B – CPU (continued)

Card type	Slot priority	Maximum number of cards
GPU: Nvidia A2 16GB V2 (FH)	2, 3	2
GPU: Nvidia A2 16GB V2 (LP)	5	1
GPU: Nvidia A16 64GB V2 (FH)	3	1
GPU: Nvidia V100S 32GB (FH)	3	1
GPU: Nvidia T4 16GB 70W V2 (FH)	2, 3	2
GPU: Nvidia T4 16GB 70W (LP)	5, 4	2
Intel 10G (BaseT DP FH)	2, 3	2
Intel 10G (BaseT DP LP)	5, 4	2
Intel 10G (SFP+ DP FH)	2, 3	2
Intel 10G (SFP+ DP LP)	5, 4	2
Intel 1G (QP FH)	2, 3	2
Intel 1G (QP LP)	5, 4	2
Intel 25G (SFP DP FH)	2, 3	2
Intel 25G (SFP DP LP)	5, 4	2
Broadcom 1G (QP FH)	2, 3	2
Broadcom 1G (QP LP)	5, 4	2
Broadcom 10G (BaseT DP FH)	2, 3	2
Broadcom 10G (BaseT DP LP)	5, 4	2
Broadcom 25G (SFP DP FH)	2, 3	2
Broadcom 25G (SFP DP LP)	5, 4	2
Solarflare 25G (SFP DP FH)	2, 3	2
Solarflare 25G (SFP DP LP)	5, 4	2
Mellanox 25G (CX4LX DP/CX5 DP FH)	2, 3	2
Mellanox 25G (CX4LX DP/CX5 DP LP)	5, 4	2
Qlogic 10G (SFP DP FH)	2, 3	2
Qlogic 10G (SFP DP LP)	5, 4	2
Qlogic 25G (BaseT DP FH)	2, 3	2
Qlogic 25G (BaseT DP LP)	5, 4	2
Mellanox 100G (CX5/CX6 H100, FH)	3, 2	2
Mellanox 100G (CX5/CX6 H100, LP)	4, 5	2
Emulex (FC32 SP/DP, FH)	3, 2	2
Emulex (FC32 SP/DP, LP)	4, 5	2
Emulex (FC16 SP/DP, FH)	2, 3	2
Emulex (FC16 SP/DP, LP)	5, 4	2
Emulex (HBA FC32 1P S28, FH)	2, 3	2
Emulex (HBA FC32 1P S28, LP)	5, 4	2
Qlogic (HBA FC32 SP/DP, FH)	3, 2	2

Table 6. Riser configurations: Riser 1B – CPU (continued)

Card type	Slot priority	Maximum number of cards
Qlogic (HBA FC32 SP/DP, LP)	4, 5	2
Qlogic (HBA FC16 SP/DP, FH)	2, 3	2
Qlogic (HBA FC16 SP/DP, LP)	5, 4	2
Qlogic (HBA FC32 1P S28, FH)	3, 2	2
Qlogic (HBA FC32 1P S28, LP)	4, 5	2
PERC 10 : External adapter (H840, FH)	2, 3	2
PERC 11: External adapter (HBA355E)	2, 5, 3, 4	2
HBA : External adapter (FH)	2, 3	2
Internal storage (BOSS, FH)	2, 3	1
NVME PCIE SSD (FH)	2, 3	2
NVME PCIE SSD (LP)	5, 4	2
PERC 10 : External adapter (H840, LP)	5, 4	2
PERC 10: External adapter (H840) (FH or LP)	2, 5, 3, 4	4
HBA : External adapter (LP)	5, 4	2
Internal storage (BOSS, LP)	5, 4	1
PERC 9 : Mini mono (H730P/H330)	Integrated slot	1
PERC 10 : Mini mono (H740P)	Integrated slot	1
HBA : Mini mono (HBA330)	Integrated slot	1
LOM riser (2x1G)/(2x10G)/(2x25G)	1	1
Intel, NIC: 100Gb, CRD,NTWK,INTL,FH,100G,2P,Q28	3,2	2
Intel, NIC: 100Gb, CRD,NTWK,INTL,LP,100G,2P,Q28	4,5	2
Intel, NIC: 25Gb, CRD,NTWK,INTL,FH,25G,4P,S28	3,2	2
Intel, NIC: 25Gb, CRD,NTWK,INTL,FH,25G,2P,S28	2, 3	2
Intel, NIC: 25Gb, CRD,NTWK,INTL,LP,25G,2P,S28	5, 4	2
NIC: 25Gb, Broadcom, CRD,NTWK,BCME,FH,25G,4P,S28	3,2	2
Emulex, HBA: FC32, CRD,CTL,FC32,2P,LPE35002,EMLX	3,2	2
Emulex, HBA: FC32, CRD,CTL,FC32,2P,LPE35002,EMX,L	4,5	2
Broadcom, NIC: 10Gb, CRD,NTWK,BCME,FH,10G,4P,BT	2,3	2
Broadcom, NIC: 10Gb, CRD,NTWK,BCME,LP,10G,4P,BT	5,4	2
HBA: External Adapter, KIT,CRD,CTL,HBA,12GBPS-SAS	2,5,3,4	4