

HARDWARE DATASHEET

DELL R740XD

Table of Contents

<u>CERTIFIED HARDWARE DATASHEET</u>	<u>3</u>
<u>OVERVIEW</u>	<u>3</u>
<u>INDUSTRY RESOURCES</u>	<u>3</u>
<u>DESIGN</u>	<u>4</u>
<u>FRONT VIEW</u>	<u>4</u>
<u>REAR VIEW</u>	<u>4</u>
<u>COMPONENT OVERVIEW</u>	<u>5</u>
<u>CONFIGURATION</u>	<u>6</u>
<u>CHASSIS</u>	<u>6</u>
<u>CPU</u>	<u>6</u>
<u>MEMORY</u>	<u>6</u>
<u>STORAGE</u>	<u>7</u>
<u>NETWORKING</u>	<u>7</u>
<u>POWER SUPPLY</u>	<u>8</u>
<u>SYSTEM SETTINGS</u>	<u>8</u>

CERTIFIED HARDWARE DATASHEET

OVERVIEW

This document outlines the certified components and Scale Computing configuration specifications of the Dell R740xd. The Dell R740xd can support Intel Cascade Lake Refresh CPUs and up to 384GB of memory. Storage is configured in a tiered storage configuration of 17x HDDs with 1x SSDs to achieve efficiency in storage costs while maintaining consistent and rapid failover in the event of a node loss. The Dell R740xd is ideal for the below scenarios:

- Support Cascade Lake Refresh CPUs
- High volume, high bandwidth video recording

INDUSTRY RESOURCES

- [Dell R740xd Technical Specifications](#)
- [Dell R740xd Install and User Manual](#)
- [Intel Cascade Lake \(Refresh\)](#)
- [Dell RAM Population Guide](#)

DESIGN

FRONT VIEW



REAR VIEW



COMPONENT OVERVIEW

COMPONENT	OEM DESCRIPTION	VENDOR DATA (Feature Code)	QUANTITY
Chassis	Dell R740xd	321-BCPV (server: 210-ALGO)	1
Rackmount Rails	ReadyRails with cable management arm	770-BBBR	1
Power Supply	Dual, Hot-Plug, (1+1) 750W	450-AJSC (preinstalled on 210-ALGO)	1
Motherboard	Dell R740xd motherboard	329-BEIK (preinstalled on 210-ALGO)	N/A (Included)
CPU	Intel Silver 4210R (10C 2.4GHz) Intel Gold 6226R (16C 2.9GHz) Intel Gold 6230R (26C 2.1GHz)	338-BVKD 338-BVJV 338-BVKR	2
Memory	8GB DDR4 3200 (1Rx8) RDIMM 16GB DDR4 3200 (2Rx4) RDIMM 32GB DDR4 3200 (2Rx4) RDIMM	370-AEVO 370-AEVQ 370-AGDS	12
Risers	Config 1, 4 x8 slots	330-BBHF	1
Storage Controller	PERC H750 Adapter, Full Height	405-ABCD	1
Storage Media (Rotational)	12TB 7.2K SAS ISE 12Gb 512e 18TB 7.2K SAS 12Gb 512e	400-BEKH, 400-BEJR, 400-BEJM 400-BKZQ, 400-BKZW, 400-BKZU	17
Storage Media (Solid State / Flash)	960GB SSD SATA Read Intensive 1.92TB SSD SATA Read Intensive 3.84TB SSD SAS Read Intensive 7.68TB SSD vSAS Read Intensive	400-BDPC 400-BDQJ 400-AYZR 400-BFPF	1
Networking	10Gb SFP+: Intel X710 Quad Port 10GbE SFP+, PCIe (full height)	10Gb SFP+: 540-BBHQ	1
TPM	TPM 2.0 V3	461-AAEM	1

CONFIGURATION

CHASSIS

The chassis for this configuration must be configured as a eighteen (18; 12 front + 4 midplane + 2 flexbay) 3.5” drive bay R740xd.

CPU

The CPUs listed in the component detail section reflect the tested, qualified parts. The Dell R740xd in this configuration is capable of operating with any CPU with a TDP lower than 185W. 185W+ CPUs are not supported due to the density of the disk configuration.

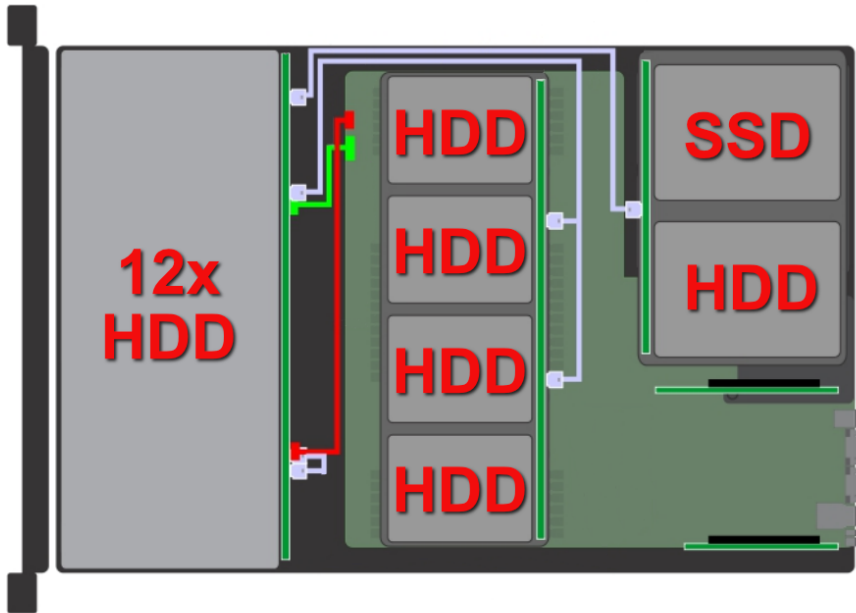
MEMORY

Cascade Lake (Refresh) CPUs support DDR4 memory bus speeds from 2400MT/s to 2933MT/s with up to 6 memory channels. Actual configured speed and active channels depend on the CPU selection and DIMM population.

CAPACITY	CONFIGURATION	ACTIVE CHANNELS	SPEED (4210R CPU)	SPEED (6226R/6230R CPU)
96GB	12x 8GB DIMMs	6	2400MT/s	2933MT/s
192GB	12x 16GB DIMMs	6	2400MT/s	2933MT/s
384GB	12x 32GB DIMMs	6	2400MT/s	2933MT/s

STORAGE

The front twelve (12) drive bays must be populated with identical capacity rotational disk drives. The four (4) midplane bays are populated with four (4) HDDs of identical size to the front. The rear flexbays are populated with one (1) HDD identical to the front and midplane drives, and one SSD in the last flexbay.



NETWORKING

The Dell R740xd supports one network adapter card configuration utilizing the Intel X710-DA4:

NETWORK TYPE	LOM ADAPTER	PORT COUNT	FORMAT
10Gb SFP+	Dell (Intel) X710-DA4 10Gb 4-port SFP+ PCIe	4	SFP+

Additional cable and transceiver support information from Dell can be found [here](#).

POWER SUPPLY

The system must be configured with the 750W (110-230V) redundant power supplies. Power cables rated for at least 10A (@230V) should be used with the 750W power supply.

NOTE

The 750W redundant power supplies support automatic voltage sense and can accept any common utility voltage from 110V up to 240V at 50/60Hz. No user action is required to support a specific voltage as it should automatically be detected and accommodated by the power subsystem of the server.

SYSTEM SETTINGS

Installation of SC//HyperCore requires system BIOS/UEFI settings to be adjusted to expected values.

CONFIGURATION SETTING	EXPECTED VALUE	REQUIRED / RECOMMENDED
Operating Mode	Maximum Performance	Required
System Boot Mode	UEFI Boot / Mode	Required
Intel Virtualization Technology	Enabled	Required
Intel VT for Directed I/O (VT-d)	Enabled	Required