Table 2. Intel® CPU support matrix (continued)

| Watts | Model | #Cores | 660xs-4 | 660xs-4S | 660-10 | 660-12N | 760-14 | 760-24 | 760-24N | 7625-24 | 760xa |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 205 | 6438N | 32 | | | X | X | X | X | X | | |
| 205 | 6438Y+ | 32 | X | X | X | X | X | X | X | | X |
| 225 | 6442Y | 24 | NS | NS | X | X | X | X | X | | X |
| 270 | 6444Y | 16 | | | X | X (30C max) | NS | X | X | | |
| 225 | 6448Y | 32 | NS | NS | X | X | X | X | X | | X |
| 300 | 8562Y+ | 32 | | 30C MAX | | X | X | X | | | X |
| 350 | 8568Y+ | 48 | | | | | | X | 30C MAX | | X |
| 350 | 8580 | 60 | | | | | | X | 30C MAX | | X |
| 350 | 8592+ | 64 | | | | | | X | 30C MAX | | X |
| 250 | 6548Y+ | 32 | | | X | X | 30C MAX | X | X | | X |
| 250 | 6542Y | 24 | | | X | X | 30C MAX | X | X | | X |
| 250 | 6548N | 32 | | | X | X | 30C MAX | X | X | | |
| 270 | 6454S | 32 | | | X | X (30C MAX) | NS | X | X | | |
| 350 | 6458Q | 32 | | | NS | NS | NS | NS | | | |
| 300 | 8452Y | 36 | | | X (30C MAX) | NS | NS | X | X | | X |
| 350 | 8458P | 44 | | | NS | NS | NS | | | | X |
| 300 | 8640Y+ | 40 | | | X (30C MAX) | NS | NS | X | X | | X |
| 300 | 8462Y+ | 32 | | | X (30C MAX | NS | NS | X | X | | X |
| 350 | 8468 | 48 | | | NS | NS | NS | X | X | | X |
| 330 | 8468V | 48 | | | NS | NS | NS | | | | |
| 350 | 8470 | 52 | | | NS | NS | NS | X | X | | X |
| 300 | 8470N | 52 | | | NS | NS | NS | X | X | | X |
| 350 | 8470Q | 52 | | | NS | NS | NS | NS | | | |
| 300 | 8471N | 52 | | | X (30C MAX) | NS | NS | | | | |
| 350 | 8480+ | 56 | | | NS | NS | NS | X | X | | X |
| 200 | 9124 | 16 | | | | | | | | X | |
| 320 | 9174F | 16 | | | | | | | | X | |
| 200 | 9224 | 24 | | | | | | | | X | |
| 200 | 9254 | 24 | | | | | | | | X | |
| 320 | 9374F | 24 | | | | | | | | X | |
| 210 | 9334 | 32 | | | | | | | | X | |
| 280 | 9354 | 32 | | | | | | | | X | |

**Table 2. Intel® CPU support matrix (continued)**

| Watts | Model | #Cores | 660xs-4 | 660xs-4S | 660-10 | 660-12N | 760-14 | 760-24 | 760-24N | 7625-24 | 760xa |
|-------|-------|--------|---------|----------|--------|---------|--------|--------|---------|---------|-------|
| 280 | 9374F | 32 | | | | | | | | X | |
| 290 | 9454 | 48 | | | | | | | | X | |
| 360 | 9475F | 48 | | | | | | | | X | |

*NS: Not supported

# Supported Networking

This section provides information about networking supported by your hardware and supported NICs on the XC660, XC760, XC7625, 660xs, and 760xa models of the Dell XC Series Hyper-Converged Appliance.

Intel OCP3 and Network Interface Cards (NIC) specify the use of only Intel branded SFP+ optical modules for use with optical cables. When ordering a system with optics, the appropriate Intel branded SFP+ optical modules are included with your order. If you already have SFP+ optical modules, ensure that they are the Intel branded modules before inserting into the OCP3 or NIC. Twinax cables are also the supported network cables for Intel OCP3 and NIC.

⚠ **CAUTION: Using any brand of SFP+ module other than Intel during deployment disables the 10 GbE ports. Call Dell Support to recover port functionality.**

⚠ **WARNING: Hot-plugging an unsupported SFP+ module causes ESXi host to fail with purple diagnostic screen. Call Dell Support to recover from this situation.**

# Network interface cards

The tables in this topic specify which network interface cards are supported.

**Table 3. XC660**

| Vendor | Agile Description | Chipset |
|--------|-------------------|---------|
| Intel | CRD,NTWK,INTL,FH,100G,2P,Q28 | E810 |
| | CRD,NTWK,INTL,FH,10G,2P,BT | X710 |
| | CRD,NTWK,INTL,FH,10G,4P,BT | X710 |
| | CRD,NTWK,INTL,FH,25G,2P,S28 | E810 |
| | CRD,NTWK,INTL,FH,25G,2P,S28,F1 | X710 |
| | CRD,NTWK,INTL,FH,25G,4P,S28 | E810 |
| | CRD,NTWK,INTL,LP,100G,2P,Q28 | E810 |
| | CRD,NTWK,INTL,LP,10G,2P,BT | X710 |
| | CRD,NTWK,INTL,LP,10G,4P,BT | X710 |
| | CRD,NTWK,INTL,LP,25G,2P,S28 | E810 |
| | CRD,NTWK,INTL,LP,25G,2P,S28,F1 | X710 |
| | CRD,NTWK,INTL,OCP3,10G,2P,BT | X710 |
| | CRD,NTWK,INTL,OCP3,25G,2P,S28 | E810 |
| | CRD,NTWK,INTL,OCP3,25G,2P,S28 | X710 |
| | CRD,NTWK,INTL,OCP3,25G,4P,S28 | E810 |
| | CRD,NTWK,INTL,OCP3,10G,4P,BT | X710 |

**Table 3. XC660 (continued)**

| Vendor | Agile Description | Chipset |
|---|---|---|
| Mellanox | CRD,NTWK,MLNX,LP,100G,2P,Q56 | CX6-DX |
| | CRD,NTWK,MLNX,LP,25G,2P,S28 | CX6-LX |
| Broadcom | CRD,NTWK,BCME,FH,100G,2P,QSF | 57508 |
| | CRD,NTWK,BCME,FH,10G,4P,BT | 57454 |
| | CRD,NTWK,BCME,FH,25G,2P,SFP,F1 | 57414 |
| | CRD,NTWK,BCME,FH,25G,4P,S28 | 57504 |
| | CRD,NTWK,BCME,LP,100G,2P,QSF | 57508 |
| | CRD,NTWK,BCME,LP,10G,4P,BT | 57454 |
| | CRD,NTWK,BCME,LP,25G,2P,SFP,F1 | 57414 |
| | CRD,NTWK,BCME,OCP3,10G,2P,V2 | 57416 |
| | CRD,NTWK,BCME,OCP3,10G,4P,BT | 57454 |
| | CRD,NTWK,BCME,OCP3,25G,2P,V3 | 57414 |
| | CRD,NTWK,BCME,OCP3,25G,4P,V3 | 57504 |
| | CRD,NTWK,PCIE,DP,10G,57416,FH | 57416 |
| | CRD,NTWK,PCIE,DP,10G,57416,LP | 57416 |

**Table 4. XC760**

| Vendor | Agile Description | Chipset |
|---|---|---|
| Intel | CRD,NTWK,INTL,FH,100G,2P,Q28 | E810 |
| | CRD,NTWK,INTL,FH,10G,2P,BT | X710 |
| | CRD,NTWK,INTL,FH,10G,4P,BT | X710 |
| | CRD,NTWK,INTL,FH,25G,2P,S28 | E810 |
| | CRD,NTWK,INTL,FH,25G,2P,S28,F1 | X710 |
| | CRD,NTWK,INTL,FH,25G,4P,S28 | E810 |
| | CRD,NTWK,INTL,LP,100G,2P,Q28 | E810 |
| | CRD,NTWK,INTL,LP,10G,2P,BT | X710 |
| | CRD,NTWK,INTL,LP,10G,4P,BT | X710 |
| | CRD,NTWK,INTL,LP,25G,2P,S28 | E810 |
| | CRD,NTWK,INTL,LP,25G,2P,S28,F1 | X710 |
| | CRD,NTWK,INTL,OCP3,25G,2P,S28 | E810 |
| | CRD,NTWK,INTL,OCP3,25G,2P,S28 | X710 |
| | CRD,NTWK,INTL,OCP3,25G,4P,S28 | E810 |
| | CRD,NTWK,INTL,OCP3,10G,4P,BT | X710 |
| Mellanox | CRD,NTWK,MLNX,LP,100G,2P,Q56 | CX6-DX |
| | CRD,NTWK,MLNX,LP,25G,2P,S28 | CX6-LX |
| Broadcom | CRD,NTWK,BCME,FH,100G,2P,QSF | 57508 |
| | CRD,NTWK,BCME,FH,10G,4P,BT | 57454 |
| | CRD,NTWK,BCME,FH,25G,2P,SFP,F1 | 57414 |

## Table 4. XC760 (continued)

| Vendor | Agile Description | Chipset |
|---|---|---|
| | CRD,NTWK,BCME,FH,25G,4P,S28 | 57504 |
| | CRD,NTWK,BCME,LP,100G,2P,QSF | 57508 |
| | CRD,NTWK,BCME,LP,10G,4P,BT | 57454 |
| | CRD,NTWK,BCME,LP,25G,2P,SFP,F1 | 57414 |
| | CRD,NTWK,BCME,OCP3,10G,2P,V2 | 57416 |
| | CRD,NTWK,BCME,OCP3,10G,4P,BT | 57454 |
| | CRD,NTWK,BCME,OCP3,25G,2P,V3 | 57414 |
| | CRD,NTWK,BCME,OCP3,25G,4P,V3 | 57504 |
| | CRD,NTWK,PCIE,DP,10G,57416,FH | 57416 |
| | CRD,NTWK,PCIE,DP,10G,57416,LP | 57416 |

## Table 5. XC7625

| Vendor | Agile Description | Chipset |
|---|---|---|
| Intel | CRD,NTWK,INTL,FH,100G,2P,Q28 | E810 |
| | CRD,NTWK,INTL,FH,10G,2P,BT | X710 |
| | CRD,NTWK,INTL,FH,10G,4P,BT | X710 |
| | CRD,NTWK,INTL,FH,25G,2P,S28 | E810 |
| | CRD,NTWK,INTL,FH,25G,2P,S28,F1 | XXV710 |
| | CRD,NTWK,INTL,FH,25G,4P,S28 | E810 |
| | CRD,NTWK,INTL,LP,100G,2P,Q28 | E810 |
| | CRD,NTWK,INTL,LP,10G,2P,BT | X710 |
| | CRD,NTWK,INTL,LP,10G,4P,BT | X710 |
| | CRD,NTWK,INTL,LP,25G,2P,S28 | E810 |
| | CRD,NTWK,INTL,LP,25G,2P,S28,F1 | X710 |
| | CRD,NTWK,INTL,OCP3,25G,2P,S28 | E810 |
| | CRD,NTWK,INTL,OCP3,25G,2P,S28 | X710 |
| | CRD,NTWK,INTL,OCP3,25G,4P,S28 | E810 |
| | CRD,NTWK,INTL,OCP3,10G,4P,BT | X710 |
| Mellanox | CRD,NTWK,MLNX,LP,100G,2P,Q56 | CX6-DX |
| | CRD,NTWK,MLNX,LP,25G,2P,S28 | CX6-LX |
| Broadcom | CRD,NTWK,BCME,FH,100G,2P,QSF | 57508 |
| | CRD,NTWK,BCME,FH,10G,4P,BT | 57454 |
| | CRD,NTWK,BCME,FH,25G,2P,SFP,F1 | 57414 |
| | CRD,NTWK,BCME,FH,25G,4P,S28 | 57504 |
| | CRD,NTWK,BCME,LP,100G,2P,QSF | 57508 |
| | CRD,NTWK,BCME,LP,10G,4P,BT | 57454 |
| | CRD,NTWK,BCME,LP,25G,2P,SFP,F1 | 57414 |
| | CRD,NTWK,BCME,OCP3,10G,2P,V2 | 57416 |

**Table 5. XC7625 (continued)**

| Vendor | Agile Description | Chipset |
|---|---|---|
| | CRD,NTWK,BCME,OCP3,10G,4P,BT | 57454 |
| | CRD,NTWK,BCME,OCP3,25G,2P,V3 | 57414 |
| | CRD,NTWK,BCME,OCP3,25G,4P,V3 | 57504 |
| | CRD,NTWK,PCIE,DP,10G,57416,FH | 57416 |
| | CRD,NTWK,PCIE,DP,10G,57416,LP | 57416 |

**Table 6. XC660xs**

| Vendor | Agile Description | Chipset |
|---|---|---|
| Intel | CRD,NTWK,INTL,LP,100G,2P,Q28 | E810 |
| | CRD,NTWK,INTL,LP,10G,2P,BT | X710 |
| | CRD,NTWK,INTL,LP,10G,4P,BT | X710 |
| | CRD,NTWK,INTL,OCP3,10G,2P,V2 | X710 |
| | CRD,NTWK,INTL,LP,25G,2P,S28 | E810 |
| | CRD,NTWK,INTL,OCP3,10G,4P,V2 | X710 |
| | NTWK,INTL,OCP3,25G,2P,V2 | E810 |
| | CRD,NTWK,INTL,OCP3,25G,4P,V2 | E810 |
| Mellanox | CRD,NTWK,MLNX,LP,100G,2P,Q56 | CX6-DX |
| | CRD,NTWK,MLNX,LP,25G,2P,S28 | CX6-LX |
| Broadcom | CRD,NTWK,BCME,LP,100G,2P,QSF | 57508 |
| | CRD,NTWK,BCME,LP,10G,4P,BT | 57454 |
| | CRD,NTWK,BCME,LP,25G,2P,SFP,F1 | 57414 |
| | CRD,NTWK,BCME,OCP3,10G,2P,V2 | 57416 |
| | CRD,NTWK,BCME,OCP3,10G,4P,BT | 57454 |
| | CRD,NTWK,BCME,OCP3,25G,2P,V3 | 57414 |
| | CRD,NTWK,BCME,OCP3,25G,4P,V3 | 57504 |
| | CRD,NTWK,PCIE,DP,10G,57416,LP | 57416 |

**Table 7. XC760xa**

| Vendor | Agile Description | Chipset |
|---|---|---|
| Intel | CRD,NTWK,INTL,FH,100G,2P,Q28 | E810 |
| | CRD,NTWK,INTL,FH,10G,2P,BT | X710 |
| | CRD,NTWK,INTL,FH,10G,4P,BT | X710 |
| | CRD,NTWK,INTL,FH,25G,2P,S28 | E810 |
| | NTWK,INTL,OCP3,25G,2P,V2 | E810 |
| | CRD,NTWK,INTL,OCP3,10G,4P,BT | X710 |
| Mellanox | NTWK,PCIE,H100,CX6,SP,F,ML | CX6-LX |
| | NTWK,MLNX,FH,100G,2P,Q56 | CX6-LX |
| | NTWK,MLNX,FH,25G,2P,S28 | CX6-LX |
| | NTWK,MLNX,OCP3,25G,2P | CX6-LX |

**Table 7. XC760xa (continued)**

| Vendor | Agile Description | Chipset |
|---|---|---|
| Broadcom | CRD,NTWK,BCME,FH,100G,2P,QSF | 57508 |
| | CRD,NTWK,BCME,FH,10G,4P,BT | 57454 |
| | CRD,NTWK,BCME,FH,25G,2P,SFP,F1 | 57414 |
| | CRD,NTWK,BCME,FH,25G,4P,S28 | 57504 |
| | CRD,NTWK,BCME,LP,100G,2P,QSF | 57508 |
| | CRD,NTWK,BCME,LP,10G,4P,BT | 57454 |
| | CRD,NTWK,BCME,LP,25G,2P,SFP,F1 | 57414 |
| | CRD,NTWK,BCME,OCP3,10G,2P,V2 | 57416 |
| | CRD,NTWK,BCME,OCP3,10G,4P,BT | 57454 |
| | CRD,NTWK,BCME,OCP3,25G,2P,V3 | 57414 |
| | CRD,NTWK,BCME,OCP3,25G,4P,V3 | 57504 |
| | CRD,NTWK,PCIE,DP,10G,57416,FH | 57416 |
| | CRD,NTWK,PCIE,DP,10G,57416,LP | 57416 |

# 16G GPU support matrix

The table in this topic specifies the supported GPUs. Platforms not listed in the table do not support GPUs.

**Table 8. Supported GPUs**

| GPU (parent support) | Watts | Cables Req'd | NVLink | 660-10 RC2 | 660-10 RC3 | 660-12N RC7 | 660xs-4 RC5 | 660xs-4s RC1 | 760-24 RC1 | 760-24 RC 3-1 (HL) | 760-24 RC 3-2 (FL) | 760-24N RC11 | 760xa-6 RCO |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A2v2 (SW,HL) (DPN: H98K0) | 60 | N | N | Max 2 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| A2v2 (SW,FH) (DPN: MG5JX) | 60 | N | N | N/A | Max 2 | N/A | N/A | N/A | Max 6 | Max 4 | Max 4 | Max 2 | Max 8 |
| A16v2 (DW, FL) | 250 | Y | N | N/A | N/A | N/A | N/A | N/A | N/A | N/A | Max 2 | N/A | Max 4 |
| A30v2 (DW, FL) | 165 | Y | Y | N/A | N/A | N/A | N/A | N/A | N/A | N/A | Max 2 | N/A | Max 4 |

**Table 8. Supported GPUs (continued)**

| GPU (parent support) | Watts | Cables Req'd | NVLink | 660-10 RC2 | 660-10 RC3 | 660-12N RC7 | 660xs-4 RC5 | 660xs-4s RC1 | 760-24 RC1 | 760-24 RC 3-1 (HL) | 760-24 RC 3-2 (FL) | 760-24N RC11 | 760xa-6 RCO |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A40v2 (DW, FL) | 300 | Y | Y | N/A | N/A | N/A | N/A | N/A | N/A | N/A | Max 2 | N/A | Max 4 |
| A100v2 (DW, FL) | 300 | Y | Y | N/A | N/A | N/A | N/A | N/A | N/A | N/A | Max 2 | N/A | Max 4 |
| A800 (DW, FL) Only available in China* | 300 | Y | Y | N/A | N/A | N/A | N/A | N/A | N/A | N/A | Max 2 | N/A | Max 4 |
| H100 NVL | | Y | Y | N/A | N/A | N/A | N/A | N/A | N/A | N/A | Max 2 | N/A | Max 4 |
| H100 (DW, FL) | 350 | Y | Y | N/A | N/A | N/A | N/A | N/A | N/A | N/A | Max 2 | N/A | Max 4 |
| L4 (SW, FH) | 70 | N | N | N/A | Max 2 | N/A | N/A | N/A | N/A | Max 2 | Max 2 | N/A | Max 8 |
| L4 (SW, LP) | 70 | N | N | Max 3 | N/A | Max 1 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| L40 (DW, FL) | 300 | Y | N | N/A | N/A | N/A | N/A | N/A | N/A | N/A | Max 2 | N/A | Max 4 |
| L40S (DW. FL) | 350 | Y | N | N/A | N/A | N/A | N/A | N/A | N/A | N/A | Max 2 | N/A | Max 4 |

**Table 9. Supported GPUs continued**

| GPU (parent support) | Watts | Cables Req'd | NVLink | 760xa-6 RC0 w/brdg | 760xa-6 RC1 | 7525-24 RC3 | 7625-24 RC4-1(HL) | 7625-24 RC4-2(FL) | 7625-24N RC2 | 76525-24N RC3 | 7625-24N RC4-1(HL) | 7625-24N RC4-2(FL) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A2v2 (SW,HL) (DPN: H98K0) | 60 | N | N | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| A2v2 (SW,FH) (DPN: MG5JX) | 60 | N | N | N/A | Max 12 | Max 6 | Max 4 | Max 4 | Max 6 | Max 6 | Max 4 | Max 4 |

## Table 9. Supported GPUs continued (continued)

| GPU (parent support) | Watts | Cables Req'd | NVLink | 760xa-6 RC0 w/brdg | 760xa-6 RC1 | 7525-24 RC3 | 7625-24 RC4-1(HL) | 7625-24 RC4-2 (FL) | 7625-24N RC2 | 76525-24N RC3 | 7625-24N RC4-1(HL) | 7625-24N RC4-2 (FL) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A16v2 (DW, FL) | 250 | Y | N | N/A | N/A | N/A | N/A | Max 2 | N/A | N/A | N/A | Max 2 |
| A30v2 (DW, FL) | 165 | Y | Y | Max 4 | N/A | N/A | N/A | Max 2 | N/A | N/A | N/A | Max 2 |
| A40v2 (DW, FL) | 300 | Y | Y | Max 4 | N/A | N/A | N/A | Max 2 | N/A | N/A | N/A | Max 2 |
| A100v2 (DW, FL) | 300 | Y | Y | Max 4 | N/A | N/A | N/A | Max 2 | N/A | N/A | N/A | Max 2 |
| A800 (DW, FL) Only available in China* | 300 | Y | Y | Max 4 | N/A | N/A | N/A | Max 2 | N/A | N/A | N/A | Max 2 |
| H100 NVL | | Y | Y | Max 4 | N/A | N/A | N/A | Max 2 | N/A | N/A | N/A | Max 2 |
| H100 (DW, FL) | 350 | Y | Y | Max 4 | N/A | N/A | N/A | Max 2 | N/A | N/A | N/A | Max 2 |
| L4 (SW, FH) | 70 | N | N | N/A | N/A | N/A | Max 2 | Max 2 | N/A | N/A | Max 2 | Max 2 |
| L4 (SW, LP) | 70 | N | N | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| L40 (DW, FL) | 300 | Y | N | N/A | N/A | N/A | N/A | Max 2 | N/A | N/A | N/A | Max 2 |
| L40S (DW. FL) | 350 | Y | N | N/A | N/A | N/A | N/A | Max 2 | N/A | N/A | N/A | Max 2 |

# Memory

In general, the XC660, XC760, XC7625, XC660xs, and XC760xa models all support 16, 32, 64 RDIMM GB Ice Lake RDIMM memory. This memory operates at 5600 MT per second (Saphire Rapid DIMMs).

# Hypervisor and management software

The XC660, XC760, XC7625, XC660xs, and XC760xa models support the management software described in the following table.

**Table 10. Supported management software**

| Name | AOS version (Ice lake) |
|------|------------------------|
| AHV | 6.5.3.5 or later |
| ESXi 7.0 U3 | 6.5.3.5 or later |
| ESXi 8.0 U1c | 6.7.1.5 or later |

# Encryption Restrictions

This section describes encryption restrictions for disks on the XC660, XC760, XC7625, XC660xs, and XC760xa models of the Dell XC Series Hyper-Converged Appliance.

- If encryption has never been enabled and you do not plan to use it in the future, secure encrypted drives (SED) can be mixed with unencrypted (non-SED) drives in the same node.
- If encryption was never enabled and remains disabled, encrypted nodes can be mixed with unencrypted nodes in the same cluster.
- Encryption is not supported for NVMe drives.
- All nodes in the cluster must have SED capable drives to use Data at Rest encryption.

> (i) **NOTE:** If SED drives are mixed with non-SED drives, the encryption cannot be enabled for that cluster.

An encryption key must be removed from the SED drives from Prism before you format (clear) the SED drives.

> (i) **NOTE:** A key server will be required for Data at Rest Encryption in a clusterEx.

# Technical specifications for XC660

The technical and environmental specifications of your XC660 system are outlined in this section.

## Chassis dimensions
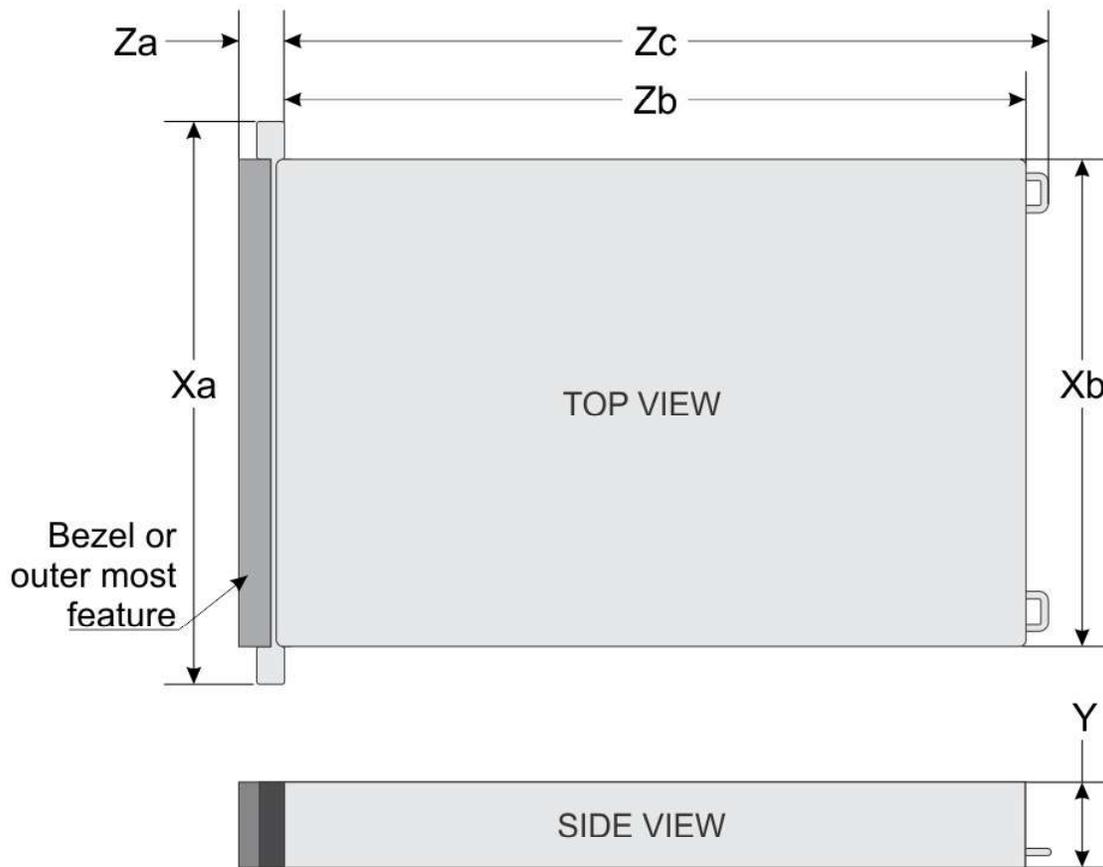


**Figure 1. Chassis dimensions**

**Table 11. XC660 chassis dimensions**

| Drives | Xa | Xb | Y | Za | Zb | Zc |
|--------|-----|-----|---|-----|-----|-----|
| 10 drives | 482.0 mm (18.97 inches) | 434.0 mm (17.08 inches) | 42.8 mm (1.68 inches) | 35.84 mm (1.41 inches) With bezel, 22 mm (0.86 inches) Without bezel | 751.47 mm (29.6 inches) Ear to rear wall | 787.04 mm (30.99 inches) Ear to PSU handle |

ⓘ **NOTE:** Zb is the nominal rear wall external surface where the system board I/O connectors reside.

# System weight

**Table 12. XC Core XC660 system weight**

| System configuration | Maximum weight (with all drives/SSDs) |
|---|---|
| A server with fully populated drives | 22.51 kg (49.62 lbs) |

# Processor specifications

**Table 13. XC Core XC660 processor specifications**

| Supported processor | Number of processors supported |
|---|---|
| 4th Generation Intel Xeon Scalable processors | Up to two |

# PSU specifications

The XC Core XC660 system supports up to two AC or DC power supply units (PSUs).

**Table 14. PSU specifications**

| PSU | Class | Heat dissipation (maximum) (BTU/hr) | Frequency (Hz) | Voltage | AC | | DC | Current (A) |
|---|---|---|---|---|---|---|---|---|
| | | | | | High line 200–240 V | Low line 100–120 V | | |
| 700 W mixed mode | Titanium | 2625 | 50/60 | 200 - 240 V, AC | 700 W | N/A | N/A | 4.1 |
| | | 2625 | | 240 V, DC | N/A | N/A | 700 W | 3.4 |
| 800 W mixed mode | Platinum | 3000 | 50/60 | 100 - 240 V, AC | 800 W | 800 W | N/A | 9.2 - 4.7 |
| | | 3000 | | 240 V, DC | N/A | N/A | 800 W | 3.8 |
| 1100 W mixed mode | Titanium | 4100 | 50/60 | 100 - 240 V, AC | 1100 W | 1050 W | N/A | 12 - 6.3 |
| | | 4100 | | 240 V, DC | N/A | N/A | 1100 W | 5.2 |
| 1400 W mixed mode | Platinum | 5250 | 50/60 | 100 - 240 V, AC | 1400 W | 1050 W | N/A | 12 - 8 |
| | | 5250 | | 240 V, DC | N/A | N/A | 1400 W | 6.6 |
| 1800 W mixed mode | Titanium | 6750 | 50/60 | 200 - 240 V, AC | 1800 W | N/A | N/A | 10 |
| | | 6750 | | 240 V, DC | N/A | N/A | 1800 W | 8.2 |
| 1100 W DC | N/A | 4265 | 50/60 | -48 - -60 V, DC | N/A | N/A | 1100 W | 27 |

(i) **NOTE:** Heat dissipation is calculated using the PSU wattage rating.

(i) **NOTE:** When selecting or upgrading the system configuration, to ensure optimum power utilization, verify the system power consumption with the Enterprise Infrastructure Planning Tool available at Dell.com/calc.

(i) **NOTE:** If a system with AC 1400 W or 1100 W PSUs operates at low line 100-120 Vac, then the power rating per PSU is degraded to 1050 W.

**Figure 2. PSU power cords**

**Table 15. PSU power cords**

| Form factor | Output | Power cord |
|---|---|---|
| Redundant 60 mm | 700 W AC | C13 |
| | 800 W AC | C13 |
| | 1100 W AC | C13 |
| | 1100 W -48 LVDC | C13 |
| | 1400 W AC | C13 |
| | 1800 W AC | C15 |

ⓘ **NOTE:** C13 power cord combined with C14 to C15 jumper power cord can be used to adapt 1800 W PSU.

# Cooling fan specifications

The XC Core XC660 system supports up to four sets of standard (STD) cooling fans or four sets of High performance gold (HPR GOLD) cooling fans.

**Table 16. Cooling fan specifications**

| Fan type | Abbreviation | Label color | Label image |
|---|---|---|---|
| Standard fans | STD | No label |  |

**Table 16. Cooling fan specifications (continued)**

| Fan type | Abbreviation | Label color | Label image |
|---|---|---|---|
| High performance Gold fans | HPR Gold | Gold | |

# Supported operating systems

The XC Core XC660 system supports the following operating systems:

- VMware ESXi
- Nutanix AHV

For more information, go to Dell | Server Operating System Support.

# System battery specifications

The XC Core XC660 system uses one CR 2032 3.0-V lithium coin cell battery.

# Expansion card riser specifications

The XC Core XC660 system supports up to three PCI express (PCIe), (six full length and 10 low profile) slots on the system board.

**Table 17. Expansion card slots supported on the system board**

| - | With Regular shroud | R1P | R2P | R3P |
|---|---|---|---|---|
| Slot 1 | Full height, 3/4 Length, Half Length | x16 (Gen5) | - | - |
| Slot 1 | Low profile, Half Length | - | x16 (Gen5) | - |
| Slot 2 | Low profile, Half Length | - | x16 (Gen4) | - |
| Slot 2 | Full height, 3/4 Length, Half Length | - | - | - |
| Slot 3 | Low profile, Half Length | - | - | x16 (Gen5) |

# Memory specifications

The XC Core XC660 system supports the following memory specifications for optimized operation.

**Table 18. Memory specifications**

| DIMM type | DIMM rank | DIMM capacity | Single processor | | Dual processors | |
|---|---|---|---|---|---|---|
| | | | Minimum system capacity | Maximum system capacity | Minimum system capacity | Maximum system capacity |
| RDIMM - | Single rank | 16 GB | 16 GB | 256 GB | 32 GB | 512 GB |
| | Dual rank | 32 GB | 32 GB | 512 GB | 64 GB | 1 TB |
| | Dual rank | 64 GB | 64 GB | 1 TB | 128 GB | 2 TB |
| | Quad rank | 128 GB | 128 GB | 2 TB | 256 GB | 4 TB |
| | Octa rank | 256 GB | 256 GB | 4 TB | 512 GB | 8 TB |
| Intel Persistent Memory 300 series (CPS) | N/A | 128 GB | 128 GB | 1 TB | 256 GB | 2 TB |
| | N/A | 256 GB | 256 GB | 2 TB | 512 GB | 4 TB |
| | N/A | 512 GB B | 512 G | 4 TB | 1 TB | 8 TB |

**Table 19. Memory module sockets**

| Memory module sockets | Speed |
|---|---|
| 32, 288-pin | 4800 MT/s |
| 32, 288-pin | 5600 MT/s |

ⓘ **NOTE:** Memory DIMM slots are not hot pluggable.

ⓘ **NOTE:** The processor may reduce the performance of the rated DIMM speed.

# Storage controller specifications

The XC Core XC660 system supports the following controller cards:

**Table 20. Storage controller cards**

| Supported storage controller cards |
|---|
| Internal Boot<br>● Boot Optimized Storage Subsystem (BOSS N1) |
| SAS Host Bus Adapters (HBA)<br>● HBA355i |

# Drives

The XC Core XC660 system supports:
- 10 x 2.5-inch, hot-swappable SAS, SATA
- 10x2.5-inch, hot swappable NVMe plus 2x2.5-inch in the rear bay

For more information about how to hot swap an NVMe PCIe SSD U.2 device, see the *Dell Express Flash NVMe PCIe SSD User's Guide* at Dell Support (**Browse all Products** > **Infrastructure** > **Data Center Infrastructure** > **Storage Adapters & Controllers** > **Dell PowerEdge Express Flash NVMe PCIe SSD** > **Select this product** > **Documentation** > **Manuals and Documents**).

# Ports and connectors specifications

## NIC port specifications

The XC Core XC660 system supports up to two Netwodk Interface Controller (NIC) ports embedded on the LAN on Motherboard (LOM) card and up to four ports integrated on the Open Compute Project (OCP) card.

**Table 21. NIC port specification for the system**

| Feature | Specifications |
|---------|----------------|
| LOM card (optional) | 1 GbE x 2 |
| OCP card (OCP 3.0) (optional) | 10 GbE x 2, 10 GbE x 4, 25 GbE x 2, 25 GbE x 4 |

ⓘ **NOTE:** The system allows either LOM card or an OCP card or both to be installed in the system.

## Serial connector specifications

The XC Core XC660 system supports one optional card type serial connector, which is a 9-pin connector, Data Terminal Equipment (DTE), 16550-compliant .

The optional serial connector card is installed similar to an expansion card filler bracket.

## USB ports specifications

**Table 22. XC Core XC660 USB specifications**

| Front | | Rear | | Internal (Optional) | |
|-------|--|------|--|---------------------|--|
| USB port type | No. of ports | USB port type | No. of ports | USB port type | No. of ports |
| USB 2.0-compliant port | One | USB 2.0-compliant port | One | Internal USB 3.0-compliant port | One |
| iDRAC Direct port (Micro-AB USB 2.0-compliant port) | One | USB 3.0-compliant port | One | | |

ⓘ **NOTE:** The micro USB 2.0 compliant port can only be used as an iDRAC Direct or a management port.

## VGA ports specifications

The XC Core XC660 system supports DB-15 VGA port on front panel and on rear I/O board.

# Video specifications

The XC Core XC660 system supports integrated Matrox G200 graphics controller with 16 MB of video frame buffer.

**Table 23. Supported video resolution options**

| Resolution | Refresh rate (Hz) | Color depth (bits) |
|------------|-------------------|---------------------|
| 1024 x 768 | 60 | 8, 16, 32 |
| 1152 x 864 | 60 | 8, 16, 32 |
| 1280 x 800 | 60 | 8, 16, 32 |

**Table 23. Supported video resolution options  (continued)**

| Resolution | Refresh rate (Hz) | Color depth (bits) |
|---|---|---|
| 1280 x 1024 | 60 | 8, 16, 32 |
| 1360 x 768 | 60 | 8, 16, 32 |
| 1400 x 1050 | 60 | 8, 16, 32 |
| 1440 x 900 | 60 | 8, 16, 32 |
| 1600 x 1200 | 60 | 8, 16, 32 |
| 1680 x 1050 | 60 | 8, 16, 32 |
| 1920 x 1080 | 60 | 8, 16, 32 |
| 1920 x 1200 | 60 | 8, 16, 32 |

# Environmental specifications

ⓘ **NOTE:** For additional information about environmental certifications, see the product environmental datasheet that is located with the **Manuals & Documents** on Dell Support.

**Table 24. Maximum vibration specifications**

| Maximum vibration | Specifications |
|---|---|
| Operating | 0.21 $G_{rms}$ at 5 Hz to 500 Hz (all operation orientations) |
| Storage | 1.88 $G_{rms}$ at 10 Hz to 500 Hz for 15 minutes (all six sides tested) |

**Table 25. Maximum shock pulse specifications**

| Maximum shock pulse | Specifications |
|---|---|
| Operating | Six consecutively executed shock pulses in the positive and negative x, y, and z axis of 6 G for up to 11 ms. |
| Storage | Six consecutively executed shock pulses in the positive and negative x, y, and z axis (one pulse on each side of the system) of 71 G for up to 2 ms. |

# Thermal restriction matrix

**Table 26. Processor and heat sink matrix**

| Heat sink | Processor TDP |
|---|---|
| STD HSK | ≤ 185 W |
| L-type HSK | > 185 W |

**Table 27. Label reference**

| Label | Description |
|---|---|
| STD | Standard |
| HPR (Gold) | High performance (gold grade) |
| HSK | Heat sink |
| LP | Low profile |
| FH | Full height |

**Table 28. Thermal restriction matrix for air cooled configuration**

| Configuration | | XC660-10<br><br>10x 2.5-inch SAS/SATA | XC660-12N<br><br>10 x 2.5-inch NVMe | Ambient temperature |
|---|---|---|---|---|
| Rear storage | | N/A | 2 x 2.5-inch | |
| CPU TDP/cTDP | T-Case max center (°C) | Fan | | |
| 125 W | 79 (174.2°F) | HPR Gold Fan | HPR Gold fan | 35°C (95°F) |
| 150 W | 78 (172.4°F)/79 (174.2°F) | HPR Gold Fan | HPR Gold fan | 35°C (95°F) |
| 165 W | 82 (179.6°F)/84 (183.2°F) | HPR Gold Fan | HPR Gold fan | 35°C (95°F) |
| 185 W | 80 (176°F)/81 (177.8°F)/85 (185°F) | HPR Gold Fan | HPR Gold fan | 35°C (95°F) |
| 195 W | 64 (147.2°F) | HPR Gold fan | HPR Gold fan | 35°C (95°F) |
| 205 W | 76 (168.8°F)/84 (183.2°F)/85 (185°F) | HPR Gold fan | HPR Gold fan | 35°C (95°F) |
| 225 W | 79 (174.2°F) | HPR Gold fan | HPR Gold fan | 35°C (95°F) |
| 250 W | 76 (172.4°F) | HPR Gold fan | HPR Gold fan | 35°C (95°F) |
| 270 W | 75 (167°F) | HPR Gold fan | HPR Gold fan* | 35°C (95°F) |
| 270 W | 71 (159.8°F) | HPR Gold fan | HPR Gold fan* | 35°C (95°F) |
| 300 W | 81 (177.8°F) | Required DLC | Required DLC | 35°C (95°F) |
| 300 W | 76 (172.4°F) | Required DLC | Required DLC | 35°C (95°F) |
| 300 W | 77 (170.6°F) | Required DLC | Required DLC | 35°C (95°F) |
| 300 W | 75 (172.4°F) | Required DLC | Required DLC | 35°C (95°F) |
| 300 W | 76 (172.4°F) | Required DLC | Required DLC | 35°C (95°F) |
| 330 W | 77 (170.6°F) | Required DLC | Required DLC | 35°C (95°F) |
| 350 W | 79 (174.2°F) | Required DLC | Required DLC | 35°C (95°F) |
| 350 W | 78 (172.4°F) | Required DLC | Required DLC | 35°C (95°F) |

ⓘ **NOTE:**
- *Supported ambient temperature is 30°C (86°F) .
- Required DLC requires <30°C (86°F)

**Table 29. Thermal restriction for memory**

| Configuration | XC660-10<br><br>10x 2.5-inch SAS/SATA | XC660-12N<br><br>10 x 2.5-inch NVMe |
|---|---|---|
| Rear storage | N/A | 2 x 2.5-inch |
| 256 GB RDIMM | 30°C (86°F)<br>ⓘ **NOTE:** 30°C (86°F) for CPU>225W (CPU<=225W could support 35°C (95°F) ) | 30°C (86°F)<br>ⓘ **NOTE:** 30°C (86°F) for CPU>225W (CPU<=225W could support 35°C (95°F) ) |

**NOTE:**
- Install all fan modules for single CPU configuration.
- All air-cooling configurations require a CPU shroud.
- Install PCH shroud for no riser configuration.
- Install Rear drive shroud for air-cooling with 2x 2.5-inch rear drive configuration.
- Install A2 blank on R1p riser for FH riser configuration with A2 GPU.
- Install DIMM blanks in all empty DIMM slots for STD CPU heat sink or CPU TDP >=250W.

# Thermal air restrictions

## ASHRAE A2 environment

- CPU > 300W are not supported in 10 x 2.5 inch storage configuration.
- CPU > 270W are not supported in 10 x 2.5 inch storage with rear drive configuration.
- CPS memory are not supported.
- Maximum 30°C (86°F) for CPU > 270 W in10 x 2.5 inch storage configuration..
- Maximum 30°C (86°F) for CPU > 250 W with rear drive in 10 x 2.5 inch storage configuration.
- Maximum 30°C (86°F) for CPU > 250 W with 256G RDIMM in 10 x 2.5 inch storage configuration.
- Maximum 30°C (86°F) for CPU > 225 W with 256G RDIMM in 10 x 2.5 rear drive configuration.
- CPU > 350W are not supported in no BP chassis storage configuration.
- Maximum 30°C (86°F) for CPU > 300W in no BP chassis storage configuration.
- CPU > 350W are not supported in 8 x 2.5 inch storage configuration.
- Maximum 30°C (86°F) for CPU > 300 W in 8 x 2.5 inch storage configuration.

# Technical specifications for XC760

The technical and environmental specifications of your system are outlined in this section.

## Chassis dimensions
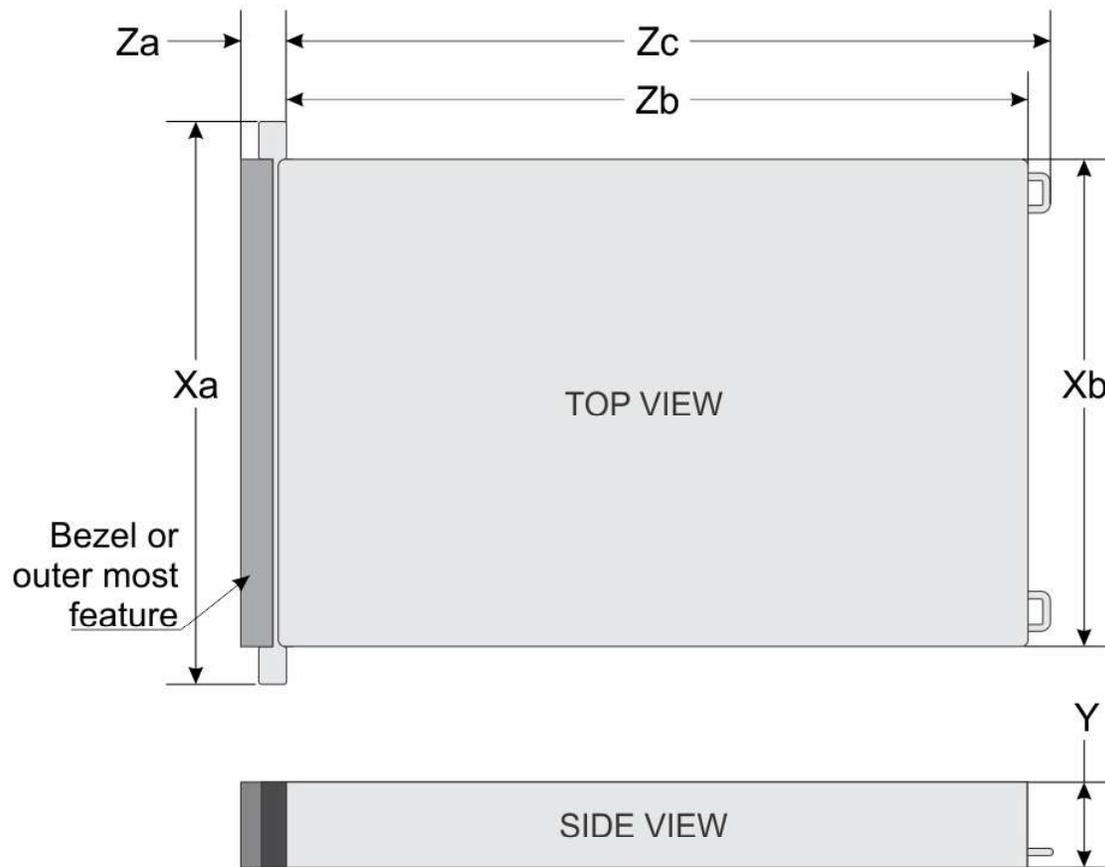


**Figure 3. Chassis dimensions**

**Table 30. XC Core XC760 chassis dimensions**

| Drives | Xa | Xb | Y | Za | Zb | Zc |
|---|---|---|---|---|---|---|
| 8 drives | 482.0 mm (18.97 inches) | 434.0 mm (17.08 inches) | 42.8 mm (1.68 inches) | 35.84 mm (1.41 inches) With bezel<br><br>22 mm (0.86 inches) Without bezel | 751.47 mm (29.6 inches) Ear to rear wall | 787.04 mm (30.99 inches) Ear to PSU handle |

**Table 31. XC Core XC760 chassis dimensions**

| Xa | Xb | Y | Za | Zb | Zc |
|---|---|---|---|---|---|
| 482.0 mm (18.97 inches) | 434.0 mm (17.08 inches) | 42.8 mm (1.68 inches) | 35.84 mm (1.41 inches) With bezel<br><br>22 mm (0.86 inches) Without bezel | 751.47 mm (29.6 inches) Ear to rear wall | 787.04 mm (30.99 inches) Ear to PSU handle |

ⓘ **NOTE:** Zb is the nominal rear wall external surface where the system board I/O connectors reside.

# System weight

**Table 32. XC Core XC760 system weight**

| System configuration | Maximum weight (with all drives/SSDs) |
|---|---|
| A server with fully populated drives | 36.1 kg (79.58 pound |
| A server without drives and PSU installed | 22.95 kg (50.59 lbs) |

# Processor specifications

**Table 33. XC Core XC760 processor specifications**

| Supported processor | Number of processors supported |
|---|---|
| 4th Generation Intel Xeon Scalable processors | Up to two |

# PSU specifications

XC Core XC760 supports up to two AC or DC power supply units (PSUs).

**Table 34. PSU specifications**

| PSU | Class | Heat dissipation (maximum) (BTU/hr) | Frequency (Hz) | Voltage | AC | | DC | Current (A) |
|---|---|---|---|---|---|---|---|---|
| | | | | | High line wattage (200—240 V AC) | Low line wattage (100—120 V AC) | | |
| 700 W mixed mode | Titanium | 2625 | 50/60 | 200—240 V AC | 700 W | N/A | N/A | 4.1 |
| | N/A | 2625 | N/A | 240 V DC | N/A | N/A | 700 W | 3.4 |
| 800 W mixed mode | Platinum | 3000 | 50/60 | 100—240 V AC | 800 W | 800 W | N/A | 9.2—4.7 |
| | N/A | 3000 | N/A | 240 V DC | N/A | N/A | 800 W | 3.8 |
| 1100 W mixed mode | Titanium | 4100 | 50/60 | 100—240 V AC | 1100 W | 1050 W | N/A | 12—6.3 |
| | N/A | 4100 | N/A | 240 V DC | N/A | N/A | 1100 W | 5.2 |
| 1400 W mixed mode | Platinum | 5250 | 50/60 | 100—240 V AC | 1400 W | 1050 W | N/A | 12—8 |
| | N/A | 5250 | N/A | 240 V DC | N/A | N/A | 1400 W | 6.6 |

**Table 34. PSU specifications  (continued)**

| PSU | Class | Heat dissipation (maximum) (BTU/hr) | Frequency (Hz) | Voltage | AC | | DC | Current (A) |
|-----|-------|-------------------------------------|----------------|---------|-----|-----|-----|-------------|
| | | | | | High line wattage (200—240 V AC) | Low line wattage (100—120 V AC) | | |
| 1800 W mixed mode | Titanium | 6750 | 50/60 | 200—240 V AC | 1800 | N/A | N/A | 10 |
| | N/A | 6750 | N/A | 240 V DC | N/A | N/A | 1800 W | 8.2 |
| 2400 W mixed mode | Platinum | 9000 | 50/60 | 100—240 V AC | 2400 W | 1400 W | N/A | 16—13.5 |
| | N/A | 9000 | N/A | 240 V DC | N/A | N/A | 2400 W | 11.2 |
| 2800 W mixed mode | Titanium | 10500 | 50/60 | 200—240 V AC | 2800 W | N/A | N/A | 15.6 |
| | N/A | 10500 | N/A | 240 V DC | N/A | N/A | 2800 W | 13.6 |
| 1100 W LVDC | N/A | 4265 | N/A | -48— -60 V DC | N/A | N/A | 1100 W | 27 |

(i) **NOTE:** Heat dissipation is calculated using the PSU wattage rating.

(i) **NOTE:** When selecting or upgrading the system configuration, to ensure optimum power utilization, verify the system power consumption with the Enterprise Infrastructure Planning Tool available at Dell.com/calc.

(i) **NOTE:** If a system with AC 2400 W PSUs operates at low line 100-120 Vac, then the power rating per PSU is degraded to 1400 W.

(i) **NOTE:** If a system with AC 1400 W or 1100 W PSUs operates at low line 100-120 Vac, then the power rating per PSU is degraded to 1050 W.



**Figure 4. PSU power cords**

**Table 35. PSU power cords**

| Form factor | Output | Power cord |
|-------------|--------|------------|
| Redundant 60 mm | 700 W AC | C13 |
| | 800 W AC | C13 |
| | 1100 W AC | C13 |
| | 1400 W AC | C13 |
| | 1800 W AC | C15 |
| Redundant 86 mm | 2400 W AC | C19 |
| | 2800 W AC | C21 |

(i) **NOTE:** C19 power cord combined with C20 to C21 jumper power cord can be used to adapt 2800 W PSU.

(i) **NOTE:** C13 power cord combined with C14 to C15 jumper power cord can be used to adapt 1800 W PSU.

# Supported operating systems

XC Core XC760 supports the following operating systems:
- VMware ESXi
- Nutanix AHV

For more information, go to Dell | Server Operating System Support.

# Cooling fan specifications

## Cooling

The XC Core XC760 requires various cooling components that are based on processor TDP, storage modules, rear drives, and GPU to maintain optimum thermal performance.

The XC Core XC760 offers air cooling.

## Cooling fan specifications

The XC Core XC760 system supports up to six standard (STD), High performance Silver (HPR Silver) grade , or High performance Gold (HPR Gold) grade cooling fans.

**Table 36. Cooling fan specifications**

| Fan type | Abbreviation | Label color | Label image |
|----------|--------------|-------------|-------------|
| Standard fans | STD | No label | |
| High performance Gold fans | HPR Silver | Gold | |

**Table 36. Cooling fan specifications (continued)**

| Fan type | Abbreviation | Label color | Label image |
|---|---|---|---|
| High performance Gold (HPR Gold) fans | HPR Gold | Gold |  |

ⓘ **NOTE:** See the Thermal restriction matrix for required fan support with air cooled and DLC configurations.

# System battery specifications

The XC Core XC760 uses one CR 2032 3.0-V lithium coin cell battery.

# Expansion card riser specifications

The XC Core XC760 supports up to eight PCI express (PCIe) slots (six full lengths and two low profiles) on the system board.

**Table 37. Expansion card slots supported on the system board**

| PCIe slot | With Regular shroud | With GPGPU shroud | R1B | R1P | R1Q | R1R | R2A | R3A | R3B | R4B | R4P | R4Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Slot 1 | Full height - Half length | Full height - Full length | x8 | - | x8 (Gen5) | x16 | - | - | - | - | - | - |
| Slot 2 | Full height - Half length | Full height - Full length | x8 | x16 (Gen 5) (Double width GPU) | x8 (Gen5) | x16 (Gen5 ) | - | - | - | - | - | - |
| Slot 3 | Low profile - Half length | Low profile - Half length | - | - | - | - | x16 | - | - | - | - | - |
| Slot 4 | Full height - Half length | Full height - Half length | - | - | - | - | - | - | x8 | - | - | - |
| Slot 5 | Full height - Half length | Full height - Full length | - | - | - | - | - | x16 | x8 | - | - | - |
| Slot 6 | Low profile - | Low profile - | - | - | - | - | x16 | - | - | - | - | - |

Table 37. Expansion card slots supported on the system board (continued)

| PCIe slot | With Regular shroud | With GPGPU shroud | R1B | R1P | R1Q | R1R | R2A | R3A | R3B | R4B | R4P | R4Q |
|-----------|---------------------|-------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|  | Half length | Half length |  |  |  |  |  |  |  |  |  |  |
| Slot 7 | Full height - Half length | Full height - Full length | - | - | - | - | - | - | - | x8 | x16 (Gen5) (Double width GPU) | x8 (Gen5) |
| Slot 7 SNAPI | Full height- Half length | Full height - Full length | - | - | - | - | - | - | - | - | - | - |
| Slot 8 | Full height - Half length | Full height - Half length | - | - | - | - | - | - | - | x8 | - | x8 (Gen5) |

# Memory specifications

The XC Core XC760 supports the following memory specifications for optimized operation.

**Table 38. Memory specifications**

| DIMM type | DIMM rank | DIMM capacity | Dual processors | |
|-----------|-----------|---------------|-----------------|---|
|  |  |  | Minimum system capacity | Maximum system capacity |
| DDR5 RDIMM | Single rank | 16 GB | 32 GB | 512 GB |
|  | Dual rank | 32 GB | 64 GB | 1 TB |
|  | Dual rank | 64 GB | 128 GB | 2 TB |
|  | Quad rank | 128 GB | 256 GB | 4 TB |

ⓘ **NOTE:** DDR4 memories are not supported in the XC760.

**Table 39. Memory module sockets**

| Memory module sockets | Speed |
|-----------------------|-------|
| 32, 288-pin | 4800 MT/s |

ⓘ **NOTE:** The processor may reduce the performance of the rated DIMM speed.

ⓘ **NOTE:** Memory DIMM slots are not hot pluggable.

# Storage controller specifications

The XC Core XC760 supports the following controller cards:

**Table 40. Storage controller cards**

| Supported storage controller cards |
|------------------------------------|
| Internal Boot |

**Table 40. Storage controller cards  (continued)**

| Supported storage controller cards |
| --- |
| ● Boot Optimized Storage Subsystem (BOSS N1): HWRAID 2 x M.2 NVMe SSDs |
| SAS Host Bus Adapters (HBA)<br>●<br>● HBA355i |

# Drives

The XC Core XC760 supports:

- 24 x 2.5-inch hot-swappable SAS or SATA
- 12x3.5-inch hot-swappable SAS or SATA Plus 2 x 2.5-inch rear hot-swappable SAS, SATA
- 24 x 2.5-inch hot-swappable w/ NVMe

# Ports and connectors specifications

## USB ports specifications

**Table 41. XC Core XC760 USB specifications**

| Front | | Rear | | Internal (optional) | |
| --- | --- | --- | --- | --- | --- |
| **USB port type** | **No. of ports** | **USB port type** | **No. of ports** | **USB port type** | **No. of ports** |
| USB 2.0-compliant port | One | USB 2.0-compliant port | One | Internal USB 3.0-compliant port | One |
| iDRAC Direct port (Micro-AB USB 2.0-compliant port | One | USB 3.0-compliant port | One | | |

ⓘ **NOTE:** The micro USB 2.0 compliant port can only be used as an iDRAC Direct or a management port.

## NIC port specifications

The XC Core XC760 supports up to two Network Interface Controller (NIC) ports embedded on the LAN on Motherboard (LOM) card and up to four ports integrated on the Open Compute Project (OCP) card.

**Table 42. NIC port specification for the system**

| Feature | Specifications |
| --- | --- |
| LOM card (optional) | 1 GbE x 2 |
| OCP card (OCP 3.0) (optional) | 10 GbE x 2, 10 GbE x 4, 25 GbE x 2, 25 GbE x 4 |

ⓘ **NOTE:** The system allows either LOM card or an OCP card or both to be installed in the system.

ⓘ **NOTE:** On the system board, the supported OCP PCIe width is x8; when x16 PCIe width is installed, it is downgraded to x8.

## Serial connector specifications

The XC Core XC760 supports one optional card type serial connector, which is a 9-pin connector, Data Terminal Equipment (DTE), 16550-compliant .

The optional serial connector card is installed similar to an expansion card filler bracket.

## VGA ports specifications

The XC Core XC760 supports DB-15 VGA port on front panel and on rear I/O board.

# Video specifications

The XC Core XC760 supports integrated Matrox G200 graphics controller with 16 MB of video frame buffer.

**Table 43. Supported video resolution options**

| Resolution | Refresh rate (Hz) | Color depth (bits) |
|---|---|---|
| 1024 x 768 | 60 | 8, 16, 32 |
| 1280 x 800 | 60 | 8, 16, 32 |
| 1280 x 1024 | 60 | 8, 16, 32 |
| 1360 x 768 | 60 | 8, 16, 32 |
| 1440 x 900 | 60 | 8, 16, 32 |
| 1600 x 900 | 60 | 8, 16, 32 |
| 1600 x 1200 | 60 | 8, 16, 32 |
| 1680 x 1050 | 60 | 8, 16, 32 |
| 1920 x 1080 | 60 | 8, 16, 32 |
| 1920 x 1200 | 60 | 8, 16, 32 |

# Environmental specifications

(i) **NOTE:** For additional information about environmental certifications, see the product environmental datasheet that is located with the **Manuals & Documents** on Dell Support.

**Table 44. Continuous Operation Specifications for ASHRAE A2**

| Temperature | Specifications |
|---|---|
| Allowable continuous operations | |
| Temperature range for altitudes <= 900 m (<= 2953 ft) | 10–35°C (50–95°F) with no direct sunlight on the equipment |
| Humidity percent range (non-condensing at all times) | 8% RH with -12°C (10.4°F) minimum dew point to 80% RH with 21°C (69.8°F) maximum dew point |
| Operational altitude de-rating | Maximum temperature is reduced by 1°C/300 m (1.8°F/984 Ft) above 900 m (2953 Ft) |

**Table 45. Maximum vibration specifications**

| Maximum vibration | Specifications |
|---|---|
| Operating | 0.21 $G_{rms}$ at 5 Hz to 500 Hz for 10 minutes (all operation orientations) |
| Storage | 1.88 $G_{rms}$ at 10 Hz to 500 Hz for 15 minutes (all six sides tested) |

**Table 46. Maximum shock pulse specifications**

| Maximum shock pulse | Specifications |
|---|---|
| Operating | Six consecutively executed shock pulses in the positive and negative x, y, and z axis of 6 G for up to 11 ms |
| Storage | Six consecutively executed shock pulses in the positive and negative x, y, and z axis (one pulse on each side of the system) of 71 G for up to 2 ms |

# Particulate and gaseous contamination specifications

The following table defines the limitations that help avoid any equipment damage or failure from particulates and gaseous contamination. If the levels of particulates or gaseous pollution exceed the specified limitations and result in equipment damage or failure, you may need to rectify the environmental conditions. Remediation of environmental conditions is the responsibility of the customer.

**Table 47. Particulate contamination specifications**

| Particulate contamination | Specifications |
|---|---|
| Air filtration | Data center air filtration as defined by ISO Class 8 per ISO 14644-1 with a 95% upper confidence limit<br>ⓘ **NOTE:** This condition applies to data center environments only. Air filtration requirements do not apply to IT equipment designed to be used outside a data center, in environments such as an office or factory floor.<br>ⓘ **NOTE:** Air entering the data center must have MERV11 or MERV13 filtration. |
| Conductive dust | Air must be free of conductive dust, zinc whiskers, or other conductive particles<br>ⓘ **NOTE:** This condition applies to data center and non-data center environments. |
| Corrosive dust | ● Air must be free of corrosive dust<br>● Residual dust present in the air must have a deliquescent point less than 60% relative humidity<br>ⓘ **NOTE:** This condition applies to data center and non-data center environments. |
| Walk-Up Edge Data Center or Cabinet (sealed, closed loop environment) | Filtration is not required for cabinets that are anticipated to be opened 6 times or less per year. Class 8 per ISO 1466-1 filtration as defined above is required otherwise<br>ⓘ **NOTE:** In environments commonly above ISA-71 Class G1 or that may have known challenges, special filters may be required. |

**Table 48. Gaseous contamination specifications**

| Gaseous contamination | Specifications |
|---|---|
| Copper coupon corrosion rate | <300 Å/month per Class G1 as defined by ANSI/ISA71.04-2013 |
| Silver coupon corrosion rate | <200 Å/month as defined by ANSI/ISA71.04-2013 |

# Thermal restriction matrix

**Table 49. Processor and heat sink matrix**

| Heat sink | Processor TDP |
|---|---|
| STD HSK | ≤ 165 W (supports only 2.5-inch drives and non-GPU configuration) |
| 2U HPR HSK | 125 W–250 W (supports 3.5-inch drives and non-GPU configuration) |
| | 165 W–350 W (supports 2.5-inch drives and non-GPU configuration) |
| L-type HSK | Supports all GPU/FPGA configurations |

ⓘ **NOTE:** All GPU/FGPA cards require 1U L-type HSK and GPU shroud.

**Table 50. Label reference**

| Label | Description |
|---|---|
| STD | Standard |
| HPR (Silver) | High performance Silver (HPR Silver) fan |
| HPR (Gold) | High performance Gold (HPR Gold) fan |
| HSK | Heat sink |
| LP | Low profile |
| FH | Full height |

ⓘ **NOTE:** The ambient temperature of the configuration is determined by the critical component in that configuration. For example, if the processor's supported ambient temperature is 35ºC (95ºF), the DIMM is 35ºC (95ºF), and the GPU is 30ºC (86ºF), the combined configuration can only support 30ºC (86ºF).

**Table 51. Thermal restriction matrix for air cooled configuration**

| Configuration | | 16 x 2.5-inch SAS + 8 x 2.5-inch | 24 x 2.5-inch NVMe | 12 x 3.5-inch | Ambient temperature |
|---|---|---|---|---|---|
| Rear storage | | No rear drives | No rear drives | 2.5-inch rear drives with rear fan | |
| CPU TDP/cTDP | T-Case max center (ºC) | | | HPR GOLD fan 70%^ | |
| 125 W | 79 | STD fan | HPR GOLD fan | HPR GOLD fan | 35ºC (95ºF) |
| 150 W | 72/78/79 | STD fan | HPR GOLD fan | HPR GOLD fan | 35ºC (95ºF) |
| 165 W | 82/84 | STD fan | HPR GOLD fan | HPR GOLD fan | 35ºC (95ºF) |
| 185 W | 80/81/85 | HPR SLVR fan | HPR GOLD fan | HPR GOLD fan | 35ºC (95ºF) |
| 195 W | 96 | HPR SLVR fan | HPR GOLD fan | HPR GOLD fan | 35ºC (95ºF) |
| 205 W | 76/84/85 | HPR SLVR fan | HPR GOLD fan | HPR GOLD fan | 35ºC (95ºF) |
| 225 W | 79 | HPR SLVR fan | HPR GOLD fan | HPR GOLD fan* | 35ºC (95ºF) |
| 250 W | 76 | HPR SLVR fan | HPR GOLD fan | HPR GOLD fan | 35ºC (95ºF) |
| 270 W | 71/75 | HPR SLVR fan | HPR GOLD fan | NA | 35ºC (95ºF) |
| 300 W | 75/76/81 | HPR SLVR fan | HPR GOLD fan | NA | 35ºC (95ºF) |

**Table 51. Thermal restriction matrix for air cooled configuration (continued)**

| Configuration | | 16 x 2.5-inch SAS + 8 x 2.5-inch | 24 x 2.5-inch NVMe | 12 x 3.5-inch | Ambient temperature |
|---|---|---|---|---|---|
| Rear storage | | No rear drives | No rear drives | 2.5-inch rear drives with rear fan | |
| CPU TDP/cTDP | T-Case max center (°C) | | | HPR GOLD fan 70%^ | |
| 350 W | 79 | HPR SLVR fan | HPR GOLD fan* | NA | 35°C (95°F) |
| 350 W | 57/66 | Required DLC | Required DLC | NA | 35°C (95°F) |

(i) **NOTE:** ^The fan speed in the 3.5-inch chassis is limited to 70% due to the drive dynamic profile.

(i) **NOTE:** *Supported ambient temperature is 30°C (86°F).

**Table 52. Thermal restriction matrix for memory with air cooled configuration (non-GPU)**

| Configuration | | 16 x 2.5-inch SAS + 8 x 2.5-inch | 24 x 2.5-inch NVMe | 12 x 3.5-inch |
|---|---|---|---|---|
| Rear storage | | No rear drives | No rear drives | 2.5-inch rear drives with rear fan |
| DIMM Configuration | 2DPC/Power | STD fan (CPU TDP <= 165 W) | HPR GOLD fan (CPU TDP up to 350 W) | HPR GOLD fan 70% (CPU TDP up to 250 W)^ |
| 128 GB RDIMM | 8.9 W | 30°C (86°F) | 35°C (95°F) | 30°C (86°F) |
| 64 GB RDIMM | 6.9 W | 35°C (95°F) | 35°C (95°F) | 30°C (86°F) |
| 32 GB RDIMM | 4.1 W | 35°C (95°F) | 35°C (95°F) | 35°C (95°F) |
| 16 GB RDIMM | 3 W | 35°C (95°F) | 35°C (95°F) | 35°C (95°F) |
| DIMM Configuration | 2DPC/Power | NA | HPR GOLD fan (CPU TDP up to 350 W) | HPR GOLD fan 70% (CPU TDP up to 250 W) |
| 128 GB RDIMM | 8.9 W | 35°C (95°F) | 35°C (95°F) | 30°C (86°F) |
| 64 GB RDIMM | 6.9 W | 35°C (95°F) | 35°C (95°F) | 30°C (86°F) |
| 32 GB RDIMM | 4.1 W | 35°C (95°F) | 35°C (95°F) | 35°C (95°F) |
| 16 GB RDIMM | 3 W | 35°C (95°F) | 35°C (95°F) | 35°C (95°F) |

(i) **NOTE:** In 12 x 3.5-inch with rear module configuration, for CPU TDP greater than 270 W and specific Low Temperature-case CPUs are not supported.

(i) **NOTE:** ^The fan speed in the 3.5-inch chassis is limited to 70% due to the drive dynamic profile.

**Table 53. GPU type support thermal restriction for Air cooling**

| Configuration | 16 x 2.5-inch SAS + 8 x 2.5-inch | 24 x 2.5-inch NVMe |
|---|---|---|
| Rear storage | No rear drives | No rear drives |
| GPU | HPR GOLD fan with 1U HPR L-Type HSK | HPR GOLD fan with 1U HPR L-Type HSK |
| A40 (Max 2) | 30°C (86°F) | 30°C (86°F) |
| A100 80 GB (Max 2) | 35°C (95°F) | 35°C (95°F) |
| A16 (Max 2) | 35°C (95°F) | 35°C (95°F) |
| A30 (Max 2) | 35°C (95°F) | 35°C (95°F) |

**Table 53. GPU type support thermal restriction for Air cooling  (continued)**

| Configuration | 16 x 2.5-inch SAS + 8 x 2.5-inch | 24 x 2.5-inch NVMe |
|---|---|---|
| Rear storage | No rear drives | No rear drives |
| GPU | HPR GOLD fan with 1U HPR L-Type HSK | HPR GOLD fan with 1U HPR L-Type HSK |
| A2 (Max 6) | 35°C (95°F) | 35°C (95°F) |
| H100 (Max 2) | 35°C (95°F) | 35°C (95°F) |
| A800 (Max 2) | 35°C (95°F) | 35°C (95°F) |

**Table 54. Thermal restriction matrix for memory with air cooled configuration (GPU)**

| Configuration | 16 x 2.5-inch SAS + 8 x 2.5-inch | 24 x 2.5-inch NVMe*** |
|---|---|---|
| DIMM Configuration | HPR GOLD fan with 1U HPR L-Type HSK | HPR GOLD fan with 1U HPR L-Type HSK |
| 256 GB RDIMM | Required DLC | Required DLC |
| 128 GB RDIMM | 35°C (95°F) | 35°C (95°F) |
| 64 GB RDIMM | 35°C (95°F) | 35°C (95°F) |
| 32 GB RDIMM | 35°C (95°F) | 35°C (95°F) |
| 16 GB RDIMM | 35°C (95°F) | 35°C (95°F) |

ⓘ **NOTE:** *In 16 x 2.5-inch SAS and 8 x 2.5-inch configurations, for CPU TDP 350 W supported ambient temperature is 30°C (86°F).

ⓘ **NOTE:** **In 16 x 2.5-inch configuration, for CPU TDP greater than 300 W supported ambient temperature is 30°C (86°F).

ⓘ **NOTE:** ***In 24 x 2.5-inch SAS configuration and 16 x 2.5-inch SAS + 8 x 2.5-inch for CPU TDP 270 W - 300 W and specific Low Temperature-case CPUs supported ambient temperature is 30°C (86°F).

# Technical specifications for XC7625

The technical and environmental specifications of your system are outlined in this section.

## Chassis dimensions
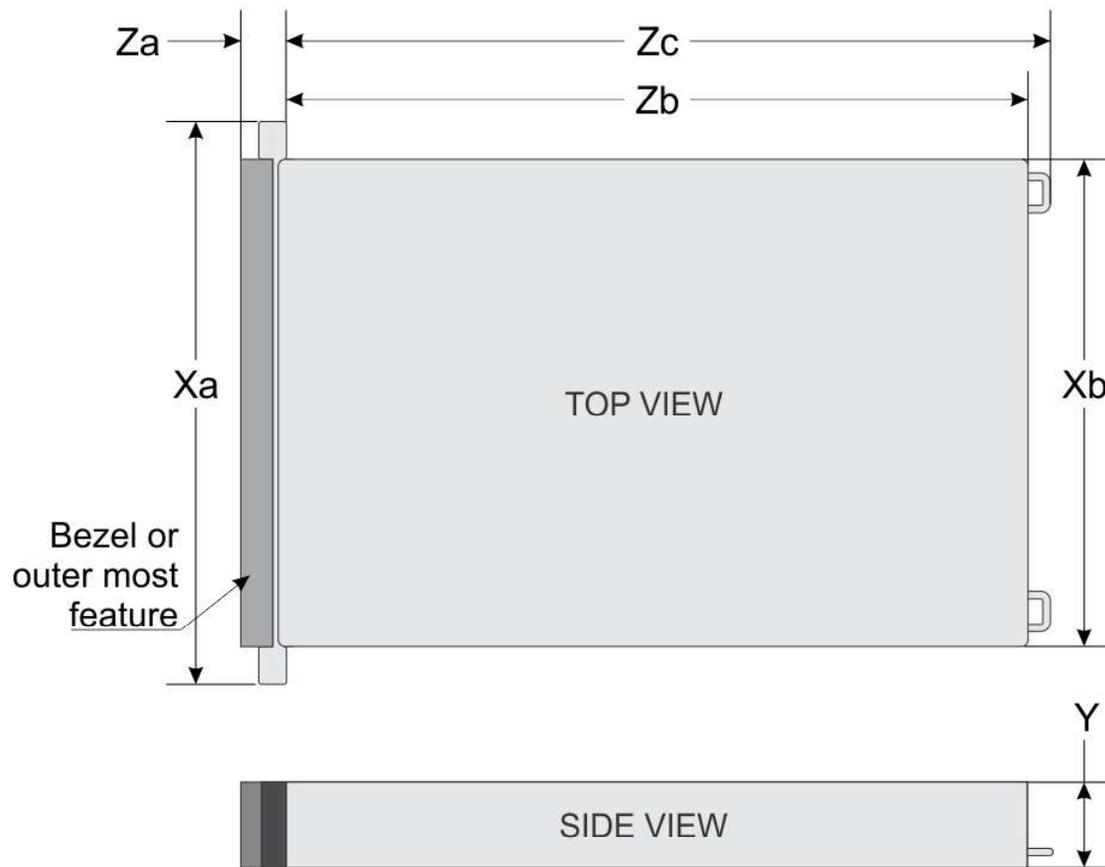


**Figure 5. Chassis dimensions**

**Table 55. XC Core XC7625 chassis dimensions**

| Xa | Xb | Y | Za | Zb | Zc |
|---|---|---|---|---|---|
| 482.0 mm (18.97 inches) | 434.0 mm (17.08 inches) | 42.8 mm (1.68 inches) | 35.84 mm (1.41 inches) With bezel<br><br>22 mm (0.86 inches) Without bezel | 751.47 mm (29.6 inches) Ear to rear wall | 787.04 mm (30.99 inches) Ear to PSU handle |

ⓘ **NOTE:** Zb is the nominal rear wall external surface where the system board I/O connectors reside.

# System weight

**Table 56. XC Core XC7625 weight**

| System configuration | Maximum weight (with all drives/SSDs) |
|---|---|
| A server with fully populated drives | 34.4 kg (75.84 pound) |
| A server without drives and PSU installed | 23.3 kg (51.37 pound) |

# Processor specifications

**Table 57. XC Core XC7625 processor specifications**

| Supported processor | Number of processors supported |
|---|---|
| Two AMD AMD Genoa Processor (SP5) processor | Up to two |

# PSU specifications

The XC Core XC7625 supports up to two AC or DC power supply units (PSUs).

**Table 58. PSU specifications**

| PSU | Class | Heat dissipation (maximum) (BTU/hr) | Frequency (Hz) | Voltage | AC | | DC | Current (A) |
|---|---|---|---|---|---|---|---|---|
| | | | | | High line wattage | Low line wattage | | |
| 800 W Mixed Mode | Platinum | 3000 | 50/60 | 100-240 V AC | 800 W | 800 W | N/A | 9.2-4.7 |
| | N/A | 3000 | N/A | 240 V DC | N/A | N/A | 800 W | 3.8 |
| 1100 W Mixed Mode | Titanium | 4125 | 50/60 | 100-240 V AC | 1100 W | 1050 W | N/A | 12-6.3 |
| | N/A | 4125 | N/A | 240 V DC | N/A | N/A | 1100 W | 5.2 |
| 1400 W Mixed Mode | Platinum | 5250 | 50/60 | 100-240 V AC | 1400 W | 1050 W | N/A | 12-8 |
| | Titanium | 5250 | 50/60 | 277 V AC | 1400 W | 1050 W | N/A | 5.8 |
| | N/A | 5250 | N/A | 240 V DC | N/A | N/A | 1400 W | 6.6 |
| | N/A | 5250 | N/A | 336 V DC | N/A | N/A | 1400 W | 5.17 |
| 1800 W Mixed Mode | Titanium | 6610 | 50/60 | 200-240 V AC | 1800 W | N/A | N/A | 10 |
| | N/A | 6610 | N/A | 240 V DC | N/A | N/A | 1800 W | 8.2 |
| 2400 W Mixed Mode | Platinum | 9000 | 50/60 | 100-240 V AC | 2400 W | 1400 W | N/A | 16-13.5 |
| | N/A | 9000 | N/A | 240 V DC | N/A | N/A | 2400 W | 11.2 |
| 2800 W Mixed Mode | Titanium | 10500 | 50/60 | 200-240 V AC | 2800 W | N/A | N/A | 15.6 |
| | N/A | 10500 | N/A | 240 V DC | N/A | N/A | 2800 W | 13.6 |
| 3200 W Mixed Mode | Titanium | 12000 | 50/60 | 277 V AC | 3200 W | N/A | N/A | 13 |
| | N/A | 12000 | N/A | 336 V DC | N/A | N/A | 3200 W | 11.5 |
| 1100 W DC | N/A | 4265 | N/A | -48—(-60) V DC | N/A | N/A | 1100 W | 27 |

(i) **NOTE:** Heat dissipation is calculated using the PSU wattage rating.

> (i) **NOTE:** If a system with AC 1400W/1100W PSUs operates at low line 100-120 V AC, then the power rating per PSU is derated to 1050W.

> (i) **NOTE:** If a system with AC 2400W PSUs operates at low line 100-120 V AC, then the power rating per PSU is derated to 1400W.



**Figure 6. PSU power cords**

**Table 59. PSU power cords**

| Form factor | Output | Power cord |
|---|---|---|
| Redundant 60 mm | 800 W AC | C13 |
| | 1100 W AC | C13 |
| | 1100 W -48 LVDC | C13 |
| | 1400 W AC | C13 |
| | 1800 W AC | C15 |
| Redundant 86 mm | 2400 W AC | C19 |
| | 2800 W AC | C21 |

> (i) **NOTE:** C19 power cord combined with C20 to C21 jumper power cord can be used to adapt 2800 W PSU.

> (i) **NOTE:** C13 power cord combined with C14 to C15 jumper power cord can be used to adapt 1800 W PSU.

# Cooling fan specifications

The XC Core XC7625 supports up to six High Performance Silver and High Performance Gold fans based on configurations.

**Table 60. Cooling fan specifications**

| Fan type | Abbreviation | Label color | Label image |
|---|---|---|---|
| High performance Silver fans | HPR Silver | Gold |  |

**Table 60. Cooling fan specifications (continued)**

| Fan type | Abbreviation | Label color | Label image |
|----------|--------------|-------------|-------------|
| High performance Gold fans | HPR Gold | Gold |  |

# Supported operating systems

The XC Core XC7625 supports the following operating system:

- VMware ESXi
- Nutanix AHV

For more information, go to Dell | Server Operating System Support.

# System battery specifications

The XC Core XC7625 uses one CR 2032 3.0-V lithium coin cellbattery.

# Expansion card riser specifications

The XC Core XC7625 supports up to 6 Full Height or 2 low profile riser slots with up to 6 x16 slots.

**Table 61. Expansion card slots supported on the system board**

| Expansion card riser | PCIe slots | Processor connection | Height | Length | Slot width |
|----------------------|------------|----------------------|--------|--------|------------|
| Riser 2A | Slot 3 | - | Low Profile | Half Length | x16 |
| | Slot 6 | Processor 2 | | | |
| Riser 3A | Slot 5 | Processor 2 | Full Height | Half Length / Full Length | x16 |
| Riser 3B | Slot 4 | Processor 2 | Full Height | Half Length | x8 |
| | Slot 5 | | | | |
| Riser 4B | Slot 7 | Processor 2 | Full Height | Half Length | x8 |
| | Slot 8 | | | | |
| Riser 4Q | Slot 7 | Processor 2 | Full Height | Half Length | x8 |
| | Slot 8 | | | | |
| Riser 4P | Slot 7 | Processor 2 | Full Height | Half Length / Full Length | x16 |

# Memory specifications

The XC Core XC7625 supports the following memory specifications for optimized operation.

**Table 62. Memory specifications**

| DIMM type | DIMM rank | DIMM capacity | Dual Processor | |
|---|---|---|---|---|
| | | | **MINIMUM RAM** | **MAXIMUM RAM** |
| RDIMM | Single Rank | 16 GB | 32 GB | 384 GB |
| | Dual Rank | 32 GB | 64 GB | 768 GB |
| | | 64 GB | 128 GB | 1.5 TB |
| | Quad Rank | 128 GB | 256 GB | 3 TB |

**Table 63. Memory module sockets**

| Memory module sockets | Speed |
|---|---|
| 24, 288-pin | 5000 MT/s |

ⓘ **NOTE:** DDR4 DIMM memory is not supported.

ⓘ **NOTE:** Memory DIMM slots are not hot pluggable.

ⓘ **NOTE:** Do not mix DIMM module types within a memory channel. All must be RDIMM or 3DS RDIMM module types with same ECC configuration.

ⓘ **NOTE:** Do not mix x4 and x8 DIMMs with a memory channel.

# Storage controller specifications

The XC Core XC7625 supports the following controller cards:

**Table 64. Storage controller cards**

| Supported storage controller cards |
|---|
| Internal Boot<br>● Boot Optimized Storage Subsystem (BOSS-N1): HWRAID 2 x M.2 NVMe SSD<br>● USB |
| SAS Host Bus Adapters (HBA)<br>● HBA355i |

# Drives

The XC Core XC7625 supports:
● 24 x 2.5-inch hot-swappable SAS, SATA, NVMe drives
● 24 x 2.5-inch hot-swappable NVMe drives

For more information about how to hot swap an NVMe PCIe SSD U.2 device, see the *Dell Express Flash NVMe PCIe SSD User's Guide* at Dell Support (**Browse all Products** > **Infrastructure** > **Data Center Infrastructure** > **Storage Adapters & Controllers** > **Dell PowerEdge Express Flash NVMe PCIe SSD** > **Select this product** > **Documentation** > **Manuals and Documents**).

# Optical drives

The XC Core XC7625 system supports one Slim SATA DVD-ROM drive or DVD +/- RW drive.

ⓘ **NOTE:** DVD devices support only data.

# Ports and connectors specifications

## NIC port specifications

The XC Core XC7625 system supports up to two 10/100/1000 Mbps Network Interface Controller (NIC) ports embedded on the LAN on Motherboard (LOM) and integrated on the Open Compute Project (OCP) cards.

**Table 65. NIC port specification for the system**

| Feature | Specifications |
|---|---|
| LOM card (optional) | 1 GbE x 2 |
| OCP card 3.0 (optional) | 1 GbE x 4, 10 GbE x 2, 10 GbE x 4, 25 GbE x 2, 25 GbE x 4 |

ⓘ **NOTE:** The system allows either LOM card or an OCP card or both to be installed in the system.

ⓘ **NOTE:** On the system board, the supported OCP PCIe width is x8; when x16 PCIe width is installed, it is downgraded to x8.

## Serial connector specifications

The XC Core XC7625 system supports one optional card type serial connector, which is a 9-pin connector, Data Terminal Equipment (DTE), 16550-compliant .

The optional serial connector card is installed similar to an expansion card filler bracket.

## USB ports specifications

**Table 66. XC Core XC7625 USB specifications**

| Front | | Rear | | Internal (optional) | |
|---|---|---|---|---|---|
| USB port type | No. of ports | USB port type | No. of ports | USB port type | No. of ports |
| USB 2.0-compliant port | One | USB 3.0-compliant port | One | Internal USB 3.0-compliant port | One |
| iDRAC Direct port (Micro-AB USB 2.0-compliant port) | One | USB 2.0-compliant ports | One | | |

ⓘ **NOTE:** The micro USB 2.0 compliant port can only be used as an iDRAC Direct or a management port.

## VGA ports specifications

The XC Core XC7625 system supports two DB-15 VGA port one each on the front and rear panel (optional for liquid cooling).

# Video specifications

The XC Core XC7625 system supports integrated Matrox G200 graphics controller with 16 MB of video frame buffer.

**Table 67. Supported video resolution options**

| Resolution | Refresh rate (Hz) | Color depth (bits) |
|---|---|---|
| 1024 x 768 | 60 | 8, 16, 32 |
| 1280 x 800 | 60 | 8, 16, 32 |
| 1280 x 1024 | 60 | 8, 16, 32 |
| 1360 x 768 | 60 | 8, 16, 32 |
| 1440 x 900 | 60 | 8, 16, 32 |
| 1600 x 900 | 60 | 8, 16, 32 |
| 1600 x 1200 | 60 | 8, 16, 32 |
| 1680 x 1050 | 60 | 8, 16, 32 |
| 1920 x 1080 | 60 | 8, 16, 32 |
| 1920 x 1200 | 60 | 8, 16, 32 |

# Environmental specifications

(i) **NOTE:** For additional information about environmental certifications, see the product environmental datasheet that is located with the **Manuals & Documents** on Dell Support.

**Table 68. Continuous Operation Specifications for ASHRAE A2**

| Temperature | Specifications |
|---|---|
| Allowable continuous operations | |
| Temperature range for altitudes <= 900 m (<= 2953 ft) | 10–35°C (50–95°F) with no direct sunlight on the equipment |
| Humidity percent range (non-condensing at all times) | 8% RH with -12°C minimum dew point to 80% RH with 21°C (69.8°F) maximum dew point |
| Operational altitude de-rating | Maximum temperature is reduced by 1°C/300 m (1.8°F/984 Ft) above 900 m (2953 Ft) |

**Table 69. Continuous Operation Specifications for ASHRAE A3**

| Temperature | Specifications | |
|---|---|---|
| Allowable continuous operations | | |
| Temperature range for altitudes <= 900 m (<= 2953 ft) | 5–40°C (41–104°F) with no direct sunlight on the equipment | |
| | Excursion Limited Operation | 5-35°C (41-95°F) Continuous Operation |
| | | 35-40°C (95-104°F) 10% Annual Runtime |
| Humidity percent range (non-condensing at all times) | 8% RH with -12°C minimum dew point to 85% RH with 24°C (75.2°F) maximum dew point | |
| Operational altitude de-rating | Maximum temperature is reduced by 1°C/175 m (1.8°F/574 Ft) above 900 m (2953 Ft) | |

**Table 70. Continuous Operation Specifications for ASHRAE A4**

| Temperature | Specifications | |
|---|---|---|
| Allowable continuous operations | | |
| Temperature range for altitudes <= 900 m (<= 2953 ft) | 5–45°C (41–113°F) with no direct sunlight on the equipment | |
| | Excursion Limited Operation | 5-35°C (41-95°F) Continuous Operation |
| | | 35-40°C (95-104°F) 10% Annual Runtime |
| | | 40-45°C (104-113°F) 1% Annual Runtime |
| Humidity percent range (non-condensing at all times) | 8% RH with -12°C minimum dew point to 90% RH with 24°C (75.2°F) maximum dew point | |
| Operational altitude de-rating | Maximum temperature is reduced by 1°C/125 m (1.8°F/410 Ft) above 900 m (2953 Ft) | |

**Table 71. Continuous Operation Specifications for Rugged Environment**

| Temperature | Specifications |
|---|---|
| Allowable continuous operations | |
| Temperature range for altitudes <= 900 m (<= 2953 ft) | 5–55°C (41–131°F) with no direct sunlight on the equipment |
| Humidity percent range (non-condensing at all times) | 8% RH with -12°C minimum dew point to 90% RH with 24°C (75.2°F) maximum dew point |
| Operational altitude de-rating | Maximum temperature is reduced by 1°C/125 m (33.8°F/410 Ft) above 900 m (2953 Ft) |

**Table 72. Common Environmental Specifications for ASHRAE A2, A3 and A4**

| Temperature | Specifications |
|---|---|
| Allowable continuous operations | |
| Maximum temperature gradient (applies to both operation and non-operation) | 20°C in an hour* (36°F in an hour) and 5°C in 15 minutes (9°F in 15 minutes), 5°C in an hour* (9°F in an hour) for tape hardware <br> (i) **NOTE:** * - Per ASHRAE thermal guidelines for tape hardware, these are not instantaneous rates of temperature change. |
| Non-operational temperature limits | -40 to 65°C (-40 to 149°F) |
| Non-operational humidity limits | 5% to 95% RH with 27°C (80.6°F) maximum dew point |
| Maximum non-operational altitude | 12,000 meters (39,370 feet) |
| Maximum operational altitude | 3,048 meters (10,000 feet) |

**Table 73. Maximum vibration specifications**

| Maximum vibration | Specifications |
|---|---|
| Operating | 0.21 $G_{rms}$ at 5 Hz to 500 Hz for 10 minutes (all operation orientations) |
| Storage | 1.88 $G_{rms}$ at 10 Hz to 500 Hz for 15 minutes (all six sides tested) |

**Table 74. Maximum shock pulse specifications**

| Maximum shock pulse | Specifications |
|---|---|
| Operating | Six consecutively executed shock pulses in the positive and negative x, y, and z axis of 6 G for up to 11 ms |
| Storage | Six consecutively executed shock pulses in the positive and negative x, y, and z axis (one pulse on each side of the system) of 71 G for up to 2 ms |

# Particulate and gaseous contamination specifications

The following table defines the limitations that help avoid any equipment damage or failure from particulates and gaseous contamination. If the levels of particulates or gaseous pollution exceed the specified limitations and result in equipment damage or failure, you may need to rectify the environmental conditions. Remediation of environmental conditions is the responsibility of the customer.

**Table 75. Particulate contamination specifications**

| Particulate contamination | Specifications |
|---|---|
| Air filtration | Data center air filtration as defined by ISO Class 8 per ISO 14644-1 with a 95% upper confidence limit<br>ⓘ **NOTE:** This condition applies to data center environments only. Air filtration requirements do not apply to IT equipment designed to be used outside a data center, in environments such as an office or factory floor.<br>ⓘ **NOTE:** Air entering the data center must have MERV11 or MERV13 filtration. |
| Conductive dust | Air must be free of conductive dust, zinc whiskers, or other conductive particles<br>ⓘ **NOTE:** This condition applies to data center and non-data center environments. |
| Corrosive dust | ● Air must be free of corrosive dust<br>● Residual dust present in the air must have a deliquescent point less than 60% relative humidity<br>ⓘ **NOTE:** This condition applies to data center and non-data center environments. |

**Table 76. Gaseous contamination specifications**

| Gaseous contamination | Specifications |
|---|---|
| Copper coupon corrosion rate | <300 Å/month per Class G1 as defined by ANSI/ISA71.04-2013 |
| Silver coupon corrosion rate | <200 Å/month as defined by ANSI/ISA71.04-2013 |

# Thermal air restrictions

## Fresh air environment

● Two PSUs are required in redundant mode, however single PSU failure is not supported.
● PCIe SSD is not supported.
● 32 GB or greater capacity DIMMs are not supported.
● Both SW and DW GPGPU/FPGA are not supported.
● CPU TDP equal or greater than 180 W are not supported.
● Rear drives are not supported.
● PCIe card TDP more than 25 W is not supported

## ASHRAE A3 environment

● Two PSUs are required in redundant mode, however single PSU failure is not supported.
● PCIe SSD is not supported.
● DIMMs greater than 32 GB are not supported.
● Both SW and DW GPGPU/FPGA are not supported.
● CPU TDP greater than 200W are not supported.

- Rear drives are not supported.
- PCIe card TDP more than 25 W is not supported.
- OCP is supported with 85C active optic cable.

## ASHRAE A4 environment

- Two PSUs are required in redundant mode, however single PSU failure is not supported.
- PCIe SSD is not supported.
- DIMMs greater than 32 GB are not supported.
- Both SW and DW GPGPU/FPGA are not supported.
- CPU TDP greater than 200W are not supported.
- Rear drives are not supported.
- PCIe card TDP more than 25 W is not supported.
- OCP is supported with 85C active cable and cards Tier<=4
- BOSS N1 is not supported.

## Other Restrictions

High temp spec(85C) active optics cable(4WGYD/M14MK) is required for cards,

- 25Gb and above PCIe/OCP cards require DAC or 85C active optics cable.

## Other Restrictions

High temp spec(85C) active optics cable is required for cards,

- 25Gb and above PCIe/OCP cards require DAC or 85C active optics cable.

# Technical specifications for XC660xs

The technical and environmental specifications of your system are outlined in this section.

## Chassis dimensions
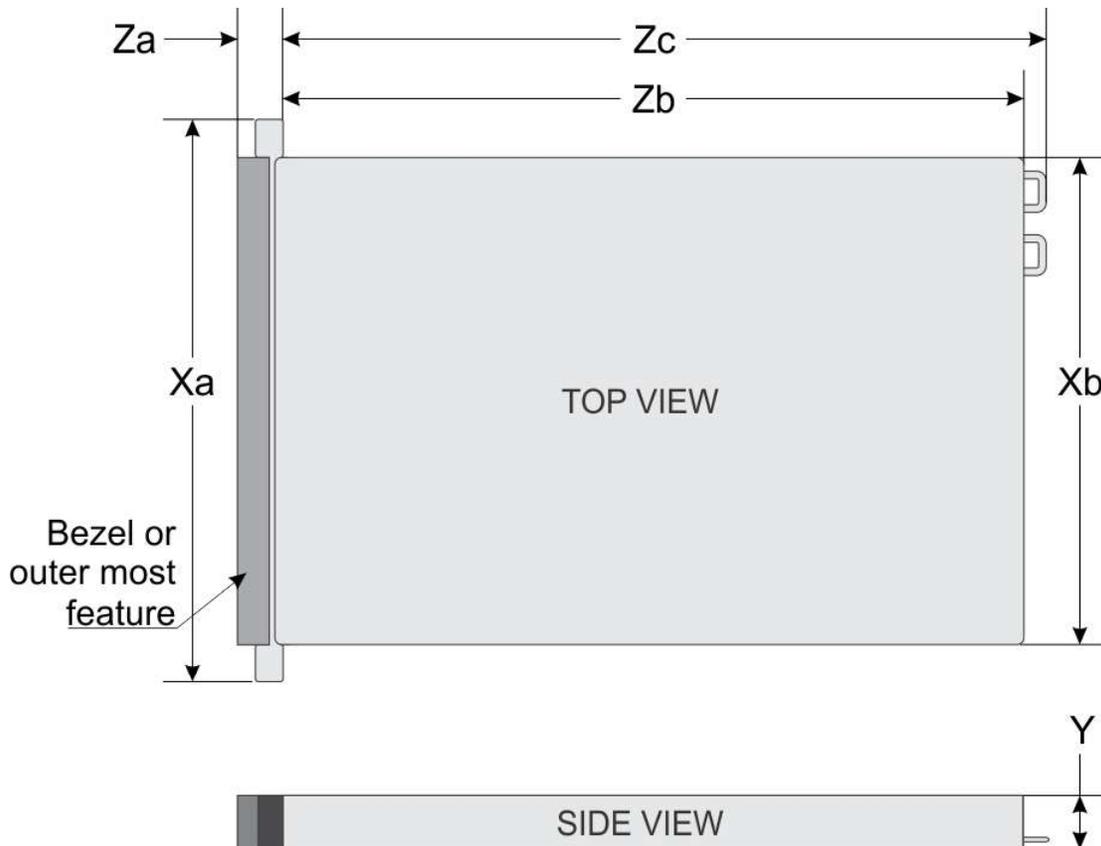


**Figure 7. Chassis dimensions**

**Table 77. XC Core XC660xs chassis dimensions**

| Drives | Xa | Xb | Y | Za | Zb | Zc |
|---|---|---|---|---|---|---|
| 4 SATA/SAS/ drives | 482 mm (18.976 inches) | 434.0 mm (17.08 inches) | 42.8 mm (1.685 inches) | 35.84 mm (1.41 inches)With bezel<br><br>22 mm (0.86 inches)Without bezel | 677.1 mm (26.65 inches)<br><br>Ear to rear wall | 712.95 mm (28.05 inches)<br><br>Ear to PSU handle without velcro strap |

**Table 78. XC Core XC660xs chassis dimensions**

| Drives | Xa | Xb | Y | Za | Zb | Zc |
|---|---|---|---|---|---|---|
| 4 SATA/SAS/ drives | 482 mm (18.976 inches) | 434.0 mm (17 inches) | 42.8 mm (1.685 inches) | 35.84 mm (1.41 inches)With bezel<br><br>22 mm (0.86 inches)Without bezel | 677.1 mm (26.65 inches)<br><br>Ear to rear wall | 712.95 mm (28.05 inches)<br><br>Ear to PSU handle without velcro strap |

ⓘ **NOTE:** Zb is the nominal rear wall external surface where the system board I/O connectors reside.

# System weight

**Table 79. XC Core XC660xs system weight**

| System configuration | Maximum weight (with all drives/SSDs) |
|---|---|
| 4 x 3.5-inch | 19.45 Kg (55.33 pound) |
| No backplane configuration | 15.38 kg (33.90 pound) |

**Table 80. XC Core system weight handling recommendations**

| Chassis weight | Description |
|---|---|
| 40 pounds - 70 pounds | Recommend two person to lift |
| 70 pounds- 120 pounds | Recommend three person to lift |
| ≥ 121 pounds | Recommend to use a server-lift |

# Processor specifications

**Table 81. XC Core XC660xs processor specifications**

| Supported processor | Number of processors supported |
|---|---|
| 4th Generation Intel Xeon Scalable processors with up to 56 cores | Up to two |

# PSU specifications

The XC Core XC660xs system supports up to two AC or DC power supply units (PSUs).

**Table 82. XC660xs PSU specifications**

| PSU | Class | Heat dissipation (maximum) | Frequency | Voltage | AC | | DC | Current |
|---|---|---|---|---|---|---|---|---|
| | | | | | High line 200–240 V | Low line 100–120 V | | |
| 1800 W Mixed Mode | Titanium | 6610 BTU/ hr | 50/60 Hz | 200–240 V AC | 1800 W | NA | NA | 10 A |
| | NA | 6610 BTU/ hr | NA | 240 V DC | NA | NA | 1800 W | 8.2 A |

**Table 82. XC660xs PSU specifications  (continued)**

| PSU | Class | Heat dissipation (maximum) | Frequency | Voltage | AC | | DC | Current |
|-----|-------|---------|-----------|---------|-----------|-----------|-----|---------|
| | | | | | High line 200–240 V | Low line 100–120 V | | |
| 1400 W Mixed Mode | Platinum | 5250 BTU/hr | 50/60 Hz | 100–240 V AC, autoranging | 1400 W | 1050 W | NA | 12 A–8 A |
| | NA | 5250 BTU/hr | NA | 240 V DC | NA | NA | 1400 W | 6.6 A |
| 1100 W Mixed Mode | Titanium | 4125 BTU/hr | 50/60 Hz | 100–240 V AC, autoranging | 1100 W | 1050 W | NA | 12 A–6.3 A |
| | NA | 4125 BTU/hr | NA | 240 V DC | NA | NA | 1100 W | 5.2 A |
| 1100 W DC | NA | 4265 BTU/hr | NA | -48 – (-60) V DC | NA | NA | 1100 W | 27 A |
| 800 W Mixed Mode | Platinum | 3000 BTU/hr | 50/60 Hz | 100–240 V AC, autoranging | 800 W | 800 W | NA | 9.2 A-4.7 A |
| | NA | 3000 BTU/hr | NA | 240 V DC | NA | NA | 800 W | 3.8 A |
| 700 W Mixed Mode | Titanium | 2625 BTU/hr | 50/60 Hz | 200–240 V AC | 700 W | NA | NA | 4.1 A |
| | NA | 2625 BTU/hr | NA | 240 V DC | NA | NA | 700 W | 3.4 A |
| 600 W Mixed Mode | Platinum | 2250 BTU/hr | 50/60 Hz | 100–240 V AC, autoranging | 600 W | 600 W | NA | 7.1 A-3.6 A |
| | NA | 2250 BTU/hr | NA | 240 V DC | NA | NA | 600 W | 2.9 A |

ⓘ **NOTE:** The input voltage for 1400 W XL mixed mode PSU is 277 V AC (249 V AC - 305 V AC) and 336 V DC (260 V DC - 400 V DC).

ⓘ **NOTE:** Heat dissipation is calculated using the PSU wattage rating.

ⓘ **NOTE:** When selecting or upgrading the system configuration, to ensure optimum power utilization, verify the system power consumption with the Enterprise Infrastructure Planning Tool available at Dell.com/calc.



**Figure 8. PSU power cords**
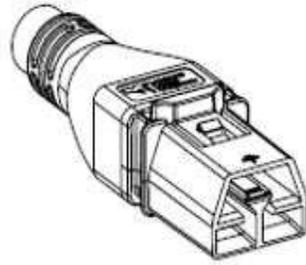
**Figure 9. APP 2006G1 power cord**
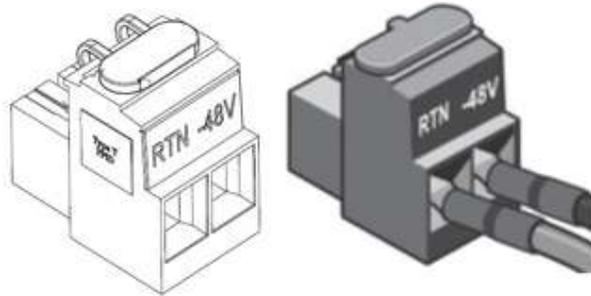


**Figure 10. Lotes DC PSU connector**

**Table 83. PSU power cords**

| Form factor | Output | Power cord |
|---|---|---|
| Redundant 60 mm | 600 W AC | C13 |
| | 700 W AC | C13 |
| | 800 W AC | C13 |
| | 1100 W AC | C13 |
| | 1100 W -48 LVDC | Lotes DC PSU connector |
| | 1400 W AC | C13 |
| | 1400 W XL AC | APP 2006G1 |
| | 1800 W AC | C15 |

ⓘ **NOTE:** C13 power cord combined with C14 to C15 jumper power cord can be used to adapt 1800 W PSU.

# Supported operating systems

The XC Core XC660xs system supports the following operating systems:

- VMware ESXi
- Nutanix AHV

For more information, go to Dell | Server Operating System Support.

# Cooling fan specifications

The XC Core XC660xs system supports up to seven, hot-swappable Standard fans (STD) and High performance (HPR) gold grade fans. The XC Core XC660xs system supports up to seven, cabled Standard fans (STD) and High performance (HPR) gold grade fans. The XC660xs system supports cabled fans by default and can replace with hot swap fans.



**Figure 11. Hot swappable Standard fan**



**Figure 12. Hot swappable High performance (HPR) gold grade fan**

# System battery specifications

The XC Core XC660xs system uses one CR 2032 3.0-V lithium coin cell battery.

# Expansion card riser specifications

The XC Core XC660xs system supports up to three PCI express (PCIe) Gen 5 expansion cards.

**Table 84. Expansion card slots supported on the system board**

| PCIe slot | Riser | PCIe slot height | PCIe slot length | PCIe slot width |
|---|---|---|---|---|
| Slot 1 | Riser 1a | Low Profile | Half length | x16 |
| | Riser 1b | Low Profile | Half length | x8 |
| Slot 2 and 3 | Riser 2a | Low Profile | Half length | x8 + x8 |
| Slot 3 | Riser 2c | Low Profile | Half length | x16 |
| Slot 2 | Riser 2d | Low Profile | Half length | x8 |
| | Riser 2e | Low Profile | Half length | x16 |

**Table 85. Expansion card slots supported on the system board**

| PCIe slot | Riser | PCIe slot height | PCIe slot length | PCIe slot width |
|---|---|---|---|---|
| Slot 1 | Riser 1a | Low Profile | Half length | x16 |
| | Riser 1b | Low Profile | Half length | x8 |
| Slot 2 and 3 | Riser 2a | Low Profile | Half length | x8 + x8 |
| Slot 3 | Riser 2c | Low Profile | Half length | x16 |
| Slot 2 | Riser 2d | Low Profile | Half length | x8 |
| | Riser 2e | Low Profile | Half length | x16 |

# Memory specifications

The XC Core XC660xs system supports the following memory specifications for optimized operation.

**Table 86. Memory specifications**

| DIMM type | DIMM rank | DIMM capacity | Single processor | | Dual processors | |
| --- | --- | --- | --- | --- | --- | --- |
| | | | Minimum memory capacity | Maximum memory capacity | Minimum memory capacity | Maximum memory capacity |
| RDIMM | Single rank | 16 GB | 16 GB | 128 GB | 32 GB | 256 GB |
| | Dual rank | 32 GB | 32 GB | 256 GB | 64 GB | 512 GB |
| | | 64 GB | 64 GB | 512 GB | 128 GB | 1 TB |
| - | - | 96 GB | 96 GB | 1536 GB | 192 GB | 1.5 TB |

**Table 87. Memory module sockets**

| Memory module sockets | Speed |
| --- | --- |
| 16, 288-pin | 4000 MT/s, 4400 MT/s, 4800 MT/s |

> (i) **NOTE:** Memory DIMM slots are not hot pluggable.

> (i) **NOTE:** The processor may reduce the performance of the rated DIMM speed.

# Storage controller specifications

The XC Core XC660xs system supports the following controller cards:

**Table 88. Storage controller cards**

| Supported storage controller cards |
| --- |
| Internal Boot <br> ● Boot Optimized Storage Subsystem (BOSS-N1) |
| SAS Host Bus Adapters (HBA) <br> ● HBA335i |

# Drives

The XC Core XC660xs system supports:
● Up to 4 x 3.5-inch SAS/SATA (HDD/SSD) drives

For more information about how to hot swap an NVMe PCIe SSD U.2 device, see the *Dell Express Flash NVMe PCIe SSD User's Guide* at Dell Support (**Browse all Products** > **Infrastructure** > **Data Center Infrastructure** > **Storage Adapters & Controllers** > **Dell PowerEdge Express Flash NVMe PCIe SSD** > **Select this product** > **Documentation** > **Manuals and Documents**).

# Ports and connectors specifications

## NIC port specifications

The XC Core XC660xs supports up to two 10/100/1000 Mbps Network Interface Controller (NIC) ports embedded on the LAN on Motherboard (LOM) and integrated on the optional Open Compute Project (OCP) cards.

**Table 89. NIC port specification for the system**

| Feature | Specifications |
|---|---|
| LOM card (optional) | 1 GbE x 2 |
| OCP card (OCP 3.0) (optional) | 1GbE x 4, 10 GbE x 2, 10 GbE x 4, 25 GbE x 2, 25 GbE x 4 |

# Serial connector specifications

The XC Core XC660xs system supports one optional card type serial connector on rear of the system, which is a 9-pin connector, Data Terminal Equipment (DTE), 16550-compliant .

The process to install the optional serial connector card is similar to an expansion card filler bracket.

# USB ports specifications

**Table 90. XC Core XC660xs system USB ports specifications**

| Front | | Rear | | Internal (Optional) | |
|---|---|---|---|---|---|
| USB port type | No. of ports | USB port type | No. of ports | USB port type | No. of ports |
| USB 2.0 compliant port | One | USB 2.0 compliant port | One | Internal USB 3.0 compliant | One |
| iDRAC Direct port (Micro-AB USB 2.0-compliant port) | One | USB 3.0 compliant port | One | | |

> ⓘ **NOTE:** The micro USB 2.0 compliant port can only be used as an iDRAC Direct or a management port.

> ⓘ **NOTE:** The USB 2.0 specifications provide a 5 V supply on a single wire to power connected USB devices. A unit load is defined as 100 mA in USB 2.0, and 150 mA in USB 3.0. A device may draw a maximum of 5 unit loads (500 mA) from a port in USB 2.0; 6 (900 mA) in USB 3.0.

> ⓘ **NOTE:** The USB 2.0 interface can provide power to low-power peripherals but must adhere to USB specification. An external power source is required for higher-power peripherals to function, such as external CD/DVD Drives.

# VGA ports specifications

The XC Core XC660xs system supports two DB-15 VGA ports, one each on the front and rear panels of the system.

# Video specifications

The XC Core XC660xs system supports integrated Matrox G200 graphics controller with 16 MB of video frame buffer.

**Table 91. Supported video resolution options for the system**

| Resolution | Refresh rate (Hz) | Color depth (bits) |
|---|---|---|
| 1024 x 768 | 60 | 8, 16, 32 |
| 1280 x 800 | 60 | 8, 16, 32 |
| 1280 x 1024 | 60 | 8, 16, 32 |
| 1360 x 768 | 60 | 8, 16, 32 |
| 1440 x 900 | 60 | 8, 16, 32 |
| 1600 x 900 | 60 | 8, 16, 32 |

**Table 91. Supported video resolution options for the system (continued)**

| Resolution | Refresh rate (Hz) | Color depth (bits) |
|---|---|---|
| 1600 x 1200 | 60 | 8, 16, 32 |
| 1680 x 1050 | 60 | 8, 16, 32 |
| 1920 x 1080 | 60 | 8, 16, 32 |
| 1920 x 1200 | 60 | 8, 16, 32 |

# Environmental specifications

ⓘ **NOTE:** For additional information about environmental certifications, see the product environmental datasheet that is located with the **Manuals & Documents** on Dell Support.

**Table 92. Maximum vibration specifications**

| Maximum vibration | Specifications |
|---|---|
| Operating | 0.21 $G_{rms}$ at 5 Hz to 500 Hz for 10 minutes (all operation orientations) |
| Storage | 1.88 $G_{rms}$ at 10 Hz to 500 Hz for 15 minutes (all six sides tested) |

**Table 93. Maximum shock pulse specifications**

| Maximum shock pulse | Specifications |
|---|---|
| Operating | Six consecutively executed shock pulses in the positive and negative x, y, and z axis of 6 G for up to 11 ms. |
| Storage | Six consecutively executed shock pulses in the positive and negative x, y, and z axis (one pulse on each side of the system) of 71 G for up to 2 ms. |

# Thermal restrictions

**Table 94. Thermal restriction matrix for processor and fans**

| Configuration / Processor TDP | 4 x 3.5-inch SAS/SATA | |
|---|---|---|
| Rear Storage | Rear 3 LP | 1 LP + 2 Rear drives |
| 125 W | STD fan<br>STD HSK<br>40 °C | STD fan<br>STD HSK<br>35 °C |
| 135 W | STD fan<br>STD HSK<br>40 °C | STD fan<br>STD HSK<br>35 °C |
| 150 W | STD fan<br>STD HSK<br>40 °C | STD fan<br>STD HSK<br>35 °C |
| 165 W | STD fan<br>HPR HSK<br>35 °C | STD fan<br>HPR HSK<br>35 °C |
| 185 W | STD fan | STD fan |

## Table 94. Thermal restriction matrix for processor and fans  (continued)

| Configuration / Processor TDP | 4 x 3.5-inch SAS/SATA | |
|---|---|---|
| | HPR HSK<br><br>35 °C | HPR HSK<br><br>35 °C |
| 205 W | STD fan<br><br>HPR HSK<br><br>35 °C | STD fan<br><br>HPR HSK<br><br>35 °C |
| 225 W | * | * |

(i) **NOTE:**

* Configs supported in the next slide "CPU>205W,225W & with HW restriction thermal restriction table".

** 5x fans is required for 1xProcessor + W/O Rear storage module config

*** 7xfans is required for 2xProcessors config. and 1xProcessor + Rear storage module config

## Table 95. Label reference

| Label | Description |
|---|---|
| STD | Standard |
| LP | Low Profile |
| HPR (Gold) | High performance (gold grade) |
| HSK | Heat sink |

## Table 96. 4 x 3.5-inch SAS/SATA Configuration with iDRAC

| Dell PowerEdge Server Standard Operating Support (ASHRAE A2 compliant) All options supported unless otherwise noted. | Dell PowerEdge Server Extended Inletient 40° C Operating Support (ASHRAE A3 compliant) | Dell PowerEdge Server Extended Inletient 45° C Operating Support (ASHRAE A4 compliant) |
|---|---|---|
| <ul><li>STD Fan is required.</li><li>STD HSK is required for CPU Base TDP <=150W</li><li>HPR HSK is required for CPU Base TDP >150W</li><li>2-processor all configs or 1-processor with Rear storage module config requires 7x fans</li><li>1-processor without Rear storage module config requires 5x fans</li><li>HW restriction is required for CPU Base TDP >205W<ul><li>Front storage moduleonly support 2x3.5 at HDD#0, HDD1 and HDD Blank F3F7V x 2 are required at HDD#2 and HDD#3</li><li>RIO only support PCIe1 and OCP3.0. Could not support BOSS, PCIe2 and PCIe3.</li><li>With Rear storage module config only support max. 30C ambient.</li></ul></li><li>Only support DDR5 DIMM up to 64G.</li></ul> | <ul><li>Not support CPU Base TDP > 150W</li><li>STD Fan is required.</li><li>STD HSK is required</li><li>Not support BOSS M.2 Module</li><li>Not support Non-Dell qualified peripheral cards and Channel devices (FW) cards</li><li>Not support NIC consuming power >= 25W. Ex: CX6 card (DPN : CY7GD , F6FXM)</li><li>Not Support Config with Rear storage module</li><li>Not support OCP transfer rate >25G or cooling tier > 10</li><li>Optic Transceiver with spec 85C is required</li><li>Two PSUs are required. System performance may be reduced in the event of a PSU failure</li></ul> | <ul><li>Not support</li></ul> |

**Table 96. 4 x 3.5-inch SAS/SATA Configuration with iDRAC**

| Dell PowerEdge Server Standard Operating Support (ASHRAE A2 compliant) All options supported unless otherwise noted. | Dell PowerEdge Server Extended Inletient 40° C Operating Support (ASHRAE A3 compliant) | Dell PowerEdge Server Extended Inletient 45° C Operating Support (ASHRAE A4 compliant) |
|---|---|---|
| <ul><li>100G PCIe NIC could not support MFS1S00-VxxE (spec 75C) transceiver.</li><li>100G PCIe and OCP3.0 NIC could only support optic transceiver with thermal Spec 85C and power <=2.5W (DPN:4WGYD)</li><li>25G PCIe NIC could only support optic transceiver with thermal Spec 85C and power <=1.2W (DPN: M14MK)</li><li>25G OCP3.0 NIC with 4 ports or PCIe cooling tier higher than 5 could only support optic transceiver with thermal spec 85C and power <=1.2W (DPN: M14MK)</li><li>25G OCP3.0 NIC with PCIe cooling tier lower than or equal to 5 could not support thermal spec 70C optic transceiver with power higher than 1.2W (DPN: 0YR96)</li><li>The following SAS drives could NOT support in Rear storage module. (But could support in front SM)<ul><li>Kioxia PM6 SAS all capacities</li><li>SATA SSD, Hynix SE5031 all capacities or thermal spec <70C</li></ul></li></ul> | | |

# Thermal restrictions

**Table 97. Thermal restriction matrix for processor and fans with iDRAC**

| Configuration / Processor TDP | 4 x 3.5-inch SAS/SATA | |
|---|---|---|
| Rear Storage | Rear 3 LP | 1 LP + 2 Rear drives |
| 125 W | STD fan<br>STD HSK<br>40 °C | STD fan<br>STD HSK<br>35 °C |
| 135 W | STD fan<br>STD HSK<br>40 °C | STD fan<br>STD HSK<br>35 °C |
| 150 W | STD fan<br>STD HSK<br>40 °C | STD fan<br>STD HSK<br>35 °C |
| 165 W | STD fan<br>HPR HSK<br>35 °C | HPR (Gold) fan<br>HPR HSK<br>35 °C |

**Table 97. Thermal restriction matrix for processor and fans with iDRAC (continued)**

| Configuration / Processor TDP | 4 x 3.5-inch SAS/SATA | |
|---|---|---|
| 185 W | STD fan<br><br>HPR HSK<br><br>35 °C | HPR (Gold) fan<br><br>HPR HSK<br><br>35 °C |
| 205 W | STD fan<br><br>HPR HSK<br><br>35 °C | HPR (Gold) fan<br><br>HPR HSK<br><br>35 °C |
| 225 W | * | * |

**Table 98. Thermal restriction matrix for processor and fans with OSM**

| Configuration / Processor TDP | 4 x 3.5-inch SAS/SATA | |
|---|---|---|
| Rear Storage | Rear 3 LP | 1 LP + 2 Rear drives |
| 125 W | STD fan<br><br>STD HSK<br><br>35 °C | STD fan<br><br>STD HSK<br><br>35 °C |
| 135 W | STD fan<br><br>STD HSK<br><br>35 °C | STD fan<br><br>STD HSK<br><br>35 °C |
| 150 W | STD fan<br><br>STD HSK<br><br>35 °C | STD fan<br><br>STD HSK<br><br>35 °C |
| 165 W | STD fan<br><br>HPR HSK<br><br>35 °C | STD fan<br><br>HPR HSK<br><br>35 °C |
| 185 W | STD fan<br><br>HPR HSK<br><br>35 °C | STD fan<br><br>HPR HSK<br><br>35 °C |
| 205 W | STD fan<br><br>HPR HSK<br><br>35 °C | * |
| 225 W | * | * |

ⓘ **NOTE:**

* Configs supported in the table of "without HW restriction thermal restriction table"

** All configs always requires 7x fans.

*** Matrix are developed based on not support fan redundancy and allow system showing events at fan failure condition.

**Table 99. Thermal restriction matrix for processor and fans with OSM with TDP > 185 W**

| SM Configuration with Restrictions | 4 x 3.5-inch SAS/SATA | |
|---|---|---|
| Drives | HDD 0 ~ 1 | |
| Rear Storage | PCIe 1 + OCP only. PCIe 2,PCIe 3 and BOSS are not supported | 1 LP + 2 Rear drives |
| 205 W | * | STD fan<br><br>HPR HSK<br><br>30 °C |
| 225 W | STD fan<br><br>HPR HSK<br><br>35 °C | STD fan<br><br>HPR HSK<br><br>30 °C |
| 250 W | STD fan<br><br>HPR HSK<br><br>35 °C | Not supproted |

**Table 100. Label reference**

| Label | Description |
|---|---|
| STD | Standard |
| LP | Low Profile |
| HPR (Gold) | High performance (gold grade) |
| HSK | Heat sink |

**Table 101. 4 x 3.5-inch SAS/SATA Configuration with iDRAC**

| Dell PowerEdge Server Standard Operating Support (ASHRAE A2 compliant) All options supported unless otherwise noted. | Dell PowerEdge Server Extended Inletient 40° C Operating Support (ASHRAE A3 compliant) | Dell PowerEdge Server Extended Inletient 45° C Operating Support (ASHRAE A4 compliant) |
|---|---|---|
| <ul><li>STD (Brickfielder) Fan is required.</li><li>STD HSK is required for CPU Base TDP <=150W</li><li>HPR HSK is required for CPU Base TDP >150W</li><li>2-processor all configs or 1-processor with RM config requires 7x fans</li><li>1-processor without RM config requires 5x fans</li><li>HW restriction is required for CPU Base TDP >205W<ul><li>SM only support 2x3.5 at HDD#0, HDD1 and HDD Blank F3F7V x 2 are required at HDD#2 and HDD#3</li><li>RIO only support PCIe1 and OCP3.0. Could not support BOSS, PCIe2 and PCIe3.</li><li>With RM config only support max. 30C ambient.</li></ul></li><li>Only support DDR5 DIMM up to 64G.</li></ul> | <ul><li>Not support CPU Base TDP > 150W</li><li>STD (Brickfielder) Fan is required.</li><li>STD HSK is required</li><li>Not support BOSS M.2 Module</li><li>Not support Non-Dell qualified peripheral cards and Channel devices (FW) cards</li><li>Not support NIC consuming power >= 25W. Ex: CX6 card (DPN : CY7GD , F6FXM)</li><li>Not Support Config with RM</li><li>Not support OCP transfer rate >25G or cooling tier > 10</li><li>Optic Transceiver with spec 85C is required</li><li>Two PSUs are required. System performance may be reduced in the event of a PSU failure</li></ul> | <ul><li>Not support</li></ul> |

**Table 101. 4 x 3.5-inch SAS/SATA Configuration with iDRAC**

| Dell PowerEdge Server Standard Operating Support (ASHRAE A2 compliant) All options supported unless otherwise noted. | Dell PowerEdge Server Extended Inletient 40° C Operating Support (ASHRAE A3 compliant) | Dell PowerEdge Server Extended Inletient 45° C Operating Support (ASHRAE A4 compliant) |
|---|---|---|
| <ul><li>100G PCIe NIC could not support MFS1S00-VxxE (spec 75C) transceiver.</li><li>100G PCIe and OCP3.0 NIC could only support optic transceiver with thermal Spec 85C and power <=2.5W (DPN:4WGYD)</li><li>25G PCIe NIC could only support optic transceiver with thermal Spec 85C and power <=1.2W (DPN: M14MK)</li><li>25G OCP3.0 NIC with 4 ports or PCIe cooling tier higher than 5 could only support optic transceiver with thermal spec 85C and power <=1.2W (DPN: M14MK)</li><li>25G OCP3.0 NIC with PCIe cooling tier lower than or equal to 5 could not support thermal spec 70C optic transceiver with power higher than 1.2W (DPN: 0YR96)</li><li>The following SAS drives could NOT support in RM. (But could support in front SM)<ul><li>Kioxia PM6 SAS all capacities</li><li>SATA SSD, Hynix SE5031 all capacities or thermal spec <70C</li></ul></li></ul> | | |

**Table 102. Thermal Solution Configuration with iDRAC**

| Configurations | Rear drive configurations | Processor (TDP) | Fan type | Heat sink type | Air Shroud | Memory Blank | Processor Blank | Fan Counts | Fan Blank |
|---|---|---|---|---|---|---|---|---|---|
| 4 x 3.5-inch drives | without rear drives | TDP <= 150 W | STD fan | STD HSK | Yes | No | Only required on processor 2 for 1 processor Configuration | 7 x fans for 2 processors and 1xProcessor + Rear HDD Configuration<br><br>5 x fans for 1 processors Configuration + W/O Rear HDDs Config | Only required on fan Slot 1 and slot 2 for 5x Fans configuration |
| | | 150 W < TDP <= 205 W | STD fan | HPR HSK | | | | | |
| | - | - | - | - | | - | | | |
| 3.5-inch HDDs x2 (3.5-inch HDDs x4 config | W/O RM Support PCIe Slot 1 + OCP3.0 Only (no BOSS | 205W <TDP<= 250W | Brickfielder Fan (STD) | HPR HS | Yes | No | Yes for 1x Processor config | 5x Fans for 1xProcessor + W/O Rear | Yes for 5x Fans Config. @ Fan slot 1 and 2 for |

**Table 102. Thermal Solution Configuration with iDRAC (continued)**

| Configurations | Rear drive configurations | Processor (TDP) | Fan type | Heat sink type | Air Shroud | Memory Blank | Processor Blank | Fan Counts | Fan Blank |
|---|---|---|---|---|---|---|---|---|---|
| remove HDD 2 & 3 and replace by HDD blank) | & PCIe slot 2 and 3)<br><br>with RM | | | | | Yes | No for 2x Processor Config | HDDs Config<br><br>7x Fans for 2xProcessors Config and 1xProcessor + Rear HDD Config | 5x Fans configuration |

ⓘ **NOTE:**

> \* Based on test result, 4x3.5 config could only support CPU TDP up to 205W and DDR5 DIMM up to 12W (64G)

> \*\* Intel 6434 CPU Base TDP 205 W should use HPR Gold (VHP) Fan

**Table 103. Thermal Solution Configuration with OSM**

| Configurations | Rear drive configurations | Processor (TDP) | Fan type | Heat sink type | Air Shroud | Memory Blank | Processor Blank | Fan Counts | Fan Blank |
|---|---|---|---|---|---|---|---|---|---|
| \*4 x 3.5-inch drives | without rear drives | TDP <= 150 W<br><br>150 W < TDP <= 205 W | STD fan | STD HSK<br><br>HPR HSK | Yes | No | Only required on processor 2 for 1 processor Configuration | 7 x Fans for all Configurations | No |

ⓘ **NOTE:** \* Based on test result, 4x3.5 config could only support CPU TDP up to 205W and DDR5 DIMM up to 12W (64G)

# Optic Transceiver Restriction

Optic transceiver with thermal spec 85C are required for all PCIe and OCP3.0 NIC cards in OSM system.

# Technical specifications for XC760xa

This chapter outlines the technical and environmental specifications of your system.

## Chassis dimensions
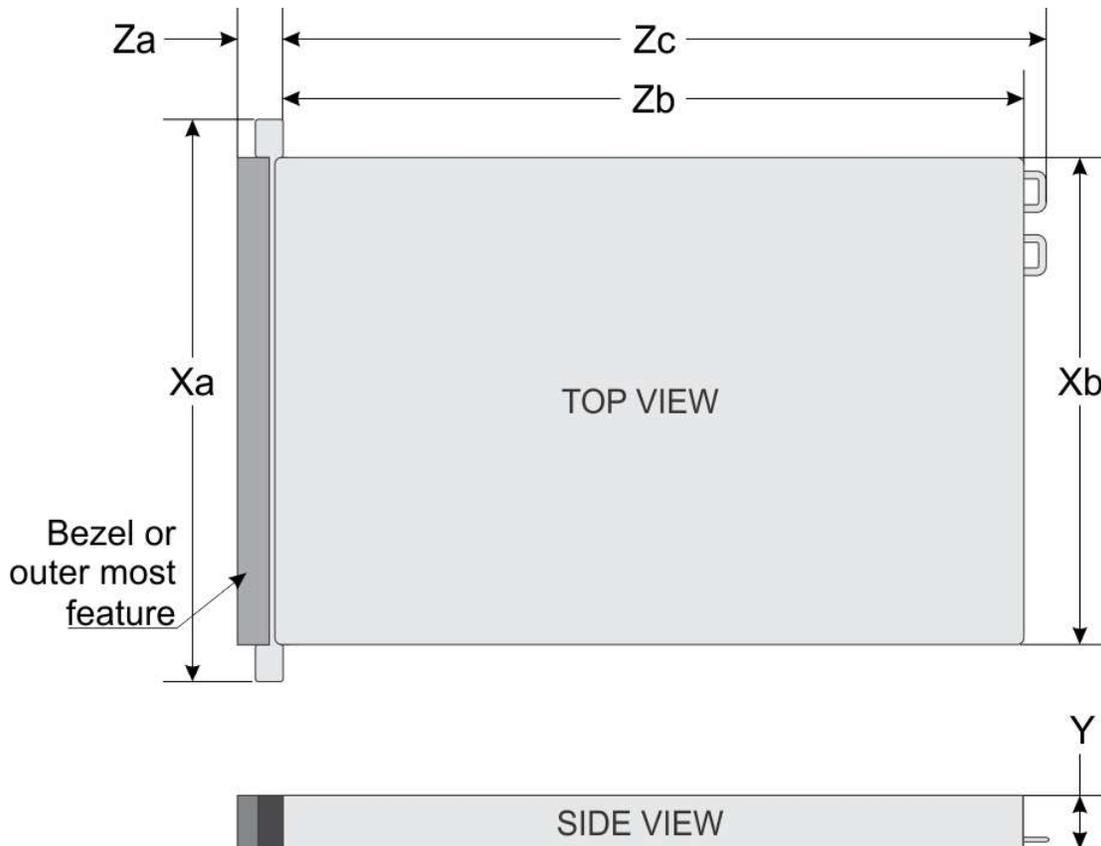


**Figure 13. Chassis dimensions**

**Table 104. XC Core XC760xa chassis dimensions**

| Xa | Xb | Y | Za | Zb | Zc |
|---|---|---|---|---|---|
| 482.0 mm (18.97 inches) | 434.0 mm (17.08 inches) | 42.8 mm (1.68 inches) | 35.84 mm (1.41 inches)With bezel 22 mm (0.86 inches)Without bezel | 751.47 mm (29.6 inches) Ear to rear wall | 787.04 mm (30.99 inches) Ear to PSU handle |

ⓘ **NOTE:** Zb is the nominal rear wall external surface where the system board I/O connectors reside.

# System weight

**Table 105. XC Core XC760xa system weight**

| System configuration | Maximum weight (with all drives/SSDs) |
|---|---|
| A server with fully populated drives | 27.5 kg (60.62 lbs) |
| A server without drives and PSU installed | 25.1 Kg (55.33 lbs) |

# Processor specifications

**Table 106. XC Core XC760xa processor specifications**

| Supported processor | Number of processors supported |
|---|---|
| 4th Generation Intel Xeon Scalable processors | Up to two |

# PSU specifications

The XC Core XC760xa system supports up to two AC or DC power supply units (PSUs).

**Table 107. PSU specifications**

| PSU | Class | Heat dissipation (maximum) (BTU/hr) | Frequency (Hz) | Voltage | AC | | DC | Current (A) |
|---|---|---|---|---|---|---|---|---|
| | | | | | High line wattage (200—240 V AC) | Low line wattage (100—120 V AC) | | |
| 2400 W mixed mode | Platinum | 9000 | 50/60 | 100—240 V AC | 2400 W | 1400 W | N/A | 16—13.5 |
| | N/A | 9000 | N/A | 240 V DC | N/A | N/A | 2400 W | 11.2 |
| 2800 W mixed mode | Titanium | 10500 | 50/60 | 200—240 V AC | 2800 W | N/A | N/A | 15.6 |
| | N/A | 10500 | N/A | 240 V DC | N/A | N/A | 2800 W | 13.6 |
| 3200 W mixed mode | Titanium | 12000 | 50/60 | 277 V | N/A | N/A | 3200 W | 13.0 |
| | Titanium | 12000 | N/A | 336 V | N/A | N/A | 3200 W | 11.5 |

> (i) **NOTE:** Heat dissipation is calculated using the PSU wattage rating.

> (i) **NOTE:** When selecting or upgrading the system configuration, to ensure optimum power utilization, verify the system power consumption with the Enterprise Infrastructure Planning Tool available at Dell.com/calc.

> (i) **NOTE:** If a system with AC 2400 W PSUs operates at low line 100-120 Vac, then the power rating per PSU is degraded to 1400 W.



**Figure 14. PSU power cables**

**Table 108. PSU power cables**

| Form factor | Output | Power cord |
|---|---|---|
| Redundant 86 mm | 2400 W AC | C19 |
| | 2800 W AC | C21 |

# Supported operating systems

The XC Core XC760xa system supports the following operating systems:

- VMware ESXi
- Nutanix AHV

For more information, go to Dell | Server Operating System Support.

# Cooling fan specifications

## Cooling options

The XC Core XC760xa offers two types of cooling options:

- Air cooling

The XC Core XC760xa system supports up to six standard (STD) cooling fans.

**Table 109. Cooling fan specifications**

| Fan type | Abbreviation | Label color | Label image |
|---|---|---|---|
| Standard fans | STD | No label |  |

# System battery specifications

The XC Core XC760xa system uses one CR 2032 3.0-V lithium coin cell battery.

# Expansion card riser specifications

The XC Core XC760xa system supports up to four PCIe Gen5 x16 cards at the rear of the system, and either four DW PCIe Gen5 x16 GPU cards or eight SW PCIe Gen5 x8 GPU cards at the front of the system.

**Table 110. Expansion card slots that are supported on the system board**

| Slot no | Card support | CPU1 | | | CPU2 | | |
|---|---|---|---|---|---|---|---|
| | | R1V | RF1A | RF1B | R4T | RF2A | RF1B |
| PCIe Slot-1 | FH-HL | x16 | - | - | - | - | - |
| PCIe Slot-2 | FH-HL | x16 | - | - | - | - | - |
| PCIe Slot-7 | FH-HL | - | - | - | x16 | - | - |
| PCIe Slot-8 | FH-HL | - | - | - | x16 | - | - |

**Table 110. Expansion card slots that are supported on the system board (continued)**

| Slot no | Card support | CPU1 | | | CPU2 | | |
|---------|-------------|------|------|------|------|------|------|
| | | R1V | RF1A | RF1B | R4T | RF2A | RF1B |
| PCIe Slot-3 1 | FH-FL or FH-HL | - | - | - | - | x16 (DW or SW) | x8 (SW) |
| PCIe Slot-3 2 | FH-FL or FH-HL | - | - | - | - | - | x8 (SW) |
| PCIe Slot-3 3 | FH-FL or FH-HL | - | - | - | - | x16 (DW or SW) | x8 (SW) |
| PCIe Slot-3 4 | FH-FL or FH-HL | - | - | - | - | - | x8 (SW) |
| PCIe Slot-3 5 | FH-FL or FH-HL | - | - | x8 (SW) | - | - | - |
| PCIe Slot-3 6 | FH-FL or FH-HL | - | x16 (DW or SW) | x8 (SW) | - | - | - |
| PCIe Slot-3 7 | FH-FL or FH-HL | - | - | x8 (SW) | - | - | - |
| PCIe Slot-3 8 | FH-FL or FH-HL | - | x16 (DW or SW) | x8 (SW) | - | - | - |

(i) **NOTE:** x16 card is only supported on x16 capable slot.

**Table 111. Label reference**

| Label | Description |
|-------|-------------|
| SW | Single Width |
| DW | Double Width |
| FH | Full Height |
| FL | Full Length |
| HL | Half Length |

# Memory specifications

The XC Core XC760xa system supports the following memory specifications for optimized operation.

**Table 112. Memory specifications**

| DIMM type | DIMM rank | DIMM capacity | Single processor | | Dual processors | |
|---|---|---|---|---|---|---|
| | | | Minimum system capacity | Maximum system capacity | Minimum system capacity | Maximum system capacity |
| DDR5 RDIMM | Single rank | 16 GB | 16 GB | 256 GB | 32 GB | 512 GB |
| | Dual rank | 32 GB | 32 GB | 512 GB | 64 GB | 1 TB |
| | Dual rank | 64 GB | 64 GB | 1 TB | 128 GB | 2 TB |
| | Quad rank | 128 GB | 128 GB | 2 TB | 256 GB | 4 TB |
| | Octa rank | 256 GB | 256 GB | 4 TB | 512 GB | 8 TB |

ⓘ **NOTE:** DDR4 memories are not supported in the XC760xa.

**Table 113. Memory module sockets**

| Memory module sockets | Speed |
|---|---|
| 32, 288-pin | 4800 MT/s, 4400 MT/s |

ⓘ **NOTE:** The processor may reduce the performance of the rated DIMM speed.

ⓘ **NOTE:** Memory DIMM slots are not hot pluggable.

# Storage controller specifications

The XC Core XC760xa system supports the following controller cards:

**Table 114. Storage controller cards**

| Supported storage controller cards |
|---|
| Internal Boot<br>● Boot Optimized Storage Subsystem (BOSS-N1) |
| SAS Host Bus Adapters (HBA)<br>● HBA355i |

# Drives

The XC Core XC760xa system supports:
● 6 x 2.5-inch hot-swappable NVMe drives.

For more information about how to hot swap an NVMe PCIe SSD U.2 device, see the *Dell Express Flash NVMe PCIe SSD User's Guide* at Dell Support (**Browse all Products** > **Infrastructure** > **Data Center Infrastructure** > **Storage Adapters & Controllers** > **Dell PowerEdge Express Flash NVMe PCIe SSD** > **Select this product** > **Documentation** > **Manuals and Documents**).

# Optical drives

The XC Core XC760xa system supports one Slim SATA DVD-ROM drive or DVD +/- RW drive.

ⓘ **NOTE:** DVD devices support only data.

# Ports and connectors specifications

## USB ports specifications

**Table 115. XC Core XC760xa USB specifications**

| Front | | Rear | | Internal (Optional) | |
|---|---|---|---|---|---|
| **USB port type** | **No. of ports** | **USB port type** | **No. of ports** | **USB port type** | **No. of ports** |
| USB 2.0 compliant port | One | USB 2.0 compliant port | One | Internal USB 3.0 compliant port | One |
| iDRAC Direct port (Micro-AB USB 2.0-compliant port | One | USB 3.0 compliant port | One | | |

ⓘ **NOTE:** The micro USB 2.0 compliant port can only be used as an iDRAC Direct or a management port.

## NIC port specifications

The XC Core XC760xa system supports up to two 10/100/1000 Mbps Network Interface Controller (NIC) ports embedded on the LAN on Motherboard (LOM) and integrated on the optional Open Compute Project (OCP) card.

**Table 116. NIC port specification for the system**

| Feature | Specifications |
|---|---|
| LOM card (optional) | 1 GbE x 2 |
| OCP card (OCP 3.0) (optional) | 10 GbE x 2, 10 GbE x 4, 25 GbE x 2, 25 GbE x 4 |

ⓘ **NOTE:** The system should have either a LOM card or an OCP card that is installed in the system.

ⓘ **NOTE:** On the system board, the supported OCP PCIe width is x8; when x16 PCIe width is installed, it is downgraded to x8.

## Serial connector specifications

The XC Core XC760xa system supports one optional card type serial connector, which is a 9-pin connector, Data Terminal Equipment (DTE), 16550-compliant.

The optional serial connector card is installed similar to an expansion card filler bracket.

## VGA ports specifications

The XC Core XC760xa system supports DB-15 VGA port on front panel and on rear I/O board.

# Video specifications

The XC Core XC760xa system supports integrated Matrox G200 graphics controller with 16 MB of video frame buffer.

**Table 117. Supported video resolution options**

| Resolution | Refresh rate (Hz) | Color depth (bits) |
|---|---|---|
| 1024 x 768 | 60 | 8, 16, 32 |

**Table 117. Supported video resolution options  (continued)**

| Resolution | Refresh rate (Hz) | Color depth (bits) |
|---|---|---|
| 1280 x 800 | 60 | 8, 16, 32 |
| 1280 x 1024 | 60 | 8, 16, 32 |
| 1360 x 768 | 60 | 8, 16, 32 |
| 1440 x 900 | 60 | 8, 16, 32 |
| 1600 x 900 | 60 | 8, 16, 32 |
| 1600 x 1200 | 60 | 8, 16, 32 |
| 1680 x 1050 | 60 | 8, 16, 32 |
| 1920 x 1080 | 60 | 8, 16, 32 |
| 1920 x 1200 | 60 | 8, 16, 32 |

**9**

# Documentation matrix

The documentation matrix provides information about the documents that you use to configure and deploy the Dell Hyper-Converged Appliance solution.

> ⚠ **WARNING: See the safety and regulatory information that shipped with your system. Warranty information may be included with this document or as a separate document.**

Make sure that you read through any media that ships with your system that provides documentation and tools for configuring and managing your system, including those pertaining to the OS, system management software, system updates, and system components that you purchased with your system.

> ⓘ **NOTE:** URLs such as Dell.com/support or Dell.com/support/home are not active because you must type the URL from your location to access your specific language.

For the full name of an abbreviation or acronym used in this document, see the Glossary at Dell.com/support/home.

> ⓘ **NOTE:** Always read the updates on Dell.com/support/home because they often supersede information in other documents.

> ⓘ **NOTE:** While upgrading your system, Dell recommends that you download and install the latest BIOS, driver, and systems management firmware on your system from Dell.com/support/home.

# Contacting Dell

Dell provides several online and telephone-based support and service options.

**About this task**

If you do not have an active internet connection, you can find contact information about your purchase invoice, packing slip, bill, or Dell product catalog. Availability varies by country and product, and some services may not be available in your area. To contact Dell for sales, technical assistance, or customer-service issues:

**Steps**

1. Go to **Dell.com/support**.
2. Select your country from the drop-down menu on the lower right corner of the page.
3. For customized support, enter your system **Service Tag** and then click **Submit**.
   The support page that lists the various support categories is displayed.
4. For general support, select your product category, product segment and product.
   The support page that lists the various support categories is displayed.
5. For contact details of Dell Global Technical Support, click **Global Technical Support**.
   The Contact Technical Support page is displayed with details to call, chat, or email the Dell Global Technical Support team.

# Dell XC Core

The Dell XC Core, hyperconverged appliance for Nutanix Cloud Platform, integrates Dell's PowerEdge server platforms to deliver enterprise-grade infrastructure solutions tailored for virtualized environments. These 1U and 2U appliances consolidate compute and storage into a single platform, enabling organizations to deploy new workloads quickly and easily while scaling performance and capacity one node at a time.

Built on Dell PowerEdge servers powered by Intel ® Xeon® processors, XC core offers multiple configurations for compute, memory, storage, network, and accelerators. With the ability to scale capacity and performance linearly and predictably—one node at a time—XC Core delivers pay-as-you-grow flexibility, empowering IT teams to innovate and accelerate application delivery across hybrid clouds. Eliminate the complexity of hybrid cloud environments with a single platform powered by Nutanix for on-premises, public cloud, and edge locations.

## Streamline operations with a powerful single management plane

The Nutanix Prism management framework provides a highly intuitive, easy-to-use graphical user interface (GUI). Prism provides the ability to define and manage the XC Core from nearly any device and includes REST APIs for integration with third-party cloud management systems. It also gives administrators a bird's eye view of resources across multiple clusters running different hypervisors and enables them to manage individual clusters using the GUI or a Windows PowerShell command-line interface. The enhanced Nutanix lifecycle management works with XC iDRAC for faster, streamlined updates, while automated app-aware data management boosts resiliency, application performance, and read consistency.

## Optimize performance for traditional and modern workloads

Dell Technologies' 14+ years of experience in integrating hardware and Nutanix software helps design, validate and test the optimal processor, memory, and storage configurations for XC Core. This experience simplifies common workflows throughout the lifecycle, starting with factory-installed hypervisors and pre-configured system settings for maximum performance. With built-in Nutanix intelligence that utilizes AI and adaptive machine learning, XC Core ensures optimal application performance, data-driven resource planning, and automatic detection and resolution of slowdowns and security events. Pre-configured options with flexible compute and storage ratios, including all-flash configurations and support for Nutanix AHV, making them ideal for running diverse applications on a single platform. This versatility supports a wide array of applications and requirements that includes VDI, databases, server virtualization, and AI workloads. Accelerate your digital transformation with a modern, container-ready infrastructure that powers both traditional and cloud-native applications on a single platform, maximizing business continuity.

# Dell XC HW platforms

| Node | XC660xs | XC660 | XC760 | XC760xa | XC7625 | XC4000 |
|---|---|---|---|---|---|---|
| **Chassis** | 4 x 3.5" drives | 10 x 2.5" SSD, 12 x 2.5" NVMe | 12 x 3.5" drives + 2x2.5" rear<br><br>24 x 2.5" drives (All SSD and All NVMe) | 6 x 2.5" drives NVMe | 24 x 2.5" drives (w/NVMe) | 4 or 8 x M.2 drives |
| **Form Factor** | 1U Single socket or Dual socket | 1U Dual socket | 2U Dual socket | 2U Dual socket | 2U Dual socket | 2U<br><br>Up to 4 nodes for 4000r, 2 nodes for 4000z |
| **CPU** | Single or Dual Intel Xeon Scalable Gen<br><br>Up to 32 Cores per processor | Dual Intel Xeon Scalable Gen<br><br>Up to 52 Cores per processor | Dual Intel Xeon Scalable Gen<br><br>Up to 56 Cores per processor | Dual Intel Xeon Scalable Gen<br><br>Up to 56 Cores per processor | Dual AMD EPYC<br><br>Up to 128 cores per processor | Single Intel Xeon-D<br><br>Up to 20 core |
| **Memory** | Dual proc: Min 64GB to Max 1024GB<br><br>Single proc: Min 32GB to Max 512GB | Min 128GB to Max 4096GB | Min 128GB to Max 4096GB | Min 128GB to Max 8192GB | Min 128GB to Max 3072GB | Min 64GB, Max 512GB |
| **Storage Capability** | Up to 55.36 TB<br><br>All SSD, SSD+HDD | Up to 184.32 TB<br><br>All SSD, All NVMe | Up to 368.64 TB<br><br>All SSD, SSD/HDD, All NVME | Up to 92.16 TB<br><br>All NVMe | Up to 368.64 TB<br><br>NVMe+SSD, All SSD, All NVMe | Up to 30.72TB<br><br>All NVMe |
| **Data Storage controller** | HBA355 | HBA355 | HBA355i* | N/A | HBA355i | N/A |
| **GPU** | N/A | Up to 3x Nvidia L4 | Up to 2x DW (A16, A30, A40, A800 China only), L40, L40s)<br><br>Up to 2x SW (L4)<br><br>** | Up to 4x DW (A16, A30, A40, A800 (China only), L40, L40s)<br><br>Up to 8x SW (L4) | Up to 2x DW (A16, A30, A40, A800 (China only), L40s, L40,)<br><br>Up to 2x SW (L4) | Up to 2 A2, and up to 1 L4, A30 (2U only) |
| **Workload** | Simple HCI workloads in ROBO | VDI, test/dev, private cloud, virtualized apps | Storage heavy, high performance, AI, Exchange, SharePoint, big data, MSSQL, Oracle | High Density with GPU, AI ML | High performance, multi-thread architecture workloads (VDI, database), AI/ML | Harsh edge environments requiring rugged nodes - Industrial Automation, Transportation, Military & Defense, Marine, and Telecom industries |
| **Networking** | OCP cards: Intel 10 and 25Gb; Mellanox 25 and 100Gb; Broadcom 10, 25 and 100Gb (not available on XC4000)<br><br>Optional Network Interface Cards: Intel 10, 25 and 100Gb; Mellanox 25 and 100Gb; Broadcom 10, 25 and 100Gb<br><br>Note: Foundation imaging requires min 10GbE interface | | | | | |

*No Controller for XC760-24N

**XC760-14 configuration does not support GPU options

**DELL**Technologies

## Built-in security

The XC is built on a cyber-resilient architecture with security integrated throughout the product lifecycle. Dell Technologies ensures system security from design to disposal.

**Key features include:**

- Secure component supply chain: Protects data from the factory to data center.
- Cryptographically signed firmware and Secure Boot: Safeguard data integrity.
- Server Lockdown: Prevents unauthorized system changes.

## Dell support and deployment services

Dell XC nodes are expertly installed by certified engineers, ensuring a smooth deployment process. Dell and Nutanix offer joint support, with Dell handling hardware and integration, and Nutanix focusing on software. For complex issues spanning both hardware and software, both companies work seamlessly together to deliver rapid resolutions.

Proactive tools that include iDRAC and SupportAssist predict and prevent hardware issues, minimizing downtime. Dell's 24/7 global support team across 167 countries offers assistance in multiple languages, providing unparalleled support and rapid resolutions.

Learn more about
Dell XC family ›

Contact a Dell
Technologies Expert ›

Join the conversation
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**DELL**Technologies

# Nutanix Cloud Manager

**Intelligent Operations**

## NCM Intelligent Operations
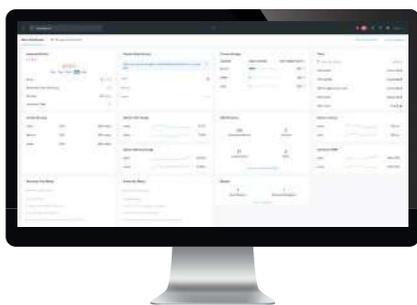


Nutanix Cloud Manager Intelligent Operations (formerly Prism Pro/Ultimate) is an end-to-end consumer-grade management and operations solution for virtualized datacenter environments that brings unprecedented simplicity by combining several aspects of administration, reporting, and intelligent automation for IT Operations. NCM Intelligent Ops is available in NCM Starter and Pro tiers – to learn more about additional functionality offered in NCM tiers, please navigate here.

NCM Pro tier adds Advanced AI Operations capabilities that address IT Ops teams' workflow. With these, NCM intelligently plans and optimizes for capacity, proactively detects performance anomalies, and enables codeless automation of operations tasks. These are capabilities powered by machine learning and work with major ITSM tools. Also included in the operations tiers are advanced application insights and automation for troubleshooting applications.

NCM Intelligent Ops features can be accessed via the Prism Central console (PC) which is included with all NCM licensing tiers. PC provides a unified interface for managing all  your clusters, globally, from a single management interface.



## AUTOMATED OPTIMIZATION AND REMEDIATION

Intelligent Ops includes a powerful application and VM-centric capacity forecast, planning, and optimization engine powered by Nutanix's X-Fit algorithm.

- **Capacity Behavior Analytics:** Predictive analysis of capacity usage and trends based on workload behavior enabling pay-as-you-grow scaling.

- **Capacity Optimization:** Inefficiency detection in resource usage and automated optimization of VM sizing based on behavioral analysis.

- **Anomaly Detection:** Predictive monitoring-based machine learning to generate actionable signals and provide early warnings.

## OPERATIONAL AUTOMATION

Intelligent Ops' X-Play links intuitive signals with automated actions.
Build codeless automation routines and improve operations productivity

• Codeless Task Automation: Create playbooks for common troubleshooting steps. These playbooks can be triggered automatically based on the alert polices.

• Action Gallery: A collection of out-of-the-box actions for notification, VM management, reporting, and scheduling. It also includes the REST and script actions that can connect to your existing tools and systems.

• Ticketing Integration: Integrates with ServiceNow, Jira and other IT service management tools to track infrastructure shortages, automate ticket creation, and resolve alerts and incidents within ITSM systems.



## APPLICATION INSIGHTS AND BROAD AUTOMATION

Intelligent Ops can quickly isolate problems between the infrastructure and application stack. Now get intelligent alerts for application metrics as well.

• Applicating Discovery: Real-time agentless discovery of applications, via IPFIX data, gives an understanding of the full stack of applications.

• Application Monitoring: Visibility into databases, queries and metrics to reduce RCA time for application issues.

• Non-AOS VM Monitoring and Automation: A single pane for entire virtual infrastructure, even non-AOS environments, including monitoring, alerts, and playbook automation.

Notes:
• NCM licenses can be purchased and applied on the number of physical CPU cores capacity in your deployment. Licenses are portable across hardware platforms and are available in 1 through 5-year term option
• Intelligent Ops will also available as a fully managed SaaS option – Operations as a Service – and will be available to purchase as à la carte. Please contact Nutanix Sales for further details
• NCM Intelligent Ops fits into NCM tiers – to see how these features are broken into tiers, please go to the Nutanix Cloud Platform Software Options page

* NCM Pro tier also includes Self-Service and Orchestration and Cost Governance functionality in addition to IT Operations

|  | NCM STARTER | NCM PRO* |
|---|---|---|
| Ideal for | Infrastructure AIOps: Monitoring, planning, right-sizing and low code automation | IaaS across private and public clouds, plus cost governance |
| **Intelligent Operations** | | |
| Reporting | ✓ | ✓ |
| Capacity Forecast and Planning | ✓ | ✓ |
| Resource inefficiency Detection and Right-sizing | ✓ | ✓ |
| Support for ESXi on non-NCI Environments | ✓ | ✓ |
| Low-code/No-code Operations Automation | ✓ | ✓ |
| SQL Server Monitoring for IT Ops |  | ✓ |
| Application Discovery |  | ✓ |
| Self-tuning with Machine Learning |  | ✓ |

**NUTANIX**™

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# COMPLETE AGENT-FREE MANAGEMENT OF POWEREDGE SERVERS

Dell iDRAC9 provides security and intelligent automation.
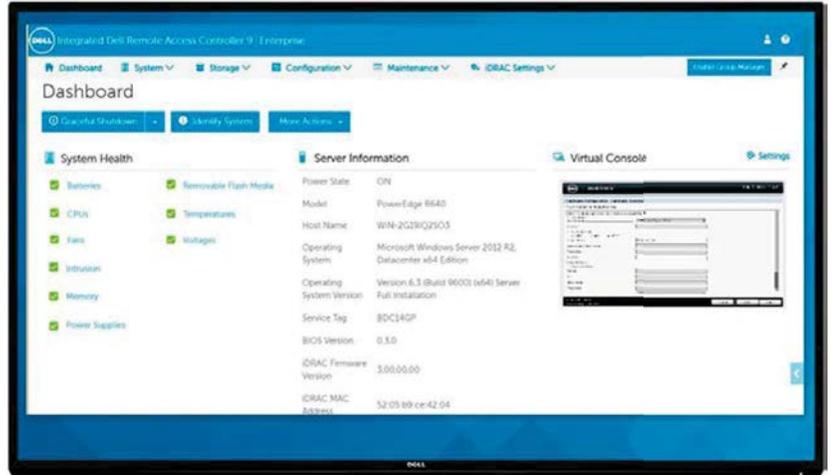
## Modernize with the Dell EMC PowerEdge portfolio

The integrated Dell Remote Access Controller 9 (iDRAC9) delivers advanced, agent-free local and remote server administration. Embedded in every PowerEdge server, iDRAC9 provides a secure means to automate a multitude of common management tasks. Because iDRAC9 is embedded in every PowerEdge server, there's no additional software to install; just plug in power and network cables, and iDRAC9 is ready to go. Even before installing an operating system or hypervisor, IT administrators have a complete set of server management features at their fingertips: Maximize storage performance with up to 12 NVMe drives and ensure application performance scales easily.

- Configuration
- OS deployment
- Firmware updates
- Health monitoring
- Automation of other routine management activities

## Scalable Architecture

With iDRAC9 in place across the PowerEdge portfolio, the same IT administration techniques and tools can be applied throughout This consistent management platform allows easy scaling of PowerEdge servers as an organization's infrastructure needs grow. Customers will be able to use the iDRAC RESTful API for the latest in scalable administration methods of PowerEdge servers. With this API, iDRAC9 enables support for the Redfish standard and enhances it with Dell EMC extensions to optimize at-scale management of PowerEdge servers. Regardless of size though, the entire OpenManage portfolio of systems management tools allows every customer to tailor an effective, affordable solution for their environment. This portfolio includes tools, consoles and integrations.

Each component leverages iDRAC9 to make management easy. By extending the reach of administrators to larger numbers of servers, that staff becomes more productive and drives down costs.

## Intelligent Automation

Dell's agent-free management puts IT administrators in control. Once a PowerEdge server is connected to power and networking, that system can be monitored and fully managed, whether you're standing in front of the server or remotely over a network. In fact, with no need for software agents, an IT administrator can:

- Monitor
- Manage
- Update
- Troubleshoot and remediate Dell EMC servers

With features like zero-touch deployment and provisioning, iDRAC Group Manager, and System Lockdown, iDRAC9 is purpose-built to make server administration quick and easy. For those customers whose existing management platform utilizes in-band management, Dell EMC does provide iDRAC Service Module, a lightweight service that can interact with both iDRAC9 and the host operating system to support legacy management platforms.

## Secure Local and Remote Management

Whether iDRAC9 is used via the updated, HTML5-based web interface, command line interface, or via a set of robust APIs such as the iDRAC RESTful API, security is ensured with HTTPS, SSL, Smart Card authentication, LDAP, and Active Directory integration. The iDRAC9 web interface, remote RACADM utility, and WS-MAN interfaces all support TLS 1.2. Every web page served by the iDRAC9 is delivered with TLS encryption at 256-bit strength (unless configured otherwise). Dell also supports encryption on the virtual KVM (virtual console redirection) and virtual media over TLS. The iDRAC9 virtual console and media also benefit from SSL encryption. Additionally, the iDRAC9 firmware is equipped with a default security certificate, which can be replaced by one of a customer's choosing. By providing secure access remote servers, administrators can carry out critical management functions while maintaining the integrity and security of their data.

## The Heart of PowerEdge Manageability

The iDRAC9 provides common, embedded management across the PowerEdge family of servers, automation that lets your organization grow, and ensure security for peace of mind. This is why iDRAC is the core of managing Dell EMC servers. From the variety of tools and technologies in the OpenManage portfolio, a customer can build a management solution that matches their needs, and by leveraging iDRAC9, ensures optimal server management.

| Key iDRAC9 Features and Specifications | |
|---|---|
| BIOS Recovery | Detect an invalid, untrusted BIOS image when a boot is attempted and recover to an authenticated, trusted BIOS image. |
| Connection View | Quickly check if server LOMs/NDCs and iDRAC are connected to the correct switches and ports via the GUI or by command line interface. This helps prevent costly remote dispatch of technicians to remediate cabling errors. |
| Full Power Cycle | By utilizing the iDRAC Service Module (iSM), DC power, including AUX power, can be temporarily removed via local or remote control to reset all power nodes in a server, saving time when troubleshooting. |
| iDRAC Direct | Secure front-panel USB connection to iDRAC web interface which eliminates the need for crash carts or a trip to the hot aisle of your data center. You can use the same port to insert a USB key to upload new system profile for secure, rapid system configuration |
| iDRAC Group Manager | Provides built-in, one-to-many monitoring and inventory of local iDRAC9s with no software to install.  Ideal for customers who don't want to install and maintain a separate monitoring console.  This feature does require iDRAC Enterprise licenses. |
| iDRAC RESTful API | With this API, iDRAC enables support for the Redfish standard and enhances it with Dell extensions. |
| Multi Vector Cooling | Airflow for each PCIe slot can be fine-tuned to ensure proper cooling. This allows for greater power efficiency and more precise cooling within each server for accessory cards. |
| OpenManage Mobile and Quick Sync 2 | Use the OpenManage Mobile 2.0 (or higher) app on your handheld device to securely retrieve critical health data and easily perform bare-metal server configuration tasks via BLE/Wi-Fi connectivity. Compatible with various iOS and Android devices. |
| System Erase | With proper authentication, administrators can securely erase data from local storage (HDDs, SSDs, NVMs) and embedded flash devices. |
| System Lockdown | Helps to prevent configuration or firmware changes to a server when using Dell tools.  Requires iDRAC Enterprise License. |
| Zero touch deployment and provisioning | When ordered with DHCP enabled from the factory, PowerEdge servers can be automatically configured when they are initially powered up and connected to your network. This process uses profile-based configurations that ensure each server is configured per your specifications. This feature requires an iDRAC Enterprise license. |

| iDRAC Licenses / Server Model | 200-500 Series Rack / Tower | 600+ Rack/Tower | Modular |
|---|---|---|---|
| **Basic** | Standard | n/a | n/a |
| **Express** | Optional | Standard | n/a |
| **Express for Blades** | n/a | n/a | Standard |
| **Enterprise** | Upgrade | Upgrade | Upgrade |
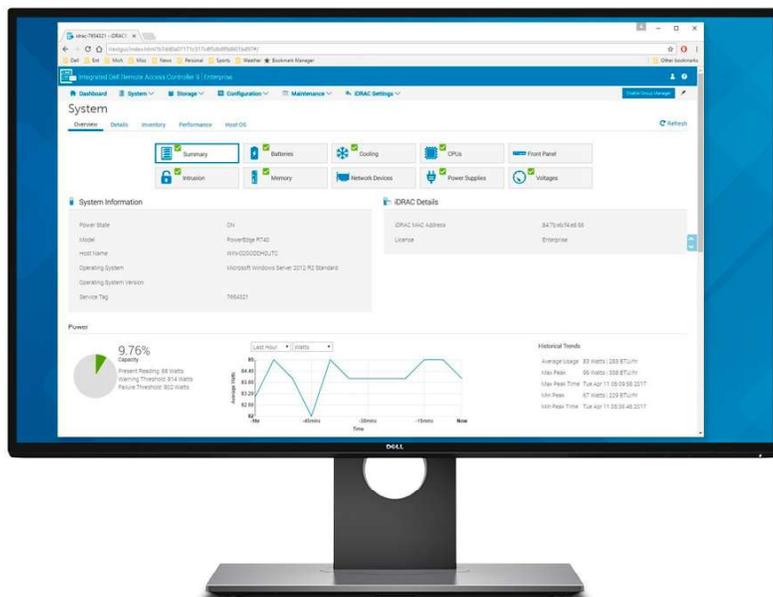


Learn more at
[dell.com/poweredge](dell.com/poweredge) and
[delltechcenter.com/idrac](delltechcenter.com/idrac)

## iDRAC 9 License Levels and Features

| License Type | Basic | Express | Express for Blades | Enterprise |
|---|---|---|---|---|
| **Interfaces / Standards** | | | | |
| Redfish | ✓ | ✓ | ✓ | ✓ |
| IPMI 2.0 | ✓ | ✓ | ✓ | ✓ |
| DCMI 1.5 | ✓ | ✓ | ✓ | ✓ |
| Web-based GUI | ✓ | ✓ | ✓ | ✓ |
| Racadm command line (local/remote) | ✓ | ✓ | ✓ | ✓ |
| SMASH-CLP (SSH-only) | ✓ | ✓ | ✓ | ✓ |
| Telnet | ✓ | ✓ | ✓ | ✓ |
| SSH | ✓ | ✓ | ✓ | ✓ |
| Serial Redirection | ✓ | ✓ | ✓ | ✓ |
| WSMAN | ✓ | ✓ | ✓ | ✓ |
| Network Time Protocol | | ✓ | ✓ | ✓ |
| **Connectivity** | | | | |
| Shared NIC | ✓ | ✓ | N/A | ✓[1] |
| Dedicated NIC | ✓ | ✓ | ✓ | ✓[2] |
| VLAN tagging | ✓ | ✓ | ✓ | ✓ |
| IPv4 | ✓ | ✓ | ✓ | ✓ |
| IPv6 | ✓ | ✓ | ✓ | ✓ |
| DHCP  (new default; not static IP) | ✓ | ✓ | ✓ | ✓ |
| DHCP with Zero Touch | | | | ✓ |
| Dynamic DNS | ✓ | ✓ | ✓ | ✓ |
| OS pass-through | ✓ | ✓ | ✓ | ✓ |
| iDRAC Direct - Front panel USB | ✓ | ✓ | ✓ | ✓ |
| Connection View | ✓ | ✓ | | ✓ |
| NFS v4 | ✓ | ✓ | ✓ | ✓ |
| SMB3.0 with NTLMv1 and NTLMv2 | ✓ | ✓ | ✓ | ✓ |
| **Security** | | | | |
| Role-based authority | ✓ | ✓ | ✓ | ✓ |
| Local users | ✓ | ✓ | ✓ | ✓ |
| SSL encryption | ✓ | ✓ | ✓ | ✓ |
| IP blocking | | ✓ | ✓ | ✓ |
| Directory services (AD, LDAP) | | | | ✓ |
| Two-factor authentication | | | | ✓ |
| Single sign-on | | | | ✓ |
| PK authentication | | ✓ | ✓ | ✓ |
| Secure UEFI boot - certificate management | ✓ | ✓ | ✓ | ✓ |
| Lock down mode | | | | ✓ |
| Unique iDRAC default password | ✓ | ✓ | ✓ | ✓ |
| FIPS 140-2 | ✓ | ✓ | ✓ | ✓ |
| Customizable Security Policy Banner - login page | ✓ | ✓ | ✓ | ✓ |

| iDRAC 9 License Levels and Features | | | | |
|---|---|---|---|---|
| License Type | Basic | Express | Express for Blades | Enterprise |
| Quick Sync 2.0 - optional auth for read operations | ✓ | ✓ | ✓ | ✓ |
| Quick Sync 2.0 - add mobile device number to LCL | ✓ | ✓ | ✓ | ✓ |
| System Erase of internal storage devices | ✓ | ✓ | ✓ | ✓ |
| Remote Presence | | | | |
| Power control | ✓ | ✓ | ✓ | ✓ |
| Boot control | ✓ | ✓ | ✓ | ✓ |
| Serial-over-LAN | ✓ | ✓ | ✓ | ✓ |
| Virtual Media | | | ✓ | ✓ |
| Virtual Folders | | | | ✓ |
| Remote File Share | | | | ✓ |
| Virtual Console | | | ✓ | ✓ |
| HTML5 access to Virtual Console | | | ✓ | ✓ |
| VNC connection to OS | | | | ✓ |
| Quality/bandwidth control | | | | ✓ |
| Virtual Console collaboration (6 users)[2, 3] | | | | ✓ |
| Virtual Console chat | | | | ✓ |
| Virtual Flash partitions | | | | ✓ |
| Group Manager | | | | ✓ |
| HTTP / HTTPS support along with NFS/CIFS | ✓ | ✓ | ✓ | ✓ |
| Power & Thermal | | | | |
| Real-time power meter | ✓ | ✓ | ✓ | ✓ |
| Power thresholds & alerts | | ✓ | ✓ | ✓ |
| Real-time power graphing | | ✓ | ✓ | ✓ |
| Historical power counters | | ✓ | ✓ | ✓ |
| Power Capping | | | | ✓ |
| OpenManage Power Center integration (view only) | | ✓ | ✓ | ✓ |
| Temperature monitoring | ✓ | ✓ | ✓ | ✓ |
| Temperature graphing | | ✓ | ✓ | ✓ |
| Health Monitoring | | | | |
| Full agent-free monitoring | ✓ | ✓ | ✓ | ✓ |
| Predictive failure monitoring | ✓ | ✓ | ✓ | ✓ |
| SNMPv1, v2, and v3 (traps and gets) | ✓ | ✓ | ✓ | ✓ |
| Email Alerting | | ✓ | ✓ | ✓ |
| Configurable thresholds | ✓ | ✓ | ✓ | ✓ |
| Fan monitoring | ✓ | ✓ | ✓ | ✓ |
| Power Supply monitoring | ✓ | ✓ | ✓ | ✓ |
| Memory monitoring | ✓ | ✓ | ✓ | ✓ |
| CPU monitoring | ✓ | ✓ | ✓ | ✓ |
| RAID monitoring | ✓ | ✓ | ✓ | ✓ |
| NIC monitoring | ✓ | ✓ | ✓ | ✓ |
| HD monitoring (enclosure) | ✓ | ✓ | ✓ | ✓ |
| Out of Band Performance Monitoring | | | | ✓ |
| Alerts for excessive SSD wear | ✓ | ✓ | ✓ | ✓ |

## iDRAC 9 License Levels and Features

| License Type | Basic | Express | Express for Blades | Enterprise |
|---|:---:|:---:|:---:|:---:|
| Customizable settings for Exhaust Temperature | ✓ | ✓ | ✓ | ✓ |
| **Update** | | | | |
| Remote agent-free update | ✓ | ✓ | ✓ | ✓ |
| Embedded update tools | ✓ | ✓ | ✓ | ✓ |
| Sync with repository (scheduled updates) | | | | ✓ |
| Auto-update | | | | ✓ |
| Improved PSU firmware updates | ✓ | ✓ | ✓ | ✓ |
| **Deployment & Configuration** | | | | |
| Local configuration via F10 | ✓ | ✓ | ✓ | ✓ |
| Embedded OS deployment tools | ✓ | ✓ | ✓ | ✓ |
| Embedded configuration tools | ✓ | ✓ | ✓ | ✓ |
| Auto-Discovery | | ✓ | ✓ | ✓ |
| Remote OS deployment | | ✓ | ✓ | ✓ |
| Embedded driver pack | ✓ | ✓ | ✓ | ✓ |
| Full configuration inventory | ✓ | ✓ | ✓ | ✓ |
| Inventory export | ✓ | ✓ | ✓ | ✓ |
| Remote configuration | ✓ | ✓ | ✓ | ✓ |
| Zerotouch configuration | | | | ✓ |
| System Retire/Repurpose | ✓ | ✓ | ✓ | ✓ |
| Server Configuration Profile in GUI | ✓ | ✓ | ✓ | ✓ |
| **Diagnostics, Service & Logging** | | | | |
| Embedded diagnostic tools | ✓ | ✓ | ✓ | ✓ |
| Part Replacement | | ✓ | ✓ | ✓ |
| Server Configuration Backup | | | | ✓ |
| Server Configuration Restore | ✓ | ✓ | ✓ | ✓ |
| Easy Restore (system configuration) | ✓ | ✓ | ✓ | ✓ |
| Easy Restore Auto Timeout | ✓ | ✓ | ✓ | ✓ |
| Health LED / LCD (requires optional bezel)[5] | ✓ | ✓ | N/A | ✓ |
| Quick Sync (require NFC bezel, 13G only) | | | | |
| Quick Sync 2.0 (requires optional BLE/WiFi hardware) | ✓ | ✓ | ✓ | ✓ |
| iDRAC Direct (front USB management port) | ✓ | ✓ | ✓ | ✓ |
| iDRAC Service Module (iSM) embedded | ✓ | ✓ | ✓ | ✓ |
| Alert forwarding via iSM to inband monitoring consoles | ✓ | ✓ | ✓ | ✓ |
| Crash screen capture | | ✓ | ✓ | ✓ |
| Crash video capture [4] | | | | ✓ |
| Boot capture | | | | ✓ |
| Manual reset for iDRAC (LCD ID button) | ✓ | ✓ | ✓ | ✓ |
| Remote reset for iDRAC (requires iSM) | ✓ | ✓ | ✓ | ✓ |

## iDRAC 9 License Levels and Features

| License Type | Basic | Express | Express for Blades | Enterprise |
|---|---|---|---|---|
| Virtual NMI | ✓ | ✓ | ✓ | ✓ |
| OS watchdog [4] | ✓ | ✓ | ✓ | ✓ |
| SupportAssist Report (embedded) | ✓ | ✓ | ✓ | ✓ |
| System Event Log | ✓ | ✓ | ✓ | ✓ |
| Lifecycle Log | ✓ | ✓ | ✓ | ✓ |
| Enhanced Logging in Lifecycle Controller Log | ✓ | ✓ | ✓ | ✓ |
| Work notes | ✓ | ✓ | ✓ | ✓ |
| Remote Syslog | | | | ✓ |
| License management | ✓ | ✓ | ✓ | ✓ |
| **Improved Customer Experience** | | | | |
| iDRAC -Faster processor, more memory | ✓ | ✓ | ✓ | ✓ |
| GUI rendered in HTML5 | ✓ | ✓ | ✓ | ✓ |
| Add BIOS configuration to iDRAC GUI | ✓ | ✓ | ✓ | ✓ |
| iDRAC support for SW RAID licensing | ✓ | ✓ | ✓ | ✓ |

footnotes:
1   Not available with blade servers.
2   500 series and lower rack and tower servers require a hardware card to enable this feature; this hardware offered at additional cost.
3   Requires vFlash SD card media.
4   Requires iDRAC Service Module (iSM) or OpenManage Server Administrator (OMSA).
5   Requires optional bezel.

DELLEMC

# XC7625-24N SPECIFICATION

| Model | Dell: Per Node ( per Block) XC7625-24N (Configure to Order) |
|---|---|

| FORM FACTOR | 2U1N |
|---|---|

| DEPLOYMENT MODEL | Factory Installed Software |
|---|---|

| USE CASE(S) | AI/ML, Analytics and Big Data, Database and Business Critical Apps, DB, End-User Computing/Virtual Desktop Infrastructure, High Performance, Test and Development, VDI |
|---|---|

| SERVER COMPUTE** | Dual AMD EPYC™ 9004 Series (Genoa) |
|---|---|
| | AMD EPYC™ 9174F [16 cores / 4.10 GHz] |
| | AMD EPYC™ 9124 [16 cores / 3.00 GHz] |
| | AMD EPYC™ 9274F [24 cores / 4.05 GHz] |
| | AMD EPYC™ 9224 [24 cores / 2.50 GHz] |
| | AMD EPYC™ 9254 [24 cores / 2.90 GHz] |
| | AMD EPYC™ 9374F [32 cores / 3.85 GHz] |
| | AMD EPYC™ 9354 [32 cores / 3.25 GHz] |
| | AMD EPYC™ 9334 [32 cores / 2.70 GHz] |
| | AMD EPYC™ 9474F [48 cores / 3.60 GHz] |
| | AMD EPYC™ 9454 [48 cores / 2.75 GHz] |
| | AMD EPYC™ 9534 [64 cores / 2.45 GHz] |
| | AMD EPYC™ 9554 [64 cores / 3.10 GHz] |
| | AMD EPYC™ 9634 [84 cores / 2.25 GHz] |
| | AMD EPYC™ 9654 [96 cores / 2.40 GHz] |
| | AMD EPYC™ 9734 [112 cores / 2.20 GHz] |
| | AMD EPYC™ 9754 [128 cores / 2.25 GHz] |

**Boot**

| Boot Device | [1] x BOSS-N1 controller card + with 2 M.2 480GB (RAID 1)<br>[1] x BOSS-N1 controller card + with 2 M.2 960GB (RAID 1) |
|---|---|

**STORAGE CAPACITY**

| All NVMe | [4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20] x NVMe: [1.6 TB, 1.92 TB, 3.2 TB, 3.84 TB, 6.4 TB, 7.68 TB, 15.36 TB] |
|---|---|

| MEMORY | 64 GB, 96 GB, 128 GB, 160 GB, 192 GB, 224 GB, 256 GB, 288 GB, 320 GB, 352 GB, 384 GB, 448 GB, 512 GB, 576 GB, 640 GB, 704 GB, 768 GB, 896 GB, 960 GB, 1024 GB, 1152 GB, 1280 GB, 1344 GB, 1408 GB, 1536 GB, 1728 GB, 1792 GB, 1920 GB, 2048 GB, 2112 GB, 2304 GB, 2560 GB, 2816 GB, 3072 GB |
|---|---|

**NETWORK CONNECTIONS**

| Network Card | [0, 1, 2, 3, 4, 5, 6, 7, 8] x 1GbE 2P NIC<br>[0, 1, 2, 3, 4, 5, 6, 7, 8] x 10GbE 2P NIC<br>[0, 1, 2, 3, 4, 5, 6, 7, 8] x 10GbE 4P NIC<br>[0, 1, 2, 3, 4, 5, 6, 7, 8] x 25GbE 2P NIC<br>[0, 1, 2, 3, 4, 5, 6, 7, 8] x 25GbE 4P NIC<br>[0, 1, 2, 3, 4, 5, 6, 7, 8] x 100GbE 2P NIC |
|---|---|

| OCP | [1] x 10GbE 2P OCP NIC<br>[1] x 10GbE 4P OCP NIC<br>[1] x 25GbE 2P OCP NIC<br>[1] x 25GbE 4P OCP NIC |
|---|---|

**NUTANIX**™

| Model | Dell: Per Node ( per Block) XC7625-24N (Configure to Order) |
|---|---|

| GPU | [1, 2] x NVIDIA Ampere A40, PCIe, 300W, 48GB Passive, Double Wide, Full Height GPU<br>[1, 2] x NVIDIA Ampere A30, PCIe, 165W, 24GB Passive, Double Wide, Full Height GPU<br>[1, 2] x NVIDIA Ampere A100, PCIe, 300W, 80GB Passive, Double Wide, Full Height GPU<br>[1, 2] x NVIDIA Ampere A16, PCIe, 250W, 64GB Passive, DW, FH GPU, Requires vGPU SW for VDI<br>[1, 2] x NVIDIA L40, PCIe, 300W, 48GB Passive, Double Wide, Full Height GPU<br>[1, 2] x NVIDIA L4, PCIe, 72W, 24GB Passive, Single Wide Full Height GPU<br>[1, 2] x NVIDIA L40S, PCIe, 350W, 48GB Passive, Double Wide, Full Height GPU<br>[1, 2] x NVIDIA H100 NVL, PCIe, 350W-400W, 94GB Passive, Double Wide, Full Height GPU<br>[1, 2, 3, 4, 5, 6] x NVIDIA Ampere A2, PCIe, 60W, 16GB Passive, Single Wide, Full Height GPU, V2 |
|---|---|
| CERTIFICATIONS | - * |
| DIMENSIONS (PER BLOCK) | - * |
| WEIGHT (PER BLOCK) | - * |
| SYSTEM COOLING | - * |
| OPERATING ENVIRON-MENT (PER BLOCK) | - * |
| POWER CONSUMPTION | - * |
| POWER SUPPLY (DUAL SUPPLY / BLOCK) | - * |
| THERMAL DISSIPATION | - * |
| OPERATING REQUIRE-MENTS (PER BLOCK) | - * |

\* Please refer vendor's portal page for the missing value(s).

\*\* Number of cores per CPU socket.

STORAGE CAPACITY
- Starting AOS 7.3, any "All NVMe" green field HCI cluster can be populated up to 370 TB in each node when the node is initially populated with greater than 185 TB of raw capacity

**NUTANIX.**

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info@nutanix.com | www.nutanix.com | X @nutanix

NUTANIX

# Bill Of Materials (BOM)

Vendors:       Dell

Opportunity:

Scenario:      Cluster (DELL AMD) 4node          (S-1493388)

Author:

Date:          08-Sep-2025

# BOM

## Model Information

| Model name | Nodes per block | No. of Blocks | Cluster name |
|---|---|---|---|
| Dell EMC - XC7625-24-CORE | 1 | 4 | Cluster-1 |

## Total Capacity

| Cores | RAM | HDD | SSD/NVMe |
|---|---|---|---|
| 128.00 | 6,144.00 GB | 0.00 TiB | 224.00 TiB |

## Sizing Summary

| Quantity | Typical Power (W) | Rack Space | Failover Capacity |
|---|---|---|---|
| 4 | N/A | 8 | N + 2 ● ● ● |

| CPU | RAM | HDD | SSD/NVMe |
|---|---|---|---|
| 25% Usage | 11% Usage | 0% Usage | 13% Usage |
| N + 2 ● ● ● | N + 2 ● ● ● | N/A | N + 2 ● ● ● |
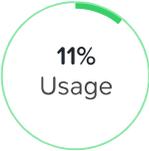
## Sizing Details

| Workload Name | Workload Type | VMs | Cores | RAM (TiB) | HDD (TiB) | SSD (TiB) |
|---|---|---|---|---|---|---|
| Workload | Server Virtualization | 10.00 | 9.24 | 0.31 | 2.50 | 2.50 |
| Prism Central | Prism Central | 3.00 | 8.99 | 0.08 | 1.32 | 0.15 |
| Total | | 13.00 | 18.23 | 0.39 | 3.82 | 2.65 |

| Capacity Calculations | Cores | RAM (TiB) | HDD (TiB) | SSD/ NVMe (TiB) |
|---|---|---|---|---|
| Physical RAW Capacity | 128.00 | 6.00 | 0.00 | 223.52 |
| Effective RAW Capacity | 312.01 | 6.00 | 0.00 | 223.52 |
| Effective Usable Capacity | 312.01 | 6.00 | 0.00 | 213.17 |

| Capacity Calculations | Cores | RAM (TiB) | HDD (TiB) | SSD/ NVMe (TiB) |
|---|---|---|---|---|
| Compression Savings | | | 0.00 | 1.88 |
| RF Overhead | | | 0.00 | -6.46 |
| CVM Overhead | -58.50 | -0.22 | 0.00 | -18.74 |
| Workload Total | -18.23 | -0.39 | 0.00 | -6.46 |
| Usable Remaining Capacity (Assuming RF2) | 235.28 | 5.39 | 0.00 | 92.78 |
| Usable Remaining Capacity (Assuming RF2 and N+1) | 171.90 | 3.94 | 0.00 | 68.20 |
| Usage Percentage | 24.59 | 10.22 | 0.00 | 12.95 |
| Extent Store (Assuming RF2) | | | 0.00 | 98.31 |
| Extent Store (Assuming RF3) | | | 0.00 | 65.54 |
| Extent Store (Assuming RF2 and N+1) | | | 0.00 | 73.73 |
| Extent Store (Assuming RF3 and N+1) | | | 0.00 | 49.15 |

License SKUs

**Cluster: Cluster-1**                                   **Vendor: Dell**

| SKU | Quantity | Product Description |
|---|---|---|
| SW-NCI-PRO-PR | 128 | SW-NCI-PRO-PR (Subscription, Nutanix Cloud Infrastructure (NCI) Pro Software License & Production Software Support Service for 1 CPU Core) |
| Term-Months | 60 | Term-Months (Term in months) |
| SW-NCM-STR-PR | 128 | SW-NCM-STR-PR (Subscription, Nutanix Cloud Manager (NCM) Starter Software License & Production Software Support Service for 1 CPU Core) |
| Term-Months | 60 | Term-Months (Term in months) |

# BOM

## Model Information

| Model name | Nodes per block | No. of blocks |
|---|---|---|
| Dell EMC - XC7625-24-CORE | 1 | 4 |

| Description | Qty Per Node | Total Qty |
|---|---|---|
| Dell EMC - XC7625-24-CORE | 1 | 4 |
| 338-CGXZ (AMD EPYC 9124 3.0GHz, 16C/32T, 64M Cache (200W) DDR5-4800) | 2 | 8 |
| 370-BBRN (64GB RDIMM, 5600MT/s, Dual Rank) | 24 | 96 |
| 345-BJNW (7.68TB Data Center NVMe Read Intensive AG Drive U2 Gen4 with carrier) | 8 | 32 |
| Dell-SSD-NONE (Do not quote this SKU. No SSD Included.) | 1 | 4 |
| 540-BCXW (Intel E810-XXV Dual Port 10/25GbE SFP28, OCP NIC 3.0) | 1 | 4 |
| C-PCIe-NIC-NONE_Dell (No PCIe NIC Selected) | 1 | 4 |
| 1 x C-GPU-NONE_Dell (Do not quote this SKU. No GPU) | | |
| VMware ESXi or AHV | | |
| Nutanix OS/Controller VM | | |
| Prism Management | | |
| Nutanix License Bundle (Starter or Pro or Ultimate) | | |
| Dell ProSupport NBD, 7x24 Support (5 Year) | | |
| Dell Installation of Appliance | | |
| Nutanix Software Support & Maintenance (5 Years) | | |
| *For More Configuration Details: See Dellstar Quote | | |
| For other Non-Sizer parts, refer Table 1 | | |

## Total Capacity

| Cores | RAM | HDD | SSD/NVMe |
|---|---|---|---|
| 128.00 | 6,144.00 GB | 0.00 TiB | 223.52 TiB |

# PowerEdge R7625

## Breakthrough performance

The new Dell PowerEdge R7625 is a 2U, dual-socket rack server. Designed to be the backbone of your data center, this extremely powerful server provides ample performance and flexible, low-latency storage options in an air or Direct Liquid Cooled (DLC) configuration.

## Stay ahead of the curve

Delivering breakthrough innovation for traditional and emerging workloads, including high performance compute (HPC), virtual desktop integration (VDI) and virtualization, using the latest performance and density with optional acceleration.

## Extreme performance in a platform that grows with your business

- Using AMD EPYC 4th generation processor to deliver up to 50% more core count per single socket platform in an innovative air or liquid-cooled chassis.
- Enables DDR5 at 4800 MT/s memory and PCIe Gen5 with double the speed of previous Gen4 for faster access and transport of data optimizing application output.
- Optional DLC is available to more efficiently cool high-performance processors.

## Experience more virtual machine density to support the most demanding applications

- Deliver more virtual machines per physical host using increased core count and higher memory footprint than previous generations.
- Improve responsiveness or reduce app load time for power users with up to 6x single-wide full-length or 2x double-wide full-length GPUs.

## Expect increased expandability by storing more data in one server, saving space in your datacenter

- Scale your storage using up to 33% more E3.S NVMe drives and reduce your carbon footprint.
- Deliver more memory density with DDR5 (up to 6 TB of RAM) providing greater memory capacity.
- Support lower latency higher performance NVMe SSD in a hardware RAID solution helps maximize compute performance.

## Cyber Resilient Architecture for Zero Trust IT environment & operations

Security is integrated into every phase of the PowerEdge lifecycle, including protected supply chain and factory-to-site integrity assurance. Silicon-based root of trust anchors end-to-end boot resilience while Multi-Factor Authentication (MFA) and role-based access controls ensure trusted operations.

## Increase efficiency and accelerate operations with an autonomous infrastructure

The Dell OpenManage™ systems management portfolio delivers a secure, efficient, and comprehensive solution for PowerEdge servers. Simplify, automate and centralize one-to-many management with the OpenManage Enterprise console and iDRAC.

## Sustainability

From recycled materials in our products and packaging, to thoughtful, innovative options for energy efficiency, the PowerEdge portfolio is designed to make, deliver, and recycle products to help reduce the carbon footprint and lower your operation costs. We even make it easy to retire legacy systems responsibly with Dell Technologies Services.

## Rest easier with Dell Technologies Services

Maximize your PowerEdge Servers with comprehensive services ranging from Consulting, to ProDeploy and ProSupport suites, Data Migration and more – available across 170 locations and backed by our 60K+ employees and partners.

### PowerEdge R7625

The Dell PowerEdge R7625 is a 2U rack Server that easily expands and is ideal for traditional and emerging workloads like:

- High Performance Compute (HPC)
- Virtual Desktop Integration (VDI)
- Data Analytics

| Feature | Technical Specifications |
|---|---|
| Processor | Up to two AMD EPYC 4th Generation 9004 Series with up to 128 cores per processor |
| Memory | • 24 DDR5 DIMM slots, supports RDIMM 6 TB max, speeds up to 4800 MT/s<br>• Supports registered ECC DDR5 DIMMs only |
| Storage controllers | • Internal Controllers (RAID): PERC H965i, PERC H755, PERC H755N, PERC H355, HBA355i<br>• Internal Boot: Boot Optimized Storage Subsystem (BOSS-N1): HWRAID 2 x M.2 NVMe SSDs or USB<br>• External HBA (non-RAID): HBA355e<br>• Software RAID: S160 |
| Drive Bays | Front bays:<br>• Up to 8 x 3.5-inch SAS/SATA (HDD/SSD) max 160 TB<br>• Up to 12 x 3.5-inch SAS/SATA (HDD/SSD) max 240 TB<br>• Up to 8 x 2.5-inch SAS/SATA/NVMe (HDD/SSD) max 122.88 TB<br>• Up to 16 x 2.5-inch SAS/SATA/NVMe (HDD/SSD) max 245.76 TB<br>• Up to 24 x 2.5-inch SAS/SATA/NVMe (HDD/SSD) max 368.64 TB<br>• Up to 8 x EDSFF E3.S Gen5 NVMe (SSD) max 61.44 TB<br>• Up to 16 x EDSFF E3.S Gen5 NVMe (SSD) max 122.88 TB<br>• Up to 32 x EDSFF E3.S Gen5 NVMe (SSD) max 245.76 TB<br>Rear bays:<br>• Up to 2 x 2.5-inch SAS/SATA/NVMe (HDD/SSD) max 30.72 TB<br>• Up to 4 x 2.5-inch SAS/SATA/NVMe (HDD/SSD) max 61.44 TB<br>• Up to 4 x E3.S (NVMe Gen5 ) max 30.72 TB |
| Power Supplies | • 3200 W Titanium 277 VAC or 336 VDC, hot swap redundant<br>• 2800 W Titanium 200—240 VAC or 240 HVDC, hot swap redundant<br>• 2400 W Platinum 100—240 VAC or 240 HVDC, hot swap redundant<br>• 1800 W Titanium 200—240 VAC or 240 HVDC, hot swap redundant<br>• 1400 W Mixed Mode Platinum 100-240 VAC or 240 HVDC hot swap redundant<br>• 1400 W Mixed Mode Titanium 277 VAC or 336 HVDC hot swap redundant<br>• 1100 W Titanium 100—240 VAC or 240 HVDC, hot swap redundant<br>• 1100 W LVDC -48 — -60 VDC, hot swap redundant<br>• 800 W Platinum 100—240 VAC or 240 HVDC, hot swap redundant |
| Cooling Options | • Air cooling<br>• Optional Direct Liquid Cooling (DLC)<br>Note: DLC is a rack solution and requires rack manifolds and a cooling distribution unit (CDU) to operate. |
| Fans | • High performance Silver (HPR) fans/ High performance Gold (VHP) fans<br>• Up to 6 hot plug fans |
| Dimensions | • Height – 86.8 mm (3.41 inches)<br>• Width – 482 mm (18.97 inches)<br>• Depth – 772.13 mm (30.39 inches) with bezel<br>  758.29 mm (29.85 inches) without bezel |
| Form Factor | 2U rack server |
| Embedded Management | • iDRAC9<br>• iDRAC Direct<br>• iDRAC RESTful API with Redfish<br>• iDRAC Service Module<br>• Quick Sync 2 wireless module |
| Bezel | Optional LCD bezel or security bezel |
| OpenManage Software | • CloudIQ for PowerEdge plug in<br>• OpenManage Enterprise<br>• OpenManage Enterprise Integration for VMware vCenter<br>• OpenManage Integration for Microsoft System Center<br>• OpenManage Integration with Windows Admin Center<br>• OpenManage Power Manager plugin<br>• OpenManage SupportAssist plugin<br>• OpenManage Update Manager plugin |
| Mobility | OpenManage Mobile |
| OpenManage Integrations | • BMC Truesight<br>• Microsoft System Center<br>• OpenManage Integration with ServiceNow<br>• Red Hat Ansible Modules<br>• Terraform Providers<br>• VMware vCenter and vRealize Operations Manager |
| Security | • AMD Secure Memory Encryption (SME)<br>• AMD Secure Encrypted Virtualization (SEV)<br>• Cryptographically signed firmware<br>• Data at Rest Encryption (SEDs with local or external key mgmt)<br>• Secure Boot<br>• Secured Component Verification (Hardware integrity check)<br>• Secure Erase<br>• Silicon Root of Trust<br>• System Lockdown (requires iDRAC9 Enterprise or Datacenter)<br>• TPM 2.0 FIPS, CC-TCG certified, TPM 2.0 China NationZ |
| Embedded NIC | 2 x 1GbE LOM card (optional) |

| Feature | Technical Specifications | |
|---|---|---|
| Network Options | 1 x OCP card 3.0 (optional) <br> Note: The system allows either LOM card or an OCP card or both to be installed in the system. | |
| GPU Options | Up to 2 x 300 W DW or 6 x 75 W SW | |
| Ports | **Front Ports** <br> • 1 x iDRAC Direct (Micro-AB USB) port <br> • 1 x USB 2.0 <br> • 1 x VGA | **Rear Ports** <br> • 1 x Dedicated iDRAC ethernet port <br> • 1 x USB 2.0 <br> • 1 x USB 3.0 <br> • 1 x Serial (optional) <br> • 1 x VGA (optional for Direct Liquid Cooling configuration) |
| | **Internal Ports** <br> • 1 x USB 3.0 (optional) | |
| PCIe | Up to eight PCIe slots: <br> • Slot 1: 1 x8 Gen5 or 1 x8 Gen4 Full height, Half length <br> • Slot 2: 1 x8/1 x16 Gen5 or 1 x8 Gen4 Full height, Half length or 1 x16 Gen5 Full height Full length <br> • Slot 3: 1 x16 Gen4 Low profile, Half length <br> • Slot 4: 1 x8 Gen4 Full height, Half length <br> • Slot 5: 1 x8 Gen4 Full height, Half length or 1 x16 Gen4 Full height , Full length <br> • Slot 6: 1 x16 Gen4 Low profile, Half length <br> • Slot 7: 1 x8/1 x16 Gen5 or 1 x8 Gen4 Full height, Half length or 1 x16 Gen5 Full height, Full length <br> • Slot 8: 1 x8 Gen5 or 1 x8 Gen4 Full height, Half length | |
| Operating System and Hypervisors | • Canonical Ubuntu Server LTS <br> • Microsoft Windows Server with Hyper-V <br> • Red Hat Enterprise Linux <br> • SUSE Linux Enterprise Server <br> • VMware ESXi <br> For specifications and interoperability details, see Dell.com/OSsupport. | |
| OEM-ready version available | From bezel to BIOS to packaging, your servers can look and feel as if they were designed and built by you. For more information, visit Dell.com > Solutions > OEM Solutions. | |

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# Dell XC Core XC7625

Installation and Service Manual

## Notes, cautions, and warnings

(i) **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.**

# Contents

# About this document

This document provides an overview about the system, information about installing and replacing components, diagnostic tools, and guidelines to be followed while installing certain components.

# System overview

The XC Core XC7625 system is a 2U server that supports:
- Two AMD AMD Genoa Processor (SP5) processor with up to 96 cores
- Up to 24 RDIMMs, with up to 6 TB of memory and speeds up to 5200 MT/s
- Two redundant AC or DC power supply units
- 12 x 3.5-inch SATA/SAS or 24 x 2.5-inch SATA/SAS (HDD/SSD) drives
- PCI Express® (PCIe) 5.0 enabled expansion slots
- Network interface technologies to cover Network Interface Card (NIC)

(i) **NOTE:** For more information about how to hot swap NVMe PCIe SSD U.2 device, see the *Dell Express Flash NVMe PCIe SSD User's Guide* at https://www.dell.com/support **> Browse all Products** > **Data Center Infrastructure** > **Storage Adapters & Controllers** > **Dell PowerEdge Express Flash NVMe PCIe SSD** > **Documentation** > **Manuals and Documents**.

(i) **NOTE:** All instances of SAS, SATA drives are referred to as drives in this document, unless specified otherwise.

⚠ **CAUTION: Do not install GPUs, network cards, or other PCIe devices on your system that are not validated and tested by Dell. Damage caused by unauthorized and invalidated hardware installation will null and void the system warranty.**

**Topics:**

- Front view of the system
- Inside the system
- Locating the Express Service Code and Service Tag
- System information label
- Rail sizing and rack compatibility matrix

# Front view of the system
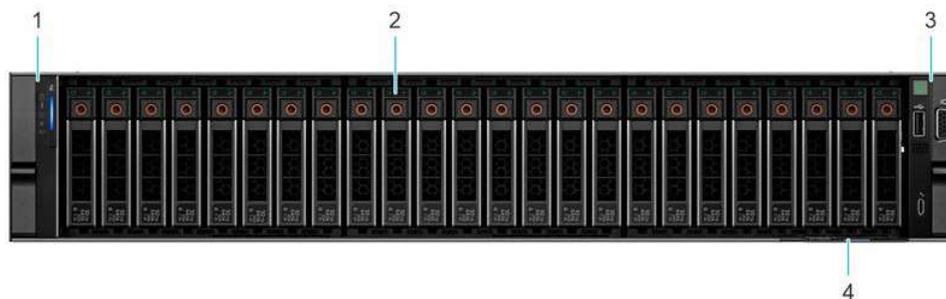


**Figure 1. Front view of 24 x 2.5-inch drive system**

**Table 1. Features available on the front of the system**

| Item | Ports, panels, and slots | Icon | Description |
|---|---|---|---|
| 1 | Left control panel | N/A | Contains the system health, system ID and the status LED indicator. |
| 2 | Drive | N/A | Enables you to install drives that are supported on your system. |
| 3 | Right control panel | N/A | Contains the power button, VGA port, USB port, iDRAC Direct (Micro-AB USB) port and the iDRAC Direct status LED. |

**Table 1. Features available on the front of the system (continued)**

| Item | Ports, panels, and slots | Icon | Description |
|------|--------------------------|------|-------------|
| 4 | Information tag | N/A | The Express Service Tag is a slide-out label panel that contains system information such as Service Tag, NIC, MAC address, and so on. If you have opted for the secure default access to iDRAC, the Information tag will also contain the iDRAC secure default password. |
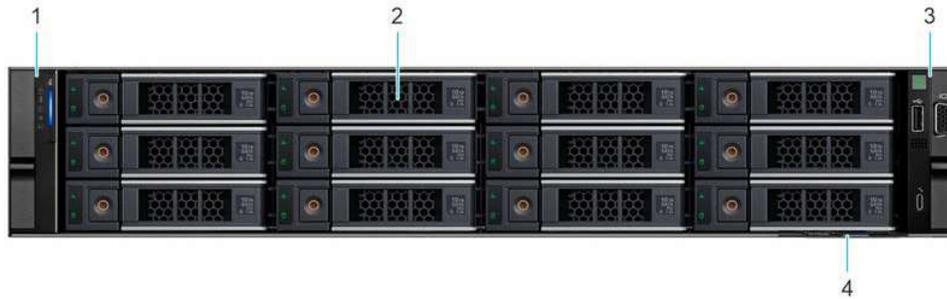


**Figure 2. Front view of 12 x 3.5-inch drive system**

**Table 2. Features available on the front of the system**

| Item | Ports, panels, and slots | Icon | Description |
|------|--------------------------|------|-------------|
| 1 | Left control panel | N/A | Contains the system health, system ID and the status LED indicator. |
| 2 | Drive | N/A | Enables you to install drives that are supported on your system. |
| 3 | Right control panel | N/A | Contains the power button, VGA port, USB port, iDRAC Direct (Micro-AB USB) port and the iDRAC Direct status LED. |
| 4 | Information tag | N/A | The Information tag is a slide-out label panel that contains system information such as Service Tag, NIC, MAC address, and so on. If you have opted for the secure default access to iDRAC, the Information tag will also contain the iDRAC secure default password. |

# Left control panel view
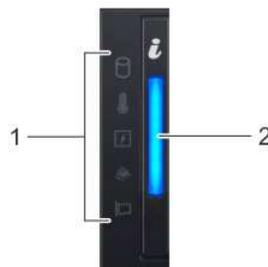


**Figure 3. Left control panel**

**Table 3. Left control panel**

| Item | Indicator, button, or connector | Icon | Description |
|------|--------------------------------|------|-------------|
| 1 | Status LED indicators | NA | Indicates the status of the system. For more information, see the Status LED indicators section. |

**Table 3. Left control panel (continued)**

| Item | Indicator, button, or connector | Icon | Description |
|------|--------------------------------|------|-------------|
| 2 | System health and system ID | *i* | Indicates the system health. For more information, see the System health and system ID indicator codes section. |
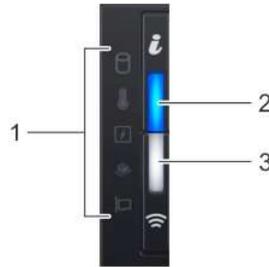


**Figure 4. Left control panel with optional iDRAC Quick Sync 2 indicator**

**Table 4. Left control panel with optional iDRAC Quick Sync 2 indicator**

| Item | Indicator, button, or connector | Icon | Description |
|------|--------------------------------|------|-------------|
| 1 | Status LED indicators | N/A | Indicates the status of the system. For more information, see the Status LED indicators section. |
| 2 | System health and system ID indicator | *i* | Indicates the system health. For more information, see the System health and system ID indicator codes section. |
| 3 | iDRAC Quick Sync 2 wireless indicator (optional) | 📶 | Indicates if the iDRAC Quick Sync 2 wireless option is activated. The Quick Sync 2 feature allows management of the system using mobile devices. This feature aggregates hardware/firmware inventory and various system level diagnostic/error information that can be used in troubleshooting the system. You can access system inventory, Dell Lifecycle Controller logs or system logs, system health status, and also configure iDRAC, BIOS, and networking parameters. You can also launch the virtual Keyboard, Video, and Mouse (KVM) viewer and virtual Kernel-based Virtual Machine (KVM), on a supported mobile device. |

(i) **NOTE:** For more information about the indicator codes, see the System diagnostics and indicator codes section.

# Right control panel view



**Figure 5. Right control panel view**

**Table 5. Right control panel**

| Item | Indicator or button | Icon | Description |
|------|---------------------|------|-------------|
| 1 | VGA port | ⌷◻⌷ | Enables you to connect a display device to the system. For more information, see the www.dell.com/poweredgemanuals section. |
| 2 | iDRAC Direct port (Micro-AB USB) | 🔧 | The iDRAC Direct port (Micro-AB USB) enables you to access the iDRAC Direct Micro-AB features. ⓘ **NOTE:** You can configure iDRAC Direct by using a USB to micro USB (type AB) cable, which you can connect to your laptop or tablet. Cable length should not exceed 3 feet (0.91 meters). Performance could be affected by cable quality. |
| 3 | USB 2.0-compliant port | ⚡⟵ | The USB port is a 4-pin connector and 2.0-compliant. This port enables you to connect USB devices to the system. |
| 4 | Power button | ⏻ | Indicates if the system is powered on or off. Press the power button to manually power on or off the system. ⓘ **NOTE:** Press the power button to gracefully shut down the ACPI-compliant operating system. |

ⓘ **NOTE:** For more information on the ports, see the www.dell.com/poweredgemanuals section.

# Inside the system
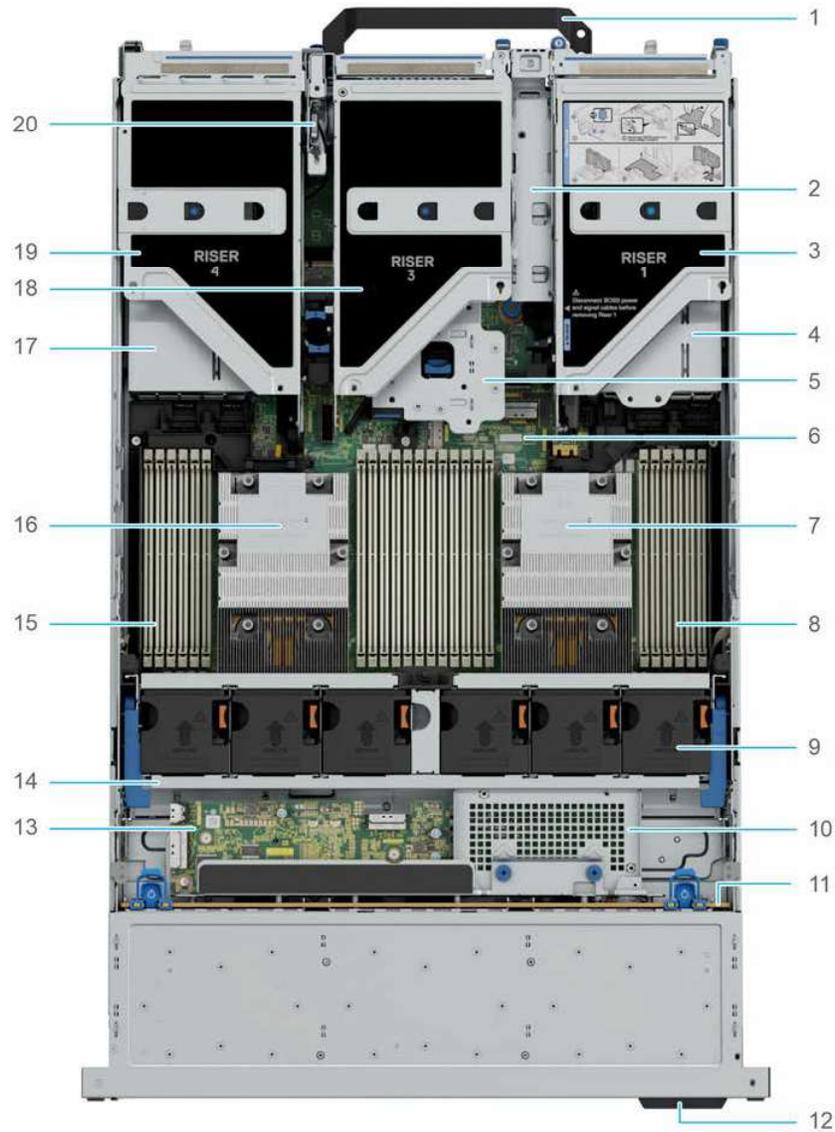


**Figure 6. Inside the system**

1. Rear Handle
3. Riser 1
5. Riser 2
7. Heat sink for processor 1
9. Cooling fans
11. Drive backplane
13. Expander
15. Memory DIMM socket for processor 2
17. Power supply unit (PSU 2)
19. Riser 4

2. BOSS N1 card slot
4. Power supply unit (PSU 1)
6. System board
8. Memory DIMM socket for processor 1
10. PERC Controller
12. Service tag
14. Cooling fan cage assembly
16. Heat sink for processor 2
18. Riser 3
20. Intrusion switch
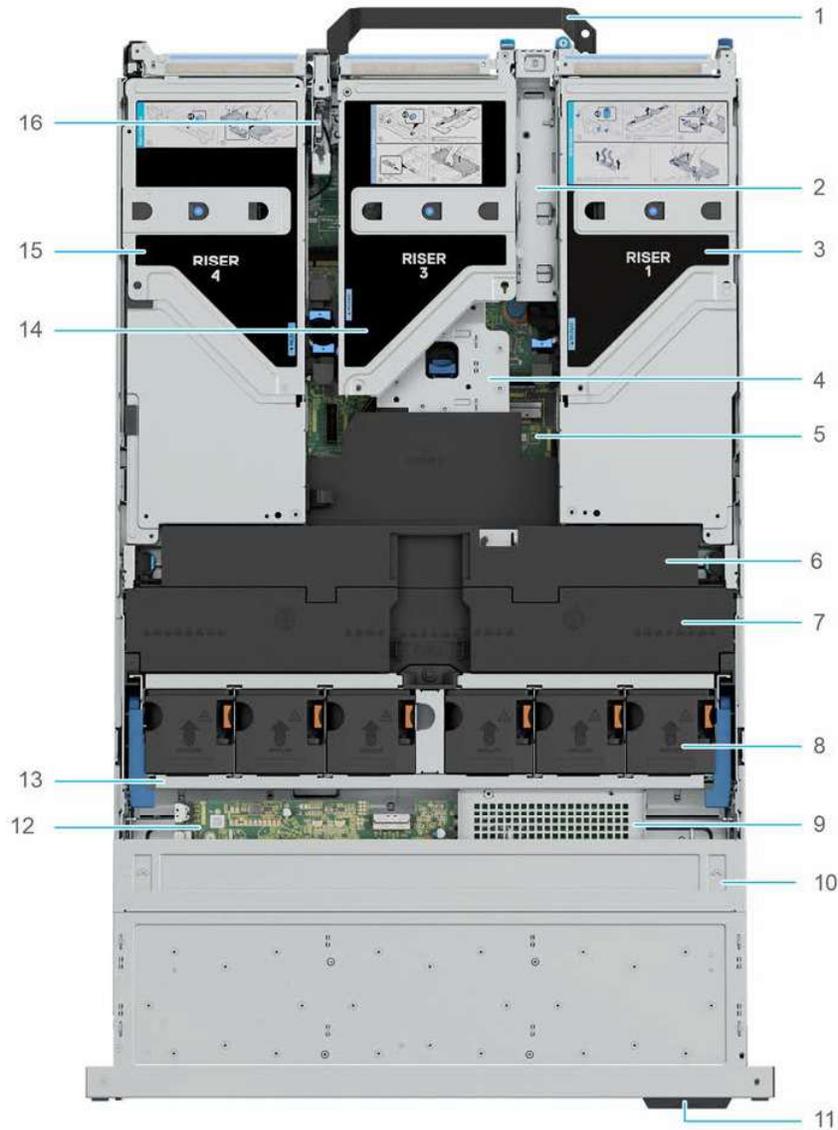
**Figure 7. Inside the system with full length risers and GPU shroud**

1. Rear Handle
3. Riser 1
5. System board
7. GPU air shroud
9. PERC Controller
11. Service tag
13. Cooling fan cage assembly
15. Riser 4

2. BOSS N1 card slot
4. Riser 2
6. GPU top cover
8. Cooling fans
10. Drive backplane cover
12. Expander
14. Riser 3
16. Intrusion switch module

# Locating the Express Service Code and Service Tag

The unique Express Service Code and Service Tag is used to identify the system. The information tag is located on the front of the system that includes system information such as Service Tag, Express Service Code, Manufacture date, NIC, MAC address, QRL label, and so on. If you have opted for the secure default access to iDRAC, the Information tag also contains the iDRAC secure default password. If you have opted for iDRAC Quick Sync 2, the Information tag also contains the OpenManage Mobile (OMM) label, where administrators can configure, monitor, and troubleshoot the PowerEdge servers.
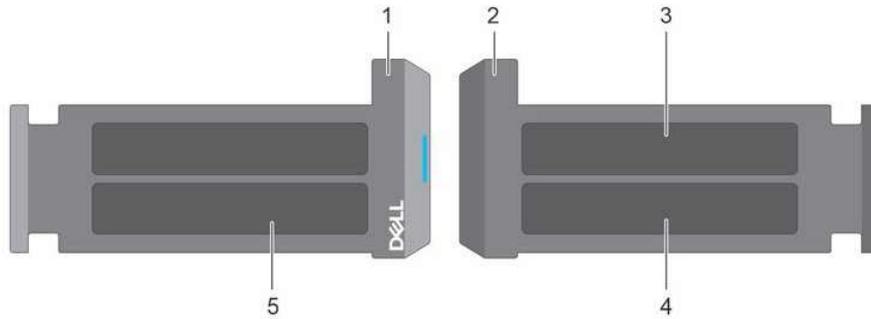
**Figure 8. Locating the Express Service Code and Service tag**

1. Information tag (front view)
2. Information tag (back view)
3. OpenManage Mobile (OMM) label
4. iDRAC MAC address and iDRAC secure password label
5. Service Tag, Express Service Code, QRL label

The Mini Enterprise Service Tag (MEST) label is located on the rear of the system that includes Service Tag (ST), Express Service Code (Exp Svc Code), and Manufacture Date (Mfg. Date). The Exp Svc Code is used by Dell to route support calls to the appropriate personnel.

Alternatively, the Service Tag information is located on a label on left wall of the chassis.

# System information label

The system information label is located on the back side of the system cover.
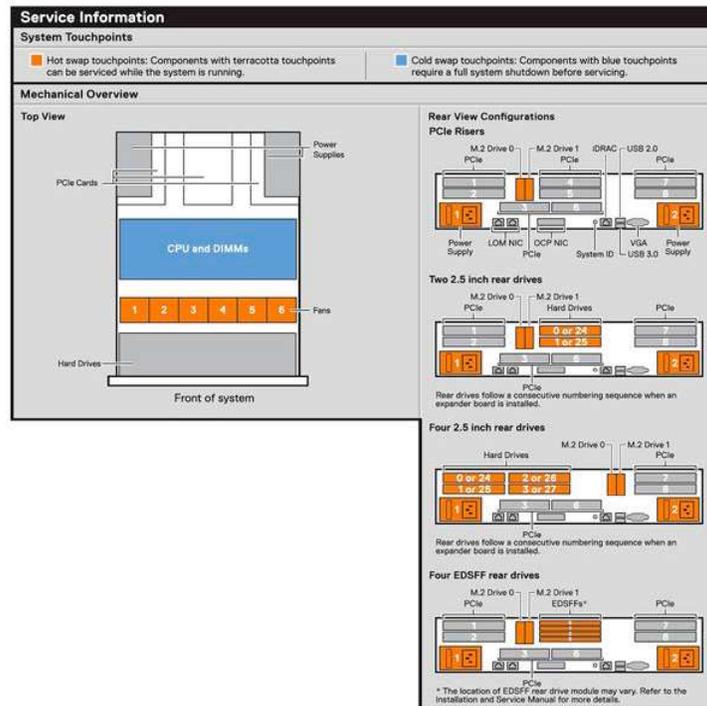


**Figure 9. Service information: Touchpoints**
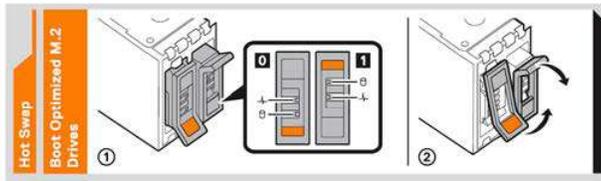
Figure 10. Service information: Hot Swap
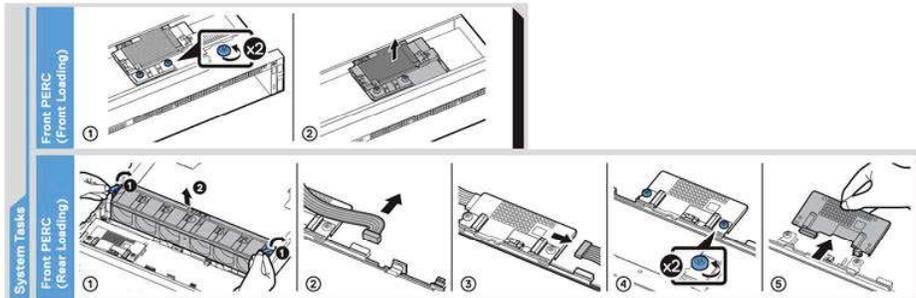
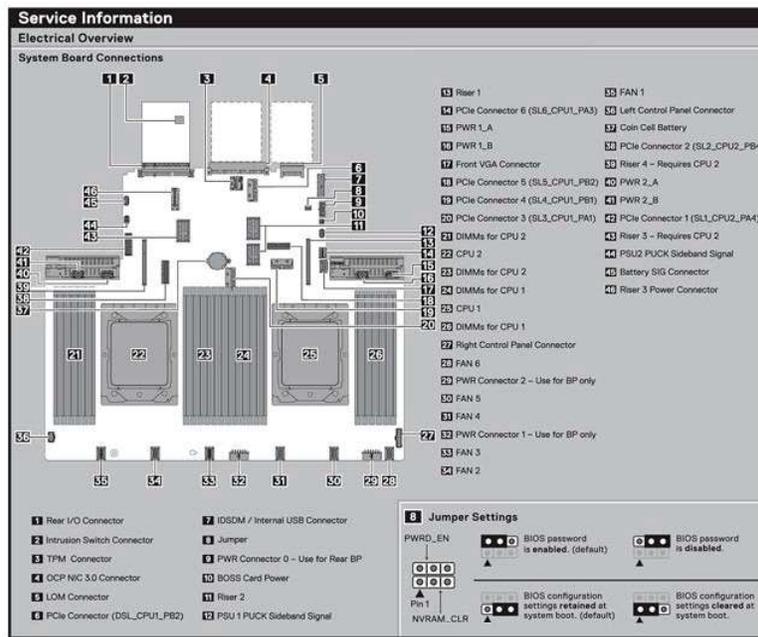Figure 11. Service information: System Tasks
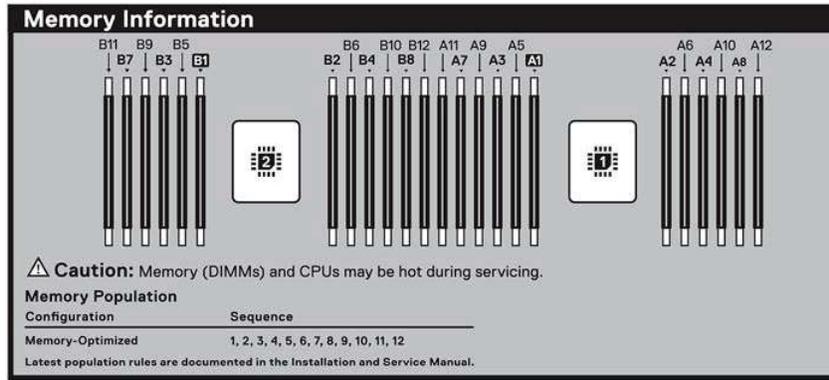
Figure 12. System board connectors

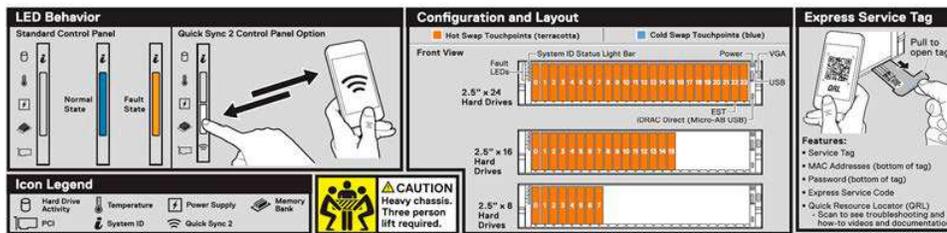**Figure 13. Memory Information**



**Figure 14. LED behavior, configuration and layout, express service tag for 2.5-inch HDD system**
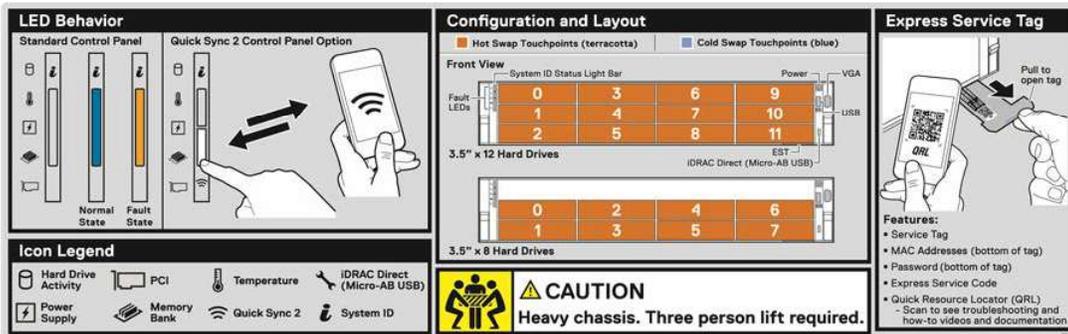


**Figure 15. LED behavior, configuration and layout, express service tag for 3.5-inch HDD system**

# Rail sizing and rack compatibility matrix

For specific information about the rail solutions compatible with your system, see the *Dell Enterprise Systems Rail Sizing and Rack Compatibility Matrix* available at https://i.dell.com/sites/csdocuments/Business_solutions_engineering-Docs_Documents/en/rail-rack-matrix.pdf.

The document provides the information that is listed below:

- Specific details about rail types and their functionalities.
- Rail adjustability range for various types of rack mounting flanges.
- Rail depth with and without cable management accessories.
- Types of racks supported for various types of rack mounting flanges.