

Veriton P330 F2 Specifications

Product overview

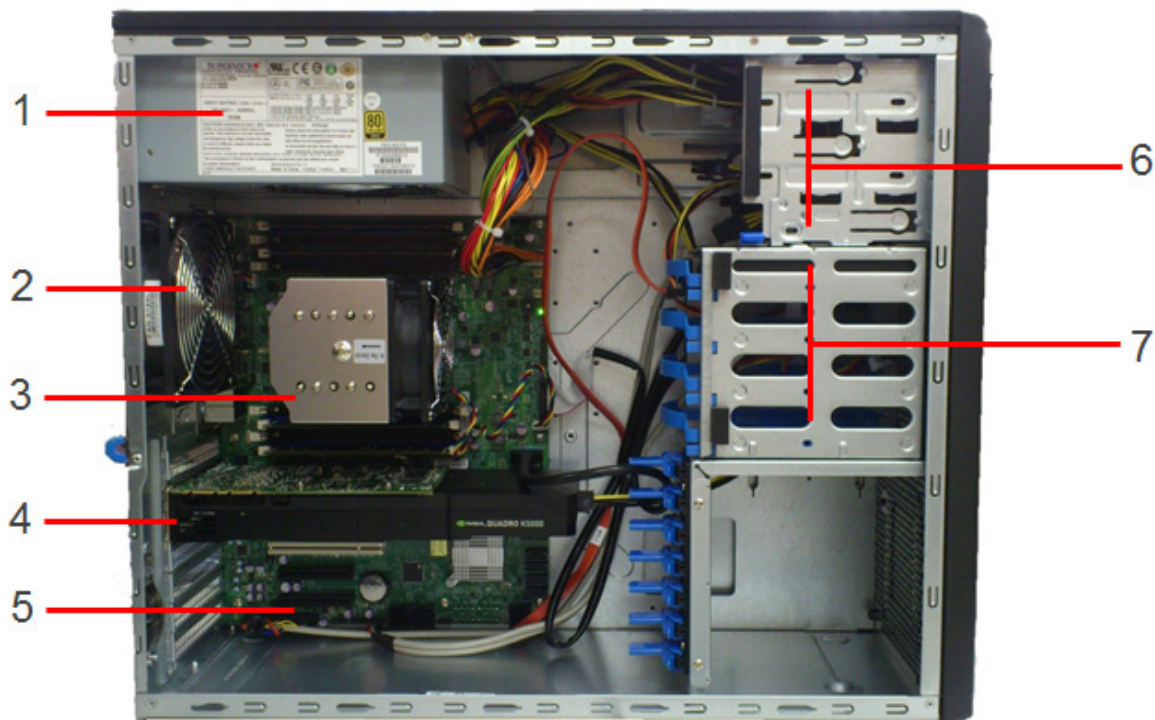
Offering an excellent combination of performance and expandability, the Veriton P330 F2 workstation is an ideal choice for both computing and rendering tasks. Enterprise-level expandability and redundancy allow it to tackle even the largest projects with confidence. It provides performance and reliability for our most demanding users, like designers, engineers and research professionals.

Harnessing NVIDIA® Quadro® GPUs with NVIDIA® Scalable Geometry Engine™ technology, the workstation can process billions of triangles per second to deliver professional 3D performance. Featuring Intel® architecture, up to 128 GB memory, and fast dual-port Ethernet, it uses industry-leading processors to handle large workloads efficiently and contains flexible expansion slots and abundant space for data storage.



Product views

Internal view

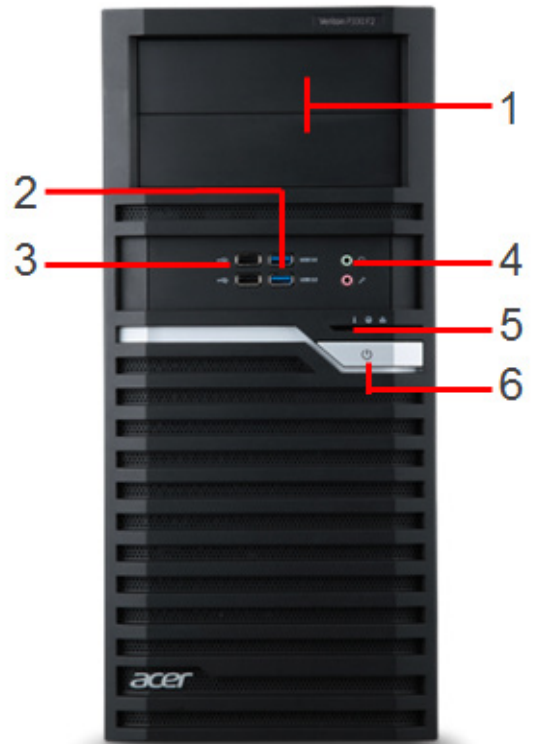


1. Power supply
2. System fan
3. CPU and heat sink
4. Add-on graphics card
5. Motherboard
6. 5.25" drive bays
7. 3.5" HDD bays

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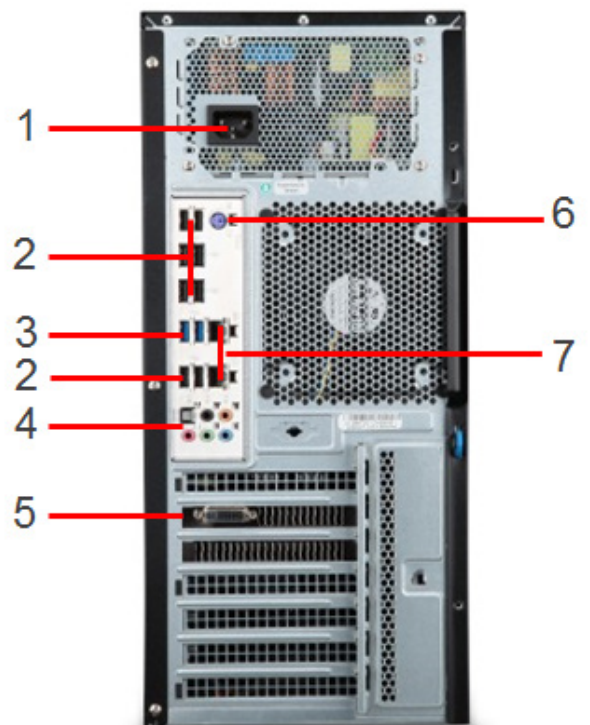
Front View

1. 5.25" drive bays
2. 2 x USB 3.0
3. 2 x USB 2.0
4. 2 x audio jacks
5. LED indicators: power, HDD activity, LAN
6. Power button



Rear View

1. Power supply
2. 8 x USB 2.0
3. 2 x USB 3.0
4. 5 x audio jacks, 1x S/PDIF
5. Add-on graphics card
6. PS/2 port
7. 2x Gigabit LAN port



Veriton P330 F2 Specifications



Product Specifications

What's New?

- Intel® Xeon® processor E5 v2 support
- On-board USB 3.0 and SATA 3.0 ports
- DDR3-1333/1600/1866 ECC memory support
- Two x16 PCI-E 3.0 slots support full-length graphic cards and GPU cards
- Support for NVIDIA® Quadro® and NVIDIA® Tesla cards
- 7.1+2 channel HD audio

Processors and Chipset

- Single Intel® Xeon® E5-1600 or E5-2600 v2 processor
- Chipset: Intel® C602

Memory

- Up to 8 x DDR3 registered / unbuffered ECC DIMMs
 - Maximum 128 GB registered memory
 - Maximum 64 GB unregistered memory

Network Controllers

- Intel® 82574L/82579LM Ethernet controller

Storage

- Hard disk form factor: 3.5", 2.5" with optional carrier
- Type: SAS / SATA / SSD
- 3.5" Maximum capacity:
 - Up to 12 TB SATA HDD (3 TB 3.5" x 4 HDDs)
 - Up to 8 TB SAS (2 TB 3.5" x 4 HDDs)
- 2.5" Maximum capacity (requires optional 2.5" carrier):
 - Up to 4 TB SATA HDD (1 TB 2.5" x 4 HDDs)
 - Up to 3.6 TB SAS (900 GB 2.5" x 4 HDDs)

Storage Controllers

- Support SATA software RAID 0, 1, 5, 10 with Windows OS
- Optional hardware SATA/SAS RAID controller with RAID 0, 1, 5, 10, 50, 60 support
- 4 x 3 Gb/s SATA ports onboard
- 2 x 6 Gb/s SATA ports onboard
- 4 x 3 Gb/s SATA ports (via SCU) onboard

Expansion slots

- 2 x PCIe® 3.0 x16 (x16 connector)

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- 1 x PCIe® 3.0 x4 (x8 connector)
- 1 x PCIe® 2.0 x4 (x8 connector)
- 1 x PCI

BIOS

- UEFI BIOS
- SMBIOS 2.7

Deployment/Serviceability

- Driver CD
- BIOS Update Tool

Operating Systems

- Microsoft Windows 8 Pro (64 bit)
- Microsoft Windows 7 Ultimate (64 bit)
- Microsoft Windows 7 Professional (64 bit)
- RedHat Linux Enterprise DT v6.4

Input/output interface

Front

- 2 x USB 3.0 ports
- 2 x USB 2.0 ports
- 2 x Audio jacks
- LED indicators: power, HDD activity, LAN

Rear

- 2 x USB 3.0 ports
- 8 x USB 2.0 ports
- 1 x PS/2 port
- 2 x Gigabit LAN port (RJ-45)
- 5 x Audio jacks
- 1 x S/PDIF output

Optical drive

- 5.25" SATA DVD Super multi

Add-in Graphics

- NVIDIA® Quadro®
- NVIDIA® Quadro® NVS

Onboard Audio

- Realtek ALC889 7.1+2 Channel HD Audio

Veriton P330 F2 Specifications



Chassis/Form Factor

- Mini tower (40 l)

Power Supply

- 900 W or 500 W 80 PLUS® Gold-certified fixed power supply unit

Security

- Administrator/user password
- Power-on password
- Setup password
- Device boot control
- Write-protected BIOS
- Kensington lock slot

Regulatory Compliant Standards

EMC

- FCC (Class B)
- CE (Class B)
- BSMI (Class B)
- CCC (Class B)

Safety

- MET
- CB
- GS
- CEL

Environmental Specifications

Dimensions	424 (H) x 193 (W) x 530 (D) mm (16.7 x 7.6 x 20.7 inches)	
Weight	Maximum	16.5 kg (36.4 lbs.)
	Minimum	13.4 kg (29.5 lbs.)
System inlet temperature	Operating	10° - 35° C (50° - 95° F)
	Non-operating	-40° - 70° C (-40° - 158° F)
Relative humidity	Operating	8 - 90 %
	Non-operating	5 - 95 %

Acoustic noise

Desk-side testing, measured sound pressure (LpAm, in dB).

Idle

Light configuration: 19.6 dB

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Operating

Light configuration: 21.8 dB

Full configuration: 35.9 dB

Light configuration: PSU: 900 W, CPU: Xeon E5-2630, Memory: 4 x 8 GB DDR3-1600, HDD: 1 x 1 TB 7200 rpm SATA HDD, DVD-ROM, Video: nVidia Quadro K600, OS: Windows 7 Pro.

Full configuration: PSU: 900 W, CPU: Xeon E5-2687, Memory: 8 x 8 GB DDR3-1600, HDD: 4 x 1 TB 7200 rpm SATA HDD, DVD-ROM, Video: nVidia Quadro 5000, OS: Windows 7 Pro.

Technical specifications

PCIe® specifications

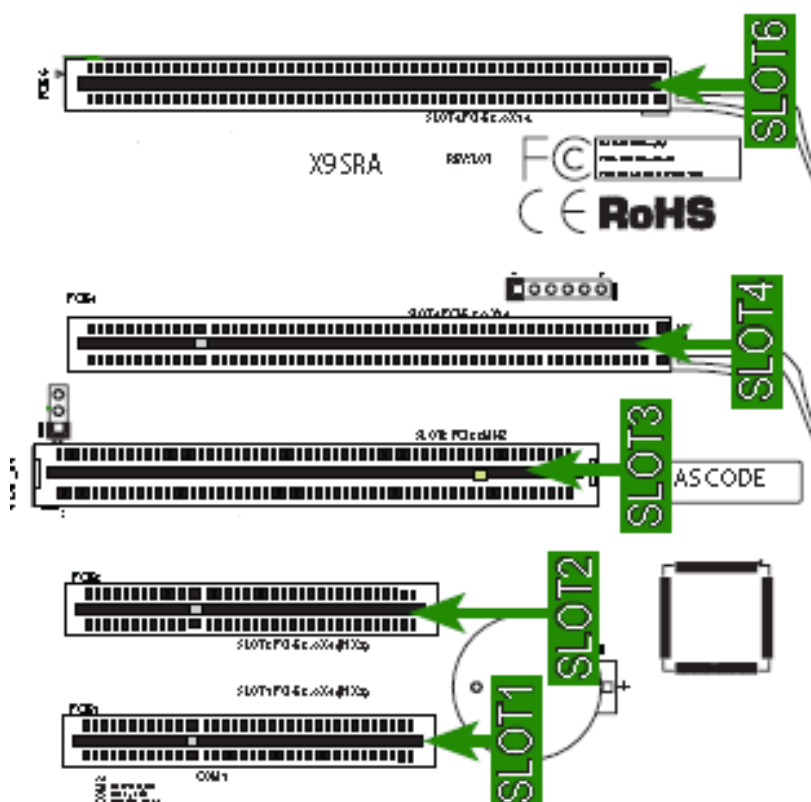
The primary I/O bus for the main board is PCIe® Gen3. The following table lists the characteristics of the PCI-E bus segments. Details about each bus segment follow the table.

NOTE: The signaling bit rate of PCI Express is 2.5 Gbit/s for Gen 1, 5.0 Gbit/s for Gen 2, and 8.0 Gbit/s for Gen 3.

Slot	CPU/PCH	Type	Bus width ¹	Voltage	Connector	Location	Length
6	CPU	PCIe Gen3	x16	3.3 V	x16	Onboard	Full length
4	CPU	PCIe Gen3	x16	3.3 V	x16	Onboard	Full length
3	CPU	PCIe Gen3	x4	3.3 V	x8	Onboard	Full length
2	PCH	PCIe Gen2	x4	3.3 V	x8	Onboard	Full length
1	PCH	PCI	32-bit	3.3 V	PCI	Onboard	Full length

NOTE:

1. Indicates the number of physical electrical lanes running to a PCIe® connector.



Slots are enumerated differently based on the operating system. Microsoft® operating systems enumerate Device ID by bus starting from the lowest bus to the highest.

Veriton P330 F2 Specifications

Onboard storage specifications

Item	Description
Controller	Intel® C602 Platform Controller Hub
Simultaneous drive transfer channels	10 onboard SATA ports (8 x SATA2, 2 x SATA3)
Max throughput per channel	3 Gb/s or 6 Gb/s
Data transfer method	• Non-RAID mode • RAID mode
Drive type supported	Serial ATA; Serial Attached SCSI (SAS)
RAID levels support	• RAID 0, 1, 5, 10 (onboard Intel software RAID) • RAID 0, 1, 5, 6, 10, 50, 60 (optional RAID card)
RAID function support	NOTE: Intel software RAID only supports Windows OS • Supports multiple logical volumes • Setup through ROM based Array Configuration Utility Installation scripting support
RAID OS support	• Microsoft Windows 8 Pro (64 bit) • Microsoft Windows 7 Ultimate (64 bit) • Microsoft Windows 7 Professional (64 bit) • RedHat Linux Enterprise DT v6.4
Additional features	• NCQ (Native Command Queuing) • AHCI (Advanced Host Controller Interface)

Onboard LAN specifications

Item	Description
Controller	1 x Intel 82574L + 1 x Intel 82579LM PHY
Network interface	10Base-T / 100Base-TX / 1000Base-T
Compatibility standards	• IEEE 802.3 Ethernet interface for 10BASE-T • IEEE 802.3ab Ethernet interface for 1000BASE-T • IEEE 802.3u Ethernet interface for 100BASE-TX
Manageability	• NC-SI, SMBus
Connector	RJ-45
Supported cable type	Cat 5e and Cat 6 wire

Memory specifications and population

Item	Description
Supported memory types	• Registered DDR3 1333 / 1600 / 1866 MHz • Unbuffered DDR3 1333 / 1600 / 1866 MHz • Registered DDR3L 1333 / 1600 / 1866 MHz • Unbuffered DDR3L 1333 / 1600 / 1866 MHz NOTE: Acer does not qualify mixed memory configurations of memory type, capacity or make. NOTE: Only one DIMM per channel supported when using 1866 MHz DIMMs. Max memory becomes 64 GB.
Population	Acer's validated memory populations are listed below.

Veriton P330 F2 Specifications



NOTE: Support for 8 / 16 GB DIMMs may vary by region.

Recommended memory population

Total	DIMM_A1	DIMM_B1	DIMM_C1	DIMM_D1	DIMM_A2	DIMM_B2	DIMM_C2	DIMM_D2
4-16 GB	4-16 GB							
8 GB	4 GB	4 GB						
16 GB	4 GB	4 GB	4 GB	4 GB				
24 GB	4 GB	4 GB	4 GB	4 GB	4 GB	4 GB		
32 GB	4 GB	4 GB	4 GB	4 GB	4 GB	4 GB	4 GB	4 GB
16 GB	8 GB	8 GB						
32 GB	8 GB	8 GB	8 GB	8 GB				
48 GB	8 GB	8 GB	8 GB	8 GB	8 GB	8 GB		
64 GB	8 GB	8 GB	8 GB	8 GB	8 GB	8 GB	8 GB	8 GB
32 GB	16 GB	16 GB						
64 GB	16 GB	16 GB	16 GB	16 GB				
96 GB	16 GB	16 GB	16 GB	16 GB	16 GB	16 GB		
128 GB	16 GB	16 GB	16 GB	16 GB	16 GB	16 GB	16 GB	16 GB

Memory Identification

Generally, there are some memory information printed on the label of DIMM, but different vendor may have different format. For example:

4 GB 2Rx4 PC3-10600R xx xx xxx

1. Density

- 4 GB, 8 GB, 16 GB

2. Rank

- 1R = Single Rank
- 2R = Dual Rank
- 4R = Quad Rank
- Note: if any quad rank DIMM is used, maximum only 2 DIMM per channel can be supported

3. Bit Organization

- This platform supports x4 and x8
- Note: It's not recommended to mix DIMM with different bit organization in one system.

4. Speed

- PC3 – 10600 => DDR3- 1333
- PC3 – 12800 => DDR3-1600
- PC3 – 14900 => DDR3-1866

Power specifications

900 W power supply

Power supply input

Rated Line Voltage

100 to 240 VAC

Rated Input Current

900 W power supply: 10 A (110 VAC), 6 A (200 VAC)

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Rated Input Frequency	50 to 60 Hz
Rated Input Power	900 W power supply: 1034 W (110 VAC), 1022 W (200 VAC)

Power supply output

Rated Steady-State Power	900 W power supply
Maximum Peak Power	900 W power supply

BTU Rating (Maximum)

900 W power supply: 3527 BTU/hr (110 VAC), 3432 BTU/hr (200 VAC)

500 W power supply

Power supply input

Rated Line Voltage	100 to 127 / 200 to 240 VAC
Rated Input Current	900 W power supply: 6 A (100 VAC), 2.9 A (200 VAC)
Rated Input Frequency	50 to 60 Hz
Rated Input Power	500 W power supply: 595 W (100 VAC), 575 W (200 VAC)

Power supply output

Rated Steady-State Power	491 W at 100 and 200 VAC
Maximum Peak Power	597 W at 100, 587 W at 200 VAC

BTU Rating (Maximum)

500 W power supply: 2029 BTU/hr (100 VAC), 1963 BTU/hr (200 VAC)

Available options

Processor

Intel® Xeon® processor (Twelve Core)

- E5-2697 v2 (30 MB L3 cache, 2.7 GHz, DDR3 1866/1600/1333/1066 MHz, 130 W)
- E5-2695 v2 (30 MB L3 cache, 2.4 GHz, DDR3 1866/1600/1333/1066 MHz, 115 W)

Intel® Xeon® processor (Ten Core)

- E5-2690 v2 (25 MB L3 cache, 3.0 GHz, DDR3 1866/1600/1333/1066 MHz, 130 W)
- E5-2680 v2 (25 MB L3 cache, 2.8 GHz, DDR3 1866/1600/1333/1066 MHz, 115 W)
- E5-2670 v2 (25 MB L3 cache, 2.5 GHz, DDR3 1866/1600/1333/1066 MHz, 115 W)
- E5-2660 v2 (25 MB L3 cache, 2.2 GHz, DDR3 1866/1600/1333/1066 MHz, 95 W)
- E5-2650L v2 (25 MB L3 cache, 1.7 GHz, DDR3 1866/1600/1333/1066 MHz, 70 W)

Intel® Xeon® processor (Eight Core)

- E5-2667 v2 (25 MB L3 cache, 3.3 GHz, DDR3 1866/1600/1333/1066 MHz, 130 W)
- E5-2650 v2 (20 MB L3 cache, 2.6 GHz, DDR3 1866/1600/1333/1066 MHz, 95 W)
- E5-2640 v2 (20 MB L3 cache, 2.0 GHz, DDR3 1866/1600/1333/1066 MHz, 95 W)
- E5-2680 (20 MB L3 cache, 2.7 GHz, DDR3 1600/1333/1066 MHz, 130 W)
- E5-2670 (20 MB L3 cache, 2.6 GHz, DDR3 1600/1333/1066 MHz, 115 W)
- E5-2665 (20 MB L3 cache, 2.4 GHz, DDR3 1600/1333/1066 MHz, 115 W)

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- E5-2660 (20 MB L3 cache, 2.2 GHz, DDR3 1600/1333/1066 MHz, 95 W)
- E5-2650 (20 MB L3 cache, 2.0 GHz, DDR3 1600/1333/1066 MHz, 95 W)
- E5-2650L (20 MB L3 cache, 1.8 GHz, DDR3 1600/1333/1066 MHz, 70 W)

Intel® Xeon® processor (Six Core)

- E5-2643 v2 (25 MB L3 cache, 3.5 GHz, DDR3 1866/1600/1333/1066 MHz, 130 W)
- E5-2630 v2 (15 MB L3 cache, 2.6 GHz, DDR3 1866/1600/1333/1066 MHz, 80 W)
- E5-2630L v2 (15 MB L3 cache, 2.4 GHz, DDR3 1600/1333/1066 MHz, 60 W)
- E5-2620 v2 (15 MB L3 cache, 2.1 GHz, DDR3 1866/1600/1333/1066 MHz, 80 W)
- E5-2667 (15 MB L3 cache, 2.9 GHz, DDR3 1600/1333/1066 MHz, 130 W)
- E5-2640 (15 MB L3 cache, 2.5 GHz, DDR3 1600/1333/1066 MHz, 95 W)
- E5-2630 (15 MB L3 cache, 2.3 GHz, DDR3 1600/1333/1066 MHz, 95 W)
- E5-2620 (15 MB L3 cache, 2.0 GHz, DDR3 1600/1333/1066 MHz, 95 W)
- E5-2630L (15 MB L3 cache, 2.0 GHz, DDR3 1600/1333/1066 MHz, 60 W)
- E5-1660 v2 (15 MB L3 cache, 3.7 GHz, DDR3 1600/1333/1066 MHz, 130 W)
- E5-1650 v2 (12 MB L3 cache, 3.5 GHz, DDR3 1600/1333/1066 MHz, 130 W)
- E5-1660 (15 MB L3 cache, 3.3 GHz, DDR3 1600/1333/1066 MHz, 130 W)
- E5-1650 (15 MB L3 cache, 3.2 GHz, DDR3 1600/1333/1066 MHz, 130 W)

Intel® Xeon® processor (Quad Core)

- E5-2637 v2 (15 MB L3 cache, 3.5 GHz, DDR3 1866/1600/1333/1066 MHz, 130 W)
- E5-2609 v2 (10 MB L3 cache, 2.5 GHz, DDR3 1866/1600/1333/1066 MHz, 80 W)
- E5-2603 v2 (10 MB L3 cache, 1.8 GHz, DDR3 1866/1600/1333/1066 MHz, 80 W)
- E5-2643 (10 MB L3 cache, 3.3 GHz, DDR3 1600/1333/1066 MHz, 130 W)
- E5-2609 (10 MB L3 cache, 2.4 GHz, DDR3 1600/1333/1066 MHz, 80 W)
- E5-2603 (10 MB L3 cache, 1.8 GHz, DDR3 1600/1333/1066 MHz, 80 W)
- E5-1620 v2 (10 MB L3 cache, 3.7 GHz, DDR3 1600/1333/1066 MHz, 130 W)
- E5-1607 v2 (10 MB L3 cache, 3.0 GHz, DDR3 1600/1333/1066 MHz, 130 W)
- E5-1620 (10 MB L3 cache, 3.6 GHz, DDR3 1600/1333/1066 MHz, 130 W)
- E5-1603 (10 MB L3 cache, 2.8 GHz, DDR3 1600/1333/1066 MHz, 130 W)

Intel® Xeon® processor (Dual Core)

- E5-2637 (5 MB L3 cache, 3.0 GHz, DDR3 1600/1333/1066 MHz, 80 W)

Memory

Memory type	Registered / Unbuffered DDR3 or DDR3L ECC memory
Capacities	4 / 8 / 16 GB DIMMs Registered 4 / 8 GB DIMMs Unbuffered
DIMM number	8
Max memory	128 GB (64 GB unbuffered)

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Note: 3 DIMM per channel is only supported by single rank and dual rank RDIMM. For UDIMM and quad rank RDIMM, maximum two DIMMs per channel.

Hard drives

Type	Interface, bandwidth	Capacities (RPM)
Enterprise SATA, 3.5"	6 Gb/s	250 GB (7.2 K)
		500 GB (7.2 K)
		1 TB (7.2 K)
		2 TB (7.2 K)
		3 TB (7.2 K)
Enterprise SAS, 3.5"	6 Gb/s	300 GB (15 K)
		450 GB (15 K)
		500 GB (7.2 K)
		600 GB (15 K)
		1 TB (7.2 K)
Consumer SATA, 3.5"	6 Gb/s	2 TB (7.2 K)
		320 GB (7.2 K)
		500 GB (7.2 K)
		1 TB (7.2 K)
		2 TB (7.2 K)
Enterprise SAS, 2.5"	6 Gb/s	3 TB (7.2 K)
		73 GB (15 K)
		146 GB (15 K)
		300 GB (15 K)
		300 GB (10 K)
Enterprise SATA, 2.5"	6 Gb/s	450 GB (10 K)
		600 GB (10 K)
		900 GB (10 K)
		250 GB (7.2 K)
		500 GB (7.2 K)
SSD	6 Gb/s	1 TB (7.2 K)
		100 GB
		120 GB
		128 GB
		180 GB
		240 GB
		256 GB
		300 GB
		400 GB
		512 GB
		600 GB

Optical drives

DVD-ROM

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SuperMulti (DVD ± RW)

RAID cards

Description	Model	RAID support
8-port (4 int., 4 ext.) 3Gb/s SAS HBA	LSI SAS 3442E-R	RAID 0/1/10
8-port (4 int., 4 ext.) 6Gb/s SAS HBA	LSI SAS 9212-4i4e	RAID 0/1/10
4-port 3Gb/s SAS RAID Adapter	LSI SAS 3041E-R	RAID 0/1/10
4-port 6Gb/s SAS RAID Adapter	LSI MegaRAID SAS 9240-4i	RAID 0/1/10/5
8-port 6Gb/s SAS RAID (512MB) Adapter	LSI MegaRAID SAS 9260-8i	RAID 0/1/10/5/6/50/60
4-port 6Gb/s SAS RAID (512MB) Adapter	LSI MegaRAID SAS 9260-4i	RAID 0/1/10/5/6/50/60
16-port 6Gb/s SAS RAID (512MB) Adapter	LSI MegaRAID SAS 9260-16i	RAID 0/1/10/5/50/6/60
8-port 6Gb/s SAS RAID (1GB) Adapter	LSI MegaRAID SAS 9271-8i	RAID 0/1/10/5/6/50/60
16-port (16 int., 4 ext.) 6Gb/s SAS RAID (512MB) Adapter	LSI MegaRAID SAS 9280-16i4e	RAID 0/1/10/5/6/50/60

Graphics card

NVIDIA® Quadro®

NVIDIA® Quadro® K6000, 12 GB *

NVIDIA® Quadro® K5000, 4 GB *

NVIDIA® Quadro® K4000, 3 GB*

NVIDIA® Quadro® K2000, 2 GB

NVIDIA® Quadro® K600, 1 GB

NVIDIA® Quadro® 6000, 6 GB*

NVIDIA® Quadro® 5000, 1 GB*

NVIDIA® Quadro® 4000, 2 GB*

NVIDIA® Quadro® 2000, 1 GB

NVIDIA® Quadro® 600, 1 GB

NVIDIA® Quadro® NVS

NVIDIA® Quadro® NVS450, 512 MB

NVIDIA® Tesla™

NVIDIA® Tesla™ K20c, 5 GB

NVIDIA® Tesla™ M2090, 6 GB

NVIDIA® Tesla™ M2075, 6 GB

NVIDIA® Tesla™ M2070, 6 GB

NVIDIA® Tesla™ C2075, 6 GB

NVIDIA® Tesla™ C2050, 3 GB

* requires additional 12 V power from motherboard

Co-processor

Intel® Xeon Phi™ 3120A

TPM module

Optional TPM v1.2 module

Service and support

Acer Servers offer a comprehensive service suite to take care of daily IT needs. Users can select the 3-year standard warranty or choose extended warranties and services.

In a continuing effort to improve the quality of our products, information in this document is subject to change without notice. Images shown are only representations of some of the configurations available for this model. Availability may vary depending on region.

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