

Altos C100 F3 Specifications

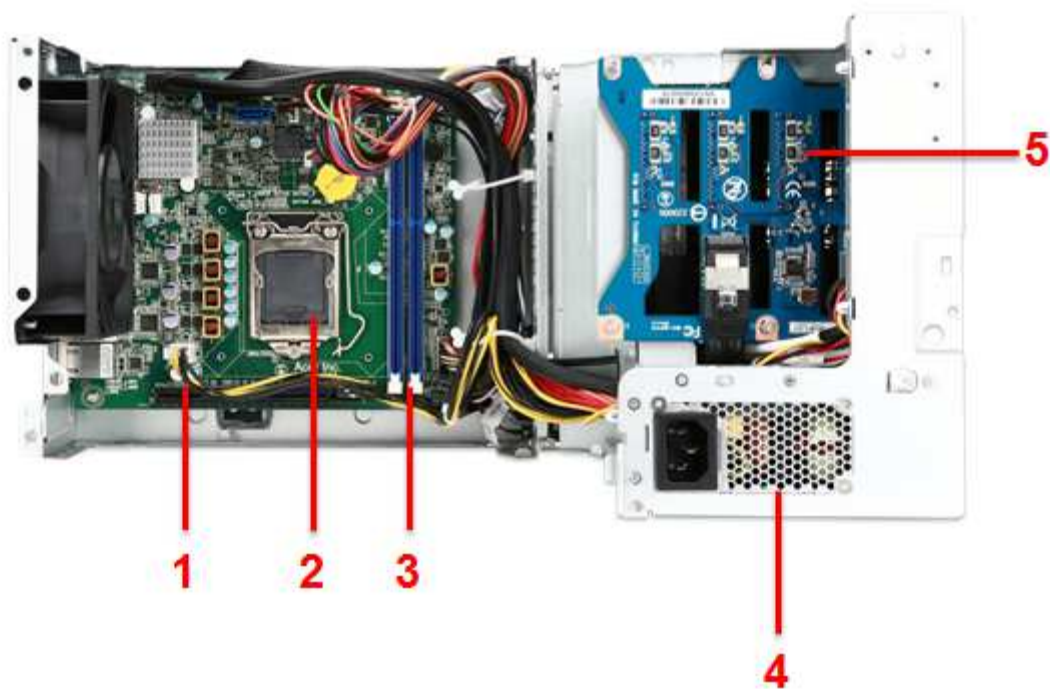
Product overview

The Altos C100 F3 delivers essential server-class features and expandability to ensure the success of startup and small-size businesses. This micro tower server is ENERGY STAR® certified and features an 80 PLUS® efficient power supply that saves space and energy while keeping your office highly productive.



Product views

Internal view

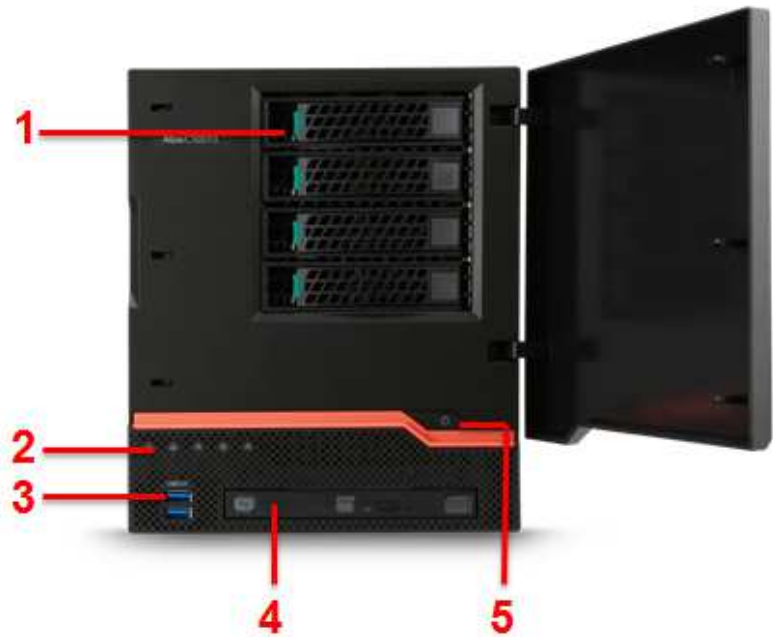


1. Low-profile PCIe 3.0 expansion slot
2. Intel® Xeon® E3-1200 v3 series processor
3. 2 x DDR3 ECC unbuffered DIMMs
4. 250 W 80 PLUS® Gold-certified power supply
5. 4 x hot-pluggable hard drive bays

Altos C100 F3 Specifications

Front View

1. 4 x hot-pluggable hard drive bays
2. LED indicators: Power, HDD activity, LAN x3
3. 2 x USB 3.0 ports
4. Optional slimline optical drive
5. Power Button



Rear View

1. Kensington lock slot
2. VGA video port
3. DisplayPort®
4. 2 x USB 3.0 ports
5. 2 x USB 2.0 ports
6. 3 x Gigabit LAN ports (RJ-45)
7. PCIe 3.0 expansion slot



Product Specifications

What's New?

- Intel® Xeon® E3-1200 v3 series processors
 - Includes Intel® HD Graphics P4600/P4700, DP1.2 MST support
- 6 x SATA 3 connector (6 Gb/s)
- Front panel USB 3.0 ports
- Improved acoustics (from 22 dBA)
- 84 W thermal solution in a 12 liter chassis
- Audio via DisplayPort®

Processors and Chipset

- Intel® Xeon® E3-1200 v3 series, Core™ i7, i5 and i3 series, Pentium® series processors
- Chipset: Intel® C226

Memory

- Up to 2 x DDR3 unbuffered DIMMs

Network Controllers

- 1 x Dual-port Intel® I210 Ethernet controller
- 1 x Single-port Intel® I217 Ethernet controller / management port

Storage

- Hard disk form factor: 3.5" (2.5" with tray adapters)
- Type: SAS / SATA
- Maximum capacity:
 - Up to 16 TB SATA HDD (4 TB 3.5" x 4 HDDs)
 - Up to 3.6 TB SAS HDD (900 GB 2.5" x 4 HDDs)

Storage Controllers

- Intel® C226 chipset with RSTe RAID and SATA RAID 0, 1, 5, 10 support
- SAS RAID 0, 1, 5, 10 support via optional SAS RAID add-on card

Note: Integrated SATA RAID supports RAID 0, 1, 5, 10 on Windows® OS only.

Expansion slots

- PCIe® 3.0 x16 (x16 connector, low-profile)

Management

- System LAN LEDs

Deployment/Serviceability

- Acer Smart Setup
- BIOS Update Tool

Operating Systems

- Microsoft® Windows Server® 2012
- Microsoft® Windows Server® 2012 R2
- Microsoft® Windows MultiPoint® Server 2012
- Microsoft® Windows Server® 2008 R2 SP1
- Red Hat® Enterprise Linux® 6.4
- Red Hat® Enterprise Linux® 5.9
- Novell® SUSE® Linux® Enterprise Server 11 SP3
- VMware ESXi 5.1

Input/output interface

Front

- 2 x USB 3.0 ports
- Power/off button
- LED indicators: power, HDD activity, LAN x3

Rear

- 2 x USB 2.0 ports
- 2 x USB 3.0 ports
- 2 x Gigabit LAN port (RJ-45)
- 1 x Gigabit LAN port (RJ-45) / management port
- VGA video port
- DisplayPort®

Optical drive

- Optional slimline SATA SuperMulti drive

Onboard Graphics

Onboard graphic specifications depend on the processor installed.

- Intel® Core™ and Pentium® processors: Intel HD Graphics (exact version depends on processor used).
- Intel® Xeon® with 2GT: Intel HD Graphics P4600 or P4700.
- Intel® Xeon® without 2GT: no onboard graphics capability, an add-in graphics card must be installed.

Add-in Graphics

- Optional NVIDIA® NVS510

Onboard Audio

- Processor based

Altos C100 F3 Specifications



Chassis/Form Factor

- 12 L mini-tower

Power Supply

- 250 W 80 PLUS® Gold-certified fixed power supply

Security

- Kensington lock slot
- Drive bay door lock
- Power/reset button lockout
- Optional TPM 1.2
- Administrator / user password
- Power-on password
- Setup password
- Device boot control
- BIOS write-protected

Regulatory Compliant Standards

Energy Star® 2.0 compliant

EMC

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

Safety

- MET
- CB
- GS
- CEL
- CCC

Environmental Specifications

Dimensions	200 (W) x 267 (D) x 235 mm (H) (7.9 x 10.5 x 9.25 inches)			
Weight	Maximum	8 kg (17.6 lbs.)		
System inlet temperature	Operating	5° - 40° C (41° - 104° F)		
	Non-operating	-20° - 60° C (-4° - 140° F)		
Relative humidity	Operating	30 ~ 80 %		
	Non-operating	5 ~ 95 %		
Acoustics	Idle	Light configuration	Full configuration	
		LWAd	3.9 BA	4.2 BA
	LpAm	21.3 dBA	27.6 dBA	
	Operating	LWAd	3.9 BA	4.3 BA
		LpAm	23.0 dBA	27.9 dBA
		Fixed 250 W Gold-certified high-efficiency power supply		
Power	Range line voltage	100 ~ 240 Vrms		
	Rated input current	2.798 A max. (at 100 Vrms)		
		1.134 A max. (at 240 Vrms)		
	Rated input frequency	50 ~ 60 Hz		
	Rated steady-state power	250 W		
	Maximum Peak Power	279.27 W		
	Rated input power	278.8 W (at 100 VAC)		
	BTU rating	950.74 BTU/hr at 100 VAC		
915.79 BTU/hr at 240 VAC				

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	Height
PCIE_1	CPU	PCIe Gen3	x16	3.3 V	x16	Onboard	Low profile

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.

Onboard storage specifications

Item	Description
Controller	Intel® C226 Platform Controller Hub
Simultaneous drive transfer channels	6 onboard SATA ports
Max throughput per channel	<ul style="list-style-type: none"> • 6 x 6 Gb/s
Data transfer method	<ul style="list-style-type: none"> • Non-RAID mode • RAID mode
Drive type supported	Serial ATA
RAID levels support	<ul style="list-style-type: none"> • RAID 0, 1, 5 10 (Intel software RAID) <p>NOTE: Intel software RAID only supports Windows OS</p>
RAID function support	<ul style="list-style-type: none"> • Supports multiple logical volumes • Setup through ROM based Array Configuration Utility • Installation scripting support <p>NOTE: This controller does not support hot plug or LED functions</p>
RAID OS support	<ul style="list-style-type: none"> • Microsoft® Windows Server® 2012 • Microsoft® Windows Server® 2012 R2 • Microsoft® Windows MultiPoint® Server 2012 • Microsoft® Windows Server® 2008 R2 SP1 • Red Hat® Enterprise Linux® 6.4 • Red Hat® Enterprise Linux® 5.9 • Novell® SUSE® Linux® Enterprise Server 11 SP3 • VMware ESXi 5.1 <p>NOTE: Intel software RAID only supports Windows OS</p>
Additional features	<ul style="list-style-type: none"> • NCQ (Native Command Queuing) • AHCI (Advanced Host Controller Interface)

Onboard LAN specifications

Item	Description
Controller	1 x Dual-port Intel® I210 Ethernet controller 1 x Single-port Intel® I217 Ethernet controller / management port
Network interface	10Base-T / 100Base-TX / 1000Base-T
Compatibility standards	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • PXE, iSCSI boot
Connector	RJ-45
Supported cable type	Cat 5e, Cat 6 wire

Memory specifications and population

Item	Description
Supported memory types	<ul style="list-style-type: none"> • Unbuffered DDR3L 1600 MHz

- 1.35 V (DDR3L)

NOTE: Acer does not qualify mixed memory configurations of memory type, capacity or make.

Population

Acer's validated memory populations are listed below.

Memory Population Rules

- No support for RDIMMs.
- ECC and non-ECC UDIMMs may not be mixed.
- DIMM modules must be installed in the slot sequence listed below.

DIMM slot layout

Total No. of DIMMs	DIMMA0	DIMMB0
1	V	
2	V	V

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 PC3-12800 xx xx xxx

1. Density

- 2 GB, 4 GB, 8 GB

2. Rank

- 1R = Single Rank
- 2R = Dual Rank

3. Bit Organization

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

4. Speed

- PC3 – 12800 => DDR3- 1600

Power specifications

250 W power supply

Power supply input

Range line voltage	100 ~ 240 Vrms
Rated input current	2.798 A max. (at 100 Vrms) 1.134 A max. (at 240 Vrms)
Rated steady-state power	250 W
Maximum Peak Power	279.27 W
Rated input frequency	50 ~ 60 Hz
Rated input power	278.8 W (at 100 VAC) 268.6 W (at 240 VAC)
BTU rating	950.74 BTU/hr at 100 VAC 915.79 BTU/hr at 240 VAC

Acoustic noise

Acoustic Noise (250 W Gold-certified power supply)

Idle	Light-configuration	LWAd: 3.9 BA	LpAm: 21.3 dBA
	Full-configuration	LWAd: 4.2 BA	LpAm: 27.6 dBA
Operating	Light-configuration	LWAd: 3.9 BA	LpAm: 23.0 dBA
	Full-configuration	LWAd: 4.3 BA	LpAm: 27.9 dBA

Acer server software utilities

Smart Setup 2.2

Easy deployment provided by the latest version of Acer's Smart Setup. Smart Setup is available both in box as a driver packed installation DVD or a downloadable file to be put into a USB 2.0 device, and eases the deployment of Acer servers for any certified OS. Through its unique interface, users may select to have all the correct drivers be pre-deployed for the OS of their choosing, as well as setup hardware RAID devices, BMC settings (where available), and even clone the pre-settings to a bootable USB device to ease mass server deployments.

Available options

Processors

Intel® Xeon® E3-1200 v3 Processors

- E3-1285 v3 (8 MB L3 cache, 3.60 GHz, DDR3 1600/1333 MHz, 84 W, quad core, 2GT)¹
- E3-1285L v3 (8 MB L3 cache, 3.10 GHz, DDR3 1600/1333 MHz, 65 W, quad core, 2GT)¹
- E3-1280 v3 (8 MB L3 cache, 3.60 GHz, DDR3 1600/1333 MHz, 82 W, quad core)²
- E3-1275 v3 (8 MB L3 cache, 3.50 GHz, DDR3 1600/1333 MHz, 84 W, quad core, 2GT)³
- E3-1270 v3 (8 MB L3 cache, 3.50 GHz, DDR3 1600/1333 MHz, 80 W, quad core)²
- E3-1245 v3 (8 MB L3 cache, 3.40 GHz, DDR3 1600/1333 MHz, 84 W, quad core, 2GT)³
- E3-1240 v3 (8 MB L3 cache, 3.40 GHz, DDR3 1600/1333 MHz, 80 W, quad core)²
- E3-1230 v3 (8 MB L3 cache, 3.30 GHz, DDR3 1600/1333 MHz, 80 W, quad core)²
- E3-1225 v3 (8 MB L3 cache, 3.20 GHz, DDR3 1600/1333 MHz, 84 W, quad core, 2GT)³
- E3-1220 v3 (8 MB L3 cache, 3.10 GHz, DDR3 1600/1333 MHz, 80 W, quad core)²

Intel® Core™ i7 Processors

- Intel® Core™ i7-4770 (8 MB, 3.4 GHz, DDR3 1600, 84 W, quad core)⁴

Intel® Core™ i5 Processors

- Intel® Core™ i5-4670 (6 MB, 3.4 GHz, DDR3 1600, 84 W, quad core)⁴
- Intel® Core™ i5-4670S (6 MB, 3.1 GHz, DDR3 1600, 65 W, quad core)⁴
- Intel® Core™ i5-4570 (6 MB, 3.2 GHz, DDR3 1600, 84 W, quad core)⁴
- Intel® Core™ i5-4570S (6 MB, 2.9 GHz, DDR3 1600, 65 W, quad core)⁴

Altos C100 F3 Specifications

- Intel® Core™ i5-4440 (6 MB, 3.1 GHz, DDR3 1600, 84 W, quad core)⁴
- Intel® Core™ i5-4440S (6 MB, 2.8 GHz, DDR3 1600, 65 W, quad core)⁴
- Intel® Core™ i5-4430 (6 MB, 3.0 GHz, DDR3 1600, 84 W, quad core)⁴
- Intel® Core™ i5-4430S (6 MB, 2.7 GHz, DDR3 1600, 65 W, quad core)⁴

Intel® Core™ i3 Processors

- Intel® Core™ i3-4340 (4 MB, 3.6 GHz, DDR3 1600, 54 W, dual core)⁴
- Intel® Core™ i3-4330 (4 MB, 3.5 GHz, DDR3 1600, 54 W, dual core)⁴
- Intel® Core™ i3-4130 (4 MB, 3.4 GHz, DDR3 1600, 54 W, dual core)⁴

Intel® Pentium® Processors

- Intel® Pentium® G3430 (3 MB, 3.3 GHz, DDR3 1600, 54 W, dual core)⁴
- Intel® Pentium® G3420 (3 MB, 3.2 GHz, DDR3 1600, 54 W, dual core)⁴
- Intel® Pentium® G3220 (3 MB, 3.0 GHz, DDR3 1600, 54 W, dual core)⁴

¹ - Integrated Intel HD Graphics P4700

² - No integrated graphics, an add-in graphics card must be installed

³ - Integrated Intel HD Graphics P4600

⁴ - Integrated Intel HD Graphics

Memory

Memory type	Unbuffered DDR3-1600 ECC memory
Capacities	2 / 4 / 8 GB DIMMs
DIMM number	2
Max memory	16 GB

Hard drives

Type	Size	Interface, bandwidth	Capacities	RPM
Consumer SATA	3.5"	3 Gb/s	500 GB	7.2K rpm
			1 TB	
			2 TB	
			3 TB	
Nearline SATA	3.5"	6 Gb/s	4 GB	7.2K rpm
			500 GB	
			1 TB	
			2 TB	
Enterprise SAS	2.5"	6 Gb/s	300 GB	10K rpm
			450 GB	
			600 GB	
			900 GB	

NOTE: SAS drives require an add-on RAID card

Altos C100 F3 Specifications



Video cards

Onboard graphic specifications depend on the processor installed.

- Intel® Core™ processor: Intel HD Graphics (exact version depends on processor used).
- Intel® Xeon® with 2GT: Intel HD Graphics P4600 or P4700.
- Intel® Xeon® without 2GT: no onboard graphics capability, an add-in graphics card must be installed.

Add-in graphics cards

NVIDIA® NVS510, 2 GB, mDPx4

Optical drives

- Slimline SuperMulti (DVD ± RW)

RAID cards

Model	Port number	RAID support
LSI® MegaRAID SAS 9240-4i	4 internal ports	0, 1, 5, 10

Ethernet network cards

Model	Port number	Bandwidth
Intel® Gigabit CT2 desktop adapter	2	10/100/1000 Mbps
Intel® i350-T2 Gigabit server adapter	2	10/100/1000 Mbps
Intel® i350-T4 Gigabit server adapter	4	10/100/1000 Mbps

TPM module

TPM 1.2 module with STMicro chip

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.

© 2013. All rights reserved.

Microsoft and Windows are registered trademarks of Microsoft Corporation. Intel, the Intel logo, Xeon and Xeon Inside are trademarks of Intel® Corporation.

NOTE: Extension warranty services may vary by country. Please contact Acer authorized resellers for more information.