

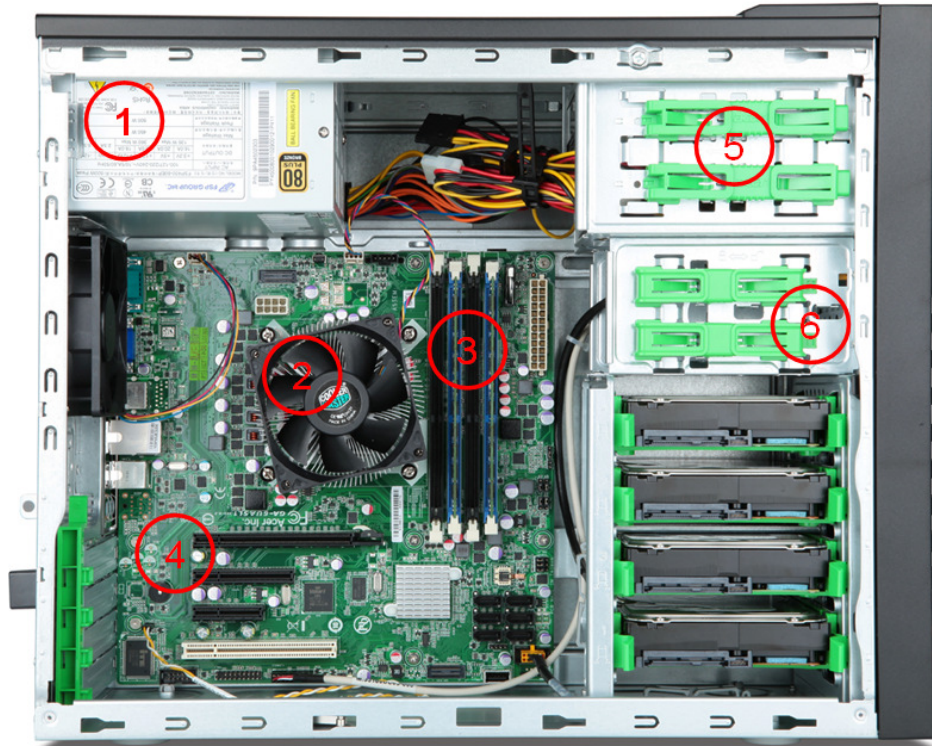
## Acer AT110 F2 Specifications

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### Product overview

The AT110 F2 delivers true server-class features and expandability along with best price-performance technology to assure the success of your small-sized business. This single-socket tower server also features an 80 PLUS® efficient power supply that saves energy while maintaining full productivity.

### Internal view



- 1 450 W 80 PLUS® bronze-level efficient fixed power supply
- 2 Intel® Xeon® E3 series processor
- 3 4 x DDR3 ECC unbuffered DIMMs
- 4 3 x PCIe & 1 PCI expansion slots
- 5 2 x 5.25" media expansion bays
- 6 4 x tool-less fixed hard drive bays

## Acer AT110 F2 Specifications

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**Rear view**



**Front View**



### Rear I/O

- 1 6 x USB ports
- 2 Gigabit LAN port (RJ-45)
- 3 Video port
- 4 Serial port

### What's New

- Intel® Xeon® E3-1200 series processors
- Standard 450 W 80 PLUS® bronze-level fixed power supply

### Product Specifications

#### Processors and Chipset

- Intel® Xeon® E3-1200 series processors
- Chipset: Intel® C202

#### Memory

- Memory capacity:
  - Unbuffered DIMM: 1, 2, 4 GB
- Maximum capacity: up to 16 GB unbuffered DIMMs when fully populated with 2 DIMMs per channel in 4 slots

#### Network Controllers

- Integrated single-port Intel® 82579LM Gigabit Ethernet

#### Storage

- Hard disk form factor: 3.5"
- Type: SAS/ SATA
- 3.5" Maximum capacity:

## Acer AT110 F2 Specifications

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- Up to 8 TB SATA HDD (2 TB 3.5" x 4 HDDs)
- Up to 2.4 TB SAS (600 GB 3.5" x 4 HDDs)

### Storage Controllers

- Intel® C202 onboard storage controller
- Optional PCIe® 4-port SAS RAID card

### Expansion slots

- 1 x PCIe x16
- 1 x PCIe x8
- 1 x PCIe x4
- 1 x PCI

### Management

- System LAN LEDs, System Health LED

### Deployment/Serviceability

- Acer Smart Setup
- BIOS Update Tool

### Operating Systems

- Windows Server® 2008
- Windows Server 2008 R2
- Windows Server 2003
- Red Hat Enterprise Linux 6
- SuSE Linux Enterprise Server 11 SP1

### Input/output interface

#### Front

- Two USB ports
- Power/off button
- LED indicators: power, HDD activity, LAN

#### Rear

- 6 x USB 2.0 ports
- Serial port
- Video port
- Gigabit LAN port

### Optical drive

- Full-height SuperMulti drive

### Chassis/Form Factor

- mATX tower

### Power Supply

- 450 W 80 PLUS® bronze-level efficient fixed power supply

### Regulatory Compliant Standards

- Energy Star® compliant

#### EMC

## Acer AT110 F2 Specifications

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

### Safety

- UL/cUL
- CB
- Nemko/GS

### **Environmental Specifications**

Dimensions	180(W) x 406(D) x 374(H) mm (7.1(W) x 16(D) x 14.7(H) inches)	
Weight	Maximum	12.4 kg (27.3 lbs)
	Minimum (includes a single HDD, CPU and RAM, and PSU)	10.2 kg (22.4 lbs)
System inlet temperature	Operating	5° - 40° C (41° - 104° F)
	Non-operating	-20° - 60° C (-4° to 140° F)
Relative humidity	Operating	30 ~ 80%
	Non-operating	5 ~ 95%
Acoustics	Idle	
	LWAd	5.2 BA
	LpAm	34 dBA
	Operating	
	LWAd	5.7 BA
	LpAm	40 dBA
Power	Range line voltage	90~135 VAC
		180~264 VAC
	Rated input current	3.5 A (at 100 ~ 127 VAC) 2 A (at 200 ~ 240 VAC)
	Rated input frequency	50 ~ 60 Hz
	Rated input power	450 W
	Supplier to propose power budget for PSU spec setting	
	Fixed 450W Bronze level high-efficiency power supply.	
BTU rating	1535 BTU/hr	

## Acer AT110 F2 Specifications

### Technical specifications

#### PCIe® specifications

The primary I/O bus for the main board is PCIe Gen2. 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 2.5Gbit/s one direction per lane for Gen 1 and 5.0Gbit/s one direction per lane for Gen 2.

Expansion slot	Number	Type	Bus width <sup>1</sup>	Voltage	Connector	Location	Length
PCIe x16	1	PCIe Gen2	x16	3.3V	x16	Onboard	Full height
PCIe x8	1	PCIe Gen2	x4	3.3V	x8	Onboard	Full height
PCIe x4	1	PCIe Gen2	x2	3.3V	x4	Onboard	Full height
PCI	1	PCI	32 bit	3.3V	PCI	Onboard	Full height

**NOTE:**

1. Indicates the number of physical electrical lanes running to a PCIe® connector.
2. Default bus assignment (in decimal). Inserting cards with PCI™ bridges may alter the actual bus assignment number.
3. 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 C202 onboard controller
Simultaneous drive transfer channels	6 onboard SATA ports
Max throughput per channel	3 Gb/s
Data transfer method	<ul style="list-style-type: none"> <li>• Non-RAID mode</li> <li>• RAID mode</li> </ul>
Drive type supported	Serial ATA
RAID levels support	<ul style="list-style-type: none"> <li>• RAID 0, 1, 10, 5 (Intel software RAID)</li> <li>• RAID 0, 1, 10 (LSI software RAID)</li> </ul>
RAID function support	<p><b>NOTE:</b> Intel software RAID only supports Windows OS</p> <p>LSI software RAID available about 2011 Q1</p> <ul style="list-style-type: none"> <li>• Supports multiple logical volumes</li> <li>• Setup through ROM based Array Configuration Utility Installation scripting support</li> </ul>
RAID OS support	<p><b>NOTE:</b> This controller does not support hot plug or LED functions</p> <ul style="list-style-type: none"> <li>• Windows Server® 2008</li> <li>• Windows Server 2008 R2</li> <li>• Windows Server 2003</li> <li>• Red Hat Enterprise Linux 6</li> </ul>

## Acer AT110 F2 Specifications

### Additional features

- SuSE Linux Enterprise Server 11
- NCQ (Native Command Queuing)
- AHCI (Advanced Host Controller Interface)

### Onboard LAN specifications

Item	Description
Controller	Intel PHY 82579LM
Port number	Single port
Network interface	10Base-T / 100Base-TX / 1000Base-T
Compatibility standards	<ul style="list-style-type: none"> <li>• IEEE 802.3 Ethernet interface for 10BASE-T</li> <li>• IEEE 802.3ab Ethernet interface for 1000BASE-T</li> <li>• IEEE 802.3u Ethernet interface for 100BASE-TX</li> </ul>
Remote boot functionality	Support PXE, iSCSI boot
Connector	RJ-45
Supported cable type	CAT 5e wire

### Memory specifications and population

#### Supported memory types

- Unbuffered DDR3 1066 / 1333 MHz

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

#### Population

Acer's validated memory populations are listed below.

**NOTE:** Support for 8 GB DIMMs may vary by regional availability.

Capacity	DIMM1A	DIMM1B	DIMM2A	DIMM2B
1 GB	1 GB			
2 GB	1 GB		1 GB	
4 GB	1 GB	1 GB	1 GB	1 GB
2 GB	2 GB			
4 GB	2 GB		2 GB	
8 GB	2 GB	2 GB	2 GB	2 GB
4 GB	4 GB			
8 GB	4 GB		4 GB	
16 GB	4 GB	4 GB	4 GB	4 GB
8 GB	8 GB			
16 GB	8 GB		8 GB	
32 GB	8 GB	8 GB	8 GB	8 GB

## Acer AT110 F2 Specifications

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### Power specifications

450 W Power Supply

Operational Input Voltage Range (Vrms)	100 to 240						
Frequency Range (Nominal) (Hz)	50 / 60						
Nominal Input Voltage (Vrms)	100	120	200	208	220	230	240
Max. Rated Output Wattage	450.14	450.86	449.44	449.35	448.32	448.21	448.18
Nominal Input Current (Arms)	5.6	4.59	2.69	2.58	2.44	2.33	2.24
Max. Rated Input Wattage Rating	558.16	547.55	528.8	527.57	526.11	525.29	524.23
Max. Rated VA (Volt-Amp)	560.28	549.87	538	536.66	536.87	535.87	537.66
Efficiency (%) at Max. Rated Output Wattage	80.65	82.34	84.99	85.17	85.02	85.32	85.49
Power Factor	0.996	0.996	0.982	0.982	0.979	0.979	0.974
Leakage Current (mA)	0.23	0.28	0.38	0.39	0.42	0.44	0.46
Max. Inrush Current (A peak)	46.2	55.5	59	62	63.5	64	64.5
Max. Inrush Current Duration (ms)	0.86	0.98	1.82	1.86	2.18	2.14	2.22
Max. British Thermal Unit Rating (BTU/hr)	1912	1876	1836	1831	1832	1828	1835

### **Acer server software utilities**

**Smart Setup 2.X**      Easy deployment via 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.



## Acer AT110 F2 Specifications

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### Available options

#### Processors

Intel® Xeon® E3-1280 (4 core, 3.5 GHz, 95W)  
 Intel® Xeon® E3-1270 (4 core, 3.4 GHz, 80W)  
 Intel® Xeon® E3-1240 (4 core, 3.3 GHz, 80W)  
 Intel® Xeon® E3-1230 (4 core 3.2 GHz, 80W)  
 Intel® Xeon® E3-1220 (4 core, 3.1 GHz, 80W)  
 Intel® Xeon® E3-1260L (4 core, 2.4 GHz, 45W)  
 Intel® Xeon® E3-1220L (2 core, 2.2GHz, 20W)  
 Intel® Core™ i3-2120 (2 core, 3.3 GHz, 65W)  
 Intel® Core™ i3-2100 (2 core, 3.1 GHz, 65W)

#### Memory

Memory type                      Unbuffered DDR3 ECC memory  
 Capacities                        1/2/4 GB DIMMs  
 DIMM number                    4  
 Max memory                      16 GB

#### Hard drives

Type	Interface, bandwidth	Capacities
Consumer SATA	3 Gb/s	320 GB
		500 GB
		1 TB
Enterprise SAS	6 Gb/s	300 GB
		450 GB
		600 GB

**NOTE:** SAS drives require an add-on RAID card

#### Optical drives

DVD-ROM  
 SuperMulti (DVD ± RW)

#### RAID cards

Model	Port number	RAID support
LSI® MegaRAID SAS 3041E-R	4 internal ports	0, 1, 10
LSI® MegaRAID SAS 9240-4i	4 internal ports	0, 1, 5, 10

## Acer AT110 F2 Specifications

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### Ethernet network cards

Model	Port number	Bandwidth
Intel® Gigabit CT desktop adapter	2	10/100/1000 Mbps

### Tape Backup Unit (TBU)

Model	Tape capacity	Form factor
DAT72 SATA/USB TBU	36 GB	Internal 5.25" half-height
	72 GB	
DAT160 USB TBU	160 GB	Internal 5.25" half-height

### TPM module

TPM 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 1 year onsite intervention plus 2nd and 3rd year free spare parts standard warranty or choose extended warranties and services<sup>2</sup> 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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