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# Technical Overview

## Dell™ Dimension™ 4550 Series

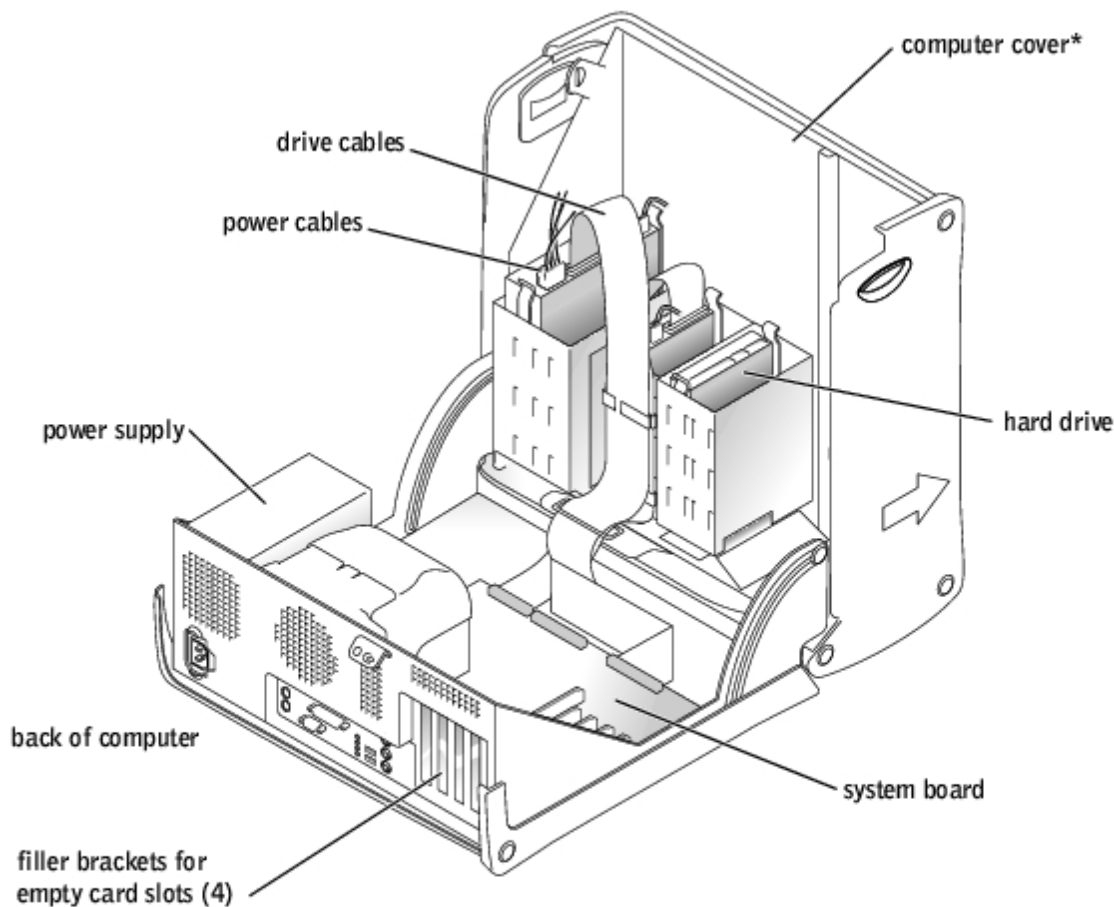
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## Internal View

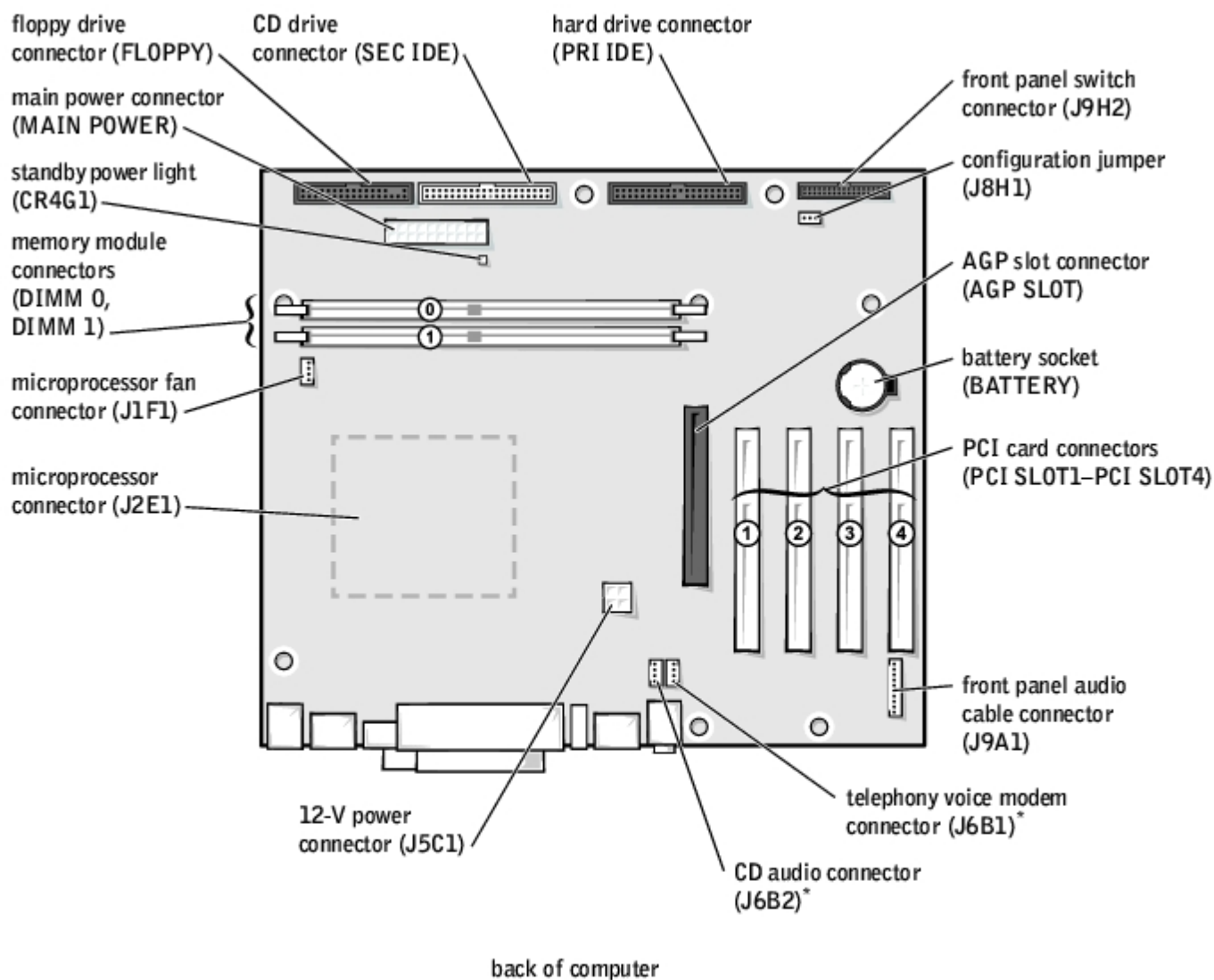
**⚠ CAUTION:** Before you begin any of the procedures in this section, read "[Safety Instructions](#)."

**🚫 NOTICE:** Be careful when [opening the computer cover](#) to ensure that you do not inadvertently disconnect cables from the system board.



\* Depending on the types of drives installed in your computer, the cover may not open as widely as shown in the figure.

## System Board Connectors and Sockets



\* On computers with integrated audio capabilities.

## Power Supply

The 250-W power supply can operate from an AC power source of 115 VAC at 60 Hz or 230 VAC at 50 Hz. The power supply provides the DC operating voltages and currents listed in the following table.

Output Voltage <sup>1</sup>	Regulation	Minimum Current (A)	Maximum Current (A) <sup>2</sup>
+12 VDC	+/-5%	0.0	14.0 <sup>3</sup>
+5 VDC	+/-5%	1.0/0.2 <sup>4</sup>	22.0
+3.3 VDC	+/-5%	0.1/0.0 <sup>5</sup>	18.0
-12 VDC	+/-10%	0.0	1.0

+5 VFP	+/-5%	0.0	2.0
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<sup>1</sup>Outputs meet and do not exceed SELV requirements per electrical standards (UL 1950, IEC 950, or EN60950 Par. 2.3).

<sup>2</sup>Maximum continuous combined load on +5 VDC and +3.3 VDC outputs do not exceed 150 W.

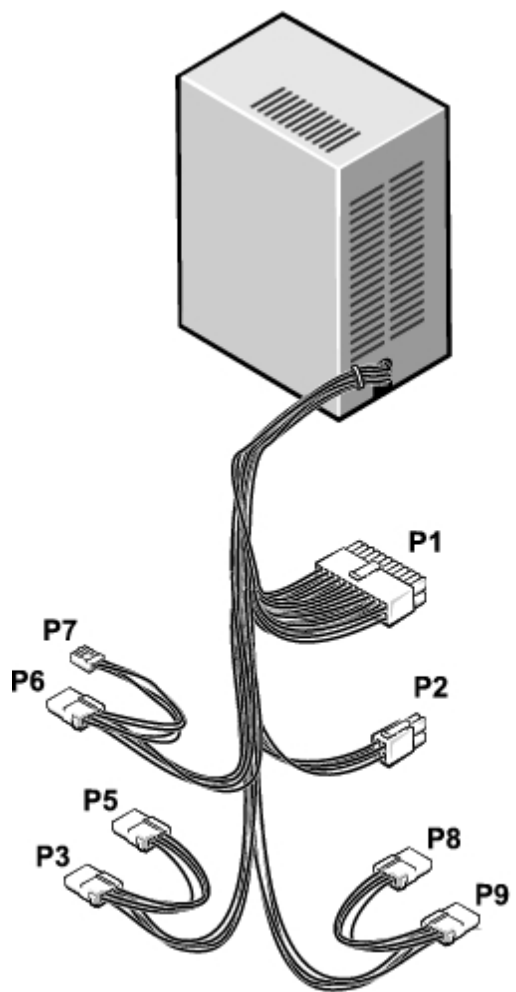
<sup>3</sup>Peak +12 VDC output power (up to 15.0 A) does not exceed 15 seconds in duration. Under this condition, tolerance on the +12 VDC output is allowed to be +/-10%.

<sup>4</sup>+5 VDC minimum load is 0.2 A when there is a minimum load of 0.3 A on the +12 VDC and 0.42 A on the +3.3 VDC outputs simultaneously. +5 V minimum load is 1 A for load transient tests.

<sup>5</sup>In system configurations where +3.3 VDC is not used, all other outputs stay within regulation while the +3.3 VDC output is in a zero load condition.

## DC Power Connectors

### Power Supply DC Connector Pin Assignments



### DC Power Connector P1



Pin Number	Signal name	18-AWG Wire
1	+3.3 VDC	Orange
2	+3.3 VDC	Orange
3	COM	Black
4	+5 VDC	Red
5	COM	Black
6	+5 VDC	Red
7	COM	Black
8	POK	Gray
9	+5 VFP	Purple
10	+12 VDC	Yellow
11	+3.3 VDC *	Orange
12	-12 VDC	Blue
13	COM	Black
14	PS ON	Green
15	COM	Black
16	COM	Black
17	COM	Black
18	+5 VDC	N/C
19	+5 VCD	Red
20	+5 VCD	Red
* Sense connector		

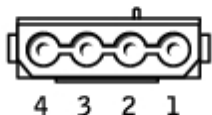
## DC Power Connector P2



Pin Number	Signal Name	18-AWG Wire
1	COM	Black
2	COM	Black
3	+12 VDC	Yellow

4	+12 VDC	Yellow
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## DC Power Connectors P3, P5, P6, P8, and P9



Pin Number	Signal Name	18-AWG Wire
1	+12 VCD	Yellow
2	COM	Black
3	COM	Black
4	+5 VDC	Red

## DC Power Connector P7



Pin Number	Signal Name	22-AWG Wire
1	+5 VCD	Red
2	COM	Black
3	COM	Black
4	+12 VDC	Yellow

## IDE Interface Cable Connections for Dell-Installed Drives

IDE Channel IDE	Connector Location	Dell-Installed Drive
Primary IDE master	End connector on PRI IDE connector cable	Hard drive
Primary IDE slave	Middle connector on cable PRI IDE connector	Zip drive
Secondary IDE master	End connector on cable SEC IDE connector	CD or DVD drive
Secondary IDE slave	Middle connector on SEC IDE connector cable	CD-RW drive

## Placement of Dell-Installed Cards

<b>Card Connector</b>	<b>Card Description</b>
AGP connector	Video
PC11 connector	Sound
PC12 connector	Modem
PC13 connector	Network adapter, wireless network adapter, or swap box
PC14 connector	1394 IEEE

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