

Illustrated Parts & Service Map

HP Compaq 8300 Elite Business PC Convertible Minitower



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Key Specifications

Processor Type	Intel® Core i7, i5, i3, Pentium®
RAM Type	Non-ECC DDR3 PC3-12800 (1600 MHz)
Maximum RAM	32 GB
Expansion Slots	<ul style="list-style-type: none"> • (2) PCIe-x16 • (1) PCIe-x1 • (3) PCI
Chipset	Intel Q77 Express
Graphics Adapter	Integrated Intel HD graphics
Bays	<ul style="list-style-type: none"> • (1) card reader • (2) external 5.25-inch • (3) internal 3.5-inch
I/O Interfaces	Front: (4) USB 2.0 ports, headphone jack, microphone jack Rear: (4) USB 3.0 ports, (2) USB 2.0 ports, DisplayPort 1.1a, VGA video, serial port, PS/2 mouse and keyboard, RJ-45 network interface, 3.5mm audio in/out jacks
Preinstalled Operating Systems	<ul style="list-style-type: none"> • Windows® 8 • Windows 7 • FreeLnx

Spare Parts

System Unit

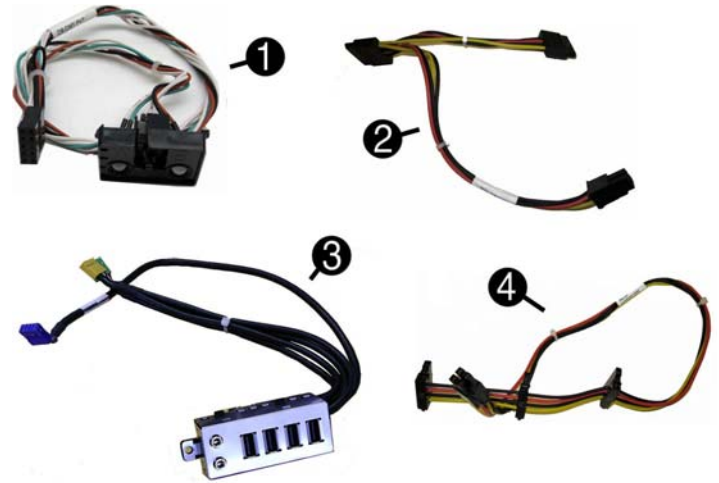


System Unit

1	Access panel	646819-001
2	Front bezel - 8300 models	689380-001
*	Front bezel - 8380 models	689381-001
3	Power supply, 320W, 90% efficient	613764-001
*	Power supply, 320W	613765-001
4	Chassis	not spared
*	5.25-inch bezel blank	570838-001
*	3.5-inch bezel blank	583653-001

* Not shown

Cables



Cables

1	Power switch/LED assembly	646820-001
2	SATA optical drive power cable	646832-001
3	Front USB, I/O assembly	646821-001
4	SATA hard drive power cable	646831-001
*	SATA cable, 18 inch, 1 straight end, 1 angled end	639958-001
*	SATA cable, 17.7 inch, 2 straight ends	639959-001
*	DMS-59 to dual VGA cable	463023-001
*	Adapter, DisplayPort to VGA	603250-001
*	Adapter, DisplayPort to DVI	484156-001
*	Adapter, DisplayPort to HDMI	617450-001
*	DisplayPort cable	487562-001

*Not shown

Keyboards (not illustrated)

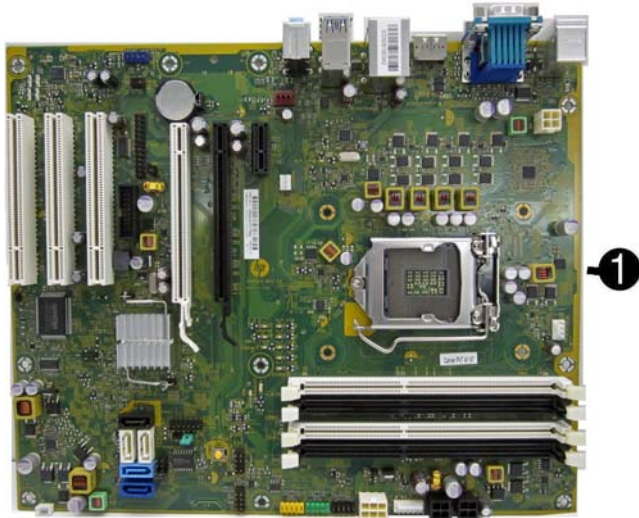
PS/2 (standard/Windows 8)	537745-xx1/701428-xx1		
USB (standard/Windows 8)	537746-xx1/701424-xx1		
USB, silver/black (Windows 8)	701429-xx1		
Wireless (standard/Windows 8)	674314-xx1/701426-xx1		
Washable (standard/Windows 8)	613125-xx1/700510-xx1		
Smart card (standard/Windows 8)	631411-xx1/701427-xx1		
USB, hub	631913-xx1		
Arabic	-17x	LA Spanish	-16x
Belgian	-18x	Norwegian	-09x
Brazilian Portuguese	-20x	People's Republic of China	-AAx
Bulgaria	-26x	Portuguese	-13x
Czech	-22x	Romanian	-27x
Danish	-08x	Russian	-25x
Finnish	-35x	Saudi Arabia	-DEx
French	-05x	Slovakian	-23x
French Canadian	-12x	South Korea	-KDx
German	-04x	Spanish	-07x
Greek	-15x	Swedish	-10x
Hebrew	-BBx	Swiss	-11x
Hungarian	-21x	Taiwanese	-ABx
International	-37x	Thai	-28x
International English	-L3x	Turkish	-14x
Italian	-06x	U.S.	-00x
Japanese	-29x	U.K.	-03x

Mass Storage Devices (not illustrated)

<u>Optical Drives</u>	
16X SATA DVD-ROM drive	581599-001
16X SATA DVD±RW drive	660408-001
Blu-ray BD-RW SuperMulti DL Drive	656792-001
<u>Hard Drives</u>	
1 TB, 7200 rpm SATA hard drive	636930-001
500 GB, 7200 rpm SATA hard drive	636929-001
250 GB, 7200 rpm SATA hard drive	636927-001
256 GB Solid State Drive (SSD), self-encrypting (SED), SATA 6.0*	680020-001
180 GB Solid State Drive (SSD), SATA 6.0*	696622-001
160 GB Solid State Drive (SSD), SATA 3.0*	646809-001
128 GB Solid State Drive (SSD), SATA 2.0*	665961-001
120 GB Solid State Drive (SSD), SATA 2.0*	661841-001
20 GB Solid State Drive (SSD), SATA*	683305-001

*2.5-inch solid-state drives require an adapter for installation.

Boards



Standard and Optional Boards

System boards (include replacement thermal material)

1	System board for use in models without Windows 8	657096-001
*	System board for use in models with Windows 8 Standard	657096-501
*	System board for use in models with Windows 8 Professional	657096-601

Memory modules (PC3-12800, CL11)

*	8-GB	689375-001
*	4-GB	671613-001
2	2-GB	671612-001

PCI expansion cards

*	nVidia Quadro NVS310 PCIe x16 graphics card, 512 MB	680653-001
*	nVidia Quadro NVS300 PCIe x16 graphics card, 512 MB	632486-001
*	AMD Radeon HD7450 PCIe x16 graphics card, 1 GB	682411-001
*	AMD Radeon HD6350 PCIe x16 graphics card, 512 MB	637995-001
*	AMD FirePro 2270 PCIe x16 graphics card, 512-MB	637213-001
*	Intel PRO/1000CT2 NIC, includes bracket	635523-001
*	HP FireWire / IEEE 1394a PCIe x1 Card	637591-001
*	HP WLAN 802.11 g/n 1x2 PCIe NIC	538048-001

Processors (include thermal material)

Intel Core i7 processors (8-MB L3 cache)

3770, 3.4 GHz	688164-001
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Intel Core i5 processors (6-MB L3 cache)

3570, 3.4 GHz	688162-001
3470, 3.2 GHz	687943-001

Intel Core i3 processors (3-MB L3 cache)

2130, 3.4 GHz	665120-001
2120, 3.3 GHz	638629-001

Intel Pentium processors (3-MB L3 cache)

G870, 3.1 GHz	691936-001
G860, 3.0 GHz	665123-001
G640, 2.8 GHz,	691935-001

Misc Parts



Miscellaneous Parts

1	Fan sink	643907-001
2	Chassis fan, 92mm x 92mm	643908-001
3	Printer port, PCI card	638817-001
4	Solenoid lock	641498-001
5	Hood sensor	638816-001
6	Speaker, 40mm x 70mm	645330-001
7	Clamp Lock Kit, includes universal cable (plate not included)	508987-001
*	Serial port, PCI card	638815-001
*	eSATA port assembly	645558-001
*	2.5-in drive adapter	586721-001
*	Grommet, hard drive isolation, blue	594220-001
*	Card reader, 22-in-1	636166-001
*	USB powered speakers	636917-001
*	Mouse, PS2, optical, jack black	537748-001
*	Mouse, USB, HP Elite	674318-001
*	Mouse, washable	619580-001
*	Mouse, wireless, HP Elite	674317-001
*	Mouse, USB, optical, jack black	537749-001
*	HP Business Digital Headset	642738-001
*	External USB webcam	609252-001
*	Foot kit	370708-001
*	Hard drive conversion bracket	397117-001
*	Antenna for use with 538048-001	583345-001

*Not shown

System Setup and Boot

Access the Setup Utility during computer boot by pressing the **F10** key. If you do not press **F10** at the appropriate time, you must restart the computer and again press **F10** when the monitor light turns green. NOTE: Not all settings are available for all models.

Computer Setup Menu

Heading	Option/Description
File	<p>System Information - Lists the following main system specifications:</p> <ul style="list-style-type: none"> Product name SKU number (some models) Processor type/speed/stepping Cache size (L1/L2/L3) Installed memory size/speed/ch Integrated MAC Address System BIOS Chassis serial number Asset tracking number ME firmware version ME management mode <p>About - Displays copyright notice.</p> <p>Set Time and Date - Allows you to set system time and date.</p> <p>Replicated Setup - Allows you to save or restore system configuration to/from a USB flash drive.</p> <p>Default Setup - Allows you to save current settings as default or restore factory settings as default.</p> <p>Apply Defaults and Exit - Applies the selected default settings and clears any established passwords.</p> <p>Ignore Changes and Exit - Exits Computer setup without saving changes.</p> <p>Save Changes and Exit - Saves changes to system configuration or default settings and exits Computer Setup.</p>
Storage	<p>Device Configuration - Lists all installed BIOS-controlled storage devices. The following options are available:</p> <ul style="list-style-type: none"> CD-ROM Hard Disk Default Values Translation Mode SSD Life Used SMART (ATA disks only) Diskette SATA Defaults <p>Storage Options - Allows you to set:</p> <ul style="list-style-type: none"> eSATA Port - Set SATA port as eSATA port for use with external drive. SATA Emulation - Choose how the SATA controller and devices are accessed by the OS. SATA Emulation choices are AHCI, RAID, or IDE. Removable Media Boot - Enables/disables ability to boot the system from removable media. Max eSATA Speed - Allows you to choose 1.5 Gbps or 3.0 Gbps as the maximum eSATA speed. By default, the speed is limited to 1.5 Gbps for maximum reliability. <p>DPS Self-Test - Execute self-tests on ATA hard drives capable of performing the Drive Protection System (DPS) self-tests.</p> <p>Boot Order - Specify boot order for UEFI and legacy boot sources. Also specify hard drive boot order.</p> <ul style="list-style-type: none"> Shortcut to Temporarily Override Boot Order
Security	<p>Setup Password - Set and enable the setup (Admin) password.</p> <p>Power-On Password - Set and enable power-on password.</p> <p>Password Options - Allows you to enable/disable:</p> <ul style="list-style-type: none"> Lock Legacy Resources Setup Browse Mode Password prompt on F9 & F12 Network Server Mode <p>Smart Cover - Allows you to lock/unlock the smart cover and set the cover removal sensor to disable/notify user/setup password.</p> <p>Device Security - Set Device Available/Device Hidden for: embedded security device, system audio, network controller, USB controller, serial/parallel ports, and SATA ports.</p> <p>USB Security - Set Device Available/Device Hidden for front USB ports, rear USB ports, internal USB ports, accessory USB ports.</p> <p>Slot Security - Disable the PCI, PCIe, and Mini Card slots.</p> <p>Network Boot - Enables/disables boot from OS (NIC models only).</p> <p>System IDs - Allows you to update asset tag, ownership tag, UUID, keyboard locale setting.</p> <p>Master Boot Record Security - enables/disables MBR.</p> <p>System Security - Allows you to set:</p> <ul style="list-style-type: none"> Data Execution Prevention (enable/disable) SVM CPU Virtualization (enable/disable). Virtualization Technology (VTx) (enable/disable) Virtualization Technology/Directed IO (VTd) (enable/disable) Trusted Execution Technology (enable/disable) Embedded Security Device (enable/disable) Reset to Factory Settings (Do not reset/Reset) Measure boot variables/devices to PCR1 (enable/disable) OS management of Embedded Security Device (enable/disable) Reset of Embedded Security Device through OS (enable/disable) No PPI provisioning (Windows 8 only; enable/disable) Allow PPI policy to be changed by OS (enable/disable) <p>DriveLock Security - Allows you to assign or modify a master or user password for hard drives.</p> <p>Secure Boot Configuration (Windows 8 only)</p> <ul style="list-style-type: none"> Legacy Support (enable/disable) Secure Boot (enable/disable). Key Management (enable/disable) Fast Boot (enable/disable)
Power	<p>OS Power Management - Allows you to enable/disable Runtime Power Management, Idle Power Savings, Unique Sleep State Blink Rates.</p> <p>Hardware Power Management - Enable/disable SATA power management, S5 maximum power savings., PCI slots, network controller, USB 3.0 controller</p> <p>Thermal - Control minimum fan speed.</p>
Advanced	<p>Power-On Options - Allows you to set:</p> <ul style="list-style-type: none"> POST mode (QuickBoot, Clear Memory, FullBoot, or FullBoot Every x Days) POST messages (enable/disable) Press the ESC key for Startup Menu (enable/disable) Option ROM Prompt (enable/disable) After Power Loss (off/on/previous state) POST Delay (none, 5, 10, 15, 20, or 60 seconds) Remote Wakeup Boot Source (remote server/local hard drive) Factory Recovery Boot Support (enable/disable) Bypass F1 Prompt on Configuration Changes (enable/disable) <p>BIOS Power-On - Set the computer to turn on at a preset time.</p>

Advanced (continued)	<p>Bus Options - Allows you to enable/disable PCI SERR# Generation and PCI VGA palette snooping.</p> <p>Onboard Devices - Allows you to set resources for or disable on-board system devices.</p> <p>Device Options - Allows you to set:</p> <ul style="list-style-type: none"> Printer mode (Bi-Directional, EPP + ECP, Output Only) Num Lock State at Power-on (off/on) Integrated Video (enable/disable) Integrated Graphics (Auto/Disable/Force) Internal Speaker (enable/disable) NIC PXE Option ROM Download (enable/disable) SATA RAID Option ROM Download (enable/disable) Multi-Processor (enable/disable) Hyper-threading (enable/disable) Turbo Mode (enable/disable) <p>VGA Configuration - Allows you to specify which VGA controller is the "boot"/primary. Displayed only if add-in video card installed.</p> <p>AMT Configuration - Allows you to set:</p> <ul style="list-style-type: none"> AMT (enable/disable) Unconfigure AMT/ME (enable/disable) Hide Unconfigure ME Confirmation Prompt (enable/disable) Watchdog Timer (enable/disable)
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Password Security

Establishing a Setup or Power-On password:

- Turn on or restart the computer.
- As soon as the computer turns on, press the **Esc** key while "Press the ESC key for Startup Menu" message is displayed at the bottom of the screen.
- Press the **F10** key to enter Computer Setup.
- To establish Setup password, select **Security > Setup Password** and follow the instructions. - or -
To establish a Power-On password, select **Security > Power-On Password** and follow the instructions on the screen
- Before exiting, click **File > Save Changes and Exit**.

Changing a Setup or Power-On password:

- Turn on or restart the computer.
 - To change the Setup password, go to step 2.
To change the Power-on password, go to step 3.
 - To change the Setup password, as soon as the computer turns on:
 - Press the **Esc** key while "Press the ESC key for Startup Menu" message is displayed.
 - Press the **F10** key to enter Computer Setup.
 - When the key icon appears, type your current password, a slash (/) or alternate delimiter character, your new password, another slash (/) or alternate delimiter character, and your new password again as shown:
current password/new password/new password.
NOTE: Type the new password carefully since the characters do not appear on the screen.
 - Press **Enter**.
- The new password will take effect the next time the computer is restarted.

Deleting a Power-On or Setup password

- Turn on or restart the computer.
- To delete the Setup password, go to step 2.
To delete the Power-On password, go to step 3.
- To change the Setup password, as soon as the computer turns on:
 - Press the **Esc** key while "Press the ESC key for Startup Menu" message is displayed.
 - Press the **F10** key to enter Computer Setup.
- When the key icon appears, type your current password followed by a slash (/) or alternate delimiter character as shown. Example: *currentpassword/*
- Press **Enter**.

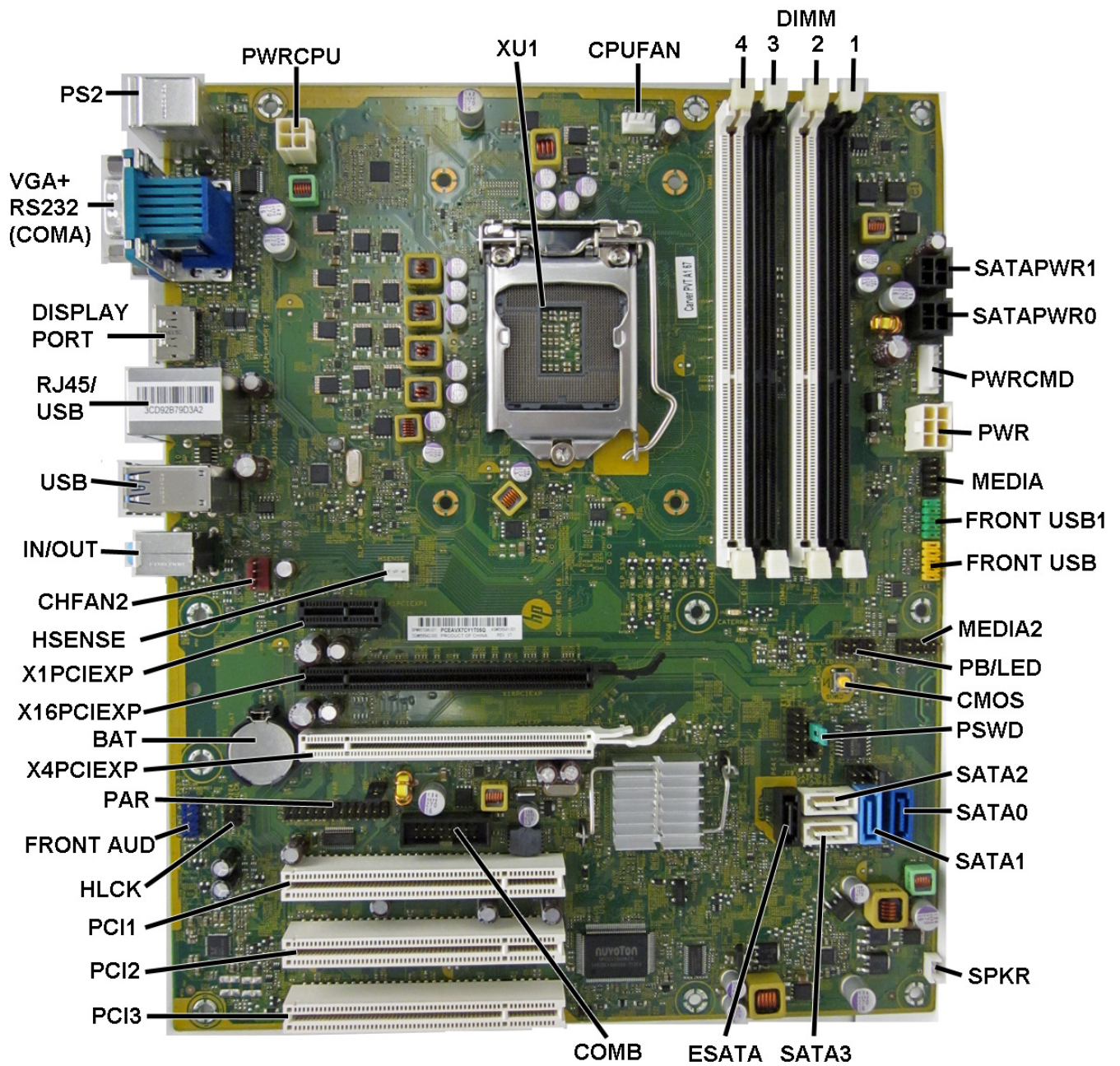
Clearing CMOS

- Turn off the computer and disconnect the power cord from the power outlet.
- Remove the access panel.
- On the system board, press and hold the CMOS button for 5 seconds.
- Replace the chassis access panel and reconnect the power cord.
- Turn on the computer and allow it to start.

Diagnostic LEDs

LED	Color	LED Activity	State/Message
Power	Green	On	Computer on
Power	Green	1 blink every 2 seconds	Normal Suspend Mode
Power	Red	1 blink every second followed by a 2 second pause	CPU thermal shutdown
Power	Red	3 blinks, 1 blink every second followed by a 2 second pause	Processor not installed
Power	Red	4 blinks, 1 blink every second followed by a 2 second pause	Power failure (power supply overload)
Power	Red	5 blinks, 1 blink every second followed by a 2 second pause	Pre-video memory error
Power	Red	6 blinks, 1 blink every second followed by a 2 second pause	Pre-video graphics error
Power	Red	7 blinks, 1 blink every second followed by a 2 second pause	System board failure (ROM)
Power	Red	8 blinks, 1 blink every second followed by a 2 second pause	Invalid ROM based on Checksum
Power	Red	9 blinks, 1 blink every second followed by a 2 second pause	System powers on but is unable to boot
Power	Red	10 blinks, 1 blink every second followed by a 2 second pause	Bad option card
Power	Red	11 blinks, 1 blink every second followed by a 2 second pause	Current processor does not support a feature previously enabled.
none	none	System does not power on and LEDs are not flashing	System unable to power on

System Board



System Board Connectors and Jumpers (component location may vary)

PWRCPU	CPU power connector	ESATA	eSATA connector, or 2nd ODD if a 3rd HDD exists
XU1	Processor socket	COMB	Serial port
CPUFAN	CPU/heat sink fan connector	PCI3	PCI slot 3
DIMM1-4	Memory sockets	PCI2	PCI slot 2
SATA PWR1	Hard drive power connector	PCI1	PCI slot 1
SATA PWR0	Optical drive power connector	HLCK	Hood lock connector
PWR CMD	Power connector	FRONT AUD	Front panel connector
PWR	Main power connector	PAR	Parallel port connector
MEDIA	Media card reader connector	X4PCIEXP	PCI Express x16 downshifted to a x4
FRONT_USB2	2nd USB connector	BAT	RTC battery socket
FRONT_USB	1st USB connector	X16PCIEXP	PCIe X16 slot
MEDIA2	Media card reader connector	X1PCIEXP1	PCIe X1 slot
PB/LED	Power switch connector	HSENSE	Hood sensor connector
CMOS	CMOS header	CHFAN2	System fan connector
PSWD	Password header	IN/OUT	Audio connectors
SATA2	2nd SATA hard drive	USB	USB ports
SATA0	1st hard drive (SATA3.0)	RJ45/USB	Ntwrk connector/USB ports
SATA1	2nd hard drive (SATA 3.0)	DISPLAYPORT	DisplayPort connector
SPKR	Speaker connector	VGA+RS232	Monitor connector
SATA3	2nd ODD, or 1st ODD if a 3rd HDD exists (SATA 2.0)	PS2	PS/2 Mouse/keyboard connectors