




# Dell™ Studio XPS™ 8100: Comprehensive Specifications

This document provides information that you may need when setting up, updating drivers for, and upgrading your computer.



**NOTE:** Offerings may vary by region. For more information regarding the configuration of your computer, click **Start**  → **Help and Support** and select the option to view information about your computer.

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## Processor

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Type	Intel® Core™ i7-870 Intel Core i7-860 Intel Core i7-750 Intel Core i5-670 Intel Core i5-661 Intel Core i5-660 Intel Core i5-650 Intel Core i3-540 Intel Core i3-530
L1 cache	32 KB
L2 cache	256 KB/core

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**Processor (continued)**

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## L3 cache

Intel Core i5-670	upto 4 MB
Intel Core i5-661	
Intel Core i5-660	
Intel Core i5-650	
Intel Core i3-540	
Intel Core i3-530	
Intel Core i7-750	upto 6 MB
Intel Core i7-870	upto 8 MB
Intel Core i7-860	

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**Memory**

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Connectors	four internally-accessible DDR3 DIMM sockets
Capacities	1 GB, 2 GB, and 4 GB
Memory type	1066-MHz or 1333-MHz DDR3 DIMM; non-ECC memory only
Memory configurations possible	4 GB, 6 GB, 8 GB, 12 GB, and 16 GB (64-bit operating system)

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**Computer Information**

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System chipset	Intel H57
Data bus width	2.5 GT/s
DRAM bus width	64 bits
Processor address bus width	64 bits
RAID support (internal SATA drives only)	RAID 0 (striping) RAID 1 (mirroring)
BIOS chip (NVRAM)	8 MB
Memory speed	1333 Mhz

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**Drives and Devices**

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Externally accessible	<ul style="list-style-type: none"><li>• two 5.25-inch bays for SATA DVD+/-RW Super Multi Drive or Blu-ray Disc™ combo or Blu-ray Disc RW drive</li></ul>
Internally accessible	two 3.5-inch bays for SATA hard drives
Wireless (optional)	WiFi/Bluetooth® wireless technology

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**Expansion Bus**

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PCI Express	<ul style="list-style-type: none"><li>• Gen2 x1 slot bi-directional speed — 500 MB/s</li><li>• Gen2 x16 slot bi-directional speed — 16 GB/s</li></ul>
PCI	32-bit speed — 33 MHz
SATA 2.0	1.5 Gbps and 3.0 Gbps
USB 2.0	<ul style="list-style-type: none"><li>• high speed — 480 Mbps</li><li>• full speed — 12 Mbps</li><li>• low speed — 1.2 Mbps</li></ul>

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**Memory Card Reader**

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Cards supported	<ul style="list-style-type: none"><li>• CompactFlash (CF) card</li><li>• Smart Media (SM) card</li><li>• xD-Picture (xD) card</li><li>• Memory Stick (MS) card</li><li>• Memory Stick Duo card</li><li>• Memory Stick PRO Duo card</li><li>• Memory Stick PRO (MSPRO) card</li><li>• Memory Stick PRO HG (MSPRO HG) card</li><li>• SecureDigital (SD) card</li><li>• SecureDigital Card (SDHC) 2.0</li><li>• MultiMedia Card (MMC)</li><li>• MicroDrive (MD)</li></ul>
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**Video**

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Integrated	Intel® Graphics Media Accelerator HD
Discrete	PCI Express x16 card

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**Audio**

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Type	Integrated 7.1 channel, High Definition audio with S/PDIF support
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**System Board Connectors**

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Memory	four 240-pin connectors
PCI	one 124-pin connector
PCI Express x1	two 36-pin connectors
PCI Express x16	one 164-pin connector
Power (system board)	one 24-pin EPS 12V connector (ATX-compatible)
Processor fan	one 4-pin connector

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**System Board Connectors (continued)**

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Chassis fan	one 3-pin connector
Front USB connector	five 9-pin connectors
Front audio connector	one 9-pin connector for 2-channel stereo sound and microphone
SATA	four 7-pin connectors
S/PDIF out	one 5-pin connector

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**External Connectors**

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Network adapter	RJ45 connector
USB	two top-panel, two front-panel, and four back-panel USB 2.0-compliant connectors
Audio	top panel — one headphone and one microphone connector back panel — six connectors for 7.1 support
S/PDIF	one S/PDIF (optical) connector
eSATA	one back-panel connector
IEEE 1394a	one back-panel 6-pin serial connector
HDMI	19-pin connector
DVI	24-pin connector

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**Expansion Slots**

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PCI	
Connectors	one
Connector size	124-pin connector
Connector data width (maximum)	32 bit
PCI Express x1	
Connectors	two
Connector size	36-pin connector

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**Expansion Slots *(continued)***

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Connector data width (maximum)	1 PCI Express lane
PCI Express x16	
Connectors	one
Connector size	164-pin connector
Connector data width (maximum)	16 PCI Express lane

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**Power**

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## DC Power Supply

Wattage	350 W
Maximum heat dissipation	1836 BTU/hr

**NOTE:** Heat dissipation is calculated by using the power supply wattage rating.

Input voltage	115/230 VAC
Input frequency	50/60 Hz
Rated output current	8 A/4 A

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**Battery**

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Coin-cell battery	3-V CR2032 lithium coin cell
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**Physical**

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Height	407.75 mm (16.02 inches)
Width	185.81 mm (7.31 inches)
Depth	454.67 mm (17.90 inches)
Weight	10.18 kg (22.40 lb)

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**Computer Environment**

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## Temperature range:

Operating	10°C to 35°C (50°F to 95°F)
Storage	-40°C to 65°C (-40°F to 149°F)
Relative humidity	20% to 80% (non-condensing)

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**Computer Environment (continued)**

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Maximum vibration (using a random-vibration spectrum that simulates user environment):

Operating	0.25 GRMS
Storage	2.2 GRMS

Maximum shock (measured with hard drive in head-parked position and a 2-ms half-sine pulse):

Operating	Half-Sine Pulse: 40G for 2 ms with a change in velocity of 20 in/s (51 cm/s)
Storage	Half-Sine Pulse: 50G for 26 ms with a change in velocity of 320 in/s (813 cm/s)

Altitude (maximum):

Operating	-15.2 to 3048 m (-50 to 10,000 ft)
Storage	-15.2 to 10,668 m (-50 to 35,000 ft)

Airborne contaminant level G2 or lower as defined by ISA-S71.04-1985

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