




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.

Processor

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

Processor (continued)

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	

Memory

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)

Computer Information

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

Drives and Devices

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

Expansion Bus

PCI Express	<ul style="list-style-type: none">• Gen2 x1 slot bi-directional speed — 500 MB/s• Gen2 x16 slot bi-directional speed — 16 GB/s
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">• high speed — 480 Mbps• full speed — 12 Mbps• low speed — 1.2 Mbps

Memory Card Reader

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

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

Audio

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

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

System Board Connectors (continued)

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

External Connectors

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

Expansion Slots

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

Expansion Slots *(continued)*

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

Power

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

Battery

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

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)

Computer Environment

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)

Computer Environment (continued)

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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Type: D03M001

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