DELL™

OPTIPLEX™ 760

TECHNICAL GUIDEBOOK

INSIDE THE OPTIPLEX 760

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DELL™ OPTIPLEX™ 760

Businesses and large organizations that demand a versatile mainstream desktop solution with proven technology are ideally suited for the OptiPlex 760. The flexible OptiPlex 760 delivers reliable desktop solution to support your business's unique needs - from increased user flexibility including a diskless option to support flexible computing environments, to increased manageability, security and energy efficiency. Equipped with productivity options you can fine tune to your users needs ranging from high speed Intel® processors, generous memory options and integrated support for dual video displays, the OptiPlex 760 is an ideal mid-range solution. Data stay protected with your choice of leading-edge hardware and software security options. A range of manageability tools and desktop services to support OptiPlex systems frees up valuable IT support time. Designed with practical features, the OptiPlex 760 is just one of the reasons Dell is a leader in business desktops - and why OptiPlex is the easiest choice you'll make today.

OPTIPLEX MEANS BUSINESS

The OptiPlex 760, simple to customize with proven features designed to move your business forward:

- Long-range planning support with up to a 15-month lifecycle, stable images, globally available configurations via GSP program, managed transitions and support for legacy ports and slots
- Equipped with Intel® Core™2 Quad and Intel® Core™2 Duo Processors for outstanding productivity
- The free-for-life Dell Client Manager provides centralized remote control and automation of common system maintenance tasks
- The right fit for every user with your choice of four expandable chassis sizes

OPTIPLEX SECURITY

Offering a wide array of security options, OptiPlex gives you the power to choose your level of security:

- Identify threats earlier with Dell Client Manager support for Intel® Standard Manageability security technology
- Protect your critical data with a range of enterprise- class security options including full disk encryption hard drives, biometric finger print reader or Smart Card keyboard
- Fast and efficient control over your security features with Dell ControlPoint™

OPTIPLEX IS EASY TO OWN

OptiPlex desktops are stable, reliable and armed with a suite of highly customizable, global service and support offerings to help you throughout the PC lifecycle. For users and IT professionals alike, the OptiPlex 760 is easy to own, offering:

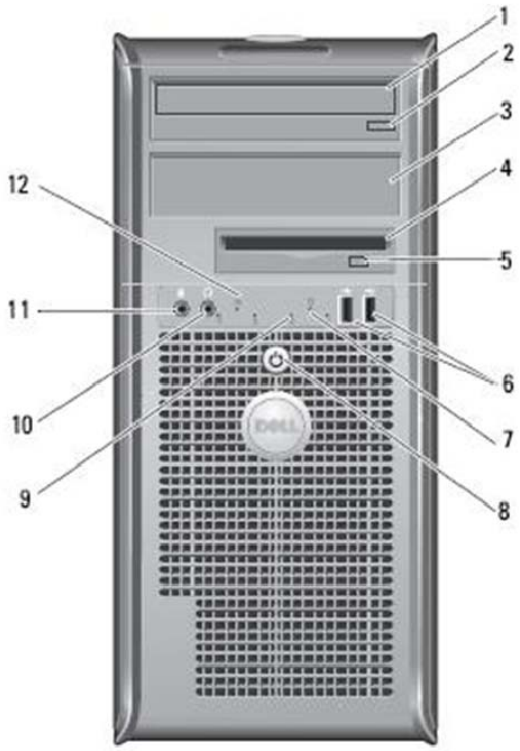
- Improved multi-tasking through integrated support for dual video displays
- Time-saving tool-less design and Dell exclusive DirectDetect troubleshooting LED's resulting in reduced maintenance and service costs
- Dell Client Manager support for Intel® Standard Manageability, allowing management for remote inventory, diagnosis & system monitoring

OPTIPLEX GETS GREEN

The OptiPlex 760 uses energy efficient technologies which can be lower the impact on the environment and your organization's energy bill:

- Help reduce power consumption—and cost—with Dell's up to 88% efficient power supplies
- Help minimize power usage with Dell Energy Smart power management technology
- Help promote environmental sensitivity with the OptiPlex 760's EPEAT Gold status

MINI TOWER COMPUTER (MT) VIEW



FRONT VIEW

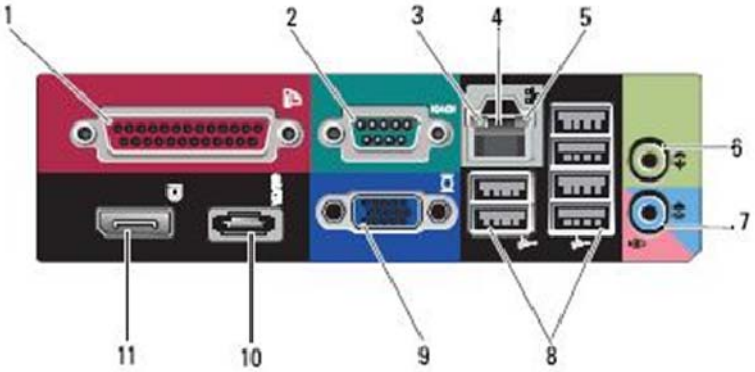
1	Optical Drive	7	Hard Drive Activity Light
2	Optical Drive Eject Button	8	Power Button, Power Light
3	Optical Drive Bay (optional)	9	Diagnostic Lights (4)
4	Floppy Drive or Media Card Reader (0ptional)	10	Headphone Connector
5	Optional Floppy Drive Eject Button	11	Microphone Connector
6	USB 2.0 Connectors (2)	12	Network Connectivity Light

BACK VIEW

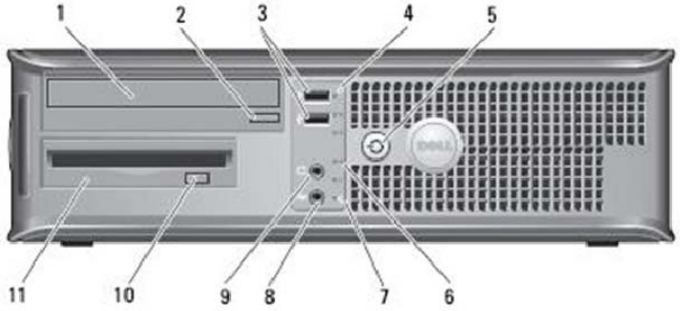
1	Power Connector	4	Power-Supply Vent
2	Back-Panel Connectors	5	Padlock Rings
3	Expansion Card Slots (4)	6	Cover Release Latch

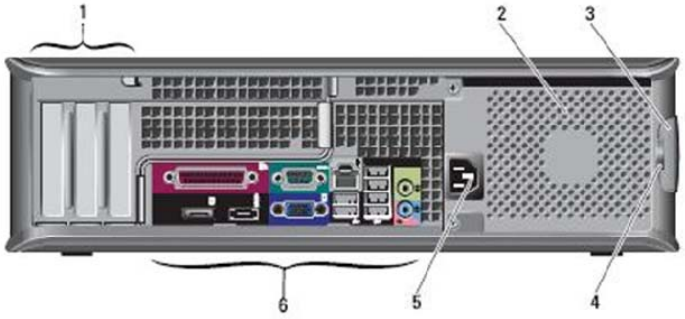
BACK PANEL CONNECTORS

1	Parallel Connector	7	Line-in Connector
2	Serial Connector	8	USB 2.0 Connectors (6)
3	Link Integrity Light	9	VGA Video Connector
4	Network Connector	10	eSATA Connector
5	Network Activity Light	11	DisplayPort Connector
6	Line-out Connector		



DESKTOP COMPUTER (DT) VIEW





FRONT VIEW

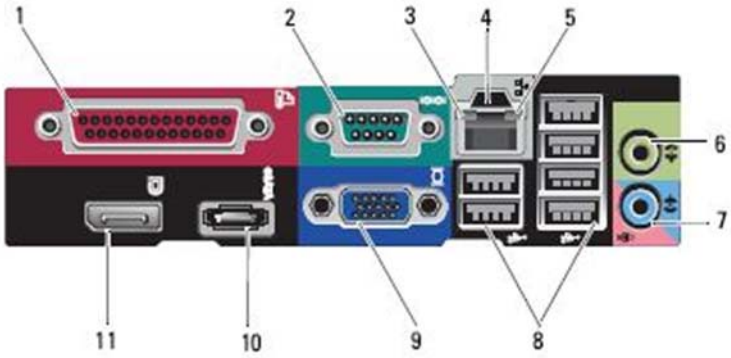
1	Optical Drive	7	Network Connectivity Light
2	Optical Drive Eject Button	8	Microphone Connector
3	USB 2.0 Connectors (2)	9	Headphone Connector
4	Hard Drive Activity Light	10	Optional Floppy Drive Eject Button
5	Power Button, Power Light	11	Floppy Drive or Media Card Reader (optional)
6	Diagnostic Lights (4)		

BACK VIEW

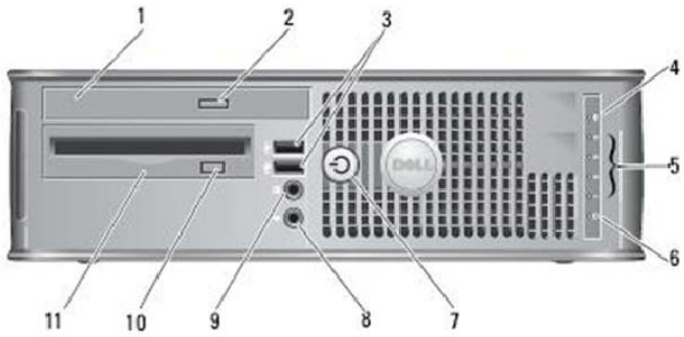
1	Expansion Card Slots (3)	4	Padlock Rings
2	Air Vent	5	Power Connector
3	Cover Release Latch	6	Back-Panel Connectors

BACK PANEL CONNECTORS

1	Parallel Connector	7	Line-in Connector
2	Serial Connector	8	USB 2.0 Connectors (6)
3	Link Integrity Light	9	VGA Video Connector
4	Network Connector	10	eSATA Connector
5	Network Activity Light	11	DisplayPort Connector
6	Line-out Connector		



SMALL FORM FACTOR COMPUTER (SFF) VIEW



FRONT VIEW

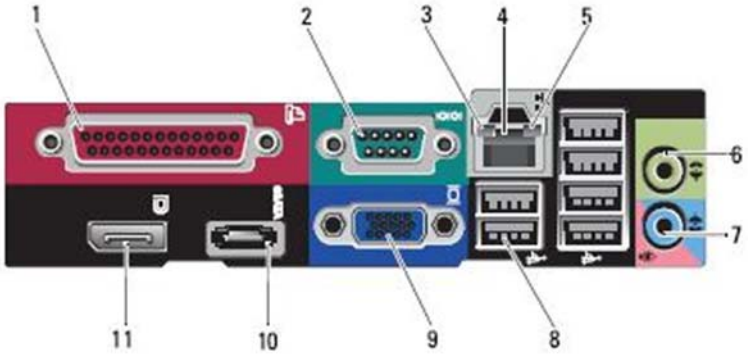
1	Optical Drive	7	Power Button, Power Light
2	Optical Drive Eject Button	8	Microphone Connector
3	USB 2.0 Connectors (2)	9	Headphone Connector
4	Network Connectivity Light	10	Optional Floppy Drive Eject Button
5	Diagnostic Lights (4)	11	Floppy Drive or Media Card Reader (optional)
6	Hard Drive Activity Light		

BACK VIEW

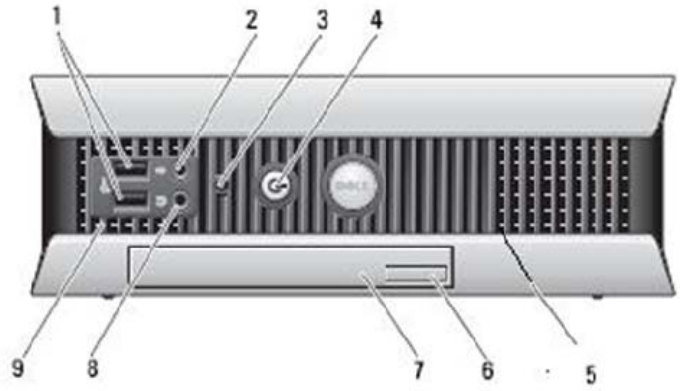
1	Padlock Rings	4	Back-Panel Connectors
2	Cover Release Latch	5	Expansion Card Slots (2)
3	Power Connector		

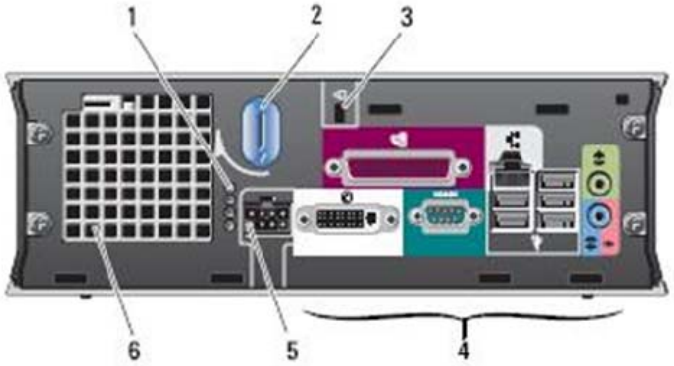
BACK PANEL CONNECTORS

1	Parallel Connector	7	Line-in Connector
2	Serial Connector	8	USB 2.0 Connectors (6)
3	Link Integrity Light	9	VGA Video Connector
4	Network Connector	10	eSATA Connector
5	Network Activity Light	11	DisplayPort Connector
6	Line-out Connector		



ULTRA SMALL FORM FACTOR COMPUTER (USFF) VIEW





FRONT VIEW

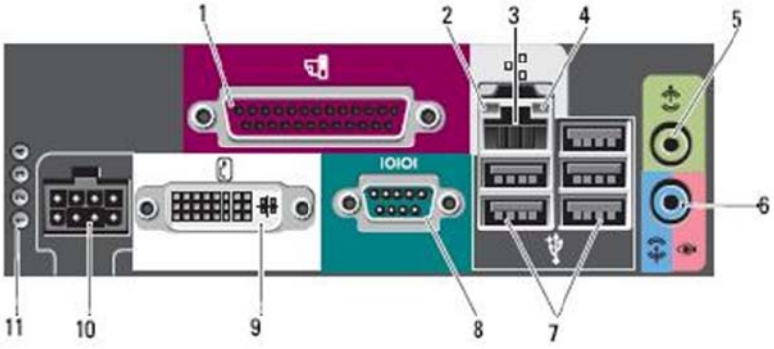
1	USB 2.0 Connectors (2)	6	Optical Drive Eject Button
2	Hard Drive Activity Light	7	Optical Drive
3	USB 2.0 Connectors (2)	8	Headphone Connector
4	Power Button, Power Light	9	Air Vents
5	Air Vents		

BACK VIEW

1	Diagnostic Lights (4)	4	Back-Panel Connector
2	Cover Release Knob	5	Power Connector
3	Security Cable Slot	6	Air Vent

BACK PANEL CONNECTORS

1	Parallel Connector	7	Line-in Connector
2	Link Integrity Light	8	USB 2.0 Connectors (5)
3	Network Connector	9	DVI Video Connector
4	Network Activity Light	10	Power Connector
5	Line-out Connector	11	Diagnostic Lights (4)
6	Line-in Connector		



MARKETING SYSTEM CONFIGURATIONS

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.

OPERATING SYSTEM

NOTE: One of the following Operating Systems will be preinstalled.

	MT	DT	SFF	USFF
Windows Vista® operating system	Windows Vista® Business SP1 (64 and 32 bit), Windows Vista® Ultimate (32 bit), Windows Vista® Home Basic SP1 (32 bit),			
Windows XP® operating system	Windows® XP Professional SP3 via Windows Vista® Business Downgrade Rights (32 bit), Windows® XP Home SP3 (China only)			
Other	FreeDOS for (n-series), Novell SLED (China only)			
OS Media Support	X	X	X	X

CHIPSET

	MT	DT	SFF	USFF
Chipset	Intel Q43 Express Chipset w/ICH10D			
Non-volatile memory on chipset				
BIOS Configuration SPI (Serial Peripheral Interface)	32Mbit (4MB) located at SPI_FLASH on chipset			
TPM 1.2 Security Device (Trusted Platform Module)[1]	16KB located at TPM1P2 on chipset			
NIC EEPROM	LOM configuration contained within SPI_FLASH – no dedicated LOM EEPROM			

PROCESSOR

NOTE: GSP (Global Standard Platform) processors are available globally and adhere to longer lifecycles to optimize product rollouts and transitions. Processor numbers are not a measure of performance.

	MT	DT	SFF	USFF
Intel® Core™ 2 Quad Processors				
Intel® Core™ 2 Quad Q9650/3.00GHz, 12M, 1333FSB	X-GSP	X-GSP	X-GSP	
Intel® Core™ 2 Quad Q9550/2.83GHz, 12M, 1333FSB	X-GSP	X-GSP	X-GSP	
Intel® Core™ 2 Quad Q9400/2.66GHz, 6M, 1333FSB	X	X	X	
Intel® Core™ 2 Quad Q8300/2.50GHz, 4M, 1333FSB	X	X	X	
Intel® Core™ 2 Quad Q8200/2.33GHz, 4M, 1333FSB	X	X	X	
Intel® Core™ 2 Duo and Pentium® Dual Core Processors				
Intel® Core™ 2 Duo E8600/3.33GHz, 6M, 1333FSB	X-GSP	X-GSP	X-GSP	X-GSP
Intel® Core™ 2 Duo E8500/3.16GHz, 6M, 1333FSB	X-GSP	X-GSP	X-GSP	X-GSP
Intel® Core™ 2 Duo E8400/3.0GHz, 6M, 1333FSB	X-GSP	X-GSP	X-GSP	X-GSP
Intel® Core™ 2 Duo E7500/2.93GHz, 3M, 1066FSB	X	X	X	X
Intel® Core™ 2 Duo E7400/2.80GHz, 3M, 1066FSB	X	X	X	X
Intel® Core™ 2 Duo E7300/2.66GHz, 3M, 1066FSB	X	X	X	X
Intel® Core™ 2 Duo E7200/2.53GHz, 3M, 1066FSB	X	X	X	X
Intel® Pentium® Dual-Core E5300/2.60GHz, 2M, 800FSB	X	X	X	X
Intel® Pentium® Dual-Core E5200/2.50GHz, 2M, 800FSB	X	X	X	X
Intel® Pentium® Dual-Core E2220/2.40GHz, 1M, 800FSB	X	X	X	X
Intel® Pentium® Dual-Core E2200/2.20GHz, 1M, 800FSB	X	X	X	X
Intel® Celeron® Processors				
Intel® Celeron® Dual-Core 1500/2.20GHz, 512K, 800FSB	X	X	X	X
Intel® Celeron® Dual-Core 1400/2.00GHz, 512K, 800FSB	X	X	X	X
Intel® Celeron® 450/2.20GHz, 512K, 800FSB	X	X	X	X
Intel® Celeron® 440/2.00GHz, 512K, 800FSB	X	X	X	X

ADVANCED SYSTEM MANAGEABILITY MODES

	MT	DT	SFF	USFF
Intel® Standard Manageability	X	X	X	X
Basic Management (ASF)	X	X	X	X
Systems Management Disabled	X	X	X	X

MEMORY

Memory modules should be installed in pairs of matched memory size, speed, and technology. If the memory modules are not installed in matched pairs, the computer will continue to operate, but with a slight reduction in performance.

	MT	DT	SFF	USFF
Type: DDR2 Synch DRAM Non-ECC Memory	800MHz			
DIMM Slots	4	4	4	2
DIMM Capacities	Up to 2GB	Up to 2GB	Up to 2GB	Up to 2GB
Minimum Memory	512MB	512MB	512MB	512MB
Maximum System Memory (uses 2GB DIMMS)	8GB[1]	8GB[1]	8GB[1]	4GB[1]
800MHz Memory configurations				
8GB[1] DDR2 Non-ECC SDRAM, 800MHz, (4 DIMM)	X	X	X	
4GB[1] DDR2 Non-ECC SDRAM, 800MHz, (4 DIMM)	X	X	X	
4GB[1] DDR2 Non-ECC SDRAM, 800MHz, (2 DIMM)	X	X	X	X
3GB DDR2 Non-ECC SDRAM, 800MHz, (3 DIMM)	X	X	X	
3GB DDR2 Non-ECC SDRAM, 800MHz, (2 DIMM)	X	X	X	X
2GB DDR2 Non-ECC SDRAM, 800MHz, (2 DIMM)	X	X	X	X
2GB DDR2 Non-ECC SDRAM, 800MHz, (1 DIMM)	X	X	X	X
1GB DDR2 Non-ECC SDRAM, 800MHz, (1 DIMM)	X	X	X	X

[1] The total amount of available memory will be less than 4GB. The amount less depends on the actual system configuration. To fully utilize 4GB or more of memory requires a 64-bit enabled processor and 64-bit operating system.

DRIVES AND REMOVABLE STORAGE

	MT	DT	SFF	USFF
Bays:				
3.5-inch bay (External Floppy)	1	1	1 (slimline)	
5.25-inch bay (External Optical)	2	1	1 (slimline)	1 (D/bay)
Hard Drives Supported (Internal and External)	2	1	1	1
Optical Drives Supported	2	1	1	1 (D/bay)
Interface:				
SATA	4	2	2	1
Floppy Diskette	1	1	1	
3.5" Hard Drives:				
160GB[1] SATA 10K RPM HDD	X	X	X	X
80GB[1] SATA 10K RPM HDD	X	X	X	X
500GB[1] SATA 7200 RPM HDD	X	X	X	X
320GB[1] SATA 7200 RPM HDD	X	X	X	X
250GB[1] SATA 7200 RPM HDD	X	X	X	X
160GB[1] SATA 7200 RPM HDD	X	X	X	X
80GB[1] SATA 7200 RPM HDD	X	X	X	X
2.5" Hard Drives:				
160GB[1] SATA Full Disk Encryption HDD	X	X	X	X
Optical Drive: (SFF requires a slimline optical drive)				
DVD+/-RW[2]	SATA 1.5Gbit/s	SATA 1.5Gbit/s	SATA 1.5Gbit/s	PATA
DVD-ROM[3]	SATA 1.5Gbit/s	SATA 1.5Gbit/s	SATA 1.5Gbit/s	PATA
Combo Drive CD-RW	SATA 1.5Gbit/s	SATA 1.5Gbit/s	SATA 1.5Gbit/s	PATA
Floppy Drive:				
Floppy Drive	1.44MB			
Media Card Reader: (uses Floppy Diskette Drive slot)				
Dell 19 in 1 Media Card Reader	480Mb/s			

[1] For hard drives, GB means 1 billion bytes; actual capacity varies with preloaded material and operating environment and will be less.

[2] Discs burned with this drive may not be compatible with some existing drives and players; using DVD+R media provides maximum compatibility.

[3] DVD-ROM drives may have write-capable hardware that has been disabled via firmware modifications.

SYSTEM BOARD CONNECTORS

NOTE: See Detailed Engineering Specifications for maximum card dimensions.

	MT	DT	SFF	USFF
PCI Slot(s): number of	2	2	1	
PCIe x16 Slot: number of	1	1	1	
PCIe x1 Slot: number of	1	0	0	
Flexbay	1	1	1	
Serial ATA (SATA)	4	2	2	1

GRAPHICS/VIDEO CONTROLLER

NOTE: MT supports full height card, DT supports low profile card or full height card with optional riser. SFF supports low profile card.

	MT	DT	SFF	USFF
Integrated Intel GMA 4500	Integrated on system board			
Enhanced Graphic/Video Options				
DVI (Digital) Adapter Card	Optional card			Native DVI
256MB ATI RADEON HD 3450 Graphics with dual DVI or VGA and S-Video Out (adapters convert to dual DVI or dual VGA)	Optional card			
256MB ATI RADEON HD 3470 Graphics with Dual DP (adapters convert to dual DVI or dual VGA)	Optional card			
256MB nVidia GeForce 9300 GE with dual DVI or VGA and S-Video Out (adapters convert to dual DVI or dual VGA)	Optional card			

EXTERNAL PORTS/CONNECTORS

NOTE: MT supports full height card, DT supports low profile card or full height card with optional riser. SFF supports low profile card.

See chassis diagrams section for port/connector locations	MT	DT	SFF	USFF
USB 2.0	2 Front, 6 Rear, 1 Internal			2 Front, 5 Rear
Serial	1 rear, second port optional via card			1 Rear
eSATA	1 Rear			
Parallel	1 Rear			
Network Connector (RJ-45)	1 Rear			
PS/2	Optional via add-in card			
1394 Controller	Optional via add-in card			
Video:				
VGA	1 Rear			
DVI-I	Optional via add-in card			1
Display Port	1 Rear			
Audio:				
Line in for microphone	1 Front			
Line in for microphone or stereo	1 Rear			
Line out for headphones or speakers	1 Front, 1 Rear			
Risers: (replaces 1 PCI slot and 1 PCIe slot on DT system board)				
Combo full height riser with 1 PCI and 1 PCIe connector		X		
Dual full height riser with 2 PCI connectors		X		

COMMUNICATIONS - NETWORK ADAPTER (NIC)

NOTE: MT supports full height card, DT supports low profile card or full height card with optional riser. SFF supports low profile card.

	MT	DT	SFF	USFF
Intel® 82567LM Gigabit[1] Ethernet LAN 10/100/1000 (Remote Wake Up, PXE support and Intel Active Management Technology support)	Integrated on system board			
Broadcom NetXtreme 10/100/1000 PCIe Gigabit Networking Card	Optional via add-in card			

[1] This term does not connote an actual operating speed of 1 Gb/sec. For high speed transmission, connection to a Gigabit Ethernet server and network infrastructure is required.

COMMUNICATIONS – MODEM

	MT	DT	SFF	USFF
V.92 Data/Fax Controllerless Modem	Optional via add-in card			

COMMUNICATIONS – WIRELESS

	MT	DT	SFF	USFF
Optional 802.11 draft-N Wi-Fi	Optional via add-in card			

AUDIO AND SPEAKERS

	MT	DT	SFF	USFF
ADI 1984A High Definition Audio Codec	Integrated on system board			
Internal Chassis Speaker	Optional			
Dell AX210 USB Stereo Speakers	Optional			
Dell AX510/AX510PA Flat Panel Soundbar	Optional			

KEYBOARD AND MOUSE

	MT	DT	SFF	USFF
Dell USB Entry Keyboard with optional palmrest	Standard			
Dell USB QuietKey Keyboard with optional palmrest	Optional			
Dell USB Multimedia Pro Keyboard	Optional			
Dell Smart Card USB Keyboard	Optional			
Dell Bluetooth Keyboard and Mouse	Optional			
Dell USB Entry Optical Mouse	Optional			
Dell Laser Mouse	Optional			
Dell Logo Mouse Pad	Optional			

SECURITY

	MT	DT	SFF	USFF
Trusted Platform Module (TPM) 1.2[1]	Integrated on system board			
Chassis Intrusion Switch	Optional			
Dell USB External Biometric Fingerprint Reader	Optional			
Dell Smart Card USB Keyboard	Optional			
Chassis lock slot	Standard			

[1]TPM not available in some countries

SERVICE AND SUPPORT

NOTE: For more details on Dell Service Plans please to go to: www.dell.com/service/service_plans

	MT	DT	SFF	USFF
3 Year Limited Warranty[1] (3-3-0)	Standard			
3 Year Next Business Day On-site[2] Service (3-3-3)	Optional			
ProSupport	Optional			

[1] For a copy of our guarantees or limited warranties, please write Dell USA L.P., Attn: Warranties, One Dell Way, Round Rock, TX 78682. For more information, visit www.dell.com/warranty.

[2] Service may be provided by third-party. Technician will be dispatched if necessary following phone-based troubleshooting. Subject to parts availability, geographical restrictions and terms of service contract. Service timing dependent upon time of day call placed to Dell. U.S. only.

SOFTWARE

	MT	DT	SFF	USFF
Dell Client Manager	Available via Dell.com			
Dell Control Point	Standard			
Norton Internet Security	90 Day Trial or Optional Subscription			
McAfee Security Center	90 Day Trial or Optional Subscription			

DETAILED ENGINEERING SPECIFICATIONS

SYSTEM DIMENSIONS (PHYSICAL)

NOTE: System Weight and Shipping Weight is based on a typical configuration and may vary based on PC configuration. A typical configuration includes: integrated graphics, one hard drive, one optical drive, and one diskette drive.

	MT	DT	SFF	USFF
Chassis Volume (liters)	33.0	16.0	10.7	6.0
Chassis Weight (pounds/kilograms)	25.8 / 11.7	18.2 / 8.26	15 / 6.80	10 / 4.54
Chassis Dimensions: (HxWxD)				
Height (inches/centimeters)	16.3 / 41.4	4.5 / 11.4	3.65 / 9.26	10.3 / 26.4
Width (inches/centimeters)	7.3 / 18.5	15.7 / 39.9	12.4 / 31.4	3.5 / 8.9
Depth (inches/centimeters)	17.3 / 43.9	13.9 / 35.3	13.4 / 34	9.9 / 25.3
Shipping Weight (pounds/kilograms - includes packaging materials)	43.5 / 19.73	28 / 12.7	21.3 / 9.66	26.1 / 11.84
Packaging Parameters (HxWxD)				
Height (inches/centimeters)	22.38 / 56.85	20.63 / 52.4	20.88 / 50.04	19.88 / 50.5
Width (inches/centimeters)	22.25 / 56.52	20.31 / 51.59	19.38 / 49.23	17.5 / 44.45
Depth (inches/centimeters)	14.25 / 36.2	11.75 / 29.85	10.63 / 27	10.44 / 26.52

SYSTEM BOARD CONNECTOR MAXIMUM ALLOWABLE DIMENSIONS

	MT	DT	SFF	USFF
PCI Slots	2	2	1	
Height (inches/centimeters)	4.376 / 11.115	2.731 / 6.89		
Length (inches/centimeters)	7.4 / 18.796*	6.6 / 16.764		
PCIe x16 Slots	1	1	1	
Height (inches/centimeters)	4.376 / 11.115	2.731 / 6.89		
Length (inches/centimeters)	7.4 / 18.796*	6.6 / 16.764		
PCIe x1 Slots	1			
Height (inches/centimeters)	4.376/11.115			
Length (inches/centimeters)	7.4 / 18.796*			
Risers: (replaces 1 PCI slot and 1 PCIe slot on DT system board)				
Combo Full Height Riser with 1 PCI and 1 PCIe connector (HxL)		1		
Height (inches/centimeters)		4.376/11.115		
Length (inches/centimeters)*,**		6.6/16.764		
Dual Full Height Riser with 2 PCI connectors (HxL)		1		
Height (inches/centimeters)		4.376/11.115		
Length (inches/centimeters)*,**		6.6/16.764		

* Card length can be longer than standard Half-Length Card but cannot be a Full-Length Card.

** 6.9/17.53 in/cm is longer than the standard Half-Length Card

SYSTEM LEVEL ENVIRONMENTAL AND OPERATING CONDITIONS

	MT	DT	SFF	USFF
Temperature				
Operating	10° to 35° C (50° to 95° F)			
Non-Operating (Storage)	-40° to 65° C (-40° to -149° F)			
Relative Humidity	20% to 80% (non-condensing)			
Maximum vibration				
Operating	0.25 G at 3 to 200 Hz at 0.5 octave/min			
Non-Operating	0.5 G at 3 to 200 Hz at 1 octave/min			
Maximum Shock				
Operating	Bottom half-sine pulse with a change in velocity of 50.8 cm/sec (20 inches/sec)			
Non-Operating	27-G faired square wave with a velocity change of 508 cm/sec (200 inches/sec)			
Maximum Altitude				
Operating	–15.2 to 3048 m (–50 to 10,000 ft)			
Non-Operating	–15.2 to 10,668 m (–50 to 35,000 ft)			

POWER

	MT[1] APFC	MT[1] EPA	DT[1] APFC	DT[1] EPA	SFF[1] APFC	SFF[1] EPA	USFF EPA
Power Supply Wattage	305W	255W High Efficiency	255W	255 W High Efficiency	235W	235W High Efficiency	220W High Efficiency External PSU
AC input Voltage Range	100 to 240Vac	100 to 240Vac	100 to 240Vac	100 to 240Vac	100 to 240Vac	100 to 240Vac	100 to 240Vac
AC input current (low ac range/high AC range)	5.6A / 2.8A	3.6A / 1.8A	5.0A / 2.5A	4.0A / 2.0A	4.5A / 2.25A	3.5A / 1.75A	4.0A / 4.0A
AC input Frequency	47HZ / 63HZ	47HZ / 63HZ	47HZ / 63HZ	47HZ / 63HZ	47HZ / 63HZ	47HZ / 63HZ	47HZ / 63HZ
AC holdup time (80% load)	16MSEC	16MSEC	16MSEC	16MSEC	16MSEC	16MSEC	16MSEC
Average Efficiency (Energy Star Compliant)		88%		88%		88%	88%
Typical Efficiency (Active PFC)	70%		70%		70%		
DC parameters							
+3.3v output	8.0A	8.0A	5.0A	5.0A	5A	5A	
+5.0v output	16A	16A	15A	15A	16A	16A	
+12.0v output	12vA/15A; 12VB/10A	12VA/13A; 12VB/7A	18A	18A	17A	17A	
+5.0v auxiliary output	4.0A	4.0A	4.0	4.0	4.0A	4.0A	
-12.0v output	0.5A	0.5A	0.5A	0.5A	0.5A	0.5A	
Max total power	305W	255W	255W	255W	235W	235W	220W
Max combined +3.3v / +5.0v power							
Max combined 12.0v power (note: only if more than one 12v rail)	25A	20A					
BTUs/h (based on PSU max wattage)							
3.3v CMOS battery (type and estimated battery life)							
Power Supply Fan	80*25mm	80*25mm	92*25mm	92*25mm	80*15mm	80*15mm	No
Compliance:							
1watt requirement	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Blue Angel Compliant	Pending	Pending	Pending	Pending	Pending	Pending	No
Climate Savers / 80Plus Compliant	No	Yes	No	Yes	No	Yes	Yes
FEMP (CECP) Standby Power Compliant	No	Yes	No	Yes	No	Yes	Yes

[1] These form factors utilize a more efficient Active Power Factor Correction (APFC) power supply. Dell recommends only Universal Power Supplies (UPS) based on Sine Wave output for APFC PSUs, not an approximation of a Sine Wave, Square Wave, or quasi-Square Wave (see UPS technical specifications). If you have questions, please contact the manufacture to confirm the output type.

AUDIO

INTEGRATED ADI 1984A HIGH DEFINITION AUDIO	MT	DT	SFF	USFF
High Definition Stereo support	X	X	X	X
Number of channels	2			
Number of Bits / Audio resolution	16, 20, and 24-bit resolution			
Sampling rate (recording/playback)	Independent 8, 11.025, 16, 22.05, 32, 44.1, 48, 88.2, 96, 176.4, and 192 kHz sample rates			
Signal to Noise Ratio	96+ dB audio outputs, 90+ dB audio inputs			
Analog Audio	X	X	X	X
Dolby Digital				
THX				
Digital out (S/PDIF)				
Audio Jack Impedance				
Microphone	150 kΩ			
Line-In	150 kΩ			
Line-Out	190 Ω			
Headphone	.5 Ω			
Internal Speaker Power Rating	2W			

COMMUNICATIONS - NETWORK ADAPTER (NIC)

NOTE: MT supports full height card, DT supports low profile card or full height card with optional riser. SFF supports low profile card.

INTEGRATED INTEL® 82567 GIGABIT1 ETHERNET LAN 10/100/1000	MT	DT	SFF	USFF
External Connector Type	RJ45			
Data Rates supported	10/100/1000 Mbps			
Controller Details				
Controller bus architecture (example PCIe 1.0a x1)	Intel Gigabit LAN Connect Interface (GLCI) and LAN Connect Interface (LCI)			
Integrated memory	N/A			
Data transfer mode (example Bus-Master DMA)	N/A			
Power consumption (full operation per data rate connection speed)	680mW (Max.)			
Power consumption (standby operation)	141mW (Max.)			
IEEE standards compliance (example 802.1P)	802.3			
Hardware Certifications (example FCC, B, GS mark…)	N/A			
Boot ROM Support	EEPROM (located in SPI)			
Network Transfer Mode (example Full Duplex, Half Duplex)				
Network Transfer Rate (example 10BASE-T (half-duplex) 10 Mbps 10BASE-T (full-duplex) 20 Mbps 100BASE-TX (half-duplex) 100 Mbps 100BASE-TX (full-duplex) 200 Mbps 1000BASE-T (full-duplex) 2000 Mbps	10 Mb (full/half-duplex) 100 Mb (full/half-duplex) 1000 Mb (full-duplex)			

COMMUNICATIONS - NETWORK ADAPTER (NIC) (CONT.)

INTEGRATED INTEL® 82567 GIGABIT1 ETHERNET LAN 10/100/1000 (CONT.)	MT	DT	SFF	USFF
Environmental				
Operating temperature	0° C to 70° C (32° F to 158° F)			
Operating humidity	20% to 80% (non-condensing)			
Operating System Driver Support	Windows® XP, Windows Vista® Ultimate, Windows Vista® Business 32 bit/64 bit, Windows Vista Home Basic			
Manageability (examples WOL, PXE)	WOL, PXE 2.1			
Management Capabilities Alerting (example ASF 2.0)	Intel® Standard Manageability, ASF 2.0			

[1] This term does not connote an actual operating speed of 1 Gb/sec. For high speed transmission, connection to a Gigabit Ethernet server and network infrastructure is required.

COMMUNICATIONS – INTEGRATED LAN

NOTE: MT supports full height card, DT supports low profile card or full height card with optional riser. SFF supports low profile card.

Broadcom NetXtreme 10/100/1000 PCIe Gigabit[1] Networking Card	MT	DT	SFF	USFF
Connector Type	RJ45			
Data Rates supported	10/100/1000 Mbps Half/Full duplex			
Controller Details				
Controller bus architecture (example PCIe 1.0a x1)	PCIe c1.0a x1			
Integrated memory	64KBytes RX, 8KBytes TX			
Data transfer mode (example Bus-Master DMA)	Bus-Master DMA			
Power consumption (full operation per data rate connection speed)	2.84W (860mA @ +3.3V)			
Power consumption (standby operation)	Less than 300mW			
IEEE standards compliance (example 802.1P)	802.3, 802.2, 802.3x, 802.1p			
Hardware Certifications (example FCC, B, GS mark…)	FCC B, VCCI B, CE			
Boot ROM Support	No			
Network Transfer Mode (example Full Duplex, Half Duplex)	Full Duplex/Half Duplex			
Network Transfer Rate (example 10BASE-T (half-duplex) 10 Mbps 10BASE-T (full-duplex) 20 Mbps 100BASE-TX (half-duplex) 100 Mbps 100BASE-TX (full-duplex) 200 Mbps 1000BASE-T (full-duplex) 2000 Mbps	10BASE-T (full-duplex) 20 Mbps Max* 100BASE-TX (half-duplex) 100 Mbps Max* 100BASE-TX (full-duplex) 200 MbpsMax* 1000BASE-T (full-duplex) 2000 Mbps Max* * Depends on the system environment.			

[1] This term does not connote an actual operating speed of 1 Gb/sec. For high speed transmission, connection to a Gigabit Ethernet server and network infrastructure is required.

COMMUNICATIONS – INTEGRATED LAN (CONT.)

BROADCOM NETXTREME 10/100/1000 PCIE GIGABIT[1] NETWORKING CARD (CONT.)	MT	DT	SFF	USFF
Environmental				
Operating temperature	0° C to 55° C (32° F - 131° F)			
Operating humidity	5% ~ 85% (non-condensing)			
Operating System Driver Support	Windows® XP, Windows Vista® Ultimate, Windows Vista® Business 32 bit/64 bit, Windows Vista Home Basic, Linux			
Manageability (examples WOL, PXE)	WOL, PXE2.1, ACPI			
Management Capabilities Alerting (example ASF 2.0)	None			

[1] This term does not connote an actual operating speed of 1 Gb/sec. For high speed transmission, connection to a Gigabit Ethernet server and network infrastructure is required.

COMMUNICATIONS – MODEM

V.92 DATA/FAX CONTROLLERLESS MODEM	MT	DT	SFF	USFF
Bus	PCI			
External Connector	RJ-11			
Data Transmission	PCM - Pulse Coded Modulation (V.92/V.90) TCM - Trellis Coded Modulation (V.90/V.34/V.32 bis/V.32)			
Data Speeds	56kbps receive, 48kbps transmit			
Data Standards	ITU V.92/V.90, V.34/V.32 bis/V.32			
Fax Speeds	14.4kbps			
Fax Mode Capabilities	2-wire, half-duplex, synchronous			
Error Correction and Data Compression	V.44, V.42, V.42bis, MNP 2-4, MNP 5			
Power Management	WOR (wake on ring) capable			
Upgradeability	Driver upgradeable			
Video	V.80 Synchronous Access Mode (SAM) can be supported by software applications (not driver)			
Operating Temperature	0~50 degree C			
Operating Humidity	45 degree C 90% max			
Operating System Support	Vista 32/64, Windows XP 32/64			
Operating System Driver Support	Vista 32/64, Windows XP 32/64			
Power Requirements	+3.0V~+3.6V, 116.6mW max			
Chipset	Conexant SmartHSFs/LF (CX11256 & CX20493)			
Dimensions of full height card inches/centimeters (L X H)	L: 5.25/13.325 H: 4.73/12.002			
Dimensions of low profile card inches/centimeters (L X H)		L: 5.26/13.366 H: 3.12/7.923		

GRAPHICS/VIDEO CONTROLLER

NOTE: MT supports full height card, DT supports low profile card or full height card with optional riser. SFF supports low profile card.

INTEGRATED INTEL GMA 4500	MT	DT	SFF	USFF
Bus Type	Integrated			
GPU core clock	Gen5 core @ 667 350 MHz Integrated and with 350MHz 24 bit RAMDAC			
Frame Buffer Memory (onboard and shared) Size and Speed	XP: Up to 1GB shared system memory with 2GB system memory Vista: Up to 2GB shared system memory with 4GB system memory			
Maximum power consumption	4 W			
Overlay Planes	Yes			
Maximum Color Depth	32 bit			
Maximum Vertical Refresh Rate	85 Hz			
Multiple Display Support	Yes			
Operating Systems Graphics/ Video API Support	OpenGL 2.0/DirectX 10.0			
Supported Resolutions and Max Refresh Rates (Hz) (Note: Analog and/ or digital)	Up to 2560x11600 @ 60Hz (DP) Up to 1920x1200 @ 60Hz (DVI & VGA) Up to 1600x1200 @ 85Hz (VGA only)			
External connectors	VGA, DisplayPort		DVI	
Environmental Operating Conditions (Non-Condensing):				
Operating Temperature Range	0° to 106° C (32° to 223° F)			
Relative Humidity Range	20% to 80% (non-condensing)			
Altitude Range	–15.2 to 3048 m (–50 to 10,000 ft)			
DisplayPort (MT/DT/SFF Only)				
Bus Type	AUX 1, 2, 4 lanes			
Maximum supported resolution	Up to 2560x1600 @ 60Hz			
Maximum power consumption	N/A			
External connectors	DisplayPort			
DVI (Digital) Adder Card				
Bus Type	sDVO			
Maximum supported resolution	Up to 1920x1566 @ 60 Hz			
Dimensions of full height card inches/centimeters (L x H)	5.75x2.75in/ 14.61x6.99cm			
Dimensions of low profile card inches/centimeters (L x H)		5.75x2.75in/ 14.61x6.99cm		
Maximum power consumption	N/A			
External connectors	DVI			

[1] Up to 1.7 GB of system memory may be allocated to support integrated graphics, depending on operating system, system memory size and other factors.
[2] DVI and VGA can be used concurrently for multi-monitor display in DOS. The DisplayPort controller does not support multi-monitor display in DOS
[3] Populating a discrete graphics card in the x16 slot disables onboard video.

GRAPHICS/VIDEO CONTROLLER (CONT.)

256MB AMD RADEON™ HD 3450 GRAPHICS DUAL DVI OR VGA AND TV OUT	MT	DT	SFF
Bus Type (example integrated or PCIe x16)	PCIEx16		
GPU core clock	600Mhz		
Frame Buffer Memory (onboard and shared) Size and Speed	500Mhz		
Maximum power consumption	22W		
Overlay Planes	Yes		
Maximum Color Depth	32-bit		
Maximum Vertical Refresh Rate	85Hz		
Multiple Display Support	Yes		
Operating Systems Graphics/ Video API Support	D3D and OpenGL		
Supported Resolutions and Max Refresh Rates (Hz) (Note: Analog and/ or digital)	Max : 1920x1440/32bpp @ 75Hz Min : 640x480/8bpp @ 60Hz		
External connectors	DMS-59[1] and S-video		
Dimensions of full height card inches/centimeters (L x H)	167.64mm x 120mm	167.64mm x 120mm	
Dimensions of low profile card inches/centimeters (L x H)		167.64mm x 85mm	
Environmental Operating Conditions (Non-Condensing):			
Operating Temperature Range	10°-50° C		
Relative Humidity Range	5-90% RH		
Altitude Range	0-20,000 ft.		

[1]DMS-59 to VGA or DMS-59 to DVI adaptors required.

256MB NVIDIA GEFORCE 9300 GE	MT	DT	SFF
Bus Type (example integrated or PCIe x16)	PCIEx16		
GPU core clock	540Mhz		
Frame Buffer Memory (onboard and shared) Size and Speed	500Mhz		
Maximum power consumption	25W		
Overlay Planes	Yes		
Maximum Color Depth	32-bit		
Maximum Vertical Refresh Rate	85Hz		
Multiple Display Support	Yes		
Operating Systems Graphics/ Video API Support	D3D and OpenGL		
Supported Resolutions and Max Refresh Rates (Hz) (Note: Analog and/or digital)	Max : 1920x1440/32bpp @ 75Hz Min : 640x480/8bpp @ 60Hz		
External connectors	DMS-59[1] and S-video		
Dimensions of full height card inches/centimeters (L x H)	167.64mm x 120mm	167.64mm x 120mm	
Dimensions of low profile card inches/centimeters (L x H)		167.64mm x 85mm	
Environmental Operating Conditions (Non-Condensing):			
Operating Temperature Range	10°-50° C		
Relative Humidity Range	5-90% RH		
Altitude Range	0-20,000 ft.		

[1]DMS-59 to VGA or DMS-59 to DVI adaptors required.

GRAPHICS/VIDEO CONTROLLER (CONT.)

256MB AMD RADEON™ HD 3470 GRAPHICS W/ DUAL DP	MT	DT	SFF
Bus Type (example integrated or PCIe x16)	PCIEx16		
GPU core clock	750Mhz		
Frame Buffer Memory (onboard and shared) Size and Speed	500Mhz		
Maximum power consumption	18W		
Overlay Planes	Yes		
Maximum Color Depth	32-bit		
Maximum Vertical Refresh Rate	85Hz		
Multiple Display Support	Yes		
Operating Systems Graphics/ Video API Support	D3D and OpenGL		
Supported Resolutions and Max Refresh Rates (Hz) (Note: Analog and/or digital)	Max : 1920x1440/32bpp @ 75Hz Min : 640x480/8bpp @ 60Hz		
External connectors	2 Display Port		
Dimensions of full height card inches/centimeters (L x H)	167.64mm x 120mm	167.64mm x 120mm	
Dimensions of low profile card inches/centimeters (L x H)		167.64mm x 85mm	
Environmental Operating Conditions (Non-Condensing):			
Operating Temperature Range	10°-50° C		
Relative Humidity Range	5-90% RH		
Altitude Range	0-20,000 ft.		

HARD DRIVES[1]

3.5" 80GB SATA 7200 RPM HDD	
Capacity (bytes)	80,026,361,856
Dimensions inches (W x D x H)	5.87 x 4 x 1
Interface type and Maximum speed	Up to 3Gb/s
Internal buffer size	8 MB
Average Seek Time	8.5 ms
Rotational Speed	7200 rpm
Logical Blocks	156,301,488
Power Source	
DC Power (Max)	Idle 7.0W, Active 10.0W
DC Current	5V (.8A) and 12V (1.8A)
Environmental Operating Conditions (Non-Condensing):	
Temperature Range	5^0C to 60^0C
Relative Humidity Range	20% to 80% non-condensing
Maximum Wet Bulb Temperature	29^0C
Altitude Range	-50 ft to 10000 ft
Environmental Non-Operating Conditions (Non-Condensing):	
Temperature Range	-40^0C to 65^0C
Relative Humidity Range	10% to 90% non-condensing
Maximum Wet Bulb Temperature	38^0C
Altitude Range	-50 ft to 35000 ft

3.5" 160GB SATA 7200 RPM HDD	
Capacity (bytes)	160,041,885,696
Dimensions inches (W x D x H)	5.87 x 4 x 1
Interface type and Maximum speed	Up to 3Gb/s
Internal buffer size	8 MB
Average Seek Time	8.5 ms
Rotational Speed	7200 rpm
Logical Blocks	312,581,808
Power Source	
DC Power (Max)	Idle 7.0W, Active 10.0W
DC Current	5V (.8A) and 12V (1.8A)

HARD DRIVES (CONT.)

3.5" 160GB SATA 7200 RPM HDD (CONT.)	
Environmental Operating Conditions (Non-Condensing):	
Temperature Range	5^0C to 60^0C
Relative Humidity Range	20% to 80% non-condensing
Maximum Wet Bulb Temperature	29^0C
Altitude Range	-50 ft to 10000 ft
Environmental Non-Operating Conditions (Non-Condensing):	
Temperature Range	-40^0C to 65^0C
Relative Humidity Range	10% to 90% non-condensing
Maximum Wet Bulb Temperature	38^0C
Altitude Range	-50 ft to 35000 ft

3.5" 250GB SATA 7200 RPM HDD	
Capacity (bytes)	250,059,350,016
Dimensions inches (W x D x H)	5.87 x 4 x 1
Interface type and Maximum speed	Up to 3Gb/s
Internal buffer size	8 MB
Average Seek Time	8.5 ms
Rotational Speed	7200 rpm
Logical Blocks	488,397,168
Power Source	
DC Power (Max)	Idle 7.0W, Active 10.0W
DC Current	5V (.8A) and 12V (1.8A)
Environmental Operating Conditions (Non-Condensing):	
Temperature Range	5^0C to 60^0C
Relative Humidity Range	20% to 80% non-condensing
Maximum Wet Bulb Temperature	29^0C
Altitude Range	-50 ft to 10000 ft
Environmental Non-Operating Conditions (Non-Condensing):	
Temperature Range	-40^0C to 65^0C
Relative Humidity Range	10% to 90% non-condensing
Maximum Wet Bulb Temperature	38^0C
Altitude Range	-50 ft to 35000 ft

HARD DRIVES (CONT.)

320GB SATA 7200 RPM HDD (CONT.)	
Capacity (bytes)	320,072,933,376
Dimensions inches (W x D x H)	5.87 x 4 x 1
Interface type and Maximum speed	Up to 3Gb/s
Internal buffer size	16 MB
Average Seek Time	8.5 ms
Rotational Speed	7200 rpm
Logical Blocks	625,142,448
Power Source	
DC Power (Max)	Idle 7.0W, Active 10.0W
DC Current	5V (.8A) and 12V (1.8A)
Environmental Operating Conditions (Non-Condensing):	
Temperature Range	5^0C to 60^0C
Relative Humidity Range	20% to 80% non-condensing
Maximum Wet Bulb Temperature	29^0C
Altitude Range	-50 ft to 10000 ft
Environmental Non-Operating Conditions (Non-Condensing):	
Temperature Range	-40^0C to 65^0C
Relative Humidity Range	10% to 90% non-condensing
Maximum Wet Bulb Temperature	38^0C
Altitude Range	-50 ft to 35000 ft

3.5” 80GB SATA 10000 RPM HDD	
Capacity (bytes)	80,026,361,856
Dimensions inches (W x D x H)	5.87 x 4 x 1 (includes sled)
Interface type and Maximum speed	Up to 3Gb/s
Internal buffer size	16 MB
Average Seek Time	4.6 ms (average read)
Rotational Speed	10000 rpm
Logical Blocks	156,301,488
Power Source	
DC Power (Max)	Idle 7W, Active 10W
DC Current	5V (.8A) and 12V (1.8A)

HARD DRIVES (CONT.)

3.5" 80GB SATA 10000 RPM HDD (CONT.)	
Environmental Operating Conditions (Non-Condensing):	
Temperature Range	5^0C to 60^0C
Relative Humidity Range	20% to 80% non-condensing
Maximum Wet Bulb Temperature	29^0C
Altitude Range	-50 ft to 10000 ft
Environmental Non-Operating Conditions (Non-Condensing):	
Temperature Range	-40^0C to 65^0C
Relative Humidity Range	10% to 90% non-condensing
Maximum Wet Bulb Temperature	38^0C
Altitude Range	-50 ft to 35000 ft

3.5" 160GB SATA 10000 RPM HDD	
Capacity (bytes)	160,041,885,696
Dimensions inches (W x D x H)	5.87 x 4 x 1 (includes sled)
Interface type and Maximum speed	Up to 3Gb/s
Internal buffer size	16 MB
Average Seek Time	4.6 ms (average read)
Rotational Speed	10000 rpm
Logical Blocks	312,581,808
Power Source	
DC Power (Max)	Idle 7W, Active 10W
DC Current	5V (.8A) and 12V (1.8A)
Environmental Operating Conditions (Non-Condensing):	
Temperature Range	5^0C to 60^0C
Relative Humidity Range	20% to 80% non-condensing
Maximum Wet Bulb Temperature	29^0C
Altitude Range	-50 ft to 10000 ft
Environmental Non-Operating Conditions (Non-Condensing):	
Temperature Range	-40^0C to 65^0C
Relative Humidity Range	10% to 90% non-condensing
Maximum Wet Bulb Temperature	38^0C
Altitude Range	-50 ft to 35000 ft

HARD DRIVES (CONT.)

2.5" 160GB FULL DISK ENCRYPTION SATA HDD	
Capacity (bytes)	160,041,885,696
Dimensions inches (W x D x H)	5.87 x 4 x 1
Interface type and Maximum speed	Up to 3Gb/s
Internal buffer size	8 MB
Average Seek Time	8.5 ms
Rotational Speed	7200 rpm
Logical Blocks	312,581,808
Power Source	
DC Power (Max)	Idle 7W, Active 10W
DC Current	5V (.8A) and 12V (1.8A)
Environmental Operating Conditions (Non-Condensing):	
Temperature Range	50^0C to 600^0C
Relative Humidity Range	20% to 80% non-condensing
Maximum Wet Bulb Temperature	29^0C
Altitude Range	-50 ft to 10000 ft
Environmental Non-Operating Conditions (Non-Condensing):	
Temperature Range	-40^0C to 65^0C
Relative Humidity Range	10% to 90% non-condensing
Maximum Wet Bulb Temperature	38^0C
Altitude Range	-50 ft to 35000 ft

[1] For hard drives, GB means 1 billion bytes ; actual capacity varies with preloaded material and operating environment and will be less.

OPTICAL DRIVES

DVD +/- RW[1]	MT	DT	SFF	USFF
External Dimensions inches/centimeters (Without Bezel – W x H x D)	148.2mm(6in)/42mm (2in)/ 190.5 (max)	148.2mm(6in)/42mm (2in)/ 190.5 (max)	128.0 mm (5.04)/ 12.7mm (0.5 in)/ 126.1mm (4.97in)	128.0 mm (5.04)/ 12.7mm (0.5 in)/ 126.1mm (4.97in)
Weight (max) pounds/ kilograms	800g	800g	170g	170g
Interface type and speed	SATA 1.5Gbit/s	SATA 1.5Gbit/s	SATA 1.5Gbit/s	PATA
Disc Capacity	Standard	Standard	Standard	Standard
Internal buffer size	supplier dependent	supplier dependent	supplier dependent	supplier dependent
Access Times (typical)	supplier dependent	supplier dependent	supplier dependent	supplier dependent
Maximum Data Transfer Rates				
Writes	16x DVD/48x CD	16x DVD/48x CD	8x DVD/ 24x CD	8x DVD/ 24x CD
Reads	16x DVD/48x CD	16x DVD/48x CD	8x DVD/ 24x CD	8x DVD/ 24x CD
Power Source				
DC Power Requirements	12V, 5V	12V, 5V	5V	5V
DC Current	1200mA (12V)/ 900mA (5V)	1200mA (12V)/ 900mA (5V)	1000mA	1000mA
Environmental Operating Conditions (Non-Condensing):				
Operating Temperature Range	5C to 50C	5C to 50C	5C to 50C	5C to 50C
Relative Humidity Range	20% to 80% RH	20% to 80% RH	20% to 80% RH	20% to 80% RH
Maximum Wet Bulb Temperature	29C	29C	29C	29C
Altitude Range	-200 to 3048	-200 to 3048	-200 to 3048	-200 to 3048
Environmental Non-Operating Conditions (Non-Condensing):				
Operating Temperature Range	-40C to 65C	-40C to 65C	-40C to 65C	-40C to 65C
Relative Humidity Range	5% to 95% RH	5% to 95% RH	5% to 95% RH	5% to 95% RH
Maximum Wet Bulb Temperature	38C	38C	38C	38C
Altitude Range	-200 to 10600m	-200 to 10600m	-200 to 10600m	-200 to 10600m

[1] Discs burned with this drive may not be compatible with some existing drives and players; using DVD+R media provides maximum compatibility.

DVD-ROM	MT	DT	SFF	USFF
External Dimensions inches/centimeters (Without Bezel – W x H x D)	148.2mm(6in)/42mm (2in)/ 190.5 (max)	148.2mm(6in)/42mm (2in)/ 190.5 (max)	128.0 mm (5.04)/ 12.7mm (0.5 in)/ 126.1mm (4.97in)	128.0 mm (5.04)/ 12.7mm (0.5 in)/ 126.1mm (4.97in)
Weight (max) pounds/ kilograms	750g	750g	165g	165g
Interface type and speed	SATA 1.5Gbit/s	SATA 1.5Gbit/s	SATA 1.5Gbit/s	PATA
Disc Capacity	Standard	Standard	Standard	Standard
Internal buffer size	supplier dependent	supplier dependent	supplier dependent	supplier dependent
Access Times (typical)	supplier dependent	supplier dependent	supplier dependent	supplier dependent
Maximum Data Transfer Rates				
Writes	N/A	N/A	N/A	N/A
Reads	16x DVD/48x CD	16x DVD/48x CD	8x DVD/ 24x CD	8x DVD/ 24x CD

OPTICAL DRIVES (CONT.)

DVD-ROM (CONT.)	MT	DT	SFF	USFF
Power Source				
DC Power Requirements	12V, 5V	12V, 5V	5V	5V
DC Current	1200mA (12V)/ 900mA (5V)	1200mA (12V)/ 900mA (5V)	800mA	800mA
Environmental Operating Conditions (Non-Condensing):				
Operating Temperature Range	5C to 50C	5C to 50C	5C to 50C	5C to 50C
Relative Humidity Range	20% to 80% RH	20% to 80% RH	20% to 80% RH	20% to 80% RH
Maximum Wet Bulb Temperature	29C	29C	29C	29C
Altitude Range	-200 to 3048m	-200 to 3048m	-200 to 3048m	-200 to 3048m
Environmental Non-Operating Conditions (Non-Condensing):				
Operating Temperature Range	-40C to 65C	-40C to 65C	-40C to 65C	-40C to 65C
Relative Humidity Range	5% to 95% RH	5% to 95% RH	5% to 95% RH	5% to 95% RH
Maximum Wet Bulb Temperature	38C	38C	38C	38C
Altitude Range	-200 to 10600m	-200 to 10600m	-200 to 10600m	-200 to 10600m

COMBO DVD/ CDRW	MT	DT	SFF	USFF
External Dimensions inches/centimeters (Without Bezel – W x H x D)	148.2mm(6in)/42mm (2in)/ 190.5 (max)	148.2mm(6in)/42mm (2in)/ 190.5 (max)	128.0 mm (5.04)/ 12.7mm (0.5 in)/ 126.1mm (4.97in)	128.0 mm (5.04)/ 12.7mm (0.5 in)/ 126.1mm (4.97in)
Weight (max) pounds/ kilograms	750g	750g	165g	165g
Interface type and speed	SATA 1.5Gbit/s	SATA 1.5Gbit/s	SATA 1.5Gbit/s	PATA
Disc Capacity	Standard	Standard	Standard	Standard
Internal buffer size	supplier dependent	supplier dependent	supplier dependent	supplier dependent
Access Times (typical)	supplier dependent	supplier dependent	supplier dependent	supplier dependent
Maximum Data Transfer Rates				
Writes	48x CD	48x CD	24x CD	24x CD
Reads	16x DVD/48x CD	16x DVD/48x CD	8x DVD/ 24x CD	8x DVD/ 24x CD
Power Source				
DC Power Requirements	12V, 5V	12V, 5V	5V	5V
DC Current	1200mA (12V)/ 900mA (5V)	1200mA (12V)/ 900mA (5V)	900mA	900mA
Environmental Operating Conditions (Non-Condensing):				
Operating Temperature Range	5C to 50C	5C to 50C	5C to 50C	5C to 50C
Relative Humidity Range	20% to 80% RH	20% to 80% RH	20% to 80% RH	20% to 80% RH
Maximum Wet Bulb Temperature	29C	29C	29C	29C
Altitude Range	-200 to 3048m	-200 to 3048m	-200 to 3048m	-200 to 3048m
Environmental Non-Operating Conditions (Non-Condensing):				
Operating Temperature Range	-40C to 65C	-40C to 65C	-40C to 65C	-40C to 65C
Relative Humidity Range	5% to 95% RH	5% to 95% RH	5% to 95% RH	5% to 95% RH
Maximum Wet Bulb Temperature	38C	38C	38C	38C
Altitude Range	-200 to 10600m	-200 to 10600m	-200 to 10600m	-200 to 10600m

BIOS DEFAULTS

Drives	Diskette drive:	USB
	SATA Operation;	AHCI
	SMART Reporting:	Disable
	SATA-0:	Enable
	SATA-1:	Enable
	External SATA:	Enable
System Configuration	Integrated NIC:	Enable
	USB Controller:	Enable
	Parallel Port:	PS/2
	Parallel Port Address:	378h
	Serial Port #1:	Auto
	Serial Port #2:	Auto
	Front USB:	Enable
	Rear Quad USB:	Enable
	Rear Dual USB:	Enable
	PCI Slots:	Enable
	Audio:	Enable
Video	Primary Video:	Auto
Performance	Multiple CPU Core:	Enable
	Intel® SpeedStep™:	Disable, unless the customer purchased a SpeedStep™ capable processor.
	C States Control:	Enable
	Limit CPUID Value:	Disable
	HDD Acoustic Mode:	Bypass
Virtualization Support	Virtualization:	Disable
	VT for Direct I/O:	Disable
Security	Administrator Password:	Not set
	System Password:	Not set
	Password Changes:	Enable
	TPM Security:	Disable
	CPU XD Support:	Enable
	Computrace®:	Deactivate
	SATA-0 Password:	Not set

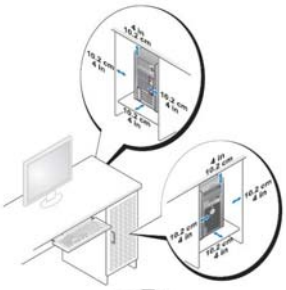
BIOS DEFAULTS (CONT.)

Power Management	AC Recovery:	Power Off
	Auto On Time:	Disable
	Low Power Mode:	Disable
	Remote Wake Up:	Disable
	Suspend Mode:	S3
	Fan Control Override:	Disable
Maintenance	Service Tag:	Set by the factory
	Asset Tag:	Optional User Entry
	SERR Message:	Enable
Post Behavior	Fast Boot:	Enable
	Numlock LED:	Enable
	POST HotKeys:	Enable
	Keyboard Errors:	Enable
	MEBx HotKey	Enable

CHASSIS ENCLOSURE & VENTILATION REQUIREMENTS

ENCLOSURE VENTILATION

If your enclosure has doors, they need to be of a type that allows at least 30% airflow through the enclosure (front and back).



ENCLOSURE MINIMUM CLEARANCE

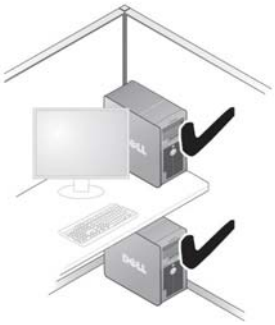
Leave a 10.2 cm (4 in.) minimum clearance on all vented sides of the computer to permit the airflow required for proper ventilation.

RECOMMENDED ENCLOSURE

Do not install your computer in an enclosure that does not allow airflow. This restricts the airflow and impacts your computer's performance, possibly causing it to overheat.

OPEN DESK MINIMUM CLEARANCE

If your computer is installed in a corner, on a desk, or under a desk, leave at least 5.1 cm (2 in.) clearance from the back of the computer to the wall to permit the airflow required for proper ventilation.



REGULATORY COMPLIANCE AND ENVIRONMENTAL

Product related conformity assessment and regulatory authorizations including Product Safety, Electromagnetic Compatibility (EMC), Ergonomics, and Communication Devices relevant to this product may be viewed at www.dell.com/regulatory_compliance. The Regulatory Datasheet for this product is located at http://www.dell.com/regulatory_compliance.

Details of Dell's environmental stewardship program to conserve product energy consumption, reduce or eliminate materials for disposal, prolong product life span and provide effective and convenient equipment recovery solutions may be viewed at www.dell.com/environment. Product related conformity assessment, regulatory authorizations, and information encompassing Environmental, Energy Consumption, Noise Emissions, Product Materials Information, Packaging, Batteries, and Recycling relevant to this product may be viewed by clicking the Design for Environment link on the webpage.

ACOUSTIC NOISE EMISSION INFORMATION

OPTIPLEX 760 MT

Component	Typical Configuration	High-end Configuration
CPU	E7200	Q9650
Memory	512MB DDRII 667MHz (x2)	2GB DDRII 800 MHz (x4)
HDD (#, capacity)	80 GB 7200 RPM SATA2	250 GB 7200 RPM SATA2 (x2)
RMSD	DVDRW/DVD dual config	DVDRW/DVD dual config
Graphics Adapter	Integrated GMA3100	ATI RADEON HD 2400 XT

The Declared Noise Emission in accordance with ISO 9296 for the Dell Optiplex 760 MT is as follows:
(all values L_{WAd} expressed in bels; 1 bel=10 decibels, re 10^{-12} Watts)

Operating Mode	Typical Configuration Declared Sound Power (L_{WAd})	High-end Configuration Declared Sound Power (L_{WAd})
Idle	3.7	4.4
HDD Operating	3.7	4.4
90% CPU	4.0	4.5
ODD Operating	5.1	5.1

The Declared A-weighted Sound Pressure Level in decibels (re $2x10^{-5}$ Pa), at Operator, Bystander, and Desk Side Positions are measured in accordance with ISO 7779 7.6.1, 7.6.2, and C.15.2 and declared in accordance with ISO 9296 for this product is as follows[1]:

Operating Mode	Typical Configuration Declared Sound Pressure (LpA)				High-end Configuration Declared Sound Pressure (LpA)			
	Table-Top		Floor-Standing		Table-Top		Floor- Standing	
	Operator Position (LpA)	Bystander Position (LpA)	Operator Position (LpA)	Bystander Position (LpA)	Operator Position (LpA)	Bystander Position (LpA)	Operator Position (LpA)	By-stander Position (LpA)
Idle	26.7	22.9	22.0	20.7	36.9	30.3	28.1	27.9
HDD Operating	26.9	23.2	22.2	20.9	36.0	29.0	29.0	28.7
90% CPU	31.6	27.1	23.2	22.6	37.4	31.6	30.0	29.4
ODD Operating	41.1	35.6	36.0	33.5	42.5	35.5	35.7	34.2

[1] All tests are conducted according to ISO 7779 and declared according to ISO 9296 except 90% CPU. For this mode, the system CPU was stressed at 90% utilization with no other peripheral device actively seeking. This test mode is not specified in ISO 7779, but was measured using the same microphone distances and measurement techniques defined for the other reported operating modes.
[2] Declared Sound Power rounded to nearest tenth of a bel per ISO 9296 section 4.4.2

ACOUSTIC NOISE EMISSION INFORMATION

OPTIPLEX 760 DT

Component	Typical Configuration	High-end Configuration
CPU	E7200	Q9650
Memory	512MB DDRII 667MHz (x2)	2GB DDRII 800 MHz (x4)
HDD (#, capacity)	80 GB 7200 RPM SATA2	250 GB 7200 RPM SATA2 (x1)
RMSD	DVDRW/DVD dual config	DVDRW/DVD dual config
Graphics Adapter	Integrated GMA3100	ATI RADEON HD 2400 XT

The Declared Noise Emission in accordance with ISO 9296 for the Dell Optiplex 760 DT is as follows:
(all values L_{WAd} expressed in bels; 1 bel=10 decibels, re 10^{-12} Watts)

Operating Mode	Typical Configuration Declared Sound Power (L_{WAd})	High-end Configuration Declared Sound Power (L_{WAd})
Idle	3.7	4.1
HDD Operating	3.7	4.1
90% CPU	3.7	4.4
ODD Operating	5.2	5.2

The Declared A-weighted Sound Pressure Level in decibels (re $2x10^{-5}$ Pa), at Operator, Bystander, and Desk Side Positions are measured in accordance with ISO 7779 7.6.1, 7.6.2, and C.15.2 and declared in accordance with ISO 9296 for this product is as follows[1]:

Operating Mode	Typical Configuration Declared Sound Pressure (LpA)				High-end Configuration Declared Sound Pressure (LpA)			
	Table-Top		Floor-Standing		Table-Top		Floor- Standing	
	Operator Position (LpA)	Bystander Position (LpA)	Operator Position (LpA)	Bystander Position (LpA)	Operator Position (LpA)	Bystander Position (LpA)	Operator Position (LpA)	By-stander Position (LpA)
Idle	28.0	22.8	22.1	20.8	31.4	25.4	23.1	21.4
HDD Operating	28.2	23.0	22.0	20.6	32.0	26.1	24.1	22.2
90% CPU	28.0	22.6	22.1	20.5	37.4	28.6	25.8	23.9
ODD Operating	41.5	37.2	35.9	33.3	42.5	36.8	34.4	33.5

[1] All tests are conducted according to ISO 7779 and declared according to ISO 9296 except 90% CPU. For this mode, the system CPU was stressed at 90% utilization with no other peripheral device actively seeking. This test mode is not specified in ISO 7779, but was measured using the same microphone distances and measurement techniques defined for the other reported operating modes.
[2] Declared Sound Power rounded to nearest tenth of a bel per ISO 9296 section 4.4.2

ACOUSTIC NOISE EMISSION INFORMATION

OPTIPLEX 760 SFF

Component	Typical Configuration	High-end Configuration
CPU	E7200	Q9650
Memory	512MB DDRII 667MHz (x2)	2GB DDRII 800MHz (x4)
HDD (#, capacity)	80 GB 7200 RPM SATA2	250 GB 7200 RPM SATA2 (x1)
RMSD	DVDRW/DVD dual config	DVDRW/DVD dual config
Graphics Adapter	Integrated GMA3100	ATI RADEON HD 2400 XT

The Declared Noise Emission in accordance with ISO 9296 for the Dell Optiplex 760 SFF is as follows:
(all values L_{WAd} expressed in bels; 1 bel=10 decibels, re 10^{-12} Watts)

Operating Mode	Typical Configuration Declared Sound Power (L_{WAd})	High-end Configuration Declared Sound Power (L_{WAd})
Idle	3.7	4.2
HDD Operating	3.7	4.3
90% CPU	4.1	4.7
ODD Operating	4.9	4.8

The Declared A-weighted Sound Pressure Level in decibels (re $2x10^{-5}$ Pa), at Operator, Bystander, and Desk Side Positions are measured in accordance with ISO 7779 7.6.1, 7.6.2, and C.15.2 and declared in accordance with ISO 9296 for this product is as follows[1]:

Operating Mode	Typical Configuration Declared Sound Pressure (LpA)				High-end Configuration Declared Sound Pressure (LpA)			
	Table-Top		Floor-Standing		Table-Top		Floor- Standing	
	Operator Position (LpA)	Bystander Position (LpA)	Operator Position (LpA)	Bystander Position (LpA)	Operator Position (LpA)	Bystander Position (LpA)	Operator Position (LpA)	Bystander Position (LpA)
Idle	26.9	22.6	21.9	21.1	34.6	27.8	24.9	23.8
HDD Operating	26.5	22.5	22.1	21.2	35.1	28.3	25.1	24.1
90% CPU	31.8	28.7	23.2	23.0	38.2	31.7	29.5	27.7
ODD Operating	42.8	39.8	36.6	35.4	40.0	33.8	31.8	30.4

[1] All tests are conducted according to ISO 7779 and declared according to ISO 9296 except 90% CPU. For this mode, the system CPU was stressed at 90% utilization with no other peripheral device actively seeking. This test mode is not specified in ISO 7779, but was measured using the same microphone distances and measurement techniques defined for the other reported operating modes.
[2] Declared Sound Power rounded to nearest tenth of a bel per ISO 9296 section 4.4.2

ACOUSTIC NOISE EMISSION INFORMATION

OPTIPLEX 760 USFF

Component	Typical Configuration	High-end Configuration
CPU	E7200	E8400
Memory	1 GB DDR2 667 MHz	2 GB DDR2 800 MHz
HDD (#, capacity)	80 GB 3.5” 7200 RPM SATA2	160 GB 3.5” 7200 RPM SATA2
RMSD	DVD +/- RW	DVD +/- RW
Graphics Adapter	Intel Integrated Adapter	Intel Integrated Adapter

The Declared Noise Emission in accordance with ISO 9296 for the Dell Optiplex 760 USFF is as follows:
(all values L_{WAd} expressed in bels; 1 bel=10 decibels, re 10^{-12} Watts)

Operating Mode	Typical Configuration Declared Sound Power (L_{WAd})	High-end Configuration Declared Sound Power (L_{WAd})
Idle	3.9	4.0
HDD Operating	3.9	3.9
ODD Operating	4.7	4.9
90% CPU	3.9	3.9

The Declared A-weighted Sound Pressure Level in decibels (re $2x10^{-5}$ Pa), at Operator, Bystander, and Desk Side Positions are measured in accordance with ISO 7779 7.6.1, 7.6.2, and C.15.2 and declared in accordance with ISO 9296 for this product is as follows[1]:

Operating Mode	Typical Configuration Declared Sound Pressure (L_{pA})			High-end Configuration Declared Sound Pressure (L_{pA})		
	Operator Position (L_{pA})	Bystander Position (L_{pA})	DeskSide Position (L_{pA})	Operator Position (L_{pA})	Bystander Position (L_{pA})	DeskSide Position (L_{pA})
Idle	30	28	25	32	28	22
HDD Operating	30	28	25	32	28	22
ODD Operating	38	33	31	42	35	26
90% CPU	29	27	25	32	28	24

[1] All tests are conducted according to ISO 7779 and declared according to ISO 9296 except 90% CPU. For this mode, the system CPU was stressed at 90% utilization with no other peripheral device actively seeking. This test mode is not specified in ISO 7779, but was measured using the same microphone distances and measurement techniques defined for the other reported operating modes.
[2] Declared Sound Power rounded to nearest tenth of a bel per ISO 9296 section 4.4.2