

DELLTM **OPTIplexTM 755**

TECHNICAL GUIDE BOOK
INSIDE THE OPTIplex 755



TABLE OF CONTENTS

OVERVIEW	3
Mini Tower Computer (MT) View	5
Desktop Computer (DT) View	6
Small Form Factor Computer (SFF) View	7
Ultra Small Form Factor Computer (USFF) View	8
MARKETING SYSTEM CONFIGURATIONS	
Operating System, Chipset	9
Processor	10
Advanced System Manageability Modes, Deployment Mode Options	11
Memory	12
Drives and Removable Storage	13
System Board Connectors	14
System Board Connector Maximum Allowable Dimensions, Graphics/Video Controller	15
External Ports/Connectors	20
Communications – Network Adapter (NIC)	21
Communications – Modem	23
Audio and Speakers, Keyboard and Mouse, Security	24
Service and Support, Software	25
DETAILED ENGINEERING SPECIFICATIONS	
System Dimensions (Physical)	26
System Level Environmental and Operating Conditions	27
Power	28
Audio	29
Hard Drives	30
Optical Drives	34
BIOS Defaults	38
CHASSIS ENCLOSURE AND VENTILATION REQUIREMENTS	41
REGULATORY COMPLIANCE AND ENVIRONMENTAL	
Acoustic Noise Emission Information	42



ROBUST MAINSTREAM DESKTOP DESIGNED TO MEET YOUR NEEDS, NOW AND IN THE FUTURE

The new Dell OptiPlex 755 offers a compelling, versatile solution that can help you meet evolving business needs with the right technologies and services. Thanks to Dell's innovative approach to scalable remote client management, the OptiPlex 755 offers you a choice between several systems-management options. These options allow you to select an approach that's appropriate for your current infrastructure, while easily scaling to meet future needs. Options include:

- Widely installed ASF (Alert Standard Format) standards-based technology, which supports basic in- and out-of-band hardware inventory, alerting, and power control
- Intel® Active Management Technology (Intel AMT), which adds encrypted communications to ASF requirements, and also provides remote diagnosis and troubleshooting capabilities
- Intel® vPRO™ processor-based technology adds processor-specific security technologies to Intel AMT's functionality

In addition, Dell continues to expand our Deployment Services — now featuring ImageDirect, a web-based tool that can enable you to build and apply custom images for current and future systems. And because we know data security is a vital concern, the OptiPlex 755 offers optional RAID 1 support for real-time data-mirroring protection. Plus, those who elect for a full vPRO platform can enjoy additional advanced security and remote remediation features.

ADVANCED REMOTE MANAGEMENT: New capabilities that allow IT to have greater control

- Your choice of flexible options — from ASF 2.0 to Intel AMT 3.0, and even full Intel vPro processor technology
- Standards-based management (DASH 1.0 and WS-MAN) help ensure simplicity and interoperability
- Dell Client Manager brings it all together in one management console

POWER EFFICIENCY: Productivity and power savings in a proven, reliable design

- Dell's Energy Smart is a unique approach to energy efficient computing which includes hardware and software, tool, and partnerships.
- Energy Smart hardware and software includes Intel® Core™ 2 Duo processors, efficient management power settings and remote power policy management, available 80+ power supplies and ENERGY STAR® 4.0 configurations
- Dell's online Energy Calculator indicates potential savings of up to 78% by choosing the most efficient configurations
- Dell is working alongside industry leaders and standards organizations worldwide to help drive revolutionary change

SMART SECURITY: Strategic, comprehensive endpoint solutions for all types of businesses

- Intel vPro technology helps simplify asset inventory, isolation of virus-infected PCs, security patch deployment and more
- RAID 1 support helps keep data intact and accessible via real-time redundancy
- Built-in TPM 1.2 helps protect the network from unauthorized access, while enabling multi-factor authentication via optional Smart Card Reader and/or fingerprint reader

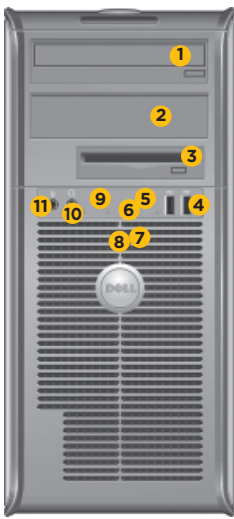
DELL DEPLOYMENT SERVICES: Image management, customization and deployment made easy

- Specific provisioning and pre-configured setting options for iAMT and Intel vPro technology customers
- ImageDirect allows you to create, manage and load your custom images to Dell client systems
- Microsoft® Windows Vista® Assessment and Migration options help streamline and optimize your deployment processes

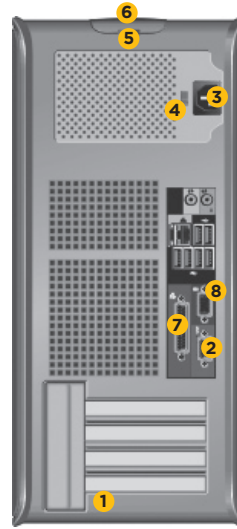
SIMPLY PUT:

REMOTE MANAGEMENT, SMART SECURITY, AND CUSTOMIZED DEPLOYMENTS HELP SIMPLIFY YOUR OPERATIONS

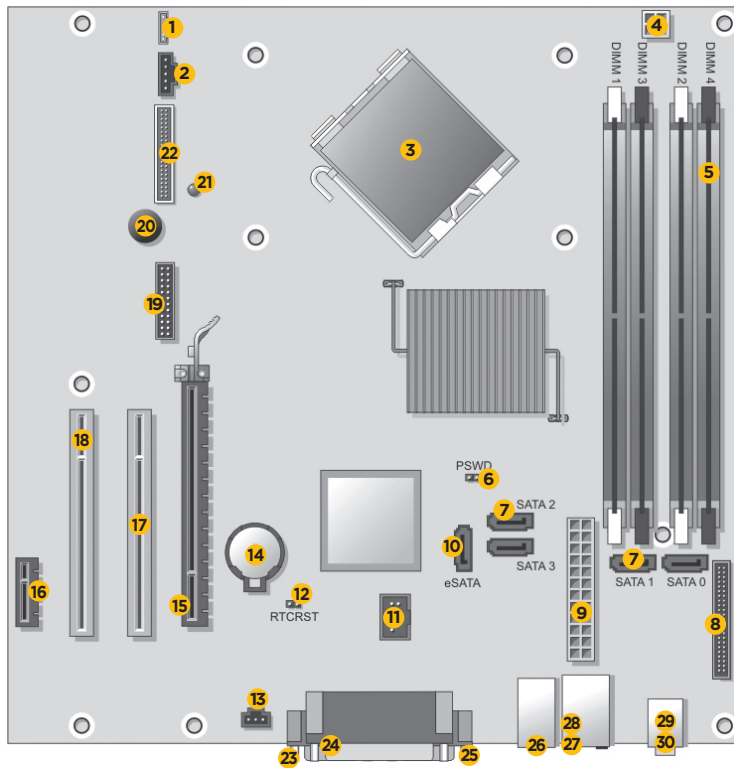
MINI TOWER COMPUTER (MT) VIEW



FRONT VIEW	
1	5.25-inch drive bay
2	5.25-inch drive bay
3	3.5-inch drive bay
4	USB 2.0 connectors (2)
5	LAN indicator light
6	diagnostic lights
7	power button
8	power light
9	hard drive activity light
10	headphone connector
11	microphone connector



BACK VIEW	
1	card slots
2	serial port
3	power connector
4	voltage selection switch
5	padlock ring
6	cover release latch
7	parallel port
8	VGA port

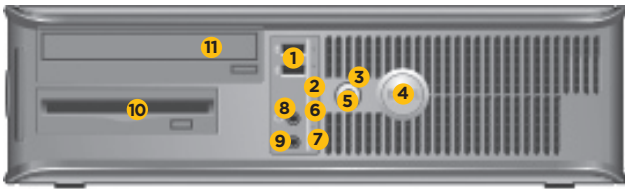


SYSTEM BOARD COMPONENTS

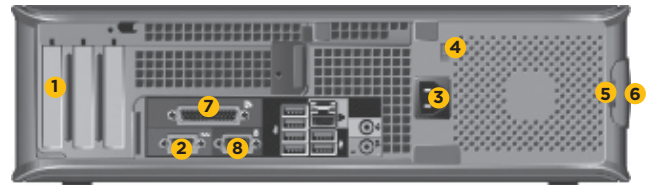
1	speaker connector (INT_SPKR)
2	fan (FAN_CPU)
3	processor connector (CPU)
4	processor power connector (12VPOWER)
5	memory module connectors (DIMM_1, DIMM_2, DIMM_3, DIMM_4)
6	password jumper (PSWD)
7	SATA drive connectors (SATA0, SATA1, SATA2, SATA3)
8	front-panel connector (FRONTPANEL)
9	power connector (POWER)
10	external SATA connector (eSATA)
11	internal USB (INT_USB)
12	RTC reset jumper (RTCST)
13	intrusion switch connector (INTRUDER)
14	battery socket (BATTERY)
15	PCI Express x16 connector (SLOT1)
16	PCI Express x1 connector (SLOT4)
17	PCI connector (SLOT2)
18	PCI connector (SLOT3)
19	serial connector (SERIAL2)
20	system board speaker (BEEP)
21	aux power LED (aux_LED)
22	floppy connector (DSKT)
23	VGA connector
24	parallel port
25	serial port

26	4x USB 2.0 ports
27	1 - RJ 45 network port
28	2 - USB 2.0 ports
29	stereo in/microphone
30	stereo out

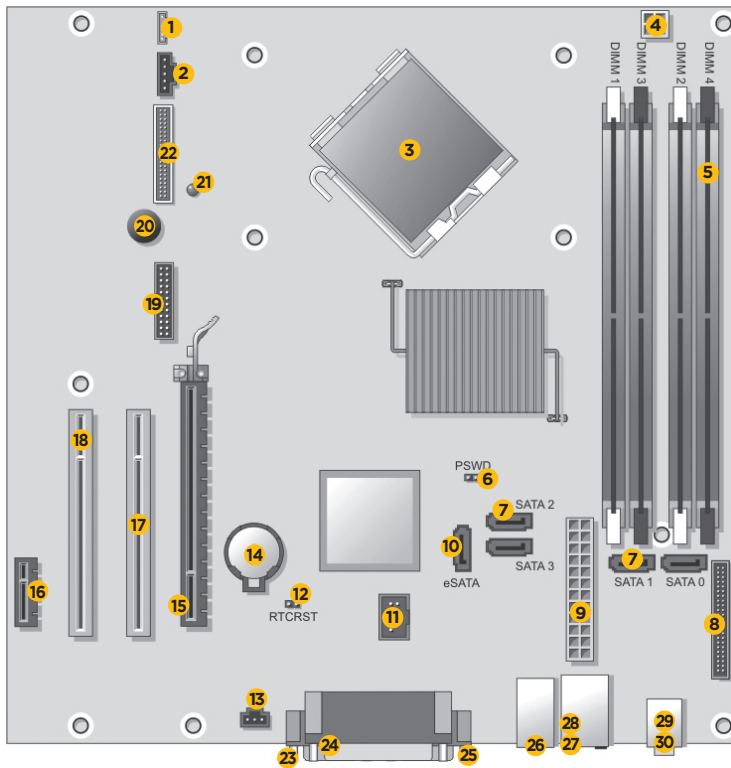
DESKTOP COMPUTER (DT) VIEW



FRONT VIEW			
1	USB 2.0 connectors (2)	7	hard drive activity light
2	LAN indicator light	8	headphone connector
3	power button	9	microphone connector
4	Dell badge	10	3.5-inch drive bay
5	power light	11	5.25-inch drive bay
6	diagnostic lights		



BACK VIEW	
1	card slots
2	serial port
3	power connector
4	voltage selection switch
5	padlock ring
6	cover-release latch
7	parallel port
8	VGA port

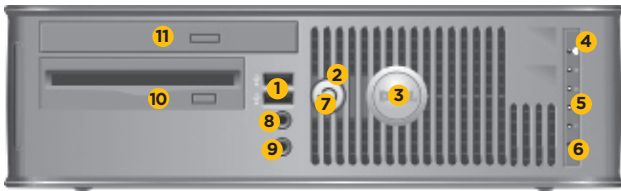


SYSTEM BOARD COMPONENTS

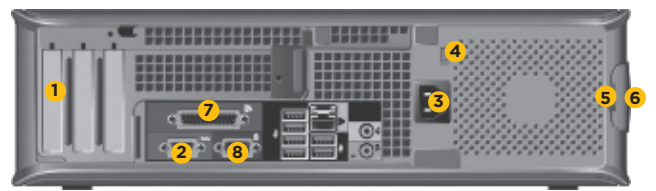
1	speaker connector (INT_SPKR)
2	fan (FAN_CPU)
3	processor connector (CPU)
4	processor power connector (12VPOWER)
5	memory module connectors (DIMM_1, DIMM_2, DIMM_3, DIMM_4)
6	password jumper (PSWD)
7	SATA drive connectors (SATA0, SATA1, SATA2, SATA3)
8	front-panel connector (FRONTPANEL)
9	power connector (POWER)
10	external SATA connector (eSATA)
11	internal USB (INT_USB)
12	RTC reset jumper (RTCST)
13	intrusion switch connector (INTRUDER)
14	battery socket (BATTERY)
15	PCI Express x16 connector (SLOT1)
16	PCI Express x1 connector (SLOT4)
17	PCI connector (SLOT2)
18	PCI connector (SLOT3)
19	serial connector (SERIAL2)
20	system board speaker (BEEP)
21	aux power LED (aux_LED)
22	floppy connector (DSKT)
23	VGA connector
24	parallel port
25	serial port
26	4x USB 2.0 ports
27	1 - RJ 45 network port
28	2 - USB 2.0 ports
29	stereo in/microphone
30	stereo out

26	4x USB 2.0 ports
27	1 - RJ 45 network port
28	2 - USB 2.0 ports
29	stereo in/microphone
30	stereo out

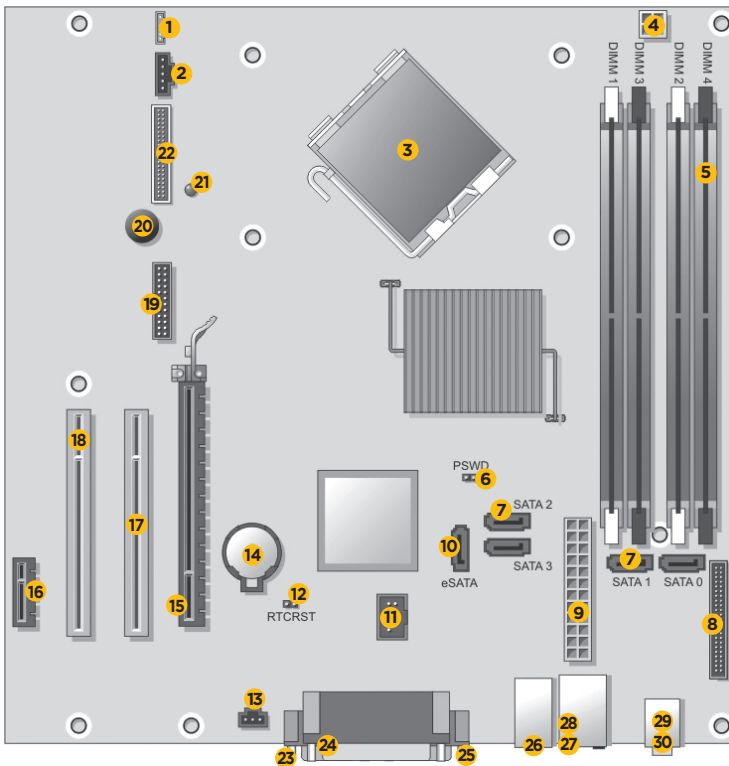
SMALL FORM FACTOR COMPUTER (SFF) VIEW



FRONT VIEW			
1	USB 2.0 connectors (2)	7	power light
2	power button	8	headphone connector
3	Dell badge	9	microphone connector
4	LAN indicator light	10	3.5-inch drive bay
5	diagnostic lights	11	5.25-inch drive bay
6	hard drive activity light		



BACK VIEW	
1	card slots
2	serial port
3	power connector
4	voltage selection switch
5	padlock ring
6	cover-release latch
7	parallel port
8	VGA port

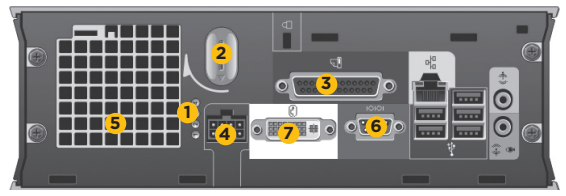
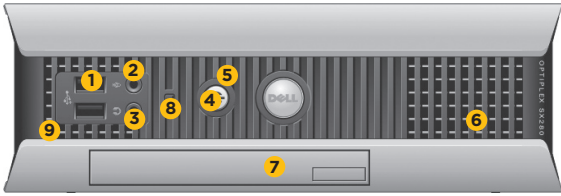


SYSTEM BOARD COMPONENTS

1	speaker connector (INT_SPKR)
2	fan (FAN_CPU)
3	processor connector (CPU)
4	processor power connector (12VPOWER)
5	memory module connectors (DIMM_1, DIMM_2, DIMM_3, DIMM_4)
6	password jumper (PSWD)
7	SATA drive connectors (SATA0, SATA1, SATA2, SATA3)
8	front-panel connector (FRONTPANEL)
9	power connector (POWER)
10	external SATA connector (eSATA)
11	internal USB (INT_USB)
12	RTC reset jumper (RTCST)
13	intrusion switch connector (INTRUDER)
14	battery socket (BATTERY)
15	PCI Express x16 connector (SLOT1)
16	PCI Express x1 connector (SLOT4)
17	PCI connector (SLOT2)
18	PCI connector (SLOT3)
19	serial connector (SERIAL2)
20	system board speaker (BEEP)
21	aux power LED (aux_LED)
22	floppy connector (DSKT)
23	VGA connector
24	parallel port
25	serial port

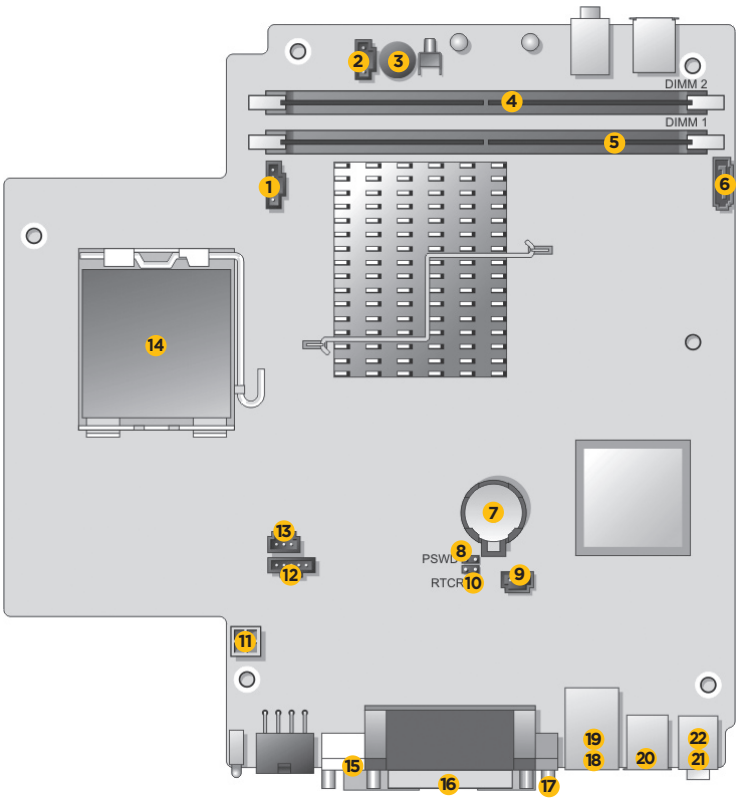
26	4x USB 2.0 ports
27	1 - RJ 45 network port
28	2 - USB 2.0 ports
29	stereo in/microphone
30	stereo out

ULTRA SMALL FORM FACTOR COMPUTER (USFF) VIEW



FRONT VIEW			
1	USB connectors (2)	6	vents
2	headphone connector	7	module bay
3	microphone connector	8	hard drive access light
4	power light	9	vents
5	power button		

BACK VIEW	
1	diagnostic lights
2	computer cover release knob
3	parallel port
4	power connector
5	vents
6	serial port
7	DVH port



SYSTEM BOARD COMPONENTS	
1	fan connector (FAN_FRONT)
2	internal speaker connector (INT_SPKR)
3	system board speaker (BEEP)
4	channel B memory connector (DIMM_2)
5	channel A memory connector (DIMM_1)
6	SATA data cable connector (SATA0)
7	battery (BATT)
8	password jumper (PSWD)
9	hard drive fan connector (FAN_HDD)
10	clear CMOS jumper (RTCST)
11	hard drive power connector (SATA_PWR)
12	fan connector (FAN_REAR)
13	intrusion switch connector (INTRUDER)
14	processor (CPU)
15	DVI-1 connector
16	parallel port
17	serial port
18	1- RJ 45 network connector
19	2 - USB 2.0 connectors
20	3 - USB 2.0 ports
21	line-out connector
22	line-in microphone connector

MARKETING SYSTEM CONFIGURATIONS

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

One of the following Operating Systems will be preinstalled.

	MT	DT	SFF	USFF
Windows Vista® Operating System	Windows Vista® Ultimate 32-bit, Windows Vista® Business 32- and 64-bit, Windows Vista® Home Basic 32 bit			
Windows XP® Operating System	Windows® XP Professional SP2, Windows® XP Home Edition SP2 (all 32-bit only)			
Other	FreeDOS for (n-series), Red Flag Linux (China only)			
OS Media Support	✓	✓	✓	✓

CHIPSET

	MT	DT	SFF	USFF
Chipset	Intel® Q35 Express Chipset (ICH9D0)			
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)	16KB located at TPM1P2 on chipset			
NIC EEPROM	LOM configuration contained within SPI_FLASH – no dedicated LOM EEPROM			

PROCESSOR

Global Standard Products (GSP) are a subset of Dell's relationship products that are managed for availability and synchronized transitions on a worldwide basis. They ensure the same platform is available for purchase globally. This allows customers to reduce the number of configurations managed on a worldwide basis, thereby reducing their costs. They also enable companies to implement global IT standards by locking in specific product configurations worldwide. The following GSP processors identified below will be made available to Dell customers.

Processor numbers are not a measure of performance.

PROCESSOR (SPEED, CACHE, FSB)	MT	DT	SFF	USFF
Intel® Core™ 2 Quad with Intel VT, Enhanced Intel SpeedStep Technology, Intel 64 and Execute Disable Bit				
Intel Core 2 Quad Q6700 Processor (2.66GHz, 8MB L2 cache, 1066MHz FSB, VT)	✓	✓	✓	
Intel Core 2 Quad Q6600 Processor (2.4GHz, 8MB L2 cache, 1066MHz FSB, VT)	✓	✓	✓	
Intel® Core 2 Duo with Intel vPro Technology, Intel VT, Intel TXT, Enhanced Intel SpeedStep Technology, Intel 64 and Execute Disable Bit				
Intel Core 2 Duo E6850 Processor (3.0GHz, 4MB L2 cache, 1333MHz FSB, vPro, VT)	X-GSP	X-GSP	X-GSP	X-GSP
Intel Core 2 Duo E6750 Processor (2.66GHz, 4MB L2 cache, 1333MHz FSB, vPro, VT)	X-GSP	X-GSP	X-GSP	X-GSP
Intel Core 2 Duo E6550 Processor (2.33GHz, 4MB L2 cache, 1333MHz FSB, vPro, VT)	X-GSP	X-GSP	X-GSP	X-GSP
Intel® Core 2 Duo with Enhanced Intel SpeedStep Technology, Intel 6.4 and Execute Disable Bit				
Intel Core 2 Duo E4600 Processor (2.4GHz, 2MB L2 cache, 800MHz FSB)	✓	✓	✓	✓
Intel Core 2 Duo E4500 Processor (2.2GHz, 2MB L2 cache, 800MHz FSB)	✓	✓	✓	✓
Intel Core 2 Duo E4400 Processor (2.0GHz, 2MB L2 cache, 800MHz FSB)	✓	✓	✓	✓
Intel Core 2 Duo E2180 Processor (2.0GHz, 1MB L2 cache, 800MHz FSB)	✓	✓	✓	✓
Intel Core 2 Duo E2160 Processor (1.8GHz, 1MB L2 cache, 800MHz FSB)	✓	✓	✓	✓
Intel Core 2 Duo E2140 Processor (1.6GHz, 1MB L2 cache, 800MHz FSB)	✓	✓	✓	✓
Intel® Celeron with Execute Disable Bit				
Intel Celeron 440 Processor (2.0GHz, 512K L2 cache, 800MHz FSB)	✓	✓	✓	✓
Intel Celeron 430 Processor (2.0GHz, 512K L2 cache, 800MHz FSB)	✓	✓	✓	✓

ADVANCED SYSTEM MANAGEABILITY MODES

	MT	DT	SFF	USFF
Secure Advanced Client Systems Management¹ (w/ vPro)	✓	✓	✓	✓
Advanced Client Systems Management (w/ iAMT)	✓	✓	✓	✓
Basic Client Systems Management (w/ ASF)	✓	✓	✓	✓
Client Systems Management Disabled	✓	✓	✓	✓

¹ Secure Advanced Client Systems Management requires Intel Core 2 Duo or Core 2 Quad Processors in addition to iAMT.

DEPLOYMENT MODE OPTIONS

Requires Secure Advanced Client Systems Management (with/vPro) or Advanced Client Systems Management (with iAMT) modes only.

Deployment options to enable easy deployment of systems management options.

	MT	DT	SFF	USFF
One-Touch Provisioning Support	✓	✓	✓	✓
TLS Encryption Disabled	✓	✓	✓	✓
Legacy ASF Setting for iAMT	✓	✓	✓	✓

MEMORY

Your computer supports a maximum of 8GB of memory when you use four 2GB DIMMs; however, 32-bit operating systems, such as the 32-bit version of Microsoft® Windows® XP, can only use a maximum of 4GB of address space. Moreover, certain components within the computer require address space in the 4GB range. Any address space reserved for these components cannot be used by computer memory; therefore, the amount of memory available to the operating system is less than 4GB.

The entire 8GB memory range is available to 64-bit operating systems.

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
	DDR2 Synch DRAM Non-ECC Memory 667MHz or 800MHz speeds			
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 Memory with 667MHz Speed Memory	8GB ¹	8GB ¹	8GB ¹	4GB ¹
Maximum Memory with 800MHz Speed Memory	8GB ¹	8GB ¹	8GB ¹	4GB ¹
Configurations:				
800MHz Memory Configurations				
4GB ¹ DDR2 Non-ECC SDRAM, 800MHz, (2 DIMM)	✓	✓	✓	✓
4GB ¹ DDR2 Non-ECC SDRAM, 800MHz, (4 DIMM)	✓	✓	✓	
2GB DDR2 Non-ECC SDRAM, 800MHz, (1DIMM)	✓	✓	✓	✓
2GB DDR2 Non-ECC SDRAM, 800MHz, (2 DIMM)	✓	✓	✓	✓
1GB DDR2 Non-ECC SDRAM, 800MHz, (1 DIMM)	✓	✓	✓	✓
667MHz Memory Configurations				
4GB ¹ DDR2 Non-ECC SDRAM, 667MHz, (4 DIMM)	✓	✓	✓	
4GB ¹ DDR2 Non-ECC SDRAM, 667MHz, (2 DIMM)	✓	✓	✓	✓
3GB DDR2 Non-ECC SDRAM, 667MHz, (4 DIMM)	✓	✓	✓	
2GB DDR2 Non-ECC SDRAM, 667MHz, (4 DIMM)	✓	✓	✓	
2GB DDR2 Non-ECC SDRAM, 667MHz, (2 DIMM)	✓	✓	✓	✓
1GB DDR2 Non-ECC SDRAM, 667MHz, (2 DIMM)	✓	✓	✓	✓
1GB DDR2 Non-ECC SDRAM, 667MHz, (1 DIMM)	✓	✓	✓	✓
512MB DDR2 Non-ECC SDRAM, 667MHz, (1 DIMM)	✓	✓	✓	✓

¹ The total amount of available memory will be less, depending on actual system configuration.

DRIVES AND REMOVABLE STORAGE

	MT	DT	SFF	USFF
Bays:				
3.5-inch bay Externally Accessible	1	1*	1 (slimline)	D/bay module
3.5-inch bay Internally Accessible	2	1*	1	1
5.25-inch bay	2	1	1 (slimline)	
Hard Drives Supported ¹	2	2	1	1
Optical Drives Supported	2	1	1	D/bay module
Interface:				
SATA (number of connectors - includes one dedicated eSATA on MT, DT & SFF)	5	4	3	1
Floppy/Diskette	1	1	1	
eSATA (requires additional bracket)	1	1	1	
Hard Drive: Size, type, speed, RPM				
80GB ² SATA 10K RPM HDD	✓	✓	✓	✓
250GB ² SATA 7200 RPM HDD	✓	✓	✓	✓
160GB ² High Reliability SATA 7200 RPM HDD	✓	✓	✓	✓
160GB ² SATA 7200 RPM HDD	✓	✓	✓	✓
80GB ² SATA 7200 RPM HDD	✓	✓	✓	✓
RAID 0 Enhanced Performance: (includes two matching capacity/speed hard drives)				
80GB ² SATA 10K RPM HDD	✓	✓ ³		
160GB ² SATA 7200 RPM HDD	✓	✓ ³		
320GB ² SATA 7200 RPM HDD	✓	✓ ³		
500GB ² SATA 7200 RPM HDD	✓	✓ ³		
RAID 1 Data Protection: (includes two matching capacity/speed hard drives)				
80GB ² SATA 10K RPM HDD	✓	✓		
250GB ² SATA 7200 RPM HDD	✓	✓		
160GB ² SATA 7200 RPM HDD	✓	✓		
80GB ² SATA 7200 RPM HDD	✓	✓		

¹ This only pertains to drives physically contained within the chassis and does not refer to HDDs attached via eSATA (including port multiplier), USB or optional 1394.

² For hard drives, GB means 1 billion bytes and TB equals 1 trillion bytes; actual capacity varies with preloaded material and operating environment and will be less.

³ RAID 1 in DT chassis restricted to Western Digital and Samsung HDDs.

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

DRIVES AND REMOVABLE STORAGE, CONT.

	MT	DT	SFF	USFF
Optical Drive:			SFF requires a slimline optical drive	USFF requires a D-module Slimline drive
DVD+/-RW	16x SATA		8x EIDE	8x EIDE
DVD-ROM	16x SATA		8x EIDE	8x EIDE
Combo Drive CD-RW	48x/32x/48x/16x SATA		24x/24x/24x EIDE	24x/24x/24x EIDE
CD-ROM	48x SATA		24x EIDE	24x EIDE
Floppy Diskette Drive:				
Floppy Drive	1.44MB		1.44MB (slimline)	1.44MB (D/Bay)
Media Card Reader: (uses Externally Accessible 3.5-inch bay)				
Dell 19-in-1 Media Card Reader	✓	✓	✓	

SYSTEM BOARD CONNECTORS

See Detailed Engineering Specifications for maximum card dimensions support.

	MT	DT	SFF	USFF
PCI Slot(s):	2	2	1	
PCIe x16 Slot:	1	1	1	
PCIe x1 Slot:	1			
Flexbay (used for Media Card Reader)	1	1	1	
Serial ATA (SATA) (Includes eSATA Connector)	5	4	3	1

SYSTEM BOARD CONNECTOR MAXIMUM ALLOWABLE DIMENSIONS

	MT	DT	SFF	USFF
PCI Slot(s) Dimensions: (HxL)	2	2	1	
Height INCHES/CENTIMETERS	4.376 / 11.115	2.731 / 6.89		
Length INCHES/CENTIMETERS	6.6 / 16.765*	6.6 / 16.765		
PCIe x16 Slot Dimensions: (HxL)	1	1	1	
Height INCHES/CENTIMETERS	4.376 / 11.115	2.731 / 6.89		
Length INCHES/CENTIMETERS	6.6 / 16.765*	6.6 / 16.765		
PCIe x1 Slot Dimensions: (HxL)	1			
Height INCHES/CENTIMETERS	4.376 / 11.115			
Length INCHES/CENTIMETERS	6.6 / 16.765			
Combo Full Height Riser with 1 PCI and 1 PCIe connector (HxL)		1 / 1		
Height INCHES/CENTIMETERS		4.376 / 11.115		
Length INCHES/CENTIMETERS		6.9 / 17.53**		
Dual Full Height Riser with 2 PCI connectors (HxL)		2		
Height INCHES/CENTIMETERS		4.376 / 11.115		
Length INCHES/CENTIMETERS		6.9 / 17.53**		

* 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. Risers replace 1 PCI slot and 1 PCIe slot on DT system board.

GRAPHICS/VIDEO CONTROLLER

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® Graphics Media Accelerator 3100*	Integrated on system board			
Enhanced Graphic/Video Options				
DVI (Digital)	Optional full height or low profile Add-2 card			Native DVI Connector

* Significant memory may be used to support graphics, depending on system memory size and other factors.

GRAPHICS/VIDEO CONTROLLER, CONT.

	MT	DT	SFF	USFF
Enhanced Graphic/Video Options , Cont.				
128MB ATI Radeon X1300* with DVI and TV Out		Optional full height or low profile card		
256MB ATI Radeon™ HD 2400 PRO* with DVI and TV Out		Optional full height or low profile card		
256MB ATI Radeon™ HD 2400 XT* Dual Monitor with VGA cable and TV Out		Optional full height or low profile card		
256MB ATI Radeon™ HD 2400 XT* Dual Monitor with DVI and VGA cables and TV Out		Optional full height or low profile card		

* Significant system memory may be used to support graphics, depending on system memory size and other factors.

INTEGRATED INTEL GRAPHICS MEDIA ACCELERATOR 3100*	MT	DT	SFF	USFF
Bus Type	Integrated			
GPU Core Clock	350 MHz Integrated 24 bit RAMDAC			
Frame Buffer Memory Size	Up to 256MB of shared system memory*			
Maximum Power Consumption	9.63 W			
Overlay Planes	Yes			
Maximum Color Depth	32 bit			
Maximum Vertical Refresh Rate	85 Hz			
Multiple Display Support	Yes, with optional DVI Add-2 card			
Operating Systems Graphics/ Video API Support	OpenGL® 1.4/DirectX 9.0c			
Supported Resolutions and Max Refresh Rates (Hz) (Note: analog and/or digital)	Up to 2048x1566 @ 75 Hz Supports flat panels up to 1920x1200 @ 60 Hz or digital CRT/HDTV at 1400x1050 @ 85 Hz			
External Connectors	VGA			DVI
Dimensions INCHES/CENTIMETERS (L x H)	N/A			
Environmental Operating Conditions:				
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)			

* Significant system memory may be used to support graphics, depending on system memory size and other factors.

DVI (DIGITAL) ADD-2 CARD	MT	DT	SFF	USFF
Bus Type	sDVO			
Maximum Supported Resolution	Up to 2048x1566 @ 75 Hz Supports flat panels up to 1920x1200 @ 60 Hz or digital CRT/ HDTV at 1400x1050 @ 85 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				
External Connectors	DVI			

128MB ATI RADEON X1300 WITH DVI AND TV OUT	MT	DT	SFF	USFF
Bus Type	PCIEx16			
GPU Core Clock	400Mhz			
Frame Buffer Memory (onboard) Size and Speed	128MB 400Mhz			
Maximum Power Consumption	20W			
Overlay Planes	Yes			
Maximum Color Depth	32-bit			
Maximum Vertical Refresh Rate	85Hz			
Multiple Display Support	No			
Operating Systems Graphics/ Video API Support	D3D and Open GL®			
Supported Resolutions and Max Refresh Rates (Hz) (Note: analog and/or digital)	Max : 1920x1440/32bpp @ 75Hz Min : 640x480/8bpp @ 60Hz			
External Connectors	DVI-D and S-video with Composite			
Dimensions of Full Height Card INCHES/CENTIMETERS (L x H)	6.6x4.72in/167.64x120mm			
Dimensions of Low Profile Card INCHES/CENTIMETERS (L x H)		6.6x3.35in/167.64x85mm		
Environmental Operating Conditions:				
Operating Temperature Range	50°-122°F (10°-50° C)			
Relative Humidity Range	5-90% RH (non-condensing)			
Altitude Range	0-20,000 ft.			

GRAPHICS/VIDEO CONTROLLER, CONT.

256MB ATI RADEON™ HD 2400 PRO WITH DVI AND TV OUT	MT	DT	SFF	USFF
Bus Type		PCIEx16		
GPU Core Clock		400MHz		
Frame Buffer Memory (onboard) Size and Speed		256MB 500Mhz		
Maximum Power Consumption		21W		
Overlay Planes		Yes		
Maximum Color Depth		32-bit		
Maximum Vertical Refresh Rate		85Hz		
Multiple Display Support		No		
Operating Systems Graphics/ Video API Support		D3D and Open GL		
Supported Resolutions and Max Refresh Rates (Hz) (Note: analog and/or digital)		Max : 1920x1440/32bpp @ 75Hz Min : 640x480/8bpp @ 60Hz		
External Connectors		DVI-D and S-video		
Dimensions of Full Height Card INCHES/CENTIMETERS (L x H)		6.6x4.72in/167.64x120mm		
Dimensions of Low Profile Card INCHES/CENTIMETERS (L x H)			6.6x3.35in/167.64x85mm	
Environmental Operating Conditions:				
Operating Temperature Range		50°-122°F (10°-50° C)		
Relative Humidity Range		5-90% RH (non-condensing)		
Altitude Range		0-20,000 ft.		

GRAPHICS/VIDEO CONTROLLER, CONT.

256MB ATI RADEON™ HD 2400 XT DUAL MONITOR WITH DVI/VGA VIA CABLES AND TV OUT	MT	DT	SFF	USFF
Bus Type	PCIEx16			
GPU Core Clock	600Mhz			
Frame Buffer Memory (onboard) Size and Speed	256MB 500Mhz			
Maximum Power Consumption	25W			
Overlay Planes	Yes			
Maximum Color Depth	32-bit			
Maximum Vertical Refresh Rate	85Hz			
Multiple Display Support	2			
Operating Systems Graphics/ Video API Support	D3D, Open GL			
Supported Resolutions and Max Refresh Rates (Hz) (Note: analog and/or digital)	Max : 1920x1440/32bpp @ 75Hz Min : 640x480/8bpp @ 60Hz			
External Connectors	DMS-59			
Dimensions of Full Height Card INCHES/CENTIMETERS (L x H)	6.6x4.72in/167.64x120mm			
Dimensions of Low Profile Card INCHES/CENTIMETERS (L x H)		6.6x3.35in/167.64x85mm		
Environmental Operating Conditions for Graphics Cards:				
Operating Temperature Range	50°-122°F (10°-50° C)			
Relative Humidity Range	5-90% RH (non-condensing)			
Altitude Range	0-20,000 ft.			

EXTERNAL PORTS/CONNECTORS

MT supports full height cards, DT supports low profile cards or full height cards with optional riser. SFF supports low profile cards.

See chassis diagrams section for port/connector locations	MT	DT	SFF	USFF
USB 2.0 (totals)		10		7
Front		2		2
Back		6		5
Internal		2		0
Serial	One rear			
PS/2 and 1 additional Serial (low profile bracket includes PS/2 dongle)	Optional full height or low profile bracket			
eSATA Bracket	Optional full height or low profile bracket			
Parallel	One rear			
Network Connector (RJ-45)	One rear			
1394 Controller	Optional full height or low profile card			
Video:				
VGA	One rear			
DVI	Optional full height or low profile Add-2 card			One rear
Audio:				
Microphone-in	One minijack front			
Headphone	One minijack front			
Stereo line-in	One minijack front			
Speakers line out	One minijack 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		✓		
Dual full height riser with 2 PCI connectors		✓		

COMMUNICATIONS - NETWORK ADAPTER (NIC)

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® 82566DM Gigabit LAN 10/100/1000 (Remote Wake Up, PXE, and Intel Active Management Technology support)	Integrated on system board			
Broadcom NetXtreme 10/100/1000 PCIe Gigabit Networking Card	Supports full height	Low profile card or full height card with optional riser	Supports low profile card	

INTEGRATED INTEL 82566DM GIGABIT LAN

External Connector Type	RJ45
Data Rates Supported	10/100/1000 Mbps
Controller Details	
Controller bus architecture	Intel Gigabit LAN Connect Interface (GLCI) and LAN Connect Interface (LCI)
Integrated memory	N/A
Data transfer mode	N/A
Power consumption (full operation per data rate connection speed)	1000 Mbps: 2468 mW 100 Mbps: 772 mW 10 Mbps: 607 mW
Power consumption (standby operation)	No Link (no wake): 40 mW 10 Mbps Idle (wake): 271 mW 100 Mbps Idle (wake): 756 mW
IEEE Standards Compliance	802.3ab
Hardware Certifications	N/A
Boot ROM Support	EEPROM (located in SPI)
Network Transfer Mode	
Network Transfer Rate 10BASE-T (full-duplex) 20 Mbps 100BASE-TX (half-duplex) 100 Mbps 100BASE-TX (full-duplex) 200 Mbps 1000BASE-T (full-duplex) 2000 Mbps	Full duplex at 10, 100, or 1000 Mbps and half duplex at 10 or 100 Mbps.
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, Linux
Manageability	WOL, PXE
Management Capabilities Alerting	ASF2.0, AMT 3.0

COMMUNICATIONS - NETWORK ADAPTER (NIC), CONT.

BROADCOM NETXTREME 10/100/1000 PCIe GIGABIT NETWORKING CARD	MT	DT	SFF	USFF
Connector Type	RJ-45			
Data Rates Supported	10/100/1000 Mbps Half/full duplex			
Controller Details				
Controller bus architecture	PCIe c1.0a x1			
Integrated memory	64KBytes RX, 8KBytes TX			
Data transfer mode	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	802.3, 802.2, 802.3x, 802.1p			
Hardware Certifications	FCC B, VCCI B, CE			
Boot ROM Support	No			
Network Transfer Mode	Full Duplex/Half Duplex			
Network Transfer Rate	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.			
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	WOL, PXE2.1, ACPI			
Management Capabilities Alerting	None			

COMMUNICATIONS - MODEM

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
V.92 DATA/FAX CONTROLLERLESS MODEM	Supports full height	Low profile card or full height card with optional riser	Supports low profile card	
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° C-50° C (32° F-122° F)			
Operating Humidity	45° C (113° F) 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: 5.25in/13.325cm H: 4.73in/12.002cm			
Dimensions of Low Profile Card INCHES/CENTIMETERS (L X H)		L: 5.26in/13.366cm H: 3.12in/7.923cm		

AUDIO AND SPEAKERS

	MT	DT	SFF	USFF
ADI 1984 High Definition Audio	Integrated on system board			
Internal Chassis Speaker	Optional			
Dell A225 Speakers	Optional			
Dell A525 Speakers	Optional			
Dell AS501 Flat Panel Speakers (Sound Bar)	Optional			
Dell AS501PA Flat Panel Speakers (Sound Bar)	Optional			

KEYBOARD AND MOUSE

	MT	DT	SFF	USFF
Dell USB Entry QuietKey Keyboard	Optional			
Dell USB Enhanced Multimedia Keyboard	Optional			
Dell Smart Card USB Keyboard	Optional			
Dell Bluetooth Keyboard and Mouse	Optional			
Dell USB Entry 2-Button Scroll Mouse	Optional			
Dell USB Optical 2-Button Scroll Mouse	Optional			
Dell USB Premium 5-Button Mouse	Optional			
Dell Palmrest	Optional			
Dell Logo Mouse Pad	Optional			

SECURITY

	MT	DT	SFF	USFF
Trusted Platform Module (TPM) 1.2	Integrated on system board			
Chassis Intrusion Switch	Optional			
Dell USB External Biometric Fingerprint Reader	Optional			
Chassis Lock Slot	Standard			

SERVICE AND SUPPORT

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

	MT	DT	SFF	USFF
3-Year Limited Warranty¹ (3-3-0)			Standard	
3-Year Next Business Day On-site² Service (3-3-3)			Optional	
Gold Tech Support			Optional	

¹ For a copy of limited warranty, write Dell USA L.P., Attn: Warranties, One Dell Way, Round Rock, TX 78682 or visit www.dell.com/warranty.

² May be provided by third-party. Technician dispatched, if necessary, following phone-based troubleshooting. Availability varies. See dell.com/servicecontracts for details.

SOFTWARE

	MT	DT	SFF	USFF
Dell Client Manager Standard			Available via Dell.com	
Wave EMBASSY® Trust Suite			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)

System Weight¹ and Shipping Weight¹ 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 Weight¹ POUNDS/KILOGRAMS	25.8 / 11.70	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 Weight¹ POUNDS/KILOGRAMS (includes packaging materials)	43.5 / 19.73	28 / 12.7	21.3 / 9.66	26.1 / 11.84
Packaging Parameters (HxWxD)²				
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

¹ Weights are approximates and may change based on system configuration and included accessories.

² Dimensions are DAO specific. Each region has unique packing.

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 (Storage)	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 (Storage)	27-G faired square wave with a velocity change of 508 cm/sec (200 inches/sec)			
Maximum Altitude				
Operating	-15.2 to 3,048 m (-50 to 10,000 ft)			
Non-Operating (Storage)	-15.2 to 10,668 m (-50 to 35,000 ft)			

POWER

	MT		DT		SFF		USFF
Power Supply Wattage	305W	305W High Efficiency	280W	280W High Efficiency	275W	275W High Efficiency	220W High Efficiency External PSU
AC Input Voltage Range	90-135A/ 180-264A	90-264A	90-135A/ 180-264A	90-264A	90-135A/ 180-264A	90-264A	90-264A
AC Input Current (low ac range/high AC range)	9.0A/4.5A	4.5A/2.3A	9.0A/4.5A	4.5A/2.3A	8.8A/4.3A	4.3A/2.2A	3.2A/1.7A
AC Input Frequency	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz
AC Holdup Time (50% load)	16ms	16ms	16ms	16ms	16ms	16ms	10ms at 100% load
Minimum Efficiency	65%	80%	65%	80%	65%	80%	85%
Energy Star 4.0 Compliant Power Supply		✓		✓		✓	✓
PFC (Active)		✓		✓		✓	✓
DC Parameters							
+3.3v Output	17.0A	17.0A	10.0A	10.0A	5.0A	5.0A	
+5.0v Output	22.0A	22.0A	15.0A	15.0A	18.0A	18.0A	
+12.0v Output	18.0+18.0A	18.0+18.0A	16.0A	16.0A	17.0A	17.0A	18.0A
+5.0v Auxiliary Output	4.0A	4.0A	4.0A	4.0A	4.0A	4.0A	
-12.0v Output	1.0A	1.0A	0.5A	0.5A	0.5A	0.5A	
Max Total Power	305W	305W	280W	280W	275W	275W	220W
Max Combined +3.3v / +5.0v Power	150W	150W	108W	108W	106W	106W	
Max Combined 12.0v Power	264W	264W	N/A	N/A	N/A	N/A	
BTUs/h (based on PSU max wattage)	1600	1300	1468	1195	1444	1171	880
3.3v CMOS Battery (type and estimated battery life)	3-V CR2032 lithium coin cell. Est. 5-year life						
RTC accuracy (time of day)	Drift 2 seconds per month						
Power Supply Fan	Sleeve bearing	Sleeve bearing	Sleeve bearing	Sleeve bearing	Ball bearing	Ball bearing	None
Power Supply Meets Requirements of:							
Energy Star 4.0 Compliant Power Supply	N	Y	N	Y	N	Y	Y

POWER, CONT.

	MT		DT		SFF		USFF
Blue Angel Compliant	N	Y	N	Y	N	Y	Y
UL Certified	✓	✓	✓	✓	✓	✓	✓
FEMP Executive Order 13221	N	Y	N	Y	N	Y	Y

AUDIO

INTEGRATED ADI 1984 HIGH DEFINITION AUDIO	MT	DT	SFF	USFF
High Definition Stereo Support	✓	✓	✓	✓
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			
Wavetable Voices				
Analog Audio	✓	✓	✓	✓
Dolby Digital				
THX				
Digital Out (S/PDIF)				
Audio Jack Impedance				
Microphone	150 kΩ			
Line-In	150 kΩ			
Line-Out	190 kΩ			
Headphone	.5 Ω			
Internal Speaker Power Rating	2 Watts			

HARD DRIVES

80GB SATA 10000 RPM HDD ¹	MT	DT	SFF	USFF
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 (range)	16MB			
Average Seek Time	4.6 ms			
Rotational Speed	10000 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:				
Temperature Range	41°F to 140°F (5°C to 60°C)			
Relative Humidity Range	20% to 80% non-condensing			
Maximum Wet Bulb Temperature	84°F (29°C)			
Altitude Range	-50 ft to 10000 ft			
Environmental Non-Operating Conditions:				
Temperature Range	-40°F to 149°F (-40°C to 65°C)			
Relative Humidity Range	10% to 90% non-condensing			
Maximum Wet Bulb Temperature	100.4°F (38°C)			
Altitude Range	-50 ft to 35000 ft			

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

HARD DRIVES, CONT.

80GB SATA 7200 RPM HDD ¹	MT	DT	SFF	USFF
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 (range)	8MB			
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:				
Temperature Range	41°F to 140°F (5°C to 60°C)			
Relative Humidity Range	20% to 80% non-condensing			
Maximum Wet Bulb Temperature	84°F (29°C)			
Altitude Range	-50 ft to 10000 ft			
Environmental Non-Operating Conditions:				
Temperature Range	-40°F to 149°F (-40°C to 65°C)			
Relative Humidity Range	10% to 90% non-condensing			
Maximum Wet Bulb Temperature	100.4°F (38°C)			
Altitude Range	-50 ft to 35000 ft			

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

HARD DRIVES, CONT.

160GB SATA 7200 RPM HDD ¹	MT	DT	SFF	USFF
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 (range)		8MB		
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)		
Environmental Operating Conditions:				
Temperature Range		41°F to 140°F (5°C to 60°C)		
Relative Humidity Range		20% to 80% non-condensing		
Maximum Wet Bulb Temperature		84°F (29°C)		
Altitude Range		-50 ft to 10000 ft		
Environmental Non-Operating Conditions:				
Temperature Range		-40°F to 149°F (-40°C to 65°C)		
Relative Humidity Range		10% to 90% non-condensing		
Maximum Wet Bulb Temperature		100.4°F (38°C)		
Altitude Range		-50 ft to 35000 ft		

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

HARD DRIVES, CONT.

250GB SATA 7200 RPM HDD ¹	MT	DT	SFF	USFF
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 (range)	8-16MB			
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:				
Temperature Range	41°F to 140°F (5°C to 60°C)			
Relative Humidity Range	20% to 80% non-condensing			
Maximum Wet Bulb Temperature	84°F (29°C)			
Altitude Range	-50 ft to 10000 ft			
Environmental Non-Operating Conditions:				
Temperature Range	-40°F to 149°F (-40°C to 65°C)			
Relative Humidity Range	10% to 90% non-condensing			
Maximum Wet Bulb Temperature	100.4°F (38°C)			
Altitude Range	-50 ft to 35000 ft			

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

OPTICAL DRIVES

DVD +/- RW	MT	DT	SFF	USFF
External Dimensions INCHES/CENTIMETERS (Of Actual Drive 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 (0.5in)/ 126.1mm (4.97in)	128.0 mm (5.04)/ 12.7mm (0.5in)/ 126.1mm (4.97in)
Weight (max) POUNDS/KILOGRAMS	800g	800g	180g	180g
Interface Type and Speed	SATA 16x	SATA 16x	PATA 8x or SATA 8x	PATA 8X
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	12V	5V	5V
DC Current	1200mA (12V)/ 900mA (5V)	1200mA (12V)/ 900mA (5V)	1000mA	1000mA
Environmental Operating Conditions:				
Operating Temperature Range	5°C to 50°C	5°C to 50°C	5°C to 50°C	5°C to 50°C
Relative Humidity Range	20% to 80% RH	20% to 80% RH	20% to 80% RH	20% to 80% RH
Maximum Wet Bulb Temperature	29°C	29°C	29°C	29°C
Altitude Range	-200 to 10600m	-200 to 10600m	-200 to 10600m	-200 to 10600m
Environmental Non-Operating Conditions:				
Operating Temperature Range	-45°C to 65°C	-45°C to 65°C	-45°C to 65°C	-45°C to 65°C
Relative Humidity Range	5% to 95% RH	5% to 95% RH	5% to 95% RH	5% to 95% RH
Maximum Wet Bulb Temperature	38°C	38°C	38°C	38°C
Altitude Range	-200 to 10600m	-200 to 10600m	-200 to 10600m	-200 to 10600m

OPTICAL DRIVES, CONT.

DVD-ROM	MT	DT	SFF	USFF
External Dimensions INCHES/CENTIMETERS (Of Actual Drive 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 (0.5in)/ 126.1mm (4.97in)	128.0 mm (5.04)/ 12.7mm (0.5in)/ 126.1mm (4.97in)
Weight (max) POUNDS/KILOGRAMS	750g	750g	175g	175g
Interface Type and Speed	SATA 48x	SATA 48x	PATA 24x or SATA 24x	PATA 24x
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
Power Source				
DC Power Requirements	12V	12V	5V	5V
DC Current	1200mA (12V)/ 900mA (5V)	1200mA (12V)/ 900mA (5V)	800mA	800mA
Environmental Operating Conditions:				
Operating Temperature Range	5°C to 50°C	5°C to 50°C	5°C to 50°C	5°C to 50°C
Relative Humidity Range	20% to 80% RH	20% to 80% RH	20% to 80% RH	20% to 80% RH
Maximum Wet Bulb Temperature	29°C	29°C	29°C	29°C
Altitude Range	-200 to 10600m	-200 to 10600m	-200 to 10600m	-200 to 10600m
Environmental Non-Operating Conditions:				
Operating Temperature Range	-45°C to 65°C	-45°C to 65°C	-45°C to 65°C	-45°C to 65°C
Relative Humidity Range	5% to 95% RH	5% to 95% RH	5% to 95% RH	5% to 95% RH
Maximum Wet Bulb Temperature	38°C	38°C	38°C	38°C
Altitude Range	-200 to 10600m	-200 to 10600m	-200 to 10600m	-200 to 10600m

OPTICAL DRIVES, CONT.

COMBO CD-RW	MT	DT	SFF	USFF
External Dimensions INCHES/CENTIMETERS (Of Actual Drive 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 (0.5in)/ 126.1mm (4.97in)	128.0 mm (5.04)/ 12.7mm (0.5in)/ 126.1mm (4.97in)
Weight (max) POUNDS/KILOGRAMS	750g	750g	175g	175g
Interface Type and Speed	SATA 48x	SATA 48x	PATA 24x or SATA 24x	PATA 24x
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	12V	5V	5V
DC Current	1200mA (12V)/ 900mA (5V)	1200mA (12V)/ 900mA (5V)	900mA	900mA
Environmental Operating Conditions:				
Operating Temperature Range	5°C to 50°C	5°C to 50°C	5°C to 50°C	5°C to 50°C
Relative Humidity Range	20% to 80% RH	20% to 80% RH	20% to 80% RH	20% to 80% RH
Maximum Wet Bulb Temperature	29°C	29°C	29°C	29°C
Altitude Range	-200 to 10600m	-200 to 10600m	-200 to 10600m	-200 to 10600m
Environmental Non-Operating Conditions:				
Operating Temperature Range	-45°C to 65°C	-45°C to 65°C	-45°C to 65°C	-45°C to 65°C
Relative Humidity Range	5% to 95% RH	5% to 95% RH	5% to 95% RH	5% to 95% RH
Maximum Wet Bulb Temperature	38°C	38°C	38°C	38°C
Altitude Range	-200 to 10600m	-200 to 10600m	-200 to 10600m	-200 to 10600m

OPTICAL DRIVES, CONT.

CD-ROM	MT	DT	SFF	USFF
External Dimensions INCHES/CENTIMETERS (Of Actual Drive 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 (0.5in)/ 126.1mm (4.97in)	128.0 mm (5.04)/ 12.7mm (0.5in)/ 126.1mm (4.97in)
Weight (max) POUNDS/KILOGRAMS	750g	750g	157g	157g
Interface Type and Speed	SATA 48x	SATA 48x	PATA 24x	PATA 24x
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	48x CD	48x CD	24x CD	24x CD
Power Source				
DC Power Requirements	12V	12V	5V	5V
DC Current	1200mA (12V)/ 900mA (5V)	1200mA (12V)/ 900mA (5V)	800mA	800mA
Environmental Operating Conditions:				
Operating Temperature Range	5°C to 50°C	5°C to 50°C	5°C to 50°C	5°C to 50°C
Relative Humidity Range	20% to 80% RH	20% to 80% RH	20% to 80% RH	20% to 80% RH
Maximum Wet Bulb Temperature	29°C	29°C	29°C	29°C
Altitude Range	-200 to 10600m	-200 to 10600m	-200 to 10600m	-200 to 10600m
Environmental Non-Operating Conditions:				
Operating Temperature Range	-45°C to 65°C	-45°C to 65°C	-45°C to 65°C	-45°C to 65°C
Relative Humidity Range	5% to 95% RH	5% to 95% RH	5% to 95% RH	5% to 95% RH
Maximum Wet Bulb Temperature	38°C	38°C	38°C	38°C
Altitude Range	-200 to 10600m	-200 to 10600m	-200 to 10600m	-200 to 10600m

More details for optical drives can be found at:

<http://support.dell.com/support/systemsinfo/documentation.aspx?c=us&l=en&s=gen&-cat=7>

BIOS DEFAULTS

BIOS FACTORY DEFAULTS (ALL CHASSIS UNLESS NOTED)	
Feature Setting	Default Value
DRIVES	
SATA-0:	Depends on chassis and HDDs installed
SATA-1:	Depends on chassis and HDDs installed
SATA-2 ¹ :	Depends on chassis and HDDs installed
SATA-3 ² :	Depends on chassis and HDDs installed
External SATA ^{3,4} :	On
SATA Operation:	RAID Autodetect/AHCI
SMART Reporting:	Off
ONBOARD DEVICES	
Integrated NIC:	On
Integrated Audio:	On
USB Controller:	On
Rear Quad USB:	On
Rear Dual USB:	On
Front USB:	On
PCI Slots ³ :	On
LPT Port Mode:	PS/2
LPT Port Address:	378h
Serial Port #1:	Auto
VIDEO	
Primary Video ³ :	Auto

BIOS DEFAULTS, CONT.

BIOS FACTORY DEFAULTS (ALL CHASSIS UNLESS NOTED)	
Feature Setting	Default Value
PERFORMANCE	
Multiple CPU Core:	On
SpeedStep:	Off
Virtualization:	Off
VT for Direct I/O:	Off
Limit CPUID Value:	Off
HDD Acoustic Mode:	Bypass
SECURITY	
Admin Password:	(none)
System Password:	(none)
SATA-0 Password:	(none)
SATA-1 Password:	(none)
SATA-2 Password ¹ :	(none)
SATA-3 Password ² :	(none)
External SATA Password ^{3,4} :	(none)
Password Changes:	Unlocked
TPM Security:	Off
Execute Disable:	On
Computrace [®] :	Deactivate

BIOS DEFAULTS, CONT.

BIOS FACTORY DEFAULTS (ALL CHASSIS UNLESS NOTED)	
Feature Setting	Default Value
POWER MANAGEMENT	
AC Recovery:	Off
Auto Power On:	Off
Auto Power Time:	12:00 AM
Low Power Mode:	Off
Remote Wake Up:	Off
Suspend Mode:	S3
MAINTENANCE	
Service Tag:	System specific
SERR Message:	On
Load Defaults:	Cancel
Event Log:	Mark All Entries
POST BEHAVIOR	
Fast Boot:	On
Numlock Key:	On
POST Hotkeys:	Setup & Boot Menu
MEBx Hotkey:	On
Keyboard Errors:	Report

¹ Not present on USFF or SFF² Only present on MT³ Not present on USFF⁴ External SATA option only becomes exposed if eSATA dongle is attached to eSATA port.

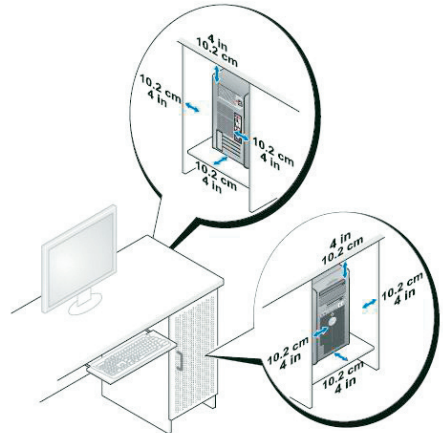
CHASSIS ENCLOSURE AND VENTILATION REQUIREMENTS

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.



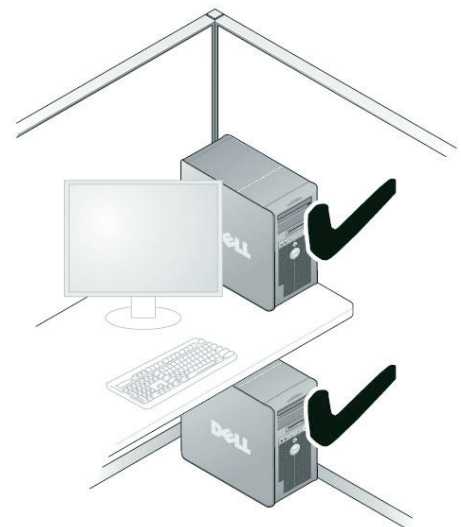
RECOMMENDED ENCLOSURE

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/content/topics/global.aspx/corp/environment/en/prod_datasheets

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 755 MT		
COMPONENT	TYPICAL CONFIGURATION	HIGH-END CONFIGURATION
CPU	E4500	E6850
Memory	1GB DDRII 667MHz	2GB DDRII 800MHz
HDD (#, capacity)	80GB 7200 RPM SATA	2 x 160GB 7200 RPM SATA
RMSD	DVD/CD-RW Combo	DVD/DVD+/-R
Graphics Adapter	Integrated Adapter	ATI 2400 Pro

The Declared Noise Emission in accordance with ISO 9296 for the Dell Optiplex 755 MT is as follows¹: (all values $L_{WA,d}$ expressed in bels²; 1 bel=10 decibels, re 10^{-12} Watts).

OPTIPLEX 755 MT		
OPERATING MODE	TYPICAL CONFIGURATION DECLARED SOUND POWER ($L_{WA,d}$)	HIGH-END CONFIGURATION DECLARED SOUND POWER ($L_{WA,d}$)
Idle	3.7	3.8
HDD Operating	3.8	3.8
ODD Operating	5.0	5.0
90% CPU	3.7	4.1

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, CONT.

The Declared A-weighted Sound Pressure Level in decibels (re 2×10^{-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 follows¹:

OPTIPLEX 755 MT						
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	28	23	22	31	26	22
HDD Operating	29	24	22	31	26	22
ODD Operating	42	36	33	42	36	34
90% CPU	29	24	22	34	29	25

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.

ACOUSTIC NOISE EMISSION INFORMATION, CONT.

OPTIPLEX 755 DT		
COMPONENT	TYPICAL CONFIGURATION	HIGH-END CONFIGURATION
CPU	E4500	E6850
Memory	1GB DDRII 667MHz	2GB DDRII 800MHz
HDD (#, capacity)	80GB 7200 RPM SATA	80GB 10,000 RPM SATA
RMSD	DVD/CD-RW Combo	DVD/CD-RW Combo
Graphics Adapter	Integrated Adapter	ATI 2400 Pro

The Declared Noise Emission in accordance with ISO 9296 for the Dell Optiplex 755 DT is as follows³: (all values L_{WAd} expressed in bels⁴; 1 bel=10 decibels, re 10^{-12} Watts)

OPTIPLEX 755 DT		
OPERATING MODE	TYPICAL CONFIGURATION DECLARED SOUND POWER (L_{WAd})	HIGH-END CONFIGURATION DECLARED SOUND POWER (L_{WAd})
Idle	3.7	4.0
HDD Operating	3.8	4.1
ODD Operating	5.2	5.1
90% CPU	3.7	4.4

The Declared A-weighted Sound Pressure Level in decibels (re 2×10^{-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 follows³:

OPTIPLEX 755 DT						
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	27	22	23	32	27	24
HDD Operating	28	23	23	33	28	25
ODD Operating	43	37	36	42	38	33
90% CPU	27	22	22	36	31	27

³ 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 spinning. 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.

⁴ Declared Sound Power rounded to nearest tenth of a bel per ISO 9296 section 4.4.2

ACOUSTIC NOISE EMISSION INFORMATION, CONT.

OPTIPLEX 755 SFF		
COMPONENT	TYPICAL CONFIGURATION	HIGH-END CONFIGURATION
CPU	E4500	E6850
Memory	1GB DDRII 667MHz	2GB DDRII 800MHz
HDD (#, capacity)	80GB 7200 RPM SATA	160GB 7200 RPM SATA
RMSD	DVD/CD-RW Combo	DVD/DVD+/-R
Graphics Adapter	Integrated Adapter	ATI 2400 Pro

The Declared Noise Emission in accordance with ISO 9296 for the Dell Optiplex 755 SFF is as follows⁵: (all values L_{Wad} expressed in bels⁵; 1 bel=10 decibels, re 10^{-12} Watts)

OPTIPLEX 755 SFF		
OPERATING MODE	TYPICAL CONFIGURATION DECLARED SOUND POWER (L_{Wad})	HIGH-END CONFIGURATION DECLARED SOUND POWER (L_{Wad})
Idle	4.0	4.3
HDD Operating	4.1	4.3
ODD Operating	5.0	5.2
90% CPU	4.1	4.5

The Declared A-weighted Sound Pressure Level in decibels (re 2×10^{-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 follows⁵:

OPTIPLEX 755 SFF						
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	31	26	26	35	31	26
HDD Operating	31	26	26	35	31	26
ODD Operating	38	33	30	44	39	33
90% CPU	32	27	27	36	32	28

⁵ 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 spinning. 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.

⁶ Declared Sound Power rounded to nearest tenth of a bel per ISO 9296 section 4.4.2