DELL OptiPlex 9020 58.4 cm (23") 1920 x 1080 pixels 4th gen Intel® Core™ i5 8 GB DDR3-SDRAM 500 GB HDD All-in-One PC Windows 7 Professional Black, Silver

Brand : DELL   **Product family:** OptiPlex   **Product code:** 9020-7419

Product name : 9020

23" WLED 1920x1080, Intel Core i5-4670S 3.1GHz (6M Cache, up to 3.80 GHz), 8GB DDR3, 500GB HDD, DVD±RW, Intel HD 4600, Gigabit Ethernet, WLAN, 4 x USB 3.0, 4 x USB 2.0, D-Sub, HDMI, 200 W, Black, Windows 7 Professional 64-bit
DELL OptiPlex 9020. Product type: All-in-One PC. Display diagonal: 58.4 cm (23"), HD type: Full HD, Display resolution: 1920 x 1080 pixels. Processor family: 4th gen Intel® Core™ i5, Processor frequency: 3.1 GHz. Internal memory: 8 GB, Internal memory type: DDR3-SDRAM. Total storage capacity: 500 GB, Storage media: HDD. On-board graphics adapter model: Intel® HD Graphics 4600. Optical drive type: DVD±RW. Operating system installed: Windows 7 Professional. Product colour: Black, Silver

Display	
Display diagonal *	58.4 cm (23")
Display resolution *	1920 x 1080 pixels
Touchscreen *	✘
Full HD	✔
HD type *	Full HD
LED backlight	✔
Native aspect ratio	16:9

Processor	
Processor manufacturer *	Intel
Processor model *	i5-4670S
Processor family *	4th gen Intel® Core™ i5
Processor frequency *	3.1 GHz
Processor boost frequency	3.8 GHz
Processor cores	4
Processor threads	4
Processor cache	6 MB
Processor cache type	Smart Cache
64-bit computing	✔
Thermal Design Power (TDP)	65 W
PCI Express slots version	3.0
Processor socket	LGA 1150 (Socket H3)
Processor lithography	22 nm
Processor operating modes	64-bit
Stepping	C0
Bus type	DMI2
Number of QPI links	1
Processor codename	Haswell
Processor series	Intel Core i5-4600 Desktop series
FSB Parity	✘
Maximum number of PCI Express lanes	16

Performance	
Product type *	All-in-One PC
Motherboard chipset	Intel® Q87

Software	
Operating system architecture	64-bit
Operating system installed *	Windows 7 Professional

Processor special features	
Intel® Smart Response Technology	✘
Intel® Turbo Boost Technology	2.0
Intel® Hyper Threading Technology (Intel® HT Technology)	✘
Intel® My WiFi Technology (Intel® MWT)	✔
Intel® Identity Protection Technology (Intel® IPT)	✔
Intel® Anti-Theft Technology (Intel® AT)	✔
Intel® Rapid Start Technology	✘
Intel Smart Connect Technology	✘
Intel® Small Business Advantage (Intel® SBA)	✘
Intel® Wireless Display (Intel® WiDi)	✔
Enhanced Intel SpeedStep Technology	✔
Intel® Quick Sync Video Technology	✔
Intel® Clear Video HD Technology (Intel® CVT HD)	✔
Intel Clear Video Technology	✘
Intel® Insider™	✔
Intel® InTru™ 3D Technology	✔
Intel Flex Memory Access	✘
Intel® AES New Instructions (Intel® AES-NI)	✔

Processor

PCI Express configurations	1x16,2x8,1x8+2x4
Processor code	SR14K
Tcase	71.35 °C
Maximum internal memory supported by processor	32 GB
Conflict-Free processor	✓
Memory types supported by processor	DDR3-SDRAM
Memory clock speeds supported by processor	1333,1600 MHz
Memory bandwidth supported by processor (max)	25.6 GB/s
Memory channels supported by processor	Dual
ECC supported by processor	✗

Memory

Internal memory *	8 GB
Internal memory type	DDR3-SDRAM
Maximum internal memory *	16 GB
Memory slots	2
Memory slots type	SO-DIMM
Memory clock speed	1600 MHz

Storage

Total storage capacity *	500 GB
Storage media *	HDD
Number of storage drives installed	1
Number of HDDs installed	1
HDD speed	7200 RPM
HDD interface	SATA
Optical drive type *	DVD±RW
Card reader integrated	✓

Graphics

Discrete graphics adapter model *	Not available
On-board graphics adapter *	✓
On-board graphics adapter family	Intel® HD Graphics
On-board graphics adapter model *	Intel® HD Graphics 4600
On-board graphics adapter base frequency	350 MHz
On-board graphics adapter dynamic frequency (max)	1200 MHz
Maximum on-board graphics adapter memory	1.74 GB
Number of displays supported (on-board graphics)	3
On-board graphics adapter DirectX version	11.1
On-board graphics adapter ID	0x412

Audio

Built-in speaker(s) *	✓

Network

Wi-Fi *	✓
Ethernet LAN *	✓
Bluetooth *	✗

Ports & interfaces

USB 2.0 ports quantity *	4
USB 3.2 Gen 1 (3.1 Gen 1) Type-A ports quantity *	4
HDMI ports quantity *	1
VGA (D-Sub) ports quantity	1
Headphone outputs	1

Processor special features

Intel Trusted Execution Technology	✓
Intel Enhanced Halt State	✓
Intel VT-x with Extended Page Tables (EPT)	✓
Intel Demand Based Switching	✗
Intel® Secure Key	✓
Intel TSX-NI	✗
Intel Stable Image Platform Program (SIPP)	✓
Intel® OS Guard	✓
Intel® Clear Video Technology for Mobile Internet Devices (Intel CVT for MID)	✗
Intel 64	✓
Execute Disable Bit	✓
Idle States	✓
Thermal Monitoring Technologies	✓
Processor package size	37.5 x 37.5 mm
Supported instruction sets	AVX 2.0,SSE4.1,SSE4.2
Scalability	1S
CPU configuration (max)	1
Embedded options available	✗
Graphics & IMC lithography	22 nm
Thermal solution specification	PCG 2013C
Intel Virtualization Technology for Directed I/O (VT-d)	✓
Intel Identity Protection Technology version	1.00
Intel Stable Image Platform Program (SIPP) version	1.00
Intel Secure Key Technology version	1.00
Intel Virtualization Technology (VT-x)	✓
Intel Small Business Advantage (SBA) version	1.00
Intel TSX-NI version	0.00
Intel Dual Display Capable Technology	✓
Intel FDI Technology	✓
Intel Rapid Storage Technology	✗
Intel Fast Memory Access	✗
Processor ARK ID	75049

Weight & dimensions

Width (with stand)	574 mm
Depth (with stand)	68 mm
Height (with stand)	386 mm
Weight (with stand)	7.6 kg

Sustainability

Sustainability certificates	RoHS, EPEAT Gold, ENERGY STAR

Packaging content

Mouse included	✓
Keyboard included	✓
AC adapter included	✓

Other features

Storage drive interface	Serial ATA
Autonomy mode	✗

Ports & interfaces	
Microphone in	✔
PS/2 ports quantity	2
Design	
Product colour *	Black, Silver