DELL OptiPlex 9020M Intel® Core™ i5 i5-4590T 8 GB DDR3-SDRAM 128 GB SSD Windows 7 Professional Mini PC Black

Brand : DELL

Product family: OptiPlex

Product code: SSO9020MW7P0075

Product name : 9020M

Intel Core i5-4590T, 8GB (DDR3), 128GB (SSD), Intel HD Graphics 4600, Windows 7 Professional (64 bit) / Windows 8.1 Pro, 802.11 a/b/g/n/ac, Bluetooth 4.0 LE, 6 x USB 3.0, 1 x VGA, 1 x DisplayPort, 1 x LAN, 1.28 kg

DELL OptiPlex 9020M. Processor frequency: 2 GHz, Processor family: Intel® Core™ i5, Processor model: i5-4590T. Internal memory: 8 GB, Internal memory type: DDR3-SDRAM, Memory clock speed: 1600 MHz. Total storage capacity: 128 GB, Storage media: SSD. On-board graphics card model: Intel® HD Graphics 4600. Operating system installed: Windows 7 Professional, Operating system architecture: 64-bit. Power supply: 65 W. Chassis type: Mini PC. Product type: Mini PC. Product color: Black

Processor		Processor special features	
Processor manufacturer *	Intel	Intel® Wireless Display (Intel® WiDi)	✔
Processor family *	Intel® Core™ i5	Intel 64	✔
Processor generation	4th gen Intel® Core™ i5	Enhanced Intel SpeedStep Technology	✔
Processor model *	i5-4590T	Embedded options available	✔
Processor cores	4	Intel® Built-in Visuals Technology	✔
Processor threads	4	Intel® InTru™ 3D Technology	✔
Processor boost frequency	3 GHz	Intel® Insider™	✔
Processor frequency *	2 GHz	Intel® Clear Video HD Technology (Intel® CVT HD)	✔
Processor socket	LGA 1150 (Socket H3)	Intel Clear Video Technology	✘
Processor cache	6 MB	Intel VT-x with Extended Page Tables (EPT)	✔
Processor cache type	Smart Cache	Intel TSX-NI	✘
System bus rate	5 GT/s	Idle States	✔
Bus type	DMI	Thermal Monitoring Technologies	✔
FSB Parity	✘	Intel Stable Image Platform Program (SIPP)	✔
Processor lithography	22 nm	Intel® AES New Instructions (Intel® AES-NI)	✔
Processor operating modes	32-bit, 64-bit	Intel® Secure Key	✔
Processor series	Intel Core i5-4500 Desktop Series	Intel® OS Guard	✔
Processor codename	Haswell	Intel Trusted Execution Technology	✔
Thermal Design Power (TDP)	35 W	Execute Disable Bit	✔
Tcase	66.35 °C	Intel HD Graphics	✔
PCI Express slots version	3.0	Intel FDI Technology	✔
Maximum number of PCI Express lanes	16	Intel Flex Memory Access	✘
PCI Express configurations	1x16, 2x8, 1x8+2x4		
Number of processors installed	1		
Stepping	C0		
Maximum internal memory supported by processor	32 GB		
Memory types supported by processor	DDR3-SDRAM		

Processor

Memory clock speeds supported by processor	1333,1600 MHz
Memory bandwidth supported by processor (max)	25.6 GB/s
ECC supported by processor	✘

Memory

Internal memory *	8 GB
Maximum internal memory *	16 GB
Internal memory type	DDR3-SDRAM
Memory layout (slots x size)	1 x 8 GB
Memory slots	2x DIMM
Memory clock speed	1600 MHz
Non-ECC	✔
Memory channels	Dual-channel

Storage

Total storage capacity *	128 GB
Storage media *	SSD
Optical drive type *	✘
Number of SSDs installed	1
SSD capacity	128 GB
Card reader integrated	✘

Graphics

On-board graphics card *	✔
Discrete graphics card model *	Not available
On-board graphics card family	Intel® HD Graphics
On-board graphics card model *	Intel® HD Graphics 4600
On-board graphics card base frequency	350 MHz
On-board graphics card dynamic frequency (max)	1150 MHz
Maximum on-board graphics card memory	1.024 GB
Number of displays supported (on-board graphics)	3
On-board graphics card DirectX version	11.1
On-board graphics card ID	0x412

Network

Ethernet LAN *	✔
Ethernet LAN data rates	10,100,1000 Mbit/s
Cabling technology	10/100/1000Base-T(X)
Wi-Fi *	✔
Top Wi-Fi standard	Wi-Fi 5 (802.11ac)
Wi-Fi standards	802.11a, Wi-Fi 5 (802.11ac), 802.11b, 802.11g, Wi-Fi 4 (802.11n)
Bluetooth	✔
Bluetooth version	4.0
Bluetooth Low Energy (BLE)	✔

Ports & interfaces

USB 3.2 Gen 1 (3.1 Gen 1) Type-A ports quantity *	6
VGA (D-Sub) ports quantity	1
DVI port	✘
DisplayPorts quantity	1
Ethernet LAN (RJ-45) ports	1
Microphone in	✔
Headphone outputs	1

Processor special features

Intel Fast Memory Access	✘
Intel® Smart Cache	✔
Intel Enhanced Halt State	✔
Intel Demand Based Switching	✘
Intel® Clear Video Technology for Mobile Internet Devices (Intel CVT for MID)	✘
Processor package size	37.5 x 37.5 mm
Supported instruction sets	AVX 2.0, SSE4.1, SSE4.2
Processor code	SR1S6
Scalability	1S
CPU configuration (max)	1
Graphics & IMC lithography	22 nm
Thermal solution specification	PCG 2013A
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 Rapid Storage Technology	✘
Processor ARK ID	78928
Intel® Turbo Boost Technology	2.0
Intel® Hyper Threading Technology (Intel® HT Technology)	✘
Intel® Quick Sync Video Technology	✔
Intel® My WiFi Technology (Intel® MWT)	✔
Intel® Identity Protection Technology (Intel® IPT)	✔
Intel® Anti-Theft Technology (Intel® AT)	✔
Conflict-Free processor	✔

Power

Power supply *	65 W
Power supply input voltage	100 - 240 V
Power supply input frequency	50 - 60 Hz

Operational conditions

Operating temperature (T-T)	5 - 35 °C
Storage temperature (T-T)	-40 - 65 °C
Operating relative humidity (H-H)	20 - 80%
Storage relative humidity (H-H)	5 - 95%
Operating altitude	-15.2 - 3048 m
Non-operating altitude	-15.2 - 10668 m

Certificates

Compliance certificates	RoHS

Sustainability

Sustainability certificates	ENERGY STAR

Weight & dimensions

Width *	36 mm
Depth *	176 mm
Height *	182 mm

Design

Chassis type *	Mini PC
Volume	1.2 L
Placement supported	Horizontal/Vertical
Water cooling system	✘
Number of 2.5" bays	1
Product color *	Black

Performance

Motherboard chipset	Intel® Q87
Audio system	HD
Password protection	✔
Product type *	Mini PC

Software

Operating system architecture	64-bit
Operating system language	English
Recovery operating system	Windows 8.1 Pro
Operating system installed *	Windows 7 Professional
Trial software	Microsoft Office

Processor special features

Intel® Small Business Advantage (Intel® SBA)	✔

Weight & dimensions

Weight *	1.28 kg

Packaging content

Mouse included	✘
Keyboard included	✘
Cables included	AC
Manual	✔
AC adapter included	✔

Display

Display included *	✘

Other features

Intel® Virtualization Technology (Intel® VT)	VT-d, VT-x
Intel segment tagging	Enterprise, Small Business

Catalog Object Cloud