Lenovo

Lenovo IdeaPad G510 Intel® Core™ i5 i5-4200M Laptop 39.6 cm (15.6") 6 GB DDR3-SDRAM 1 TB HDD AMD Radeon HD 8570M Wi-Fi 4 (802.11n) Windows 8 Black

Brand : Lenovo   **Product family:** IdeaPad   **Product code:** 59-409057

Product name : G510

15.6" (1366 x 768, LED), Intel Core i5-4200M, 6GB (DDR3), 1TB (HDD), DVD-RW, AMD Radeon HD 8570M (2GB, GBDDR3), 802.11 b/g/n, Bluetooth 4.0, 1 x USB 2.0, 2 x USB 3.0, 1 x VGA, 1 x HDMI, Windows 8, 2.6 kg

Lenovo IdeaPad G510. Product type: Laptop, Form factor: Clamshell. Processor family: Intel® Core™ i5, Processor: i5-4200M, Processor frequency: 2.5 GHz. Display diagonal: 39.6 cm (15.6"), Display resolution: 1366 x 768 pixels. Internal memory: 6 GB, Internal memory type: DDR3-SDRAM. Total storage capacity: 1 TB, Storage media: HDD, Optical drive: DVD-RW. On-board graphics card model: Intel® HD Graphics 4600. Operating system installed: Windows 8. Product colour: Black

Design

Product type *	Laptop
Product colour *	Black
Form factor *	Clamshell

Display

Display diagonal *	39.6 cm (15.6")
Display resolution *	1366 x 768 pixels
Touchscreen *	✗
LED backlight	✔
Native aspect ratio	16:9
Display surface	Gloss
Display brightness	200 cd/m²

Processor

Processor manufacturer *	Intel
Processor family *	Intel® Core™ i5
Processor generation	4th gen Intel® Core™ i5
Processor *	i5-4200M
Processor number of cores	2
Processor threads	4
Processor boost frequency	3.1 GHz
Processor frequency *	2.5 GHz
System bus data transfer rate	5 GT/s
Processor cache	3 MB
Processor cache type	Smart Cache
Processor socket	PGA946
Processor lithography	22 nm
Processor operating modes	64-bit
Processor series	Intel Core i5-4200 Mobile series
Processor codename	Haswell
Bus type	DMI
FSB Parity	✗
Stepping	C0
Thermal Design Power (TDP)	37 W
Tjunction	100 °C
Maximum number of PCI Express lanes	16
PCI Express slots version	3.0
PCI Express configurations	1x16, 2x8, 1x8+2x4

Ports & interfaces

ExpressCard slot	✗
CardBus PCMCIA slot type	✗
SmartCard slot	✗

Performance

Chipset	Intel® HM86

Keyboard

Pointing device	Touchpad
Numeric keypad *	✔
Full-size keyboard	✔
Windows keys	✔

Software

Operating system architecture	64-bit
Operating system installed *	Windows 8

Processor special features

Intel Wireless Display (WiDi) Technology	✔
Intel My WiFi Technology	✗
Intel Smart Connect Technology	✗
Intel Anti-Theft Technology	✔
Intel® Rapid Start Technology	✗
Intel® Smart Response Technology	✗
Intel Identity Protection Technology	✔
Intel Hyper-Threading Technology	✔
Intel Turbo Boost Technology	2.0
Intel® Small Business Advantage (Intel® SBA)	✗
Intel Matrix Storage Technology	✗
Intel HD Audio Technology	✗
Intel Active Management Technology	✗
Enhanced Intel SpeedStep Technology	✔
Intel Clear Video HD Technology	✔
Intel Clear Video Technology	✗

Processor

ECC supported by processor	✘

Memory

Internal memory *	6 GB
Internal memory type	DDR3-SDRAM
Memory clock speed	1600 MHz
Memory form factor	SO-DIMM
Memory layout (slots x size)	1 x 2 + 1 x 4 GB
Memory slots	2x SO-DIMM
Memory, maximum *	16 GB

Storage

Total storage capacity *	1 TB
Storage media *	HDD
Number of HDDs installed	1
Hard drive capacity	1 TB
Hard drive interface	SATA
Hard drive rotational speed	5400 RPM
Hard drive size	2.5"
Optical drive *	DVD-RW
Card reader integrated	✔
Compatible memory cards	MMC, SD

Graphics

Discrete graphics card model *	AMD Radeon HD 8570M
Discrete graphics card memory	2 GB
Discrete graphics memory type	GDDR3
On-board graphics card *	✔
Discrete graphics card *	✔
On-board graphics card family	Intel® HD Graphics
On-board graphics card model *	Intel® HD Graphics 4600
On-board graphics card base frequency	400 MHz
On-board graphics card dynamic frequency (max)	1150 MHz
Maximum on-board graphics card memory	1.74 GB
On-board graphics card DirectX version	11.1
On-board graphics card ID	0x416
Number of discrete graphics cards supported	1
Number of discrete graphics cards installed	1

Audio

Audio system	Dolby Advanced Audio
Number of built-in speakers	2
Built-in microphone	✔

Camera

Front camera	✔
Front camera resolution	1280 x 720 pixels

Network

Wi-Fi	✔
Top Wi-Fi standard *	Wi-Fi 4 (802.11n)
Wi-Fi standards	802.11b, 802.11g, Wi-Fi 4 (802.11n)
Ethernet LAN connection	✔
Ethernet LAN data rates	10,100 Mbit/s
Bluetooth	✔
Bluetooth version	4.0

Processor special features

Intel® InTru™ 3D Technology	✔
Intel® Insider™	✔
Intel® Quick Sync Video Technology	✔
Intel Flex Memory Access	✘
Intel® Smart Cache	✔
Intel AES New Instructions	✔
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 Clear Video Technology for MID	✘
Intel 64	✔
Execute Disable Bit	✔
Idle States	✔
Thermal Monitoring Technologies	✔
Processor package size	37.5 x 37.5 x 4.7 mm
Supported instruction sets	AVX 2.0, SSE4.1, SSE4.2
Processor code	SR1HA
CPU configuration (max)	1
Embedded options available	✘
Intel Virtualization Technology for Directed I/O (VT-d)	✘
Intel Identity Protection Technology version	1.00
Intel Secure Key Technology version	1.00
Intel TSX-NI version	0.00
Intel Virtualization Technology (VT-x)	✔
Intel Dual Display Capable Technology	✘
Intel FDI Technology	✘
Intel Rapid Storage Technology	✘
Intel Fast Memory Access	✘
Processor ARK ID	76348
Conflict-Free processor	✔

Battery

Battery technology	Lithium-Ion (Li-Ion)
Number of battery cells	6
Battery life (max)	5 h

Power

DC-in jack	✔

Security

Cable lock slot	✔
Cable lock slot type	Kensington

Weight & dimensions

Width	377 mm
Depth	250 mm
Height	34 mm
Weight *	2.6 kg

Packaging content

AC adapter included *	✔
Manual	✔

Ports & interfaces

USB 2.0 ports quantity *	1
USB 3.2 Gen 1 (3.1 Gen 1) Type-A ports quantity *	2
Ethernet LAN (RJ-45) ports	1
HDMI ports quantity *	1
DVI port	✘
VGA (D-Sub) ports quantity	1
S/PDIF out port	✘
Microphone in	✘
Combo headphone/mic port	✔
Docking connector	✘

Packaging content

Power cord included	✔

Other features

Maximum internal memory (64-bit)	16 GB
Intel Virtualization Technology	VT-x

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