# Lenovo ThinkPad L440 Intel® Core™ i5 i5-4210M Laptop 35.6 cm (14") HD 4 GB DDR3L-SDRAM 500 GB HDD Windows 8 Pro

**Brand :** Lenovo          **Product family:** ThinkPad          **Product code:** 20ASA1QQIG

**Product name :** L440

14" HD LED 1366 x 768, Intel Core i5-4210M (3M Cache, 2.6 GHz), 4GB DDR3L, 500GB HDD, Intel HD Graphics 4600, WLAN, Gigabit Ethernet, Windows 8 Pro 64-bit
Lenovo ThinkPad L440. Product type: Laptop, Form factor: Clamshell. Processor family: Intel® Core™ i5, Processor: i5-4210M, Processor frequency: 2.6 GHz. Display diagonal: 35.6 cm (14"), HD type: HD, Display resolution: 1366 x 768 pixels. Internal memory: 4 GB, Internal memory type: DDR3L-SDRAM. Total storage capacity: 500 GB, Storage media: HDD, Optical drive type: DVD Super Multi DL. On-board graphics card model: Intel® HD Graphics 4600. Operating system installed: Windows 8 Pro

## Design

| | |
|---|---|
| Product type * | Laptop |
| Form factor * | Clamshell |
| Housing material | Acrylonitrile butadiene styrene (ABS), Plastic, Polycarbonate (PC) |
| Market positioning | High performance |

## Display

| | |
|---|---|
| Display diagonal * | 35.6 cm (14") |
| Display resolution * | 1366 x 768 pixels |
| Touch screen * | ✖ |
| HD type | HD |
| LED backlight | ✔ |
| Native aspect ratio | 16:9 |
| Screen shape | Flat |

## Processor

| | |
|---|---|
| Processor manufacturer * | Intel |
| Processor family * | Intel® Core™ i5 |
| Processor generation | 4th gen Intel® Core™ i5 |
| Processor * | i5-4210M |
| Processor number of cores | 2 |
| Processor threads | 4 |
| Processor boost frequency | 3.2 GHz |
| Processor frequency * | 2.6 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 |

## Ports & interfaces

| | |
|---|---|
| Combo headphone/mic port | ✔ |
| Docking connector | ✔ |
| ExpressCard slot | ✖ |
| CardBus PCMCIA slot type | ✖ |
| SmartCard slot | ✖ |
| USB Sleep-and-Charge ports | 1 |

## Performance

| | |
|---|---|
| Motherboard chipset | Intel® QM87 |

## Keyboard

| | |
|---|---|
| Pointing device | ThinkPad UltraNav |
| Numeric keypad * | ✖ |
| Spill-resistant keyboard | ✔ |
| Full-size keyboard | ✖ |
| Windows keys | ✔ |

## Software

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

## Processor special features

| | |
|---|---|
| Intel Wireless Display (WiDi) Technology | ✔ |
| Intel Anti-Theft Technology | ✔ |
| Intel Identity Protection Technology | ✔ |
| Intel Hyper-Threading Technology | ✔ |
| Intel Turbo Boost Technology | 2.0 |
| Enhanced Intel SpeedStep Technology | ✔ |

## Processor

| | |
|---|---|
| Processor codename | Haswell |
| Bus type | DMI |
| 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 |
| ECC supported by processor | ✘ |

## Memory

| | |
|---|---|
| Internal memory * | 4 GB |
| Internal memory type | DDR3L-SDRAM |
| Memory clock speed | 1600 MHz |
| Memory form factor | SO-DIMM |
| Memory layout (slots x size) | 1 x 4 GB |
| Memory slots | 2x SO-DIMM |
| Maximum internal memory * | 16 GB |

## Storage

| | |
|---|---|
| Total storage capacity * | 500 GB |
| Storage media * | HDD |
| Number of hard drives installed | 1 |
| Hard drive capacity | 500 GB |
| Hard drive rotational speed | 7200 RPM |
| Hard drive size | 2.5" |
| Optical drive type * | DVD Super Multi DL |
| Card reader integrated | ✔ |
| Compatible memory cards | MMC, SD, SDHC, SDXC |

## Graphics

| | |
|---|---|
| Discrete graphics card model * | Not available |
| On-board graphics card * | ✔ |
| Discrete graphics card * | ✘ |
| 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 |

## Audio

| | |
|---|---|
| Number of built-in speakers | 2 |
| Built-in microphone | ✔ |

## Camera

| | |
|---|---|
| Front camera | ✔ |

## Network

| | |
|---|---|
| Wi-Fi | ✔ |
| Wi-Fi standards | 802.11b, 802.11g, Wi-Fi 4 (802.11n) |
| Ethernet LAN connection | ✔ |
| Ethernet LAN data rates | 10,100,1000 Mbit/s |
| Bluetooth | ✔ |
| Bluetooth version | 4.0 |

## Ports & interfaces

| | |
|---|---|
| USB 2.0 ports quantity * | 3 |

## Processor special features

| | |
|---|---|
| Intel Clear Video HD Technology | ✔ |
| Intel® InTru™ 3D Technology | ✔ |
| Intel® Insider™ | ✔ |
| Intel® Quick Sync Video Technology | ✔ |
| Intel® Smart Cache | ✔ |
| Intel AES New Instructions | ✔ |
| Intel Trusted Execution Technology | ✘ |
| Intel VT-x with Extended Page Tables (EPT) | ✔ |
| Intel® Secure Key | ✔ |
| Intel TSX-NI | ✘ |
| 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 | SR1L4 |
| 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) | ✔ |
| Processor ARK ID | 81012 |
| Conflict-Free processor | ✔ |

## Battery

| | |
|---|---|
| Battery technology | Lithium-Ion (Li-Ion) |
| Number of battery cells | 6 |
| Battery capacity * | 56 Wh |
| Battery life (max) | 11 h |

## Energy Management

| | |
|---|---|
| AC adapter power | 65 W |
| AC adapter frequency | 50 - 60 Hz |
| AC adapter input voltage | 100 - 240 V |
| DC-in jack | ✔ |

## Security

| | |
|---|---|
| Cable lock slot | ✘ |
| Fingerprint reader | ✔ |
| Password protection type | HDD, Power on, Supervisor |

## Certificates

| | |
|---|---|
| Compliance certificates | RoHS |

## Sustainability

| | |
|---|---|
| Sustainability certificates | EPEAT Gold |

## Weight & Dimensions

| | |
|---|---|
| Width | 344 mm |
| Depth | 239 mm |
| Height (front) | 2.9 cm |
| Height (rear) | 3.42 cm |
| Weight * | 2.27 kg |

## Ports & interfaces

| | |
|---|---|
| USB 3.2 Gen 1 (3.1 Gen 1) Type-A ports quantity * | 1 |
| Ethernet LAN (RJ-45) ports quantity | 1 |
| Mini DisplayPort quantity | 1 |
| DVI port | ✘ |
| VGA (D-Sub) ports quantity | 1 |
| S/PDIF out port | ✘ |
| Microphone in | ✘ |

## Packaging Content

| | |
|---|---|
| AC adapter bundled * | ✔ |
| Manual | ✔ |
| Power cord included | ✔ |

## Other features

| | |
|---|---|
| LightScribe | ✘ |
| Intel segment tagging | Home office, Small Business |

## Ports & interfaces

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## Packaging Content

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