

## ThinkPad L540 Platform Specifications

Product Specifications Reference (PSREF)

|                                |                                                                                                                                                                                                                                                                                                                                                                                                |                 |              |                 |                     |                 |              |                        |                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|--------------|-----------------|---------------------|-----------------|--------------|------------------------|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Positioning                    | Mainstream business performance; two spindles                                                                                                                                                                                                                                                                                                                                                  |                 |              |                 |                     |                 |              |                        | Audio support                  | HD Audio, Realtek® ALC3232 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 2W x 2 / dual array microphone, combo audio/microphone jack                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |
| Processor                      | Intel® Celeron® Processor or 4th Generation Intel Core™ i3 / i5 / i7 Processor                                                                                                                                                                                                                                                                                                                 |                 |              |                 |                     |                 |              |                        | WLAN <sup>4</sup>              | One of the following, configurable by model: <ul style="list-style-type: none"><li>• ThinkPad 11b/g/n, 2x2, Wi-Fi + Bluetooth combo adapter, M.2 card</li><li>• Intel Wireless-N 7260, 2x2, Wi-Fi + BT combo adapter, M.2 card</li><li>• Intel Centrino® Advanced-N 6235, 2x2, Wi-Fi + BT combo adapter, M.2 card</li><li>• Intel Dual Band Wireless-N 7260, 2x2, Wi-Fi + BT combo adapter, M.2 card</li><li>• Intel Dual Band Wireless-AC 7260, 2x2, Wi-Fi + BT combo adapter, M.2 card</li></ul>                                                                                                              |  |
|                                | Processor Number                                                                                                                                                                                                                                                                                                                                                                               | # of Cores      | # of Threads | Base Frequency  | Max Turbo Frequency | Cache           | Memory Speed | Processor Graphics     |                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |
|                                | Cel 2950M                                                                                                                                                                                                                                                                                                                                                                                      | 2               | 4            | 2 GHz           | -                   | 2MB             | DDR3L-1600   | Intel HD Graphics 4600 |                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |
|                                | i3-4000M                                                                                                                                                                                                                                                                                                                                                                                       |                 |              | 2.4 GHz         | -                   | 3MB             |              |                        |                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |
|                                | i3-4100M                                                                                                                                                                                                                                                                                                                                                                                       |                 |              | 2.5 GHz         | -                   | 3MB             |              |                        |                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |
|                                | i5-4200M                                                                                                                                                                                                                                                                                                                                                                                       |                 |              | 2.5 GHz         | 3.1 GHz             | 3MB             |              |                        |                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |
|                                | i5-4210M                                                                                                                                                                                                                                                                                                                                                                                       |                 |              | 2.6 GHz         | 3.2 GHz             | 3MB             |              |                        |                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |
|                                | i5-4300M                                                                                                                                                                                                                                                                                                                                                                                       |                 |              | 2.6 GHz         | 3.3 GHz             | 3MB             |              |                        |                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |
|                                | i5-4330M                                                                                                                                                                                                                                                                                                                                                                                       | 2.8 GHz         | 3.5 GHz      | 3MB             |                     |                 |              |                        |                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |
|                                | i7-4600M                                                                                                                                                                                                                                                                                                                                                                                       | 2.9 GHz         | 3.6 GHz      | 4MB             |                     |                 |              |                        |                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |
| i7-4702MQ                      | 4                                                                                                                                                                                                                                                                                                                                                                                              | 8               | 2.2 GHz      | 3.2 GHz         | 6MB                 |                 |              |                        |                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |
| i7-4712MQ                      |                                                                                                                                                                                                                                                                                                                                                                                                |                 | 2.3 GHz      | 3.3 GHz         | 6MB                 |                 |              |                        |                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |
| Memory                         | 16GB max <sup>7</sup> / PC3-12800 1600MHz DDR3L, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets                                                                                                                                                                                                                                                                                 |                 |              |                 |                     |                 |              |                        | SIM card (optional)            | One of the following, configurable by model: <ul style="list-style-type: none"><li>• AT&amp;T® or Verizon® LTE (4G), contract required with service provider (US models)</li><li>• Lenovo SIM, out-of-box service, pay-as-you-go via credit card, no contract required (WE models)</li><li>• User selectable, contract required with service provider</li></ul>                                                                                                                                                                                                                                                 |  |
| Optical Storage                | DVD burner, 9.5mm high, fixed, not removable, tray-in<br>Some: SSD / SATA 6.0Gb/s, 2.5" wide, 7mm high, removable, upgradable<br>Some: HDD / SATA 6.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Shock Mounted Hard Drive, Active Protection System™<br>Some: SSHD with 8GB NAND flash memory<br>Some: M.2 Solid State Drive (SSD), via M.2 card slot, exclusive with WWAN card |                 |              |                 |                     |                 |              |                        | Bluetooth™ Ethernet            | Bluetooth 4.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter<br>HM86 model: Intel Ethernet Connection I217-V (Clarkville)<br>QM87 model: Intel Ethernet Connection I217-LM (Clarkville)                                                                                                                                                                                                                                                                                                                                                                                                                |  |
| M.2 SSD                        |                                                                                                                                                                                                                                                                                                                                                                                                |                 |              |                 |                     |                 |              |                        | Security chip vPro (optional)  | Power-on password, hard disk password, supervisor password, security keyhole<br>Trusted Platform Module, TCG 1.2-compliant<br>Intel vPro Technology                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |
| Fingerprint reader             |                                                                                                                                                                                                                                                                                                                                                                                                |                 |              |                 |                     |                 |              |                        | Fingerprint reader             | Optional: Fingerprint reader on the palm rest, swipe sensor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |
| Widescreen display             | Some: 15.6" (396mm) HD (1366x768), anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio<br>Some: 15.6" (396mm) FHD (1920x1080), anti-glare, LED backlight, 300 nits, 16:9 aspect ratio, 500:1 contrast ratio                                                                                                                                                           |                 |              |                 |                     |                 |              |                        | Limited warranty <sup>12</sup> | One of the following, configurable by model: <ul style="list-style-type: none"><li>• 1-year depot repair service</li><li>• 3-year/1-yr battery depot repair service</li><li>• 3-year/1-yr battery limited onsite service<sup>24</sup></li><li>• 3-year/1-yr battery limited onsite service, OID (Onsite International Delivery)</li></ul>                                                                                                                                                                                                                                                                       |  |
| Camera (optional)              | HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus                                                                                                                                                                                                                                                                                                            |                 |              |                 |                     |                 |              |                        | Preload                        | Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 / 8.1 Pro 64-bit or Windows 10 Pro 64<br>• Lenovo Solution Center<br>• ThinkVantage Product Recovery<br>• Rescue and Recovery™<br>• ThinkVantage System Update<br>• Lenovo Cloud Storage by SugarSync<br>• PC Device Stage<br>• Microsoft® Office preloaded; purchase a product key to activate<br>• Norton Internet Security (30 days of virus definitions, Win8 w/o i5/i7 model)<br>• McAfee® LiveSafe™ (30-day trial, Win8 i5/i7 and Win10 model)<br>• Cyberlink PowerDVD<br>• Cyberlink Power2Go<br>• Cyberlink PowerProducer |  |
| Graphics                       | Intel HD Graphics 4600 in processor, supports external analog monitor via VGA and digital monitor via Mini DisplayPort; supports dual independent display; Max resolution: 3840x2160@30Hz (DP via mDP cable); 1920x1200@60Hz (VGA)                                                                                                                                                             |                 |              |                 |                     |                 |              |                        |                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |
| Keyboard UltraNav™             | 6-row, spill-resistant, multimedia Fn keys, numeric keypad<br>TrackPoint® pointing device and Mylar surface touchpad, integrated five buttons, multi-touch                                                                                                                                                                                                                                     |                 |              |                 |                     |                 |              |                        |                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |
| ThinkLight™                    | None                                                                                                                                                                                                                                                                                                                                                                                           |                 |              |                 |                     |                 |              |                        |                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |
| Dimensions <sup>3</sup>        | HD (WxDxH): 14.84" x 9.72" x 1.13-1.34"; 377mm x 247mm x 28.8-34.05mm<br>FHD (WxDxH): 14.84" x 9.72" x 1.22-1.43"; 377mm x 247mm x 31.0-36.25mm                                                                                                                                                                                                                                                |                 |              |                 |                     |                 |              |                        |                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |
| Weight <sup>2</sup>            | Models                                                                                                                                                                                                                                                                                                                                                                                         | 6-cell 48Wh     |              | 6-cell 56Wh     |                     | 9-cell 99.9Wh   |              |                        |                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |
|                                | HD                                                                                                                                                                                                                                                                                                                                                                                             | 5.54lb / 2.52kg |              | 5.60lb / 2.54kg |                     | 5.95lb / 2.70kg |              |                        |                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |
|                                | FHD                                                                                                                                                                                                                                                                                                                                                                                            | 5.68lb / 2.58kg |              | 5.73lb / 2.60kg |                     | 6.08lb / 2.76kg |              |                        |                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |
| Case material                  | PolyCarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic                                                                                                                                                                                                                                                                                                                                 |                 |              |                 |                     |                 |              |                        |                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |
| Battery type                   | Li-Ion 6-cell (48Wh or 56Wh) or 9-cell (99.9Wh), HW Authentication                                                                                                                                                                                                                                                                                                                             |                 |              |                 |                     |                 |              |                        |                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |
| Max battery life <sup>10</sup> | Models                                                                                                                                                                                                                                                                                                                                                                                         | 6-cell 48Wh     |              | 6-cell 56Wh     |                     | 9-cell 99.9Wh   |              |                        |                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |
|                                | Win7 (MobileMark® 2007)                                                                                                                                                                                                                                                                                                                                                                        | 9 hr            |              | 11 hr           |                     | 19 hr           |              |                        |                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |
|                                | Win8 (MobileMark 2012)                                                                                                                                                                                                                                                                                                                                                                         | 6 hr            |              | 7 hr            |                     | 12 hr           |              |                        |                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |
| AC adapter                     | 65-watt AC adapter                                                                                                                                                                                                                                                                                                                                                                             |                 |              |                 |                     |                 |              |                        |                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |
| Chipset                        | Mobile Intel QM87 (vPro model) or HM86 (Non-vPro model) Express Chipset                                                                                                                                                                                                                                                                                                                        |                 |              |                 |                     |                 |              |                        | Mil-Spec test                  | MIL-STD-810G military certification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |
| ExpressCard (opt)              | One slot (ExpressCard/34, ExpressCard/54)                                                                                                                                                                                                                                                                                                                                                      |                 |              |                 |                     |                 |              |                        | Environment                    | EPEAT™ Gold; ENERGY STAR® 6.0; RoHS-compliant                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |
| Smart card reader              | Optional: Smart card reader                                                                                                                                                                                                                                                                                                                                                                    |                 |              |                 |                     |                 |              |                        |                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |
| Media reader                   | 4-in-1 reader (MMC, SD, SDHC, SDXC)                                                                                                                                                                                                                                                                                                                                                            |                 |              |                 |                     |                 |              |                        |                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |
| Ports                          | One Always On USB 3.0, three USB 2.0, VGA, Mini DisplayPort, Ethernet (RJ-45), Dock connector                                                                                                                                                                                                                                                                                                  |                 |              |                 |                     |                 |              |                        |                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |

| Model                | 20AU0060++                                |
|----------------------|-------------------------------------------|
| Product              | L540                                      |
| Region               | WE                                        |
| Machine Type         | 20AU                                      |
| TopSeller            | No                                        |
| Processor            | i7-4600M (2C, 2.9 / 3.6GHz, 4MB, 1600MHz) |
| vPro                 | vPro                                      |
| Graphics             | Intel HD Graphics 4600                    |
| Chipset              | Intel QM87                                |
| Memory               | 8GBx1                                     |
| Display              | 15.6" FHD (1920x1080)                     |
| Storage              | 180GB SSD Opal                            |
| Optical              | DVD±RW                                    |
| WLAN &Bluetooth      | Intel 7260 a/b/g/n + BT4.0                |
| WWAN / M.2 SSD       | WWAN upgradable                           |
| SIM Card             | None                                      |
| Smart Card Reader    | None                                      |
| ExpressCard          | None                                      |
| Camera               | 720p                                      |
| Backlit Keyboard     | None                                      |
| Numeric Keypad       | Numeric Keypad                            |
| Fingerprint Reader   | Fingerprint Reader                        |
| Battery Cells        | 6-cell (56Wh)                             |
| Power Adapter (watt) | 65W                                       |
| Preload              | Windows 8.1 DG Windows 7 Pro 64           |
| Base Warranty        | 3-year depot                              |
| Global               | Yes                                       |
| Ann Date (mm/yy)     | 04/14                                     |

