

# ThinkPad E450 Platform Specifications

Product Specifications Reference (PSREF)

|                 |                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                          |              |                |                     |        |              |                    |                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                        |  |
|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|----------------|---------------------|--------|--------------|--------------------|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|--|
| Processor       | 4th or 5th Generation Intel® Core™ i3 / i5 / i7 Processor                                                                                                                                                                                                                                                                                                      |                                                                                                                                                          |              |                |                     |        |              |                    | Multicard Reader Ports | 4-in-1 reader (MMC, SD, SDHC, SDXC)<br>Two USB 3.0, one USB 2.0 (Always On), Ethernet (RJ-45), external monitor (HDMI), Lenovo OneLink connector<br>None                                                                                                                                                                                                                                                                                        |                                                                        |  |
|                 | Processor Number                                                                                                                                                                                                                                                                                                                                               | # of Cores                                                                                                                                               | # of Threads | Base Frequency | Max Turbo Frequency | Cache  | Memory speed | Processor Graphics |                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                        |  |
|                 | i3-4005U                                                                                                                                                                                                                                                                                                                                                       | 2                                                                                                                                                        | 4            | 1.7 GHz        | -                   | 3MB    | DDR3L-1600   | HD4400             |                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                        |  |
|                 | i3-5005U                                                                                                                                                                                                                                                                                                                                                       | 2                                                                                                                                                        | 4            | 2.0 GHz        | -                   | 3MB    |              | HD5500             |                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                        |  |
|                 | i5-5200U                                                                                                                                                                                                                                                                                                                                                       | 2                                                                                                                                                        | 4            | 2.2 GHz        | 2.7 GHz             | 3MB    |              | HD5500             |                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                        |  |
| i7-5500U        | 2                                                                                                                                                                                                                                                                                                                                                              | 4                                                                                                                                                        | 2.4 GHz      | 3.0 GHz        | 4MB                 | HD5500 |              |                    |                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                        |  |
| Graphics        | Intel HD Graphics in processor only, or<br>AMD Radeon R5 M240 Graphics, 1GB DDR3 memory,<br>AMD Radeon R7 M260 Graphics, 2GB DDR3 memory,<br>digital monitor support via HDMI™ (supporting HDCP to output protected content);<br>supports dual independent display<br>Max resolution: 1920x1080 (HDMI) @60Hz                                                   |                                                                                                                                                          |              |                |                     |        |              |                    | Keyboard               | 6-row, spill-resistant, multimedia Fn keys                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                        |  |
| Chipset         | Memory                                                                                                                                                                                                                                                                                                                                                         | Intel SoC (System on Chip) platform<br>16GB max <sup>7</sup> / PC3-12800 1600MHz DDR3L, non-parity, dual-channel capable,<br>two 204-pin SO-DIMM sockets |              |                |                     |        |              |                    |                        | UltraNav™                                                                                                                                                                                                                                                                                                                                                                                                                                       | TrackPoint® pointing device and multi-touch with 3+2 buttons click pad |  |
|                 |                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                          |              |                |                     |        |              |                    |                        | ThinkLight™                                                                                                                                                                                                                                                                                                                                                                                                                                     | None                                                                   |  |
| Display         | Some: 14.0" (355mm) HD (1366x768) color, anti-glare, LED backlight,<br>200 nits, 16:9 aspect ratio<br>Some: 14.0" (355mm) FHD (1920x1080) color, anti-glare, LED backlight,<br>220 nits, 16:9 aspect ratio                                                                                                                                                     |                                                                                                                                                          |              |                |                     |        |              |                    | Security               | Power-on password, hard disk password, supervisor password, security keyhole                                                                                                                                                                                                                                                                                                                                                                    |                                                                        |  |
| Multi-touch     | Some: supports 10-finger gesture                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                          |              |                |                     |        |              |                    | Security chip          | TPM : Trusted Platform Module, TCG 1.2-compliant<br>Soft : Software TPM enabled                                                                                                                                                                                                                                                                                                                                                                 |                                                                        |  |
| Storage         | Some: SSD / SATA 6.0Gb/s, 2.5" wide, 7mm high, removable, upgradable<br>Some: HDD / SATA 6.0Gb/s, 2.5" wide, removable,<br>upgradable, Shock Mounted Hard Drive, Active Protection System™<br>Some: Hybrid drive with 8GB NAND flash memory                                                                                                                    |                                                                                                                                                          |              |                |                     |        |              |                    | vPro                   | None                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                        |  |
| Optical         | None                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                          |              |                |                     |        |              |                    | Fingerprint reader     | Some: Fingerprint reader on the keyboard bezel, swipe sensor                                                                                                                                                                                                                                                                                                                                                                                    |                                                                        |  |
| M.2 SSD         | None                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                          |              |                |                     |        |              |                    | NFC                    | None                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                        |  |
| Ethernet        | Intel WGI218V Gigabit Ethernet Connection                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                          |              |                |                     |        |              |                    | Battery type           | Li-Ion 6-cell (47Wh)                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                        |  |
| Bluetooth™      | Bluetooth 4.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter                                                                                                                                                                                                                                                                                          |                                                                                                                                                          |              |                |                     |        |              |                    | Battery life           | 6-cell (47Wh): up to 9.0 hr                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                        |  |
| WLAN            | One of the following, configurable by model:<br>• Intel Wireless-AC 3160, 1x1, Wi-Fi + Bluetooth combo adapter, M.2 Card<br>• Intel Dual Band Wireless-AC 7265, 2x2, Wi-Fi + BT combo adapter, M.2 Card<br>• RTL8723BE, Realtek 11b/g/n, 1x1, Wi-Fi + Bluetooth combo adapter, M.2 Card<br>• BCM43162, Broadcom 11-AC, 1x1, Wi-Fi + BT combo adapter, M.2 Card |                                                                                                                                                          |              |                |                     |        |              |                    | AC adapter             | Some: 45-watt AC adapter (Integrated Graphics)<br>Some: 65-watt AC adapter (Discrete Graphics)                                                                                                                                                                                                                                                                                                                                                  |                                                                        |  |
| WWAN            | None                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                          |              |                |                     |        |              |                    | Preload                | Some: No operating system<br>Some: Windows® 7 Professional 64<br>preinstalled through downgrade<br>rights in Windows 8.1 Pro 64-bit<br>• Lenovo Solution Center<br>• Lenovo SHAREit<br>• Lenovo Companion<br>• ThinkVantage Product Recovery<br>• Rescue and Recovery™<br>• ThinkVantage System Update<br>• Microsoft® Office preloaded;<br>purchase a product key to activate<br>• Norton™ Internet Security<br>(30 days of virus definitions) |                                                                        |  |
| SIM card        | None                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                          |              |                |                     |        |              |                    |                        | Some: Windows 8.1 64-bit<br>Some: Windows 8.1 Pro 64-bit<br>• Lenovo Solution Center<br>• Lenovo SHAREit<br>• Lenovo Companion<br>• ThinkVantage System Update<br>• Evernote<br>• Maxthon Cloud Browser<br>• Norton Studio<br>• Microsoft Office preloaded;<br>purchase a product key to activate<br>• Norton Internet Security<br>(30 days of virus definitions)                                                                               |                                                                        |  |
| Smart Card Read | None                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                          |              |                |                     |        |              |                    | Limited warranty       | Some: Windows 7 Professional<br>preinstalled through downgrade<br>rights in Windows 10 Pro 64<br>• Lenovo Solution Center<br>• Lenovo SHAREit<br>• ThinkVantage Product Recovery<br>• Rescue and Recovery™                                                                                                                                                                                                                                      |                                                                        |  |
| ExpressCard     | None                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                          |              |                |                     |        |              |                    |                        | Some: Windows 10 Pro 64<br>• Lenovo Solution Center<br>• Lenovo SHAREit<br>• Microsoft Office preloaded;<br>purchase a product key to activate<br>• McAfee LiveSafe<br>(30 days of virus definitions)                                                                                                                                                                                                                                           |                                                                        |  |
| Dimensions      | None Touch(WxDxH): 13.35" x 9.41" x 0.94"; 339mm x 239mm x 24mm                                                                                                                                                                                                                                                                                                |                                                                                                                                                          |              |                |                     |        |              |                    | Environment            | 1-year - depot repair service / service upgrades available                                                                                                                                                                                                                                                                                                                                                                                      |                                                                        |  |
| Weight          | 6-cell None Touch: from 4.00 lb (1.81kg)                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                          |              |                |                     |        |              |                    | Environment            | EPEAT™ Gold; ENERGY STAR®; RoHS-compliant                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                        |  |
| Case color      | Graphite Black                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                          |              |                |                     |        |              |                    |                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                        |  |
| Case material   | PolyCarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic                                                                                                                                                                                                                                                                                                 |                                                                                                                                                          |              |                |                     |        |              |                    |                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                        |  |

| Model              | 20DC0076xx                        |
|--------------------|-----------------------------------|
| Product            | ThinkPad E450                     |
| Region             | EAST                              |
| Machine Type       | 20DC                              |
| TopSeller          | TopSeller                         |
| Processor          | Core i3-5005U (2C, 2.0GHz, 3MB)   |
| vPro               | No                                |
| Graphics           | Integrated Intel HD Graphics 5500 |
| Memory             | 4GBx1                             |
| Display            | 14" HD (1366x768)                 |
| Multi-touch        | None                              |
| Storage            | 500GB 7200rpm                     |
| Optical            | None                              |
| WLAN + Bluetooth   | Intel 7265 ac, 2x2 + BT4.0        |
| WWAN               | None                              |
| SIM Card           | None                              |
| Color              | Black                             |
| Case Material      | PC/ABS                            |
| Camera             | 720p                              |
| Keyboard           | Non-backlit                       |
| Fingerprint Reader | Fingerprint Reader                |
| NFC                | None                              |
| TPM                | dTPM 1.2                          |
| Battery            | 6-cell (47Wh)                     |
| Power Adapter      | 45W                               |
| Operating System   | None                              |
| Warranty           | 1-year, Depot                     |
| Global             | No                                |
| Ann Date (mm/yy)   | 01/15                             |



