# ThinkPad E590 20NB0029GE

**Product**
ThinkPad E590

**Region**
EMEA

**Country**
Germany

**Machine Type**
20NB

**TopSeller**
TopSeller

**Processor**
Core i7-8565U (4C, 1.8 / 4.6GHz, 8MB)

**vPro**
No

**Graphics**
AMD Radeon RX 550X 2GB GDDR5

**Memory**
16GBx1

**Display**
15.6" FHD (1920x1080) IPS

**Multi-touch**
None

**Storage**
512GB SSD M.2 PCIe NVMe

**Optical**
None

**WLAN + Bluetooth**
Intel 9260 ac, 2x2 + BT5.0

**WWAN**
None

**Color**
Black

**Camera**
720p

**Keyboard**
Backlit

**Fingerprint Reader**
Fingerprint Reader

**NFC**
None

**TPM**
FW TPM 2.0

**Battery**
45Wh

**Power Adapter**
65W USB-C

**Operating System**
Windows 10 Pro 64

**Warranty**
1-year, Depot

**End of Support**
Jan 25, 2025

**Ann Date (mm/yy)**
12/18

Note:

* Country Code "US" is for United States, "++" is for EMEA countries (e.g. AD - Saudi, Arabia, AT - Austria, BM - Bulgaria, etc.), "xx" is for EAST countries (e.g. BM - Bulgaria, CX - Hungary, CY - Cyprus, etc.), and "**" is for MEA countries (e.g. AD - Saudi, Arabia, ED - Egypt, EQ - Sweden, etc.). Please be aware that the EMEA/ EAST/MEA models listed above might not be available in all countries

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# ThinkPad E590 Platform Specifications



**Processor**

8th Generation Intel® Core™ i3 / i5 / i7 Processor

| Processor Number | # of Cores | # of Threads | Base Frequency | Max Turbo Frequency | Cache | Memory Types | Processor Graphics |
|---|---|---|---|---|---|---|---|
| i3-8145U | 2 | 4 | 2.1 GHz | 3.9 GHz | 4MB | DDR4-2400 | Intel UHD Graphics 620 |
| i5-8265U | 4 | 8 | 1.6 GHz | 3.9 GHz | 6MB | | |
| i7-8565U | | | 1.8 GHz | 4.6 GHz | 8MB | | |

**Graphics**

Intel UHD Graphics 620 in processor only or
Intel UHD Graphics 620 in processor and
AMD Radeon RX 550X Graphics, 2GB DDR5 memory;
supports external digital monitor via HDMI or USB Type-C;
supports dual independent display;
Max resolution: 4096x2304@60Hz (USB Type-C); 4096x2160@24Hz (HDMI)

**Chipset**

Intel SoC (System on Chip) platform

**Memory**

32GB max / 2400MHz DDR4, dual-channel capable, two DDR4 SO-DIMM sockets

**Display**

| Size / Resolution | Surface | Type | Brightness | Aspect Ratio | Contrast Ratio | Viewing Angle | Multi-touch |
|---|---|---|---|---|---|---|---|
| 15.6" HD (1366x768) | Anti-glare | TN | 220 nits | 16:9 | 400:1 | 90° | Non-touch |
| 15.6" FHD (1920x1080) | Anti-glare | IPS | 250 nits | 16:9 | 600:1 | 170° | Non-touch |

**Multi-touch**

None

**Storage**

*Up to two drives (one M.2 SSD and one HDD)*
- HDD / SATA 6.0Gb/s, 2.5" wide, 7mm high, Active Protection System™
- M.2 SSD / SATA 6.0Gb/s
- M.2 SSD / PCIe NVMe, PCIe 3.0 x 2
- 16GB Intel Optane™ memory, PCIe NVMe, PCIe 3.0 x 2

**Optical**

None

**Ethernet**

Gigabit Ethernet Connection, Realtek R8111GUS

**WLAN + Bluetooth™**

*One of the following, configurable by model:*
- Realtek® RTL8822BE, Wi-Fi 2x2 802.11ac + Bluetooth 4.2, M.2 card
- Intel Wireless-AC 9260, Wi-Fi 2x2 802.11ac + Bluetooth 5.0, M.2 card

**WWAN**

None

**Dimensions**

*WxDxH:* 14.53" x 9.94" x 0.78"; 369mm x 252.5mm x 19.9mm

**Weight**

Starting at 4.68 lb / 2.12g

**Case color**

Black or silver

**Case material**

*Display cover:* Aluminum;
*Bottom:* PC/ABS plastic

**Smart card reader**

None

**Media reader**

MicroSD card reader

**Ports**

Two USB 3.1 Gen 1 (one Always On), one USB 3.1 Type-C Gen 2, one USB 2.0, HDMI 1.4b, Ethernet (RJ-45), headphone / microphone combo jack, microSD card reader, security keyhole

**Camera**

HD720p camera, fixed focus

**Audio support**

HD Audio, Conexant® CX11880 codec / stereo speakers, 2W x 2, Dolby® Advanced Audio / dual array microphone, headphone / microphone combo jack

**Keyboard**

6-row, spill-resistant, multimedia Fn keys, numeric keypad, optional LED backlight

**UltraNav™**

TrackPoint® pointing device and buttonless Mylar surface multi-touch touchpad

**Security**

Power-on password, hard disk password, supervisor password, security keyhole

**Security chip**

*Integrated model:* discrete TPM 2.0, TCG Certified
*Discrete model:* firmware TPM 2.0 integrated in chipset

**vPro**

None

**Fingerprint reader**

*Optional:* Touch style fingerprint reader on the palm rest

**NFC**

None

**Battery**

Integrated Li-ion 45Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W USB Type-C AC adapter

**Max battery life**

*MobileMark® 2014:* 11 hr
* Battery life varies significantly with settings, usage, & other factors

**AC adapter**

45W or 65W USB Type-C AC adapter

**Preload *(optional)***

Windows® 10 Home 64 or Windows 10 Pro 64

**Limited warranty**

1-year depot repair service

**Mil-Spec test**

MIL-STD-810G military certification

**Environment**

ENERGY STAR® 7.0; RoHS-compliant

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Lenovo
January 2018

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