ThinkCentre M820z Platform Specifications

Processor — Intel® Celeron®, Intel Pentium®, or 8th / 9th Gen Intel Core™ i3 / i5 / i7 / i9 series

Processor	Cores / Threads	Frequency Base/Max(GHz)	Cache	Memory Support (Up to)	Integrated Graphics
Celeron G4900	2 / 2	3.1G	2 MB	DDR4-2400	UHD 610
Celeron G4920	2 / 2	3.2G	2 MB	DDR4-2400	UHD 610
Celeron G4930	2 / 2	3.2G	2 MB	DDR4-2400	UHD 610
Celeron G4950	2 / 2	3.3G	2 MB	DDR4-2400	UHD 610
Pentium Gold G5400	2 / 4	3.7G	4 MB	DDR4-2400	UHD 610
Pentium Gold G5420	2 / 4	3.8G	4 MB	DDR4-2400	UHD 610
Pentium Gold G5500	2 / 4	3.8G	4 MB	DDR4-2400	UHD 630
Pentium Gold G5600	2 / 4	3.9G	4 MB	DDR4-2400	UHD 630
Pentium Gold G5620	2 / 4	4.0G	4 MB	DDR4-2400	UHD 630
Core i3-8100	4 / 4	3.6G	6 MB	DDR4-2400	UHD 630
Core i3-8300	4 / 4	3.7G	8 MB	DDR4-2400	UHD 630
Core i5-8400	6 / 6	2.8G / 4.0G	9 MB	DDR4-2666	UHD 630
Core i5-8500	6 / 6	3.0G / 4.1G	9 MB	DDR4-2666	UHD 630
Core i5-8600	6 / 6	3.1G / 4.3G	9 MB	DDR4-2666	UHD 630
Core i7-8700	6 / 12	3.2G / 4.6G	12 MB	DDR4-2666	UHD 630
Core i3-9100	4 / 4	3.6G / 4.2G	6 MB	DDR4-2400	UHD 630
Core i3-9300	4 / 4	3.7G / 4.3G	8 MB	DDR4-2400	UHD 630
Core i5-9400	6 / 6	2.9G / 4.1G	9 MB	DDR4-2666	UHD 630
Core i5-9500	6 / 6	3.0G / 4.4G	9 MB	DDR4-2666	UHD 630
Core i5-9600	6 / 6	3.1G / 4.6G	9 MB	DDR4-2666	UHD 630
Core i7-9700	8 / 8	3.0G / 4.7G	12 MB	DDR4-2666	UHD 630
Core i9-9900	8 / 16	3.1G / 5.0G	16 MB	DDR4-2666	UHD 630

Memory — 32GB max (16GB SO-DIMM only available via special bid models), DDR4-2666*, two 260-pin SO-DIMM sockets, dual-channel capable
* System clocks down for the processors with lower memory controller

Storage — *Some:* Hard Drive / SATA 6.0Gb/s, 2.5", 5400 rpm or 7200 rpm
Some: Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5"
Some: M.2 SSD / PCIe NVMe, PCIe 3.0 x 4*, 32Gb/s
* 128GB SSD M.2 (2242) PCIe NVMe only supports PCIe 3.0 x 2, 16Gb/s
Some: Intel Optane™ Memory (not support Celeron / Pentium Processor), M.2

Optical — *Some:* DVD-ROM SATA 1.5Gb/s Drive, slim (9.0mm)
Some: DVD Burner (DVD±RW), SATA 1.5Gb/s Drive, slim (9.0mm)

Media reader — Optional 3-in-1 media card reader

Graphics — **Intel HD Graphics 610/630** in processor, uses main memory, DirectX® 12, external monitor support via DisplayPort™;
Max resolution: 4096x2304 (DP)@60Hz, 1920x1080 (Panel)@60Hz

Display — **21.5"** (546.1mm) **Full HD 1080p (1920x1080) TFT color**, Borderless design, MVA panel, wide viewing angle (+/- 89°), LED backlight, 250 nits, 16:9 aspect ratio, 1000:1 contrast ratio, anti-glare, support Low Blue Light Mode

Multi-touch — Optional multi-touch, supports 10-point, AIT (Advanced In-cell Touch) technology

Camera — Optional 1080p camera, with dual microphone, LED indicator, physical switch on/off, supports multi-degree rotation (horizontal 0° to 180°, vertical -25° to 25°)

Controls — Physical buttons on side for microphone mute and power on/off

Chipset — **Intel B360 Chipset**

Rear ports* — Four USB 3.1 Gen1 (one supports Smart Power On), one ethernet (RJ-45), one DisplayPort, one optional serial (9-pin),

Side ports* — one USB 3.1 Gen2 (one is Always On and fast charge), one USB 3.1 Type-C Gen 1, one optional card reader, one headphone / microphone combo jack (3.5mm)
* Depending on many factors, actual data transfer speed may be lower than theoretical speed

M.2 card slot — Two M.2 Card slots (one for WLAN, one for SSD/Optane)

Audio support — High Definition (HD) Audio, Realtek ALC233 / two internal speakers (2W x 2), Dolby® Audio™ Premium

WLAN — *Some:* 11ac wireless, M.2 Card, Realtek RTL8821CE (dual band), Wi-Fi + Bluetooth 4.2 combo adapter, 1x1
Some: 11ac wireless, M.2 Card, Realtek RTL8822BE (dual band), Wi-Fi + Bluetooth 4.2 combo adapter, 2x2
Some: 11ac wireless, M.2 Card, Intel Dual Band Wireless-AC 3165, Wi-Fi + Bluetooth 4.2 combo adapter, 1x1
Some: 11ac wireless, M.2 Card, Intel Dual Band Wireless-AC 8265, Wi-Fi + Bluetooth 4.2 combo adapter, 2x2

Bluetooth™ — *Some:* Bluetooth 4.2/5.0 wireless, integrated in Wi-Fi + BT combo adapter

Ethernet — Gigabit ethernet, Realtek RTL8111G, Wake on LAN®

Manageability — None

Security chip — Discrete TPM 2.0, TCG Certified

Security features
- Security slot (in rear for attachment of optional Kensington® MicroSaver® cable; Kensington lock also locks chassis)
- Smart USB protection, allows keyboard/mouse only, blocks all storage devices
- Power-on, admin, hard disk password
- Boot sequence control
- Boot without keyboard and mouse
- Individual USB port disablement
- Optional Chassis intrusion switch

Keyboard — *Some:* Lenovo Calliope Keyboard (USB connector), black
Some: Lenovo Traditional Keyboard (USB connector), black
Some: Lenovo Calliope Wireless Keyboard (2.4GHz via USB receiver), black

Mouse — *Some:* Lenovo Calliope Mouse (USB connector), black
Some: Lenovo Fingerprint Mouse (USB connector), Windows Hello support, black
Some: Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black

Mechanical
- Business black color
- Toolless back cover, stand, memory removal
- Support VESA mount (100mm)

Dimensions (WxDxH)	Max weight (lb / kg)	Adjustments
Without stand (No camera):		
19.3 X 1.9 X 13.5 (inch) 491 X 49 X 342 (mm)	(Touch) 11.6 / 5.25 (Non-touch) 11.1 / 5.05	N/A
With Full Function Monitor stand (No camera):		
19.3 X 9.9 X 14.8 to 19.1 (inch) 491 X 252 X 377 to 486 (mm)	(Non-touch) 15.8 / 7.18	Tilt: 45° back, -5° forward; Lift: 110mm; Swivel: +/-45°
With UltraFlex III stand (No camera):		
19.3 X 9.9 X 16.4 (highest) (inch) 491 X 252 X 416 (highest) (mm)	(Touch) 17.3 / 7.85 (Non-touch) 16.9 / 7.65	Tilt: 70° back, -5° forward; Lift: 136mm; Swivel: +/-45°

Power supply — 150 watts, autosensing, 90% PSU

Limited warranty[3] — *Some:* **1-year or 3-year, depot repair service** / service upgrades available
Some: **1-year** or **3-year**, **limited onsite service** / service upgrades available

Preload — **Preloaded operating system**
Some: Windows 10 Pro 64-bit
Some: Windows 10 Home 64-bit
Preloaded applications (only some listed)
- Lenovo Vantage
- Microsoft Office preloaded; purchase a product key to activate
- Cyberlink PowerDVD (only for models with DVD / DVD±RW)
- Cyberlink Power2GO (only for models with DVD±RW)
- LinkedIn

Environment — ENERGY STAR® 7.0*, EPEAT™ Gold rating* (*not for non-OS models), ErP Lot 3, TCO AIO Computer certified, GREENGUARD® certified, TUV Eye comfort certified (for Full Function Monitor Stand only), TUV Low Blue Light certified, TUV Ultra Low Noise certified (on some models), RoHS-compliant

MIL-SPEC test — MIL-STD-810G military certification (Low Pressure [Altitude], High Temperature, Low Temperature, Temperature Shock, Humidity, Sand and Dust, Vibration, Shock, Fungus)

Accessories — For compatible accessories, please go to **http://smartfind.lenovo.com**

Note: The specifications above may not be available in all regions.