



PSREF



Product Specifications Reference

Version 561, June 2020

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Contents

Cover		
Contents		
Summary Of Change		
All-In-One		
ThinkCentre M70a		
ThinkCentre M70a Platform Specifications		
ThinkCentre M820z AIO		
ThinkCentre M820z AIO Platform Specifications		
ThinkCentre M90a		
ThinkCentre M90a Platform Specifications		
ThinkCentre M920z AIO		
ThinkCentre M920z AIO Platform Specifications		
Nano Desktops		
ThinkCentre M75n		
ThinkCentre M75n Platform Specifications		
ThinkCentre M75n IoT		
ThinkCentre M75n IoT Platform Specifications		
ThinkCentre M75n Thin Client		
ThinkCentre M75n Thin Client Platform Specifications		
ThinkCentre M90n-1 Nano		
ThinkCentre M90n-1 Nano Platform Specifications		
ThinkCentre M90n-1 Nano IoT		
ThinkCentre M90n-1 Nano IoT Platform Specifications		
SFF Desktops		
ThinkCentre M70c		
ThinkCentre M70c Platform Specifications		
ThinkCentre M70s		
ThinkCentre M70s Platform Specifications		
ThinkCentre M710e SFF		
ThinkCentre M710e SFF Platform Specifications		
ThinkCentre M720 SFF		
ThinkCentre M720 SFF Platform Specifications		
ThinkCentre M720e SFF		
ThinkCentre M720e SFF Platform Specifications		
ThinkCentre M725 SFF		
	1	ThinkCentre M725 SFF Platform Specifications 35
	2	ThinkCentre M75s 36
	4	ThinkCentre M75s Platform Specifications 37
	6	ThinkCentre M80s 38
	6	ThinkCentre M80s Platform Specifications 39
	7	ThinkCentre M90s 40
	8	ThinkCentre M90s Platform Specifications 41
	9	ThinkCentre M920 SFF 42
	10	ThinkCentre M920 SFF Platform Specifications 43
	11	Tiny Desktops 44
	12	ThinkCentre M625 Tiny 44
	13	ThinkCentre M625 Tiny Platform Specifications 45
	14	ThinkCentre M625 Tiny Thin Client 46
	14	ThinkCentre M625 Tiny Thin Client Platform Specifications 47
	15	ThinkCentre M630e Tiny 48
	16	ThinkCentre M630e Tiny Platform Specifications 49
	17	ThinkCentre M70q 50
	18	ThinkCentre M70q Platform Specifications 51
	19	ThinkCentre M715 Tiny (2nd Gen) 52
	20	ThinkCentre M715 Tiny (2nd Gen) Platform Specifications 53
	21	ThinkCentre M715 Tiny Thin Client (2nd Gen) 54
	22	ThinkCentre M715 Tiny Thin Client (2nd Gen) Platform Specifications 55
	23	ThinkCentre M720 Tiny 56
	24	ThinkCentre M720 Tiny Platform Specifications 57
	24	ThinkCentre M75q Tiny 58
	25	ThinkCentre M75q Tiny Platform Specifications 59
	26	ThinkCentre M80q 60
	27	ThinkCentre M80q Platform Specifications 61
	28	ThinkCentre M90q 62
	29	ThinkCentre M90q Platform Specifications 63
	30	ThinkCentre M920 Tiny 64
	31	ThinkCentre M920 Tiny Platform Specifications 65
	32	ThinkCentre M920x Tiny 66
	33	ThinkCentre M920x Tiny Platform Specifications 67
	34	ThinkSmart Edition Tiny M920q for Zoom Rooms 68

Contents

ThinkSmart Edition Tiny M920q for Zoom Rooms Platform Specifications	69
Tiny-In-One	70
ThinkCentre Tiny-In-One 22 Gen 3	70
ThinkCentre Tiny-In-One 22 Gen 3 Platform Specifications	71
ThinkCentre Tiny-In-One 22 Gen 4	72
ThinkCentre Tiny-In-One 22 Gen 4 Platform Specifications	73
ThinkCentre Tiny-In-One 24 Gen 3	74
ThinkCentre Tiny-In-One 24 Gen 3 Platform Specifications	75
ThinkCentre Tiny-In-One 24 Gen 4	76
ThinkCentre Tiny-In-One 24 Gen 4 Platform Specifications	77
ThinkCentre Tiny-In-One 27	78
ThinkCentre Tiny-In-One 27 Platform Specifications	79
Tower Desktops	80
ThinkCentre M70t	80
ThinkCentre M70t Platform Specifications	81
ThinkCentre M720 Tower	82
ThinkCentre M720 Tower Platform Specifications	83
ThinkCentre M80t	84
ThinkCentre M80t Platform Specifications	85
ThinkCentre M90t	86
ThinkCentre M90t Platform Specifications	87
ThinkCentre M920 Tower	88
ThinkCentre M920 Tower Platform Specifications	89
Legal Information	90

Contents

Summary of Changes	1	ThinkCentre M800z (10EW) - TopSeller	70
ThinkCentre Chromebox	2	ThinkCentre M800z (10ET) - TopSeller	71
ThinkCentre Chromebox Platform Specifications	3	ThinkCentre M800z (10EW)	72
ThinkCentre Chromebox (10H8) - TIO	4	ThinkCentre M800z (10EV)	73
ThinkCentre Chromebox (10H9) - TIO (TopSeller)	5	ThinkCentre M900 Tiny	74
ThinkCentre Chromebox (10H6) - TIO	6	ThinkCentre M900 Tiny Platform Specifications	75
ThinkCentre Chromebox (10H2)	7	ThinkCentre M900 Tiny (10FM) - TopSeller	76
ThinkCentre Chromebox (10H3) - TopSeller	8	ThinkCentre M900 Tiny (10FM) - TopSeller - II	77
ThinkCentre Chromebox (10H4)	9	ThinkCentre M900 Tiny (10NE) - TopSeller	78
ThinkCentre Chromebox (10H5) - TopSeller	10	ThinkCentre M900 Tiny (10NE) - TopSeller - II	79
ThinkCentre Tiny-in-One 22	11	ThinkCentre M900 Tiny (10FL)	80
ThinkCentre Tiny-in-One (TIO) 22	12	ThinkCentre M900 SFF	81
ThinkCentre Tiny-in-One 23	13	ThinkCentre M900 SFF Platform Specifications	82
ThinkCentre Tiny-in-One (TIO) 23	14	ThinkCentre M900 SFF (10FH) - TopSeller	83
ThinkCentre Tiny-in-One 24	15	ThinkCentre M900 SFF (10FG)	84
ThinkCentre Tiny-in-One (TIO) 24	16	ThinkCentre M900 Tower	85
ThinkCentre M600 Tiny	17	ThinkCentre M900 Tower Platform Specifications	86
ThinkCentre M600 Tiny Platform Specifications	18	ThinkCentre M900 Tower (10FD) - TopSeller	87
ThinkCentre M600 Tiny (10G9) - TopSeller	19	ThinkCentre M900 Tower (10FD) - TopSeller - II	88
ThinkCentre M600 Tiny (10KH) - Thin Client (TopSeller)	20	ThinkCentre M900 Tower (10FC)	89
ThinkCentre M600 Tiny (10GK) - Thin Client (TopSeller)	21	ThinkCentre M900z All-In-One	90
ThinkCentre M600 Tiny (10KK) - TIO (Thin Client) - TopSeller	22	ThinkCentre M900z Platform Specifications	91
ThinkCentre M600 Tiny (10GA) - OID	23	ThinkCentre M900z (10F3) - TopSeller	92
ThinkCentre M600 Tiny (10G8) - OID	24	ThinkCentre M900z (10F2) - TopSeller	93
ThinkCentre M600 Tiny (10GE) - TIO (OID)	25	ThinkCentre M900z (10F5)	94
ThinkCentre M600 Tiny (10GC) - TIO (OID)	26	ThinkCentre M900z (10F4)	95
ThinkCentre M600 Tiny (10KG) - Thin Client	27	ThinkCentre X1	96
ThinkCentre M600 Tiny (10GJ) - Thin Client	28	ThinkCentre X1 Platform Specifications	97
ThinkCentre M600 Tiny (10KJ) - TIO (Thin Client)	29	ThinkCentre X1 (10JX) - TopSeller	98
ThinkCentre M700 Tiny	30	ThinkCentre X1 (10KE) - TopSeller	99
ThinkCentre M700 Tiny Platform Specifications	31	ThinkCentre X1 (10KF)	100
ThinkCentre M700 Tiny (10HY) - TopSeller	32	ThinkCentre X1 (10HU)	101
ThinkCentre M700 Tiny (10HY) - TopSeller - II	33	ThinkCentre X1 (10K0) - TopSeller	102
ThinkCentre M700 Tiny (10J0)	34	ThinkCentre E63z All-In-One	103
ThinkCentre M700 SFF	35	ThinkCentre E63z Platform Specifications	104
ThinkCentre M700 SFF Platform Specifications	36	ThinkCentre E63z (10D4) - TopSeller	105
ThinkCentre M700 SFF (10GT) - TopSeller	37	ThinkCentre E63z (10D6) - Multi-touch (TopSeller)	106
ThinkCentre M700 SFF (10GT) - TopSeller - II	38	ThinkCentre E63z (10EK)	107
ThinkCentre M700 SFF (10GS)	39	ThinkCentre E63z (10E0) - TopSeller	108
ThinkCentre M700 Tower	40	ThinkCentre E63z (10EL) - TopSeller	109
ThinkCentre M700 Tower Platform Specifications	41	ThinkCentre E63z (10E1)	110
ThinkCentre M700 Tower (10GR) - TopSeller	42	ThinkCentre E63z (10E1) - Win10	111
ThinkCentre M700 Tower (10GQ)	43	ThinkCentre E63z (10EM)	112
ThinkCentre M700z All-In-One	44	ThinkCentre E63z (10E2) - Multi-touch (TopSeller)	113
ThinkCentre M700z Platform Specifications	45	ThinkCentre E63z (10E2) - Multi-touch (TopSeller) - Win10	114
ThinkCentre M700z (10EY) - TopSeller	46	ThinkCentre E63z (10E3) - Multi-touch	115
ThinkCentre M700z (10F1)	47	ThinkCentre E73 SFF and Tower	116
ThinkCentre M79 SFF and Tower	48	ThinkCentre E73 SFF (10AU) - TopSeller	117
ThinkCentre M79 SFF Platform Specifications	49	ThinkCentre E73 SFF (10AU) - TopSeller - II	118
ThinkCentre M79 Tower Platform Specifications	50	ThinkCentre E73 SFF (10AU) - TopSeller - III	119
ThinkCentre M79 SFF (10CU) - TopSeller	51	ThinkCentre E73 SFF (10AW) - ES 6.0 (TopSeller)	120
ThinkCentre M79 SFF (10JB) - TopSeller	52	ThinkCentre E73 SFF (10AW) - ES 6.0 (TopSeller) - II	121
ThinkCentre M79 SFF (10CT)	53	ThinkCentre E73 SFF (10AW) - ES 6.0 (TopSeller) - III	122
ThinkCentre M79 SFF (10JA)	54	ThinkCentre E73 SFF (10DU) - ES 6.0 (TopSeller)	123
ThinkCentre M79 Tower (10CR) - TopSeller	55	ThinkCentre E73 SFF (10DU) - ES 6.0 (TopSeller) - II	124
ThinkCentre M79 Tower (10J7) - TopSeller	56	ThinkCentre E73 SFF (10DU) - ES 6.0 (TopSeller) - III	125
ThinkCentre M79 Tower (10CQ)	57	ThinkCentre E73 SFF (10DU) - ES 6.0 (Win10) - TopSeller	126
ThinkCentre M79 Tower (10J6)	58	Withdrawn Product Books	127
ThinkCentre M800 SFF	59	Legal Information and Trademarks	128
ThinkCentre M800 SFF Platform Specifications	60		
ThinkCentre M800 SFF (10FY) - TopSeller	61		
ThinkCentre M800 SFF (10FX)	62		
ThinkCentre M800 Tower	63		
ThinkCentre M800 Tower Platform Specifications	64		
ThinkCentre M800 Tower (10FW) - TopSeller	65		
ThinkCentre M800 Tower (10FV)	66		
ThinkCentre M800z All-In-One	67		
ThinkCentre M800z Platform Specifications	68		
ThinkCentre M800z (10EU) - TopSeller	69		

Summary of Changes

This section describes the technical changes made in this edition.

This edition might also include minor corrections and editorial changes which are not identified.

June 2020 - Version 561

Additions in this update

► **New product(s)**

ThinkCentre Tiny-In-One 22 Gen 4

ThinkCentre M90a

ThinkCentre M90s

ThinkCentre M90t

ThinkCentre M90q

► **New model(s)**

None

► **Others**

None

Withdrawals in this update

► **Withdrawn product(s)**

None

► **Withdrawn model(s)**

None



ThinkCentre M70a Platform Specifications

Product Specifications Reference (PSREF)

Processor	Intel® Celeron®, Intel Pentium®, or 10th Gen Intel Core™ i3 / i5 / i7 / i9 Processor						Bluetooth™ Ethernet Manageability Security chip Security features Keyboard Mouse Mechanical	<i>Some:</i> 11ax wireless, M.2 Card, Intel Wi-Fi 6 AX201 (dual band), Wi-Fi + Bluetooth 5.1 combo adapter, 2x2 (Available on 2020/9/29) <i>Some:</i> Bluetooth 5.0/5.1 wireless, integrated in Wi-Fi + BT combo adapter Gigabit ethernet, Realtek RTL8111K, Wake on LAN® None Discrete TPM 2.0, TCG Certified ● Security slot (for Kensington® lock) ● Optional Chassis intrusion switch ● Power-on, admin, hard disk password ● Boot without keyboard and mouse ● Individual USB port disablement ● Smart USB protection, allows keyboard/mouse only, blocks all storage devices <i>Some:</i> Lenovo Calliope Keyboard (USB connector), black <i>Some:</i> Lenovo Traditional Keyboard (USB connector), black <i>Some:</i> Lenovo Calliope Mouse (USB connector), black <i>Some:</i> Lenovo Fingerprint Mouse (USB connector), Windows Hello support, black ● Business black color ● Toolless back cover, stand removal ● Support VESA mount (100mm)
	Processor	Cores / Threads	Frequency Base/Max*(GHz)	Cache	Memory Support (Up to)	Integrated Graphics		
	Celeron G5900	2 / 2	3.4G	2 MB	DDR4-2666	UHD 610		
	Celeron G5920	2 / 2	3.5G	2 MB	DDR4-2666	UHD 610		
	Pentium Gold G6400	2 / 4	4.0G	4 MB	DDR4-2666	UHD 610		
	Pentium Gold G6500	2 / 4	4.1G	4 MB	DDR4-2666	UHD 630		
	Pentium Gold G6600	2 / 4	4.2G	4 MB	DDR4-2666	UHD 630		
	Core i3-10100	4 / 8	3.6G / 4.3G	6 MB	DDR4-2666	UHD 630		
	Core i3-10300	4 / 8	3.7G / 4.4G	8 MB	DDR4-2666	UHD 630		
	Core i3-10320	4 / 8	3.8G / 4.6G	8 MB	DDR4-2666	UHD 630		
	Core i5-10400	6 / 12	2.9G / 4.3G	12 MB	DDR4-2666	UHD 630		
	Core i5-10500	6 / 12	3.1G / 4.5G	12 MB	DDR4-2666	UHD 630		
	Core i5-10600	6 / 12	3.3G / 4.8G	12 MB	DDR4-2666	UHD 630		
	Core i7-10700	8 / 16	2.9G / 4.8G	16 MB	DDR4-2933	UHD 630		
	Core i9-10900	10 / 20	2.8G / 5.2G	20 MB	DDR4-2933	UHD 630		
Memory	64GB max (32GB SO-DIMM only available via special bid models), DDR4-2666 / DDR4-2933*, two 260-pin SO-DIMM sockets, dual-channel capable * Memory module is DDR4-3200, but clocks down for the limitation of processors							
Storage	Support up to 1x 2.5" HDD and 1x M2.SSD, <i>Some:</i> Hard Drive / SATA 6.0Gb/s, 2.5" or 3.5", 7200 rpm <i>Some:</i> M.2 SSD (2242 / 2280) / PCIe NVMe, PCIe 3.0 x2 or PCIe 3.0 x4 <i>Some:</i> Intel Optane™ Memory M10, M.2 2280, PCIe 3.0 x2 <i>Some:</i> DVD-ROM SATA 1.5Gb/s Drive, slim (9.0mm) <i>Some:</i> DVD Burner (DVD±RW), SATA 1.5Gb/s Drive, slim (9.0mm) Optional 3-in-1 media card reader							
Optical								
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™(up to 4096x2304@60Hz)							
Monitor Cable	Optional DP to VGA dongle, DP to DVI-D dongle, DP to 2 DP dongle (MST mode), or DP to HDMI 1.4 dongle							
Display	21.5" (546.1mm) Full HD 1080p (1920x1080), IPS (In Plane Switching) technology (IPS may refer to IPS, PLS, ADS, AHVA, AAS), wide viewing angle (H/V 178°), LED backlight, 250 nits, 16:9 aspect ratio, 1000:1 contrast ratio, anti-glare, borderless design (88% Screen to Body Ratio)							
Multi-touch	Optional multi-touch, supports 10-point, AIT (Advanced In-cell Touch) technology							
Camera	<i>Some:</i> 1080p camera with dual microphone, ThinkShutter (physical switch on/off) <i>Some:</i> RGBIR camera with dual microphone, support 1080p, ThinkShutter (physical switch on/off), support Windows Hello							
Controls	Physical buttons on side for microphone mute and power on/off							
Chipset	Intel H470 Chipset							
Rear ports*	4x USB 3.2 Gen 1 (one supports Smart Power On), 1x ethernet (RJ-45), 1x DisplayPort, 1x optional serial (9-pin)							
Side ports*	1x USB 3.2 Gen 2, 1x USB 3.2 Gen 1, 1x USB 3.2 Type-C Gen 1(5V/3A charging), 1x optional card reader, 1x headphone / microphone combo jack (3.5mm)							
M.2 card slot	Two M.2 Card slots (one for WLAN, one for SSD/Optane) * Depending on many factors, actual data speed may be lower than theoretical speed							
Audio support	High Definition (HD) Audio, Realtek ALC233 / two internal speakers (2W x 2), Dolby® Atmos® certified							
WLAN	<i>Some:</i> 11ac wireless, M.2 Card, Realtek RTL8822CE (dual band), Wi-Fi + Bluetooth 5.0 combo adapter, 2x2 <i>Some:</i> 11ac wireless, M.2 Card, Intel Wireless-AC 9462 (dual band), Wi-Fi + Bluetooth 5.0 combo adapter, 1x1 (special bid only) <i>Some:</i> 11ac wireless, M.2 Card, Intel Wireless-AC 9560 (dual band), Wi-Fi + Bluetooth 5.0 combo adapter, 2x2							
							Without stand (with camera):	
							Dimensions (WxDxH)	w/ ODD: 19.3" x 2.3" x 11.7" / 490.14 x 57.8 x 297.75 (mm) w/o ODD: 19.3" x 1.8" x 11.7" / 490.14 x 46 x 297.75 (mm)
							Approx weight (lb / kg)	w/ ODD: (Non-touch) 11.3 / 5.12 (Touch) 10.8 / 4.88 w/o ODD: (Non-touch) 10.7 / 4.86 (Touch) 10.2 / 4.62
							With Full Function Monitor stand (with camera):	
							Dimensions (WxDxH)	19.3" x 7.9" x 15.2" to 18.3" / 490.14 x 199.82 x 386.05 to 466.04 (mm)
							Approx weight (lb / kg)	w/ ODD: (Non-touch) 16.2 / 7.33 (Touch) 15.6 / 7.09 w/o ODD: (Non-touch) 15.6 / 7.07 (Touch) 15.1 / 6.83
							Adjustments	Tilt: 30° back, -5° forward; Lift: 80mm
							With UltraFlex IV stand (with camera):	
							Dimensions (WxDxH)	Lowest in flat mode: 19.3" x 11.3" x 7.8" / 490.17 x 288.17 x 197.04 (mm) Highest in vertical mode: 19.3" x 9.2" x 17.3" / 490.17 x 232.75 x 439.28 (mm)
							Approx weight (lb / kg)	w/ ODD: (Non-touch) 17.4 / 7.88 (Touch) 16.9 / 7.65 w/o ODD: (Non-touch) 16.8 / 7.62 (Touch) 16.3 / 7.38
							Adjustments	Tilt: 70° back, -5° forward; Lift: up to 115mm (vertical mode) / 164mm (flat mode)
							Note: Camera adds 14.5mm in height (Vertical mode)	
Power supply	<i>Some:</i> 135 watts adapter, autosensing, 89% PSU <i>Some:</i> 170 watts adapter, autosensing, 89% PSU							
Limited warranty ³	<i>Some:</i> 1-year, depot repair service / service upgrades available <i>Some:</i> 1-year or 3-year, limited onsite service / service upgrades available							
Preload	<i>Some:</i> Windows® 10 Pro 64-bit <i>Some:</i> Windows 10 Home 64-bit <i>Some:</i> Windows 10 IoT Enterprise (only available via special bid model)							
Environment	ENERGY STAR® 8.0*, EPEAT™ Silver rating*, ErP Lot 3, TCO 8.0, TCO Edge, 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 * Only available for MT 11CK/11CL							
MIL-SPEC test	MIL-STD-810H military certification (Low Pressure [Altitude], High Temperature, Low Temperature, Temperature Shock, Humidity, Sand and Dust, Vibration, Shock, Fungus, Solar Radiation)							
Accessories	For compatible accessories, please go to http://smartfind.lenovo.com							

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

Lenovo, June 2020



ThinkCentre M820z Platform Specifications

Product Specifications Reference (PSREF)

Processor	Intel® Celeron®, Intel Pentium®, or 8th / 9th Gen Intel Core™ i3 / i5 / i7 / i9 series						WLAN	Some: 11ac wireless, M.2 Card, Realtek RTL8821CE (dual band), Wi-Fi + Bluetooth 4.2 combo adapter, 1x1		
	Processor	Cores / Threads	Frequency Base/Max(GHz)	Cache	Memory Support (Up to)	Integrated Graphics		Some: 11ac wireless, M.2 Card, Realtek RTL8822BE (dual band), Wi-Fi + Bluetooth 4.2 combo adapter, 2x2		
	Celeron G4900	2 / 2	3.1G	2 MB	DDR4-2400	UHD 610	Bluetooth™ Ethernet	Some: 11ac wireless, M.2 Card, Intel Dual Band Wireless-AC 3165, Wi-Fi + Bluetooth 4.2 combo adapter, 1x1		
	Celeron G4920	2 / 2	3.2G	2 MB	DDR4-2400	UHD 610		Some: 11ac wireless, M.2 Card, Intel Dual Band Wireless-AC 8265, Wi-Fi + Bluetooth 4.2 combo adapter, 2x2		
	Celeron G4930	2 / 2	3.2G	2 MB	DDR4-2400	UHD 610	Manageability	Some: Bluetooth 4.2 wireless, integrated in Wi-Fi + BT combo adapter		
	Celeron G4950	2 / 2	3.3G	2 MB	DDR4-2400	UHD 610		Gigabit ethernet, Realtek RTL8111G, Wake on LAN®		
	Pentium Gold G5400	2 / 4	3.7G	4 MB	DDR4-2400	UHD 610	Security chip	None		
	Pentium Gold G5420	2 / 4	3.8G	4 MB	DDR4-2400	UHD 610		Discrete TPM 2.0, TCG Certified		
	Pentium Gold G5500	2 / 4	3.8G	4 MB	DDR4-2400	UHD 630	Security features	● Security slot (in rear for attachment of optional Kensington® MicroSaver® cable; Kensington lock also locks chassis)		
	Pentium Gold G5600	2 / 4	3.9G	4 MB	DDR4-2400	UHD 630		● Boot sequence control		
	Pentium Gold G5620	2 / 4	4.0G	4 MB	DDR4-2400	UHD 630	● Boot without keyboard and mouse			
	Core i3-8100	4 / 4	3.6G	6 MB	DDR4-2400	UHD 630	Keyboard	● Smart USB protection, allows keyboard/ mouse only, blocks all storage devices		
	Core i3-8300	4 / 4	3.7G	8 MB	DDR4-2400	UHD 630		● Individual USB port disablement		
	Core i5-8400	6 / 6	2.8G / 4.0G	9 MB	DDR4-2666	UHD 630	Mouse	● Optional Chassis intrusion switch		
	Core i5-8500	6 / 6	3.0G / 4.1G	9 MB	DDR4-2666	UHD 630		Some: Lenovo Calliope Keyboard (USB connector), black		
	Core i5-8600	6 / 6	3.1G / 4.3G	9 MB	DDR4-2666	UHD 630	Some: Lenovo Traditional Keyboard (USB connector), black			
	Core i7-8700	6 / 12	3.2G / 4.6G	12 MB	DDR4-2666	UHD 630	Mechanical	Some: Lenovo Calliope Wireless Keyboard (2.4GHz via USB receiver), black		
	Core i3-9100	4 / 4	3.6G / 4.2G	6 MB	DDR4-2400	UHD 630		Some: Lenovo Calliope Mouse (USB connector), black		
	Core i3-9300	4 / 4	3.7G / 4.3G	8 MB	DDR4-2400	UHD 630	Some: Lenovo Fingerprint Mouse (USB connector), Windows Hello support, black			
	Core i5-9400	6 / 6	2.9G / 4.1G	9 MB	DDR4-2666	UHD 630	Some: Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black			
	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 (2242 / 2280) / PCIe NVMe, PCIe 3.0 x2 or PCIe 3.0 x4 Some: Intel Optane™ Memory (not support Celeron / Pentium Processor), M.2 Some: DVD-ROM SATA 1.5Gb/s Drive, slim (9.0mm) Some: DVD Burner (DVD±RW), SATA 1.5Gb/s Drive, slim (9.0mm) Optional 3-in-1 media card reader									
Optical										
Media 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 21.5" (546.1mm) Full HD 1080p (1920x1080) TFT color, Borderless design, TFT-LCD, IPS (In Plane Switching) technology (IPS may refer to IPS, PLS, ADS, AHVA, AAS), wide viewing angle (+/- 89°), LED backlight, 250 nits, 16:9 aspect ratio, 1000:1 contrast ratio, anti-glare, support Low Blue Light Mode Optional multi-touch, supports 10-point, AIT (Advanced In-cell Touch) technology Optional 1080p camera, with dual microphone, LED indicator, physical switch on/off, supports multi-degree rotation (horizontal 0° to 180°, vertical -25° to 25°) Physical buttons on side for microphone mute and power on/off									
Display										
Multi-touch										
Camera										
Controls										
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									
							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™ Silver 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.

Lenovo, June 2019



ThinkCentre M90a Platform Specifications

Product Specifications Reference (PSREF)

Processor	Intel® Celeron®, Intel Pentium®, or 10th Gen Intel Core™ i3 / i5 / i7 / i9 Processor						Bluetooth™ Ethernet	Some: Bluetooth 5.0/5.1 wireless, integrated in Wi-Fi + BT combo adapter Gigabit ethernet, Intel Ethernet Connection I219-LM (Jacksonville), Wake on LAN®				
	Processor	Cores / Threads	Frequency Base/Max*(GHz)	Cache	Memory Support (Up to)	Integrated Graphics	Manageability	Intel Active Management Technology 14.0 (Intel AMT 14.0); Intel vPro technology on some models (require choosing a vPro-support Wi-Fi adapter to enable vPro function through wireless connection)				
	Celeron G5900	2 / 2	3.4G	2 MB	DDR4-2666	UHD 610	Security chip	Discrete TPM 2.0, TCG Certified				
	Celeron G5920	2 / 2	3.5G	2 MB	DDR4-2666	UHD 610						
	Pentium Gold G6400	2 / 4	4.0G	4 MB	DDR4-2666	UHD 610	Security features	● Security slot (for Kensington® lock) ● Optional Chassis intrusion switch ● Self-Healing BIOS ● Optional PrivacyGuard screen ● Power-on, admin, hard disk password				
	Pentium Gold G6500	2 / 4	4.1G	4 MB	DDR4-2666	UHD 630						
	Pentium Gold G6600	2 / 4	4.2G	4 MB	DDR4-2666	UHD 630	Keyboard	● Boot sequence control ● Boot without keyboard and mouse ● Individual USB port disablement ● Smart USB protection, allows keyboard/mouse only, blocks all storage devices				
	Core i3-10100	4 / 8	3.6G / 4.3G	6 MB	DDR4-2666	UHD 630						
	Core i3-10300	4 / 8	3.7G / 4.4G	8 MB	DDR4-2666	UHD 630	Mouse	Some: Lenovo Calliope Keyboard (USB connector), black Some: Lenovo Traditional Keyboard (USB connector), black Some: Lenovo Calliope Mouse (USB connector), black Some: Lenovo Fingerprint Mouse (USB connector), Windows Hello support, black				
	Core i3-10320	4 / 8	3.8G / 4.6G	8 MB	DDR4-2666	UHD 630						
	Core i5-10400	6 / 12	2.9G / 4.3G	12 MB	DDR4-2666	UHD 630	Mechanical	● Business black color ● Toolless back cover, stand removal ● Support VESA mount (100mm)				
	Core i5-10500	6 / 12	3.1G / 4.5G	12 MB	DDR4-2666	UHD 630						
	Core i5-10600	6 / 12	3.3G / 4.8G	12 MB	DDR4-2666	UHD 630						
	Core i7-10700	8 / 16	2.9G / 4.8G	16 MB	DDR4-2933	UHD 630						
Core i9-10900	10 / 20	2.8G / 5.2G	20 MB	DDR4-2933	UHD 630							
Memory	64GB max (32GB SO-DIMM only available via special bid models), DDR4-2666 / DDR4-2933*, two 260-pin SO-DIMM sockets, dual-channel capable * Memory module is DDR4-3200, but clocks down for the limitation of processors						Privacy Gaurd	ODD	Dimensions (WxDxH)		Approx weight (lb / kg)	
Storage	Support up to 2x 2.5" HDD (2nd HDD occupy ODD bay) and 1x M2.SSD Some: Hard Drive / SATA 6.0Gb/s, 2.5", 5400 rpm or 7200 rpm Some: M.2 SSD (2242 / 2280) / PCIe NVMe, PCIe 3.0 x2 or PCIe 3.0 x4 Some: Intel Optane™ Memory M10, M.2 2280, PCIe 3.0 x2 Some: DVD-ROM SATA 1.5Gb/s Drive, slim (9.0mm) Some: DVD Burner (DVD±RW), SATA 1.5Gb/s Drive, slim (9.0mm) Optional 3-in-1 media card reader								Without stand (with camera):			
Optical	Optional 3-in-1 media card reader								21.3" x 1.8" x 13.4" / 541 x 46 x 340.5 (mm)		11.6 / 5.25	
							✓	✓	21.3" x 2.3" x 13.4" / 541 x 57.8 x 340.5 (mm)		12.3 / 5.57	
Media reader	Optional 3-in-1 media card reader						✓		21.3" x 1.9" x 13.4" / 541 x 49.5 x 340.5 (mm)		13.5 / 6.13	
							✓	✓	21.3" x 2.4" x 13.4" / 541 x 61.3 x 340.5 (mm)		14.2 / 6.45	
Graphics	Some: Intel HD Graphics 610/630 in processor, uses main memory, DirectX® 12, AMD Radeon™ 625, 2GB GDDR5, DirectX® 12, external monitor support via DisplayPort™(up to 4096x2304@60Hz)								With Full Function Monitor stand (with camera):			
Monitor Cable	Optional DP to VGA dongle, DP to DVI-D dongle, DP to 2 DP dongle (MST mode), or DP to HDMI 1.4 dongle							✓	21.3" x 7.9" x 16.3" to 19.5" / 541 x 200 x 414.2 to 494.2 (mm)		16.6 / 7.51	
Display	23.8" (604.5mm) Full HD 1080p (1920x1080), IPS (In Plane Switching) technology (IPS may refer to IPS, PLS, ADS, AHVA, AAS), wide viewing angle (H/V 178°), LED backlight, 250 nits (350 nits for the models with PrivacyGaurd), 16:9 aspect ratio, 1000:1 contrast ratio, anti-glare, borderless design (88% Screen to Body Ratio), optional PrivacyGaurd						✓				17.3 / 7.84	
							✓	✓			18.5 / 8.39	
Multi-touch	Optional multi-touch, supports 10-point, AIT (Advanced In-cell Touch) technology Some: 1080p camera with dual microphone, ThinkShutter (physical switch on/off) Some: RGBIR camera with dual microphone, support 1080p, ThinkShutter (physical switch on/off), support Windows Hello								With UltraFlex IV stand (with camera):			
									Lowest in flat mode: 21.3" x 12.3" x 9.0" / 541 x 312.8 x 227.4 (mm)		18.2 / 8.26	
Camera	Optional multi-touch, supports 10-point, AIT (Advanced In-cell Touch) technology Some: 1080p camera with dual microphone, ThinkShutter (physical switch on/off) Some: RGBIR camera with dual microphone, support 1080p, ThinkShutter (physical switch on/off), support Windows Hello						✓	✓	Highest in vertical mode: 21.3" x 9.2" x 18.4" / 541 x 232.7 x 467.7 (mm)		18.9 / 8.58	
							✓		Lowest in flat mode: 21.3" x 12.3" x 9.1" / 541 x 312.8 x 230.5 (mm)		20.1 / 9.14	
Controls	Microphone mute and power on/off buttons on side, PrivacyGaurd on/off botton on bottom (only for the models with PrivacyGaurd)						✓	✓	Highest in vertical mode: 21.3" x 9.2" x 18.4" / 541 x 232.7 x 467.7 (mm)		20.9 / 9.46	
							Note: Camera adds 14.5mm in height (Vertical mode)					
Chipset	Intel Q470 Chipset						Some: Full Function Monitor stand, Tilt: 30° back, -5° forward; Lift: 80mm Some: UltraFlex IV stand, Tilt: 70° back, -5° forward; Lift: up to 115mm (vertical mode) / 164mm (flat mode)					
Rear ports*	4x USB 3.2 Gen 1 (one supports Smart Power On), 1x ethernet (RJ-45), 1x DisplayPort, 1x optional serial (9-pin),						Power supply	Some: 150 watts adapter, autosensing, 89% PSU Some: 170 watts adapter, autosensing, 89% PSU				
Side ports*	2x USB 3.2 Gen 2, 1x USB 3.2 Type-C Gen 1(5V/3A charging), 1x optional card reader, 1x headphone / microphone combo jack (3.5mm)						Limited warranty³	1-year or 3-year, limited onsite service / service upgrades available				
M.2 card slot	Two M.2 Card slots (one for WLAN, one for SSD/Optane) * Depending on many factors, actual data transfer speed may be lower than theoretical speed						Preload	Some: Windows® 10 Pro 64-bit Some: Windows 10 Home 64-bit Some: Windows 10 IoT Enterprise (only available via special bid model)				
Audio support	High Definition (HD) Audio, Realtek ALC233 / two internal speakers (3W x 2), Dolby® Atmos® certified						Environment	ENERGY STAR® 8.0*, EPEAT™ Silver rating*, ErP Lot 3, TCO 8.0, TCO Edge, TUV Eye comfort certified, TUV Low Blue Light certified, TUV Ultra Low Noise certified (on some models), RoHS-compliant * Only available for MT 11CD/11CE				
WLAN	Some: 11ac wireless, M.2 Card, Realtek RTL8822CE (dual band), Wi-Fi + Bluetooth 5.0 combo adapter, 2x2 Some: 11ac wireless, M.2 Card, Intel Wireless-AC 9560 (dual band), Wi-Fi + Bluetooth 5.0 combo adapter, 2x2 Some: 11ax wireless, M.2 Card, Intel Wi-Fi 6 AX201 (dual band), Wi-Fi + Bluetooth 5.1 combo adapter, Intel vPro technology support, 2x2						MIL-SPEC test	MIL-STD-810H military certification (Low Pressure [Altitude], High Temperature, Low Temperature, Temperature Shock, Humidity, Sand and Dust, Vibration, Shock, Fungus, Solar Radiation)				
							Accessories	For compatible accessories, please go to http://smartfind.lenovo.com				

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

Lenovo, May 2020



ThinkCentre M920z Platform Specifications

Product Specifications Reference (PSREF)

Processor	Intel® Celeron®, Intel Pentium®, or 8th / 9th Gen Intel Core™ i3 / i5 / i7 / i9 series						Audio support	High Definition (HD) Audio, Realtek ALC233 / two internal speakers (3W x 2), Dolby® Audio™ Premium																										
	Processor	Cores / Threads	Frequency Base/Max(GHz)	Cache	Memory Support (Up to)	Integrated Graphics	WLAN	<i>Some:</i> 11ac Wi-Fi + BT 4.2, M.2 Card, Realtek RTL8821CE (dual band), 1x1 <i>Some:</i> 11ac Wi-Fi + BT 4.2, M.2 Card, Realtek RTL8822BE (dual band), 2x2 <i>Some:</i> 11ac Wi-Fi + BT 4.2, M.2 Card, Intel Dual Band Wireless-AC 3165, 1x1 <i>Some:</i> 11ac Wi-Fi + BT 4.2, M.2 Card, Intel Dual Band Wireless-AC 8265,, 2x2 <i>Some:</i> 11ac Wi-Fi + BT 5.0, M.2 Card, Intel Wireless-AC 9560 (dual band), Intel vPro technology support, 2x2																										
	Celeron G4900	2 / 2	3.1G	2 MB	DDR4-2400	UHD 610	Bluetooth™ Ethernet	<i>Some:</i> Bluetooth 4.2/5.0 wireless, integrated in Wi-Fi + BT combo adapter																										
	Celeron G4920	2 / 2	3.2G	2 MB	DDR4-2400	UHD 610		Gigabit ethernet, Intel Ethernet Connection I219-LM (Jacksonville), Wake on LAN®																										
	Celeron G4930	2 / 2	3.2G	2 MB	DDR4-2400	UHD 610	Manageability	Intel Active Management Technology 12.0 (Intel AMT 12.0); Intel vPro technology on some models (require choosing a vPro-support Wi-Fi adapter to enable vPro function through wireless connection)																										
	Celeron G4950	2 / 2	3.3G	2 MB	DDR4-2400	UHD 610	Security chip	Discrete TPM 2.0, TCG Certified																										
	Pentium Gold G5400	2 / 4	3.7G	4 MB	DDR4-2400	UHD 610	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																										
	Pentium Gold G5500	2 / 4	3.8G	4 MB	DDR4-2400	UHD 630	Keyboard	<i>Some:</i> Lenovo Calliope Keyboard (USB connector), black <i>Some:</i> Lenovo Traditional Keyboard (USB connector), black																										
	Pentium Gold G5600	2 / 4	3.9G	4 MB	DDR4-2400	UHD 630		<i>Some:</i> Lenovo Calliope Wireless Keyboard (2.4GHz via USB receiver), black																										
	Pentium Gold G5620	2 / 4	4.0G	4 MB	DDR4-2400	UHD 630	Mouse	<i>Some:</i> Lenovo Calliope Mouse (USB connector), black <i>Some:</i> Lenovo Fingerprint Mouse (USB connector), Windows Hello support, black <i>Some:</i> Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black																										
	Core i3-8100	4 / 4	3.6G	6 MB	DDR4-2400	UHD 630		Mechanical	• Business black color • Toolless back cover, stand, disk, memory removal • Support VESA mount (100mm)																									
	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						<table><tr><th>Dimensions (WxDxH)</th><th>Max weight (lb / kg)</th><th>Adjustments</th></tr><tr><td colspan="3">Without stand (No camera)</td></tr><tr><td>21.3 X 1.8 X 13.7 (inch) 542 X 46 X 349 (mm)</td><td>(Touch) 14.0 / 6.34 (Non-touch) 13.5 / 6.13</td><td>N/A</td></tr><tr><td colspan="3">With Full Function Monitor stand (No camera):</td></tr><tr><td>21.3 X 9.9 X 15.9 to 20.2 (inch) 542 X 252 X 405 to 514 (mm)</td><td>(Non-touch) 18.2 / 8.26</td><td>Tilt: 45° back, -5° forward; Lift: 110mm; Swivel: +/-45°</td></tr><tr><td colspan="3">With UltraFlex III stand (No camera):</td></tr><tr><td>21.3 X 9.9 X 14.3 to 17.5 (inch) 542 X 252 X 363 to 444 (mm)</td><td>(Touch) 19.7 / 8.94 (Non-touch) 19.2 / 8.73</td><td>Tilt: 70° back, -5° forward; Lift: up to 136mm (flat mode) / up to 81mm (vertical mode); Swivel: +/-45°</td></tr><tr><td colspan="3">Note: Camera adds 22mm in height (Vertical)</td></tr></table>				Dimensions (WxDxH)	Max weight (lb / kg)	Adjustments	Without stand (No camera)			21.3 X 1.8 X 13.7 (inch) 542 X 46 X 349 (mm)	(Touch) 14.0 / 6.34 (Non-touch) 13.5 / 6.13	N/A	With Full Function Monitor stand (No camera):			21.3 X 9.9 X 15.9 to 20.2 (inch) 542 X 252 X 405 to 514 (mm)	(Non-touch) 18.2 / 8.26	Tilt: 45° back, -5° forward; Lift: 110mm; Swivel: +/-45°	With UltraFlex III stand (No camera):			21.3 X 9.9 X 14.3 to 17.5 (inch) 542 X 252 X 363 to 444 (mm)	(Touch) 19.7 / 8.94 (Non-touch) 19.2 / 8.73	Tilt: 70° back, -5° forward; Lift: up to 136mm (flat mode) / up to 81mm (vertical mode); Swivel: +/-45°	Note: Camera adds 22mm in height (Vertical)		
Dimensions (WxDxH)	Max weight (lb / kg)	Adjustments																																
Without stand (No camera)																																		
21.3 X 1.8 X 13.7 (inch) 542 X 46 X 349 (mm)	(Touch) 14.0 / 6.34 (Non-touch) 13.5 / 6.13	N/A																																
With Full Function Monitor stand (No camera):																																		
21.3 X 9.9 X 15.9 to 20.2 (inch) 542 X 252 X 405 to 514 (mm)	(Non-touch) 18.2 / 8.26	Tilt: 45° back, -5° forward; Lift: 110mm; Swivel: +/-45°																																
With UltraFlex III stand (No camera):																																		
21.3 X 9.9 X 14.3 to 17.5 (inch) 542 X 252 X 363 to 444 (mm)	(Touch) 19.7 / 8.94 (Non-touch) 19.2 / 8.73	Tilt: 70° back, -5° forward; Lift: up to 136mm (flat mode) / up to 81mm (vertical mode); Swivel: +/-45°																																
Note: Camera adds 22mm in height (Vertical)																																		
Storage	<i>Some:</i> Hard Drive / SATA 6.0Gb/s, 2.5", 5400 rpm or 7200 rpm, supports up to two HDDs (2nd HDD occupies ODD bay), RAID0/1 support (RAID preset only available via special bid model) <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" <i>Some:</i> M.2 SSD (2242 / 2280) / PCIe NVMe, PCIe 3.0 x2 or PCIe 3.0 x4 <i>Some:</i> Intel Optane™ Memory (not support Celeron / Pentium Processor), M.2 <i>Some:</i> DVD-ROM SATA 1.5Gb/s Drive, slim (9.0mm) <i>Some:</i> DVD Burner (DVD±RW), SATA 1.5Gb/s Drive, slim (9.0mm) Optional 3-in-1 media card reader																																	
Optical																																		
Media 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 23.8" (604.5mm) Full HD 1080p (1920x1080) TFT color, Borderless design, IPS (In Plane Switching) technology (IPS may refer to IPS, PLS, ADS, AHVA, AAS), wide viewing angle (+/- 89°), LED backlight, 250 nits, 16:9 aspect ratio, 1000:1 contrast ratio, anti-glare, support Low Blue Light Mode, work as standalone monitor via DisplayPort (DP in / out combo)																																	
Display																																		
Multi-touch Camera	Optional multi-touch, supports 10-point, AIT (Advanced In-cell Touch) technology <i>Some:</i> 1080p camera, with dual microphone, LED indicator, physical switch on/off, supports multi-degree rotation (horizontal 0° to 180°, vertical -25° to 25°) <i>Some:</i> RGBIR camera, 1080p, with dual microphone, physical switch on/off, supports multi-degree rotation (horizontal 0° to 180°, vertical -25° to 25°) Windows Hello support, only available via special bid models																																	
Controls	Physical buttons on side for microphone mute and power on/off																																	
Chipset	Intel Q370 Chipset																																	
Rear ports*	Four USB 3.1 Gen1 (one supports Smart Power On), one ethernet (RJ-45), one DisplayPort in/out combo port, one optional serial (9-pin)																																	
Side ports*	one USB 3.1 Gen2 (one is Always On and fast charge), one USB 3.1 Gen1, 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)																																	
							Power supply	150 watts, autosensing, 90% PSU																										
							Limited warranty ³	<i>Some:</i> 1-year or 3-year, depot repair service / service upgrades available <i>Some:</i> 1-year or 3-year, limited onsite service / service upgrades available																										
							Preload	Preloaded operating system <i>Some:</i> Windows 10 Pro 64-bit <i>Some:</i> 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™ Silver rating* (*not for non-OS models), ErP Lot 3, TCO AIO Computer certified, GREENGUARD® certified, TUV Eye comfort certified, 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																										



AMD



AMD

AMD



AMD



AMD

AMD



ThinkCentre M75n Platform Specifications

Product Specifications Reference (PSREF)

Processor	AMD Ryzen 3 / 5 PRO series processor						Security features ● Security slot (in rear for optional Kensington® MicroSaver® cable) ● Chassis intrusion switch ● Power-on password ● Administrator password ● Hard disk password ● Boot sequence control ● Boot without keyboard and mouse ● Individual USB port disablement ● Smart USB protection, allows keyboard/mouse only, blocks all storage devices		
	Processor	Cores / Threads	Frequency Base/Max	L2 / L3 Cache	Memory Support (Up to)	Integrated Graphics			
	Ryzen 3 PRO 3300U	4 / 4	2.1 / 3.5 GHz	2 MB / 4MB	DDR4-2400	Radeon Vega 6			
	Ryzen 5 PRO 3500U	4 / 8	2.1 / 3.7 GHz	2 MB / 4MB	DDR4-2400	Radeon Vega 8			
Memory	8GB / DDR4-2400* / soldered to systemboard, no sockets, dual-channel capable, non-ECC * System automatically clocks down for the processors with lower memory controller						Keyboard		
Storage	Support up to two M.2 SSD (one PCIe x4, one PCIe x2) <i>Some:</i> M.2 2280 SSD / PCIe NVMe, PCIe 3.0 x 4* <i>Some:</i> M.2 2242 SSD / PCIe NVMe, PCIe 3.0 x 2 * M.2 SSD in PCIe 3.0 x2 M.2 slot can only run at PCIe 3.0 x2						Mouse		
RAID	None						Mechanical		
Optical									
Graphics	AMD Radeon™ Vega 6/8 Graphics in processor, uses main memory, DirectX® 12, one DisplayPort™, one USB 3.2 Type-C Gen2 with display function, up to 2 independent displays; <i>Max resolution:</i> 3840x2160 (DP)@60Hz; 3840x2160 (Type-C)@60Hz Optional DP to VGA dongle, DP to HDMI dongle, Type-C to VGA dongle, Type-C to HDMI dongle, Type-C to DP dongle						Mounting <i>Some:</i> VESA mount bracket kit, supports VESA 75mm <i>Some:</i> VESA mount bracket kit with adaper holder, supports VESA 75mm <i>Some:</i> DIN rail mount bracket kit Floor Stand None		
Monitor cable	Chipset								
Chipset									
Front ports (Std.)*									
Rear ports (Std.)*	1x USB 2.0, 1x USB 3.2 Gen2, 1x USB 3.2 Type-C Gen 2 (with display function, support power-in [20V and >45W]), 1x ethernet (RJ-45), 1x DisplayPort * Depending on many factors, actual data transfer speed may be lower than theoretical speed						Power supply		
Audio support	Realtek ALC233 / internal speaker (1watt)						Limited warranty		
WLAN	<i>Some:</i> 11ac wireless, M.2 Card, Realtek RTL8822CE (dual band), Wi-Fi + Bluetooth 5.0 combo adapter, 2x2 <i>Some:</i> 11ac wireless, M.2 Card, Qualcomm Atheros QCA6174A (dual band), Wi-Fi + Bluetooth 4.2 combo adapter, 2x2 <i>Some:</i> 11ac wireless, M.2 Card, Intel Wireless-AC 9260 (dual band), Wi-Fi + Bluetooth 5.0 combo adapter, 2x2						Preload		
Bluetooth	<i>Some:</i> Bluetooth 4.2 / 5.0 wireless, integrated in Wi-Fi + BT combo adapter						Environment		
Ethernet									
Manageability	Dash 1.1/1.2 Discrete TPM 2.0, TCG Certified						MIL-SPEC test		
Security chip									
							Accessories		

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

Lenovo, May 2020



AMD



AMD



AMD



AMD



AMD



AMD

ThinkCentre M75n IoT Platform Specifications

Product Specifications Reference (PSREF)

Processor	AMD Athlon processor						Security features			- Security slot (in rear for optional Kensington® MicroSaver® cable) - Chassis intrusion switch - Power-on password - Administrator password - Hard disk password - Boot sequence control - Boot without keyboard and mouse - Individual USB port disablement
	Processor	Cores / Threads	Frequency Base/Max	L2 / L3 Cache	Memory Support (Up to)	Integrated Graphics				
	AMD Athlon Silver 3050e	2 / 4	1.4 / 2.8 GHz	1 MB / 4MB	DDR4-2400	Radeon Graphics				
Memory	4GB / DDR4-2400* / soldered to systemboard, no sockets, non-ECC * System automatically clocks down for the processors with lower memory controller									
Storage	Support one M.2 SSD Some: M.2 2280 SSD / PCIe NVMe, PCIe 3.0 x 4 Some: M.2 2242 SSD / PCIe NVMe, PCIe 3.0 x 2									
RAID	None									
Optical	None									
Graphics	AMD Radeon™ Graphics in processor, uses main memory, DirectX® 12, one DisplayPort™, one USB 3.2 Type-C Gen2 with display function, up to 2 independent displays; Max resolution: 3840x2160 (DP)@60Hz; 3840x2160 (Type-C)@60Hz Optional DP to VGA dongle, DP to HDMI dongle, Type-C to VGA dongle, Type-C to HDMI dongle, Type-C to DP dongle									
Monitor cable										
Chipset	AMD SoC (System on Chip) platform									
Front ports (Std.)*	1x USB 2.0, 1x USB 3.2 Gen 2, 1x USB 3.2 Type-C Gen 2, one headphone / microphone combo jack (3.5mm), 2x serial (RS-232)									
Rear ports (Std.)*	1x USB 3.2 Gen 2, 1x USB 3.2 Type-C Gen 2 (with display function, support power-in [20V, > 45W]), 1x ethernet (RJ-45), 1x DisplayPort									
I/O box*	Optional I/O box, connect to the USB 3.2 Type-C Gen 2 port of M75n IoT, extends 2x serial, 2x ethernet (RJ-45, I/O box is equipped with Realtek RTL8153B, gigabit ethernet), 1x DI (Digital Input) connector, 1x DO (Digital Output) connector * Depending on many factors, actual data transfer speed may be lower than theoretical speed									
Audio support	Realtek ALC233 / internal speaker (1watt)									
WLAN	Some: 11ac wireless, M.2 Card, Realtek RTL8822CE (dual band), Wi-Fi + Bluetooth 5.0 combo adapter, 2x2 Some: 11ac wireless, M.2 Card, Qualcomm Atheros QCA6174A (dual band), Wi-Fi + Bluetooth 4.2 combo adapter, 2x2 Some: 11ac wireless, M.2 Card, Intel Wireless-AC 9260 (dual band), Wi-Fi + Bluetooth 5.0 combo adapter, 2x2									
Bluetooth	Some: Bluetooth 4.2 / 5.0 wireless, integrated in Wi-Fi + BT combo adapter									
WWAN	None									
Ethernet	Gigabit ethernet, Realtek RTL8111FP-CG, Wake on LAN®									
Manageability	Dash 1.1/1.2									
Security chip	Discrete TPM 2.0, TCG Certified									
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	Nano (fanless 0.55L), Iron Gray top cover / Black mid bezel / Black bottom cover Two M.2 slots: one for M.2 SSD, one for WLAN									
		Dimensions (WxDxH)				Weight (Approx.)				
	M75 IoT (fanless, 0.55L)	7.05" X 3.46" X 1.36" 179mm X 88mm X 34.5mm				1.58 lb (0.72 kg), vary by config				
	With I/O box	7.05" X 3.46" X 2.41" 179mm X 88mm X 61.3mm				2.65 lb (1.2 kg), vary by config				
Mounting	Some: VESA mount bracket kit, supports VESA 75mm Some: VESA mount bracket kit with adaper holder, supports VESA 75mm Some: DIN rail mount bracket kit									
Floor Stand	None									
Power supply	Some: 65 watts AC/DC adapter*, autosensing, 89% PSU Some: 65 watts AC/DC adapter (wide temperature)*, autosensing, 88% PSU (only for Machine Type 11GW/11GX) * Not for the models with I/O box									
Limited warranty	Some: 1-year, limited onsite service / service upgrades available Some: 3-year, limited onsite service / service upgrades available									
Preload	Preloaded operating system Some: Windows® 10 Pro 64-bit Some: Windows 10 IoT Enterprise (only available via special bid model)									
Environment	ENERGY STAR® 8.0*, EPEAT™ Silver rating*, ErP Lot 3, TCO 8.0*, TUV ultra low noise verified (on some models), RoHS, WEEE, REACH * Not for the models with I/O box or 65w adapter (wide temperature)									
MIL-SPEC test	MIL-STD-810H military certification (Low Pressure [Altitude], High Temperature, Low Temperature, Temperature Shock, Humidity, Sand and Dust, Vibration, Shock, Fungus, Solar Radiation)									
Accessories	For compatible accessories, please go to http://smartfind.lenovo.com									

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

Lenovo, May 2020



AMD



AMD

AMD



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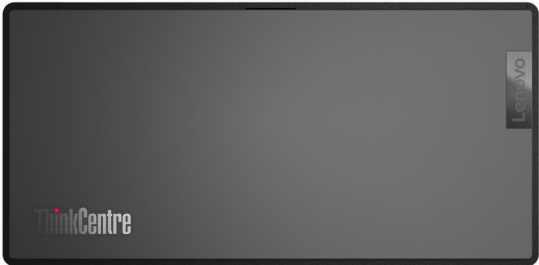
ThinkCentre M75n Thin Client Platform Specifications

Product Specifications Reference (PSREF)

Processor	AMD Ryzen 3 / 5 PRO series processor						Security features	- Security slot (in rear for optional Kensington® MicroSaver® cable) - Chassis intrusion switch - Power-on password - Administrator password - Hard disk password	- Boot sequence control - Boot without keyboard and mouse - Individual USB port disablement - Smart USB protection, allows keyboard/mouse only, blocks all storage devices							
	Processor	Cores / Threads	Frequency Base/Max	L2 / L3 Cache	Memory Support (Up to)	Integrated Graphics										
	Ryzen 3 PRO 3300U	4 / 4	2.1 / 3.5 GHz	2 MB / 4MB	DDR4-2400	Radeon Vega 6										
Memory	8GB / DDR4-2400* / soldered to systemboard, no sockets, dual-channel capable, non-ECC * System automatically clocks down for the processors with lower memory controller							Keyboard	<i>Some:</i> Lenovo Calliope Keyboard (USB connector), black <i>Some:</i> Lenovo Traditional Keyboard (USB connector), black <i>Some:</i> Lenovo Calliope Wireless Keyboard (2.4GHz via USB receiver), black							
Storage	Support up to two M.2 SSD (one PCIe x4, one SATA/PCIe x2) <i>Some:</i> M.2 2280 SSD / PCIe NVMe, PCIe 3.0 x 4* <i>Some:</i> M.2 2242 SSD / PCIe NVMe, PCIe 3.0 x 2 <i>Some:</i> M.2 2242 SSD / SATA interface * M.2 SSD in PCIe 3.0 x2 M.2 slot can only run at PCIe 3.0 x2							Mouse	<i>Some:</i> Lenovo Calliope Mouse (USB connector), black <i>Some:</i> Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black							
RAID	None							Mechanical	Nano (0.35L), Iron Gray top cover / Black mid bezel / Red bottom cover Three M.2 slots: two for M.2 SSD (one PCIe 3.0 x4 and one PCIe 3.0 x2 / SATA) and one for WLAN							
Optical	None								<table><tr><td></td><td>Dimensions (WxDxH)</td><td>Weight (Approx.)</td></tr><tr><td>M75n (with fan, 0.35L)</td><td>7.05" X 3.46" X 0.87" 179mm X 88mm X 22mm</td><td>1.11 lb (0.505 kg), vary by config</td></tr></table>			Dimensions (WxDxH)	Weight (Approx.)	M75n (with fan, 0.35L)	7.05" X 3.46" X 0.87" 179mm X 88mm X 22mm	1.11 lb (0.505 kg), vary by config
	Dimensions (WxDxH)	Weight (Approx.)														
M75n (with fan, 0.35L)	7.05" X 3.46" X 0.87" 179mm X 88mm X 22mm	1.11 lb (0.505 kg), vary by config														
Graphics	AMD Radeon™ Vega 6 Graphics in processor, uses main memory, DirectX® 12, one DisplayPort™, one USB 3.2 Type-C Gen2 with display function, up to 2 independent displays; <i>Max resolution:</i> 3840x2160 (DP)@60Hz; 3840x2160 (Type-C)@60Hz Optional DP to VGA dongle, DP to HDMI dongle, Type-C to VGA dongle, Type-C to HDMI dongle, Type-C to DP dongle							Mounting	<i>Some:</i> VESA mount bracket kit, supports VESA 75mm <i>Some:</i> VESA mount bracket kit with adapter holder, supports VESA 75mm <i>Some:</i> DIN rail mount bracket kit							
Monitor cable								Floor Stand	None							
Chipset	AMD SoC (System on Chip) platform							Power supply	65 watts adapter, autosensing, 89% PSU (Not for TIO models)							
Front ports (Std.)*	1x USB 2.0, 1x USB 3.2 Gen 2, 1x USB 3.2 Type-C Gen 2, one headphone / microphone combo jack (3.5mm)							Limited warranty	<i>Some:</i> 1-year, limited onsite service / service upgrades available <i>Some:</i> 3-year, limited onsite service / service upgrades available							
Rear ports (Std.)*	1x USB 2.0, 1x USB 3.2 Gen2, 1x USB 3.2 Type-C Gen 2 (with display function, support power-in [20V and >45W]), 1x ethernet (RJ-45), 1x DisplayPort * Depending on many factors, actual data transfer speed may be lower than theoretical speed							Preload	Preloaded operating system <i>Some:</i> LeTOS V2 (Lenovo Terminal Operating System, Linux-based) <i>Some:</i> Windows 10 IoT Enterprise (Thin Client version)							
Audio support	Realtek ALC233 / internal speaker (1watt)							Environment	ENERGY STAR® 8.0, EPEAT™ Silver rating, ErP Lot 3, TCO 8.0, TUV ultra low noise verified (on some models), RoHS, WEEE, REACH							
WLAN	<i>Some:</i> 11ac wireless, M.2 Card, Realtek RTL8822CE (dual band), Wi-Fi + Bluetooth 5.0 combo adapter, 2x2 <i>Some:</i> 11ac wireless, M.2 Card, Intel Wireless-AC 9260 (dual band), Wi-Fi + Bluetooth 5.0 combo adapter, 2x2							MIL-SPEC test	MIL-STD-810H military certification (Low Pressure [Altitude], High Temperature, Low Temperature, Temperature Shock, Humidity, Sand and Dust, Vibration, Shock, Fungus, Solar Radiation)							
Bluetooth	<i>Some:</i> Bluetooth 4.2 / 5.0 wireless, integrated in Wi-Fi + BT combo adapter							Accessories	For compatible accessories, please go to http://smartfind.lenovo.com							
Ethernet	Gigabit ethernet, Realtek RTL8111FP-CG, Wake on LAN®															
Manageability	Dash 1.1/1.2															
Security chip	Discrete TPM 2.0, TCG Certified															

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

Lenovo, May 2020



ThinkCentre M90n-1 Nano Platform Specifications

Product Specifications Reference (PSREF)

Processor	Intel® 8th Generation Intel Core™ i3 / i5 / i7 Processor						Manageability Security chip Security features	Intel vPro technology on some models (require choosing a vPro-support Wi-Fi adapter to enable vPro function through wireless connection) Discrete TPM 2.0, TCG Certified - Security slot (in rear for optional Kensington® MicroSaver® cable) - Chassis intrusion switch - Power-on password - Administrator password - Hard disk password - Boot sequence control - Boot without keyboard and mouse - Individual USB port disablement - Smart USB protection, allows keyboard/mouse only, blocks all storage devices					
	Processor	Cores / Threads	Frequency Base/Max(GHz)	Cache	Memory Support (Up to)	Integrated Graphics							
	Core i3-8145U	2 / 4	2.1G / 3.9G	4 MB	DDR4-2400	UHD 620							
	Core i5-8265U	4 / 8	1.6G / 3.9G	6 MB	DDR4-2400	UHD 620							
	Core i5-8365U	4 / 8	1.6G / 4.1G	6 MB	DDR4-2400	UHD 620							
Core i7-8665U	4 / 8	1.9G / 4.8G	8 MB	DDR4-2400	UHD 620								
Memory	8GB or 16GB / DDR4-2666* / soldered to systemboard, no sockets, non-ECC * System automatically clocks down for the processors with lower memory controller												
Storage	Support up to two M.2 SSD <i>Some:</i> M.2 2280 SSD / PCIe NVMe, PCIe 3.0 x 4* <i>Some:</i> M.2 2242 SSD / PCIe NVMe, PCIe 3.0 x 2** <i>Some:</i> Intel Optane™ Memory H10 with Solid State Storage, M.2 2280, PCIe NVMe 3.0 x 4 (not support Celeron) * M.2 SSD / Optane with SSD in PCIe 3.0 x 2 M.2 slot can only run at PCIe 3.0 x2 ** 128G M.2 2242 SSD not supported on Machine Type 11AM / 11AS / 11AK / 11AL RAID 0/1 support (RAID preset only available via special bid model) None												
RAID													
Optical													
Graphics	Intel UHD Graphics 620 in processor, uses main memory, DirectX® 12, one DisplayPort™, one USB 3.1 Type-C Gen2 with display function, up to 2 independent displays; <i>Max resolution:</i> 4096x2304 (DP)@60Hz; 4096x2304 (Type-C)@60Hz; Optional DP to VGA dongle, DP to HDMI dongle, Type-C to VGA dongle, Type-C to HDMI dongle, Type-C to DP dongle												
Monitor cable													
Chipset	Intel SoC (System on Chip) platform												
Front ports (Std.)*	2x USB 3.1 Gen2, 1x USB 3.1 Type-C Gen 2, one headphone / microphone combo jack (3.5mm)												
Rear ports (Std.)*	2x USB 3.1 Gen2, 1x USB 3.1 Type-C Gen 2 (with display function, support power-in [20V and >45W]), 1x ethernet (RJ-45), 1x DisplayPort * Depending on many factors, actual data transfer speed may be lower than theoretical speed												
Audio support	Realtek ALC233VB / internal speaker (1watt)												
WLAN	<i>Some:</i> 11ac wireless, M.2 Card, Realtek RTL8822CE (dual band), Wi-Fi + Bluetooth 5.0 combo adapter, 1x1 <i>Some:</i> 11ac wireless, M.2 Card, Realtek RTL8822CE (dual band), Wi-Fi + Bluetooth 5.0 combo adapter, 2x2 <i>Some:</i> 11ac wireless, M.2 Card, Intel Wireless-AC 9462 (dual band), Wi-Fi + Bluetooth 5.0 combo adapter, 1x1 <i>Some:</i> 11ac wireless, M.2 Card, Intel Wireless-AC 9560 (dual band), Wi-Fi + Bluetooth 5.0 combo adapter, 2x2 <i>Some:</i> 11ac wireless, M.2 Card, Intel Wireless-AC 9560 (dual band), Wi-Fi + Bluetooth 5.0 combo adapter, Intel vPro technology support, 2x2												
Bluetooth	<i>Some:</i> Bluetooth 5.0 wireless, integrated in Wi-Fi + BT combo adapter												
Ethernet	Gigabit ethernet, Intel Ethernet Connection I219-LM (Jacksonville) or Intel Ethernet Connection I219-V (Jacksonville), Wake on LAN®												
Keyboard	<i>Some:</i> Lenovo Calliope Keyboard (USB connector), black <i>Some:</i> Lenovo Traditional Keyboard (USB connector), black <i>Some:</i> Lenovo Calliope Wireless Keyboard (2.4GHz via USB receiver), black												
Mouse	<i>Some:</i> Lenovo Calliope Mouse (USB connector), black <i>Some:</i> Lenovo Fingerprint Mouse (USB connector), Windows Hello support, black <i>Some:</i> Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black												
Mechanical	Nano (0.35L), Iron Gray top cover / Black mid bezel / Red bottom cover Three M.2 slots: two for M.2 SSD (one PCIe 3.0 x4 and one PCIe 3.0 x2) and one for WLAN <table><tr><td></td><td>Dimensions (WxDxH)</td><td>Weight (Approx.)</td></tr><tr><td>M90n-1 Nano (with fan, 0.35L)</td><td>7.05" X 3.46" X 0.87" 179mm X 88mm X 22mm</td><td>1.11 lb (0.505 kg), vary by config</td></tr></table>								Dimensions (WxDxH)	Weight (Approx.)	M90n-1 Nano (with fan, 0.35L)	7.05" X 3.46" X 0.87" 179mm X 88mm X 22mm	1.11 lb (0.505 kg), vary by config
	Dimensions (WxDxH)	Weight (Approx.)											
M90n-1 Nano (with fan, 0.35L)	7.05" X 3.46" X 0.87" 179mm X 88mm X 22mm	1.11 lb (0.505 kg), vary by config											
Mounting	<i>Some:</i> VESA mount bracket kit, supports VESA 75mm <i>Some:</i> VESA mount bracket kit with adaper holder, supports VESA 75mm <i>Some:</i> DIN rail mount bracket kit												
Floor Stand	None												
Power supply	65 watts AC/DC adapter, autosensing, 88% PSU (Not for TIO models)												
Limited warranty	<i>Some:</i> 1-year, limited onsite service / service upgrades available <i>Some:</i> 3-year, limited onsite service / service upgrades available												
Preload	Preloaded operating system <i>Some:</i> Windows® 10 Pro 64-bit <i>Some:</i> Windows 10 Home 64-bit												
Environment	ENERGY STAR® 7.1, EPEAT™ Silver rating (North America), ErP Lot 3, TCO 8.0, TUV ultra low noise verified (on some models), RoHS, WEEE, REACH												
MIL-SPEC test	MIL-STD-810H (Low Pressure [Altitude], High Temperature, Low Temperature, Temperature Shock, Humidity, Sand and Dust, Vibration, Shock, Fungus, Solar Radiation)												
Accessories	For compatible accessories, please go to http://smartfind.lenovo.com												

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

Lenovo, March 2020



ThinkCentre M90n-1 Nano IoT Platform Specifications

Product Specifications Reference (PSREF)

Processor	Intel® Celeron® or 8th Generation Intel Core™ i3 / i5 Processor						Manageability Security chip Security features	Intel vPro technology on some models (require choosing a vPro-support Wi-Fi adapter to enable vPro function through wireless connection) Discrete TPM 2.0, TCG Certified ● Security slot (in rear for optional Kensington® MicroSaver® cable) ● Chassis intrusion switch ● Power-on password ● Administrator password ● Hard disk password ● Boot sequence control ● Boot without keyboard and mouse ● Individual USB port disablement		
	Processor	Cores / Threads	Frequency Base/Max(GHz)	Cache	Memory Support (Up to)	Integrated Graphics				
	Celeron 4205U	2 / 2	1.8G	2 MB	DDR4-2133	UHD 610				
	Core i3-8145U	2 / 4	2.1G / 3.9G	4 MB	DDR4-2400	UHD				
	Core i3-8145UE	2 / 4	2.2G / 3.9G	4 MB	DDR4-2400	UHD 620				
Core i5-8365U	4 / 8	1.6G / 4.1G	6 MB	DDR4-2400	UHD 620					
Memory	4GB or 8GB / DDR4-2666* / soldered to systemboard, no sockets, non-ECC (Celeron 4205U / Core i3-8145U models equipped with 4GB memory, and Core i3-8145UE / Core i5-8365U models equipped with 8GB memory) * System automatically clocks down for the processors with lower memory controller						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 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		
Storage	Support up to two M.2 SSD Some: M.2 2280 SSD / PCIe NVMe, PCIe 3.0 x 4* Some: M.2 2242 SSD / PCIe NVMe, PCIe 3.0 x 2** Some: Intel Optane™ Memory H10 with Solid State Storage, M.2 2280, PCIe NVMe 3.0 x 4 (not support Celeron) * M.2 SSD / Optane with SSD in PCIe 3.0 x 2 M.2 slot can only run at PCIe 3.0 x2 ** 128G M.2 2242 SSD not supported on Machine Type 11AM / 11AS / 11AK / 11AL						Mouse			
RAID	RAID 0/1 support (RAID preset only available via special bid model)						Mechanical	Nano (fanless 0.55L), Iron Gray top cover / Black mid bezel / Black bottom cover Four M.2 slots: two for M.2 SSD (one PCIe 3.0 x4 and one PCIe 3.0 x2), one for WLAN, and one for WWAN		
Optical	None									
Graphics	Intel UHD Graphics 610/620 in processor, uses main memory, DirectX® 12, one DisplayPort™ or HDMI (for 8145UE models only), one USB 3.1 Type-C Gen2 with display function, up to 2 independent displays; Max resolution: 4096x2304 (DP)@60Hz; 4096x2160 (HDMI)@24Hz; 4096x2304 (Type-C)@60Hz									
Monitor cable	Optional DP to VGA dongle, DP to HDMI dongle, Type-C to VGA dongle, Type-C to HDMI dongle, Type-C to DP dongle						Mounting	Some: VESA mount bracket kit, supports VESA 75mm Some: VESA mount bracket kit with adaper holder, supports VESA 75mm Some: DIN rail mount bracket kit		
Chipset	Intel SoC (System on Chip) platform						Floor Stand	None		
Front ports (Std.)*	2x USB 3.1 Gen2, 1x USB 3.1 Type-C Gen 2, one headphone / microphone combo jack (3.5mm), 2x serial (RS-232)						Power supply	Some: 65 watts AC/DC adapter*, autosensing, 88% PSU Some: 65 watts AC/DC adapter (wide temperature)*, autosensing, 88% PSU (only for Machine Type 11AS) * Not for the models with I/O box		
Rear ports (Std.)*	With Celeron: 1x USB 2.0, 1x USB 3.1 Type-C Gen 2 (with display function, support power-in [20V, > 45W]), 1x ethernet (RJ-45), 1x DisplayPort With i3/i5: 1x USB 3.1 Gen2, 1x USB 3.1 Type-C Gen 2 (with display function, support power-in [20V, > 45W]), 2x ethernet (RJ-45), 1x DisplayPort or HDMI (for 8145UE models only)						Limited warranty	Some: 1-year, limited onsite service / service upgrades available Some: 3-year, limited onsite service / service upgrades available		
I/O box*	Optional I/O box, connect to the USB 3.1 Type-C Gen 2 port of M90n-1 Nano, extends 2x serial, 2x ethernet (RJ-45, I/O box is equipped with Realtek RTL8153B, gigabit ethernet), 1x DI (Digital Input) connector, 1x DO (Digital Output) connector * Depending on many factors, actual data transfer speed may be lower than theoretical speed						Preload	Preloaded operating system Some: Windows® 10 Pro 64-bit Some: Windows 10 Home 64-bit Some: Windows 10 IoT Enterprise (only available via special bid model)		
Audio support	Realtek ALC233VB / internal speaker (1watt)						Environment	ENERGY STAR® 7.1*, EPEAT™ Silver rating (North America)*, ErP Lot 3, TCO 8.0*, TUV ultra low noise verified (on some models), RoHS, WEEE, REACH * Not for the models with I/O box		
WLAN	Some: 11ac wireless, M.2 Card, Realtek RTL8822CE (dual band), Wi-Fi + Bluetooth 5.0 combo adapter, 1x1 Some: 11ac wireless, M.2 Card, Realtek RTL8822CE (dual band), Wi-Fi + Bluetooth 5.0 combo adapter, 2x2 Some: 11ac wireless, M.2 Card, Intel Wireless-AC 9462 (dual band), Wi-Fi + Bluetooth 5.0 combo adapter, 1x1 Some: 11ac wireless, M.2 Card, Intel Wireless-AC 9560 (dual band), Wi-Fi + Bluetooth 5.0 combo adapter, 2x2 Some: 11ac wireless, M.2 Card, Intel Wireless-AC 9560 (dual band), Wi-Fi + Bluetooth 5.0 combo adapter, Intel vPro technology support, 2x2						MIL-SPEC test	MIL-STD-810H* (Low Pressure [Altitude], High Temperature, Low Temperature, Temperature Shock, Humidity, Sand and Dust, Vibration, Shock, Fungus, Solar Radiation) * Not for the models with I/O box		
Bluetooth	Some: Bluetooth 5.0 wireless, integrated in Wi-Fi + BT combo adapter						Accessories	For compatible accessories, please go to http://smartfind.lenovo.com		
WWAN	Some: Integrated Mobile Broadband 4G LTE-A, Fibocom L850-GL, M.2 card									
Ethernet	With Celeron: Gigabit ethernet, Realtek RTL8111K, 1x RJ-45, Wake on LAN® With Core i3: Two gigabit ethernet, Realtek RTL8111K and RTL8111H, 2x RJ-45 Wake on LAN With Core i5: Two gigabit ethernet, Intel Ethernet Connection I219-LM(Jacksonville) and Realtek RTL8111H, 2x RJ-45, Wake on LAN									

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

Lenovo, May 2020



ThinkCentre M70c Platform Specifications

Product Specifications Reference (PSREF)

Processor	Intel® Celeron®, Intel Pentium®, or 10th Gen Intel Core™ i3 / i5 / i7 / i9 Processor						WLAN	<i>Some:</i> 11ac wireless, M.2 Card, Realtek RTL8822CE (dual band), Wi-Fi + Bluetooth 5.0 combo adapter, 2x2 <i>Some:</i> 11ac wireless, M.2 Card, Intel Wireless-AC 9260 (dual band), Wi-Fi + Bluetooth 5.0 combo adapter, 2x2 <i>Some:</i> Bluetooth 5.0 wireless, integrated in Wi-Fi + BT combo adapter	
	Processor	Cores / Threads	Frequency Base/Max(GHz)	Cache	Memory Support (Up to)	Integrated Graphics	Bluetooth Ethernet Ethernet (Opt.)	Gigabit ethernet, Realtek RTL8111HN, Wake on LAN® <i>Some:</i> Bitland BN8E88, gigabit ethernet, 1x RJ-45, PCIe x1	
	Celeron G5905	2 / 2	3.5G	4 MB	DDR4-2666	UHD 610	Manageability	None	
	Celeron G5925	2 / 2	3.6G	4 MB	DDR4-2666	UHD 610	Security chip	Discrete TPM 2.0, TCG Certified	
	Celeron G5900	2 / 2	3.4G	2 MB	DDR4-2666	UHD 610	Security features	● Security slot (for Kensington® lock) ● Padlock loop ● Optional Smart Cable Clip to physically lock keyboard and mouse ● Optional chassis intrusion switch ● Power-on password ● Administrator password ● Hard disk password ● Boot sequence control ● Boot without keyboard and mouse ● Individual USB port disablement ● Smart USB protection, allows keyboard/mouse only, blocks all storage devices	
	Celeron G5920	2 / 2	3.5G	2 MB	DDR4-2666	UHD 610			
	Pentium Gold G6400	2 / 4	4.0G	4 MB	DDR4-2666	UHD 610			
	Pentium Gold G6500	2 / 4	4.1G	4 MB	DDR4-2666	UHD 630			
	Pentium Gold G6600	2 / 4	4.2G	4 MB	DDR4-2666	UHD 630			
	Core i3-10100	4 / 8	3.6G / 4.3G	6 MB	DDR4-2666	UHD 630	Keyboard	<i>Some:</i> Lenovo Calliope Keyboard (USB connector), black <i>Some:</i> Lenovo Traditional Keyboard (USB connector), black	
	Core i3-10300	4 / 8	3.7G / 4.4G	8 MB	DDR4-2666	UHD 630			
	Core i3-10320	4 / 8	3.8G / 4.6G	8 MB	DDR4-2666	UHD 630	Mouse	<i>Some:</i> Lenovo Calliope Mouse (USB connector), black <i>Some:</i> Lenovo Fingerprint Mouse (USB connector), Windows Hello support, black	
	Core i5-10400	6 / 12	2.9G / 4.3G	12 MB	DDR4-2666	UHD 630			
	Core i5-10500	6 / 12	3.1G / 4.5G	12 MB	DDR4-2666	UHD 630	Mechanical	● SFF (7.4L), black color, metal case ● Dimensins with bezel & PCI holder & rubber foot: (WxDxH) 3.9" X 11.9" X 10.8"; 100mm X 303.5mm X 274.8mm ● Approx. 6.57 lb (4.5 kg), weight may vary by configuration	
	Core i5-10600	6 / 12	3.3G / 4.8G	12 MB	DDR4-2666	UHD 630			
	Core i7-10700F	8 / 16	2.9G / 4.8G	16 MB	DDR4-2933	None			
	Core i7-10700	8 / 16	2.9G / 4.8G	16 MB	DDR4-2933	UHD 630			
Core i9-10900F	10 / 20	2.8G / 5.2G	20 MB	DDR4-2933	None				
Core i9-10900	10 / 20	2.8G / 5.2G	20 MB	DDR4-2933	UHD 630	Bays	Bay 1: Slim ODD bay Bay 2: 3.5" disk bay, supports 2.5" HDD (2.5 to 3.5 bracket comes with 2.5" disk) Slot 1: low-profile (length < 152mm, height < 64mm), PCIe 3.0 x16* Slot 2: low-profile (length < 152mm, height < 64mm), PCIe 3.0 x1* *Optional rear 2x USB2.0 / parallel occupies one expansion slot M.2 card slots: two (one for WLAN, one for SSD/Optane)		
* Max frequency may refer to Intel Turbo Boost Technology 2.0 / Intel Turbo Boost Max Technology 3.0 / Intel Thermal Velocity Boost, and adopt the max one of them									
Memory	32GB max, DDR4-2666 / DDR4-2933*, two 288-pin DIMM sockets, dual-channel capable * Memory module is DDR4-2933, but clocks down for the limitation of processors						Slots	Optional system floor stand for vertical orientation	
Storage	Support up to 1x HDD (2.5"/3.5") and 1x M.2 SSD <i>Some:</i> Hard Drive / SATA 6.0Gb/s, 2.5" or 3.5", 7200 rpm <i>Some:</i> M.2 SSD (2242 / 2280) / PCIe NVMe, PCIe 3.0 x2 or PCIe 3.0 x4 <i>Some:</i> Intel Optane™ Memory M10, M.2 2280, PCIe 3.0 x2								
Optical	<i>Some:</i> DVD-ROM, SATA 1.5Gb/s Drive, slim (9.0mm) <i>Some:</i> DVD Burner (DVD±RW), SATA 1.5Gb/s Drive, slim (9.0mm)						Floor Stand EOU design	None	
Onboard SATA Media reader	Two onboard SATA 6.0Gb/s connectors Optional 7-in-1 media reader								
Graphics	Intel UHD Graphics 610/630 in some processors, uses main memory, DirectX® 12, one DisplayPort™, one VGA, supports up to 2 independent displays, more displays support via discrete graphics <i>Max resolution:</i> 4096x2304 (DP)@60Hz; 2048x1536 (VGA)@50Hz <i>Some:</i> AMD Radeon™ 520 , DirectX 12, 2GB GDDR5, PCIe 3.0 x8 adapter, one VGA, one HDMI, 30 watts (Max); <i>Max resolution:</i> 3840x2160 (HDMI)@30Hz; 2048x1536 (VGA)@85Hz						Power supply	<i>Some:</i> 180 watts, autosensing, 85% PSU <i>Some:</i> 260 watts, autosensing, 85% PSU	
Monitor cable	Optional DP to VGA dongle, DP to DVI-D dongle, DP to dual DP dongle (for Collage Display with intel integrated graphics), or DP to HDMI 1.4 dongle						Limited warranty	1-year or 3-year, limited onsite service / service upgrades available	
Chipset	Intel B460 Chipset						Preload	<i>Some:</i> Windows® 10 Pro 64-bit <i>Some:</i> Windows 10 Home 64-bit <i>Some:</i> Windows 10 IoT Enterprise (only available via special bid model) <i>Some:</i> Linux (Ubuntu)	
Front ports* (Std.)	2x USB 3.2 Gen 1, 1x microphone (3.5mm), 1x headphone / microphone combo jack (3.5mm)						Environment	ENERGY STAR® 8.0*, EPEAT™ Silver or Gold rating (on some models), ErP Lot 3, RoHS-compliant, TUV low / ultra noise verified (on some models) * Only available for MT 11GK/11GJ	
Front ports* (Opt.)	<i>Optional:</i> 7-in-1 media reader								
Rear ports* (Std.)	2x USB 2.0, 2x USB 3.2 Gen 1, 1x serial (9-pin), 1x ethernet (RJ-45), 1x DisplayPort**, 1x VGA**, 1x line-out (3.5mm)						Accessories	For compatible accessories, please go to http://smartfind.lenovo.com	
Rear ports* (Opt.)	<i>Optional:</i> 2x USB 2.0, 1x 2nd serial (9-pin), 1x parallel (25-pin), 2x PS/2 ports (USB dongle), additional RJ-45 and video ports available on optional graphics or ethernet card * Depending on many factors, actual data transfer speed may be lower than theoretical speed ** Only available for the models with integrated graphics								
Audio support	High Definition (HD) Audio, Realtek ALC623-CG / internal speaker (1 watt)								

Lenovo, August 2020



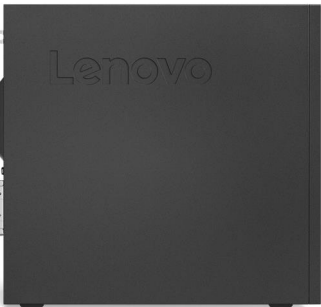
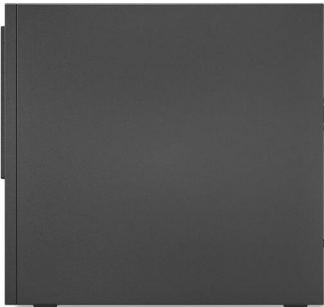
ThinkCentre M70s Platform Specifications

Product Specifications Reference (PSREF)

Processor	Intel® Celeron®, Intel Pentium®, or 10th Gen Intel Core™ i3 / i5 / i7 / i9 Processor						WLAN	<i>Some:</i> 11ac wireless, M.2 Card, Realtek RTL8822CE (dual band), Wi-Fi + Bluetooth 5.0 combo adapter, 2x2 <i>Some:</i> 11ac wireless, M.2 Card, Intel Wireless-AC 9462 (dual band), Wi-Fi + Bluetooth 5.0 combo adapter, 1x1 (special bid only) <i>Some:</i> 11ac wireless, M.2 Card, Intel Wireless-AC 9560 (dual band), Wi-Fi + Bluetooth 5.0 combo adapter, 2x2 <i>Some:</i> 11ax wireless, M.2 Card, Intel Wi-Fi 6 AX201 (dual band), Wi-Fi + Bluetooth 5.1 combo adapter, 2x2 <i>Some:</i> Bluetooth 5.0/5.1 wireless, integrated in Wi-Fi + BT combo adapter Gigabit ethernet, Intel Ethernet Connection I219-V(Jacksonville), Wake on LAN® <i>Some:</i> Intel Ethernet Server Adapter I350-T4, gigabit ethernet, 4x RJ-45, PCIe x4 <i>Some:</i> Bitland BN8E88, gigabit ethernet, 1x RJ-45, PCIe x1
	Processor	Cores / Threads	Frequency Base/Max(GHz)	Cache	Memory Support (Up to)	Integrated Graphics	Bluetooth Ethernet Ethernet (Opt.)	<i>Some:</i> Bluetooth 5.0/5.1 wireless, integrated in Wi-Fi + BT combo adapter Gigabit ethernet, Intel Ethernet Connection I219-V(Jacksonville), Wake on LAN® <i>Some:</i> Intel Ethernet Server Adapter I350-T4, gigabit ethernet, 4x RJ-45, PCIe x4 <i>Some:</i> Bitland BN8E88, gigabit ethernet, 1x RJ-45, PCIe x1
	Celeron G5900	2 / 2	3.4G	2 MB	DDR4-2666	UHD 610		
	Celeron G5920	2 / 2	3.5G	2 MB	DDR4-2666	UHD 610		
	Pentium Gold G6400	2 / 4	4.0G	4 MB	DDR4-2666	UHD 610		
	Pentium Gold G6500	2 / 4	4.1G	4 MB	DDR4-2666	UHD 630		
	Pentium Gold G6600	2 / 4	4.2G	4 MB	DDR4-2666	UHD 630		
	Core i3-10100	4 / 8	3.6G / 4.3G	6 MB	DDR4-2666	UHD 630		
	Core i3-10300	4 / 8	3.7G / 4.4G	8 MB	DDR4-2666	UHD 630		
	Core i3-10320	4 / 8	3.8G / 4.6G	8 MB	DDR4-2666	UHD 630		
	Core i5-10400F	6 / 12	2.9G / 4.3G	12 MB	DDR4-2666	None		
	Core i5-10400	6 / 12	2.9G / 4.3G	12 MB	DDR4-2666	UHD 630		
	Core i5-10500	6 / 12	3.1G / 4.5G	12 MB	DDR4-2666	UHD 630		
	Core i5-10600	6 / 12	3.3G / 4.8G	12 MB	DDR4-2666	UHD 630		
	Core i7-10700F	8 / 16	2.9G / 4.8G	16 MB	DDR4-2933	None		
	Core i7-10700	8 / 16	2.9G / 4.8G	16 MB	DDR4-2933	UHD 630		
	Core i9-10900F	10 / 20	2.8G / 5.2G	20 MB	DDR4-2933	None		
	Core i9-10900	10 / 20	2.8G / 5.2G	20 MB	DDR4-2933	UHD 630		
	* Max frequency may refer to Intel Turbo Boost Technology 2.0 / Intel Turbo Boost Max Technology 3.0 / Intel Thermal Velocity Boost, and adopt the max one of them						Manageability Security chip	None Discrete TPM 2.0, TCG Certified
Memory	128GB max, DDR4-2666 / DDR4-2933*, four 288-pin DIMM sockets, dual-channel capable * Memory module is DDR4-2933, but clocks down for the limitation of processors						Security features	- Security slot (for Kensington® lock) - Padlock loop - Optional Smart Cable Clip to physically lock keyboard and mouse - Optional chassis intrusion switch - Optional chassis E-Lock - Power-on password - Administrator password - Hard disk password - Boot sequence control - Boot without keyboard and mouse - Individual USB port disablement - Smart USB protection, allows keyboard/mouse only, blocks all storage devices
Storage	Support up to 2x HDD ([2.5" + 3.5"] or [dual 2.5"]) and up to 1x M.2.SSD <i>Some:</i> Hard Drive / SATA 6.0Gb/s, 2.5" or 3.5", 7200 rpm <i>Some:</i> M.2 SSD (2242 / 2280) / PCIe NVMe, PCIe 3.0 x2 or PCIe 3.0 x4 <i>Some:</i> Intel Optane™ Memory M10, M.2 2280, PCIe 3.0 x2 <i>Some:</i> DVD-ROM, SATA 1.5Gb/s Drive, slim (9.0mm) <i>Some:</i> DVD Burner (DVD±RW), SATA 1.5Gb/s Drive, slim (9.0mm)						Keyboard	<i>Some:</i> Lenovo Calliope Keyboard (USB connector), black <i>Some:</i> Lenovo Traditional Keyboard (USB connector), black <i>Some:</i> Lenovo Calliope Wireless Keyboard (2.4GHz via USB receiver), black <i>Some:</i> Lenovo Calliope Mouse (USB connector), black <i>Some:</i> Lenovo Fingerprint Mouse (USB connector), Windows Hello support, black <i>Some:</i> Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black
Optical	Three onboard SATA 6.0Gb/s connectors Optional 3-in-1 media reader (support SD, SDHC, and SDXC)						Mouse	
Onboard SATA Media reader							Mechanical	- SFF (8.2L), black color, metal case - Dimensins with bezel & PCI holder & rubber foot: (WxDxH) 3.6" X 11.7" X 13.4"; 93mm X 298mm X 340mm - Weight (approx.): 11.7 lb (5.3 kg), weight may vary by configuration
Graphics	Intel UHD Graphics 610/630 in some processors, uses main memory, DirectX® 12, two DisplayPort™, one HDMI, supports up to 3 independent displays, more displays support via discrete graphics Max resolution: 4096x2304 (DP)@60Hz; 1920x1080 (HDMI)@60Hz <i>Some:</i> AMD Radeon™ 520 , DirectX 12, 2GB GDDR5, PCIe 3.0 x8, 30 watts, two DisplayPort (up to 4096x2160@60Hz)						Bays	Bay 1: Slim ODD bay Bay 2: 3.5" HDD bay Bay 3: 2.5" HDD bay (optional bay, or bay comes with disk)
Monitor cable	Optional DP to VGA dongle, DP to DVI-D dongle, DP to dual DP dongle (for Collage Display with intel integrated graphics), or DP to HDMI 1.4 dongle						Slots	Slot 1: low-profile (length < 155mm, height < 68mm), PCIe 3.0 x16 Slot 2: low-profile (length < 155mm, height < 68mm), PCIe 3.0 x1 Slot 3: no slot, only bracket for optional port extension Slot 4: no slot, only bracket for optional port extension M.2 card slots: two (one for WLAN, one for SSD/Optane) Optional system floor stand for vertical orientation Toolless cover, disk, optical, extension card removal
Chipset	Intel H470 Chipset						Floor Stand EOU design	
Front ports* (Std.)	2x USB 3.2 Gen 2, 2x USB 3.2 Gen 1, 1x USB 3.2 Type-C Gen 1 (15W charging), 1x microphone (3.5mm), 1x headphone / microphone combo jack (3.5mm)						Power supply	<i>Some:</i> 180 watts, autosensing, 85% PSU <i>Some:</i> 260 watts, autosensing, 85% PSU <i>Some:</i> 310 watts, autosensing, 92% PSU <i>Some:</i> 380 watts, autosensing, 92% PSU * Discrete graphics card / 10-core processors need > 180w power supply
Front ports* (Opt.)	<i>Optional:</i> 3-in-1 media reader						Limited warranty	<i>Some:</i> 1-year, depot service / service upgrades available <i>Some:</i> 1-year or 3-year, limited onsite service / service upgrades available
Rear ports* (Std.)	4x USB 2.0, 1x serial (9-pin), 1x ethernet (RJ-45), 2x DisplayPort**, 1x HDMI**, 1x line-out (3.5mm)						Preload	<i>Some:</i> Windows® 10 Pro 64-bit <i>Some:</i> Windows 10 Home 64-bit <i>Some:</i> Windows 10 IoT Enterprise (only available via special bid model)
Rear ports* (Opt.)	<i>Optional:</i> 2x USB 3.2 Gen 1 via PCIe x1, 2x USB 3.2 Type-C Gen 2 via PCIe x4, 1x 2nd serial (9-pin), 4x serial (9-pin) via PCIe x1, 1x parallel (25-pin), 2x PS/2 ports (keyboard/mouse), additional RJ-45 and video ports available on optional graphics or ethernet card * Depending on many factors, actual data transfer speed may be lower than theoretical speed ** Only available for the models with integrated graphics						Environment	ENERGY STAR® 8.0*, EPEAT™ Gold / Silver rating (on some models), ErP Lot 3, TCO 8.0, TUV low noise / ultra low noise verified (on some models), RoHS * Only available for MT 11DB/11DC
Audio support	High Definition (HD) Audio, Realtek ALC623-CG / internal speaker (1 watt)						Accessories	For compatible accessories, please go to http://smartfind.lenovo.com

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

Lenovo, May 2020



ThinkCentre M710e SFF Platform Specifications

Product Specifications Reference (PSREF)

Processor	Intel® Celeron®, Intel Pentium®, or 6/7th Generation Intel Core™ i3 / i5 / i7 Processor						Security features • Security slot (in rear for optional Kensington® MicroSaver® cable) • Padlock loop • Smart USB protection, allows keyboard/ mouse only, blocks all storage devices • Optional smart cable clip to physically lock both keyboard and mouse • Power-on password • Administrator password • Hard disk password • Boot sequence control • Boot without keyboard and mouse • Individual USB port disablement • Optional chassis intrusion switch
	Processor	Cores / Threads	Frequency Base/Max(GHz)	Cache	Memory Support (Up to)	Integrated Graphics	
	Celeron G3900	2 / 2	2.8G	2 MB	DDR4-2133	HD 510	
	Celeron G3930	2 / 2	2.9G	3 MB	DDR4-2133	HD 610	
	Pentium G4400	2 / 2	3.3G	3 MB	DDR4-2133	HD 510	
	Pentium G4500	2 / 2	3.5G	3 MB	DDR4-2133	HD 530	
	Pentium G4560	2 / 4	3.5G	3 MB	DDR4-2400	HD 610	
	Pentium G4600	2 / 4	3.6G	3 MB	DDR4-2400	HD 630	
	Core i3-6100	2 / 4	3.7G	3 MB	DDR4-2133	HD 530	
	Core i5-6400	4 / 4	2.7G / 3.3G	6 MB	DDR4-2133	HD 530	
	Core i5-6500	4 / 4	3.2G / 3.6G	6 MB	DDR4-2133	HD 530	
	Core i7-6700	4 / 8	3.4G / 4.0G	8 MB	DDR4-2133	HD 530	
	Core i3-7100	2 / 4	3.9G	3 MB	DDR4-2400	HD 630	
	Core i3-7300	2 / 4	4.0G	4 MB	DDR4-2400	HD 630	
	Core i5-7400	4 / 4	3.0G / 3.5G	6 MB	DDR4-2400	HD 630	
	Core i5-7500	4 / 4	3.4G / 3.8G	6 MB	DDR4-2400	HD 630	
	Core i5-7600	4 / 4	3.5G / 4.1G	6 MB	DDR4-2400	HD 630	
	Core i7-7700	4 / 8	3.6G / 4.2G	8 MB	DDR4-2400	HD 630	
Memory	32GB max, UDIMM, DDR4-2400*, two 288-pin DIMM sockets, non-ECC, dual-channel capable *System automatically clocks down for the processors with lower memory controller						Keyboard <i>Some:</i> Lenovo Calliope Keyboard (USB connector), black <i>Some:</i> Lenovo Traditional Keyboard (USB connector), black Mouse <i>Some:</i> Lenovo Calliope Mouse (USB connector), black <i>Some:</i> Lenovo Fingerprint Mouse (USB connector), Windows Hello support, black
Storage	<i>Some:</i> Hard Drive / SATA 6.0Gb/s, 2.5" or 3.5", 5400 rpm or 7200 rpm <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" <i>Some:</i> M.2 Solid State Drive (SSD) / PCIe NVMe, PCIe 3.0 x 4, 32Gb/s <i>Some:</i> DVD-ROM SATA 1.5Gb/s Drive, slim (9.0mm) <i>Some:</i> DVD Burner (DVD±RW), SATA 1.5Gb/s Drive, slim (9.0mm)						Mechanical • SFF (7.4L), black color, metal case • (WxDxH) 3.9" X 11.9" X 10.8"; 100mm X 303.5mm X 273.5mm • Approx. 9.37 lb (4.25 kg), weight may vary by configuration - Bay 1: Slim external ODD bay - Bay 2: 3.5", 1" high, internal, supports 2.5" or 3.5" HDD/SSD (2.5 to 3.5 bracket comes with disk) - Slot 1: low-profile (length < 152mm, height < 64mm), PCIe 3.0 x16* - Slot 2: low-profile (length < 152mm, height < 64mm), PCIe 3.0 x1* - M.2 card slots: one for SSD *Optional rear 2x USB2.0 / parallel occupies one expansion slot Floor Stand • Optional system floor stand for vertical orientation
Optical	Two onboard SATA 6.0Gb/s connectors						Packaging • (WxDxH) 7.7" X 15.4" X 19.7"; 195mm X 390mm X 500mm • Cross weight (approx.) 14.22 lb (6.45 kg)
Onboard SATA Media reader	Optional 7-in-1 media reader						Power supply <i>Some:</i> 180 watts, autosensing, 85% PSU
Graphics	Intel HD Graphics 510/530/610/630 in processor, uses main memory, DirectX® 12, one VGA, one DisplayPort™, supports 2 independent displays, works along with discrete graphics to support more displays; <i>Max resolution:</i> 4096x2160 (DP)@60Hz; 1920x1200 (VGA)@60Hz <i>Some: NVIDIA GeForce® GT 730</i> , DirectX 12, 2GB, PCIe 2.0 x8 adapter, two DisplayPort, 35 watts; <i>Max resolution:</i> 3840x2160 (DisplayPort)@60Hz;						Limited warranty ³ <i>Some:</i> 1-year or 3-year, depot service / service upgrades available <i>Some:</i> 1-year or 3-year, limited onsite service / service upgrades available
Monitor cable	Optional DP to VGA, DP to DVI-D (single link), DP to dual DP, or DP to HDMI 1.4						Preload Preloaded operating system <i>Some:</i> Windows® 10 Pro 64-bit <i>Some:</i> Windows 10 Home 64-bit <i>Some:</i> Windows 7 Professional 32/64 preinstalled through downgrade rights in Windows 10 Pro 64-bit(not available with 7th Gen Intel processor) Preloaded applications (only some listed) • Microsoft Office preloaded; purchase a product key to activate • Cyberlink PowerDVD (DVD, DVD±RW) • Cyberlink PowerDVD Create (DVD±RW) - Only for Window 10 • Lenovo Companion - Only for Window 7 • Lenovo Solution Center • Lenovo System Update • Create Recovery Media • Adobe® Reader®
Chipset	Intel B250 Chipset						Environment ENERGY STAR® 6.1, EPEAT™ Silver rating (North America), ErP Lot 3, RoHS-compliant, WEEE
Front ports*	Two USB 3.1 Gen1, microphone (3.5mm), one headphone / microphone combo jack (3.5mm)						Accessories For compatible accessories, please go to http://www.lenovoquickpick.com
Rear ports*	Two USB 3.1 Gen1, two USB 2.0, optional two USB 2.0, serial (9-pin), optional 2nd serial (9-pin), optional parallel (25-pin), ethernet (RJ-45), one VGA, one DisplayPort, optional external USB to PS/2 ports cable (for PS/2 keyboard / mouse); additional DisplayPort on optional graphics on some models						
Rear audio ports* IEEE 1394*	Line-out jack (3.5mm) None * Depending on many factors, actual data transfer speed may be lower than theoretical speed						
Audio support	High Definition (HD) Audio, Realtek ALC233 / internal speaker (1 watt)						
WLAN ¹³	None						
Bluetooth™	None						
Ethernet	Gigabit ethernet, Realtek RTL8111HN, Wake on LAN®						
Modem	None						
Manageability	None						
Security chip	TPM (Trusted Platform Module) 2.0, TCG Certified * Downgrade to TPM1.2 for the models with Win10 DG Win7 32 OS						

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

Lenovo, January 2018



ThinkCentre M720 SFF Platform Specifications

Product Specifications Reference (PSREF)

Processor	Intel® Celeron®, Intel Pentium®, or 8th / 9th Gen Intel Core™ i3 / i5 / i7 / i9 Processor						WLAN	<i>Some:</i> 11ac Wi-Fi + BT 4.2, M.2 Card, Realtek RTL8821CE (dual band), 1x1 <i>Some:</i> 11ac Wi-Fi + BT 4.2, M.2 Card, Realtek RTL8822BE (dual band), 2x2 <i>Some:</i> 11ac Wi-Fi + BT 4.2, M.2 Card, Intel Dual Band Wireless-AC 3165, 1x1 <i>Some:</i> 11ac Wi-Fi + BT 4.2, M.2 Card, Intel Dual Band Wireless-AC 8265, 2x2 <i>Some:</i> Bluetooth 4.2 wireless, integrated in Wi-Fi + BT combo adapter
	Processor	Cores / Threads	Frequency Base/Max(GHz)	Cache	Memory Support (Up to)	Integrated Graphics	Bluetooth™	
	Celeron G4900	2 / 2	3.1G	2 MB	DDR4-2400	UHD 610		
	Celeron G4920	2 / 2	3.2G	2 MB	DDR4-2400	UHD 610		
	Pentium Gold G5400	2 / 4	3.7G	4 MB	DDR4-2400	UHD 610	Ethernet Ethernet (Opt.)	Gigabit ethernet, Intel Ethernet Connection I219-V (Jacksonville), Wake on LAN® <i>Some:</i> Intel Ethernet Server Adapter I350-T4*, gigabit ethernet, 4x RJ-45, PCIe x4 <i>Some:</i> Bitland BN8E88*, gigabit ethernet, PCIe x1 (only available via special bid) * Choose either I350-T4 or BN8E88
	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		
	Core i3-8100	4 / 4	3.6G	6 MB	DDR4-2400	UHD 630	Manageability	None
	Core i3-8300	4 / 4	3.7G	8 MB	DDR4-2400	UHD 630	Security chip	Discrete TPM 2.0, TCG Certified
	Core i5-8400	6 / 6	2.8G / 4.0G	9 MB	DDR4-2666	UHD 630	Security features	● Security slot (in rear for optional Kensington® MicroSaver® cable) ● Padlock loop ● Optional cable lock to physically lock both keyboard and mouse ● Optional chassis intrusion switch ● Optional chassis E-Lock (special bid) ● Power-on password ● Administrator password ● Hard disk password ● Boot sequence control ● Boot without keyboard and mouse ● Individual USB port disablement ● Smart USB protection, allows keyboard/ mouse only, blocks all storage devices
	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	Keyboard	<i>Some:</i> Lenovo Calliope Keyboard (USB connector), black <i>Some:</i> Lenovo Traditional Keyboard (USB connector), black <i>Some:</i> Lenovo Calliope Wireless Keyboard (2.4GHz via USB receiver), black <i>Some:</i> Lenovo Keyboard (PS/2 connector), black (only available via special bid)
	Core i3-9300	4 / 4	3.7G / 4.3G	8 MB	DDR4-2400	UHD 630	Mouse	<i>Some:</i> Lenovo Calliope Mouse (USB connector), black <i>Some:</i> Lenovo Calliope Mouse (USB connector), black <i>Some:</i> Lenovo Fingerprint Mouse (USB connector), Windows Hello support, black <i>Some:</i> Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black <i>Some:</i> Lenovo Mouse (PS/2 connector), black (only available via special bid)
	Core i3-9320	4 / 4	3.7G / 4.4G	8 MB	DDR4-2400	UHD 630		
	Core i5-9400	6 / 6	2.9G / 4.1G	9 MB	DDR4-2666	UHD 630		
	Core i5-9400F	6 / 6	2.9G / 4.1G	9 MB	DDR4-2666	None		
	Core i5-9500	6 / 6	3.0G / 4.4G	9 MB	DDR4-2666	UHD 630		
	Core i5-9500F	6 / 6	3.0G / 4.4G	9 MB	DDR4-2666	None		
	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	64GB max, UDIMM, DDR4-2666, four 288-pin DIMM sockets, non-ECC, dual-channel capable* * System automatically clocks down for the processors with lower memory controller						Mechanical	● SFF (8.4L), black color; metal case ● (WxDxH) 3.64" X 11.44" X 13.52"; 92.5mm X 290.5mm X 343.5mm ● Approx. 13.24 lb (6.0 kg), weight may vary by configuration ● Toolless cover, disk, optical, and extension card removal ● Optional dust filter Bay 1: Slim external ODD bay Bay 2: 3.5", 1" high, internal, HDD/SSD Bay 3: 2.5", internal, HDD/SSD (optional bay) Slot 1: low-profile (length < 147mm, height < 68.9mm), PCIe 3.0 x16 Slot 2: low-profile (length < 147mm, height < 68.9mm), PCIe 3.0 x1 Slot 3: low-profile (length < 147mm, height < 68.9mm), PCIe 3.0 x1 Slot 4: no slot, only bracket for optional port extension M.2 card slots: Two (one for WLAN, one for SSD/Optane) Optional system floor stand for vertical orientation
Storage	<i>Some:</i> Hard Drive / SATA 6.0Gb/s, 2.5" or 3.5", 5400 rpm or 7200 rpm <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" <i>Some:</i> M.2 Solid State Drive (SSD) / PCIe NVMe, PCIe 3.0 x 4*, 32Gb/s * M.2 SSD (2242) PCIe NVMe only supports PCIe 3.0 x 2, 16Gb/s <i>Some:</i> Intel Optane™ Memory (not support Celeron / Pentium Processor), M.2 <i>Some:</i> DVD-ROM SATA 1.5Gb/s Drive, slim (9.0mm) <i>Some:</i> DVD Burner (DVD±RW), SATA 1.5Gb/s Drive, slim (9.0mm)						Power supply	<i>Some:</i> 180 watts, autosensing, 85% PSU <i>Some:</i> 210 watts, autosensing, 85% PSU <i>Some:</i> 260 watts, autosensing, 92% PSU (only available via special bid)
Optical	<i>Some:</i> Intel Optane™ Memory (not support Celeron / Pentium Processor), M.2 <i>Some:</i> DVD-ROM SATA 1.5Gb/s Drive, slim (9.0mm) <i>Some:</i> DVD Burner (DVD±RW), SATA 1.5Gb/s Drive, slim (9.0mm)						Limited warranty ³	<i>Some:</i> 1-year or 3-year, depot service / service upgrades available <i>Some:</i> 1-year or 3-year, limited onsite service / service upgrades available
Onboard SATA Media reader	Three onboard SATA 6.0Gb/s connectors Optional 7-in-1 media reader						Preload	Preloaded operating system <i>Some:</i> Windows® 10 Pro 64-bit <i>Some:</i> 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
Graphics	Intel UHD Graphics 610/630 in some processors, uses main memory, DirectX® 12, one VGA (up to 2048x1536@50Hz), two DisplayPort™ (up to 4096x2304@60Hz), supports 3 independent displays, more displays support via discrete graphics <i>Some:</i> NVIDIA GeForce® GT 730 (End Of Life), DirectX 12, 2GB GDDR5, PCIe 2.0 x16, 35 watts, two DisplayPort (up to 3840x2160@60Hz) <i>Some:</i> AMD Radeon™ 520 , DirectX 12, 2GB GDDR5, PCIe 3.0 x8, 30 watts, two DisplayPort (up to 4096x2160@60Hz)						Environment	ENERGY STAR® 7.0, EPEAT™ Silver rating (North America), ErP Lot 3, TCO, TUV low noise verified (coming soon, on some models), RoHS-compliant
Monitor cable	Optional DP to VGA dongle, DP to DVI-D dongle, DP to dual DP dongle (for Collage Display with intel integrated graphics), or DP to HDMI 1.4 dongle						Accessories	For compatible accessories, please go to http://smartfind.lenovo.com
Chipset	Intel B360 Chipset							
Front ports* (Std.)	2x USB 3.1 Gen2, 2x USB 3.1 Gen1, 1x USB 3.1 Type-C Gen1 (15W charging), 1x microphone (3.5mm), 1x headphone / microphone combo jack (3.5mm)							
Front ports* (Opt.)	<i>Optional:</i> 1x media reader							
Rear ports* (Std.)	4x USB 2.0, 1x serial (9-pin), 1x ethernet (RJ-45), 1x VGA, 2x DisplayPort, 1x line-out (3.5mm)							
Rear ports* (Opt.)	<i>Optional:</i> 2x USB 3.1 Gen1 via PCI2 x1**, 2x USB 3.1 Type-C Gen2 via PCIe x4** (special bid only), 1x 2nd serial (9-pin), 4x serial (9-pin) via PCIe x1, 1x parallel (25-pin), 2x PS/2 ports (keyboard/mouse), additional RJ-45 and video ports available on optional graphics or ethernet card * Depending on many factors, actual data transfer speed may be lower than theoretical speed ** Choose either 2x USB 3.1 Gen1 or 2x USB 3.1 Type-C Gen2							
Audio support	High Definition (HD) Audio, Realtek ALC233VB2 / internal speaker (1 watt)							

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

Lenovo, April 2020



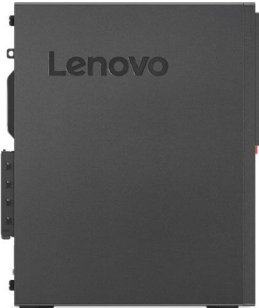
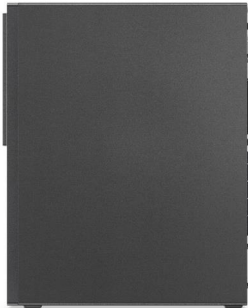
ThinkCentre M720e SFF Platform Specifications

Product Specifications Reference (PSREF)

Processor	Intel® Celeron®, Intel Pentium®, or 8th / 9th Gen Intel Core™ i3 / i5 / i7 / i9 Processor						Manageability	None
	Processor	Cores / Threads	Frequency Base/Max(GHz)	Cache	Memory Support (Up to)	Integrated Graphics	Security chip	Discrete TPM 2.0, TCG Certified
	Celeron G4900	2 / 2	3.1G	2 MB	DDR4-2400	UHD 610	Security features	● Security slot (in rear for optional Kensington® MicroSaver® cable) ● Padlock loop ● Smart USB protection, allows keyboard/ mouse only, blocks all storage devices ● Optional smart cable clip to physically lock both keyboard and mouse ● Power-on password ● Administrator password ● Hard disk password ● Boot sequence control ● Boot without keyboard and mouse ● Individual USB port disablement ● Optional chassis intrusion switch
	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 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 G5420	2 / 4	3.8G	4 MB	DDR4-2400	UHD 610		
	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 i5-8400	6 / 6	2.8G / 4.0G	9 MB	DDR4-2666	UHD 630	Keyboard	<i>Some:</i> Lenovo Calliope Keyboard (USB connector), black <i>Some:</i> Lenovo Traditional Keyboard (USB connector), black
	Core i5-8500	6 / 6	3.0G / 4.1G	9 MB	DDR4-2666	UHD 630		
	Core i7-8700	6 / 12	3.2G / 4.6G	12 MB	DDR4-2666	UHD 630	Mouse	<i>Some:</i> Lenovo Calliope Mouse (USB connector), black <i>Some:</i> Lenovo Fingerprint Mouse (USB connector), Windows Hello support, black
	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	Mechanical	● SFF (7.4L), black color, metal case ● (WxDxH) 3.9" X 11.9" X 10.8"; 100mm X 303.5mm X 274.8mm ● Approx. 9.37 lb (4.25 kg), weight may vary by configuration Bay 1: Slim ODD bay Bay 2: 3.5" disk bay, supports 2.5" HDD (2.5 to 3.5 bracket comes with 2.5" disk) Slot 1: low-profile (length < 152mm, height < 64mm), PCIe 3.0 x16* Slot 2: low-profile (length < 152mm, height < 64mm), PCIe 3.0 x1* M.2 card slot: one for SSD *Optional rear 2x USB2.0 / parallel occupies one expansion slot
	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, UDIMM, DDR4-2666*, two 288-pin DIMM sockets, non-ECC, dual-channel capable * Memory may be underclocked to DDR4-2400 for the lower memory controller in processor						Floor Stand	Optional system floor stand for vertical orientation
							Packaging	● (WxDxH) 7.7" X 15.4" X 19.7"; 195mm X 390mm X 500mm ● Cross weight (approx.) 14.48 lb (6.57 kg)
Storage	<i>Some:</i> Hard Drive / SATA 6.0Gb/s, 2.5" or 3.5", 5400 rpm or 7200 rpm <i>Some:</i> M.2 SSD (2242 / 2280) / PCIe NVMe, PCIe 3.0 x2 or PCIe 3.0 x4 <i>Some:</i> Intel Optane™ Memory, M.2 2280, PCIe NVMe, PCIe 3.0 x 2 <i>Some:</i> DVD-ROM SATA 1.5Gb/s Drive, slim (9.0mm) <i>Some:</i> DVD Burner (DVD±RW), SATA 1.5Gb/s Drive, slim (9.0mm) Two onboard SATA 6.0Gb/s connectors Optional 7-in-1 media reader						Power supply	180 watts, autosensing, 85% PSU
Optane memory							Limited warranty ³	<i>Some:</i> 1-year or 3-year, depot service / service upgrades available <i>Some:</i> 1-year or 3-year, limited onsite service / service upgrades available
Optical	Preload	Preloaded operating system <i>Some:</i> Windows® 10 Pro 64-bit <i>Some:</i> Windows 10 Home 64-bit <i>Some:</i> Linux Ubuntu						
Onboard SATA	Two onboard SATA 6.0Gb/s connectors Optional 7-in-1 media reader						Environment	ENERGY STAR® 7, EPEAT™ Silver rating (North America), ErP Lot 3, RoHS-compliant, WEEE
Media reader							Accessories	For compatible accessories, please go to http://www.lenovoquickpick.com
Graphics	Intel HD Graphics 610/630 in processor, uses main memory, DirectX® 12, one VGA, one DisplayPort™, supports 2 independent displays, works along with discrete graphics to support more displays; <i>Max resolution:</i> 4096x2304 (DP)@60Hz; 2048x1536 (VGA)@50Hz <i>Some:</i> AMD Radeon™ 520, DirectX 12, 2GB GDDR5, PCIe 3.0 x8 adapter, one VGA, one HDMI, 30 watts (Max); <i>Max resolution:</i> 3840x2160 (HDMI)@30Hz; 2048x1536 (VGA)@85Hz							
Monitor cable	Optional DP to VGA, DP to DVI-D (single link), DP to dual DP, or DP to HDMI 1.4							
Chipset	Intel B365 Chipset							
Front ports* (Std.)	2x USB 3.1 Gen1, 1x microphone (3.5mm), 1x headphone / microphone combo jack (3.5mm)							
Front ports* (Opt.)	Optional: 1x media reader							
Rear ports* (Std.)	2x USB 3.1 Gen1, 2x USB 2.0, 1x serial (9-pin), 1x ethernet (RJ-45), 1x VGA, 1x DisplayPort, 1x Line-out jack (3.5mm)							
Rear ports* (Opt.)	Optional: 2x USB 2.0, 1x 2nd serial (9-pin), 1x parallel (25-pin), 1x external USB to PS/2 ports cable (for PS/2 keyboard / mouse); additional video ports or RJ-45 on optional graphics / ethernet card on some models * Depending on many factors, actual data transfer speed may be lower than theoretical speed							
Audio support	High Definition (HD) Audio, Realtek ALC623 / internal speaker (1 watt)							
WLAN ¹³	None							
Bluetooth™	None							
Ethernet	Gigabit ethernet, Realtek RTL8111HN, Wake on LAN®							
Ethernet (Opt.)	Some: Bitland BN8E88*, gigabit ethernet, PCIe x1							
Modem	None							

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

Lenovo, September 2019



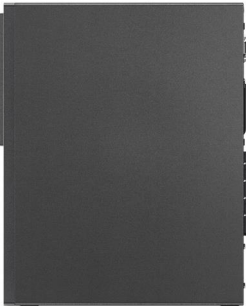
ThinkCentre M725 SFF Platform Specifications

Product Specifications Reference (PSREF)

Processor	AMD A6 / A8 / A10 / A12 and Ryzen 3 / 5 / 7 series processor						Ethernet	Gigabit ethernet, Realtek RTL8111EPV, Wake on LAN®
	Processor	Cores / Threads	Frequency (Base/Max)	L2 / L3 Cache	Memory Support (Up to)	Integrated Graphics	Ethernet (Opt.)	Some: Bitland BN8E88, gigabit ethernet, 1x RJ-45, PCIe x1 (special bid only)
	PRO A6-9500	2 / 2	3.5 / 3.8	1MB / -	DDR4-2400	Radeon R5	Manageability	DASH 10/1.1
	PRO A8-9600	4 / 4	3.1 / 3.4	2MB / -	DDR4-2400	Radeon R7	Security chip	Discrete TPM 2.0, TCG Certified
	PRO A10-9700	4 / 4	3.5 / 3.8	2MB / -	DDR4-2400	Radeon R7	Security features	- Security slot (in rear for optional Kensington® MicroSaver® cable) - Power-on password - Administrator password - Hard disk password - Padlock loop - Smart USB protection, allows keyboard/ mouse only, blocks all storage devices - Boot sequence control - Boot without keyboard and mouse - Optional cable lock to physically lock both keyboard and mouse - Individual USB port disablement - Optional chassis intrusion switch
	PRO A12-9800	4 / 4	3.8 / 4.2	2MB / -	DDR4-2400	Radeon R7		
	Ryzen 3 2300X	4 / 4	3.5 / 4.0	2MB / 8MB	DDR4-2933	None		
	Ryzen 5 2500X	4 / 8	3.6 / 4.0	2MB / 8MB	DDR4-2933	None		
	Ryzen 3 PRO 2200G	4 / 4	3.5 / 3.6	2MB / 4MB	DDR4-2933	Radeon Vega 8		
	Ryzen 5 PRO 2400G	4 / 8	3.6 / 3.8	2MB / 4MB	DDR4-2933	Radeon RX Vega 11		
	Ryzen 5 PRO 2600	6 / 12	3.4 / 3.9	3MB / 16MB	DDR4-2933	None		
	Ryzen 7 PRO 2700	8 / 16	3.2 / 4.1	4MB / 16MB	DDR4-2933	None		
Memory	64GB max, UDIMM, DDR4-2666*, four 288-pin DIMM sockets, non-ECC, dual-channel capable * Systemboard supports up to DDR4-2666, memory frequency may automatically clocks down for the lower capability of memory controller in processor						Keyboard	<i>Some:</i> Lenovo Calliope Keyboard (USB connector), black <i>Some:</i> Lenovo Traditional Keyboard (USB connector), black <i>Some:</i> Lenovo Calliope Wireless Keyboard (2.4GHz via USB receiver), black <i>Some:</i> Lenovo Keyboard (PS/2 connector), black (only available via special bid) <i>Some:</i> Lenovo Calliope Mouse (USB connector), black <i>Some:</i> Lenovo Fingerprint Mouse (USB connector), Windows Hello support, black <i>Some:</i> Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black <i>Some:</i> Lenovo Mouse (PS/2 connector), black (only available via special bid)
Storage	<i>Some:</i> Hard Drive / SATA 6.0Gb/s, 2.5" or 3.5", 5400 rpm or 7200 rpm <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" <i>Some:</i> M.2 SSD / PCIe NVMe, PCIe 3.0 x 4*, 32Gb/s * 128GB SSD M.2 (2242) PCIe NVMe and AMD A6 / A8 / A10 / A12 processor only supports PCIe 3.0 x 2, 16Gb/s						Mouse	
Optical	<i>Some:</i> DVD-ROM SATA 1.5Gb/s Drive, slim (9.0mm) <i>Some:</i> DVD Burner (DVD±RW), SATA 1.5Gb/s Drive, slim (9.0mm)						Mechanical	- SFF (8.4L), black color; metal case (WxDxH) 3.6" X 11.4" X 13.5"; 92.5mm X 290.5mm X 343.5mm - Approx. 13.2 lb (6.0 kg), weight may vary by configuration - Toolless cover, disk, optical removal - Optional dust filter - Bay 1: Slim external ODD bay - Bay 2: 3.5", internal, HDD/SSD - Bay 3: 2.5", internal, HDD/SSD (bay only comes with 2.5" 2nd disk) - Slot 1: low-profile (length < 150mm, height < 68mm), PCIe 3.0 x16 - Slot 2: low-profile (length < 150mm, height < 68mm), PCIe 2.0 x1 - Slot 3: low-profile (length < 150mm, height < 68mm), PCIe 2.0 x1 - Slot 4: low-profile (length < 150mm, height < 68mm), PCI 3.0 - M.2 card slots: two (one for WLAN, one for SSD) - Optional system floor stand for vertical orientation
Onboard SATA	Three onboard SATA 6.0Gb/s connectors, RAID 0/1 support (RAID preset only available via special bid model)						Floor Stand	
Media reader	Optional 7-in-1 media reader						Power supply	<i>Some:</i> 180 watts, autosensing, 85% PSU <i>Some:</i> 210 watts, autosensing, 85% PSU <i>Some:</i> 260 watts, autosensing, 92% PSU (only available via special bid)
Graphics	AMD Radeon™ Graphics in processor (only for some processors), uses main memory, DirectX® 12, one VGA (up to 1920x1200@60Hz), two DisplayPort™ (up to 4096x2160@60Hz, onboard VGA and DP ports are only available on the models with integrated graphics), supports 3 independent displays, works along with AMD discrete graphics to support more displays; <i>Some:</i> NVIDIA GeForce® GT 730 , DirectX 12, 2GB GDDR5, PCIe 2.0 x16 (x8 elec.) adapter, 35 watts, two DisplayPort (up to 3840x2160@60Hz) <i>Some:</i> AMD Radeon™ 520 , DirectX 12, 2GB GDDR5, PCIe 3.0 x8, 30 watts, two DisplayPort (up to 4096x2160@60Hz)						Limited warranty	1-year or 3-year, limited onsite service / service upgrades available
Monitor cable	Optional DP to VGA dongle, DP to DVI-D dongle, DP to dual DP dongle, or DP to HDMI 1.4 dongle						Preload	Preloaded operating system <i>Some:</i> Windows 10 Pro 64-bit <i>Some:</i> Windows 10 Home 64-bit Preloaded applications (only some listed) - Lenovo Vantage - Microsoft Office preloaded; purchase a product key to activate - Cyberlink Power2GO (only for models with DVD / DVD±RW) - Cyberlink Power2GO (only for models with DVD±RW) - LinkedIn
Chipset	AMD B450 Chipset						Environment	ENERGY STAR® 7.0*, EPEAT™ Silver rating* (*not for non-OS models); ErP Lot 3; RoHS-compliant
Front ports* (Std.)	2x USB 3.1 Gen2, 2x USB 3.1 Gen1, 1x microphone (3.5mm), 1x headphone (3.5mm)						Accessories	For compatible accessories, please go to http://smartfind.lenovo.com
Front ports* (Opt.)	Optional: 1x media reader, 2x USB 3.1 Type-C Gen2 via PCIe card (special bid only)							
Rear ports* (Std.)	2x USB 3.1 Gen1, 2x USB 2.0, 1x serial (9-pin), 1x ethernet (RJ-45), 1x VGA**, 2x DisplayPort**, 2x PS/2 ports (keyboard / mouse); 1x line-in (3.5mm), 1x line-out (3.5mm), 1x microphone (3.5mm)							
Rear ports* (Opt.)	Optional: 2x USB 2.0, 1x 2nd serial (9-pin), 1x parallel (25-pin), additional RJ-45 and video ports available on optional graphics or ethernet card							
	* Depending on many factors, actual data transfer speed may be lower than theoretical speed ** only available on the models with integrated graphics							
Audio support	High Definition (HD) Audio, Realtek ALC662 / optional internal speaker (1 watt)							
WLAN	<i>Some:</i> 11ac wireless, M.2 Card, Realtek RTL8821CE (dual band), Wi-Fi + Bluetooth 4.2 combo adapter, 1x1 <i>Some:</i> 11ac wireless, M.2 Card, Qualcomm Atheros QCA9377A (dual band), Wi-Fi + Bluetooth 4.2* combo adapter, 1x1 <i>Some:</i> 11ac wireless, M.2 Card, Realtek RTL8822BE (dual band), Wi-Fi + Bluetooth 4.2* combo adapter, 2x2 <i>Some:</i> 11ac wireless, M.2 Card, Qualcomm Atheros QCA6174A (dual band), Wi-Fi + Bluetooth 4.2* combo adapter, 2x2							
Bluetooth™	<i>Some:</i> Bluetooth 4.2* wireless, integrated in Wi-Fi + BT combo adapter * Hardware supports BT 4.2, but Win10 RS3 and earlier only supports BT 4.1							

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

Lenovo, February 2020



ThinkCentre M75s-1 SFF Platform Specifications

Product Specifications Reference (PSREF)

Processor	AMD Athlon, Athlon PRO, Ryzen 3 / 5, or Ryzen 3 / 5 PRO series processor						WLAN	Some: 11ac wireless, M.2 Card, Realtek RTL8822CE (dual band), Wi-Fi + Bluetooth 5.0 combo adapter, 2x2 Some: 11ac wireless, M.2 Card, Qualcomm Atheros QCA6174A (dual band), Wi-Fi + Bluetooth 4.2 combo adapter, 2x2 Some: 11ac wireless, M.2 Card, Intel Wireless-AC 9260 (dual band), Wi-Fi + Bluetooth 5.0 combo adapter, 2x2 Some: Bluetooth 4.2 / 5.0 wireless, integrated in Wi-Fi + BT combo adapter
	Processor	Cores / Threads	Frequency (Base/Max)	L2 / L3 Cache	Memory Support (Up to)	Integrated Graphics	Bluetooth™	Gigabit ethernet, Realtek RTL8111EPV, Wake on LAN® None
	Athlon PRO 200GE	2 / 4	3.2 GHz	1 MB / 4MB	DDR4-2666	Radeon Vega 3		
	Athlon PRO 300GE	2 / 4	3.4 / 3.4 GHz	1MB / 4MB	DDR4-2666	Radeon Vega 3		
	Ryzen 3 PRO 2200G	4 / 4	3.5 / 3.7 GHz	2MB / 4MB	DDR4-2933	Radeon Vega 8		
	Ryzen 5 PRO 2400G	4 / 8	3.6 / 3.9 GHz	2MB / 4MB	DDR4-2933	Radeon Vega 11		
	Ryzen 3 PRO 3200G	4 / 4	3.6 / 4.0 GHz	2MB / 4MB	DDR4-2933	Radeon Vega 8		
	Ryzen 5 PRO 3350G	4 / 8	3.6 / 4.0 GHz	2 MB / 4MB	DDR4-2933	Radeon Vega 11		
	Ryzen 5 PRO 3400G	4 / 8	3.7 / 4.2 GHz	2MB / 4MB	DDR4-2933	Radeon Vega 11		
	Ryzen 5 PRO 3600	6 / 12	3.6 / 4.2 GHz	3MB / 32MB	DDR4-3200	None		
	Ryzen 7 PRO 3700	8 / 16	3.6 / 4.4 GHz	4MB / 32MB	DDR4-3200	None		
	Ryzen 9 PRO 3900	12 / 24	3.1 / 4.3 GHz	6MB / 64MB	DDR4-3200	None		
	Athlon 300GE	2 / 4	3.4 / 3.4 GHz	1MB / 4MB	DDR4-2666	Radeon Vega 3		
	Ryzen 3 3200G	4 / 4	3.6 / 4.0 GHz	2MB / 4MB	DDR4-2933	Radeon Vega 8		
	Ryzen 5 3350G	4 / 8	3.6 / 4.0 GHz	2 MB / 4MB	DDR4-2933	Radeon RX Vega 11		
	Ryzen 5 3400G	4 / 8	3.7 / 4.2 GHz	2MB / 4MB	DDR4-2933	Radeon RX Vega 11		
	Ryzen 5 3600	6 / 12	3.6 / 4.2 GHz	3MB / 32MB	DDR4-3200	None		
Memory	64GB max, UDIMM, DDR4-2666*, four 288-pin DIMM sockets, non-ECC, dual-channel capable * System board supports up to DDR4-2666 memory, and memory may clocks down to DDR4-1866, DDR4-2133 or DDR-2400 for lower capacity of memory controller in processor						Manageability	DASH 10/1.1
Storage	Some: Hard Drive / SATA 6.0Gb/s, 2.5" or 3.5", 5400 rpm or 7200 rpm Some: M.2 SSD (2242 / 2280) / PCIe NVMe, PCIe 3.0 x2 or PCIe 3.0 x4 Some: DVD-ROM SATA 1.5Gb/s Drive, slim (9.0mm) Some: DVD Burner (DVD±RW), SATA 1.5Gb/s Drive, slim (9.0mm)						Security chip	Discrete TPM 2.0, TCG Certified
Optical	Three onboard SATA 6.0Gb/s connectors, RAID 0/1 support (RAID preset only available via special bid model)						Security features	- Security slot (in rear for optional Kensington® MicroSaver® cable) - Padlock loop - Smart USB protection, allows keyboard/ mouse only, blocks all storage devices - Optional smart cable clip to physically lock both keyboard and mouse - Power-on password - Administrator password - Hard disk password - Boot sequence control - Boot without keyboard and mouse - Individual USB port disablement - Optional chassis intrusion switch
Onboard SATA	Optional 7-in-1 media reader						Keyboard	Some: Lenovo Traditional Keyboard (USB connector), black Some: Lenovo Calliope Wireless Keyboard (2.4GHz via USB receiver), black Some: Lenovo Keyboard (PS/2 connector), black (only available via special bid)
Media reader	Optional 7-in-1 media reader						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 Some: Lenovo Mouse (PS/2 connector), black (only available via special bid)
Graphics	AMD Radeon™ Graphics in processor (only for some processors), uses main memory, DirectX® 12, one VGA, two DisplayPort™ (Onboard VGA and DP ports are only available on the models with integrated graphics), supports 3 independent displays, works along with AMD discrete graphics to support more displays; Max resolution: 4096x2160 (DP)@60Hz; Some: AMD Radeon™ 520 , DirectX 12, 2GB GDDR5, PCIe 3.0 x8 adapter, two DisplayPort, 30 watts (Max); Max resolution: 4096x2160 (DP)@60Hz						Mechanical	- SFF (8.4L), black color; metal case (WxDxH) 3.6" X 11.4" X 13.5"; 92.5mm X 290.5mm X 343.5mm - Approx. 13.2 lb (6.0 kg), weight may vary by configuration - Toolless cover, disk, optical, and extension card removal - Optional dust filter Bay 1: Slim external ODD bay Bay 2: 3.5", internal, HDD/SSD Bay 3: 2.5", internal, HDD/SSD (bay only comes with 2.5" 2nd disk) Slot 1: low-profile (length < 150mm, height < 68mm), PCIe 3.0 x16 Slot 2: low-profile (length < 150mm, height < 68mm), PCIe 2.0 x1 Slot 3: low-profile (length < 150mm, height < 68mm), PCIe 2.0 x1 Slot 4: low-profile (length < 150mm, height < 68mm), PCI 3.0 M.2 card slots: two (one for WLAN, one for SSD) Optional system floor stand for vertical orientation
Monitor cable	Optional DP to VGA, DP to DVI-D (single link), DP to dual DP, or DP to HDMI 1.4						Floor Stand	Optional system floor stand for vertical orientation
Chipset	AMD PRO 560 FCH						Power supply	Some: 180 watts, autosensing, 85% PSU Some: 210 watts, autosensing, 85% PSU Some: 260 watts, autosensing, 92% PSU (only available via special bid)
Front ports* (Std.)	2x USB 3.1 Gen2, 2x USB 3.1 Gen1, 1x microphone (3.5mm), 1x headphone (3.5mm)						Limited warranty	1-year or 3-year, limited onsite service / service upgrades available
Front ports* (Opt.)	Optional: 1x media reader						Preload	Preloaded operating system Some: Windows 10 Pro 64-bit Some: Windows 10 Home 64-bit Some: Windows 10 IoT Enterprise Some: Linux Ubuntu
Rear ports* (Std.)	2x USB 3.1 Gen1 (one support Smart Power-On), 2x USB 2.0, 1x serial (9-pin), 1x ethernet (RJ-45), 1x VGA**, 2x DisplayPort**, 2x PS/2 ports (keyboard / mouse); 1x line-in (3.5mm), 1x line-out (3.5mm), 1x microphone (3.5mm)						Environment	ENERGY STAR® 7.0*, EPEAT™ Silver rating* (*not for non-OS models); ErP Lot 3; RoHS-compliant, WEEE
Rear ports* (Opt.)	Optional: 2x USB 2.0, 1x parallel (25-pin), additional video ports available on optional graphics card * Depending on many factors, actual data transfer speed may be lower than theoretical speed ** only available on the models with integrated graphics						Accessories	For compatible accessories, please go to http://smartfind.lenovo.com
Audio support	High Definition (HD) Audio, Realtek ALC662 / optional internal speaker (1 watt)							

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

Lenovo, July 2020



ThinkCentre M80s Platform Specifications

Product Specifications Reference (PSREF)

Processor	Intel® Celeron®, Intel Pentium®, or 10th Gen Intel Core™ i3 / i5 / i7 / i9 Processor						WLAN	<i>Some:</i> 11ac wireless, M.2 Card, Realtek RTL8822CE (dual band), Wi-Fi + Bluetooth 5.0 combo adapter, 2x2 <i>Some:</i> 11ac wireless, M.2 Card, Intel Wireless-AC 9560 (dual band), Wi-Fi + Bluetooth 5.0 combo adapter, 2x2 <i>Some:</i> 11ax wireless, M.2 Card, Intel Wi-Fi 6 AX201 (dual band), Wi-Fi + Bluetooth 5.1 combo adapter, Intel vPro technology support, 2x2 <i>Some:</i> Bluetooth 5.0/5.1 wireless, integrated in Wi-Fi + BT combo adapter Gigabit ethernet, Intel Ethernet Connection I219-LM(Jacksonville), Wake on LAN® <i>Some:</i> Intel Ethernet Server Adapter I350-T4, gigabit ethernet, 4x RJ-45, PCIe x4 <i>Some:</i> Bitland BN8E88, gigabit ethernet, 1x RJ-45, PCIe x1	
	Processor	Cores / Threads	Frequency Base/Max(GHz)	Cache	Memory Support (Up to)	Integrated Graphics	Bluetooth Ethernet (Opt.)		
	Celeron G5900	2 / 2	3.4G	2 MB	DDR4-2666	UHD 610			
	Celeron G5920	2 / 2	3.5G	2 MB	DDR4-2666	UHD 610			
	Pentium Gold G6400	2 / 4	4.0G	4 MB	DDR4-2666	UHD 610			
	Pentium Gold G6500	2 / 4	4.1G	4 MB	DDR4-2666	UHD 630			
	Pentium Gold G6600	2 / 4	4.2G	4 MB	DDR4-2666	UHD 630			
	Core i3-10100	4 / 8	3.6G / 4.3G	6 MB	DDR4-2666	UHD 630			
	Core i3-10300	4 / 8	3.7G / 4.4G	8 MB	DDR4-2666	UHD 630			
	Core i3-10320	4 / 8	3.8G / 4.6G	8 MB	DDR4-2666	UHD 630			
	Core i5-10400F	6 / 12	2.9G / 4.3G	12 MB	DDR4-2666	None			
	Core i5-10400	6 / 12	2.9G / 4.3G	12 MB	DDR4-2666	UHD 630			
	Core i5-10500	6 / 12	3.1G / 4.5G	12 MB	DDR4-2666	UHD 630			
	Core i5-10600	6 / 12	3.3G / 4.8G	12 MB	DDR4-2666	UHD 630			
	Core i7-10700F	8 / 16	2.9G / 4.8G	16 MB	DDR4-2933	None			
	Core i7-10700	8 / 16	2.9G / 4.8G	16 MB	DDR4-2933	UHD 630			
	Core i9-10900F	10 / 20	2.8G / 5.2G	20 MB	DDR4-2933	None			
	Core i9-10900	10 / 20	2.8G / 5.2G	20 MB	DDR4-2933	UHD 630			
	* Max frequency may refer to Intel Turbo Boost Technology 2.0 / Intel Turbo Boost Max Technology 3.0 / Intel Thermal Velocity Boost, and adopt the max one of them						Manageability	Intel Active Management Technology 14 (Intel AMT 14); Intel vPro technology on some models (require choosing a vPro-support Wi-Fi adapter to enable vPro function through wireless connection)	
							Security chip	Discrete TPM 2.0, TCG Certified	
							Security features	• Security slot (for Kensington® lock) • Padlock loop • Optional Smart Cable Clip to physically lock keyboard and mouse • Optional chassis intrusion switch • Optional chassis E-Lock • Power-on password • Administrator password • Hard disk password • Boot sequence control • Boot without keyboard and mouse • Individual USB port disablement • Smart USB protection, allows keyboard/mouse only, blocks all storage devices	
Memory	128GB max, DDR4-2666 / DDR4-2933*, four 288-pin DIMM sockets, dual-channel capable * Memory module is DDR4-2933, but clocks down for the limitation of processors						Keyboard	<i>Some:</i> Lenovo Calliope Keyboard (USB connector), black <i>Some:</i> Lenovo Traditional Keyboard (USB connector), black <i>Some:</i> Lenovo Calliope Wireless Keyboard (2.4GHz via USB receiver), black	
Storage	Support up to 2x HDD ([2.5" + 3.5"] or [dual 2.5"]) and up to 1x M2.SSD, RAID 0/1 support for HDD (RAID preset only available via special bid) <i>Some:</i> Hard Drive / SATA 6.0Gb/s, 2.5" or 3.5", 7200 rpm <i>Some:</i> M.2 SSD (2242 / 2280) / PCIe NVMe, PCIe 3.0 x2 or PCIe 3.0 x4 <i>Some:</i> Intel Optane™ Memory M10, M.2 2280, PCIe 3.0 x2						Mouse	<i>Some:</i> Lenovo Calliope Mouse (USB connector), black <i>Some:</i> Lenovo Fingerprint Mouse (USB connector), Windows Hello support, black <i>Some:</i> Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black	
Optical	<i>Some:</i> DVD-ROM, SATA 1.5Gb/s Drive, slim (9.0mm) <i>Some:</i> DVD Burner (DVD±RW), SATA 1.5Gb/s Drive, slim (9.0mm)						Mechanical	• SFF (8.2L), black color, metal case • Dimensions with bezel & PCI holder & rubber foot: (WxDxH) 3.6" X 11.7" X 13.4"; 93mm X 298mm X 340mm • Weight (approx.): 11.7 lb (5.3 kg), weight may vary by configuration	
Onboard SATA	Three onboard SATA 6.0Gb/s connectors						Bays	Bay 1: Slim ODD bay Bay 2: 3.5" HDD bay Bay 3: 2.5" HDD bay (optional bay, or bay comes with disk)	
Media reader	Optional 3-in-1 media reader (support SD, SDHC, and SDXC)						Slots	Slot 1: low-profile (length < 155mm, height < 68mm), PCIe 3.0 x16 Slot 2: low-profile (length < 155mm, height < 68mm), PCIe 3.0 x1 Slot 3: no slot, only bracket for optional port extension Slot 4: no slot, only bracket for optional port extension M.2 card slots: two (one for WLAN, one for SSD/Optane) Optional system floor stand for vertical orientation Toolless cover, disk, optical, extension card removal	
Graphics	Intel UHD Graphics 610/630 in some processors, uses main memory, DirectX® 12, two DisplayPort™, one HDMI, supports up to 3 independent displays, more displays support via discrete graphics Max resolution: 4096x2304 (DP)@60Hz; 1920x1080 (HDMI)@60Hz <i>Some:</i> AMD Radeon™ 520 , DirectX 12, 2GB GDDR5, PCIe 3.0 x8, 30 watts, two DisplayPort (up to 4096x2160@60Hz)						Floor Stand EOU design		
Monitor cable	Optional DP to VGA dongle, DP to DVI-D dongle, DP to dual DP dongle (for Collage Display with intel integrated graphics), or DP to HDMI 1.4 dongle						Power supply	<i>Some:</i> 180 watts, autosensing, 85% PSU <i>Some:</i> 260 watts, autosensing, 85% PSU <i>Some:</i> 310 watts, autosensing, 92% PSU <i>Some:</i> 380 watts, autosensing, 92% PSU * Discrete graphics card / 10-core processors need > 180w power supply	
Chipset	Intel Q470 Chipset						Limited warranty	<i>Some:</i> 1-year, depot service / service upgrades available <i>Some:</i> 1-year or 3-year, limited onsite service / service upgrades available	
Front ports* (Std.)	2x USB 3.2 Gen 2, 2x USB 3.2 Gen 1, 1x USB 3.2 Type-C Gen 1 (15W charging), 1x microphone (3.5mm), 1x headphone / microphone combo jack (3.5mm)						Preload	<i>Some:</i> Windows® 10 Pro 64-bit <i>Some:</i> Windows 10 Home 64-bit <i>Some:</i> Windows 10 IoT Enterprise (only available via special bid model)	
Front ports* (Opt.)	<i>Optional:</i> 3-in-1 media reader						Environment	ENERGY STAR® 8.0*, EPEAT™ Gold / Silver rating (on some models), ErP Lot 3, TCO 8.0, TUV low noise / ultra low noise verified (on some models), RoHS * Only available for MT 11CU/11CV	
Rear ports* (Std.)	4x USB 3.2 Gen 1, 1x serial (9-pin), 1x ethernet (RJ-45), 2x DP**, 1x HDMI**, 1x line-out (3.5mm)						Accessories	For compatible accessories, please go to http://smartfind.lenovo.com	
Rear ports* (Opt.)	<i>Optional:</i> 2x USB 2.0, 2x USB 3.2 Gen 1 via PCIe x1, 2x USB 3.2 Type-C Gen 2 via PCIe x4, 1x 2nd serial (9-pin), 4x serial (9-pin) via PCIe x1, 1x parallel (25-pin), 2x PS/2 ports (keyboard/mouse), additional RJ-45 and video ports available on optional graphics or ethernet card * Depending on many factors, actual data transfer speed may be lower than theoretical speed ** Only available for the models with integrated graphics								
Audio support	High Definition (HD) Audio, Realtek ALC623-CG / internal speaker (1 watt)								

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

Lenovo, May 2020



ThinkCentre M90s Platform Specifications

Product Specifications Reference (PSREF)

Processor	Intel® Celeron®, Intel Pentium®, or 10th Gen Intel Core™ i3 / i5 / i7 / i9 Processor						WLAN	<i>Some:</i> 11ac wireless, M.2 Card, Realtek RTL8822CE (dual band), Wi-Fi + Bluetooth 5.0 combo adapter, 2x2 <i>Some:</i> 11ac wireless, M.2 Card, Intel Wireless-AC 9560 (dual band), Wi-Fi + Bluetooth 5.0 combo adapter, 2x2 <i>Some:</i> 11ax wireless, M.2 Card, Intel Wi-Fi 6 AX201 (dual band), Wi-Fi + Bluetooth 5.1 combo adapter, Intel vPro technology support, 2x2 <i>Some:</i> Bluetooth 5.0/5.1 wireless, integrated in Wi-Fi + BT combo adapter <i>Some:</i> Gigabit ethernet, Intel Ethernet Connection I219-LM(Jacksonville), Wake on LAN® <i>Some:</i> Intel Ethernet Server Adapter I350-T4, gigabit ethernet, 4x RJ-45, PCIe x4 <i>Some:</i> Bitland BN8E88, gigabit ethernet, 1x RJ-45, PCIe x1
	Processor	Cores / Threads	Frequency Base/Max(GHz)	Cache	Memory Support (Up to)	Integrated Graphics	Bluetooth Ethernet (Opt.)	<i>Some:</i> Intel vPro technology on some models (require choosing a vPro-support Wi-Fi adapter to enable vPro function through wireless connection) Discrete TPM 2.0, TCG Certified
	Celeron G5900	2 / 2	3.4G	2 MB	DDR4-2666	UHD 610		
	Celeron G5920	2 / 2	3.5G	2 MB	DDR4-2666	UHD 610		
	Pentium Gold G6400	2 / 4	4.0G	4 MB	DDR4-2666	UHD 610		
	Pentium Gold G6500	2 / 4	4.1G	4 MB	DDR4-2666	UHD 630		
	Pentium Gold G6600	2 / 4	4.2G	4 MB	DDR4-2666	UHD 630		
	Core i3-10100	4 / 8	3.6G / 4.3G	6 MB	DDR4-2666	UHD 630		
	Core i3-10300	4 / 8	3.7G / 4.4G	8 MB	DDR4-2666	UHD 630		
	Core i3-10320	4 / 8	3.8G / 4.6G	8 MB	DDR4-2666	UHD 630		
	Core i5-10400F	6 / 12	2.9G / 4.3G	12 MB	DDR4-2666	None		
	Core i5-10400	6 / 12	2.9G / 4.3G	12 MB	DDR4-2666	UHD 630		
	Core i5-10500	6 / 12	3.1G / 4.5G	12 MB	DDR4-2666	UHD 630		
	Core i5-10600	6 / 12	3.3G / 4.8G	12 MB	DDR4-2666	UHD 630		
	Core i7-10700F	8 / 16	2.9G / 4.8G	16 MB	DDR4-2933	None		
	Core i7-10700	8 / 16	2.9G / 4.8G	16 MB	DDR4-2933	UHD 630		
	Core i9-10900F	10 / 20	2.8G / 5.2G	20 MB	DDR4-2933	None		
	Core i9-10900	10 / 20	2.8G / 5.2G	20 MB	DDR4-2933	UHD 630		
	* Max frequency may refer to Intel Turbo Boost Technology 2.0 / Intel Turbo Boost Max Technology 3.0 / Intel Thermal Velocity Boost, and adopt the max one of them						Manageability	Intel Active Management Technology 14 (Intel AMT 14);
Memory	128GB max, DDR4-2666 / DDR4-2933*, four 288-pin DIMM sockets, dual-channel capable * Memory module is DDR4-2933, but clocks down for the limitation of processors						Security chip	Discrete TPM 2.0, TCG Certified
Storage	Support up to 3x HDD ([2.5" + dual 3.5"] or [dual 2.5" + 3.5"]) and up to 2x M.2 SSD, RAID 0/1 support (RAID preset only available via special bid) <i>Some:</i> Hard Drive / SATA 6.0Gb/s, 2.5" or 3.5", 7200 rpm <i>Some:</i> M.2 SSD (2242 / 2280) / PCIe NVMe, PCIe 3.0 x2 or PCIe 3.0 x4 <i>Some:</i> Intel Optane™ Memory M10, M.2 2280, PCIe 3.0 x2 <i>Some:</i> DVD-ROM, SATA 1.5Gb/s Drive, slim (9.0mm) <i>Some:</i> DVD Burner (DVD±RW), SATA 1.5Gb/s Drive, slim (9.0mm)						Security features	- Security slot (for Kensington® lock) - Padlock loop - Optional Smart Cable Clip to physically lock keyboard and mouse - Optional chassis intrusion switch - Optional chassis E-Lock - Power-on password - Administrator password - Hard disk password - Boot sequence control - Boot without keyboard and mouse - Individual USB port disablement - Smart USB protection, allows keyboard/mouse only, blocks all storage devices - Self-Healing BIOS
Optical	Four onboard SATA 6.0Gb/s connectors Optional 3-in-1 media reader (support SD, SDHC, and SDXC)						Keyboard	<i>Some:</i> Lenovo Calliope Keyboard (USB connector), black <i>Some:</i> Lenovo Traditional Keyboard (USB connector), black <i>Some:</i> Lenovo Calliope Wireless Keyboard (2.4GHz via USB receiver), black <i>Some:</i> Lenovo Calliope Mouse (USB connector), black <i>Some:</i> Lenovo Fingerprint Mouse (USB connector), Windows Hello support, black <i>Some:</i> Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black
Onboard SATA Media reader							Mouse	
Graphics	Intel UHD Graphics 610/630 in some processors, uses main memory, DirectX® 12, two DisplayPort™, one optional video port (choose one from HDMI / DP / Type-C), supports up to 3 independent displays, more displays support via discrete graphics Max resolution: 4096x2304 (DP / Type-C)@60Hz; 4096x2160 (HDMI)@24Hz <i>Some:</i> AMD Radeon™ 520 , DirectX 12, 2GB GDDR5, PCIe 3.0 x8, 30 watts, two DisplayPort (up to 4096x2160@60Hz)						Mechanical	- SFF (8.2L), black color, metal case - Dimensions with bezel & PCI holder & rubber foot: (WxDxH) 3.6" X 11.7" X 13.4"; 93mm X 298mm X 340mm - Weight (approx.): 11.7 lb (5.3 kg), weight may vary by configuration - Bay 1: Slim ODD bay - Bay 2: 3.5" HDD bay - Bay 3: 2.5" HDD bay (optional bay, or bay comes with disk) - Slot 1: low-profile (length < 155mm, height < 68mm), PCIe 3.0 x16 - Slot 2: low-profile (length < 155mm, height < 68mm), PCIe 3.0 x1 - Slot 3: low-profile (length < 155mm, height < 68mm), PCIe 3.0 x4 - Slot 4: no slot, only bracket for optional port extension - M.2 card slots: three (one for WLAN, two for SSD/Optane) - Optional system floor stand for vertical orientation - Toolless cover, disk, optical, extension card removal
Monitor cable	Optional DP to VGA dongle, DP to DVI-D dongle, DP to dual DP dongle (for Collage Display with intel integrated graphics), or DP to HDMI 1.4 dongle						Floor Stand EOU design	
Chipset	Intel Q470 Chipset						Power supply	<i>Some:</i> 180 watts, autosensing, 85% PSU <i>Some:</i> 260 watts, autosensing, 85% PSU <i>Some:</i> 310 watts, autosensing, 92% PSU <i>Some:</i> 380 watts, autosensing, 92% PSU * Discrete graphics card / 10-core processors need > 180w power supply
Front ports* (Std.)	2x USB 3.2 Gen 2, 2x USB 3.2 Gen 1, 1x USB 3.2 Type-C Gen 1 (15W charging), 1x microphone (3.5mm), 1x headphone / microphone combo jack (3.5mm)						Limited warranty	1-year or 3-year, limited onsite service / service upgrades available
Front ports* (Opt.)	<i>Optional:</i> 3-in-1 media reader						Preload	<i>Some:</i> Windows® 10 Pro 64-bit <i>Some:</i> Windows 10 Home 64-bit <i>Some:</i> Windows 10 IoT Enterprise (only available via special bid model)
Rear ports* (Std.)	4x USB 3.2 Gen 1, 1x serial (9-pin), 1x ethernet (RJ-45), 2x DisplayPort**, 1x line-out (3.5mm)						Environment	ENERGY STAR® 8.0*, EPEAT™ Gold / Silver rating (on some models), ErP Lot 3, TCO 8.0, TUV low noise / ultra low noise verified (on some models), RoHS * Only available for MT 11D1/11D2
Rear ports* (Opt.)	<i>Optional:</i> 1x optional video port** (choose one from HDMI / DP / USB 3.2 Type-C Gen 1 with DP function), 2x USB 2.0, 2x USB 3.2 Gen 1 via PCIe x1, 2x USB 3.2 Type-C Gen 2 via PCIe x4, 1x 2nd serial (9-pin), 4x serial (9-pin) via PCIe x1, 1x parallel (25-pin), 2x PS/2 ports (keyboard/mouse), additional RJ-45 and video ports available on optional graphics or ethernet card * Depending on many factors, actual data transfer speed may be lower than theoretical speed ** Only available for the models with integrated graphics						Accessories	For compatible accessories, please go to http://smartfind.lenovo.com
Audio support	High Definition (HD) Audio, Realtek ALC623-CG / internal speaker (1 watt)							

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

Lenovo, May 2020



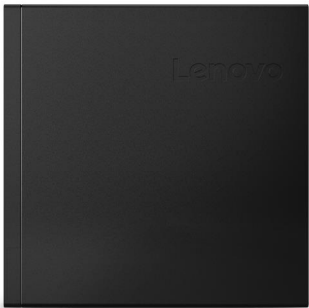
ThinkCentre M920 SFF Platform Specifications

Product Specifications Reference (PSREF)

Processor	Intel® Celeron®, Intel Pentium®, or 8th / 9th Gen Intel Core™ i3 / i5 / i7 / i9 Processor						1x parallel (25-pin), 2x PS/2 ports (keyboard/mouse), 1x Thunderbolt 3 (combo USB3.1 Type-C Gen 2 / DisplayPort) via PCIe x4 (available on 09/30/2018), additional RJ-45 and video ports available on optional graphics or ethernet card * Depending on many factors, actual data transfer speed may be lower than theoretical speed
	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 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 G5420	2 / 4	3.8G	4 MB	DDR4-2400	UHD 610	
	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 i3-9320	4 / 4	3.7G / 4.4G	8 MB	DDR4-2400	UHD 630	
	Core i5-9400	6 / 6	2.9G / 4.1G	9 MB	DDR4-2666	UHD 630	
	Core i5-9400F	6 / 6	2.9G / 4.1G	9 MB	DDR4-2666	None	
	Core i5-9500	6 / 6	3.0G / 4.4G	9 MB	DDR4-2666	UHD 630	
	Core i5-9500F	6 / 6	3.0G / 4.4G	9 MB	DDR4-2666	None	
	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	64GB max, DDR4-2666*, four 288-pin DIMM sockets, dual-channel capable * System automatically clocks down for the processors with lower memory controller						
Storage	<i>Some:</i> Hard Drive / SATA 6.0Gb/s, 2.5" or 3.5", 5400 rpm or 7200 rpm <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" <i>Some:</i> M.2 Solid State Drive (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 <i>Some:</i> Intel Optane™ Memory (not support Celeron / Pentium Processor), M.2 <i>Some:</i> DVD-ROM, SATA 1.5Gb/s Drive, slim (9.0mm) <i>Some:</i> DVD Burner (DVD±RW), SATA 1.5Gb/s Drive, slim (9.0mm)						
Optical	Four onboard SATA 6.0Gb/s connectors, RAID 0/1 support (RAID preset only available via special bid model)						
Onboard SATA	Optional 7-in-1 media reader						
Media reader							
Graphics	Intel UHD Graphics 610/630 in some processors, uses main memory, DirectX® 12, one VGA (up to 2048x1536@50Hz), two DisplayPort™ (up to 4096x2304@60Hz), supports 3 independent displays, more displays support via discrete graphics <i>Some:</i> NVIDIA GeForce® GT 730 (End Of Life), DirectX 12, 2GB GDDR5, PCIe 2.0 x16, 35 watts, two DisplayPort (up to 3840x2160@60Hz) <i>Some:</i> AMD Radeon™ 520 , DirectX 12, 2GB GDDR5, PCIe 3.0 x8, 30 watts, two DisplayPort (up to 4096x2160@60Hz)						
Monitor cable	Optional DP to VGA dongle, DP to DVI-D dongle, DP to dual DP dongle (for Collage Display with intel integrated graphics), or DP to HDMI 1.4 dongle						
Chipset	Intel Q370 Chipset						
Front ports* (Std.)	2x USB 3.1 Gen2, 2x USB 3.1 Gen1, 1x USB 3.1 Type-C Gen1 (15W charging), 1x microphone (3.5mm), 1x headphone / microphone combo jack (3.5mm)						
Front ports* (Opt.)	<i>Optional:</i> 1x media reader						
Rear ports* (Std.)	4x USB 3.1 Gen1, 1x serial (9-pin), 1x ethernet (RJ-45), 1x VGA, 2x DisplayPort, 1x line-out (3.5mm)						
Rear ports* (Opt.)	<i>Optional:</i> 2x USB 2.0, 2x USB 3.1 Gen1 via PCIe x1, 2x USB 3.1 Type-C Gen2 via PCIe x4 (special bid only), 1x 2nd serial (9-pin), 4x serial (9-pin) via PCIe x1,						
Audio support	High Definition (HD) Audio, Realtek ALC233VB2 / internal speaker (1 watt)						
WLAN	<i>Some:</i> 11ac Wi-Fi + BT 4.2, M.2 Card, Realtek RTL8821CE (dual band), 1x1 <i>Some:</i> 11ac Wi-Fi + BT 4.2, M.2 Card, Realtek RTL8822BE (dual band), 2x2 <i>Some:</i> 11ac Wi-Fi + BT 4.2, M.2 Card, Intel Dual Band Wireless-AC 3165, 1x1 <i>Some:</i> 11ac Wi-Fi + BT 4.2, M.2 Card, Intel Dual Band Wireless-AC 8265, 2x2 <i>Some:</i> 11ac Wi-Fi + BT 5.0, M.2 Card, Intel Wireless-AC 9560 (dual band), Intel vPro technology support, 2x2						
Bluetooth	<i>Some:</i> Bluetooth 4.2/5.0 wireless, integrated in Wi-Fi + BT combo adapter						
Ethernet	Gigabit ethernet, Intel Ethernet Connection I219-LM(Jacksonville), Wake on LAN®						
Ethernet (Opt.)	<i>Some:</i> Intel Ethernet Server Adapter I350-T4, gigabit ethernet, 4x RJ-45, PCIe x4 <i>Some:</i> Bitland BN8E88, gigabit ethernet, 1x RJ-45, PCIe x1 (special bid only)						
Manageability	Intel Active Management Technology 12 (Intel AMT 12); Intel vPro technology on some models (require choosing a vPro-support Wi-Fi adapter to enable vPro function through wireless connection)						
Security chip	Discrete TPM 2.0, TCG Certified						
Security features	- Security slot (in rear for optional Kensington® MicroSaver® cable) - Padlock loop - Optional cable lock to physically lock both keyboard and mouse - Optional chassis intrusion switch - Optional chassis E-Lock (special bid)						- Power-on password - Administrator password - Hard disk password - Boot sequence control - Boot without keyboard and mouse - Individual USB port disablement - Smart USB protection, allows keyboard/mouse only, blocks all storage devices
Keyboard	<i>Some:</i> Lenovo Calliope Keyboard (USB connector), black <i>Some:</i> Lenovo Traditional Keyboard (USB connector), black <i>Some:</i> Lenovo Calliope Wireless Keyboard (2.4GHz via USB receiver), black						
Mouse	<i>Some:</i> Lenovo Keyboard (PS/2 connector), black (only available via special bid) <i>Some:</i> Lenovo Calliope Mouse (USB connector), black <i>Some:</i> Lenovo Fingerprint Mouse (USB connector), Windows Hello support, black <i>Some:</i> Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black <i>Some:</i> Lenovo Mouse (PS/2 connector), black (only available via special bid)						
Mechanical	- SFF (8.4L), black color, metal case (WxDxH) 3.6" X 11.4" X 13.5"; 92.5mm X 290.5mm X 343.5mm - Approx. 13.23 lb (6 kg), weight may vary by configuration - Toolless cover, disk, optical, extension card removal - Optional dust filter						Bay 1: Slim external ODD bay Bay 2: 3.5", 1" high, internal, HDD/SSD Bay 3: 2.5", internal, HDD/SSD (optional bay) Slot 1: low-profile (length < 150mm, height < 68mm), PCIe 3.0 x16 Slot 2: low-profile (length < 150mm, height < 68mm), PCIe 3.0 x1 Slot 3: low-profile (length < 150mm, height < 68mm), PCIe 3.0 x16 (x4 signal) Slot 4: no slot, only bracket for optional port extension M.2 card slots: Two (one for WLAN, one for SSD/Optane) Optional system floor stand for vertical orientation
Floor Stand	Optional system floor stand for vertical orientation						
Power supply	<i>Some:</i> 180 watts, autosensing, 85% PSU <i>Some:</i> 210 watts, autosensing, 85% PSU <i>Some:</i> 260 watts, autosensing, 92% PSU (only available via special bid)						
Limited warranty	<i>Some:</i> 1-year or 3-year, depot service / service upgrades available <i>Some:</i> 1-year or 3-year, limited onsite service / service upgrades available						
Preload	<i>Some:</i> Windows® 10 Pro 64-bit <i>Some:</i> Windows 10 Home 64-bit						
Environment	ENERGY STAR® 7.0, EPEAT™ Silver rating (North America), ErP Lot 3, TCO, TUV low noise verified (coming soon, on some models), RoHS-compliant						
Accessories	For compatible accessories, please go to http://smartfind.lenovo.com						

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

Lenovo, April 2020



ThinkCentre M625 Tiny Platform Specifications

Product Specifications Reference (PSREF)

Processor	AMD A9 series APU						Keyboard	Some: Fullsize USB Keyboard (USB connector), black, Lenovo logo	
	APU	Cores	Frequency Base/Max	L2 Cache	Memory Support (Up to)	Integrated Graphics	Mouse	Some: USB Optical Wheel Mouse, black, Lenovo logo	
	A9-9420e	2	1.8 / 2.7 GHz	1 MB	DDR4-1866	Radeon R5 Series	Mechanical	Tiny (1L), black color; metal case - Toolless chassis open (for models with optional toolless chassis screw) - Toolless HDD, SSD, memory, Wi-Fi removal - Optional dust filter M625 Tiny only: 7.05" W X 7.20" D X 1.36" H 179mm W X 182.9mm D X 34.5mm H 2.9 lb (1.3 kg), weight may vary by configuration Optional VESA mount bracket kit, supports VESA 75mm and 100mm Optional system floor stand for vertical orientation	
Memory	8GB max, DDR4-2666, one 260-pin SO-DIMM socket * System frequency automatically clocks down for the lower capability of memory controller in processor						VESA mount		
Disk	Some: SATA 6.0Gb/s, 2.5" Wide, 5400 rpm or 7200 rpm Some: 128GB M.2 Solid State Drive (SSD) / PCIe NVMe interface Some: 256GB M.2 Solid State Drive (SSD) / PCIe NVMe interface						Floor Stand	Optional system floor stand for vertical orientation	
Optical	None						Power supply	Some: 65 watts adapter, autosensing, 88% PSU (not included for TIO models) Some: 135 watts adapter, autosensing, 89% PSU	
Onboard SATA	one SATA 6.0Gb/s connector on planar						Limited warranty ³	Some: 1-year, depot service / service upgrades available Some: 1-year, limited onsite service / service upgrades available	
Media reader	None						Preload	Preloaded operating system Some: Windows® 10 Pro 64-bit Some: Windows 7 Professional 64 preinstalled through downgrade rights in Windows 10 Pro 64-bit Preloaded applications (only some listed) - Windows 10 only - Lenovo Vantage - LinkedIn - Microsoft Office preloaded; purchase a product key to activate - Windows 7 only - Lenovo Solution Center - Lenovo System Update - Factory Recovery - User Guide Viewer - Microsoft Office preloaded; purchase a product key to activate - Adobe® Reader®	
Graphics	AMD Radeon™ Graphics in processor, uses main memory, DirectX® 12, two DisplayPort™, one optional port (VGA or USB 2.0 Type-C with DisplayPort Alternate Mode), supports up to 2 independent displays; Max resolution: 3840x2160 (DP)@60Hz; 2048x1280 (VGA)@60Hz; 3840x2160 (USB 2.0 Type-C)@60Hz						Environment	ENERGY STAR® 7.0*, EPEAT™ Gold rating (with 135W adapter) or EPEAT™ Silver rating (with 65W), ErP Lot 3, RoHS-compliant, WEEE, TCO	
Monitor cable	Optional DP to VGA, DP to DVI-D (single link), or DP to HDMI 1.4 dongle						MIL-SPEC test	MIL-STD-810G military certification (Low Pressure [Altitude], High Temperature, Low Temperature, Temperature Shock, Humidity, Sand and Dust, Vibration, Shock, Fungus, Solar Radiation)	
Chipset	AMD SoC platform						Accessories	For compatible accessories, please go to http://smartfind.lenovo.com	
Front ports*	Two USB 3.1 Gen1 (one is Always On and fast charge), one microphone (3.5mm), one headphone / microphone combo jack (3.5mm)								
Rear ports*	One USB 3.1 Gen1, three USB 2.0, ethernet (RJ-45), two DisplayPort, two optional ports (Port 1 for VGA / serial / USB 2.0 Type-C (with DisplayPort Alternate Mode), Port 2 for serial) * Depending on many factors, actual data transfer speed may be lower than theoretical speed								
I/O box	None								
Audio support	High Definition (HD) Audio, Realtek ALC233-VB2-CG/ internal speaker (1.5 watt)								
WLAN ¹³	Some: 11ac wireless, M.2 Card, Realtek RTL8822BE (dual band), Wi-Fi + Bluetooth 4.2* combo adapter, 2x2 Some: 11ac wireless, M.2 Card, Qualcomm Atheros QCA6174A (dual band), Wi-Fi + Bluetooth 4.2* combo adapter, 2x2								
Bluetooth™	Some: Bluetooth 4.2* wireless, integrated in Wi-Fi + BT combo adapter * Win 10 RS3 and Win10 earlier version only support Bluetooth 4.1								
Ethernet	Gigabit ethernet, Realtek RTL8111HN, Wake on LAN®								
Modem	None								
Manageability	None								
Security chip	Discrete TPM 2.0, TCG Certified								
Security features	- Security slot (in rear for optional Kensington® MicroSaver® cable) - Smart USB protection, allows keyboard/ mouse only, blocks all storage devices - Power-on password							- Administrator password - Hard disk password - Boot sequence control - Boot without keyboard and mouse - Individual USB port disablement - Chassis intrusion switch	

Lenovo, May 2020



ThinkCentre M625 Tiny Thin Client Platform Specifications

Product Specifications Reference (PSREF)

Processor	AMD E2 series APU						Keyboard Mouse	<i>Some:</i> Fullsize USB Keyboard (USB connector), black, Lenovo logo <i>Some:</i> USB Optical Wheel Mouse, black, Lenovo logo
	APU	Cores	Frequency Base/Max	L2 Cache	Memory Support (Up to)	Integrated Graphics	Mechanical	Tiny (1L), fan-less design, black color, metal case - Toolless chassis open (for models with optional toolless chassis screw) - Toolless SSD, memory, Wi-Fi removal M625 Tiny Thin Client only: 7.05" W X 7.20" D X 1.36" H 179mm W X 182.9mm D X 34.5mm H 2.9 lb (1.3 kg), weight may vary by configuration Optional VESA mount bracket kit, supports VESA 75mm and 100mm Optional system floor stand for vertical orientation
	E2-9000e	2	1.5 / 2.0 GHz	1 MB	DDR4-1866	Radeon R2 Series	VESA mount Floor Stand	Optional VESA mount bracket kit, supports VESA 75mm and 100mm Optional system floor stand for vertical orientation
	A4-9120e	2	1.5 / 2.2 GHz	1 MB	DDR4-1866	Radeon R3 Series	Power supply	65 watts AC/DC adapter, autosensing, 88% PSU (not included for TIO models)
Memory	8GB max, DDR4-2666, one 260-pin SO-DIMM socket * System frequency automatically clocks down for the lower capability of memory controller in processor						Limited warranty ³	<i>Some:</i> 1-year, depot service / service upgrades available <i>Some:</i> 1-year, limited onsite service / service upgrades available
Disk	<i>Some:</i> 32GB M.2 Solid State Drive (SSD) / SATA interface <i>Some:</i> 128GB M.2 Solid State Drive (SSD) / PCIe NVMe interface						Preload	Preloaded operating system <i>Some:</i> Windows Embedded Standard 7 V2 (WES 7 V2) <i>Some:</i> Windows 10 IoT Enterprise <i>Some:</i> LeTOS V2 (Lenovo Terminal Operating System, Linux-based)
Optical	None						Environment	ENERGY STAR® 7.0*, EPEAT™ Silver rating* (*Not for non-OS models), ErP Lot 3, RoHS-compliant, WEEE, TCO
Onboard SATA	one SATA 6.0Gb/s connector on planar						MIL-SPEC test	MIL-STD-810G military certification (Low Pressure [Altitude], High Temperature, Low Temperature, Temperature Shock, Humidity, Sand and Dust, Vibration, Shock, Fungus, Solar Radiation)
Media reader	None						Accessories	For compatible accessories, please go to http://smartfind.lenovo.com
Graphics	AMD Radeon™ Graphics in processor, uses main memory, DirectX® 12, two DisplayPort™, one optional port (VGA or USB 2.0 Type-C with DisplayPort Alternate Mode), supports up to 2 independent displays; <i>Max resolution:</i> 3840x2160 (DP)@60Hz; 2048x1280 (VGA)@60Hz; 3840x2160 (USB 2.0 Type-C)@60Hz							
Monitor cable	Optional DP to VGA, DP to DVI-D (single link), or DP to HDMI 1.4 dongle							
Chipset	AMD SoC platform							
Front ports*	Two USB 3.1 Gen1 (one is Always On and fast charge), one microphone (3.5mm), one headphone / microphone combo jack (3.5mm)							
Rear ports*	One USB 3.1 Gen1, three USB 2.0, ethernet (RJ-45), two DisplayPort, two optional ports (Port 1 for VGA / serial / USB 2.0 Type-C (with DisplayPort Alternate Mode), Port 2 for serial) * Depending on many factors, actual data transfer speed may be lower than theoretical speed							
I/O box	None							
Audio support	High Definition (HD) Audio, Realtek ALC233-VB2-CG / internal speaker (1.5 watt)							
WLAN ¹³	<i>Some:</i> 11ac wireless, M.2 Card, Realtek RTL8821CE (dual band), Wi-Fi + Bluetooth 4.2* combo adapter, 1x1 <i>Some:</i> 11ac wireless, M.2 Card, Qualcomm Atheros QCA9377 (dual band), Wi-Fi + Bluetooth 4.2* combo adapter, 1x1 <i>Some:</i> 11ac wireless, M.2 Card, Realtek RTL8822BE (dual band), Wi-Fi + Bluetooth 4.2* combo adapter, 2x2 <i>Some:</i> 11ac wireless, M.2 Card, Qualcomm Atheros QCA6174A (dual band), Wi-Fi + Bluetooth 4.2* combo adapter, 2x2 <i>Some:</i> 11ac wireless, M.2 Card, Intel Wireless-AC 9260 (dual band), Wi-Fi + Bluetooth 5.0 combo adapter, 2x2							
Bluetooth™	<i>Some:</i> Bluetooth 4.2/5.0* wireless, integrated in Wi-Fi + BT combo adapter * Win 10 RS3 and Win10 earlier version only support Bluetooth 4.1							
Ethernet	Gigabit ethernet, Realtek RTL8111HN, Wake on LAN®							
Modem	None							
Manageability	None							
Security chip	Discrete TPM 2.0, TCG Certified							
Security features	- Security slot (in rear for optional Kensington® MicroSaver® cable) - Smart USB protection, allows keyboard/ mouse only, blocks all storage devices - Power-on password						- Administrator password - Hard disk password - Boot sequence control - Boot without keyboard and mouse - Individual USB port disablement - Chassis intrusion switch	



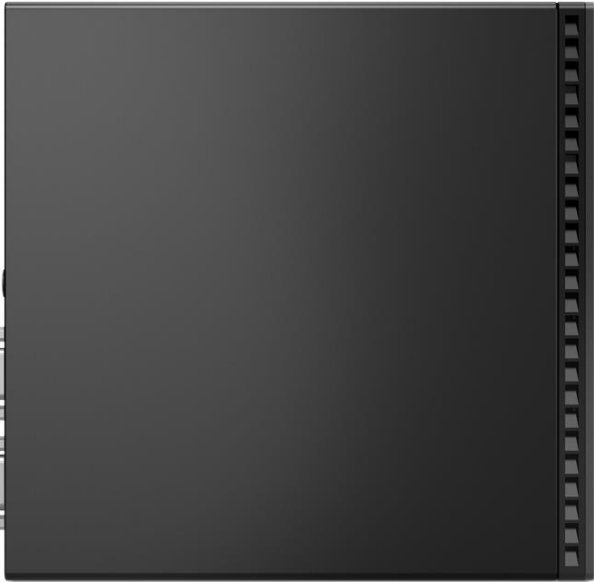
ThinkCentre M630e Tiny Platform Specifications

Product Specifications Reference (PSREF)

Processor	Intel® Pentium®, or 8th Generation Intel Core™ i3 / i5 Processor						Security chip Security features	None Firmware TPM 2.0, integrated in chipset			
	Processor	Cores / Threads	Frequency Base/Max(GHz)	Cache	Memory Support (Up to)	Integrated Graphics		● Security slot (in rear for optional Kensington® MicroSaver® cable) ● Chassis intrusion switch ● Power-on password ● Administrator password ● Hard disk password			
	Pentium Gold 5405U	2 / 4	2.3G	2 MB	DDR4-2133	UHD 610		● Boot sequence control ● Boot without keyboard and mouse ● Individual USB port disablement ● Smart USB protection, allows keyboard/mouse only, blocks all storage devices			
	Core i3-8145U	2 / 4	2.1G / 3.9G	4 MB	DDR4-2400	UHD 620					
	Core i5-8265U	4 / 8	1.6G / 3.9G	6 MB	DDR4-2400	UHD 620					
Memory	16GB max, DDR4-2666*, one 260-pin SO-DIMM sockets, non-ECC * System automatically clocks down for the processors with lower memory controller							Keyboard Mouse	Some: Lenovo Calliope Keyboard (USB connector), black Some: Lenovo Calliope Mouse (USB connector), black		
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 (2280) / PCIe NVMe, PCIe 3.0 x 4, 32Gb/s Some: M.2 SSD (2242) / PCIe NVMe, PCIe 3.0 x 2, 16Gb/s							Mechanical	Tiny (1L), black color; metal case ● Optional dust filter ● One 2.5" bay for HDD/SSD, two M.2 slots (one for WLAN, one for M.2 SSD)		
Onboard SATA	One onboard SATA 6.0Gb/s connector										
Graphics	Intel HD Graphics 610/620 in processor, uses main memory, DirectX® 12, one DisplayPort™, one HDMI, up to 2 independent displays; Max resolution: 4096x2304 (DP)@60Hz; 4096x2304 (HDMI)@24Hz Optional DP to VGA dongle or DP to HDMI 1.4 dongle										
Monitor cable	Optional DP to VGA dongle or DP to HDMI 1.4 dongle							VESA mount Floor Stand			
Chipset	Intel SoC (System on Chip) platform										
Front ports* (Std.)	One USB 3.1 Gen1, one USB 3.1 Type-C Gen 1, one microphone (3.5mm), one headphone / microphone combo jack (3.5mm)								Optional VESA mount bracket kit, supports VESA 75mm and 100mm Optional system floor stand for vertical orientation		
Rear ports* (Std.)	Two USB 3.1 Gen1, two USB 2.0, one ethernet (RJ-45), one DisplayPort, one HDMI							Power supply	Some: 65 watts adapter, autosensing, 88% PSU		
Rear ports* (Opt.)	None * Depending on many factors, actual data transfer speed may be lower than theoretical speed							Limited warranty	Some: 1-year, depot service / service upgrades available Some: 1-year, limited onsite service / service upgrades available		
Audio support	Realtek ALC233VB / internal speaker (1.5 watt)							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 ● LinkedIn		
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 wireless, integrated in Wi-Fi + BT combo adapter								Environment		
Ethernet	Gigabit ethernet, Realtek RTL8111HN-CG							MIL-SPEC test	ENERGY STAR® 7.0, EPEAT™ Silver rating, ErP Lot 3, TCO, RoHS-compliant, WEEE, REACH		
Ethernet (Opt.)	None								MIL-STD-810G (Low Pressure [Altitude], High Temperature, Low Temperature, Temperature Shock, Humidity, Sand and Dust, Vibration, Shock, Fungus, Solar Radiation)		
Manageability	None							Accessories	For compatible accessories, please go to http://smartfind.lenovo.com		

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

Lenovo, April 2020



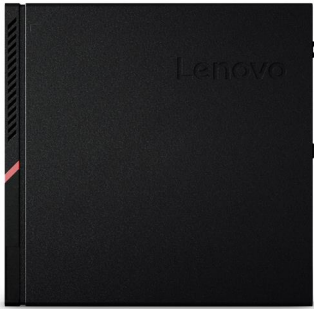
ThinkCentre M70q Platform Specifications

Product Specifications Reference (PSREF)

Processor	Intel® Celeron®, Intel Pentium®, or 10th Gen Intel Core™ i3 / i5 / i7 / i9 Processor						Bluetooth Ethernet Ethernet (Opt.) Manageability Security chip Security features Keyboard Mouse Mechanical VESA mount Floor Stand Dust filter EOU design Power supply Limited warranty Preload Environment MIL-SPEC test Accessories	<i>Some:</i> Bluetooth 5.0/5.1 wireless, integrated in Wi-Fi + BT combo adapter Gigabit ethernet, Intel Ethernet Connection I219-V(Jacksonville), Wake on LAN® None None Discrete TPM 2.0, TCG Certified ● Security slot (in rear for optional Kensington® MicroSaver® cable) ● Chassis intrusion switch ● Power-on password ● Administrator password ● Hard disk password ● Boot sequence control ● Boot without keyboard and mouse ● Individual USB port disablement ● Smart USB protection, allows keyboard/mouse only, blocks all storage devices <i>Some:</i> Lenovo Calliope Keyboard (USB connector), black <i>Some:</i> Lenovo Traditional Keyboard (USB connector), black <i>Some:</i> Lenovo Calliope Wireless Keyboard (2.4GHz via USB receiver), black <i>Some:</i> Lenovo Calliope Mouse (USB connector), black <i>Some:</i> Lenovo Fingerprint Mouse (USB connector), Windows Hello support, black <i>Some:</i> Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black Tiny (1L), black color; metal case one 2.5" bay for HDD, two M.2 slots (one for WLAN, one for M.2 SSD) <table><tr><td></td><td>Dimensions (WxDxH)</td><td>Weight (Approx.)</td></tr><tr><td>Tiny only</td><td>7.0" X 7.2" X 1.4" (1.5" with rubber feet) 179mm X 183mm X 34.5mm (37mm with rubber feet)</td><td>2.76 lb (1.25 kg), vary by config</td></tr><tr><td>With VESA mount & ODD box</td><td>8.04" X 7.35" X 2.52" 204.2mm X 186.6mm X 64mm</td><td>3.84 lb (1.74 kg), vary by config</td></tr></table> Optional VESA mount bracket kit, supports VESA 75mm and 100mm Optional system floor stand for vertical orientation Optional dust filter Toolless chassis open (need optional toolless chassis screw), toolless HDD, SSD and memory assembly / removal <i>Some:</i> 65 watts AC/DC adapter, autosensing, 89% PSU <i>Some:</i> 90 watts AC/DC adapter, autosensing, 89% PSU (special bid only) <i>Some:</i> 135 watts AC/DC adapter, autosensing, 89% PSU <i>Some:</i> 1-year, depot service / service upgrades available <i>Some:</i> 1-year or 3-year, limited onsite service / service upgrades available Preloaded operating system <i>Some:</i> Windows® 10 Pro 64-bit <i>Some:</i> Windows 10 Home 64-bit ENERGY STAR® 8.0, EPEAT™ Gold / Silver rating (on some models), ErP Lot 3, TCO 8.0, TUV low noise / ultra low noise verified (on some models), RoHS-compliant MIL-STD-810H military certification (Low Pressure [Altitude], High Temperature, Low Temperature, Temperature Shock, Humidity, Sand and Dust, Vibration, Shock, Fungus, Solar Radiation) For compatible accessories, please go to http://smartfind.lenovo.com			Dimensions (WxDxH)	Weight (Approx.)	Tiny only	7.0" X 7.2" X 1.4" (1.5" with rubber feet) 179mm X 183mm X 34.5mm (37mm with rubber feet)	2.76 lb (1.25 kg), vary by config	With VESA mount & ODD box	8.04" X 7.35" X 2.52" 204.2mm X 186.6mm X 64mm	3.84 lb (1.74 kg), vary by config
	Dimensions (WxDxH)	Weight (Approx.)																
Tiny only	7.0" X 7.2" X 1.4" (1.5" with rubber feet) 179mm X 183mm X 34.5mm (37mm with rubber feet)	2.76 lb (1.25 kg), vary by config																
With VESA mount & ODD box	8.04" X 7.35" X 2.52" 204.2mm X 186.6mm X 64mm	3.84 lb (1.74 kg), vary by config																
	Processor	Cores / Threads	Frequency Base/Max(GHz)	Cache	Memory Support (Up to)	Integrated Graphics												
	Celeron G5900T	2 / 2	3.2G	2 MB	DDR4-2666	UHD 610												
	Pentium Gold G6400T	2 / 4	3.4G	4 MB	DDR4-2666	UHD 610												
	Pentium Gold G6500T	2 / 4	3.5G	4 MB	DDR4-2666	UHD 630												
	Core i3-10100T	4 / 8	3.0G / 3.8G	6 MB	DDR4-2666	UHD 630												
	Core i3-10300T	4 / 8	3.0G / 3.9G	8 MB	DDR4-2666	UHD 630												
	Core i5-10400T	6 / 12	2.0G / 3.6G	12 MB	DDR4-2666	UHD 630												
	Core i5-10500T	6 / 12	2.3G / 3.8G	12 MB	DDR4-2666	UHD 630												
	Core i5-10600T	6 / 12	2.4G / 4.0G	12 MB	DDR4-2666	UHD 630												
	Core i7-10700T	8 / 16	2.0G / 4.5G	16 MB	DDR4-2933	UHD 630												
	Core i9-10900T	10 / 20	1.9G / 4.6G	20 MB	DDR4-2933	UHD 630												
	* Max frequency may refer to Intel Turbo Boost Technology 2.0 / Intel Turbo Boost Max Technology 3.0 / Intel Thermal Velocity Boost, and adopt the max one of them																	
Memory	64GB max, DDR4-2666 / DDR4-2933*, two 260-pin SO-DIMM sockets, dual-channel capable * Memory module is DDR4-3200, but clocks down for the limitation of processors																	
Storage	Support up to 1x 2.5" HDD + 1x M.2 SSD <i>Some:</i> Hard Drive / SATA 6.0Gb/s, 2.5", 7200 rpm <i>Some:</i> M.2 SSD (2242 / 2280) / PCIe NVMe, PCIe 3.0 x2 or PCIe 3.0 x4 <i>Some:</i> Intel Optane™ Memory M10, M.2 2280, PCIe 3.0 x2																	
Optical	<i>Some:</i> DVD-ROM, slim (9.0mm), via USB external ODD box <i>Some:</i> DVD Burner (DVD±RW), slim (9.0mm), via USB external ODD box																	
Onboard SATA	One onboard SATA 6.0Gb/s connector																	
Graphics	Intel HD Graphics 610/630 in processor, uses main memory, DirectX® 12, one DisplayPort™, one HDMI, more video ports available via optional ports, up to 3 independent displays; <i>Max resolution:</i> 4096x2304@60Hz (DP*); 4096x2304@60Hz (Type-C); 4096x2160@24Hz (HDMI); 2048x1536@50Hz (VGA) * Optiona! dual DP support up to 3840x2160 (extend display) via MST mode Optional DP to VGA dongle, DP to DVI-D dongle, DP to dual DP dongle, or DP to HDMI 1.4 dongle																	
Monitor cable																		
Chipset	Intel H470 Chipset																	
Front ports (Std.)*	one USB 3.2 Gen 2 (Always On and fast charge), one USB 3.2 Type-C Gen 1, one headphone / microphone combo jack (3.5mm)																	
Rear ports (Std.)*	1x USB 3.2 Gen 2, 3x USB 3.2 Gen 1, 1x ethernet (RJ-45), 1x DP, 1x HDMI																	
Rear ports (Opt.)*	Two optional ports:																	
	Position	Port 1		Port 2	Port 1&2													
	Optional parts	VGA / 2nd DP / 2nd HDMI / USB 3.2 Type-C Gen 1 with DP function) / Serial		Serial	Dual USB 3.2 Gen 1 ports / Dual DP													
	* Depending on many factors, actual data transfer speed may be lower than theoretical speed																	
Audio support	Realtek ALC233VB / optional internal speaker (1.5 watt)																	
WLAN	<i>Some:</i> 11ac wireless, M.2 Card, Realtek RTL8822CE (dual band), Wi-Fi + Bluetooth 5.0 combo adapter, 2x2 <i>Some:</i> 11ac wireless, M.2 Card, Intel Wireless-AC 9462 (dual band), Wi-Fi + Bluetooth 5.0 combo adapter, 1x1 (special bid only) <i>Some:</i> 11ac wireless, M.2 Card, Intel Wireless-AC 9560 (dual band), Wi-Fi + Bluetooth 5.0 combo adapter, 2x2 <i>Some:</i> 11ax wireless, M.2 Card, Intel Wi-Fi 6 AX201 (dual band), Wi-Fi + Bluetooth 5.1 combo adapter, 2x2																	

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

Lenovo, May 2020



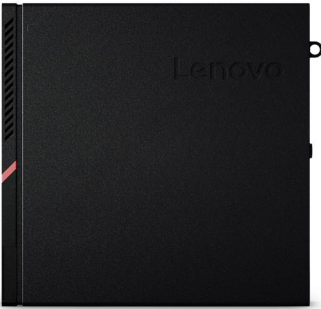
ThinkCentre M715 Tiny (2nd Gen) Platform Specifications

Product Specifications Reference (PSREF)

Processor	AMD Athlon, A6, A10, A12, or Ryzen processor						Security features	- Security slot (in rear for optional Kensington® MicroSaver® cable) - Administrator password - Padlock loop - Hard disk password - Smart USB protection, allows keyboard/ mouse only, blocks all storage devices - Boot sequence control - Power-on password - Boot without keyboard and mouse - Individual USB port disablement - Chassis intrusion switch	
	Processor	Cores / Threads	Frequency Base/Max	L2 / L3 Cache	Memory Support (Up to)	Integrated Graphics	Keyboard	<i>Some:</i> Lenovo Calliope Keyboard (USB connector), black <i>Some:</i> Lenovo Traditional Keyboard (USB connector), black <i>Some:</i> Lenovo Calliope Wireless Keyboard (2.4GHz via USB receiver), black <i>Some:</i> Lenovo Calliope Mouse (USB connector), black <i>Some:</i> Lenovo Fingerprint Mouse (USB connector), Windows Hello support, black <i>Some:</i> Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black	
	Athlon 200GE	2 / 4	3.2 GHz	1 MB / 4MB	DDR4-2666	Radeon Vega 3	Mouse		
	Athlon PRO 200GE	2 / 4	3.2 GHz	1 MB / 4MB	DDR4-2666	Radeon Vega 3			
	PRO A6-8570E	2 / 2	3.0 / 3.4 GHz	1 MB / -	DDR4-2400	Radeon R5			
	PRO A10-8770E	4 / 4	2.8 / 3.5 GHz	2 MB / -	DDR4-2400	Radeon R7			
	PRO A6-9500E	2 / 2	3.0 / 3.4 GHz	1 MB / -	DDR4-2400	Radeon R5			
	PRO A10-9700E	4 / 4	3.0 / 3.5 GHz	2 MB / -	DDR4-2400	Radeon R7			
	PRO A12-9800E	4 / 4	3.1 / 3.8 GHz	2 MB / -	DDR4-2400	Radeon R7			
	Ryzen 3 2200GE	4 / 4	3.2 / 3.6 GHz	2 MB / 4MB	DDR4-2933	Radeon Vega 8	Mechanical	Tiny (1L), black color; metal case • Toolless chassis open (need optional toolless chassis screw) • Optional dust filter	
	Ryzen 3 PRO 2200GE	4 / 4	3.2 / 3.6 GHz	2 MB / 4MB	DDR4-2933	Radeon Vega 8			
	Ryzen 5 2400GE	4 / 8	3.2 / 3.8 GHz	2 MB / 4MB	DDR4-2933	Radeon RX Vega 11			
	Ryzen 5 PRO 2400GE	4 / 8	3.2 / 3.8 GHz	2 MB / 4MB	DDR4-2933	Radeon RX Vega 11			
Memory	32GB max, DDR4 2666*, two 260-pin SO-DIMM sockets, dual-channel capable * System automatically clocks down for the lower memory controller								
Disk	<i>Some:</i> Hard Drive / SATA 6.0Gb/s, 2.5", 5400 rpm or 7200 rpm <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" <i>Some:</i> 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								
Optical	<i>Some:</i> DVD-ROM, 9.0mm high, via USB external ODD box <i>Some:</i> DVD±RW, 9.0mm high, via USB external ODD box						VESA mount Floor Stand	Optional VESA mount bracket kit, supports VESA 75mm and 100mm Optional system floor stand for vertical orientation	
Onboard SATA	One SATA cable (1-drop to device), one SATA 6.0Gb/s connector on planar						Power supply	65 watts AC/DC adapter, autosensing, 88% PSU (not included for TIO models)	
Graphics	AMD Radeon™ Graphics in processor, uses main memory, DirectX® 12, two DisplayPort™, one optional port (HDMI, VGA, or 3rd DP), supports 3 independent displays (supports maximum of 2 concurrent HDMI/DVI displays when using HDMI port or DP to DVI/HDMI dongles, and Athlon / Athlon PRO only support 2 displays); <i>Max resolution:</i> 4096x2160 (DP) @60Hz; 4096x2160 (HDMI) @30Hz; 1920x1200 (VGA) @60Hz						Limited warranty	1-year or 3-year, limited onsite service / service upgrades available	
Monitor cable	Optional DP to VGA dongle, DP to DVI-D dongle, or DP to HDMI 1.4 dongle						Preload	Preloaded operating system <i>Some:</i> Windows® 10 Pro 64-bit <i>Some:</i> Windows 10 Home 64-bit <i>Some:</i> Windows 7 Professional 64 preinstalled through downgrade rights in Windows 10 Pro 64-bit	
Chipset	AMD B300 Chipset							Preloaded applications (only some listed) - <i>Windows 10 only</i> - 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) - <i>Windows 7 only</i> - Lenovo Solution Center - ThinkVantage System Update - Create Recovery Media - Microsoft Office preloaded; purchase a product key to activate - Adobe® Reader®	
Front ports* (Std.)	Two USB 3.1 Gen1 (one is Always On and fast charge), one microphone (stereo, 3.5mm), one headphone / microphone combo jack (stereo, 3.5mm)						Environment	ENERGY STAR® 7.0*, EPEAT™ Silver rating* (*Not for non-OS models); ErP Lot 3; ; RoHS-compliant	
Rear ports* (Std.)	One USB 3.1 Gen1 and three USB 2.0, ethernet (RJ-45), two DisplayPort, one headphone						MIL-SPEC test	MIL-STD-810G military certification (Low Pressure [Altitude], High Temperature, Low Temperature, Temperature Shock, Humidity, Sand and Dust, Vibration, Shock)	
Rear ports* (Opt.)	One optional port (VGA**, 3rd DP**, HDMI**, or serial on some models) * Depending on many factors, actual data transfer speed may be lower than theoretical speed ** Not support VGA, 3rd DP, HDMI for the models with Athlon / Athlon PRO						Accessories	For compatible accessories, please go to http://smartfind.lenovo.com	
Audio support	High Definition (HD) Audio, Realtek ALC233-VB2 / internal speaker (1.5 watt)								
WLAN	<i>Some:</i> 11ac wireless, M.2 Card, Realtek RTL8821CE (dual band), Wi-Fi + Bluetooth 4.2* combo adapter, 1x1 <i>Some:</i> 11ac wireless, M.2 Card, Qualcomm Atheros QCA9377 (dual band), Wi-Fi + Bluetooth 4.2* combo adapter, 1x1 <i>Some:</i> 11ac wireless, M.2 Card, Realtek RTL8822BE (dual band), Wi-Fi + Bluetooth 4.2* combo adapter, 2x2 <i>Some:</i> 11ac wireless, M.2 Card, Qualcomm Atheros QCA6174A (dual band), Wi-Fi + Bluetooth 4.2* combo adapter, 2x2 <i>Some:</i> Bluetooth 4.2* wireless, integrated in Wi-Fi + BT combo adapter * Hardware supports BT 4.2, but Win10 RS3 and earlier only supports BT 4.1								
Bluetooth									
Ethernet	Gigabit ethernet, Realtek RTL8111EPV, Wake on LAN®								
Manageability	DASH 1.0/1.1								
Security chip	Discrete TPM 2.0, TCG Certified								

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

Lenovo, April 2020



ThinkCentre M715 Tiny Thin Client (2nd Gen) Platform Specifications

Product Specifications Reference (PSREF)

Processor	AMD Athlon, A6, A10, or Ryzen processor						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 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		
	APU	Cores / Threads	Frequency Base/Max	L2 / L3 Cache	Memory Support (Up to)	Integrated Graphics	Mouse			
	Athlon PRO 200GE	2 / 4	3.2 GHz	1 MB / 4MB	DDR4-2666	Radeon Vega 3				
	PRO A6-8570E	2 / 2	3.0 / 3.4 GHz	1 MB / -	DDR4-2400	Radeon R5				
	PRO A10-8770E	4 / 4	2.8 / 3.5 GHz	2 MB / -	DDR4-2400	Radeon R7				
	Ryzen 3 PRO 2200GE	4 / 4	3.2 / 3.6 GHz	2 MB / 4MB	DDR4-2933	Radeon Vega 8	Mechanical	Tiny (1L), black color; metal case ● Toolless chassis open (need optional toolless chassis screw) ● Optional dust filter		
Memory	8GB max, DDR4 2666*, two 260-pin SO-DIMM sockets, dual-channel capable * System automatically clocks down for the lower memory controller									
Disk	Some: 32GB M.2 Solid State Drive (SSD) / SATA interface Some: 128GB M.2 Solid State Drive (SSD) / PCIe NVMe, PCIe 3.0 x 2									
Optical	None									
Onboard SATA	One SATA cable (1-drop to device), one SATA 6.0Gb/s connector on planar									
Graphics	AMD Radeon™ Graphics in processor, uses main memory, DirectX® 12, two DisplayPort™, one optional port (HDMI, VGA, or 3rd DP), supports 3 independent displays (supports maximum of 2 concurrent HDMI/DVI displays when using HDMI port or DP to DVI/HDMI dongles, and Athlon / Athlon PRO only support 2 displays); Max resolution: 4096x2160 (DP)@60Hz; 4096x2160 (HDMI)@30Hz; 1920x1200 (VGA)@60Hz									
Monitor cable	Optional DP to VGA dongle, DP to DVI-D dongle, or DP to HDMI 1.4 dongle									
Chipset	AMD B300 Chipset									
Front ports* (Std.)	Two USB 3.1 Gen1 (one is Always On and fast charge), one microphone (stereo, 3.5mm), one headphone / microphone combo jack (stereo, 3.5mm)									
Rear ports* (Std.)	One USB 3.1 Gen1 and three USB 2.0, ethernet (RJ-45), two DisplayPort, one headphone									
Rear ports* (Opt.)	One optional port (VGA**, 3rd DP**, HDMI**, or serial on some models) * Depending on many factors, actual data transfer speed may be lower than theoretical speed ** Not support VGA, 3rd DP, HDMI for the models with Athlon / Athlon PRO									
Audio support	High Definition (HD) Audio, Realtek ALC233-VB2 / internal speaker (1.5 watt)									
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, Qualcomm Atheros QCA9377 (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, Qualcomm Atheros QCA6174A (dual band), Wi-Fi + Bluetooth 4.2* combo adapter, 2x2 Some: Bluetooth 4.2* wireless, integrated in Wi-Fi + BT combo adapter * Hardware supports BT 4.2, but Win10 RS3 and earlier only supports BT 4.1 Gigabit ethernet, Realtek RTL8111EPV, Wake on LAN®									
Bluetooth										
Ethernet										
Manageability	DASH 1.0/1.1									
Security chip	Discrete TPM 2.0, TCG Certified									
Security features	● Security slot (in rear for optional Kensington® MicroSaver® cable) ● Padlock loop ● Smart USB protection, allows keyboard/ mouse only, blocks all storage devices ● Power-on password						● Administrator password ● Hard disk password ● Boot sequence control ● Boot without keyboard and mouse ● Individual USB port disablement ● Chassis intrusion switch			

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

Lenovo, April 2020



ThinkCentre M720 Tiny Platform Specifications

Product Specifications Reference (PSREF)

Processor	Intel® Celeron®, Intel Pentium®, or 8th / 9th Gen Intel Core™ i3 / i5 / i7 / i9 Processor						Manageability	None	
	Processor	Cores / Threads	Frequency Base/Max(GHz)	Cache	Memory Support (Up to)	Integrated Graphics	Security chip	Discrete TPM 2.0, TCG Certified	
	Celeron G4900T	2 / 2	2.9G	2 MB	DDR4-2400	UHD 610	Security features	- Security slot (in rear for optional Kensington® MicroSaver® cable) - Chassis intrusion switch - Power-on password - Administrator password - Hard disk password	
	Pentium Gold G5400T	2 / 4	3.1G	4 MB	DDR4-2400	UHD 610		- Boot sequence control - Boot without keyboard and mouse - Individual USB port disablement - Smart USB protection, allows keyboard/mouse only, blocks all storage devices	
	Pentium Gold G5500T	2 / 4	3.2G	4 MB	DDR4-2400	UHD 630			
	Core i3-8100T	4 / 4	3.1G	6 MB	DDR4-2400	UHD 630			
	Core i3-8300T	4 / 4	3.2G	8 MB	DDR4-2400	UHD 630			
	Core i5-8400T	6 / 6	1.7G / 3.3G	9 MB	DDR4-2666	UHD 630	Keyboard	<i>Some:</i> Lenovo Calliope Keyboard (USB connector), black <i>Some:</i> Lenovo Traditional Keyboard (USB connector), black <i>Some:</i> Lenovo Calliope Wireless Keyboard (2.4GHz via USB receiver), black	
	Core i5-8500T	6 / 6	2.1G / 3.5G	9 MB	DDR4-2666	UHD 630			
	Core i5-8600T	6 / 6	2.3G / 3.7G	9 MB	DDR4-2666	UHD 630	Mouse	<i>Some:</i> Lenovo Calliope Mouse (USB connector), black <i>Some:</i> Lenovo Fingerprint Mouse (USB connector), Windows Hello support, black <i>Some:</i> Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black	
	Core i7-8700T	6 / 12	2.4G / 4.0G	12 MB	DDR4-2666	UHD 630			
	Core i3-9100T	4 / 4	3.1G / 3.7G	6 MB	DDR4-2400	UHD 630			
	Core i3-9300T	4 / 4	3.2G / 3.8G	8 MB	DDR4-2400	UHD 630	Mechanical	Tiny (1L), black color; metal case - Toolless chassis open (need optional toolless chassis screw) - Toolless HDD, SSD, memory removal - Optional dust filter one 2.5" bay for HDD/SSD, one PCIe 3.0 x8 slot (low-profile), two M.2 slots (one for WLAN, one for M.2 SSD), 2.5" HDD/SSD and PCIe card are mutually exclusive	
	Core i5-9400T	6 / 6	1.8G / 3.4G	9 MB	DDR4-2666	UHD 630			
	Core i5-9500T	6 / 6	2.2G / 3.7G	9 MB	DDR4-2666	UHD 630			
	Core i5-9600T	6 / 6	2.3G / 3.9G	9 MB	DDR4-2666	UHD 630			
	Core i7-9700T	8 / 8	2.0G / 4.3G	12 MB	DDR4-2666	UHD 630			
	Core i9-9900T	8 / 16	2.1G / 4.4G	16 MB	DDR4-2666	UHD 630			
Memory	32GB max, DDR4-2666*, two 260-pin SO-DIMM sockets, non-ECC, dual-channel capable * System automatically clocks down for the processors with lower memory controller								
Storage	<i>Some:</i> Hard Drive / SATA 6.0Gb/s, 2.5", 5400 rpm or 7200 rpm <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" <i>Some:</i> 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 <i>Some:</i> Intel Optane™ Memory (not support Celeron / Pentium Processor), M.2 <i>Some:</i> DVD-ROM, slim (9.0mm), via USB external ODD box <i>Some:</i> DVD Burner (DVD±RW), slim (9.0mm), via USB external ODD box One onboard SATA 6.0Gb/s connector								
Optical									
Onboard SATA									
Graphics	Intel HD Graphics 610/630 in processor, uses main memory, DirectX® 12, one DisplayPort™, one HDMI, one optional video port (2nd HDMI, VGA, 2nd DP, or USB 3.1 Type-C Gen1 with DisplayPort function), up to 3 independent displays; <i>Max resolution:</i> 4096x2304 (DP) @60Hz; 4096x2304 (Type-C) @60Hz; 4096x2160 (onboard HDMI) @24Hz; 2048x1536 (VGA) @50Hz								
Monitor cable	Optional DP to VGA dongle, DP to DVI-D dongle, DP to dual DP dongle (for Collage Display with intel integrated graphics), or DP to HDMI 1.4 dongle								
Chipset	Intel B360 Chipset								
Front ports* (Std.)	one USB 3.1 Gen1 (Always On and fast charge), one USB 3.1 Type-C Gen 1, one microphone (3.5mm), one headphone / microphone combo jack (3.5mm)								
Rear ports* (Std.)	2x USB 3.1 Gen2, 2x USB 3.1 Gen1, 1x ethernet (RJ-45), 1x DisplayPort, 1x HDMI								
Rear ports* (Opt.)	Two optional ports (mutually exclusive with PCIe card): Port 1 for VGA / 2nd DP / 2nd HDMI / serial / USB 3.1 Type-C Gen 1 with DP function); Port 2 for serial; Optional ports via PCIe card: 2x USB 3.1 Gen1 via PCIe x1, 4x serial (9-pin) via PCIe x1 * Depending on many factors, actual data transfer speed may be lower than theoretical speed								
Audio support	Realtek ALC233VB2 / optional internal speaker (1.5 watt or 2 watt)								
WLAN	<i>Some:</i> 11ac wireless, M.2 Card, Realtek RTL8821CE (dual band), Wi-Fi + Bluetooth 4.2 combo adapter, 1x1 <i>Some:</i> 11ac wireless, M.2 Card, Realtek RTL8822BE (dual band), Wi-Fi + Bluetooth 4.2 combo adapter, 2x2 <i>Some:</i> 11ac wireless, M.2 Card, Intel Dual Band Wireless-AC 3165, Wi-Fi + Bluetooth 4.2 combo adapter, 1x1 <i>Some:</i> 11ac wireless, M.2 Card, Intel Dual Band Wireless-AC 8265, Wi-Fi + Bluetooth 4.2 combo adapter, 2x2								
Bluetooth	<i>Some:</i> Bluetooth 4.2 wireless, integrated in Wi-Fi + BT combo adapter								
Ethernet	Gigabit ethernet, Intel Ethernet Connection I219-V (Jacksonville), Wake on LAN®								
Ethernet (Opt.)	<i>Some:</i> Intel Ethernet Server Adapter I350-T4, gigabit ethernet, 4x RJ-45, PCIe x4								
VESA mount Floor Stand									
Power supply	<i>Some:</i> 65 watts AC/DC adapter, autosensing, 88% PSU <i>Some:</i> 90 watts AC/DC adapter, autosensing, 88% PSU <i>Some:</i> 135 watts AC/DC adapter, autosensing, 88% PSU								
Limited warranty	<i>Some:</i> 1-year or 3-year, depot service / service upgrades available <i>Some:</i> 1-year or 3-year, limited onsite service / service upgrades available								
Preload	Preloaded operating system <i>Some:</i> Windows® 10 Pro 64-bit <i>Some:</i> 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) - Linkedln								
Environment	ENERGY STAR® 7.0, EPEAT™ Gold rating (with 135W adapter) or EPEAT™ Silver rating (with 65W/90W adapter), ErP Lot 3, TCO, TUV ultra low noise verified (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, Solar Radiation)								
Accessories	For compatible accessories, please go to http://smartfind.lenovo.com								

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

Lenovo, May 2020



ThinkCentre M75q-1 Tiny Platform Specifications

Product Specifications Reference (PSREF)

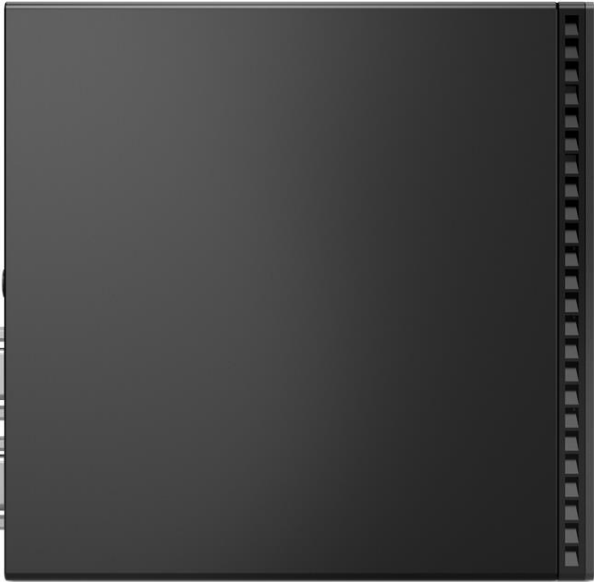
ThinkCentre M75q-1 Tiny Platform Specifications

Product Specifications Reference (PSREF)

Processor	AMD Athlon, Athlon PRO, Ryzen 3 / 5, or Ryzen 3 / 5 PRO series processor						Manageability	DASH 1.0/1.1		
							Security chip	Discrete TPM 2.0, TCG Certified		
	Processor	Cores / Threads	Frequency Base/Max	L2 / L3 Cache	Memory Support (Up to)	Integrated Graphics	Security features	● Security slot (in rear for optional Kensington® MicroSaver® cable) ● Smart USB protection, allows keyboard/ mouse only, blocks all storage devices ● Power-on password ● Administrator password		
	Athlon PRO 200GE	2 / 4	3.2 GHz	1 MB / 4MB	DDR4-2666	Radeon Vega 3		● Hard disk password ● Boot sequence control		
	Athlon PRO 300GE	2 / 4	3.4 GHz	1 MB / 4MB	DDR4-2666	Radeon Vega 3		● Boot without keyboard and mouse ● Individual USB port disablement ● Chassis intrusion switch		
	Ryzen 3 PRO 2200GE	4 / 4	3.2 / 3.6 GHz	2 MB / 4MB	DDR4-2933	Radeon Vega 8				
	Ryzen 5 PRO 2400GE	4 / 8	3.2 / 3.8 GHz	2 MB / 4MB	DDR4-2933	Radeon Vega 11				
	Ryzen 3 PRO 3200GE	4 / 4	3.3 / 3.8 GHz	2 MB / 4MB	DDR4-2933	Radeon Vega 8	Keyboard	Some: Lenovo Traditional Keyboard (USB connector), black		
	Ryzen 5 PRO 3350GE	4 / 8	3.3 / 3.9 GHz	2 MB / 4MB	DDR4-2933	Radeon Vega 11		Some: Lenovo Calliope Wireless Keyboard (2.4GHz via USB receiver), black		
	Ryzen 5 PRO 3400GE	4 / 8	3.3 / 4.0 GHz	2 MB / 4MB	DDR4-2933	Radeon Vega 11	Mouse	Some: Lenovo Calliope Mouse (USB connector), black Some: Lenovo Fingerprint Mouse (USB connector), Windows Hello support, black (only available via special bid models)		
	Athlon 300GE	2 / 4	3.4 GHz	1 MB / 4MB	DDR4-2666	Radeon Vega 3		Some: Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black		
	Ryzen 3 3200GE	4 / 4	3.3 / 3.8 GHz	2 MB / 4MB	DDR4-2933	Radeon Vega 8				
	Ryzen 5 3350GE	4 / 8	3.3 / 3.9 GHz	2 MB / 4MB	DDR4-2933	Radeon RX Vega 11				
	Ryzen 5 3400GE	4 / 8	3.3 / 4.0 GHz	2 MB / 4MB	DDR4-2933	Radeon Vega 11	Mechanical	Tiny (1L), black color; metal case ● Toolless chassis open (need optional toolless chassis screw) ● Toolless HDD, SSD, memory removal ● Optional dust filter		
Memory	32GB max, DDR4-2666*, two 260-pin SO-DIMM sockets, dual-channel capable * System board supports up to DDR4-2666 memory, and memory may clocks down to DDR4-1866, DDR4-2133 or DDR-2400 for lower capacity of memory controller in processor								Dimensions (WxDxH)	Weight (Approx.)
Disk	Some: Hard Drive / SATA 6.0Gb/s, 2.5", 5400 rpm or 7200 rpm Some: M.2 SSD (2242 / 2280) / PCIe NVMe, PCIe 3.0 x2 or PCIe 3.0 x4							Tiny only	7.0" X 7.2" X 1.4" (1.5" with rubber feet) 179mm X 183mm X 34.5mm (37mm with rubber feet)	2.91 lb (1.32 kg), vary by config
Optical	Some: DVD-ROM, 9.0mm high, via USB external ODD box Some: DVD±RW, 9.0mm high, via USB external ODD box							With VESA mount & ODD box	7.42" X 7.30" X 2.48" 188.4mm X 185.38mm X 63mm	3.66 lb (1.66 kg), vary by config
Onboard SATA	One SATA 6.0Gb/s connector on system board									
Graphics	AMD Radeon™ Graphics in processor, uses main memory, DirectX® 12, one DisplayPort™, one HDMI, one optional port (VGA, 2nd DP, or 2nd HDMI), supports 3 independent displays (supports maximum of 2 concurrent HDMI/DVI displays when using HDMI port or DP to DVI/HDMI dongles, and Athlon / Athlon PRO only support 2 displays); Max resolution: 4096x2160 (DP)@60Hz; 4096x2160 (HDMI)@30Hz; 1920x1200 (VGA)@60Hz						VESA mount	Optional VESA mount bracket kit, supports VESA 75mm and 100mm		
Monitor cable	Optional DP to VGA dongle, DP to DVI-D dongle, DP to dual DP dongle, or DP to HDMI 1.4 dongle						Floor Stand	Optional system floor stand for vertical orientation		
Chipset	AMD B300 Chipset						Power supply	Some: 65 watts adapter, autosensing, 88% PSU (not included for TIO models) Some: 135 watts adapter, autosensing, 88% PSU (not included for TIO models)		
Front ports* (Std.)	one USB 3.1 Gen1 (Always On and fast charge), one USB 3.1 Type-C Gen 1, one microphone (3.5mm), one headphone / microphone combo jack (3.5mm)						Limited warranty	1-year or 3-year, limited onsite service / service upgrades available		
Rear ports* (Std.)	1x USB 3.1 Gen1, 3x USB 2.0, 1x ethernet (RJ-45), 1x DisplayPort, 1x HDMI						Preload	Preloaded operating system Some: Windows® 10 Pro 64-bit Some: Windows 10 Home 64-bit Some: Windows 10 IoT Enterprise Some: Linux Ubuntu		
Rear ports* (Opt.)	Two optional ports: Port 1 for VGA / 2nd DP / 2nd HDMI / serial; Port 2 for serial; * Depending on many factors, actual data transfer speed may be lower than theoretical speed						Environment	ENERGY STAR® 7.1*, EPEAT™ Gold rating* (with 135W adapter) or EPEAT Silver rating* (with 65W adapter); ErP Lot 3; RoHS-compliant; TUV low noise verified *Not applicable for non-OS models		
Audio support	High Definition (HD) Audio, Realtek ALC222CG / internal speaker (1.5 watt)						MIL-SPEC test	MIL-STD-810H military certification (Low Pressure [Altitude], High Temperature, Low Temperature, Temperature Shock, Humidity, Sand and Dust, Vibration, Shock, Fungus, Solar Radiation)		
WLAN	Some: 11ac wireless, M.2 Card, Realtek RTL8822CE (dual band), Wi-Fi + Bluetooth 5.0 combo adapter, 2x2 Some: 11ac wireless, M.2 Card, Qualcomm Atheros QCA6174A (dual band), Wi-Fi + Bluetooth 4.2 combo adapter, 2x2 Some: 11ac wireless, M.2 Card, Intel Wireless-AC 9260 (dual band), Wi-Fi + Bluetooth 5.0 combo adapter, 2x2						Accessories	For compatible accessories, please go to http://smartfind.lenovo.com		
Bluetooth Ethernet	Some: Bluetooth 4.2 / 5.0 wireless, integrated in Wi-Fi + BT combo adapter Gigabit ethernet, Realtek RTL8111EPV-CG, Wake on LAN®									

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

Lenovo, July 2020



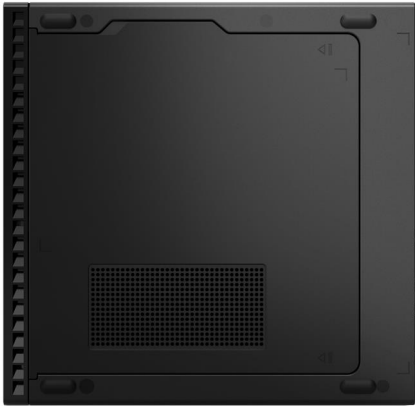
ThinkCentre M80q Platform Specifications

Product Specifications Reference (PSREF)

Processor	Intel® Celeron®, Intel Pentium®, or 10th Gen Intel Core™ i3 / i5 / i7 / i9 Processor						Manageability Intel Active Management Technology 14 (Intel AMT 14); Intel vPro technology on some models (require choosing a vPro-support Wi-Fi adapter to enable vPro function through wireless connection) Discrete TPM 2.0, TCG Certified
	Processor	Cores / Threads	Frequency Base/Max(GHz)	Cache	Memory Support (Up to)	Integrated Graphics	
	Celeron G5900T	2 / 2	3.2G	2 MB	DDR4-2666	UHD 610	
	Pentium Gold G6400T	2 / 4	3.4G	4 MB	DDR4-2666	UHD 610	
	Pentium Gold G6500T	2 / 4	3.5G	4 MB	DDR4-2666	UHD 630	
	Core i3-10100T	4 / 8	3.0G / 3.8G	6 MB	DDR4-2666	UHD 630	
	Core i3-10300T	4 / 8	3.0G / 3.9G	8 MB	DDR4-2666	UHD 630	
	Core i5-10400T	6 / 12	2.0G / 3.6G	12 MB	DDR4-2666	UHD 630	
	Core i5-10500T	6 / 12	2.3G / 3.8G	12 MB	DDR4-2666	UHD 630	
	Core i5-10600T	6 / 12	2.4G / 4.0G	12 MB	DDR4-2666	UHD 630	
Core i7-10700T	8 / 16	2.0G / 4.5G	16 MB	DDR4-2933	UHD 630		
Core i9-10900T	10 / 20	1.9G / 4.6G	20 MB	DDR4-2933	UHD 630		
* Max frequency may refer to Intel Turbo Boost Technology 2.0 / Intel Turbo Boost Max Technology 3.0 / Intel Thermal Velocity Boost, and adopt the max one of them							
Memory	64GB max, DDR4-2666 / DDR4-2933*, two 260-pin SO-DIMM sockets, dual-channel capable * Memory module is DDR4-3200, but clocks down for the limitation of processors						Security chip Security features - Security slot (in rear for optional Kensington® MicroSaver® cable) - Chassis intrusion switch - Power-on password - Administrator password - Hard disk password - Boot sequence control - Boot without keyboard and mouse - Individual USB port disablement - Smart USB protection, allows keyboard/mouse only, blocks all storage devices
Storage	<i>Some:</i> Hard Drive / SATA 6.0Gb/s, 2.5", 7200 rpm <i>Some:</i> M.2 SSD (2242 / 2280) / PCIe NVMe, PCIe 3.0 x2 or PCIe 3.0 x4 <i>Some:</i> Intel Optane™ Memory M10, M.2 2280, PCIe 3.0 x2						
Optical	<i>Some:</i> DVD-ROM, slim (9.0mm), via USB external ODD box <i>Some:</i> DVD Burner (DVD±RW), slim (9.0mm), via USB external ODD box						
Onboard SATA	One onboard SATA 6.0Gb/s connector						
Graphics	Intel HD Graphics 610/630 in processor, uses main memory, DirectX® 12, one DisplayPort™, one HDMI, more video ports available via optional ports, up to 3 independent displays; <i>Max resolution:</i> 4096x2304@60Hz (DP*); 4096x2304@60Hz (Type-C); 4096x2160@24Hz (HDMI); 2048x1536@50Hz (VGA)						
Monitor cable	* OptionaI dual DP support up to 3840x2160 (extend display) via MST mode Optional DP to VGA dongle, DP to DVI-D dongle, DP to dual DP dongle, or DP to HDMI 1.4 dongle						
Chipset	Intel Q470 Chipset						
Front ports (Std.)*	one USB 3.2 Gen 2 (Always On and fast charge), one USB 3.2 Type-C Gen 1, one headphone / microphone combo jack (3.5mm)						
Rear ports (Std.)*	2x USB 3.2 Gen 2, 2x USB 3.2 Gen 1, 1x ethernet (RJ-45), 1x DP, 1x HDMI						
Rear ports (Opt.)*	Two optional ports:						
	Position	Port 1		Port 2	Port 1&2		
	Optional parts	VGA / 2nd DP / 2nd HDMI / USB 3.2 Type-C Gen 1 with DP function) / Serial		Serial	Dual USB 3.2 Gen 1 ports / Dual DP		
* Depending on many factors, actual data transfer speed may be lower than theoretical speed							
Audio support	Realtek ALC233VB / optional internal speaker (1.5 watt)						Keyboard <i>Some:</i> Lenovo Calliope Keyboard (USB connector), black <i>Some:</i> Lenovo Traditional Keyboard (USB connector), black <i>Some:</i> Lenovo Calliope Wireless Keyboard (2.4GHz via USB receiver), black <i>Some:</i> Lenovo Calliope Mouse (USB connector), black <i>Some:</i> Lenovo Fingerprint Mouse (USB connector), Windows Hello support, black <i>Some:</i> Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black
WLAN	<i>Some:</i> 11ac wireless, M.2 Card, Realtek RTL8822CE (dual band), Wi-Fi + Bluetooth 5.0 combo adapter, 2x2 <i>Some:</i> 11ac wireless, M.2 Card, Intel Wireless-AC 9560 (dual band), Wi-Fi + Bluetooth 5.0 combo adapter, 2x2 <i>Some:</i> 11ax wireless, M.2 Card, Intel Wi-Fi 6 AX201 (dual band), Wi-Fi + Bluetooth 5.1 combo adapter, Intel vPro technology support, 2x2						
Bluetooth	<i>Some:</i> Bluetooth 5.0/5.1 wireless, integrated in Wi-Fi + BT combo adapter						
Ethernet	Gigabit ethernet, Intel Ethernet Connection I219-LM(Jacksonville), Wake on LAN®						
Ethernet (Opt.)	None						
Mechanical	Tiny (1L), black color; metal case one 2.5" bay for HDD, two M.2 slots (one for WLAN, one for M.2 SSD)						
		Dimensions (WxDxH)			Weight (Approx.)		
	Tiny only	7.0" X 7.2" X 1.4" (1.5" with rubber feet) 179mm X 183mm X 34.5mm (37mm with rubber feet)			2.76 lb (1.25 kg), vary by config		
	With VESA mount & ODD box	8.04" X 7.35" X 2.52" 204.2mm X 186.6mm X 64mm			3.84 lb (1.74 kg), vary by config		
VESA mount Floor Stand Dust filter EOU design	Optional VESA mount bracket kit, supports VESA 75mm and 100mm Optional system floor stand for vertical orientation Optional dust filter Toolless chassis open (need optional toolless chassis screw), toolless HDD, SSD and memory assembly / removal						
Power supply	<i>Some:</i> 65 watts AC/DC adapter, autosensing, 89% PSU <i>Some:</i> 90 watts AC/DC adapter, autosensing, 89% PSU (special bid only) <i>Some:</i> 135 watts AC/DC adapter, autosensing, 89% PSU						
Limited warranty	<i>Some:</i> 1-year, depot service / service upgrades available <i>Some:</i> 1-year or 3-year, limited onsite service / service upgrades available						
Preload	Preloaded operating system <i>Some:</i> Windows® 10 Pro 64-bit <i>Some:</i> Windows 10 Home 64-bit						
Environment	ENERGY STAR® 8.0, EPEAT™ Gold / Silver rating (on some models), ErP Lot 3, TCO 8.0, TUV low noise / ultra low noise verified (on some models), RoHS-compliant						
MIL-SPEC test	MIL-STD-810H military certification (Low Pressure [Altitude], High Temperature, Low Temperature, Temperature Shock, Humidity, Sand and Dust, Vibration, Shock, Fungus, Solar Radiation)						
Accessories	For compatible accessories, please go to http://smartfind.lenovo.com						

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

Lenovo, May 2020



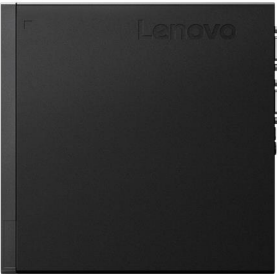
ThinkCentre M90q Platform Specifications

Product Specifications Reference (PSREF)

Processor	Intel® Celeron®, Intel Pentium®, or 10th Gen Intel Core™ i3 / i5 / i7 / i9 Processor						Audio support	Realtek ALC233VB / optional internal speaker (1.5 watt)			
	Processor	Cores / Threads	Frequency Base/Max*(GHz)	Cache	Memory Support (Up to)	Integrated Graphics	WLAN	<i>Some:</i> 11ac wireless, M.2 Card, Realtek RTL8822CE (dual band), Wi-Fi + Bluetooth 5.0 combo adapter, 2x2 <i>Some:</i> 11ac wireless, M.2 Card, Intel Wireless-AC 9560 (dual band), Wi-Fi + Bluetooth 5.0 combo adapter, 2x2 <i>Some:</i> 11ax wireless, M.2 Card, Intel Wi-Fi 6 AX201 (dual band), Wi-Fi + Bluetooth 5.1 combo adapter, Intel vPro technology support, 2x2 <i>Some:</i> Bluetooth 5.0/5.1 wireless, integrated in Wi-Fi + BT combo adapter Gigabit ethernet, Intel Ethernet Connection I219-LM(Jacksonville), Wake on LAN® None			
	Celeron G5900T	2 / 2	3.2G	2 MB	DDR4-2666	UHD 610	Bluetooth				
	Celeron G5900	2 / 2	3.4G	2 MB	DDR4-2666	UHD 610	Ethernet				
	Celeron G5920	2 / 2	3.5G	2 MB	DDR4-2666	UHD 610	Ethernet (Opt.)				
	Pentium Gold G6400T	2 / 4	3.4G	4 MB	DDR4-2666	UHD 610	Manageability	Intel Active Management Technology 14 (Intel AMT 14); Intel vPro technology on some models (require choosing a vPro-support Wi-Fi adapter to enable vPro function through wireless connection)			
	Pentium Gold G6500T	2 / 4	3.5G	4 MB	DDR4-2666	UHD 630	Security chip	Discrete TPM 2.0, TCG Certified			
	Pentium Gold G6400	2 / 4	4.0G	4 MB	DDR4-2666	UHD 610	Security features	- Security slot (in rear for optional Kensington® MicroSaver® cable) - Chassis intrusion switch - Power-on password - Administrator password - Hard disk password - Boot sequence control - Boot without keyboard and mouse - Individual USB port disablement - Smart USB protection, allows keyboard/mouse only, blocks all storage devices - Self-Healing BIOS			
	Pentium Gold G6500	2 / 4	4.1G	4 MB	DDR4-2666	UHD 630	Keyboard	<i>Some:</i> Lenovo Calliope Keyboard (USB connector), black <i>Some:</i> Lenovo Traditional Keyboard (USB connector), black <i>Some:</i> Lenovo Calliope Wireless Keyboard (2.4GHz via USB receiver), black <i>Some:</i> Lenovo Calliope Mouse (USB connector), black <i>Some:</i> Lenovo Fingerprint Mouse (USB connector), Windows Hello support, black <i>Some:</i> Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black			
	Pentium Gold G6600	2 / 4	4.2G	4 MB	DDR4-2666	UHD 630	Mouse				
	Core i3-10100T	4 / 8	3.0G / 3.8G	6 MB	DDR4-2666	UHD 630	Mechanical	Tiny (1L), black color; metal case one 2.5" bay for HDD, one PCIe 3.0 x8 slot (low-profile), three M.2 slots (one for WLAN, two for M.2 SSD)			
	Core i3-10300T	4 / 8	3.0G / 3.9G	8 MB	DDR4-2666	UHD 630					
	Core i5-10400T	6 / 12	2.0G / 3.6G	12 MB	DDR4-2666	UHD 630					
	Core i5-10500T	6 / 12	2.3G / 3.8G	12 MB	DDR4-2666	UHD 630					
	Core i5-10600T	6 / 12	2.4G / 4.0G	12 MB	DDR4-2666	UHD 630					
	Core i7-10700T	8 / 16	2.0G / 4.5G	16 MB	DDR4-2933	UHD 630					
	Core i9-10900T	10 / 20	1.9G / 4.6G	20 MB	DDR4-2933	UHD 630					
	Core i3-10100	4 / 8	3.6G / 4.3G	6 MB	DDR4-2666	UHD 630					
	Core i3-10300	4 / 8	3.7G / 4.4G	8 MB	DDR4-2666	UHD 630					
	Core i3-10320	4 / 8	3.8G / 4.6G	8 MB	DDR4-2666	UHD 630					
	Core i5-10400	6 / 12	2.9G / 4.3G	12 MB	DDR4-2666	UHD 630					
	Core i5-10500	6 / 12	3.1G / 4.5G	12 MB	DDR4-2666	UHD 630					
	Core i5-10600	6 / 12	3.3G / 4.8G	12 MB	DDR4-2666	UHD 630					
	Core i7-10700	8 / 16	2.9G / 4.8G	16 MB	DDR4-2933	UHD 630					
	Core i9-10900	10 / 20	2.8G / 5.2G	20 MB	DDR4-2933	UHD 630					
	* Max frequency may refer to Intel Turbo Boost Technology 2.0 / Intel Turbo Boost Max Technology 3.0 / Intel Thermal Velocity Boost, and adopt the max one of them										
Memory	64GB max, DDR4-2666 / DDR4-2933*, two 260-pin SO-DIMM sockets, dual-channel capable * Memory module is DDR4-3200, but clocks down for the limitation of processors										
Storage	Support up to 1x 2.5" HDD + 2x M.2 SSDs, RAID 0/1 support for M.2 SSDs (RAID preset only available via special bid model) <i>Some:</i> Hard Drive / SATA 6.0Gb/s, 2.5", 7200 rpm <i>Some:</i> M.2 SSD (2242 / 2280) / PCIe NVMe, PCIe 3.0 x2 or PCIe 3.0 x4 <i>Some:</i> Intel Optane™ Memory M10, M.2 2280, PCIe 3.0 x2 <i>Some:</i> DVD-ROM, slim (9.0mm), via USB external ODD box <i>Some:</i> DVD Burner (DVD±RW), slim (9.0mm), via USB external ODD box One onboard SATA 6.0Gb/s connector						VESA mount	Tiny only		Dimensions (WxDxH)	Weight (Approx.)
Optical							Floor Stand	With VESA mount & ODD box		8.04" X 7.35" X 2.52" 204.2mm X 186.6mm X 64mm	3.84 lb (1.74 kg), vary by config
Onboard SATA	One onboard SATA 6.0Gb/s connector						Dust filter	Optional VESA mount bracket kit, supports VESA 75mm and 100mm Optional system floor stand for vertical orientation Optional dust filter Toolless chassis open (need optional toolless chassis screw), toolless HDD, SSD and memory assembly / removal			
Graphics	Intel HD Graphics 610/630 in processor, uses main memory, DirectX® 12, one DisplayPort™, one HDMI, more video ports available via optional ports, up to 3 independent displays; <i>Max resolution:</i> 4096x2304@60Hz (DP*); 4096x2304@60Hz (Type-C); 4096x2160@24Hz (HDMI); 2048x1536@50Hz (VGA)						EOU design	Power supply			<i>Some:</i> 65 watts AC/DC adapter, autosensing, 89% PSU <i>Some:</i> 90 watts AC/DC adapter, autosensing, 89% PSU (special bid only) <i>Some:</i> 135 watts AC/DC adapter, autosensing, 89% PSU <i>Some:</i> 230 watts AC/DC adapter, autosensing, 89% PSU
Monitor cable	* Optiona! dual DP support up to 3840x2160 (extend display) via MST mode Optional DP to VGA dongle, DP to DVI-D dongle, DP to dual DP dongle, or DP to HDMI 1.4 dongle							Limited warranty			1-year or 3-year, limited onsite service / service upgrades available
Chipset	Intel Q470 Chipset						Preload	Preloaded operating system <i>Some:</i> Windows® 10 Pro 64-bit <i>Some:</i> Windows 10 Home 64-bit			
Front ports (Std.)*	one USB 3.2 Gen 2 (Always On and fast charge), one USB 3.2 Type-C Gen 1, one headphone / microphone combo jack (3.5mm)						Environment	ENERGY STAR® 8.0, EPEAT™ Gold / Silver rating (on some models), ErP Lot 3, TCO 8.0, TUV low noise / ultra low noise verified (on some models), RoHS-compliant			
Rear ports (Std.)*	2x USB 3.2 Gen 2, 2x USB 3.2 Gen 1, 1x ethernet (RJ-45), 1x DP, 1x HDMI						MIL-SPEC test	MIL-STD-810H military certification (Low Pressure [Altitude], High Temperature, Low Temperature, Temperature Shock, Humidity, Sand and Dust, Vibration, Shock, Fungus, Solar Radiation)			
Rear ports (Opt.)*	Two optional ports:						Accessories	For compatible accessories, please go to http://smartfind.lenovo.com			
	Position	Port 1		Port 2	Port 1&2						
	Optional parts	VGA / 2nd DP / 2nd HDMI / USB 3.2 Type-C Gen 1 with DP function) / Serial		Serial	Dual USB 3.2 Gen 1 ports / Dual DP						
	* Depending on many factors, actual data transfer speed may be lower than theoretical speed										

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

Lenovo, May 2020



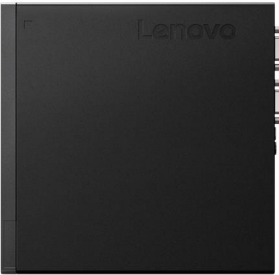
ThinkCentre M920 Tiny Platform Specifications

Product Specifications Reference (PSREF)

Processor	Intel® Celeron®, Intel Pentium®, or 8th / 9th Gen Intel Core™ i3 / i5 / i7 / i9 Processor						Bluetooth Ethernet (Opt.)	Some: Bluetooth 4.2/5.0 wireless, integrated in Wi-Fi + BT combo adapter Gigabit ethernet, Intel Ethernet Connection I219-LM(Jacksonville), Wake on LAN® Some: Intel Ethernet Server Adapter I350-T4, gigabit ethernet, 4x RJ-45, PCIe x4	
	Processor	Cores / Threads	Frequency Base/Max(GHz)	Cache	Memory Support (Up to)	Integrated Graphics	Manageability	Intel Active Management Technology 12 (Intel AMT 12); Intel vPro technology on some models (require choosing a vPro-support Wi-Fi adapter to enable vPro function through wireless connection)	
	Celeron G4900T	2 / 2	2.9G	2 MB	DDR4-2400	UHD 610	Security chip Security features	Discrete TPM 2.0, TCG Certified	
	Celeron G4930T	2 / 2	3.0G	2 MB	DDR4-2400	UHD 610		● Security slot (in rear for optional Kensington® MicroSaver® cable)	
	Pentium Gold G5400T	2 / 4	3.1G	4 MB	DDR4-2400	UHD 610		● Boot sequence control	
	Pentium Gold G5500T	2 / 4	3.2G	4 MB	DDR4-2400	UHD 630		● Boot without keyboard and mouse	
	Pentium Gold G5600T	2 / 4	3.3G	4 MB	DDR4-2400	UHD 630	Keyboard	● Chassis intrusion switch	
	Pentium Gold G5420T	2 / 4	3.2G	4 MB	DDR4-2400	UHD 610		● Individual USB port disablement	
	Core i3-8100T	4 / 4	3.1G	6 MB	DDR4-2400	UHD 630		● Power-on password	
	Core i3-8300T	4 / 4	3.2G	8 MB	DDR4-2400	UHD 630		● Administrator password	
	Core i5-8400T	6 / 6	1.7G / 3.3G	9 MB	DDR4-2666	UHD 630	Mouse	● Hard disk password	
	Core i5-8500T	6 / 6	2.1G / 3.5G	9 MB	DDR4-2666	UHD 630		Some: Lenovo Calliope Keyboard (USB connector), black	
	Core i5-8600T	6 / 6	2.3G / 3.7G	9 MB	DDR4-2666	UHD 630		Some: Lenovo Traditional Keyboard (USB connector), black	
	Core i7-8700T	6 / 12	2.4G / 4.0G	12 MB	DDR4-2666	UHD 630		Some: Lenovo Calliope Wireless Keyboard (2.4GHz via USB receiver), black	
	Core i3-9100T	4 / 4	3.1G / 3.7G	6 MB	DDR4-2400	UHD 630	Mechanical	Some: Lenovo Calliope Mouse (USB connector), black	
	Core i3-9300T	4 / 4	3.2G / 3.8G	8 MB	DDR4-2400	UHD 630		Some: Lenovo Fingerprint Mouse (USB connector), Windows Hello support, black	
	Core i5-9400T	6 / 6	1.8G / 3.4G	9 MB	DDR4-2666	UHD 630		Some: Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black	
	Core i5-9500T	6 / 6	2.2G / 3.7G	9 MB	DDR4-2666	UHD 630			
	Core i5-9600T	6 / 6	2.3G / 3.9G	9 MB	DDR4-2666	UHD 630		Tiny (1L), black color; metal case	
	Core i7-9700T	8 / 8	2.0G / 4.3G	12 MB	DDR4-2666	UHD 630		● Toolless chassis open (need optional toolless chassis screw)	
	Core i9-9900T	8 / 16	2.1G / 4.4G	16 MB	DDR4-2666	UHD 630		● Toolless HDD, SSD, memory removal	
Memory	32GB max, DDR4-2666*, two 260-pin SO-DIMM sockets, dual-channel capable * System automatically clocks down for the processors with lower memory controller							● Optional dust filter	
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 Some: DVD-ROM, slim (9.0mm), via USB external ODD box Some: DVD Burner (DVD±RW), slim (9.0mm), via USB external ODD box One onboard SATA 6.0Gb/s connector							one 2.5" bay for HDD/SSD, one PCIe 3.0 x8 slot (low-profile), two M.2 slots (one for WLAN, one for M.2 SSD), 2.5" HDD/SSD and PCIe card are mutually exclusive	
Optical									
Onboard SATA									
Graphics	Intel HD Graphics 610/630 in processor, uses main memory, DirectX® 12, one DisplayPort™, one HDMI, one optional video port (2nd HDMI, VGA, 2nd DP, or USB 3.1 Type-C Gen1 with DisplayPort function), up to 3 independent displays; Max resolution: 4096x2304 (DP)@60Hz; 4096x2304 (Type-C)@60Hz; 4096x2160 (onboard HDMI)@24Hz; 2048x1536 (VGA)@50Hz						VESA mount Floor Stand	Optional VESA mount bracket kit, supports VESA 75mm and 100mm Optional system floor stand for vertical orientation	
Monitor cable	Optional DP to VGA dongle, DP to DVI-D dongle, DP to dual DP dongle (for Collage Display with intel integrated graphics), or DP to HDMI 1.4 dongle						Power supply	Some: 65 watts AC/DC adapter, autosensing, 88% PSU Some: 90 watts AC/DC adapter, autosensing, 88% PSU Some: 135 watts AC/DC adapter, autosensing, 88% PSU	
Chipset	Intel Q370 Chipset						Limited warranty	Some: 1-year or 3-year, depot service / service upgrades available Some: 1-year or 3-year, limited onsite service / service upgrades available	
Front ports (Std.)*	one USB 3.1 Gen1 (Always On and fast charge), one USB 3.1 Type-C Gen 1, one microphone (3.5mm), one headphone / microphone combo jack (3.5mm)						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 ● Intel Unite (Machine Type 10V8 models only)	
Rear ports (Std.)*	2x USB 3.1 Gen2, 2x USB 3.1 Gen1, 1x ethernet (RJ-45), 1x DisplayPort, 1x HDMI						Environment	ENERGY STAR® 7.0, EPEAT™ Gold rating (with 135W adapter) or EPEAT™ Silver rating (with 65W/90W adapter), ErP Lot 3, TCO, TUV ultra low noise verified (on some models), RoHS-compliant	
Rear ports (Opt.)*	Two optional ports (mutually exclusive with PCIe card): Port 1 for VGA / 2nd DP / 2nd HDMI / serial / USB 3.1 Type-C Gen 1 with DP function; Port 2 for serial; Optional ports via PCIe card: 2x USB 3.1 Gen1 via PCIe x1, 4x serial (9-pin) via PCIe x1, 1x Thunderbolt 3 (combo USB3.1 Type-C Gen 2 / DisplayPort) via PCIe x4 * Depending on many factors, actual data transfer speed may be lower than theoretical speed						MIL-SPEC test	MIL-STD-810G military certification (Low Pressure [Altitude], High Temperature, Low Temperature, Temperature Shock, Humidity, Sand and Dust, Vibration, Shock, Fungus, Solar Radiation)	
Audio support	Realtek ALC233VB2 / optional internal speaker (1.5 watt or 2 watt)						Accessories	For compatible accessories, please go to http://smartfind.lenovo.com	
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 Some: 11ac wireless, M.2 Card, Intel Wireless-AC 9560 (dual band), Wi-Fi + Bluetooth 5.0 combo adapter, Intel vPro technology support, 2x2								

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Lenovo, April 2020



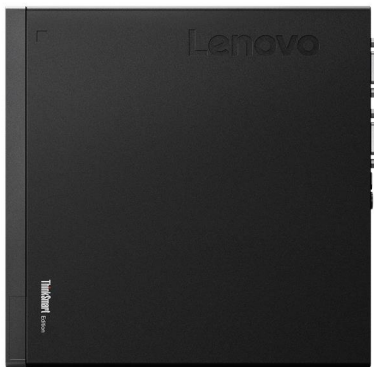
ThinkCentre M920x Tiny Platform Specifications

Product Specifications Reference (PSREF)

Processor	Intel® Celeron®, Intel Pentium®, or 8th / 9th Gen Intel Core™ i3 / i5 / i7 / i9 Processor						4x Mini DisplayPort, up to 4 independent displays, works along with onboard DP and HDMI to support up to 6 independent displays; <i>Max resolution:</i> 5120x2880@60Hz ((up to 2 Mini DisplayPort); 4096x2160@60Hz ((up to 4 Mini DisplayPort)		
	Processor	Cores / Threads	Frequency Base/Max(GHz)	Cache	Memory Support (Up to)	Integrated Graphics	Monitor cable	Optional DP to VGA dongle, DP to DVI-D dongle, DP to dual DP dongle (for Collage Display with intel integrated graphics), or DP to HDMI 1.4 dongle, Mini DP to DP	
	Celeron G4900	2 / 2	3.1G	2 MB	DDR4-2400	UHD 610	Chipset	Intel Q370 Chipset	
	Celeron G4920	2 / 2	3.2G	2 MB	DDR4-2400	UHD 610	Front ports (Std.)*	one USB 3.1 Gen1 (Always On and fast charge), one USB 3.1 Type-C Gen 1, one microphone (3.5mm), one headphone / microphone combo jack (3.5mm)	
	Celeron G4930	2 / 2	3.2G	2 MB	DDR4-2400	UHD 610	Rear ports (Std.)*	2x USB 3.1 Gen2, 2x USB 3.1 Gen1, 1x ethernet (RJ-45), 1x DP, 1x HDMI	
	Celeron G4950	2 / 2	3.3G	2 MB	DDR4-2400	UHD 610	Rear ports (Opt.)*	Two optional ports (mutually exclusive with PCIe card): Port 1 for VGA / 2nd DP / 2nd HDMI / serial / USB 3.1 Type-C Gen 1 with DP function); Port 2 for serial;	
	Pentium Gold G5400	2 / 4	3.7G	4 MB	DDR4-2400	UHD 610		Optional ports via PCIe card: 2x USB 3.1 Gen1 via PCIe x1, 4x serial (9-pin) via PCIe x1, 1x Thunderbolt 3 (combo USB3.1 Type-C Gen 2 / DP) via PCIe x4	
	Pentium Gold G5500	2 / 4	3.8G	4 MB	DDR4-2400	UHD 630		* Depending on many factors, actual data transfer speed may be lower than theoretical speed	
	Pentium Gold G5600	2 / 4	3.9G	4 MB	DDR4-2400	UHD 630	Audio support	Realtek ALC233VB2 / optional internal speaker (1.5 watt or 2 watt)	
	Pentium Gold G5420	2 / 4	3.8G	4 MB	DDR4-2400	UHD 610	WLAN	<i>Some:</i> 11ac Wi-Fi + BT 4.2, M.2 Card, Realtek RTL8821CE (dual band), 1x1 <i>Some:</i> 11ac Wi-Fi + BT 4.2, M.2 Card, Realtek RTL8822BE (dual band), 2x2 <i>Some:</i> 11ac Wi-Fi + BT 4.2, M.2 Card, Intel Dual Band Wireless-AC 3165, 1x1 <i>Some:</i> 11ac Wi-Fi + BT 4.2, M.2 Card, Intel Dual Band Wireless-AC 8265, 2x2 <i>Some:</i> 11ac Wi-Fi + BT 5.0, M.2 Card, Intel Wireless-AC 9560 (dual band), Intel vPro technology support, 2x2	
	Pentium Gold G5620	2 / 4	4.0G	4 MB	DDR4-2400	UHD 630	Bluetooth	<i>Some:</i> Bluetooth 4.2/5.0 wireless, integrated in Wi-Fi + BT combo adapter	
	Core i3-8100	4 / 4	3.6G	6 MB	DDR4-2400	UHD 630	Ethernet	Gigabit ethernet, Intel Ethernet Connection I219-LM(Jacksonville), Wake on LAN®	
	Core i3-8300	4 / 4	3.7G	8 MB	DDR4-2400	UHD 630	Ethernet (Opt.)	<i>Some:</i> Intel Ethernet Server Adapter I350-T4, gigabit ethernet, 4x RJ-45, PCIe x4	
	Core i5-8400	6 / 6	2.8G / 4.0G	9 MB	DDR4-2666	UHD 630	Manageability	Intel Active Management Technology 12 (Intel AMT 12); Intel vPro technology on some models (require choosing a vPro-support Wi-Fi adapter to enable vPro function through wireless connection)	
	Core i5-8500	6 / 6	3.0G / 4.1G	9 MB	DDR4-2666	UHD 630	Security chip	Discrete TPM 2.0, TCG Certified	
	Core i5-8600	6 / 6	3.1G / 4.3G	9 MB	DDR4-2666	UHD 630	Security features	- Security slot (in rear for optional Kensington® MicroSaver® cable) - Chassis intrusion switch - Power-on password - Administrator password - Hard disk password - Boot sequence control - Boot without keyboard and mouse - Individual USB port disablement - Smart USB protection, allows keyboard/mouse only, blocks all storage devices	
	Core i7-8700	6 / 12	3.2G / 4.6G	12 MB	DDR4-2666	UHD 630	Keyboard	<i>Some:</i> Lenovo Calliope Keyboard (USB connector), black <i>Some:</i> Lenovo Traditional Keyboard (USB connector), black <i>Some:</i> Lenovo Calliope Wireless Keyboard (2.4GHz via USB receiver), black	
	Core i3-9100	4 / 4	3.6G / 4.2G	6 MB	DDR4-2400	UHD 630	Mouse	<i>Some:</i> Lenovo Calliope Mouse (USB connector), black <i>Some:</i> Lenovo Fingerprint Mouse (USB connector), Windows Hello support, black <i>Some:</i> Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black	
	Core i3-9300	4 / 4	3.7G / 4.3G	8 MB	DDR4-2400	UHD 630	Mechanical	Tiny (1L), black color; metal case - Toolless chassis open (need optional toolless chassis screw) - Toolless HDD, SSD, memory removal - Optional dust filter one 2.5" bay for HDD/SSD, one PCIe 3.0 x8 slot (low-profile), three M.2 slots (one for WLAN, two for M.2 SSD), 2.5" HDD/SSD and PCIe card are mutually exclusive	
	Core i3-9320	4 / 4	3.7G / 4.4G	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			
	Celeron G4900T	2 / 2	2.9G	2 MB	DDR4-2400	UHD 610			
	Celeron G4930T	2 / 2	3.0G	2 MB	DDR4-2400	UHD 610			
	Pentium Gold G5400T	2 / 4	3.1G	4 MB	DDR4-2400	UHD 610			
	Pentium Gold G5500T	2 / 4	3.2G	4 MB	DDR4-2400	UHD 630			
	Pentium Gold G5600T	2 / 4	3.3G	4 MB	DDR4-2400	UHD 630			
	Pentium Gold G5420T	2 / 4	3.2G	4 MB	DDR4-2400	UHD 610			
	Core i3-8100T	4 / 4	3.1G	6 MB	DDR4-2400	UHD 630			
	Core i3-8300T	4 / 4	3.2G	8 MB	DDR4-2400	UHD 630			
	Core i5-8400T	6 / 6	1.7G / 3.3G	9 MB	DDR4-2666	UHD 630			
	Core i5-8500T	6 / 6	2.1G / 3.5G	9 MB	DDR4-2666	UHD 630			
	Core i5-8600T	6 / 6	2.3G / 3.7G	9 MB	DDR4-2666	UHD 630			
	Core i7-8700T	6 / 12	2.4G / 4.0G	12 MB	DDR4-2666	UHD 630			
	Core i3-9100T	4 / 4	3.1G / 3.7G	6 MB	DDR4-2400	UHD 630			
	Core i3-9300T	4 / 4	3.2G / 3.8G	8 MB	DDR4-2400	UHD 630			
	Core i5-9400T	6 / 6	1.8G / 3.4G	9 MB	DDR4-2666	UHD 630			
	Core i5-9500T	6 / 6	2.2G / 3.7G	9 MB	DDR4-2666	UHD 630			
	Core i5-9600T	6 / 6	2.3G / 3.9G	9 MB	DDR4-2666	UHD 630			
	Core i7-9700T	8 / 8	2.0G / 4.3G	12 MB	DDR4-2666	UHD 630			
	Core i9-9900T	8 / 16	2.1G / 4.4G	16 MB	DDR4-2666	UHD 630			
Memory	32GB max, DDR4-2666*, two 260-pin SO-DIMM sockets, dual-channel capable * System automatically clocks down for the processors with lower memory controller						VESA mount Floor Stand	Optional VESA mount bracket kit, supports VESA 75mm and 100mm Optional system floor stand for vertical orientation	
Storage	<i>Some:</i> Hard Drive / SATA 6.0Gb/s, 2.5", 5400 rpm or 7200 rpm <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" <i>Some:</i> M.2 SSD (support up to two M.2 SSD) / PCIe NVMe, PCIe 3.0 x 4", 32Gb/s, RAID 0/1 support (RAID preset only available via special bid model) * 128GB SSD M.2 (2242) PCIe NVMe only supports PCIe 3.0 x 2, 16Gb/s <i>Some:</i> Intel Optane™ Memory (not support Celeron / Pentium Processor), M.2						Power supply	135 watts AC/DC adapter, autosensing, 88% PSU	
Optical	<i>Some:</i> DVD-ROM, slim (9.0mm), via USB external ODD box <i>Some:</i> DVD Burner (DVD±RW), slim (9.0mm), via USB external ODD box						Limited warranty	<i>Some:</i> 1-year or 3-year, depot service / service upgrades available <i>Some:</i> 1-year or 3-year, limited onsite service / service upgrades available	
Onboard SATA	One onboard SATA 6.0Gb/s connector						Preload	<i>Some:</i> Windows® 10 Pro 64-bit <i>Some:</i> Windows 10 Home 64-bit	
Graphics	Intel HD Graphics 610/630 in processor, uses main memory, DirectX® 12, one DisplayPort™, one HDMI, one optional video port (2nd HDMI, VGA, 2nd DP, or USB 3.1 Type-C Gen1 with DisplayPort function), up to 3 independent displays; <i>Max resolution:</i> c4096x2304 (DP) @60Hz; 4096x2304 (Type-C) @60Hz; 4096x2160 (onboard HDMI) @24Hz; 2048x1536 (VGA) @50Hz <i>Some:</i> AMD Radeon™ RX 560 , DirectX 12, 4GB GDDR5, PCIe 3.0 x8 adapter,						Environment	ENERGY STAR® 7.0, EPEAT™ Gold rating (North America), ErP Lot 3, TCO, TUV ultra low noise verified (coming soon, 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, Solar Radiation)	
							Accessories	For compatible accessories, please go to http://smartfind.lenovo.com	

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

Lenovo, April 2020



ThinkSmart Edition Tiny M920q for Zoom Rooms Platform Specifications

Product Specifications Reference (PSREF)

Processor	Intel® 9th Gen Core™ i7 Processor						Keyboard	Lenovo Traditional Keyboard (USB connector), black	
	Processor	Cores / Threads	Frequency Base/Max(GHz)	Cache	Memory Support (Up to)	Integrated Graphics	Mouse	Lenovo Calliope Mouse (USB connector), black	
	Core i7-9700T	8 / 8	2.0G / 4.3G	12 MB	DDR4-2666	UHD 630	Mechanical	Tiny (1L), black color; metal case	
Memory	16GB (8GB x 2) DDR4-2666, two 260-pin SO-DIMM sockets, dual-channel capable								
Storage	128GB SSD M.2 (2242) PCIe NVMe only supports PCIe 3.0 x 2, 16Gb/s								
Optical	None								
Onboard SATA	One onboard SATA 6.0Gb/s connector								
Graphics	Intel HD Graphics 630 in processor, uses main memory, DirectX® 12, one DisplayPort™, one HDMI (onboard), one 2nd HDMI (internal DP to HDMI dongle), up to 3 independent displays; Max resolution: 4096x2304 (DP) @60Hz; 4096x2160 (onboard HDMI) @24Hz								
Monitor cable	None								
Chipset	Intel Q370 Chipset						VESA mount	VESA mount bracket kit, supports VESA 75mm and 100mm	
Front ports (Std.)*	one USB 3.1 Gen1 (Always On and fast charge), one USB 3.1 Type-C Gen 1, one microphone (3.5mm), one headphone / microphone combo jack (3.5mm)						Floor Stand	Optional system floor stand for vertical orientation	
Rear ports (Std.)*	2x USB 3.1 Gen2, 2x USB 3.1 Gen1, 1x ethernet (RJ-45), 1x DisplayPort, 2x HDMI * Depending on many factors, actual data transfer speed may be lower than theoretical speed						Power supply	135 watts AC/DC adapter, autosensing, 88% PSU	
Audio support	Realtek ALC233VB2 / optional internal speaker (1.5 watt or 2 watt)						Limited warranty	3-year, limited onsite service with premier support / service upgrades available	
WLAN	11ac wireless, M.2 Card, Intel Wireless-AC 9560 (dual band), Wi-Fi + Bluetooth 5.0 combo adapter, Intel vPro technology support, 2x2						Preload	Preloaded operating system Windows® 10 IoT Enterprise with Zoom Rooms preload	
Bluetooth	Bluetooth 5.0 wireless, integrated in Wi-Fi + BT combo adapter						Environment	ENERGY STAR® 7.0, EPEAT™ Silver rating, ErP Lot 3, TCO, TUV ultra low noise verified (on some models), RoHS-compliant	
Ethernet	Gigabit ethernet, Intel Ethernet Connection I219-LM(Jacksonville), Wake on LAN®						MIL-SPEC test	MIL-STD-810G military certification (Low Pressure [Altitude], High Temperature, Low Temperature, Temperature Shock, Humidity, Sand and Dust, Vibration, Shock, Fungus, Solar Radiation)	
Manageability	Intel Active Management Technology 12 (Intel AMT 12); Intel vPro technology on some models (require choosing a vPro-support Wi-Fi adapter to enable vPro function through wireless connection)						Accessories	For compatible accessories, please go to http://smartfind.lenovo.com	
Security chip	Discrete TPM 2.0, TCG Certified								
Security features	- Security slot (in rear for optional Kensington® MicroSaver® cable) - Chassis intrusion switch - Power-on password - Administrator password - Hard disk password								
	- Boot sequence control - Boot without keyboard and mouse - Individual USB port disablement - Smart USB protection, allows keyboard/ mouse only, blocks all storage devices								

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

Lenovo, April 2020



ThinkCentre Tiny-in-One (TIO) 22 Gen3

Product Specifications Reference (PSREF)

Form factor	Tiny-in-One, offers a full All-In-One experience when optional Tiny slots into the back of TIO, clean cabling and effortless setup			Mounting features	Wall or desk mounting using the extend arm or third-party accessories meeting the VESA FPMPI® (100mm mount)																		
Compatible Tiny:	P330 / P320 / M920(x) / M720 / M910(x) / M710 / M900(x) / M700 / M630e / M625 / M600 / M75q / M715 / M93/p* / M83 / M73* / M53 /Chromebox Tiny * Non-TIO models can't be turned on by pressing power button of TIO			Adjustable stand	<i>Tilt:</i> 30° back, -5° forward; <i>lift:</i> 4.3" (110mm); <i>swivel:</i> +/-45°; <i>Pivot:</i> clockwise 0° to 90°																		
Panel	TFT-LCD, IPS (In Plane Switching) technology**, White LED backlight **Notes: IPS may refer to IPS, PLS, ADS, AHVA, AAS panels			Power supply	90 watts AC/DC adapter, 88% PSU, universal																		
Viewable image size	21.5" (546.1mm) diagonal			Power consumption	19 watts typical, 32 watts maximum, <0.5 watts standby / suspend																		
Max view area (W x H)	18.74" x 10.54" / 476.1mm x 267.8mm			Limited warranty	3-years, Customer Carry-In or Mail-In via Rapid Replacement Service																		
Bezel Width	Top / Side: 2mm, Bottom: 22.1mm			VESA-compliant	VESA DDC2B/CI, VESA DPMS-compliant																		
Native resolution	1920x1080			Ergonomics	ISO 9241-307, TUV Eye Comfort certified																		
Multi-touch	Optional 10-point multi-touch, supports Wake on Touch			Emission standards	FCC Class B																		
Aspect ratio	16:9			Environmental	TCO 7.0, TCO Edge 2.0, WEEE, RoHS, ENERGY STAR® 7.0, EPEAT™ Silver rating, ULE Gold, TUV, VOC																		
Pixel pitch (mm)	0.24795mm			Windows certifications	Windows 7 and Windows 10 certified																		
Dot/Pixel per Inch	102.4 dpi			Ship group	TIO (Monitor), detachable stand, AC/DC power adapter, power cord, user's guide and driver CD, quick start and safety poster																		
Brightness	250 nits or cd/m² (typical)			Accessories	For compatible accessories, please go to http://www.lenovoquickpick.com																		
Contrast ratio	1000:1 (typical)			<table><tr><th colspan="4">ThinkCentre Tiny-in-One 22 Gen3 Compatible list</th></tr><tr><th>Model</th><td>P330 / P320 / M920(x) / M720 / M910(x) / M710 / M900(x) / M700 / M630e / M625 / M600 / M75q / M715 / M83 / M53 Tiny M90n Nano (with TIO kit)</td><td>M93/p Tiny, M73 Tiny</td><td>Chromebox</td></tr><tr><td>Turn on TIO and Tiny together via Alt + P on USB KB</td><td>All models</td><td>All models</td><td>Not support</td></tr><tr><td>Turn on TIO and Tiny together via TIO Power Button</td><td>All models</td><td>TIO models</td><td>All models</td></tr></table>				ThinkCentre Tiny-in-One 22 Gen3 Compatible list				Model	P330 / P320 / M920(x) / M720 / M910(x) / M710 / M900(x) / M700 / M630e / M625 / M600 / M75q / M715 / M83 / M53 Tiny M90n Nano (with TIO kit)	M93/p Tiny, M73 Tiny	Chromebox	Turn on TIO and Tiny together via Alt + P on USB KB	All models	All models	Not support	Turn on TIO and Tiny together via TIO Power Button	All models	TIO models	All models
ThinkCentre Tiny-in-One 22 Gen3 Compatible list																							
Model	P330 / P320 / M920(x) / M720 / M910(x) / M710 / M900(x) / M700 / M630e / M625 / M600 / M75q / M715 / M83 / M53 Tiny M90n Nano (with TIO kit)	M93/p Tiny, M73 Tiny	Chromebox																				
Turn on TIO and Tiny together via Alt + P on USB KB	All models	All models	Not support																				
Turn on TIO and Tiny together via TIO Power Button	All models	TIO models	All models																				
Pixel response time	14ms (default), over drive to 4ms, 6ms																						
Color gamut	72%																						
Anti-reflective	Anti-glare																						
Viewing angle at 10:1 CR	178° (+/- 89°) horizontal, 178° (+/- 89°) vertical																						
Preset resolutions	640x350 @ 70Hz 640x480 @ 60Hz, 66Hz, 72Hz, 75Hz 720x400 @ 70Hz 800x600 @ 60Hz, 72Hz, 75Hz 1024x768 @ 60Hz, 70Hz, 75Hz 1152x864 @ 75Hz 1280x800 @ 60Hz 1280x1024 @ 60Hz, 72Hz, 75Hz 1366x768 @ 60Hz 1440x900 @ 60Hz, 75Hz 1600x1200 @ 60Hz, 70Hz, 75Hz 1680x1050 @ 60Hz 1920x1080 @ 60Hz																						
Presets / user settings	Presets: 25; user settings: 25																						
On screen display	On screen display with digital user controls (8 languages)																						
Control features	<i>Front:</i> Exit button, Left / Mode-switching button (TIO / monitor mode), Right / Brightness button, Enter / Menu button, Power button <i>Bottom:</i> Volume up button, Volume down button																						
Tiny-in-One Power On	Pressing Alt + P on keyboard or pressing Power button positioned on TIO can turn on both TIO and Tiny (only some Tiny support, see compatible list)																						
Side ports (TIO)	One USB 3.1 Gen1 / USB 2.0 (when M73 or M53 installed or USB 2.0 connected via USB upstream port) <i>Notes:</i> The USB port is only available when a Tiny is installed or a PC is connected via USB upstream port																						
Side ports (Tiny)	Side ports offered by installed Tiny (optional)																						
Rear ports	One DisplayPort in port, one USB upstream port, one power connector																						
3-in-1 Cable	Undetachable 3-in-1 cable (Power connector, USB [supports USB 3.1 Gen1 / USB 2.0], DisplayPort), only for connecting to Tiny installed (optional)																						
Camera	Optional 720p camera with dual microphone for VOIP, LED indicator																						
Internal Speaker	2 watt x2																						
Security	Security keyhole for attachment of optional cable lock (Kensington® lock compatible), locks optional Tiny with TIO together, more security features offered by Tiny installed (optional)																						
Mechanical	<table><tr><th>Dimensions</th><th>TIO without stand</th><th>TIO with stand</th></tr><tr><td>W x D x H (inch)</td><td>19.26 x 2.85 x 13.35</td><td>19.26 x 10.76 x 14.59 - 18.93</td></tr><tr><td>W x D x H (mm)</td><td>489.3 x 72.5 x 339</td><td>489.3 x 273.3 x 370.7 - 480.7</td></tr><tr><td>Weight (Approx.)</td><td>7.01 lb / 3.19 kg</td><td>11.77 lb / 5.34 kg</td></tr></table>			Dimensions	TIO without stand	TIO with stand	W x D x H (inch)	19.26 x 2.85 x 13.35	19.26 x 10.76 x 14.59 - 18.93	W x D x H (mm)	489.3 x 72.5 x 339	489.3 x 273.3 x 370.7 - 480.7	Weight (Approx.)	7.01 lb / 3.19 kg	11.77 lb / 5.34 kg								
Dimensions	TIO without stand	TIO with stand																					
W x D x H (inch)	19.26 x 2.85 x 13.35	19.26 x 10.76 x 14.59 - 18.93																					
W x D x H (mm)	489.3 x 72.5 x 339	489.3 x 273.3 x 370.7 - 480.7																					
Weight (Approx.)	7.01 lb / 3.19 kg	11.77 lb / 5.34 kg																					



ThinkCentre Tiny-In-One 22 Gen 4 Platform Specifications

Product Specifications Reference (PSREF)

Form factor	Tiny-in-One, offers a full All-In-One experience when optional Tiny slots into the back of TIO, clean cabling and effortless setup			Mounting features	Wall or desk mounting using the extend arm or third-party accessories meeting the VESA FPMPI® (100mm mount)																		
Compatible Tiny:	P340 / P330 / P320 / M90q / M80q / M70q / M75q / M920(x) / M720 / M910(x) / M710 / M715 / M900(x) / M700 / M630e / M625 / M600 Tiny M90n / M75n Nano (with TIO kit)			Adjustable stand	<i>Tilt:</i> 30° back, -5° forward; <i>lift:</i> 5.9" (150mm); <i>swivel:</i> +/-45°; <i>Pivot:</i> clockwise -5° to 90°																		
Panel	TFT-LCD, IPS (In Plane Switching) technology**, White LED backlight **Notes: IPS may refer to IPS, PLS, ADS, AHVA, AAS panels			Power supply	90 watts AC/DC adapter, 88% PSU, universal																		
Viewable image size	21.5" (546.1mm) diagonal			Power consumption	25 watts max, 14 watts typical, <0.5 watts standby / suspend																		
Max view area (W x H)	18.74" x 10.54" / 476.1mm x 267.8mm			Limited warranty	3-years , Carry-In or Courier service																		
Bezel Width	Top / Side: 2mm, Bottom: 22.1mm			Environmental	TCO 8.0, TCO edge 2.0, ENERGY STAR® 8.0, EPEAT™ Silver rating, UL GREENGUARD Certified, Erp lot5, WEEE, RoHS, TUV Eye comfort																		
Native resolution	1920x1080 @60Hz			Windows certifications	Windows 7 and Windows 10 certified																		
Presets / user settings	25			Ship group	TIO (Monitor), detachable stand, power adapter, power cord, information flyer, user's guide, and driver CD																		
Multi-touch	Optional 10-point multi-touch, AIT technology			Accessories	For compatible accessories, please go to http://www.lenovoquickpick.com																		
Aspect ratio	16:9			<table><tr><th colspan="4">ThinkCentre Tiny-In-One 22 Gen 4 Compatible list</th></tr><tr><td>Model</td><td>P340 / P330 / P320 M90q / M80q / M70q / M75q / M920(x) / M720 / M910(x) / M710 / M715 / M900(x) / M700 / M630e / M625 / M600 Tiny M90n / M75n (with TIO kit)</td><td>M93/p / M83 / M73 / M53 Tiny</td><td>Chromebox</td></tr><tr><td>Turn on TIO and Tiny together via Alt + P on USB KB</td><td>All models</td><td>All models</td><td>Not support</td></tr><tr><td>Turn on TIO and Tiny together via TIO Power Button</td><td>All models</td><td>Not support</td><td>All models</td></tr></table>				ThinkCentre Tiny-In-One 22 Gen 4 Compatible list				Model	P340 / P330 / P320 M90q / M80q / M70q / M75q / M920(x) / M720 / M910(x) / M710 / M715 / M900(x) / M700 / M630e / M625 / M600 Tiny M90n / M75n (with TIO kit)	M93/p / M83 / M73 / M53 Tiny	Chromebox	Turn on TIO and Tiny together via Alt + P on USB KB	All models	All models	Not support	Turn on TIO and Tiny together via TIO Power Button	All models	Not support	All models
ThinkCentre Tiny-In-One 22 Gen 4 Compatible list																							
Model	P340 / P330 / P320 M90q / M80q / M70q / M75q / M920(x) / M720 / M910(x) / M710 / M715 / M900(x) / M700 / M630e / M625 / M600 Tiny M90n / M75n (with TIO kit)	M93/p / M83 / M73 / M53 Tiny	Chromebox																				
Turn on TIO and Tiny together via Alt + P on USB KB	All models	All models	Not support																				
Turn on TIO and Tiny together via TIO Power Button	All models	Not support	All models																				
Pixel pitch (mm)	0.24795mm																						
Dot/Pixel per Inch	102.4 dpi																						
Brightness	250 nits or cd/m² (typical)																						
Contrast ratio	1000:1 (typical)																						
Pixel response time	14ms (default), over drive to 4ms, 6ms																						
Color gamut	72% NTSC (CIE 1931)																						
Anti-reflective	Anti-glare																						
Viewing angle at 10:1 CR	178° (+/- 89°) horizontal, 178° (+/- 89°) vertical																						
On screen display	On screen display with digital user controls (8 languages)																						
Control features	<i>Font:</i> Exit button, Up / Mode-switching button (TIO / monitor mode switches the sources of both display and side USB port), Down / Brightness button, Enter / Menu button, Power button <i>Bottom:</i> Volume up button, Volume down button																						
TIO Power On features	Pressing Alt + P (on keyboard) or Power button (on TIO) can turn on both TIO and Tiny (some old Tiny cannot fully support, see compatible list)																						
Side ports (on TIO)	One USB Type A port (The availability and version depends on the Tiny installed or the PC connected via USB upstream port)																						
Side ports (on Tiny)	Side ports offered by installed Tiny (front ports)																						
Rear ports	One DisplayPort in port, one USB upstream port, one power connector																						
3-in-1 Cable	Undetachable 3-in-1 cable (Power connector, USB [supports USB 3.1 Gen1 / USB 2.0], DisplayPort), only for connecting to Tiny installed (optional)																						
Camera	720p camera with dual microphone and Think Shutter																						
Internal Speaker	2 watt x2																						
Security	Security keyhole for attachment of optional cable lock (Kensington® lock compatible), locks optional Tiny with TIO together, more security features offered by Tiny installed (optional)																						
Mechanical	<table><tr><td>Dimensions</td><td>TIO without stand</td><td>TIO with stand</td></tr><tr><td>W x D x H (inch)</td><td>19.26 x 2.57 x 13.35</td><td>19.26 x 8.68 x 16.46 - 22.37.93</td></tr><tr><td>W x D x H (mm)</td><td>489.3 x 65.3 x 339</td><td>489.3 x 220.4 x 418.2 - 568.2</td></tr><tr><td>Weight (Approx.)</td><td>7.52 lb / 3.41 kg</td><td>14.51 lb / 6.58 kg</td></tr></table>			Dimensions	TIO without stand	TIO with stand	W x D x H (inch)	19.26 x 2.57 x 13.35	19.26 x 8.68 x 16.46 - 22.37.93	W x D x H (mm)	489.3 x 65.3 x 339	489.3 x 220.4 x 418.2 - 568.2	Weight (Approx.)	7.52 lb / 3.41 kg	14.51 lb / 6.58 kg								
Dimensions	TIO without stand	TIO with stand																					
W x D x H (inch)	19.26 x 2.57 x 13.35	19.26 x 8.68 x 16.46 - 22.37.93																					
W x D x H (mm)	489.3 x 65.3 x 339	489.3 x 220.4 x 418.2 - 568.2																					
Weight (Approx.)	7.52 lb / 3.41 kg	14.51 lb / 6.58 kg																					



ThinkCentre Tiny-in-One (TIO) 24 Gen3

Product Specifications Reference (PSREF)

Model	Non-touch model: 10QYPAR1++/10QYPAT1++; Touch model: 10QXPAR1++/10QXPAT1++			Mounting features	Wall or desk mounting using the extend arm or third-party accessories meeting the VESA FPMPI® (100mm mount)																		
Form factor	Tiny-in-One, offers a full All-In-One experience when optional Tiny slots into the back of TIO, clean cabling and effortless setup			Adjustable stand	Tilt: 30° back, -5° forward; lift: 4.3" (110mm); swivel: +/-45°; Pivot: clockwise 0° to 90°																		
Compatible Tiny:	P330 / P320 / M920(x) / M720 / M910(x) / M710 / M900(x) / M700 / M630e / M625 / M600 / M75q / M715 / M93/p* / M83 / M73* / M53 /Chromebox Tiny * Non-TIO models can't be turned on by pressing power button of TIO			Power supply	90 watts AC/DC adapter, 88% PSU, universal																		
Panel	TFT-LCD, IPS (In-Plane Switching) technology**, White LED backlight **Notes: IPS may refer to IPS, PLS, ADS, AHVA, AAS panels			Power consumption	19 watts typical, 32 watts maximum, <0.5 watts standby / suspend																		
Viewable image size	23.8" (604.7mm) diagonal			Limited warranty	3-years, Customer Carry-In or Mail-In via Rapid Replacement Service																		
Max view area (W x H)	20.75" x 11.67" / 527.0mm x 296.5mm			VESA-compliant	VESA DDC2B/CI, VESA DPMS-compliant																		
Bezel Width	Top / Side: 2mm, Bottom: 22.1mm			Ergonomics	ISO 9241-307, TUV Eye Comfort certified																		
Native resolution	1920x1080			Emission standards	FCC Class B																		
Multi-touch	Optional 10-point multi-touch, supports Wake on Touch			Environmental	TCO 7.0, TCO Edge 2.0, WEEE, RoHS, ENERGY STAR® 7.0, EPEAT™ Silver rating, ULE Gold, TUV, VOC																		
Aspect ratio	16:9			Windows certifications	Windows 7 and Windows 10 certified																		
Pixel pitch (mm)	0.2745mm			Ship group	TIO 24 (Monitor), detachable stand, AC/DC power adapter, power cord, user's guide and driver CD, quick start and safety poster																		
Dot/Pixel per Inch	92.6 dpi			Accessories	For compatible accessories, please go to http://www.lenovoquickpick.com																		
Brightness	250 nits or cd/m² (typical)			<table><tr><th colspan="4">ThinkCentre Tiny-in-One 24 Gen3 Compatible list</th></tr><tr><td>Model</td><td>P330 / P320 / M920(x) / M720 / M910(x) / M710 / M900(x) / M700 / M630e / M625 / M600 / M75q / M715 / M83 / M53 Tiny M90n Nano (with TIO kit)</td><td>M93/p Tiny, M73 Tiny</td><td>Chromebox</td></tr><tr><td>Turn on TIO and Tiny together via Alt + P on USB KB</td><td>All models</td><td>All models</td><td>Not support</td></tr><tr><td>Turn on TIO and Tiny together via TIO Power Button</td><td>All models</td><td>TIO models</td><td>All models</td></tr></table>				ThinkCentre Tiny-in-One 24 Gen3 Compatible list				Model	P330 / P320 / M920(x) / M720 / M910(x) / M710 / M900(x) / M700 / M630e / M625 / M600 / M75q / M715 / M83 / M53 Tiny M90n Nano (with TIO kit)	M93/p Tiny, M73 Tiny	Chromebox	Turn on TIO and Tiny together via Alt + P on USB KB	All models	All models	Not support	Turn on TIO and Tiny together via TIO Power Button	All models	TIO models	All models
ThinkCentre Tiny-in-One 24 Gen3 Compatible list																							
Model	P330 / P320 / M920(x) / M720 / M910(x) / M710 / M900(x) / M700 / M630e / M625 / M600 / M75q / M715 / M83 / M53 Tiny M90n Nano (with TIO kit)	M93/p Tiny, M73 Tiny	Chromebox																				
Turn on TIO and Tiny together via Alt + P on USB KB	All models	All models	Not support																				
Turn on TIO and Tiny together via TIO Power Button	All models	TIO models	All models																				
Contrast ratio	1000:1 (typical)																						
Pixel response time	14ms (default), over drive to 4ms, 6ms																						
Color gamut	72%																						
Anti-reflective	Anti-glare																						
Viewing angle at 10:1 CR	178° (+/- 89°) horizontal, 178° (+/- 89°) vertical																						
Preset resolutions	640x350 @ 70Hz 640x480 @ 60Hz, 67Hz, 72Hz, 75Hz 720x400 @ 70Hz 800x600 @ 60Hz, 72Hz, 75Hz 1024x768 @ 60Hz, 70Hz, 75Hz 1152x864 @ 75Hz 1280x800 @ 60Hz 1280x1024 @ 60Hz, 72Hz, 75Hz 1366x768 @ 60Hz 1440x900 @ 60Hz, 75Hz 1600x1200 @ 60Hz, 70Hz, 75Hz 1680x1050 @ 60Hz 1920x1080 @ 60Hz																						
Presets / user settings	Presets: 25; user settings: 25																						
On screen display	On screen display with digital user controls (8 languages)																						
Control features	Ftont: Exit button, Left / Mode-switching button (TIO / monitor mode), Right / Brightness button, Enter / Menu button, Power button Bottom: Volume up button, Volume down button																						
Tiny-in-One Power On	Pressing Alt + P on keyboard or pressing Power button positioned on TIO can turn on both TIO and Tiny (only some Tiny support, see compatible list)																						
Side ports (TIO)	One USB 3.1 Gen1 / USB 2.0 (when M73 or M53 installed or USB 2.0 connected via USB upstream port) Notes: The USB port is only available when a Tiny is installed or a PC is connected via USB upstream port																						
Side ports (Tiny)	Side ports offered by installed Tiny (optional)																						
Rear ports	One DisplayPort in port, one USB upstream port, one power connector																						
3-in-1 Cable	Undetachable 3-in-1 cable (Power connector, USB [supports USB 3.1 Gen1 / USB 2.0], DisplayPort), only for connecting to Tiny installed (optional)																						
Camera	1080p camera with dual microphone for VOIP, LED indicator																						
Internal Speaker	2 watt x2																						
Security	Security keyhole for attachment of optional cable lock (Kensington® lock compatible), locks optional Tiny with TIO together, more security features offered by Tiny installed (optional)																						
Mechanical	<table><tr><td>Dimensions</td><td>TIO without stand</td><td>TIO with stand</td></tr><tr><td>W x D x H (inch)</td><td>21.25 x 2.85 x 14.47</td><td>21.25 x 11.11 x 15.72 - 20.06</td></tr><tr><td>W x D x H (mm)</td><td>539.8 x 72.5 x 367.6</td><td>539.8 x 282.3 x 399.4 - 509.4</td></tr><tr><td>Weight (Approx.)</td><td>7.96 lb /3.61 kg</td><td>12.92 lb /5.86 kg</td></tr></table>			Dimensions	TIO without stand	TIO with stand	W x D x H (inch)	21.25 x 2.85 x 14.47	21.25 x 11.11 x 15.72 - 20.06	W x D x H (mm)	539.8 x 72.5 x 367.6	539.8 x 282.3 x 399.4 - 509.4	Weight (Approx.)	7.96 lb /3.61 kg	12.92 lb /5.86 kg								
Dimensions	TIO without stand	TIO with stand																					
W x D x H (inch)	21.25 x 2.85 x 14.47	21.25 x 11.11 x 15.72 - 20.06																					
W x D x H (mm)	539.8 x 72.5 x 367.6	539.8 x 282.3 x 399.4 - 509.4																					
Weight (Approx.)	7.96 lb /3.61 kg	12.92 lb /5.86 kg																					



ThinkCentre Tiny-In-One 24 Gen 4 Platform Specifications

Product Specifications Reference (PSREF)

Form factor	Tiny-in-One, offers a full All-In-One experience when optional Tiny slots into the back of TIO, clean cabling and effortless setup			Mounting features	Wall or desk mounting using the extend arm or third-party accessories meeting the VESA FPMPI® (100mm mount)		
Compatible Tiny:	P340 / P330 / P320 / M90q / M80q / M70q / M75q / M920(x) / M720 / M910(x) / M710 / M715 / M900(x) / M700 / M630e / M625 / M600 Tiny M90n / M75n Nano (with TIO kit)			Adjustable stand	<i>Tilt:</i> 30° back, -5° forward; <i>lift:</i> 5.9" (150mm); <i>swivel:</i> +/-45°; <i>Pivot:</i> clockwise -5° to 90°		
Panel	TFT-LCD, IPS (In Plane Switching) technology**, White LED backlight **Notes: IPS may refer to IPS, PLS, ADS, AHVA, AAS panels 23.8" (604.7mm) diagonal			Power supply	90 watts AC/DC adapter, 88% PSU, universal		
Viewable image size	20.75" x 11.67" / 527.0mm x 296.5mm			Power consumption	27 watts max, 15 watts typical, <0.5 watts standby / suspend		
Max view area (W x H)	Top / Side: 2mm, Bottom: 22.1mm			Limited warranty	3-years , Carry-In or Courier service		
Bezel Width	1920x1080 @60Hz			Environmental	TCO 8.0, TCO edge 2.0, ENERGY STAR® 8.0, EPEAT™ Silver rating, UL GREENGUARD Certified, Erp lot5, WEEE, RoHS, TUV Eye comfort		
Native resolution	Optional 10-point multi-touch, AIT technology			Windows certifications	Windows 7 and Windows 10 certified		
Presets / user settings	16:9			Ship group	TIO (Monitor), detachable stand, power adapter, power cord, information flyer, user's guide, and driver CD		
Multi-touch	0.2745mm			Accessories	For compatible accessories, please go to http://smartfind.lenovo.com		
Aspect ratio	92.6 dpi						
Pixel pitch (mm)	250 nits or cd/m² (typical)						
Dot/Pixel per Inch	1000:1 (typical)						
Brightness	14ms (default), over drive to 4ms, 6ms						
Contrast ratio	72% NTSC (CIE 1931)						
Pixel response time	Anti-glare						
Color gamut	Viewing angle at 10:1 CR 178° (+/- 89°) horizontal, 178° (+/- 89°) vertical						
Anti-reflective	On screen display with digital user controls (8 languages)						
Viewing angle at 10:1 CR	Control features						
On screen display	<i>Font:</i> Exit button, Up / Mode-switching button (TIO / monitor mode, switches the sources of both display and side USB port), Down / Brightness button, Enter / Menu button, Power button						
Control features	<i>Bottom:</i> Volume up button, Volume down button						
TIO Power On features	Pressing Alt + P (on keyboard) or Power button (on TIO) can turn on both TIO and Tiny (Some old Tiny cannot fully support, see compatible list)						
Side ports (on TIO)	One USB Type A port (The availability and version depends on the Tiny installed or the PC connected via USB upstream port)						
Side ports (on Tiny)	Side ports offered by installed Tiny (front ports)						
Rear ports	One DisplayPort in port, one USB upstream port, one power connector						
3-in-1 Cable	Undetachable 3-in-1 cable (Power connector, USB [supports USB 3.1 Gen1 / USB 2.0], DisplayPort), only for connecting to Tiny installed (optional)						
Camera	<i>Some:</i> 1080p camera with dual microphone and Think Shutter						
Internal Speaker	<i>Some:</i> RGBIR camera with dual microphone, support Think Shutter						
Security	2 watt x2						
Security	Security keyhole for attachment of optional cable lock (Kensington® lock compatible), locks optional Tiny with TIO together, more security features offered by Tiny installed (optional)						
Mechanical							
	Dimensions	TIO without stand	TIO with stand				
	W x D x H (inch)	21.25 x 2.57 x 14.47	21.25 x 9.07 x 17.59 - 23.5				
	W x D x H (mm)	539.8 x 65.3 x 367.6	539.8 x 230.4 x 446.9 - 596.9				
	Weight (Approx.)	7.96 lb /3.61 kg	12.92 lb /6.66 kg				

ThinkCentre Tiny-In-One 24 Gen 4 Compatible list			
Model	P340 / P330 / P320 M90q / M80q / M70q / M75q / M920(x) / M720 / M910(x) / M710 / M715 / M900(x) / M700 / M630e / M625 / M600 Tiny M90n / M75n (with TIO kit)	M93/p / M83 / M73 / M53 Tiny	Chromebox
Turn on TIO and Tiny together via Alt + P on USB KB	All models	All models	Not support
Turn on TIO and Tiny together via TIO Power Button	All models	Not support	All models

Lenovo, May 2020



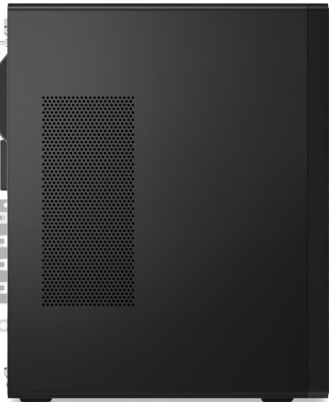
ThinkCentre Tiny-in-One (TIO) 27

Product Specifications Reference (PSREF)

Form factor	Tiny-in-One, offers a full All-In-One experience when optional Tiny slots into the back of TIO, clean cabling and effortless setup	Mechanical		TIO without stand	TIO with stand
Compatible Tiny:	ThinkCentre Tiny, ThinkCentre Nano, and ThinkStation Tiny		Dimensions (W x D x H mm / inch)	614.0 x 73.89 x 413.1 / 24.17 x 2.91 x 16.26	614.0 x 329.0 x 444.25 - 554.25 / 24.17 x 12.95 x 17.49 - 21.82
Panel	TFT-LCD, IPS (In-Plane Switching) technology**, White LED backlight **Notes: IPS may refer to IPS, PLS, ADS, AHVA, AAS panels		Weight (Approx.)	4.91 kg / 10.82 lb	7.95 kg / 17.53 lb
Viewable image size	27" (685.8mm) diagonal	Mounting features	Wall or desk mounting using the extend arm or third-party accessories meeting the VESA FPMPI® (100mm mount) <i>Tilt:</i> 35° back, -5° forward; <i>lift:</i> 4.3" (110mm); <i>swivel:</i> +/-45°; <i>Pivot:</i> clockwise -5° to 90°		
Max view area (W x H)	23.49" x 13.22" / 596.7mm x 335.7mm				
Bezel Width	Top / Side: 2mm, Bottom: 23.3mm	Adjustable stand			
Native resolution	2560x1440	Power supply	170 watts adapter, 88% PSU, universal		
Multi-touch	None	Power consumption	37 watts typical, 57 watts maximum, <0.5 watts standby / suspend		
Aspect ratio	16:9	Limited warranty	3-years , Product Exchange Service (US and EMEA) or Customer Carry-In Service (EMEA)		
Pixel pitch (mm)	0.2331mm	VESA-compliant	VESA DDC/CI, VESA DPMS-compliant		
Dot/Pixel per Inch	109 dpi	Ergonomics	ISO 9241-307, TUV Eye Comfort certified		
Brightness	350 nits or cd/m² (typical)	Emission standards	FCC Class B		
Contrast ratio	1000:1 (typical)	Environmental	TCO 8.0, TCO Edge 2.0, WEEE, RoHS, ENERGY STAR® 7.0, EPEAT™ Silver rating, ULE Gold, TUV, VOC		
Pixel response time	14ms (default), over drive to 4ms, 6ms	Windows certifications	Windows 7 and Windows 10 certified		
Color gamut	99% sRGB	Ship group	TIO 27 (Monitor), detachable stand, power adapter, power cord, reference and driver CD		
Anti-glare	Yes (25%)	Accessories	For compatible accessories, please go to http://smartfind.lenovo.com		
Viewing angle at 10:1 CR	178° (+/- 89°) horizontal, 178° (+/- 89°) vertical				
Preset resolutions	640x350 @ 70Hz 640x480 @ 60Hz, 66Hz, 72Hz, 75Hz 720x400 @ 70Hz 800x600 @ 60Hz, 72Hz, 75Hz 1024x768 @ 60Hz, 70Hz, 75Hz 1152x864 @ 75Hz 1280x768 @ 60Hz 1280x800 @ 60Hz 1280x1024 @ 60Hz, 72Hz, 75Hz 1366x768 @ 60Hz 1440x900 @ 60Hz, 75Hz 1600x1200 @ 60Hz, 70Hz, 75Hz 1680x1050 @ 60Hz 1920x1080 @ 60Hz 2560x1440 @ 60Hz				
Presets / user settings	Presets: 27; user settings: 25				
On screen display	On screen display with digital user controls (8 languages)				
Control features	Font: Exit button, Left / Mode-switching button (TIO / monitor mode), Right / Brightness button, Enter / Menu button, Power button Bottom: Volume up button, Volume down button				
Tiny-in-One Power On	Pressing Alt + P on keyboard or pressing Power button positioned on TIO can turn on both TIO and Tiny (only some support, see Compatible Matrix)				
Side ports (TIO)	Two USB 3.1 Gen1 (downgrade to USB 2.0 when installing M73 or M53 or connecting USB 2.0 via USB upstream port), one headphone / microphone combo jack Notes: The USB ports are enabled by installing a Tiny or connecting USB upstream port; the audio port is enabled by installing a Tiny or connecting USB upstream, DisplayPort(in), or HDMI(in) port				
Side ports (Tiny)	Side ports offered by the installed Tiny (optional)				
Rear ports	One DisplayPort(in) port, one HDMI(in) port, one USB (Type-B) upstream port, one power connector				
3-in-1 Cable	Undetachable 3-in-1 cable, connecting to the power connector, one USB, and one DisplayPort of the installed Tiny (optional)				
Camera	RGBIR camera with dual microphone, supports Window Hello and Facial Recognition, Think Shutter for Privacy Security, LED indicator				
Internal Speaker	2 watt x2				
Security	Security keyhole for attachment of optional cable lock (Kensington® lock compatible), locks optional Tiny with TIO together, more security features offered by Tiny installed (optional)				

ThinkCentre Tiny-in-One 27 Compatible Matrix			
Model	P330 / P320 / M920(x) / M720 / M910(x) / M710 / M900(x) / M700 / M630e / M625 / M600 / M75q / M715 / M83 / M53 Tiny M90n Nano (with TIO kit)	M93/p Tiny, M73 Tiny	Chromebox
Turn on TIO and Tiny together via Alt + P on USB KB	All models	All models	Not support
Turn on TIO and Tiny together via TIO Power Button	All models	TIO models	All models

ThinkCentre Tiny-in-One 27 Compatible Matrix			
Model	P330 / P320 / M920(x) / M720 / M910(x) / M710 / M900(x) / M700 / M630e / M625 / M600 / M75q / M715 / M83 / M53 Tiny M90n Nano (with TIO kit)	M93/p Tiny, M73 Tiny	Chromebox
Turn on TIO and Tiny together via Alt + P on USB KB	All models	All models	Not support
Turn on TIO and Tiny together via TIO Power Button	All models	TIO models	All models



ThinkCentre M70t Platform Specifications

Product Specifications Reference (PSREF)

Processor	Intel® Celeron®, Intel Pentium®, or 10th Gen Intel Core™ i3 / i5 / i7 / i9 Processor						Audio support	High Definition (HD) Audio, Realtek ALC623-CG / internal speaker (2 watt)	
	Processor	Cores / Threads	Frequency Base/Max(GHz)	Cache	Memory Support (Up to)	Integrated Graphics	WLAN	<i>Some:</i> 11ac wireless, M.2 Card, Realtek RTL8822CE (dual band), Wi-Fi + Bluetooth 5.0 combo adapter, 2x2 <i>Some:</i> 11ac wireless, M.2 Card, Intel Wireless-AC 9462 (dual band), Wi-Fi + Bluetooth 5.0 combo adapter, 1x1 (special bid only) <i>Some:</i> 11ac wireless, M.2 Card, Intel Wireless-AC 9560 (dual band), Wi-Fi + Bluetooth 5.0 combo adapter, 2x2 <i>Some:</i> 11ax wireless, M.2 Card, Intel Wi-Fi 6 AX201 (dual band), Wi-Fi + Bluetooth 5.1 combo adapter, 2x2	
	Celeron G5900	2 / 2	3.4G	2 MB	DDR4-2666	UHD 610	Bluetooth™ Ethernet Ethernet (Opt.)	<i>Some:</i> Bluetooth 5.0/5.1 wireless, integrated in Wi-Fi + BT combo adapter Gigabit ethernet, Intel Ethernet Connection I219-V(Jacksonville), Wake on LAN® <i>Some:</i> Intel Ethernet Server Adapter I350-T4, gigabit ethernet, 4x RJ-45, PCIe x4 <i>Some:</i> Bitland BN8E88, gigabit ethernet, 1x RJ-45, PCIe x1	
	Celeron G5920	2 / 2	3.5G	2 MB	DDR4-2666	UHD 610			
	Pentium Gold G6400	2 / 4	4.0G	4 MB	DDR4-2666	UHD 610			
	Pentium Gold G6500	2 / 4	4.1G	4 MB	DDR4-2666	UHD 630			
	Pentium Gold G6600	2 / 4	4.2G	4 MB	DDR4-2666	UHD 630			
	Core i3-10100	4 / 8	3.6G / 4.3G	6 MB	DDR4-2666	UHD 630			
	Core i3-10300	4 / 8	3.7G / 4.4G	8 MB	DDR4-2666	UHD 630			
	Core i3-10320	4 / 8	3.8G / 4.6G	8 MB	DDR4-2666	UHD 630			
	Core i5-10400F	6 / 12	2.9G / 4.3G	12 MB	DDR4-2666	None			
	Core i5-10400	6 / 12	2.9G / 4.3G	12 MB	DDR4-2666	UHD 630			
	Core i5-10500	6 / 12	3.1G / 4.5G	12 MB	DDR4-2666	UHD 630			
	Core i5-10600	6 / 12	3.3G / 4.8G	12 MB	DDR4-2666	UHD 630			
	Core i7-10700F	8 / 16	2.9G / 4.8G	16 MB	DDR4-2933	None			
	Core i7-10700	8 / 16	2.9G / 4.8G	16 MB	DDR4-2933	UHD 630			
	Core i9-10900F	10 / 20	2.8G / 5.2G	20 MB	DDR4-2933	None			
	Core i9-10900	10 / 20	2.8G / 5.2G	20 MB	DDR4-2933	UHD 630			
	* Max frequency may refer to Intel Turbo Boost Technology 2.0 / Intel Turbo Boost Max Technology 3.0 / Intel Thermal Velocity Boost, and adopt the max one of them						Manageability	None	
							Security chip	Discrete TPM 2.0, TCG Certified	
							Security features	- Security slot (for Kensington® lock) - Padlock loop - Optional Smart Cable Clip to physically lock keyboard and mouse - Optional chassis intrusion switch - Optional chassis E-Lock - Power-on password - Administrator password - Hard disk password - Boot sequence control - Boot without keyboard and mouse - Individual USB port disablement - Smart USB protection, allows keyboard/mouse only, blocks all storage devices	
Memory	128GB max, DDR4-2666 / DDR4-2933*, four 288-pin DIMM sockets, dual-channel capable * Memory module is DDR4-2933, but clocks down for the limitation of processors						Keyboard	<i>Some:</i> Lenovo Calliope Keyboard (USB connector), black <i>Some:</i> Lenovo Traditional Keyboard (USB connector), black <i>Some:</i> Lenovo Calliope Wireless Keyboard (2.4GHz via USB receiver), black	
Storage	Support up to 2x HDD ([2.5" + 3.5"] or [dual 2.5"]) and up to 1x M2.SSD <i>Some:</i> Hard Drive / SATA 6.0Gb/s, 2.5" or 3.5", 7200 rpm <i>Some:</i> M.2 SSD (2242 / 2280) / PCIe NVMe, PCIe 3.0 x2 or PCIe 3.0 x4 <i>Some:</i> Intel Optane™ Memory M10, M.2 2280, PCIe 3.0 x2 <i>Some:</i> DVD-ROM, SATA 1.5Gb/s Drive, slim (9.0mm) <i>Some:</i> DVD Burner (DVD±RW), SATA 1.5Gb/s Drive, slim (9.0mm)						Mouse	<i>Some:</i> Lenovo Calliope Mouse (USB connector), black <i>Some:</i> Lenovo Fingerprint Mouse (USB connector), Windows Hello support, black <i>Some:</i> Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black	
Optical	Four onboard SATA 6.0Gb/s connectors Optional 3-in-1 media reader (support SD, SDHC, and SDXC)						Mechanical	- Tower (13.6L), black color, metal case - Dimensins with bezel & PCI holder & rubber foot: (WxDxH) 5.7" X 11.7" X 13.6; 145mm X 296mm X 346mm - Weight (approx.): 10.6 lb (4.8 kg), weight may vary by configuration	
Onboard SATA							Bays	Bay 1: Slim ODD bay Bay 2: 3.5" HDD bay Bay 3: 2.5" HDD bay (optional bay, or bay comes with disk)	
Media reader							Slots	Slot 1: full-height (length < 215mm), PCIe 3.0 x16 Slot 2: full-height (length < 215mm), PCIe 3.0 x1 Slot 3: no slot, only bracket for optional port extension Slot 4: no slot, only bracket for optional port extension M.2 card slots: Two (one for WLAN, one for SSD/Optane)	
Graphics	Intel UHD Graphics 610/630 in some processors, uses main memory, DirectX® 12, two DisplayPort™, one HDMI, supports up to 3 independent displays, more displays support via discrete graphics Max resolution: 4096x2304 (DP)@60Hz; 1920x1080 (HDMI)@60Hz <i>Some:</i> AMD Radeon™ 520 , DirectX 12, 2GB GDDR5, PCIe 3.0 x8, 30 watts, two DisplayPort (up to 4096x2160@60Hz) <i>Some:</i> AMD Radeon RX 550X , DirectX 12, 4GB GDDR5, PCIe 3.0 x8, 50 watts, one DisplayPort (up to 3840x2160@60Hz), one HDMI (up to 4096x2160@60Hz), one VGA (up to 2048*1536@85Hz), occupies two slots						EOU design	None	
Monitor Cable	Optional DP to VGA dongle, DP to DVI-D dongle, DP to dual DP dongle (for Collage Display with intel integrated graphics), or DP to HDMI 1.4 dongle						Power supply	<i>Some:</i> 180 watts, autosensing, 85% PSU <i>Some:</i> 260 watts, autosensing, 85% PSU <i>Some:</i> 310 watts, autosensing, 92% PSU <i>Some:</i> 380 watts, autosensing, 92% PSU * Discrete graphics card / 10-core processors need > 180w power supply	
Chipset	Intel H470 Chipset						Limited warranty	<i>Some:</i> 1-year, depot service / service upgrades available <i>Some:</i> 1-year or 3-year, limited onsite service / service upgrades available	
Front ports* (Std.)	2x USB 3.2 Gen 2, 2x USB 3.2 Gen 1, 1x USB 3.2 Type-C Gen 1 (15W charging), 1x microphone (3.5mm), 1x headphone / microphone combo jack (3.5mm)						Preload	<i>Some:</i> Windows® 10 Pro 64-bit <i>Some:</i> Windows 10 Home 64-bit <i>Some:</i> Windows 10 IoT Enterprise (only available via special bid model)	
Front ports* (Opt.)	<i>Optional:</i> 3-in-1 media reader						Environment	ENERGY STAR® 8.0*, EPEAT™ Gold / Silver rating (on some models), ErP Lot 3, TCO 8.0, TUV low noise / ultra low noise verified (on some models), RoHS * Only available for MT 11D9/11DA	
Rear ports* (Std.)	4x USB 2.0, 1x serial (9-pin), 1x ethernet (RJ-45), 2x DisplayPort**, 1x HDMI**, 1x line-out (3.5mm)						Accessories	For compatible accessories, please go to http://smartfind.lenovo.com	
Rear ports* (Opt.)	<i>Optional:</i> 2x USB 3.2 Gen 1 via PCIe x1, 2x USB 3.2 Type-C Gen 2 via PCIe x4, 1x 2nd serial (9-pin), 4x serial (9-pin) via PCIe x1, 1x parallel (25-pin), 2x PS/2 ports (keyboard/mouse), additional RJ-45 and video ports available on optional graphics or ethernet card * Depending on many factors, actual data transfer speed may be lower than theoretical speed ** Only available for the models with integrated graphics								

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

Lenovo, May 2020



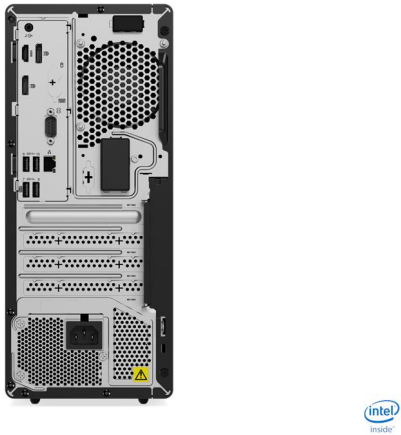
ThinkCentre M720 Tower Platform Specifications

Product Specifications Reference (PSREF)

Processor	Intel® Celeron®, Intel Pentium®, or 8th / 9th Gen Intel Core™ i3 / i5 / i7 / i9 Processor						Audio support	High Definition (HD) Audio, Realtek ALC233VB2 / internal speaker (2 watt)	
	Processor	Cores / Threads	Frequency Base/Max(GHz)	Cache	Memory Support (Up to)	Integrated Graphics	WLAN ¹³	<i>Some:</i> 11ac Wi-Fi + BT 4.2, M.2 Card, Realtek RTL8821CE (dual band), 1x1 <i>Some:</i> 11ac Wi-Fi + BT 4.2, M.2 Card, Realtek RTL8822BE (dual band), 2x2 <i>Some:</i> 11ac Wi-Fi + BT 4.2, M.2 Card, Intel Dual Band Wireless-AC 3165, 1x1 <i>Some:</i> 11ac Wi-Fi + BT 4.2, M.2 Card, Intel Dual Band Wireless-AC 8265, 2x2 <i>Some:</i> Bluetooth 4.2 wireless, integrated in Wi-Fi + BT combo adapter	
	Celeron G4900	2 / 2	3.1G	2 MB	DDR4-2400	UHD 610	Bluetooth™		
	Celeron G4920	2 / 2	3.2G	2 MB	DDR4-2400	UHD 610			
	Pentium Gold G5400	2 / 4	3.7G	4 MB	DDR4-2400	UHD 610	Ethernet Ethernet (Opt.)	Gigabit ethernet, Intel Ethernet Connection I219-V (Jacksonville), Wake on LAN®	
	Pentium Gold G5500	2 / 4	3.8G	4 MB	DDR4-2400	UHD 630		<i>Some:</i> Intel Ethernet Server Adapter I350-T4*, gigabit ethernet, 4x RJ-45, PCIe x4 <i>Some:</i> Bitland BN8E88*, gigabit ethernet, 1x RJ-45, PCIe x1 (special bid only) * Choose either I350-T4 or BN8E88	
	Pentium Gold G5600	2 / 4	3.9G	4 MB	DDR4-2400	UHD 630	Manageability	None	
	Core i3-8100	4 / 4	3.6G	6 MB	DDR4-2400	UHD 630		Security chip	Discrete TPM 2.0, TCG Certified
	Core i3-8300	4 / 4	3.7G	8 MB	DDR4-2400	UHD 630	Security features		- Security slot (in rear for optional Kensington® MicroSaver® cable) - Padlock loop - Optional cable lock to physically lock both keyboard and mouse - Optional chassis intrusion switch - Optional chassis E-Lock (special bid) - Power-on password - Administrator password - Hard disk password - Boot sequence control - Boot without keyboard and mouse - Individual USB port disablement - Smart USB protection, allows keyboard/ mouse only, blocks all storage devices
	Core i5-8400	6 / 6	2.8G / 4.0G	9 MB	DDR4-2666	UHD 630		Keyboard	<i>Some:</i> Lenovo Calliope Keyboard (USB connector), black <i>Some:</i> Lenovo Traditional Keyboard (USB connector), black <i>Some:</i> Lenovo Calliope Wireless Keyboard (2.4GHz via USB receiver), black <i>Some:</i> Lenovo Keyboard (PS/2 connector), black (only available via special bid)
	Core i5-8500	6 / 6	3.0G / 4.1G	9 MB	DDR4-2666	UHD 630	Mouse		<i>Some:</i> Lenovo Calliope Mouse (USB connector), black <i>Some:</i> Lenovo Fingerprint Mouse (USB connector), Windows Hello support, black <i>Some:</i> Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black <i>Some:</i> Lenovo Mouse (PS/2 connector), black (only available via special bid)
	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 i3-9320	4 / 4	3.7G / 4.4G	8 MB	DDR4-2400	UHD 630			
	Core i5-9400	6 / 6	2.9G / 4.1G	9 MB	DDR4-2666	UHD 630			
	Core i5-9400F	6 / 6	2.9G / 4.1G	9 MB	DDR4-2666	None			
	Core i5-9500	6 / 6	3.0G / 4.4G	9 MB	DDR4-2666	UHD 630			
	Core i5-9500F	6 / 6	3.0G / 4.4G	9 MB	DDR4-2666	None			
	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	64GB max, UDIMM, DDR4-2666*, four 288-pin DIMM sockets, non-ECC, dual-channel capable * System automatically clocks down for the processors with lower memory controller							Mechanical	- Tower (15L), black color, metal case (WxDxH) 5.91" X 10.65" X 14.17"; 150mm X 270.5mm X 360mm - Approx. 15.21 lb (6.9 kg), weight may vary by configuration - Optional dust filter - Bay 1: Slim external ODD bay - Bay 2: 3.5", 1" high, internal, HDD/SSD - Bay 3: 3.5", 1" high, internal, HDD/SSD (optional bay) - Slot 1: half-length full-height (length < 189mm, height < 104mm), PCIe 3.0 x16 - Slot 2: half-length full-height (length < 189mm, height < 104mm), PCIe 3.0 x1 - Slot 3: half-length full-height (length < 189mm, height < 104mm), PCIe 3.0 x1 - Slot 4: no slot, only bracket for optional port extension - M.2 card slots: Two (one for WLAN, one for SSD/Optane)
Storage	<i>Some:</i> Hard Drive / SATA 6.0Gb/s, 2.5" or 3.5", 5400 rpm or 7200 rpm <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" <i>Some:</i> M.2 SSD (2242 / 2280) / PCIe NVMe, PCIe 3.0 x2 or PCIe 3.0 x4 <i>Some:</i> Intel Optane™ Memory (not support Celeron / Pentium Processor), M.2 <i>Some:</i> DVD-ROM SATA 1.5Gb/s Drive, slim (9.0mm) <i>Some:</i> DVD Burner (DVD±RW), SATA 1.5Gb/s Drive, slim (9.0mm)						Power supply	<i>Some:</i> 180 watts, autosensing, 85% PSU <i>Some:</i> 210 watts, autosensing, 85% PSU <i>Some:</i> 260 watts, autosensing, 92% PSU (only available via special bid)	
Optical	Three onboard SATA 6.0Gb/s connectors Optional 7-in-1 media reader						Limited warranty ³	<i>Some:</i> 1-year or 3-year, depot service / service upgrades available <i>Some:</i> 1-year or 3-year, limited onsite service / service upgrades available	
Onboard SATA Media reader							Preload	Preloaded operating system <i>Some:</i> Windows® 10 Pro 64-bit <i>Some:</i> 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	
Graphics	Intel UHD Graphics 610/630 in some processors, uses main memory, DirectX® 12, one VGA (up to 2048x1536@50Hz), two DisplayPort™ (up to 4096x2304@60Hz), supports 3 independent displays, more displays support via discrete graphics <i>Some:</i> NVIDIA GeForce® GT 730 (End Of Life), DirectX 12, 2GB, PCIe 2.0 x16, 35 watts, two DisplayPort (up to 3840x2160@60Hz) <i>Some:</i> AMD Radeon™ 520 , DirectX 12, 2GB GDDR5, PCIe 3.0 x8, 30 watts, two DisplayPort (up to 4096x2160@60Hz) <i>Some:</i> AMD Radeon RX 550X , DirectX 12, 4GB GDDR5, PCIe 3.0 x8, 50 watts, one DisplayPort (up to 3840x2160@60Hz), one HDMI (up to 4096x2160@60Hz), one VGA (up to 2048x1536@85Hz)						Environment	ENERGY STAR® 7.0, EPEAT™ Silver rating (North America), ErP Lot 3, TCO, TUV low noise verified (coming soon, on some models), RoHS-compliant	
Monitor Cable	Optional DP to VGA dongle, DP to DVI-D dongle, DP to dual DP dongle (for Collage Display with intel integrated graphics), or DP to HDMI 1.4 dongle						Accessories	For compatible accessories, please go to http://smartfind.lenovo.com	
Chipset	Intel B360 Chipset								
Front ports* (Std.)	2x USB 3.1 Gen2, 2x USB 3.1 Gen1, 1x USB 3.1 Type-C Gen1 (15W charging), 1x microphone (3.5mm), 1x headphone / microphone combo jack (3.5mm)								
Front ports* (Opt.)	<i>Optional:</i> 1x media reader								
Rear ports* (Std.)	4x USB 2.0, 1x serial (9-pin), 1x ethernet (RJ-45), 1x VGA, 2x DisplayPort, 1x line-out (3.5mm)								
Rear ports* (Opt.)	<i>Optional:</i> 2x USB 3.1 Gen1 via PCIe x1**, 2x USB 3.1 Type-C Gen2 via PCIe x4** (special bid only), 1x 2nd serial (9-pin), 4x serial (9-pin) via PCIe x1, 1x parallel (25-pin), 2x PS/2 ports (keyboard/mouse), additional RJ-45 and video ports available on optional graphics or ethernet card								
	* Depending on many factors, actual data transfer speed may be lower than theoretical speed								
	** Choose either 2x USB 3.1 Gen1 or 2x USB 3.1 Type-C Gen2								

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

Lenovo, April 2020



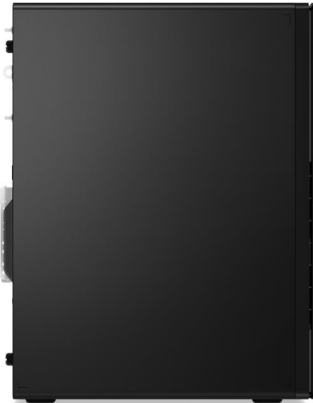
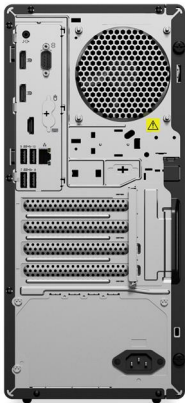
ThinkCentre M80t Platform Specifications

Product Specifications Reference (PSREF)

Processor	Intel® Celeron®, Intel Pentium®, or 10th Gen Intel Core™ i3 / i5 / i7 / i9 Processor						Audio support	High Definition (HD) Audio, Realtek ALC623-CG / internal speaker (2 watt)		
	Processor	Cores / Threads	Frequency Base/Max(GHz)	Cache	Memory Support (Up to)	Integrated Graphics	WLAN	<i>Some:</i> 11ac wireless, M.2 Card, Realtek RTL8822CE (dual band), Wi-Fi + Bluetooth 5.0 combo adapter, 2x2 <i>Some:</i> 11ac wireless, M.2 Card, Intel Wireless-AC 9560 (dual band), Wi-Fi + Bluetooth 5.0 combo adapter, 2x2 <i>Some:</i> 11ax wireless, M.2 Card, Intel Wi-Fi 6 AX201 (dual band), Wi-Fi + Bluetooth 5.1 combo adapter, Intel vPro technology support, 2x2		
	Celeron G5900	2 / 2	3.4G	2 MB	DDR4-2666	UHD 610	Bluetooth™ Ethernet (Opt.)	<i>Some:</i> Bluetooth 5.0/5.1 wireless, integrated in Wi-Fi + BT combo adapter Gigabit ethernet, Intel Ethernet Connection i219-LM(Jacksonville), Wake on LAN® <i>Some:</i> Intel Ethernet Server Adapter I350-T4, gigabit ethernet, 4x RJ-45, PCIe x4 <i>Some:</i> Bitland BN8E88, gigabit ethernet, 1x RJ-45, PCIe x1		
	Celeron G5920	2 / 2	3.5G	2 MB	DDR4-2666	UHD 610				
	Pentium Gold G6400	2 / 4	4.0G	4 MB	DDR4-2666	UHD 610				
	Pentium Gold G6500	2 / 4	4.1G	4 MB	DDR4-2666	UHD 630	Manageability	Intel Active Management Technology 14 (Intel AMT 14); Intel vPro technology on some models (require choosing a vPro-support Wi-Fi adapter to enable vPro function through wireless connection)		
	Pentium Gold G6600	2 / 4	4.2G	4 MB	DDR4-2666	UHD 630		Discrete TPM 2.0, TCG Certified		
	Core i3-10100	4 / 8	3.6G / 4.3G	6 MB	DDR4-2666	UHD 630				
	Core i3-10300	4 / 8	3.7G / 4.4G	8 MB	DDR4-2666	UHD 630				
	Core i3-10320	4 / 8	3.8G / 4.6G	8 MB	DDR4-2666	UHD 630				
	Core i5-10400F	6 / 12	2.9G / 4.3G	12 MB	DDR4-2666	None				
	Core i5-10400	6 / 12	2.9G / 4.3G	12 MB	DDR4-2666	UHD 630				
	Core i5-10500	6 / 12	3.1G / 4.5G	12 MB	DDR4-2666	UHD 630				
	Core i5-10600	6 / 12	3.3G / 4.8G	12 MB	DDR4-2666	UHD 630				
	Core i7-10700F	8 / 16	2.9G / 4.8G	16 MB	DDR4-2933	None				
	Core i7-10700	8 / 16	2.9G / 4.8G	16 MB	DDR4-2933	UHD 630				
	Core i9-10900F	10 / 20	2.8G / 5.2G	20 MB	DDR4-2933	None				
	Core i9-10900	10 / 20	2.8G / 5.2G	20 MB	DDR4-2933	UHD 630				
	* Max frequency may refer to Intel Turbo Boost Technology 2.0 / Intel Turbo Boost Max Technology 3.0 / Intel Thermal Velocity Boost, and adopt the max one of them									
Memory	128GB max, DDR4-2666 / DDR4-2933*, four 288-pin DIMM sockets, dual-channel capable * Memory module is DDR4-2933, but clocks down for the limitation of processors							Keyboard	<i>Some:</i> Lenovo Calliope Keyboard (USB connector), black <i>Some:</i> Lenovo Traditional Keyboard (USB connector), black <i>Some:</i> Lenovo Calliope Wireless Keyboard (2.4GHz via USB receiver), black	
Storage	Support up to 2x HDD ([2.5" + 3.5"] or [dual 2.5"]) and up to 1x M2.SSD, RAID 0/1 support for HDD (RAID preset only available via special bid) <i>Some:</i> Hard Drive / SATA 6.0Gb/s, 2.5" or 3.5", 7200 rpm <i>Some:</i> M.2 SSD (2242 / 2280) / PCIe NVMe, PCIe 3.0 x2 or PCIe 3.0 x4 <i>Some:</i> Intel Optane™ Memory M10, M.2 2280, PCIe 3.0 x2 <i>Some:</i> DVD-ROM, SATA 1.5Gb/s Drive, slim (9.0mm) <i>Some:</i> DVD Burner (DVD±RW), SATA 1.5Gb/s Drive, slim (9.0mm)							Mouse	<i>Some:</i> Lenovo Calliope Mouse (USB connector), black <i>Some:</i> Lenovo Fingerprint Mouse (USB connector), Windows Hello support, black <i>Some:</i> Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black	
Optical	Four onboard SATA 6.0Gb/s connectors Optional 3-in-1 media reader (support SD, SDHC, and SDXC)						Mechanical	• Tower (13.6L), black color, metal case • Dimensions with bezel & PCI holder & rubber foot: (WxDxH) 5.7" X 11.7" X 13.6; 145mm X 296mm X 346mm • Weight (approx.): 10.6 lb (4.8 kg), weight may vary by configuration		
Onboard SATA							Bays	Bay 1: Slim ODD bay Bay 2: 3.5" HDD bay Bay 3: 2.5" HDD bay (optional bay, or bay comes with disk)		
Media reader							Slots	Slot 1: full-height (length < 215mm), PCIe 3.0 x16 Slot 2: full-height (length < 215mm), PCIe 3.0 x1 Slot 3: full-height (length < 215mm), PCIe 3.0 x4 Slot 4: no slot, only bracket for optional port extension M.2 card slots: Two (one for WLAN, one for SSD/Optane)		
Graphics	Intel UHD Graphics 610/630 in some processors, uses main memory, DirectX® 12, two DisplayPort™, one HDMI, supports up to 3 independent displays, more displays support via discrete graphics Max resolution: 4096x2304 (DP)@60Hz; 1920x1080 (HDMI)@60Hz <i>Some:</i> AMD Radeon™ 520 , DirectX 12, 2GB GDDR5, PCIe 3.0 x8, 30 watts, two DisplayPort (up to 4096x2160@60Hz) <i>Some:</i> AMD Radeon RX 550X , DirectX 12, 4GB GDDR5, PCIe 3.0 x8, 50 watts, one DisplayPort (up to 3840x2160@60Hz), one HDMI (up to 4096x2160@60Hz), one VGA (up to 2048*1536@85Hz), occupies two slots						EOU design	None		
Monitor Cable	Optional DP to VGA dongle, DP to DVI-D dongle, DP to dual DP dongle (for Collage Display with intel integrated graphics), or DP to HDMI 1.4 dongle						Power supply	<i>Some:</i> 180 watts, autosensing, 85% PSU <i>Some:</i> 260 watts, autosensing, 85% PSU <i>Some:</i> 310 watts, autosensing, 92% PSU <i>Some:</i> 380 watts, autosensing, 92% PSU * Discrete graphics card / 10-core processors need > 180w power supply		
Chipset	Intel Q470 Chipset						Limited warranty	<i>Some:</i> 1-year, depot service / service upgrades available <i>Some:</i> 1-year or 3-year, limited onsite service / service upgrades available		
Front ports* (Std.)	2x USB 3.2 Gen 2, 2x USB 3.2 Gen 1, 1x USB 3.2 Type-C Gen 1 (15W charging), 1x microphone (3.5mm), 1x headphone / microphone combo jack (3.5mm)						Preload	<i>Some:</i> Windows® 10 Pro 64-bit <i>Some:</i> Windows 10 Home 64-bit <i>Some:</i> Windows 10 IoT Enterprise (only available via special bid model)		
Front ports* (Opt.)	<i>Optional:</i> 3-in-1 media reader						Environment	ENERGY STAR® 8.0*, EPEAT™ Gold / Silver rating (on some models), ErP Lot 3, TCO 8.0, TUV low noise / ultra low noise verified (on some models), RoHS * Only available for MT 11CS/11CT		
Rear ports* (Std.)	4x USB 3.2 Gen 1, 1x serial (9-pin), 1x ethernet (RJ-45), 2x DP**, 1x HDMI**						Accessories	For compatible accessories, please go to http://smartfind.lenovo.com		
Rear ports* (Opt.)	1x line-out (3.5mm) <i>Optional:</i> 2x USB 2.0, 2x USB 3.2 Gen 1 via PCIe x1, 2x USB 3.2 Type-C Gen 2 via PCIe x4, 1x 2nd serial (9-pin), 4x serial (9-pin) via PCIe x1, 1x parallel (25-pin), 2x PS/2 ports (keyboard/mouse), additional RJ-45 and video ports available on optional graphics or ethernet card * Depending on many factors, actual data transfer speed may be lower than theoretical speed ** Only available for the models with integrated graphics									

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

Lenovo, May 2020



ThinkCentre M90t Platform Specifications

Product Specifications Reference (PSREF)

Processor	Intel® Celeron®, Intel Pentium®, or 10th Gen Intel Core™ i3 / i5 / i7 / i9 Processor						1x parallel (25-pin), 2x PS/2 ports (keyboard/mouse), additional RJ-45 and video ports available on optional graphics or ethernet card * Depending on many factors, actual data transfer speed may be lower than theoretical speed ** Only available for the models with integrated graphics
	Processor	Cores / Threads	Frequency Base/Max(GHz)	Cache	Memory Support (Up to)	Integrated Graphics	
	Celeron G5900	2 / 2	3.4G	2 MB	DDR4-2666	UHD 610	
	Celeron G5920	2 / 2	3.5G	2 MB	DDR4-2666	UHD 610	
	Pentium Gold G6400	2 / 4	4.0G	4 MB	DDR4-2666	UHD 610	
	Pentium Gold G6500	2 / 4	4.1G	4 MB	DDR4-2666	UHD 630	
	Pentium Gold G6600	2 / 4	4.2G	4 MB	DDR4-2666	UHD 630	
	Core i3-10100	4 / 8	3.6G / 4.3G	6 MB	DDR4-2666	UHD 630	
	Core i3-10300	4 / 8	3.7G / 4.4G	8 MB	DDR4-2666	UHD 630	
	Core i3-10320	4 / 8	3.8G / 4.6G	8 MB	DDR4-2666	UHD 630	
	Core i5-10400F	6 / 12	2.9G / 4.3G	12 MB	DDR4-2666	None	
	Core i5-10400	6 / 12	2.9G / 4.3G	12 MB	DDR4-2666	UHD 630	
	Core i5-10500	6 / 12	3.1G / 4.5G	12 MB	DDR4-2666	UHD 630	
	Core i5-10600	6 / 12	3.3G / 4.8G	12 MB	DDR4-2666	UHD 630	
	Core i7-10700F	8 / 16	2.9G / 4.8G	16 MB	DDR4-2933	None	
	Core i7-10700	8 / 16	2.9G / 4.8G	16 MB	DDR4-2933	UHD 630	
	Core i9-10900F	10 / 20	2.8G / 5.2G	20 MB	DDR4-2933	None	
	Core i9-10900	10 / 20	2.8G / 5.2G	20 MB	DDR4-2933	UHD 630	
	* Max frequency may refer to Intel Turbo Boost Technology 2.0 / Intel Turbo Boost Max Technology 3.0 / Intel Thermal Velocity Boost, and adopt the max one of them						
Memory	128GB max, DDR4-2666 / DDR4-2933*, four 288-pin DIMM sockets, dual-channel capable * Memory module is DDR4-2933, but clocks down for the limitation of processors						
Storage	Support up to 3x HDD ([2.5" + dual 3.5"] or [dual 2.5" + 3.5"]) and up to 2x M.2 SSD, RAID 0/1 support (RAID preset only available via special bid) <i>Some:</i> Hard Drive / SATA 6.0Gb/s, 2.5" or 3.5", 7200 rpm <i>Some:</i> M.2 SSD (2242 / 2280) / PCIe NVMe, PCIe 3.0 x2 or PCIe 3.0 x4 <i>Some:</i> Intel Optane™ Memory M10, M.2 2280, PCIe 3.0 x2 <i>Some:</i> DVD-ROM, SATA 1.5Gb/s Drive, slim (9.0mm) <i>Some:</i> DVD Burner (DVD±RW), SATA 1.5Gb/s Drive, slim (9.0mm)						
Optical	Four onboard SATA 6.0Gb/s connectors Optional 3-in-1 media reader (support SD, SDHC, and SDXC)						
Onboard SATA							
Media reader							
Graphics	Intel UHD Graphics 610/630 in some processors, uses main memory, DirectX® 12, two DisplayPort™, one optional video port (choose one from HDMI / DP / Type-C), supports up to 3 independent displays, more displays support via discrete graphics Max resolution: 4096x2304 (DP / Type-C)@60Hz; 4096x2160 (HDMI)@24Hz <i>Some:</i> AMD Radeon™ 520 , DirectX 12, 2GB GDDR5, PCIe 3.0 x8, 30 watts, two DisplayPort (up to 4096x2160@60Hz) <i>Some:</i> AMD Radeon RX 550X , DirectX 12, 4GB GDDR5, PCIe 3.0 x8, 50 watts, one DisplayPort (up to 3840x2160@60Hz), one HDMI (up to 4096x2160@60Hz), one VGA (up to 2048*1536@85Hz), occupies two slots <i>Some:</i> NVIDIA GeForce GTX 1660 SUPER , DirectX 12, 6GB GDDR6, PCIe 3.0 x16, 125 watts, 1x DVI-D (up to 2560x1600@60Hz), 1x HDMI (up to 4096x2160@60Hz), 1x DP (up to 7680x4320@60Hz with DSC), occupies two slots <i>Some:</i> NVIDIA GeForce RTX 2060 , DirectX 12, 6GB GDDR6, PCIe 3.0 x16, 170 watts, three DisplayPort (up to 7680x4320@60Hz with DSC), one HDMI (up to 4096x2160@60Hz), occupies two slots						
Monitor Cable	Optional DP to VGA dongle, DP to DVI-D dongle, DP to dual DP dongle (for Collage Display with intel integrated graphics), or DP to HDMI 1.4 dongle						
Chipset	Intel Q470 Chipset						
Front ports* (Std.)	2x USB 3.2 Gen 2, 2x USB 3.2 Gen 1, 1x USB 3.2 Type-C Gen 1 (15W charging), 1x microphone (3.5mm), 1x headphone / microphone combo jack (3.5mm)						
Front ports* (Opt.)	<i>Optional:</i> 3-in-1 media reader						
Rear ports* (Std.)	4x USB 3.2 Gen 1, 1x serial (9-pin), 1x ethernet (RJ-45), 2x DisplayPort**, 1x line-out (3.5mm)						
Rear ports* (Opt.)	<i>Optional:</i> 1x optional video port** (choose one from HDMI / DP / USB 3.2 Type-C Gen 1 with DP function), 2x USB 2.0, 2x USB 3.2 Gen 1 via PCIe x1, 2x USB 3.2 Type-C Gen 2 via PCIe x4, 1x 2nd serial (9-pin), 4x serial (9-pin) via PCIe x1,						
Audio support	High Definition (HD) Audio, Realtek ALC623-CG / internal speaker (2 watt)						
WLAN	<i>Some:</i> 11ac wireless, M.2 Card, Realtek RTL8822CE (dual band), Wi-Fi + Bluetooth 5.0 combo adapter, 2x2 <i>Some:</i> 11ac wireless, M.2 Card, Intel Wireless-AC 9560 (dual band), Wi-Fi + Bluetooth 5.0 combo adapter, 2x2 <i>Some:</i> 11ax wireless, M.2 Card, Intel Wi-Fi 6 AX201 (dual band), Wi-Fi + Bluetooth 5.1 combo adapter, Intel vPro technology support, 2x2						
Bluetooth™	<i>Some:</i> Bluetooth 5.0/5.1 wireless, integrated in Wi-Fi + BT combo adapter						
Ethernet	Gigabit ethernet, Intel Ethernet Connection I219-LM(Jacksonville), Wake on LAN®						
Ethernet (Opt.)	<i>Some:</i> Intel Ethernet Server Adapter I350-T4, gigabit ethernet, 4x RJ-45, PCIe x4 <i>Some:</i> Bitland BN8E88, gigabit ethernet, 1x RJ-45, PCIe x1						
Manageability	Intel Active Management Technology 14 (Intel AMT 14); Intel vPro technology on some models (require choosing a vPro-support Wi-Fi adapter to enable vPro function through wireless connection)						
Security chip	Discrete TPM 2.0, TCG Certified						
Security features	- Security slot (for Kensington® lock) - Padlock loop - Optional Smart Cable Clip to physically lock keyboard and mouse - Optional chassis intrusion switch - Optional chassis E-Lock - Self-Healing BIOS						- Power-on password - Administrator password - Hard disk password - Boot sequence control - Boot without keyboard and mouse - Individual USB port disablement - Smart USB protection, allows keyboard/mouse only, blocks all storage devices
Keyboard	<i>Some:</i> Lenovo Calliope Keyboard (USB connector), black <i>Some:</i> Lenovo Traditional Keyboard (USB connector), black						
Mouse	<i>Some:</i> Lenovo Calliope Wireless Keyboard (2.4GHz via USB receiver), black <i>Some:</i> Lenovo Calliope Mouse (USB connector), black <i>Some:</i> Lenovo Fingerprint Mouse (USB connector), Windows Hello support, black <i>Some:</i> Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black						
Mechanical	- Tower (17L), black color, metal case - Dimensions with bezel & PCI holder & rubber foot: (WxDxH) 6.7" X 11.7" X 14.8"; 170mm X 298mm X 376mm - Weight (approx.): 14.33 lb (6.5 kg), weight may vary by configuration						
Bays	Bay 1: Slim ODD bay Bay 2: 3.5" HDD bay Bay 3: 3.5" HDD bay (optional bay, or bay comes with disk) Bay 4: 2.5" HDD (bay comes with 2.5" disk)						
Slots	Slot 1: full-height (length < 245mm), PCIe 3.0 x16 Slot 2: full-height (length < 245mm), PCIe 3.0 x1 Slot 3: full-height (length < 245mm), PCIe 3.0 x4 Slot 4: no slot, only bracket for optional port extension						
EOU design	M.2 card slots: Three (one for WLAN, two for SSD/Optane) Toolless cover, disk, optical, extension card removal						
Power supply	<i>Some:</i> 180 watts, autosensing, 85% PSU <i>Some:</i> 300 watts, autosensing, 85% PSU <i>Some:</i> 300 watts, autosensing, 90% PSU <i>Some:</i> 500 watts, autosensing, 92% PSU * Discrete graphics card / 10-core processors need > 180w power supply						
Limited warranty	1-year or 3-year, limited onsite service / service upgrades available						
Preload	<i>Some:</i> Windows® 10 Pro 64-bit <i>Some:</i> Windows 10 Home 64-bit <i>Some:</i> Windows 10 IoT Enterprise (only available via special bid model)						
Environment	ENERGY STAR® 8.0*, EPEAT™ Gold / Silver rating (on some models), ErP Lot 3, TCO 8.0, TUV low noise verified (on some models), RoHS * Only available for MT 11D0/11CY						
Accessories	For compatible accessories, please go to http://smartfind.lenovo.com						

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

Lenovo, May 2020



ThinkCentre M920 Tower Platform Specifications

Product Specifications Reference (PSREF)

Processor	Intel® Celeron®, Intel Pentium®, or 8th /9th Gen Intel Core™ i3 / i5 / i7 / i9 Processor						1x parallel (25-pin), 2x PS/2 ports (keyboard/mouse), 1x Thunderbolt 3 (combo USB3.1 Type-C Gen 2 / DisplayPort) via PCIe x4 (available on 09/30/2018), additional RJ-45 and video ports available on optional graphics or ethernet card * Depending on many factors, actual data transfer speed may be lower than theoretical speed
	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 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 G5420	2 / 4	3.8G	4 MB	DDR4-2400	UHD 610	
	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 i3-9320	4 / 4	3.7G / 4.4G	8 MB	DDR4-2400	UHD 630	
	Core i5-9400	6 / 6	2.9G / 4.1G	9 MB	DDR4-2666	UHD 630	
	Core i5-9400F	6 / 6	2.9G / 4.1G	9 MB	DDR4-2666	None	
	Core i5-9500	6 / 6	3.0G / 4.4G	9 MB	DDR4-2666	UHD 630	
	Core i5-9500F	6 / 6	3.0G / 4.4G	9 MB	DDR4-2666	None	
	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	64GB max, DDR4-2666*, four 288-pin DIMM sockets, dual-channel capable * System automatically clocks down for the processors with lower memory controller						
Storage	Some: Hard Drive / SATA 6.0Gb/s, 2.5" or 3.5", 5400 rpm or 7200 rpm Some: Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" Some: M.2 SSD (2242 / 2280) / PCIe NVMe, PCIe 3.0 x2 or PCIe 3.0 x4 Some: Intel Optane™ Memory (not support Celeron / Pentium Processor), M.2 Optional DVD-ROM or DVD Burner (DVD±RW), SATA 1.5Gb/s Drive, slim (9.0mm) Four onboard SATA 6.0Gb/s connectors, RAID 0/1 support (RAID preset only available via special bid model)						
Optical	Optional 7-in-1 media reader						
Onboard SATA							
Media reader							
Graphics	Intel UHD Graphics 610/630 in some processors, uses main memory, DirectX® 12, one VGA (up to 2048x1536@50Hz), two DisplayPort™ (up to 4096x2304@60Hz), supports 3 independent displays, more displays support via discrete graphics Some: NVIDIA GeForce® GT 730 (End Of Life), DirectX 12, 2GB GDDR5, PCIe 2.0 x16, 35 watts, two DisplayPort (up to 3840x2160@60Hz) Some: AMD Radeon™ 520, DirectX 12, 2GB GDDR5, PCIe 3.0 x8, 30 watts, two DisplayPort (up to 4096x2160@60Hz) Some: AMD Radeon RX 550X, DirectX 12, 4GB GDDR5, PCIe 3.0 x8, 50 watts, one DisplayPort (up to 3840x2160@60Hz), one HDMI (up to 4096x2160@60Hz), one VGA (up to 2048*1536@85Hz) Some: NVIDIA Geforce GTX 1060 (special bid only), DirectX 12, 6GB GDDR5, PCIe 3.0 x16, 120 watts, 1x DVI-D (up to 2560x1600@60Hz), 1x HDMI (up to 4096x2160@60Hz), 3x DP (up to 5120x3200@60Hz), occupies two slots						
Monitor Cable	Optional DP to VGA dongle, DP to DVI-D dongle, DP to dual DP dongle (for Collage Display with intel integrated graphics), or DP to HDMI 1.4 dongle						
Chipset	Intel Q370 Chipset						
Front ports* (Std.)	2x USB 3.1 Gen2, 2x USB 3.1 Gen1, 1x USB 3.1 Type-C Gen1 (15W charging), 1x microphone (3.5mm), 1x headphone / microphone combo jack (3.5mm)						
Front ports* (Opt.)	Optional: 1x media reader						
Rear ports* (Std.)	4x USB 3.1 Gen1, 1x serial (9-pin), 1x ethernet (RJ-45), 1x VGA, 2x DisplayPort, 1x line-out (3.5mm)						
Rear ports* (Opt.)	Optional: 2x USB 2.0, 2x USB 3.1 Gen1 via PCIe x1, 2x USB 3.1 Type-C Gen2 via PCIe x4 (special bid only), 1x 2nd serial (9-pin), 4x serial (9-pin) via PCIe x1,						
Audio support	High Definition (HD) Audio, Realtek ALC233VB2 / internal speaker (2 watt)						
WLAN	Some: 11ac Wi-Fi + BT 4.2, M.2 Card, Realtek RTL8821CE (dual band), 1x1 Some: 11ac Wi-Fi + BT 4.2, M.2 Card, Realtek RTL8822BE (dual band), 2x2 Some: 11ac Wi-Fi + BT 4.2, M.2 Card, Intel Dual Band Wireless-AC 3165, 1x1 Some: 11ac Wi-Fi + BT 4.2, M.2 Card, Intel Dual Band Wireless-AC 8265, 2x2 Some: 11ac Wi-Fi + BT 5.0, M.2 Card, Intel Wireless-AC 9560 (dual band), Intel vPro technology support, 2x2						
Bluetooth™ Ethernet Ethernet (Opt.)	Some: Bluetooth 4.2/5.0 wireless, integrated in Wi-Fi + BT combo adapter Gigabit ethernet, Intel Ethernet Connection I219-LM(Jacksonville), Wake on LAN® Some: Intel Ethernet Server Adapter I350-T4, gigabit ethernet, 4x RJ-45, PCIe x4 Some: Bitland BN8E88, gigabit ethernet, 1x RJ-45, PCIe x1 (special bid only)						
Manageability	Intel Active Management Technology 12 (Intel AMT 12); Intel vPro technology on some models (require choosing a vPro-support Wi-Fi adapter to enable vPro function through wireless connection)						
Security chip	Discrete TPM 2.0, TCG Certified						
Security features	- Security slot (in rear for optional Kensington® MicroSaver® cable) - Padlock loop - Optional cable lock to physically lock both keyboard and mouse - Optional chassis intrusion switch - Optional chassis E-Lock (special bid)						- Power-on password - Administrator password - Hard disk password - Boot sequence control - Boot without keyboard and mouse - Individual USB port disablement - Smart USB protection, allows keyboard/ mouse only, blocks all storage devices
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 Some: Lenovo Keyboard (PS/2 connector), black (only available via special bid) 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 Some: Lenovo Mouse (PS/2 connector), black (only available via special bid)						
Mouse							
Mechanical	- Tower (18L), black color, metal case (WxDxH) 6.5" X 12.65" X 16.15"; 165mm X 321.35mm X 410.25mm - Approx. 15.45 lb (7 kg), weight may vary by configuration - Toolless cover, disk, optical, extension card removal - Optional carry handle, dust filter						
Power supply	Bay 1: Slim external ODD bay Bay 2: 5.25", 1.6" high, external, ODD / optional front access HDD Bay 3: 3.5", 1" high, internal, HDD/SSD Bay 4: 3.5", 1" high, internal, HDD/SSD (optional bay, bay comes with disk) Bay 5: 2.5", internal, HDD/SSD (optional bay) Notes: M920 Tower supports up to 3 SATA devices (ODD/HDD/SSD) and 1 eSATA device (front access HDD) Slot 1: full-length (< 268mm) full-height (< 112mm), PCIe 3.0 x16 Slot 2: full-length (< 268mm) full-height (< 112mm), PCIe 3.0 x1 Slot 3: full-length (< 268mm) full-height (< 112mm), PCIe 3.0 x16 (x4 signal) Slot 4: no slot, only bracket for optional port extension M.2 card slots: Two (one for WLAN, one for SSD/Optane)						Some: 180 watts, autosensing, 85% PSU Some: 250 watts, autosensing, 85% PSU Some: 400 watts, autosensing, 92% PSU (only available via special bid)
Limited warranty	Some: 1-year or 3-year, depot service / service upgrades available Some: 1-year or 3-year, limited onsite service / service upgrades available						
Preload	Some: Windows® 10 Pro 64-bit Some: Windows 10 Home 64-bit						
Environment	ENERGY STAR® 7.0, EPEAT™ Silver rating (North America), ErP Lot 3, TCO, TUV low noise verified (coming soon, on some models), RoHS-compliant						
Accessories	For compatible accessories, please go to http://smartfind.lenovo.com						

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

Lenovo, April 2020

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