

# ThinkCentre M90s 11D1000PUS

**Product**

ThinkCentre M90s

**Region**

NA

**Country/Region**

USA

**Machine Type**

11D1

**TopSeller**

TopSeller

**Processor**

Intel Core i5-10500 (6C / 12T, 3.1 / 4.5GHz, 12MB)

**Chipset**

Intel Q470 Chipset

**Graphics**

Integrated Intel UHD Graphics 630

**Memory**

1x 8GB DDR4-2666

**Storage**

1x 256GB SSD M.2 2280 PCIe x4 NVMe Opal

**Optane Memory**

None

**Optional Bay**

None

**Front Access HDD**

None

**Optical**

DVD±RW

**Media Reader**

None

**Speaker**

2Wx1

**Ethernet**

Integrated 100/1000M

**WLAN + Bluetooth**

None

**Optional Rear Ports**

None

**Chassis Intrusion Switch**

None

**Chassis E-Lock**

None

**Kensington Cable Lock**

None

**Smart Cable Clip**

None

**Dust Filter**

None

**Carry Handle**

None

**Color**

Black

**Stand**

Stand

**Keyboard**

USB Traditional Keyboard, Black, English

**Mouse**

USB Calliope Mouse

**Power Supply**

260W 85%

**TUV Low Noise**

None

**Monitor Cable**

None

**System Management**

Intel vPro

**Operating System**

Windows 10 Pro 64, English

**Bundled Software**

None

**Base Warranty**

3-year, Onsite

**Bundled Service**

None

**EAN / UPC / JAN**

195042268058

**End of Support**

2027-01-02

**Announce Date**

2020-05-21

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**Recommended Services****Best**

4Y Lenovo Protect (Premier Support + Keep Your Drive + Accidental Damage Protection) (5PS0N73191)

**Better**

4Y Lenovo Support (Premier Support + Keep Your Drive) (5PS0N73243)

**Good**

3Y Premier Support Upgrade from 3Y Onsite (5WS0V07841)

**Notes:****California Electronic Waste Recycling Fee**

In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to:

<https://www.calrecycle.ca.gov/Electronics/Consumer>

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# 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 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	<ul style="list-style-type: none"><li>● Security slot (for Kensington® lock)</li><li>● Padlock loop</li><li>● Optional Smart Cable Clip to physically lock keyboard and mouse</li><li>● Optional chassis intrusion switch</li><li>● Optional chassis E-Lock</li><li>● Power-on password</li><li>● Administrator password</li><li>● Hard disk password</li><li>● Boot sequence control</li><li>● Boot without keyboard and mouse</li><li>● Individual USB port disablement</li><li>● Smart USB protection, allows keyboard/ mouse only, blocks all storage devices</li><li>● Self-Healing BIOS</li></ul>	
							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	
Memory	128GB max, DDR4-3200*, four 288-pin DIMM sockets, dual-channel capable * System automatically clocks down for the processors with lower memory controller						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	
Storage	Support up to 3x HDD ([2.5" + dual 3.5"] or [dual 2.5" + 3.5"]) and up to 2x M2.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)						Mechanical	<ul style="list-style-type: none"><li>● SFF (8.2L), black color, metal case</li><li>● Dimensins with bezel &amp; PCI holder &amp; rubber foot: (WxDxH) 3.6" X 11.7" X 13.4"; 93mm X 298mm X 340mm</li><li>● Weight (approx.): 11.7 lb (5.3 kg), weight may vary by configuration</li></ul> 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)	
Optical	Four onboard SATA 6.0Gb/s connectors Optional 3-in-1 media reader (support SD, SDHC, and SDXC)						Floor Stand EOU design	Optional system floor stand for vertical orientation Toolless cover, disk, optical, extension card removal	
Onboard SATA Media reader							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	
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)						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 (for Collage Display with intel integrated graphics), or DP to HDMI 1.4 dongle						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)	
Chipset	Intel Q470 Chipset						Environment	ENERGY STAR® 8.0*, EPEAT™ Silver rating*, ErP Lot 3, TCO (coming soon), TUV low noise verified (on some models), RoHS-compliant * Only available for MT 11D1/11D2	
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)						Accessories	For compatible accessories, please go to <a href="http://smartfind.lenovo.com">http://smartfind.lenovo.com</a>	
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, 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 (2 watt )								

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