

ThinkCentre M90s 11D1002HUS

Product

ThinkCentre M90s

Region

NA

Country/Region

USA

Machine Type

11D1

TopSeller

TopSeller

Processor

Intel Core i7-10700 (8C / 16T, 2.9 / 4.8GHz, 16MB)

Chipset

Intel Q470 Chipset

Graphics

Integrated Intel UHD Graphics 630

Memory

1x 16GB UDIMM DDR4-2933

Storage

1x 512GB SSD M.2 2280 PCIe 3.0x4 NVMe Opal

Optane Memory

None

Optional Bay

Optional 2.5" bay

Front Access HDD

None

Optical

DVD±RW

Card Reader

3-in-1 Card Reader

Speakers

1Wx1

Ethernet

Integrated 100/1000M

WLAN + Bluetooth

None

Optional Rear Ports

1x DP

Chassis Intrusion Switch

None

Chassis E-Lock

None

Kensington Cable Lock

None

Smart Cable Clip

None

Dust Filter

None

Carry Handle

None

Case Color

Black

Stand

Stand

Keyboard

USB Traditional Keyboard, Black, English

Mouse

USB Calliope Mouse, Black

Power Supply

380W 92%

Additional Certificates

ENERGY STAR 8.0, EPEAT Silver

Monitor Cable

None

System Management

Intel vPro, DASH

Operating System

Windows 10 Pro 64, English

Bundled Software

None

Base Warranty

3-year, Onsite

Bundled Service

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

EAN / UPC / JAN

195235721995

End of Support

2027-01-02

Announce Date

2020-10-15

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>

L WWW.LENOVO.COM

Lenovo may not offer the products, services or features discussed in this document in other countries. Lenovo may withdraw an offering at any time. Information is subject to change without notice. Consult your local representative for information on offerings available in your area.

Lenovo reserves the right to change specifications or other product information without notice. Lenovo is not responsible for photographic or typographical errors. Lenovo provides this publication "as is" without warranty of any kind, either express or implied, including the implied warranties of merchantability or fitness for a particular purpose.



<https://psref.lenovo.com>

Visit psref website for the latest version of Product specifications Reference.

© Lenovo, 2020. All rights reserved.



ThinkCentre M90s Platform Specifications

Product Specifications Reference (PSREF)

Lenovo

Processor	Intel® Celeron®, Intel Pentium®, or 10th Gen Intel Core™ i3 / i5 / i7 / i9 Processor	WLAN	<p><i>Some:</i> 11ac wireless, M.2 Card, Realtek RTL8822CE (dual band), Wi-Fi + Bluetooth 5.0 combo adapter, 2x2</p> <p><i>Some:</i> 11ac wireless, M.2 Card, Intel Wireless-AC 9560 (dual band), Wi-Fi + Bluetooth 5.0 combo adapter, 2x2</p> <p><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</p>																																																																																																						
	<table border="1"> <thead> <tr> <th>Processor</th> <th>Cores / Threads</th> <th>Frequency Base/Max(GHz)</th> <th>Cache</th> <th>Memory Support (Up to)</th> <th>Integrated Graphics</th> </tr> </thead> <tbody> <tr> <td>Celeron G5900</td> <td>2 / 2</td> <td>3.4G</td> <td>2 MB</td> <td>DDR4-2666</td> <td>UHD 610</td> </tr> <tr> <td>Celeron G5920</td> <td>2 / 2</td> <td>3.5G</td> <td>2 MB</td> <td>DDR4-2666</td> <td>UHD 610</td> </tr> <tr> <td>Pentium Gold G6400</td> <td>2 / 4</td> <td>4.0G</td> <td>4 MB</td> <td>DDR4-2666</td> <td>UHD 610</td> </tr> <tr> <td>Pentium Gold G6500</td> <td>2 / 4</td> <td>4.1G</td> <td>4 MB</td> <td>DDR4-2666</td> <td>UHD 630</td> </tr> <tr> <td>Pentium Gold G6600</td> <td>2 / 4</td> <td>4.2G</td> <td>4 MB</td> <td>DDR4-2666</td> <td>UHD 630</td> </tr> <tr> <td>Core i3-10100</td> <td>4 / 8</td> <td>3.6G / 4.3G</td> <td>6 MB</td> <td>DDR4-2666</td> <td>UHD 630</td> </tr> <tr> <td>Core i3-10300</td> <td>4 / 8</td> <td>3.7G / 4.4G</td> <td>8 MB</td> <td>DDR4-2666</td> <td>UHD 630</td> </tr> <tr> <td>Core i3-10320</td> <td>4 / 8</td> <td>3.8G / 4.6G</td> <td>8 MB</td> <td>DDR4-2666</td> <td>UHD 630</td> </tr> <tr> <td>Core i5-10400F</td> <td>6 / 12</td> <td>2.9G / 4.3G</td> <td>12 MB</td> <td>DDR4-2666</td> <td>None</td> </tr> <tr> <td>Core i5-10400</td> <td>6 / 12</td> <td>2.9G / 4.3G</td> <td>12 MB</td> <td>DDR4-2666</td> <td>UHD 630</td> </tr> <tr> <td>Core i5-10500</td> <td>6 / 12</td> <td>3.1G / 4.5G</td> <td>12 MB</td> <td>DDR4-2666</td> <td>UHD 630</td> </tr> <tr> <td>Core i5-10600</td> <td>6 / 12</td> <td>3.3G / 4.8G</td> <td>12 MB</td> <td>DDR4-2666</td> <td>UHD 630</td> </tr> <tr> <td>Core i7-10700F</td> <td>8 / 16</td> <td>2.9G / 4.8G</td> <td>16 MB</td> <td>DDR4-2933</td> <td>None</td> </tr> <tr> <td>Core i7-10700</td> <td>8 / 16</td> <td>2.9G / 4.8G</td> <td>16 MB</td> <td>DDR4-2933</td> <td>UHD 630</td> </tr> <tr> <td>Core i9-10900F</td> <td>10 / 20</td> <td>2.8G / 5.2G</td> <td>20 MB</td> <td>DDR4-2933</td> <td>None</td> </tr> <tr> <td>Core i9-10900</td> <td>10 / 20</td> <td>2.8G / 5.2G</td> <td>20 MB</td> <td>DDR4-2933</td> <td>UHD 630</td> </tr> </tbody> </table>	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	Bluetooth Ethernet Ethernet (Opt.)	<p><i>Some:</i> Bluetooth 5.0/5.1 wireless, integrated in Wi-Fi + BT combo adapter</p> <p><i>Some:</i> Gigabit ethernet, Intel Ethernet Connection I219-LM(Jacksonville), Wake on LAN®</p> <p><i>Some:</i> Intel Ethernet Server Adapter I350-T4, gigabit ethernet, 4x RJ-45, PCIe x4</p> <p><i>Some:</i> Bitland BN8E88, gigabit ethernet, 1x RJ-45, PCIe x1</p>
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																																																																																																				
		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"> 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 																																																																																																						
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	<p><i>Some:</i> Lenovo Calliope Keyboard (USB connector), black</p> <p><i>Some:</i> Lenovo Traditional Keyboard (USB connector), black</p> <p><i>Some:</i> Lenovo Calliope Wireless Keyboard (2.4GHz via USB receiver), black</p>																																																																																																						
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	Mouse	<p><i>Some:</i> Lenovo Calliope Mouse (USB connector), black</p> <p><i>Some:</i> Lenovo Fingerprint Mouse (USB connector), Windows Hello support, black</p> <p><i>Some:</i> Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black</p>																																																																																																						
Optical	<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"> 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) 																																																																																																						
Onboard SATA Media reader	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																																																																																																						
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)	Power supply	<p><i>Some:</i> 180 watts, autosensing, 85% PSU</p> <p><i>Some:</i> 260 watts, autosensing, 85% PSU</p> <p><i>Some:</i> 310 watts, autosensing, 92% PSU</p> <p><i>Some:</i> 380 watts, autosensing, 92% PSU</p> <p>* Discrete graphics card / 10-core processors need > 180w power supply</p>																																																																																																						
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 Q470 Chipset	Preload	<p><i>Some:</i> Windows® 10 Pro 64-bit</p> <p><i>Some:</i> Windows 10 Home 64-bit</p> <p><i>Some:</i> Windows 10 IoT Enterprise (only available via special bid model)</p>																																																																																																						
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)	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																																																																																																						
Front ports* (Opt.)	<i>Optional:</i> 3-in-1 media reader	Accessories	For compatible accessories, please go to http://smartfind.lenovo.com																																																																																																						
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 (1 watt)																																																																																																								

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

Lenovo, May 2020

ThinkCentre M90s

