Lenovo.

Lenovo ThinkPad T490 Laptop 35.6 cm (14") Quad HD Intel® Core™ i7 i7-8665U 48 GB DDR4-SDRAM 1 TB SSD Wi-Fi 5 (802.11ac) Windows 10 Pro Black

Brand : Lenovo **Product family:** ThinkPad **Product code:** 20N2S3H300

Product name: T490

- Windows 10 Pro 64-bit
- Intel Core i7-8665U (8MB Cache, 1.9GHz)
- 35.6 cm (14") Quad HD 2560 x 1440 IPS
- 48GB (2400MHz) DDR4-SDRAM (1 x 32) & 1000GB SSD

Intel Core i7-8665U (8MB Cache, 1.9GHz), 48GB DDR4-SDRAM, 1000GB SSD, 35.6 cm (14") Quad HD 2560 x 1440 IPS, Intel UHD Graphics, LAN, WLAN, Webcam, Windows 10 Pro 64-bit

Lenovo ThinkPad T490. Product type: Laptop, Form factor: Clamshell. Processor family: Intel® $Core^{TM}$ i7, Processor model: i7-8665U, Processor frequency: 1.9 GHz. Display diagonal: 35.6 cm (14"), HD type: Quad HD, Display resolution: 2560 x 1440 pixels. Internal memory: 48 GB, Internal memory type: DDR4-SDRAM. Total storage capacity: 1 TB, Storage media: SSD. On-board graphics card model: Intel® UHD Graphics. Operating system installed: Windows 10 Pro. Product colour: Black









Design		Network	
Product type *	Laptop	Bluetooth version	5.1
Product colour *	Black	Ports & interfaces	
Form factor * Display	Clamshell	USB 3.2 Gen 1 (3.1 Gen 1) Type-A ports quantity *	2
Display diagonal * 35.6 cm (Display resolution * 2560 x 14 Touchscreen *	35.6 cm (14")	USB 3.2 Gen 1 (3.1 Gen 1) Type-C ports quantity *	1
		USB 3.2 Gen 2 (3.1 Gen 2) Type-C ports quantity	1
HD type	Quad HD	Ethernet LAN (RJ-45) ports	1
Panel type	IPS	HDMI ports quantity *	1
LED backlight	V	HDMI version	1.4b
Native aspect ratio	16:9	Microphone in	×
Display brightness	500 cd/m ²	Combo headphone/mic port	✓
Processor	Intel	USB Type-C DisplayPort Alternate Mode	✓
Processor manufacturer *	8th gen Intel® Core™ i7	USB Sleep-and-Charge	✓
Processor generation Processor family *	Intel® Core™ i7	Keyboard	
Processor model *	i7-8665U	Pointing device	ThinkPad UltraNav
Processor frequency *	1.9 GHz	Numeric keypad *	X
Processor boost frequency	4.8 GHz	Spill-resistant keyboard	Ž
Processor threads	8	,	•
System bus rate	4 GT/s	Software	
Processor cores	4	Operating system architecture	64-bit
Processor cache	8 MB	Operating system installed *	Windows 10 Pro
Processor cache type	Smart Cache	Processor special features	
Processor socket	BGA 1528	Intel® My WiFi Technology (Intel®	,
Processor lithography	14 nm	MWT)	✓
Processor operating modes	64-bit	Intel® Smart Response Technology	1
Processor codename	Whiskey Lake	Intel® Identity Protection Technology (Intel® IPT)	✓
Bus type	OPI	Intel® Hyper Threading Technology	
Thermal Design Power (TDP)	15 W	(Intel® HT Technology)	1
Configurable TDP-up frequency	2.1 GHz	Intel® Turbo Boost Technology	2.0
Configurable TDP-up	25 W	Enhanced Intel SpeedStep	,
Configurable TDP-down	10 W	Technology	✓
Configurable TDP-down frequency Tjunction	0.8 GHz 100 °C	Intel® Clear Video HD Technology (Intel® CVT HD)	✓
Maximum number of PCI Express		Intel Clear Video Technology	✓
lanes	16	Intel® Quick Sync Video Technology	✓

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Processor		Processor special features	
PCI Express slots version	3.0	Intel Flex Memory Access	✓
PCI Express configurations	1x4, 2x2	Intel® AES New Instructions (Intel® AES-NI)	✓
Memory	40.00	Intel Trusted Execution Technology	✓
Internal memory *	48 GB	Intel Enhanced Halt State	✓
Internal memory type	DDR4-SDRAM 2400 MHz	Intel VT-x with Extended Page	✓
Memory clock speed Memory form factor	On-board + SO-DIMM	Tables (EPT) Intel® Secure Key	1
Memory layout (slots x size)	1 x 32 GB	Intel TSX-NI	*
Memory slots	1x SO-DIMM	Intel Stable Image Platform Program	1
Maximum internal memory *	48 GB	(SIPP)	•
Storage		Intel® OS Guard Intel Software Guard Extensions	✓
Total storage capacity *	1 TB	(Intel SGX)	✓
Storage media *	SSD	Intel® Clear Video Technology for	
Total SSDs capacity	1 TB	Mobile Internet Devices (Intel CVT for MID)	✓
Number of SSDs installed	1	Intel 64	✓
SSD capacity	1 TB	Execute Disable Bit	✓
SSD interface SSD form factor	PCI Express M.2	Idle States	✓
Optical drive type *	× ×	Thermal Monitoring Technologies	✓
Card reader integrated	√	Processor package size	46x24 mm
Compatible memory cards	MicroSD (TransFlash)	Supported instruction sets	AVX 2.0, SSE4.1, SSE4.2
Graphics		CPU configuration (max) Embedded options available	1 X
Discrete graphics card model *	Not available	Intel Virtualization Technology for	
On-board graphics card *	√	Directed I/O (VT-d)	✓
Discrete graphics card *	×	Intel Identity Protection Technology	1.00
On-board graphics card model *	Intel® UHD Graphics	version Intel Smart Response Technology	
On-board graphics card base frequency	300 MHz	version	1.00
On-board graphics card dynamic	1150 MI	Intel Secure Key Technology version	
frequency (max)	1150 MHz	Intel TSX-NI version	0.00
Maximum on-board graphics card memory	32 GB	Intel Virtualization Technology (VT-x)	✓
On-board graphics card DirectX	12.0	Processor ARK ID	149091
version	12.0	Battery	
On-board graphics card OpenGL version	4.5	Battery technology	Lithium Polymer (LiPo)
On-board graphics card ID	0x3EA0	Battery capacity *	50 Wh
Audio		Battery life (max)	16.11 h
Audio chip	Realtek ALC3287	Fast charging	✓
Audio Criip Audio system	Dolby Audio Premium	Security	
Number of built-in speakers	2	Cable lock slot	✓
Speaker power	2 W	Smart card reader	✓
Built-in microphone	✓	Password protection	✓
Camera		Certificates	
Front camera	✓	Certification	MIL-STD-810G
Front camera signal format	720p	Weight & dimensions	
Front camera HD type	HD	Width	329 mm
Privacy camera	Private and shouther	Depth	227 mm
Privacy type	Privacy shutter	Height	18.9 mm
Network		Weight *	1.55 kg
Wi-Fi	√ Wi Ei E (902 112c)	Other features	
Top Wi-Fi standard *	Wi-Fi 5 (802.11ac) 802.11a, 802.11b, 802.11g, Wi-Fi 4	AC adapter included	✓
Wi-Fi standards	(802.11n), Wi-Fi 5 (802.11ac)		
Mobile network connection *	×		
Antenna type	2x2		
WLAN controller model	Intel Dual Band Wireless-AC 9560		
Ethernet LAN data rates	10,100,1000 Mbit/s		
Ethernet LAN data rates	TO, TOO, TOOO MIDICS		

Network		
Bluetooth	J	

