Lenovo P14s i Gen 5

Version: 1.0 | 05/21/2024

Product Name	P14s i Gen 5
Product Display Name	P14s i Gen 5
Information Date	23-Apr-24

SECTION I: Platform Overview

Description	The Lenovo ThinkPad P14s i, our thin and light mobile workstation, offering the ultimate in configurability, expandability and a premium on-the-go performance. All in a 14.5-inch chassis with an optimized 16:10 display. The P14s i is Artificial Intelligence (AI) ready. Built with Intel vPro® featuring latest Intel® Core™ Ultra processors and integrated Neuro Processing Unit (NPU) for AI tasks and NVIDIA RTX™ GPUs for more complex AI workflows.

CPU

Processor Support	Meteor Lake H Processor Ultra5/7/9
Socket Type	BGA

Operating Systems

Preloaded	Windows 11 Pro 64 (23H2) Win10 Pro (22H2, through Special Bid Normal Path) Windows 11 Home 64 Windows 11 Home Single Language 64 Windows 11 Home Chinese Language Edition 64 CMIT Government Edition Ubuntu (Version22.04)
Supported	Windows 11 Pro 64 (23H2) Win10 Pro (22H2, through Special Bid Normal Path) Windows 11 Home 64 Windows 11 Home Single Language 64 Windows 11 Home Chinese Language Edition 64 CMIT Government Edition Ubuntu (Version22.04)

Memory

Number of DIMM Slots	2 SoDIMM slot
Channels	Single channel with 1x SODIMM, Dual channel with 2x SODIMM
Type	DDR5
ECC Support	No
Speed	5600 MHz
Max DIMM Size	48GB
Max System Memory	96GB
Min System Memory	16GB
Soldered Memory	NO

Storage

Storage Slots	1 x PCIe Gen 4 M.2 2280
SATA	/
PCIe	Solid State Drive, OPAL2 PCIe-NVMe Gen 4 M.2 2280- TLC
SAS	None
Interface	PCIe Gen 4
Security	PCIE
Optional Hard Disk Drive Controllers	OPAL2 for NVMe SSD

Video

Integrated Graphics	Intel Arc Integrated Graphics (Dual Mem≥16GB) Integrated Graphics (Single Mem)
Discrete Graphics	NVIDIA RTX 500 Ada Graphics
Adapter	None
Bus Interface	PEG

Display

Resolutions	FHD+ / 2.5k /3k

Camera

Resolution	5M
Frames per Second	30 fps
Focus	FF 50cm(fixed focus)

Camera Interface	USB 2.0
IR Camera	Yes (optional)

Keyboard

Number of Keys	US : 84 / UK : 85 / JP : 89
Numpad	No
Size	100% ISO
Function Key Features	Yes
Backlit	Yes
Keyboard size	CS24 full size KBD
Key stroke	1.5mm
Key pitch	19.05mm
Keyboard backlight	Yes
Keyboard thickness	4.0mm

TrackPad / Fingerprint Reader

TrackPoint Details	TrackPoint module (t4.8mm)
Finger Print Reader Model	Normal MoC Round FoP, Black
Multi-Touch	Yes
Resolution	1000 ppi
TrackPad/TouchPad thickness	3.4mm
TrackPad/TouchPad type	3 BCP
TrackPad size	115mm x 60mm
TrackPad material/finish	Glass like mylar surface

I/O – Ports and Connectors

USB	2x USB-A 3.2 (Gen 1) (1 powered)
Thunderbolt	2x Thunderbolt 4 (USB 4/USB-C 3.2 Gen 2/DP2.1/PD)
HDMI	1x HDMI 2.1 TMDS up to 4K/60Hz
Audio Combo Jack	1x Microphone & Headphone Combo Jack (3.5mm)
Media Card Reader	N/A
Smart Card Reader	Yes (optional)
Power Connector	DC-In
Docking Port	Docking Via Thunderbolt 4
VirtualLink	None

Network adapter	Gigabit Ethernet (RJ45)

Power Connector

Main	DC-In
USB-C	1x Thunderbolt 4 (USB-C/DP/PD)

Ethernet

Vendor	Intel
Count	x1
EEPROM	SPI ROM (Merge with BIOS/MEFW)
Speeds	10/100/1000 Mbps
Functions	Wake On LAN MAC Address Pass Through PXE Boot Flash Over LAN
Connectors	Drop-jaw RJ45

WWAN

Model	NA

Near Field Communications

Model	NA

Audio

Vendor	Realtek
Type	High Definition Audio Codec
Internal Speaker	Yes, dual speakers
Connectors	Microphone & Headphone Combo Jack (3.5mm)
Chipset	ALC3287
Number of Channels	4-channel DAC, 4-channel ADC
Number of Bits/Audio Resolution	16/20/24-bit PCM format
Sampling Rate (Recording/Playback)	48000Hz
Signal to Noise Ratio	90dB Signal-to-Noise Ratio (A-weighting) for ADC input. 100dB Signal-to-Noise Ratio (A-weighting) for DAC output

Analog Audio	None
Dolby Digital	Dolby Audio
Digital Out (S/PDIF)	No
Speaker Power Rating	2W@4ohm/ch

Power adapter

Type	100W AC Adapter	135W AC Adapter
Dimensions	108mm x 56mm x 26.5mm	139.5mm x 77mm x 22mm
Input Voltage	100-240V	100-240V

Security

TPM	Yes, TPM2.0
Asset ID	Yes
vPro	Yes on vPro model

Chassis Information

Format	Ultraslim Notebook
Color	Deep Black
Thermal Solutions	Internal dual FAN, Intelligent Cooling
Dimensions	Length 12.82 inches 325.50 millimeters Width 8.96 inches 227.60 millimeters Height 0.73 inches 18.50 millimeters
Weight	Starting weight UMA 1.61kg / 3.55 lbs SWG 1.65kg/3.64 lbs

Packaging Parameters

Height (mm)	296
Height (inch)	11.7
Width (mm)	477
Width (inch)	18.8
Depth (mm)	79
Depth (inch)	3.1

Weight (kgs)	0.52
Weight (lbs)	1.15

Security & Serviceability

Hardware Maintenance Manual	Yes
Drivers & Software	Yes
Self Healing BIOS	Yes(FW Resilience 2.0)
Access Panel	Removeable bottom cover
Number of Screws	8
Swappable Components	Base cover assembly, TrackPoint pointing stick, Lenovo factory recovery USB key, Power cord, ac power adapter (65W)
Storage Slots	1 storage slot
Memory	2 SODIMM slots
System Board	1190 System Board. No self-service CRU.
Restore CD/DVD/USB Set	None. Purchase via Lenovo Customer Support Center
Cable Lock Support	Security-lock slot
Power-On Password	Yes
Hard Disk Password	Yes; User and Master hard disk password
Supervisor Password	Yes
NIC LEDs (integrated)	No (if it means the LED for Ethernet)
Security Chip	Yes (for TMP 2.0)
Access Panel Key Lock	Bottom Cover Tamper Detection
Boot Sequence Control	Yes

Operating Environment

Operating – Air Temperature	At altitudes up to 2438 m (8000 ft) – Operating: 5°C to 35°C (41°F to 95°F)
Non Operating – Air Temperature	At altitudes up to 2438 m (8000 ft) – Storage: 5°C to 43°C (41°F to 109°F)
Humidity	Operating: 8% to 95% at wet-bulb temperature 23°C (73°F) Storage: 5% to 95% at wet-bulb temperature 27°C (81°F)
Corrosive Gas	G1
Particulates	P1

SECTION II: Platform Detail

Supported Components

Processor	Ultra 5 -125H Non-vPro (4P+10E) Ultra 5 135H vPro (4P+10E) Ultra 7 155H non-vPro (6P+10E) Ultra 7 165H vPro (6P+10E) Ultra 9 185H vPro (6P+10E)
Memory Support	DDR5
Chipset (PCH)	Integrated Soc
Size of BIOS Flash	64M + 16M
Super I/O	N/A
Clock	Crystal
Audio	Realtek High Definition Audio
Ethernet	Non-vPro model: Intel® Ethernet Connection I219-V (Jacksonville) vPro model: Intel® Ethernet Connection I219-LM (Jacksonville)

Memory

System Capacity Options	Upto 96GB	48GB+48GB sync by SS+1Month
non-ECC	Yes	
Brand of non-ECC Memory	Samsung/Ramaxel/Hynix/Micron(Micron ROW only)	
ECC	None	
Brand of ECC Memory	N/A	
Memory clock frequency(MHz)	DDR5 5600 MHz	

Storage

2.5" SAS Hard Disk Drive (HDD)	None
2.5" SATA Hard Disk Drive (HDD)	None
2.5" SATA Solid State Drive (SSD)	None
M.2 (NGFF) PCIe Solid State Drive (SSD)	256GB Opal 2 PCIe G4 NVMe M.2 2280 512GB Opal 2 PCIe G4 NVMe M.2 2280 512GB Opal 2 PCIe G4 NVMe Performance M.2 2280 1TB Opal 2 PCIe G4 NVMe M.2 2280 1TB Opal 2 PCIe G4 NVMe Performance M.2 2280 2TB Opal 2 PCIe Gen4 Performance NVMe M.2 2280
2.5" PCIe Solid State Drive (SSD)	None
Brand of Drive	Samsung Kioxia

	UnionMem Hynix
Intel Optane Storage Technology	Yes
RAID	Not Supported

Removeable Media

Media Card Reader Specifications	N/A

SECTION III: Supported Component Detail

CPU Specifications

CPU	Ultra 5 -125H Non-vPro (4P+10E)	Ultra 5 135H vPro (4P+10E)	Ultra 7 155H non-vPro (6P+10E)	Ultra 7 165H vPro (6P+10E)	Ultra 9 185H vPro (6P+10E)
Integrated Graphics	Intel Arc Integrated Graphics (Dual Mem≥16GB) Integrated Graphics (Single Mem)	Intel Arc Integrated Graphics (Dual Mem≥16GB) Integrated Graphics (Single Mem)	Intel Arc Integrated Graphics (Dual Mem≥16GB) Integrated Graphics (Single Mem)	Intel Arc Integrated Graphics (Dual Mem≥16GB) Integrated Graphics (Single Mem)	Intel Arc Integrated Graphics (Dual Mem≥16GB) Integrated Graphics (Single Mem)
# of Cores	4 P Core+10 E Core	4 P Core+10 E Core	6 P Core+10 E Core	6 P Core+10 E Core	6 P Core+10 E Core
# of Threads	18	18	22	22	22
Max Turbo Frequency	4.5 GHz	4.6 GHz	4.8 GHz	5.0 GHz	5.1 GHz
P-core Max Turbo Frequency	4.5 GHz	4.6 GHz	4.8 GHz	5.0 GHz	5.1 GHz
E-core Max Turbo Frequency	3.6 GHz	3.6 GHz	3.8 GHz	3.8 GHz	3.8 GHz
Cache	18MB	18 MB Intel® Smart Cache	24 MB Intel® Smart Cache	24 MB Intel® Smart Cache	24 MB Intel® Smart Cache
TDP	20W-65W	20W-65W	20W-65W	20W-65W	35W-65W
Intel ARK Spec Link	https://ark.intel.com/content/www/us/en/ark/products/232126/intel-core-i5-1340p-processor-12m-cache-up-to-4-60-ghz.html	https://ark.intel.com/content/www/us/en/ark/products/236850/intel-core-ultra-5-processor-135h-18m-cache-up-to-4-60-ghz.html	https://ark.intel.com/content/www/us/en/ark/products/236847/intel-core-ultra-7-processor-155h-24m-cache-up-to-4-80-ghz.html	https://ark.intel.com/content/www/us/en/ark/products/236851/intel-core-ultra-7-processor-165h-24m-cache-up-to-5-00-ghz.html	https://ark.intel.com/content/www/us/en/ark/products/236849/intel-core-ultra-9-processor-185h-24m-cache-up-to-5-10-ghz.html
Disclaimers					

Display Specifications

Model	14.5" 16:10 WUXGA(1920*1200) IPS Anti Glare 300nits,NTSC 45%, 60Hz 3.0T, Non Touch	14.5" 16:10 WQXGA IPS Anti Glare 350nits, 100% sRGB, 90hz 2.4T, Non Touch	14.5" 16:10 3K(3072*1920) IPS Anti Glare 430nits, 100% DCI-P3, 120Hz 2.4T,ICC Color Calibration,Non Touch	14.5" 16:10 WQXGA IPS Anti Glare 350nits, 100% sRGB, 90hz 2.4T, AOFT
Resolution	1920 x 1200	2560 x 1600	3072*1920	2560 x 1600
Diagonal	14.5"	14.5"	14.5"	14.5"
Aspect Ratio	Ratio 16:10	Ratio 16:10	Ratio 16:10	Ratio 16:10
Backlight	LED	LED	LED	LED
PPI	156	208	250	208
Active Area	312.192 x 195.12	312.12 x 195.07	312.146 x 195.09	312.12 x 195.07
Refresh Rate	60 Hz	90 Hz	120Hz	90 Hz
Contrast Ratio	800:1 (TYP)	1500:1 (TYP)	1500:1 (TYP)	1500:1 (TYP)
Viewing Angle	89/89/89/89 Degree	89/89/89/89 Degree	89/89/89/89 Degree	89/89/89/89 Degree
Color gamut	45% NTSC	100% sRGB	100% DCI-P3	100% sRGB
Brightness	300nit	350nit	430nit	350nit
Contrast	800:1 (TYP)	1500:1 (TYP)	1500:1 (TYP)	1500:1 (TYP)
Color Depth	8bit	8bit	8bit	8bit
Interface	eDP 1.2	eDP 1.4b	eDP 1.4b	eDP 1.4b
Panel ID Recognition	EDID in BIOS Table	EDID in BIOS Table	eDP 1.4b	EDID in BIOS Table
Weight	320g Max	245g Max	245g Max	260g Max
Color Calibrator	None	X-Rite Pantone Factory Color Calibration	TCON Color Calibration ΔE average <1	X-Rite Pantone Factory Color Calibration
Panel Technology	IPS, Anti-Glare,TUV	IPS, Anti-Glare,TUV	IPS, Anti-Glare,TUV	IPS, Anti-Glare,TUV
Touch Panel	None	None	None	None
Disclaimers				

HDD Specifications

2.5" SAS Hard Disk Drive (HDD)	N/A
2.5" SATA Hard Disk Drive (HDD)	N/A
Disclaimers	

HDD Storage Device Specifications

Connector	N/A
Transfer Rate (Gb/sec)	N/A
Disclaimers	

HDD Performance

Spindle Speed(RPM)	N/A
Power off to Spindle Stop(sec)	N/A
DC Power to Drive Ready(sec)	N/A
Receipt of Start Unit Command to Drive Ready(sec)	N/A
Average Latency(msec)	N/A
Disclaimers	

HDD Power Management

Input (VDC)	N/A
Typical (Watts)	N/A
Idle (Watts)	N/A
Disclaimers	

HDD Dimensions

Height (mm – Max)	N/A
Width (mm)	N/A
Depth (mm – Max)	N/A
Weight (grams)	N/A
Disclaimers	

HDD Temperature

Operating(C) Ambient	N/A
Operating(C) Base Casting	N/A
Non-Operating(C) Ambient	N/A
Gradient(C per Hour)	N/A
Disclaimers	

HDD Shock

Operating(Gs @ 2ms)	N/A
Non-Operating(Gs @ 2ms)	N/A
Disclaimers	

SSD Specifications

2.5" SATA Solid State Drive (SSD)	N/A
M.2 (NGFF) PCIe Solid State Drive (SSD)	1x M.2 2280 PCIe Gen4
2.5" PCIe Solid State Drive (SSD)	N/A
Intel Optane Storage Technology	N/A
Disclaimers	

Solid State Storage Devices

Supported Types	M.2
Dimensions inches/centimeters (W x D x H)	22.0 (+-0.15) x 80.0 (+-0.15) x 2.3 (max)
Size	M.2 2280S3
Interface Type	PCIe NVMe Gen4
Read/Write IOPS Specifications	Performance PCIe Gen4 Read: 800k(2TB/1TB/512GB) Write: 700k(2TB/1TB/512GB) PCIe Gen4 Read: 300k (1TB/512GB/256GB) Write: 500k(1TB/512GB/256GB)
Bandwidth Performance	PCIe Gen4 x 4 (16Gbps)
Power Consumption (Max)	3.0A (10us average)
Active(AVG)	5W
Idle	5mW (L1.2)
Min MTBF	2'000'000
Min Sequential Read	Performance PCIe Gen4 6500MB/s (2TB/1TB/512GB) PCIe Gen4 3700MB/s (1TB/512GB/256GB)
Min Sequential Write	Performance PCIe Gen4 5000MB/s (2TB/1TB/512GB) PCIe Gen4 2200MB/s (1TB/512GB/256GB)
Hardware Encryption	Yes
Disclaimers	

Discrete Graphics Adapter

GPU Name	NVIDIA RTX 500 Ada
CUDA Processing Cores	2048
GPU Memory	4 GB
Memory Bandwidth	96 GB/s
Memory Type	GDDR6
Memory Interface	64-bit
TGP Max Power Consumption	50
Display Port	0
OpenGL	4.6
Shader Model	7
DirectX	12
PCIe Generation	4
Floating-Point Performance	1.1
VR Ready	No
Simultaneous Multi-Projection	No
NVIDIA FXAA/TXAA Antialiasing	Yes
NVIDIA nView Display Management Technology	Yes
GPU Direct for Video	No
Vulkan Support	Yes
NVIDIA Optimus	Yes
Disclaimers	

WLAN

Model	INTEL WIFI 6E_AX211 CNVi_2X2AX+BT5.2
Connector: Main, Aux/GNSS, GNSS	ANT1:AUX WiFi + BT; ANT2: Main WiFi
Antenna Diversity	Supported
MIMO	Supported
GNSS Bian	N/A
Radio ON/OFF Control	Supported
Connector interface	CNVi
Operating Temperature (Adapter Shield)	0c to +80c
Humidity Non-Operating	50%~90% Rh non condensing (at temperatures of 25c to 35c)
Operating Systems	Microsoft Windows 7*, Microsoft Windows 8.1*, Microsoft Windows 10*, Linux* (limited feature support), Android

Wi-Fi Alliance	Wi-Fi CERTIFIED* a/b/g/n/ac, WMM*, WMM-PS*, WPA*, WPA2*, WPS2*, Protected Management Frames, Wi-Fi Direct* for peer to peer device connections, Wi-Fi Miracast* as Source.
IEEE WLAN Standard	IEEE 802.11a/b/g/n/ac, 802.11d, 802.11e, 802.11h, 802.11i, 802.11w; 802.11r, 802.11k, 802.11v pending OS support; Fine Timing Measurement based on 802.11REVmc
Roaming	Support seamless roaming between access points
Bluetooth*	Dual Mode Bluetooth® 5.0, BLE
Authentication	WPA and WPA2, 802.1X (EAP-TLS, TTLS, PEAP, LEAP, EAP-FAST), EAP-SIM, EAP-AKA, EAP-AKA
Authentication Protocols	PAP, CHAP, TLS, MS-CHAP*, MS-CHAPv2
Encryption	64-bit and 128-bit WEP, 128-bit AES-CCMP
Regulatory	For a list of country approvals, please contact your local Intel representatives.
US Government	FIPS10, FISMA
Product Safety	UL,C-UL,CB (IEC 60950-1)
Disclaimers	6GHz channel of Wi-Fi 6E is only available with Windows 11

Battery

Dimension	57Wh: 296.44mm * 64.14mm * 6.75mm	75Wh: 296.44mm * 64.14mm * 8.15mm
Weight	57Wh: 226.14g	75Wh: 272.21g
Type (Chemistry and Cell)	Li-ion Polymer	Li-ion Polymer
Voltage	11.31V	11.61V
Battery Life	N/A	MM25: 14.4H(Best power efficiency), 14.07H(Balanced)
Battery Capacity	Integrated 3-cell 57Wh battery	Integrated 3-cell 75Wh battery
Charging Time	0% to 100% Battery Charging Time (in-operation) 2.11hr Battery Charging Time (off) 1.97 hr	0% to 100% Battery Charging Time (in-operation) 2.35hr Battery Charging Time (off) 2.04 hr
Operating Temperature Range	between 10°C (50°F) and 35°C (95°F)	between 10°C (50°F) and 35°C (95°F)
Warranty	1 Year / 3 Year Available	1 Year / 3 Year Available
Coin Cell Battery (Model)	CR2016	CR2016
Disclaimers		

SECTION IV: BIOS / Certifications / Standards / Environmental

BIOS Specifications

WMI Support	Yes, if it is BIOS Setup change by WMI.
ROM-Based Setup Utility (F1)	Yes
Bootblock Recovery	N/A
Replicated Setup	Yes, it supported with SRSETUP tool.
Boot Control	Yes, it means Boot order change.
Discrete Mode	N/A, no Discrete Mode
Memory Change Alert	N/A
Thermal Alert	N/A
Asset Tag	Yes
System/Emergency ROM Flash Recovery with Video	N/A
Remote Wakeup/Remote Shutdown	Only support WOL from S5.
Keyboard-less Operation	N/A
Per-port Control	Yes, if it is I/O port enable/disable by BIOS Setup.
Adaptive Cooling	Yes, if it is thermal & fan control.
Security	Yes, BIOS password / Hard disk password / Finger print
Intel(R) AMT (includes ASF 2.0)	Yes. If you select vPro model
Intel(R) TXT	Yes. If you select vPro model
Memory Modes	N/A

EMC & Safety

EMC	Published, Certified Existing Reports EMC – Australia EMC – Canada EMC – EU/EFTA EMC – Japan EMC – New Zealand EMC – Taiwan EMC – Russia EMC – South Korea EMC – Kazakhstan EMC – USA/Territories EMC – Belarus Not Applicable / Not Required EMC – Israel EMC – Moldova EMC – Serbia EMC – Turkey EMC – Uzbekistan EMC – Vietnam

Safety	To access the latest User Guide and Safety and Warranty Guide, go to: https://support.lenovo.com
	Low Halogen Declaration of Conformance
	TNOT-2017-0040
	Section 9 – Low Halogen Scorecard
	Izod Test – EPEAT Compliant
	Homologation PCRB Compliant
	In the following countries: Albania, Algeria, Andorra, Angola, Antigua and Barbuda, Argentina, Armenia, Aruba, Australia, Azerbaijan, Bahamas, Bahrain, Bangladesh, Barbados, Belarus, Belize, Benin, Bermuda, Bolivia, Botswana, Burkina Faso, Burundi, Cambodia, Cameroon, Canada, Cape Verde, Cayman Islands, Central African Republic, Chad, China, Colombia, Comoros, Congo, Costa Rica, Dijbouti, Dominican Republic, Egypt, El Salvador, Eritrea, Ethiopia, EU/EFTA, Fiji, Gabon, Gambia, Georgia, Ghana, Grenada, Guatemala, Guinea, Haiti, Honduras, Hong Kong, India, Indonesia, Israel, Jamaica, Japan, Jordan, Kazakhstan, Kenya, Kuwait, Laos, Lebanon, Liberia, Macau, Madagascar, Malawi, Malaysia, Mali, Mauritania, Mauritius, Mexico, Moldova, Mongolia, Morocco, Mozambique, Namibia, Nepal, New Zealand, Nicaragua, Niger, Nigeria, Oman, Pakistan, Panama, Papua New Guinea, Paraguay, Peru, Philippines, Qatar, Russia, Saudi Arabia, Senegal, Serbia, Seychelles, Sierra Leone, Singapore, South Africa, South Korea, Sri Lanka, Swaziland, Taiwan, Tajikistan, Tanzania, Thailand, Togo, Tunisia, Turkey, Turkmenistan, Uganda, Ukraine, United Arab Emirates, Uruguay, USA/Territories, Uzbekistan, Venezuela, Vietnam, Zambia, Zimbabwe, Brazil – Inmetro 170 Govt Bids, Guinea-Bissau, Lesotho

Environmentals

Energy Star	ENERGY STAR® Version 8.0
	For more information about ENERGY STAR, go to:
	https://www.energystar.gov
EPEAT	EPEAT Declaration of Conformance For Machine Types: 21G2, 21G3
IT ECO declaration	The latest environmental information about Lenovo products is available at:
	https://www.lenovo.com/ecodeclaration
Hazardous Substances	The latest environmental information about Lenovo products is available at:
	https://www.lenovo.com/ecodeclaration
	European Union RoHS
	This Lenovo product, with included parts (cables, cords, and so on) meets the requirements of Directive
	2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic
	equipment ("RoHS recast" or "RoHS 2").
	For more information about Lenovo worldwide compliance on RoHS, go to:
	https://www.lenovo.com/rohs-communication

Manageability

Industry Standard Specifications	This product meets the following industry standard specifications for manageability functionality:
	Intel LAN with AMT
Remote Manageability Software Solutions	Lenovo ThinkManagement Console
	Microsoft System Center Configuration Manager
	LANDesk Management Suite for ThinkVantage Technologies (www.landesk.com/lenovo)
System Software Manager	Lenovo ThinkPad supports software management tools from the Lenovo Vantage System Update suite:

	System Update Update Retriever
Service, Support, and Warranty	On-site Warranty and Service: Three-years, limited warranty and service offering delivers on-site, next business-day service for parts and labor and includes free telephone support 8am to 5pm. Global coverage ensures that any product purchased in one country and transferred to another, non-restricted country will remain fully covered under the original warranty and service offering.

Environmentals

Energy Star	ENERGY STAR® 8.0
EPEAT	EPEAT® Gold
RoHS Compliant	RoHS Compliant
TCO	TCO 9.0
Sustainability	97% PCC recycled plastic: Speaker enclosure 97% recycled plastic: 52.5WHr Battery 95% PCC recycled plastic: 65W PSU 90% recycled/sustainable packaging Low-temperature solder
Disclaimers	Product packaging shall contain, on average, a minimum total percentage of 90% by weight of any combination of the following materials: Recycled content, biobased plastic, non-wood biobased fiber material, and/or sustainably forested material.
Materials Used	50% Recycled Aluminum A Cover 90% Recycled Magnesium Aluminum C cover middle frame 50% Recycled Aluminum D Cover 85% PCC Plastic in Key Caps, Backlit 90% PCC Plastic Speaker Enclosure 97% PCC Plastic Battery Pack Enclosure 90% PCC Plastic Slim 100W AC Adapter 90% PCC Plastic Slim 135W AC Adapter Low Temperature Solder (memory, SSD, fingerprint reader module) Plastic free packaging with 90% recycled and/or FSC certified content (standard)
TCO Certification	9
Disclaimers	1. EPEAT registered where applicable. EPEAT registration varies by country. See www.epeat.net for registration status by country. 2. Product packaging shall contain, on average, a minimum total percentage of 90% by weight of any combination of the following materials: Recycled content, biobased plastic, non-wood biobased fiber material, and/or sustainably forested material