

Overview

HP t240 Thin Client

Front View Image



FRONT

1. Power button
2. 1 x USB-A 2.0 Type A
3. 1 x USB 3.1 Gen 1 port
4. 1 x Microphone audio port
5. 1 x 3.5 mm headphone audio port

BOTTOM

VESA mounting points located underneath the system's rubber foot pads

Rear View Image



BACK

1. VGA analog video output
2. HDMI digital video output
3. 2 x USB-A 2.0 Type A
4. RJ45 Gigabit Ethernet interface
5. 15V DC power input
6. Cable lock slot

AT A GLANCE

- Intel® Atom® Processor x5-Z8350; 1.44 - 1.92 GHz quad-core processor
- Embedded DDR3L single-channel SDRAM system memory
 - HP ThinPro models configured with 2 GB
- Embedded Multi Media Card
 - HP ThinPro models configured with 8 GB
- 1 x VGA, 1 x HDMI 1.4b video outputs supporting up to (1920 x 1080) resolutions.
- Gigabit Ethernet (GbE) network connection supported via an integrated Realtek GbE NIC module and presented with an RJ45 connector on the rear I/O panel
- Optional Wi-Fi® including antennas integrated internally in the chassis¹.
- USB ports located on the front and back panels, including one USB-A 3.1 Gen 1 Type A port and three USB 2.0 Type A ports
- 3.5 mm headphone audio port on front panel that will support a headphone or an external speaker system
- 3.5 mm microphone audio port on front panel that will support a microphone
- Integrated VESA 75:100 mounting system; the four threaded holes are conveniently located under the unit's rubber foot pads

Overview

- The security features include a system UEFI designed to address NIST SP 800-147 guidelines and cable lock slot
- ENERGY STAR® certified.
- Post-consumer recycled plastics content greater than 25% total unit plastics (by weight)
- Low halogen²material content

¹ Wireless access point and Internet access is required; availability of public wireless access points is limited

² This product is low halogen except for power cords, cables and peripherals; service parts obtained aftermarket may not be low halogen

Warranty

HP Customer Support: limited three-year hardware limited warranty in most regions; HP Care Packs are optional extended service contracts that go beyond your standard limited warranties; for more details visit <http://www.hp.com/go/cpc>

Technical specifications

OPERATING SYSTEMS

HP ThinPro, including HP Smart Zero Core (Not default setting and customer need to configure)

PROCESSOR						
Model	CPU Frequency base/max	x86 Cores	GPU EUs	Cache	GPU	Memory
Intel® Atom® Processor x5-Z8350	1.44/1.92 GHz	4	12	2 MB	Intel® Gen8LP 12EU, up to 500MHz	DDR3L-RS 1600
NOTE: CPU Maximum frequency is based on Intel® Turbo Boost Technology						

GRAPHICS

One or two displays.

Number of displays supported:

NOTE: a maximum of two displays are supported.

Video outputs:

1 x HDMI port

1 x VGA port

NOTE: Dual displays are supported using the following video output combinations:

- HDMI + VGA

Video Resolution Support Matrix

HP ThinPro 7.1	?2 x FHD 1920 x 1080 @ 60Hz
Static screen (no video)	✓
1080p 30fps (or below) video	✓
1080p 60fps video	
4k @ 30fps video	

Technical specifications

MEMORY

Type:	Single channel DDR3L SDRAM (Soldered down)
Data Transfer Rate (speed):	up to 1,600 MT/s
Peak Transfer Rate (bandwidth):	12,800 MB/s
Number of slots:	0 slots; memory is embedded
Memory Capacity:	2 GB on ThinPro models
Reserved for graphics:	Max 2 GB

NOTE: The system's Graphics Processing Unit (GPU) uses part of total system memory. System memory dedicated to graphics performance is not available for use by other programs

UEFI (Unified Extensible Firmware Interface)

- UEFI Specification Revision: 2.3.1
 - Meets requirements for Common Criteria, an independent third-party certification of trustworthiness
 - Meets requirements for FIPS 140-2, a standard for cryptographic integrity
 - Designed to address NIST SP800-147 guidelines
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STORAGE

Type:	eMMC 4.51
Number of sockets:	0 slots; flash storage is embedded
Storage Capacity:	8 GB on HP ThinPro models

INPUT/OUTPUT

USB ports:	1 x USB 3.1 Gen 1 Type A front port and 1 x USB 2.0 Type A front port
	2 x USB 2.0 Type A rear ports
Video outputs*:	1 x VGA
	1 x HDMI 1.4b
	1 x RJ45 GbE interface
Other:	1 x 3.5mm headphone port
	1 x 3.5 mm microphone port

NOTE: 2 video outputs can be used simultaneously

Technical specifications

AUDIO/VIDEO

- 3.5 mm headphone audio port supporting headphones or and external speaker
- 3.5 mm microphone audio port on front panel that will support a microphone
- Audio:
 - Audio CODECs include MP3, HEAAC, WMA 7/8/9
 - Includes hardware acceleration support
 - MPEG-4 part 4 (HP.263)
- Video:
 - MPEG-4 part 10 (H.264), Advanced Video Coding (AVC)
 - WMV 7/8/9VC1
 - Includes hardware acceleration support

HARDWARE SECURITY

- Security lock support (slim cable lock sold separately)

NETWORKING

- Realtek Gigabit Ethernet (GbE)
- Wake on LAN
- Wired networks:
 - PXE (UEFI only)
 - TCP/IP with DNS DHCP
- Wireless networks:
 - AzureWave CM 276NF(Dual band 802.11 a/b/g/n/ac wireless) NGFF module

NOTE: Wireless access point and Internet access required. Availability of public wireless access point may be limited. Wireless features, performance and support may vary depending on environmental variables such as placement, settings and firmware of the access point. Contact your wireless vendor for support.

SOFTWARE SUPPORT		
Host Environment	Protocol	HP ThinPro HP Smart Zero Core
Microsoft Remote Desktop Services	Remote FX (RFX), RDP	✓
Citrix®	ICA, HDX	✓
VMware® Horizon™	RDP, PCoIP, Blast Extreme	✓

Technical specifications

Protocol Clients	HP ThinPro HP Smart Zero Core
Citrix Workspace™	✓
Microsoft Remote Desktop Client	
VMware® Horizon View™ Client	✓
HP TeemTalk Terminal Emulator	
Free RDP	✓

Browser Support	HP ThinPro HP Smart Zero Core
Mozilla Firefox	60.5.0esr
Internet Explorer	

Security	HP ThinPro HP Smart Zero Core
SmartCard	✓
Logon Manager	✓
Read-only operating system	✓
802.1x	✓
Operating system write filter	
Microsoft Firewall	

Management Tools	HP ThinPro HP Smart Zero Core
HP Device Manager	✓
HP ThinUpdate	
HP Easy Tools	✓
HP Smart Zero Client Services	✓
Microsoft SCCM/EDM agent	

Additional Components	HP ThinPro HP Smart Zero Core
Windows Media Player	
Microsoft Direct Access	
Microsoft BranchCache	
Microsoft AppLocker	
Microsoft Sideloading	
NOTE: Software performance and support may vary depending on customer environment and backend.	

Technical specifications

Audio/Video CODEC		HP ThinPro
		HP Smart Zero Core
	MP3	•
	WMA 7/8/9/	•
	HE AAC	•
	Microsoft AC3 encoder	
	MPEG-1	•
	MPEG-4 part 2 (H.263)	•
	MPEG-4 part 10 (H.264)	•
	WMV 7/8/9/ VC-1	•
NOTE: Software performance and support may vary depending on customer environment and backend.		

WEIGHTS & DIMENSIONS

W x D x H	110 x 110 x 30 mm
Volume	0.3liter
System Weight	276 g (0.61 lb.)
Shipping Weight	1690 g (3.73 lb.)

NOTE: All measurements are approximate; the addition of optional modules will increase the weight

POWER SUPPLY

15W external power adapter

Worldwide auto-sensing 100-240 VAC, 50-60 Hz

Energy saving automatic power-down

Surge tolerant

AGENCY COMPLIANCE

Environmental Stewardship:	ENERGY STAR®, EPEAT®, ROHS, ERP, CECP, HP GSE, etc.
Product Safety:	IEC60950-1, EN60950-1, UL60950-1 GS, BIS & CCC)
Electromagnetic Compliance (EMC):	FCC, EN55032 Class B, EN55024 & FCC

Technical specifications

ENVIRONMENTAL

Operating Temperature Range:	50° to 104° F (10° to 40° C)
Non-operating Temperature Range:	-22° to 140° F (-30° to 60° C)
Humidity:	Condensing: 20% to 80%
	Non-condensing: 10% to 90%

NOTE: Specifications are at sea level with altitude derating of 1° C/300m (1.8° F/1000ft) to a maximum of 3 Km (10,000 ft), with no direct, sustained sunlight. Upper limit may be limited by the type and number of options installed.

Eco-Label Certifications & declarations

This product has received or is in the process of being certified to the following approvals and may be labeled with one or more of these marks:

- ENERGY STAR®
- EPEAT® Silver registered in the United States. See <http://www.epeat.net> for registration status in your country.
- IT ECO declaration

Energy Consumption

(in accordance with US ENERGY STAR® test method)

	115 V ac, 60 Hz	230 V ac, 50 Hz	100 V ac, 50 Hz
Normal Operation (Short idle)	2.90 W	3.00 W	2.90 W
Normal Operation (Long idle)	2.40 W	2.60 W	2.40 W
Sleep	2.40 W	2.50 W	2.30 W
Off	0.30 W	0.30 W	0.30 W

Heat Dissipation*

	115 V ac, 60 Hz	230 V ac, 50 Hz	100 V ac, 50 Hz
Normal Operation (Short idle)	10 BTU/hr	10 BTU/hr	10 BTU/hr
Normal Operation (Long idle)	8 BTU/hr	9 BTU/hr	8 BTU/hr
Sleep	8 BTU/hr	9 BTU/hr	8 BTU/hr
Off	1 BTU/hr	1 BTU/hr	1 BTU/hr

NOTE: Heat dissipation is calculated based on the measured watts, assuming the service level is attained for one hour.

Additional Information

- This product is in compliance with the Restrictions of Hazardous Substances (RoHS) directive -2011/65/EC.
- This HP product is designed to comply with the Waste Electrical and Electronic Equipment (WEEE) Directive - 2002/96/EC.
- This product is in compliance with California Proposition 65 (State of California; Safe Drinking Water and Toxic Enforcement Act of 1986).
- This product is in compliance with the IEEE 1680 (EPEAT®) standard at the Silver level, see www.epeat.net
- Plastics parts weighing over 25 grams used in the product are marked per ISO 11469 and ISO1043.
- This product contains 1.75 % post-consumer recycled plastic (by wt.)
- This product is 91.4 % recycle-able when properly disposed of at end of life.

Technical specifications

Packaging Materials

External:	PAPER/Paperboard	427 g
Internal:	PLASTIC/Polyethylene high density - HDPE	2 g
	PLASTIC/LDPE	16 g

RoHS Compliance

HP Inc. is committed to compliance with all applicable environmental laws and regulations, including the European Union Restriction of Hazardous Substances (RoHS) Directive. HP's goal is to exceed compliance obligations by meeting the requirements of the RoHS Directive on a worldwide basis. By July 1, 2006, RoHS substances will be virtually eliminated (virtually = to levels below legal limits) for all HP electronic products subject to the RoHS Directive, except where it is widely recognized that there is no technically feasible alternative (as indicated by an exemption under the EU RoHS Directive).

Material Usage

This product does not contain any of the following substances in excess of regulatory limits (refer to the HP General Specification for the Environment at

http://www.hp.com/hpinfo/globalcitizenship/environment/supplychain/gen_specifications.html):

- Asbestos
- Certain Azo Colorants
- Certain Brominated Flame Retardants - may not be used as flame retardants in plastics
- Cadmium
- Chlorinated Hydrocarbons
- Chlorinated Paraffins
- Formaldehyde
- Halogenated Diphenyl Methanes
- Lead carbonates and sulfates
- Lead and Lead compounds
- Mercuric Oxide Batteries
- Nickel - finishes must not be used on the external surface designed to be frequently handled or carried by the user.
- Ozone Depleting Substances
- Polybrominated Biphenyls (PBBs)
- Polybrominated Biphenyl Ethers (PBBEs)
- Polybrominated Biphenyl Oxides (PBBOs)
- Polychlorinated Biphenyl (PCB)
- Polychlorinated Terphenyls (PCT)
- Polyvinyl Chloride (PVC) - except for wires and cables, and certain retail packaging has been voluntarily removed from most applications.
- Radioactive Substances
- Tributyl Tin (TBT), Triphenyl Tin (TPT), Tributyl Tin Oxide (TBTO)

Packaging

HP follows these guidelines to decrease the environmental impact of product packaging:

- Eliminate the use of heavy metals such as lead, chromium, mercury and cadmium in packaging materials.
- Eliminate the use of ozone-depleting substances (ODS) in packaging materials.
- Design packaging materials for ease of disassembly.
- Maximize the use of post-consumer recycled content materials in packaging materials.
- Use readily recyclable packaging materials such as paper and corrugated materials.
- Reduce size and weight of packages to improve transportation fuel efficiency.
- Plastic packaging materials are marked according to ISO 11469 and DIN 6120 standards.

Technical specifications

End-of-life Management and Recycling

HP Inc. offers end-of-life HP product return and recycling programs in many geographic areas. To recycle your product, please go to: <http://www.hp.com/go/reuse-recycle> or contact your nearest HP sales office. Products returned to HP will be recycled, recovered or disposed of in a responsible manner.

The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the HP Inc. web site at: <http://www.hp.com/go/recyclers>. These instructions may be used by recyclers and other WEEE treatment facilities as well as HP OEM customers who integrate and re-sell HP equipment.

HP, Inc. Corporate Environmental Information

For more information about HP's commitment to the environment:

Global Citizenship Report

<http://www.hp.com/hpinfo/globalcitizenship/gcreport/index.html>

Eco-label certifications

<http://www.hp.com/hpinfo/globalcitizenship/environment/productdesign/ecolabels.html>

ISO 14001 certificates:

<http://h20195.www2.hp.com/V2/GetDocument.aspx?docname=c04755842>

and

<http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/cert.pdf>

Summary of Changes

Date of change:	Version History:	Type of change	Description of change:
June 28, 2019	From v1 to v2	Changed	Format

title

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