

Data sheet

HP Thin Client Family



Enjoy rich multimedia performance, enterprise level data security, simplified management, and lower costs with HP Thin Clients.



HP Zero Clients

Zero in on a better VMware client.

HP Zero Clients are designed for VMware environments with the latest PCoIP technology ideal for graphics-intensive applications that need workstation-like performance and support for dual monitors.⁷ No operating system or moving parts mean HP Zero clients require zero management. Deployment is simple and viruses are history. As HP's most secure endpoints, HP Zero Clients keep your data safe in the datacenter—only pixels are transferred. Hardware USB authorization and fiber NIC¹ add extra layers of security. Designed for fast PCoIP, Amazon Workspace and VMware, HP Zero Clients are an ultra-low-cost-per-seat solution with ultra performance and reliability.



HP Smart Zero Clients

Simple, reprogrammable, and affordable zero clients for client virtualization.

HP Smart Zero Clients are built for client virtualization environments that demand PC-like performance, flexible protocol support and zero management. Enjoy easy setup and simple management, with auto-sensing technology that adapts to your environment. Experience outstanding performance, choice of two form factors, a multi-protocol operating system optimized for Citrix® XenDesktop®, VMware Horizon View, and Microsoft Session Virtualization via RDP.



HP Flexible Thin Clients

HP's ultimate blend of performance, security and flexibility.

Get the highest performance, security and operational flexibility in our thin client portfolio with HP Flexible Thin Clients. The latest AMD® processors deliver cutting-edge performance for true PC-like multimedia, CAD, and other computing-intensive applications in multi-protocol environments. Numerous expansion options and legacy ports support multiple peripherals. Enjoy native support for up to quad-digital displays. Quick-configuration tools, and optional integrated enterprise-class wireless make IT support easier. Choose from a wide variety of 32- and 64-bit Microsoft Windows® Embedded and **HP optimized operating systems.**



HP Mobile Thin Client

Thin, light mobility with reliable security, efficient manageability and convenient accessibility.

Hit the road with reliable security and efficient manageability with the HP mt41 Mobile Thin Client. Connect wherever you have access to the cloud⁴ with this thin, light and conveniently accessible mobile device. Rest easy with multiple security features and quick access to shared data, all within an enterprise-grade durable design.

Operating Systems and Software

HP ThinPro

More flexibility. More freedom.

Get the highest customization per user with HP ThinPro—featuring a new, simplified graphical user interface. Customize properties, rich graphics, terminal emulation connections, and permissions. Print locally and enable concurrent virtualization sessions. Create multiple experiences and roll back to previous configurations with “snapshot” restore points. Switch between HP ThinPro and HP Smart Zero, or customize your own experience—all from one centralized interface.

For more information go to hp.com/go/thinpro

HP Smart Zero

Log in and get to work.

Boot directly into the user log-in on the server or pre-configured portal with no device training or user interface required. Easily switch between protocols with no OS re-installation. Enjoy simple management through HP Smart Client Services and HP Device Manager software.

HP and Windows Embedded

A familiar interface.

Work efficiently with Windows Embedded, the thin client operating system you’re already well-acquainted with. Reduce the cost of training and tools and make maintenance and roll-outs a breeze. Help prevent unauthorized updates and viruses with an integrated Write Filter. Take advantage of broad-range support for peripherals, drivers, and applications.

HP Device Manager

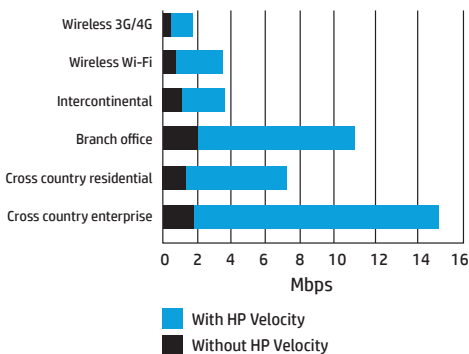
Making your life easy to manage.

HPDM provides full life cycle management for HP Thin Clients; from initial discovery, deployment and configuration to maintenance and EOL of product. IT administrators can control and make decisions about their IT resources locally or remotely with HPDM which provides detailed asset information through a simple console “dashboard”. With just one software you can do it all—track, configure, upgrade, clone, and manage up to thousands of thin client devices. So, kick back and relax. We do the hard work so you can focus on your key business initiatives. Device deployment, task automation, compliance management, and policy-based security management.

For more information go to hp.com/go/hpdm

Network performance improvements with HP Velocity

Figure 1. Effective network performances seen by user under different network conditions.



HP Velocity

Accelerate network performance.

Improve network performance and the end-user experience with HP Velocity software, which optimizes network traffic for remote desktops and application streaming, IDs and fixes bottlenecks, and simplifies IT troubleshooting.

For more information go to hp.com/go/velocity

HP Remote Graphics Software

Work virtually anywhere.

Access your workstation- or server-based graphic-rich applications and collaborate remotely in real time from any PC, Thin Client or Windows tablet with HP Remote Graphics Software (RGS).¹⁶

HP Thin Client Portfolio

Series	Zero	Smart Zero	Flexible			Mobile
Platforms	t310/ t310 AiO	t410/t410 AiO	t520	t620/t620 PLUS	t820	mt41
Processor and memory						
Processor	TERA2321 PCoIP Zero Client processor	Texas Instruments TMS320 DM8148 ARM® Cortex™-A8	AMD GX-212JC 1.2GHz dual-core SOC APU with AMD Radeon HD Graphics ¹¹	AMD GX-217GA Dual-Core APU with AMD Radeon HD 8280E graphics (1.65 GHz); AMD GX-415GA Quad-Core ¹² APU with AMD Radeon HD 8330E (1.5 GHz); AMD GX-420CA Quad-Core APU with AMD Radeon HD 8400E graphics (2 GHz)	Intel® Core™ i5-4570S Quad Core 2.9 GHz Processor with Intel HD 4600 Graphics Intel® Pentium™ G3220 3.0 GHz with Intel HD Graphics	AMD Dual-Core A4-5150M APU with Radeon HD 8350G Graphics (2.7 GHz; 1 MB L2 cache) ¹¹ ; AMD Dual-Core A4-4300M APU with Radeon HD 7420G Graphics (2.5 GHz; 1 MB L2 cache) ¹¹
Flash/RAM ³	32 MB/512 MB	4GB/1GB eMMC 2 GB eMMC	32GB/4-8GB	16 GB/4-16GB	16 GB SSD/4-16 GB	1-8 GB / 4 GB
Video and audio (All HP desktop thin clients support widescreen resolutions and headphone/mic)						
Maximum resolution ⁷	t310 1920 x 1200 2560 x 1600 ⁵ t310 AiO 1920 x 1080	t410 1920 x 1200 t410 AiO 1366 x 768	1920 x 1200	2560 x 1600	2560x1600	2560 x 1600
Monitor support ⁶	t310 DVI-I and DVI-D t310 AiO DVI-I and VGA	t410 VGA, DisplayPort 1.1a t410 AiO Built-in Monitor	2 x DisplayPort, 1 x VGA	2 x DisplayPort 1.2, or 1 x DisplayPort 1.2 and 1 x VGA (some models) PLUS: optional graphics configurations up to 4 monitors	2 x DisplayPort 1.2 ports plus VGA port support up to 3 monitors when configured with an Intel Core i5 CPU and utilizing the on-board Intel® HD 4600 Graphics card.	Dual: VGA and DisplayPort v1.2 High-definition displays
Touchscreen support ⁸	No	No	No	Yes	Yes	No
Networking						
Integrated Networking	10/100/1000 Mbit/sec Ethernet	10/100/1000 Mbit/sec Ethernet 10/100 Ethernet when using Power over Ethernet (POE)	10/100/1000 GbE Mbit/sec Ethernet	10/100/1000 Mbit/sec Ethernet	10/100/1000 Mbit/sec Ethernet	10/100/1000 Mbit/sec Ethernet; Broadcom 802.11 a/b/g/n with dual antennas ⁴
Networking Options	Wake on LAN (WoL) using magic packet.	N/A	Optional wireless 802.11 a/g/n 2x2 dual and mini card with Bluetooth NIC ¹³ , Wake on LAN module	Broadcom 802.11 a/b/g/n with dual antennas on select models ⁴ ; Broadcom 802.11ac ¹³ with dual internal antennas: HP 100 Mbps Mini-PCIe SC Fiber NIC factory-installed option (cannot be installed simultaneously with Wi-Fi)	Broadcom 802.11 a/b/g/n with dual antennas on select models ⁴ HP 100 Mbps Mini-PCIe SC Fiber NIC factory option (cannot be installed simultaneously with Wi-Fi)	HP lt4111 LTE/EV-DO/HSPA+ Mobile Broadband; HP lt4112 LTE/HSPA+ Mobile Broadband
I/O and expansion						
Serial/Parallel PS2/USB	0/0/0/6 (USB 2.0)	0/0/0/4	0/0/0/6 (2x USB 3.0, 4x USB 2.0)	Standard: 1/0/2/8 (2x USB 3.0; 4x USB 2.0; 2x USB 2.0 hidden) PLUS chassis: 2/2/2/8 (2x USB 3.0; 4x USB 2.0; 2x USB 2.0 hidden) (2x USB 3.0; 4x USB 2.0)	0/0/2/10 (6xUSB 2.0, 4xUSB 3.0)	0/0/0/4 (3x USB 3.0; 1x USB 3.0 charging)
Slot expansion options ⁹	No	No	No	Standard: No PLUS: 1 HH PCIe x16 card slot (x4 channels)	No	1 SD/MMC Media Reader
HP cable lock slot	Yes	Yes	Yes	Yes	Yes	Yes
Environmental certifications						
ENERGY STAR®	N/A	Yes	Yes	Yes	Yes	Yes
EPEAT® ¹⁰	N/A	Yes	Yes	Yes	Yes	Yes
Low Halogen*	N/A	Yes	Yes	Yes	Yes	Yes

HP Thin Client Portfolio

Software specifications	Windows Embedded 8 Standard	Windows Embedded Standard 7E ¹⁴	Windows Embedded Standard 7P ¹⁴	Windows Embedded Standard 2009	Windows Embedded CE 6.0	HP ThinPro	HP Smart Zero Technology ¹⁵
Applications							
ICA/RDP	•	•	•	•	•	•	•
VDI brokers	•	•	•	•	•	•	•
HP Remote Graphics Software (HP RGS)	•	•	•			•	
HP TeemTalk Terminal Emulation	•	•	•	•	•	•	
X Windows (X11R6)						•	
Java Virtual Machine	Add-on	Add-on	Add-on	Add-on	Add-From server		
API compatibility	Win64	Win32	Win32	Win32	CE	Linux	
Local browser	Full Internet Explorer	Full Internet Explorer	Full Internet Explorer	Full Internet Explorer	Basic Internet Explorer	Mozilla Firefox	Mozilla Firefox for Smart Zero Technology
Media player	•	•	•	•	•		
PDF Reader	•	•	•	•		•	
ThinPrint print client (TCP/IP)	Available directly from vendor	Available directly from vendor	Available directly from vendor	Available directly from vendor	•	•	
Security							
File protection	Unified Write Filter	Enhanced Write filter or File based Write Filter	Enhanced Write filter or File based Write Filter	Enhanced Write filter or File based Write Filter	Limited access file system	Read only file system	Downloads firmware at boot
Locked configuration/accounts	•	•	•	•	•		
Firewall	Microsoft Firewall	Microsoft Firewall	Microsoft Firewall	Microsoft Firewall			
Smart Card support	•	•	•	•	•	•	•
Management							
HP Device Manager	•	•	•	•	•	•	•
Microsoft SCCM		•	•				
Windows Embedded Device Manager		•	•				
Other							
HP Universal Print Driver	•	•	•				
HP Velocity	•	•	•	•	•	•	•
Available Platforms	HP t520, HP t610, HP t620/t620 PLUS, HP t820	HP t510, HP t520, HP t620, HP t620 PLUS, HP t820 and mt41	HP t510, HP t520, HP t620, HP t620 PLUS, HP t820	HP t510	HP t510	HP t510, HP t520, HP t620, HP t620 PLUS	HP t410, t410 AiO, HP t520, HP t620

Model	OS Version	VMware Horizon View HCL			Citrix Ready/HDX Ready			Microsoft
		Horizon View Client 2.0/5.x	XD7	XD 5.6	XA 6.5	Zero Client	ViaB 5.x	RemoteFX Logo
t310	No Operating System	Tera2 Certified	N/A	N/A	N/A	N/A	N/A	N/A
t310 AiO	No Operating System	Tera2 Certified	N/A	N/A	N/A	N/A	N/A	N/A
t410	HP Smart Zero Client	N/A	In progress	HDX	HDX	Certified	In progress	Certified
t410 AiO	HP Smart Zero Client	Certified	In progress	HDX	HDX	Certified	In progress	Certified
t510	HP Smart Zero Client	Certified	HDXP	HDXP	HDXP	Certified	Certified	N/A
t510	HP Thin Pro	Certified	HDXP	HDXP	HDXP	N/A	Certified	N/A
t510	Windows Embedded Standard 2009	Certified	HDXP	HDXP	HDXP	N/A	Certified	N/A
t510	Windows Embedded Standard 7	Certified	HDXP	HDXP	HDXP	N/A	Certified	Certified
t520	Windows Embedded	Certified	HDXP	HDXP	HDXP	N/A	Certified	Certified
t520	HP ThinPro	Certified	HDXP	HDXP	HDXP	N/A	Certified	N/A
t620	HP Smart Zero Client	Certified	In progress	In progress	In progress	In progress	In progress	In progress
t620	HP Thin Pro	Certified	In progress	In progress	In progress	N/A	In progress	In progress
t620	Windows Embedded Standard 7	Certified	In progress	In progress	In progress	N/A	In progress	Certified
t820	Windows Embedded Standard 7	Certified	HDXP	HDXP	HDXP	N/A	Certified	Certified
mt41 mobile	Windows Embedded Standard 7	Certified	HDXP	HDXP	HDXP	N/A	Certified	Certified

*This product is low halogen except for power cords, cables and peripherals, as well as the customer-configurable 100 Mbps Fiber NIC module which is not Low Halogen. Service parts obtained after purchase may not be Low Halogen.

- 1 t310 only
- 2 Dual core processing is designed to improve performance of this system. Given the wide range of SW applications available, performance will vary. AMD's numbering is not a measurement of clock speed. Intel's numbering is not a measurement of higher performance.
- 3 Maximum memory capacities assume Windows 64-bit operating systems or Linux. With Windows and Linux 32-bit operating systems, memory above 3 GB may not all be available due to system resource requirements.
- 4 Wireless access point and Internet service required and is not included. Availability of public wireless access points limited.
- 5 With optional cable.
- 6 64 MB or more memory reserved for video. 42 GB/1 GB SKU available in North America. Up to 1 GB may not be available in 4GB configurations with 32-bit operating systems due to system resource requirements. Flash and RAM maximum vary with OS.
- 7 The resolutions your monitor displays and the multi-display modes (i.e. clone, spanning, extended/independent) supported in ICA, RDP or locally may vary. Number of monitors supported varies by model.
- 8 Touchscreen support varies by OS. Not supported by Windows Embedded Standard 7E, Windows CE, or HP Smart Zero Client Technology.
- 9 Options sold separately. Availability varies by country.
- 10 Configurations of the HP t620 and HP t620 PLUS Flexible Thin Clients that are ENERGY STAR® qualified are identified on HP websites and on energystar.gov. EPEAT® registered where applicable. EPEAT registration varies by country. See epeat.net for registration status by country.
- 11 This system requires a separately purchased 64-bit operating system and 64-bit software products to take advantage of the 64-bit processing capabilities of AMD technology. (language in red only used if the OS is not x64) Multi-core processing available with AMD technology is designed to improve performance of this system. Given the wide range of software applications available, performance of a system including a 64-bit operating system and a dual-core processor will vary. AMD's numbering is not a measurement of clock speed.
- 12 Multi core processing with AMD technology is designed to improve performance of this system. Given the wide range of software applications available, performance will vary. AMD's numbering is not a measurement of clock speed.
- 13 The specifications for the 802.11ac WLAN are draft specifications and are not final. If the final specifications differ from the draft specifications, it may affect the ability of the thin client to communicate with other 802.11ac WLAN devices.
- 14 Windows Embedded Standard 7 products require 8 GB or more Flash memory.
- 15 Configurable for one protocol at a time.
- 16 HP Remote Graphics Software requires Windows and internet connection.

HDX – HDX Ready

HDXP – HDX Premium Ready

N/A – Certification is not applicable to this device

For more information visit
hp.com/go/thin

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