HP t610 Flexible Thin Clients

Designed for security with breakthrough performance

Advanced technology, high-end deployment

The HP t610 Flexible Thin Clients deliver a true, PC-like experience for virtualized desktop environments. Built using AMD's new APU technology, the HP t610 combines dual core 64-bit processor[1] and AMD HD 6320[2] graphics. Both thin clients feature DirectX 11 graphics support, DDR3-1600 RAM with up to 8 GB of capacity[3] and AMD A55E Chipset with DVI-I and DisplayPort outputs for exceptional performance.

A flexible alternative to the PC

The sleek HP t610 and HP t610 PLUS (larger chassis with expansion card bay and additional legacy ports) provide thermal protection to reduce data loss from thermal shutdown.

Connect various peripherals with 2 USB 3.0 ports, 4 USB 2.0 ports and legacy ports. Use the standard Gigabit Ethernet or built-in Wi-Fi[4] option with dual, internal antennas. Expand simple memory upgrades to solid-state secondary storage options and half-height PCI Express cards in the HP t610 PLUS chassis expansion slot.

Our most powerful and flexible thin client series—with more security, more expansion options and a PC-like multimedia experience.

Exceptional security

The HP t610 Flexible Thin Clients include security features—such as the built-in TPM Chip and HP BIOS—usually found only on PCs so network access concerns can be addressed. Additional software security features include Applocker, DirectAccess, Windows Defender, and AntiMalware.[5]

HP Velocity for your network

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, visit hp.com/go/velocity.

Easy setup and management

Make it easy to deploy, manage and maintain your install base with HP Device Manager, a software tool available exclusively for HP Thin Clients.

With HP Easy Tools, a wizard-based set of utilities for HP thin clients running HP ThinPro, you can connect to a wide variety of remote applications and desktops with ease, including Microsoft, Citrix, and VMware Horizon View. Similarly, for HP thin clients running HP Smart Zero Technology, the Smart Client Services provide "set up once and apply to many" that simplifies the configuration. An easy mechanism for automatically configuring new Smart Zero clients when connecting to the network: Just set up once and apply that setup to all. With the Smart Client Services, you can also configure HP thin clients to detect and install new software updates.

Simplify deployments and manage thin clients with Microsoft System Center Configuration Manager. Easily manage Windows Embedded Standard 7E-based HP thin clients. Get optimized compatibility with top virtualization software, including Citrix XenApp and XenDesktop, and VMware Horizon View through PCoIP.

The HP t610 Flexible Series with Windows Embedded Standard 7E is RemoteFX certified and optimized for Microsoft
RDP 8.0 as well.

HP t610 Flexible Thin Clients

Hardware specification	
Operating Systems	Available with preinstalled HP ThinPro, HP Smart Zero Technology, Microsoft Windows Embedded Standard 7E, Microsoft Windows Embedded Standard 7P, Microsoft Windows Embedded 8 Standard, or Microsoft Windows Embedded Standard 2009 depending on configuration
Processor[1]	AMD Dual-Core T56N 64-bit APU with Radeon HD 6320 Graphics (1.65 GHz, 1 MB L2 cache)
System memory[3]	2 or 4 GB DDR3 1600 standard
Flash memory	1 GB for configurations using HP ThinPro or HP Smart Zero Technology. 2 GB for configurations using Microsoft Windows Embedded Standard 2009 16 GB for configurations using Microsoft Windows Embedded Standard 7E 16 GB for configurations using Microsoft Windows Embedded Standard 7P 16 GB for configurations using Microsoft Windows Embedded 8 Standard
Graphics	AMD Radeon HD 6320 graphics (standard): Up to 2 x 1920x1200 or 1 x 2560x1600 + 1 x 1920x1200
	Quad-head video option: AMD FirePro™ 2270 Multi-View Professional Graphics dual-head graphics card (for up to four digital monitor support in total) available as factory-installed option on PLUS models only (4 GB RAM required for quad-head WES 7 and WES 8 configurations): Up to 4 x 1920x1200 / 3 x 1920x1200 + 1 x 2560x1600 or with optional DMS-59 to DisplayPort adapter 1 x 1920x1200 + 3 x 2560x1600
	Six-head video option: AMD FirePro™ 2460 Multi-View Professional Graphics quad-head graphics card (for up to six digital monitor support in total) available as a factory-installed option on PLUS models only (4 GB RAM required for six-head WES 7 and WES 8 configurations): Up to 6 x 1920x1200 simultaneous monitors
Monitor support	1 x DVI-I with DVI-to-VGA adapter included in packaging
	1 x DisplayPort 1.1a
	(see other optional 3-6 head monitor support options, above)
Audio	Internal amplified speaker, 1/8-inch mini jack out, full 24-bit stereo, up to 192kHz sample rate, 1/8-inch mini jack microphone in
Communications[4]	Gigabit Ethernet (RJ-45)
	(actual speeds may vary)
	802.11 a/b/g/n Wi-Fi with dual internal antennas (certain models)
	HP 100 Mbps Mini PCIe Fiber NIC with rear panel SC connector (PLUS models only, factory-installed option)
Ports and connectors	Standard models: 4 USB 2.0 (2 front/2 rear), 2 USB 3.0 (rear),1 DVI-1 (1 DVA-to-VGA adapter included in carton), 1 DisplayPort, 2 PS/2, 1 serial, 1 RJ-45
	PLUS models: 4 USB 2.0 (2 front/2 rear), 2 USB 3.0 (rear),1 DVI-I (standard configuration), 1 DisplayPort (standard configuration), 2 PS/2, 2 serial, 1 parallel, 1 RJ-45, 1 half-height PCIe x4 card slot (occupied with quad-head/six-head video configuration)
	Quad-head video models: 4 USB 2.0 (2 front/2 rear), 2 USB 3.0 (rear),3 DVI-I, 1 DisplayPort, 2 PS/2, 2 serial, 1 parallel, 1 RJ-45 (PCIe slot is occupied by AMD FirePro 2270 card).
	Six-head video models: 4 USB 2.0, 2 USB 3.0, 1 DVI-I, 5 DisplayPort, 2 PS/2, 2 serial, 1 parallel, 1 RJ-45 (PCIe slot is occupied by AMD FirePro 2460 card)
Input devices	Standard keyboard and 2-button optical scroll mouse included (USB or PS/2)
Power	Standard chassis: 65W worldwide auto-sensing 100-240 VAC 50-60Hz surge-tolerant power supply
	PLUS chassis: 85W worldwide auto-sensing 100-240 VAC 50-60Hz surge-tolerant power supply
Environmental[6]	Energy Star® qualified and EPEAT® Gold registered where applicable/supported except for quad-head or six-head video configurations or models using the factory-installed HP 100 Mbps Mini PCIe Fiber NIC. See epeat.net for registration status by country.
Dimensions (WxDxH)	Standard chassis (vertical orientation) PLUS chassis (vertical orientation)
	Without stand: 8.7x1.6x9.4 in (22x4x24 cm) Without stand: 8.7x2.6x9.4 in (22x6.5x24cm)
	With stand: 8.7x1.6x9.9 in (22x4x25.1 cm) With stand: 8.7x2.6x9.9 in (22x6.5x25.1 cm)
Weight	Standard chassis PLUS chassis
	Without stand: 3.285 lbs (1.49 kg) Without stand: 4.365 lbs (1.98 kg)
	With stand: 3.417 lbs (1.55 kg) With stand: 4.497 (2.04 kg)
Warranty[7]	Limited three-year hardware warranty

HP t610 Flexible Thin Clients

		Smart Zero	ThinPro	Windows Embedded 8 Standard	Windows Embedded Standard 7E	Windows Embedded Standard 7P	Windows Embedded Standard 2009
Host Environment	**Protocol**						
Microsoft Remote Desktop Services	RemoteFX (RFX)	•	•	•	•	•	
	RDP	•	•	•	•	•	•
Citrix	ICA	•	•	•	•	•	•
	HDX	•	•	•	•	•	•
VMware Horizon View	RDP	•	•	•	•	•	•
	PCoIP	•	•	•	•	•	•
Protocol Clients							
Citrix Receiver*		12.1.5	12.1.5	3.3 (S)	3.3 (E)	3.3 (E)	3.3 (E)
Citrix Online Plugin		12.1.5	12.1.5	13.3	13.3	13.3	13.3
Microsoft Remote Desktop Client				8	8	8	7
VMware Horizon View Client*		1.7	1.7	2.3	2.3	2.3	2.3
HP Remote Graphics Software (HP RGS)			Via add-on	6.0	6.0	6.0	6.0
HP TeemTalk Terminal Emulator			7.3	7.3	7.3	7.3	7.3
Free RDP		1.0	1.0				
Browser Support							
Mozilla Firefox		19	19				
Internet Explorer				10	9	8	8
Security							
Smart Card		•	•	•	•	•	•
Logon Manager				•	•	•	•
Read Only Operating System				•	•	•	•
802.1x		•	•	•	•	•	•
Enhanced Write Filter (EWF) File-Based Write Filter (FBWF) Unified Write Filter (UWF)				UWF	EWF FBWF	EWF FBWF	EWF FBWF
Microsoft Firewall				•	•	•	•
Microsoft AntiMalware and Windows Defender				•		•	

	Smart Zero	ThinPro	Windows Embedded 8 Standard	Windows Embedded Standard 7E	Windows Embedded Standard 7P	Windows Embedded Standard 2009
Session brokers						
Citrix XenDesktop	•	•	•	•	•	•
VMware Horizon View	1.7	1.7	2.3	2.3	2.3	2.3
Leostream Desktop Connection broker (available from vendor website)				from vendor site	from vendor site	
Management Tools						
HP Device Manager	•	•	•	•	•	•
HP ThinState		•	•	•	•	•
HP Easy Tools		•		•		•
HP Smart Zero Client Services	•					
Microsoft SCCM/EDM agent				•	•	
Additional Components						
HP Velocity	•	•	•	•	•	•
HP Connection Manager		•		•	•	•
HP Universal Print Driver			•	•	•	
Windows Media Player			12	12	12	11
Windows Touch (Multi-touch support)			• (advanced)		• (multi)	• (single)
Multilanguage support			•		•	
Microsoft DirectAccess			Enterprise features via VL**		•	
Microsoft BranchCache			Enterprise features via VL**		•	
Microsoft AppLocker			Enterprise features via VL**		•	
Microsoft Sideloading			Enterprise features via VL**			
Audio CODECs included						
MP3	•	•	•	•	•	•
WMA stereo	•	•	•	•	•	•
AAC stereo & HE AAC	•	•				
Microsoft AC3 encoder			•	•	•	•
Microsoft Dolby audio decoder (AC-3, E-AC-3)			•			

	Smart Zero	ThinPro	Windows Embedded 8 Standard	Windows Embedded Standard 7E	Windows Embedded Standard 7P	Windows Embedded Standard 2009
Video CODECs included						
MPEG-1	•	•	•	•	•	•
MPEG-4 part 2 (DivX, Xvid, H.263)	•	•	•	•	•	
MPEG-4 part 10 (H.264, AVC)	•	•	•	•	•	
WMV 7/8/9/ VC-1 & ASF Demuxer	•	•	•	•	•	•

NOTE: Other add-on software available (see: hp.com/support for latest list of available add-ons). Software performance and support may vary depending on customer environment and backend.

*Citrix provides two versions of Citrix Receiver, Standard (S) and Enterprise (E) for Windows Embedded Standard. Please go to Citrix.com for more info. Citrix Receiver and VMware Horizon client versions vary depending on operating systems.

**Customers will require volume licensing (VL) agreement with Microsoft to enable "Enterprise features". Availability: 2H2013.

1. 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. Dual core processing is designed to improve performance of this system. Given the wide range of SW applications available, performance will vary.

2. High-definition (HD) content required for HD playback.

3. With standard pre-installed Windows (HP ThinPro and HP Smart Zero Technology) 32-bit operating systems, memory above 3 GB may not all be available due to system resource requirements. Maximum memory capacities assume device configured with Windows Embedded 8 Standard 64-bit operating system.

4. Wireless access point and Internet service is required and is not included. Wireless features, performance and support may vary depending on environmental variables such placement, settings and firmware of your access points. Please contact your wireless vendor for support of your wireless environment.

5. Software features available only in Windows Embedded Standard 7P and Windows Embedded 8 Standard.

6. ENERGY STAR® qualified except for quad-head video or six-head configurations or configurations with HP 100 Mbps Mini PCIe SC Fiber NIC. EPEAT® Gold except for quad-head or six-head video or HP 100 Mbps Mini PCIe SC Fiber NIC configurations where HP registers commercial desktop products. See epeat.net for registration status in your country.

7. Service levels and response times for HP Care Pack Services may vary depending on your geographic location. Service starts from date of hardware purchase. Restrictions and limitations apply. HP Care Pack Services extend service contracts beyond the standard warranties. To choose the right level of service for your HP product, use the HP Care Pack Services Lookup Tool at hp.com/go/lookuptool. Additional HP Care Pack Services information by product is available at hp.com/hps/carepack.

For more information visit
hp.com/go/thincomputing