



## HP t610 Flexible Thin Clients

Designed for security with breakthrough performance

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



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ration

### 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 processors<sup>1</sup> and AMD HD 6320<sup>2</sup> graphics. Both thin clients feature DirectX 11 graphics support, DDR3-1600 RAM with up to 4 GB of capacity<sup>7</sup>, 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<sup>3</sup> 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.

### 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 are available in select Windows-based thin clients.

### Easy setup and management

HP Easy Tools is a simple, wizard-based console that reduces the

process to a few mouse clicks. Control up to thousands of thin client devices easily with HP Device Manager.

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

The HP t610 Flexible Series with WES 7 is RemoteFX certified and optimized for Microsoft RDP 7.1 as well.



# HP t610 Flexible Thin Clients

## Hardware Specifications

<b>Operating Systems</b>	Available with preinstalled HP ThinPro, HP Smart Zero Technology, Microsoft® Windows® Embedded Standard 7E, Microsoft® Windows® Embedded Standard 7P, or Microsoft® Windows® Embedded Standard 2009 depending on configuration	
<b>Processor<sup>1</sup></b>	AMD 64-bit Dual-Core T56N APU with Radeon HD 6320 <sup>2</sup> Graphics (1.65 GHz, 1 MB L2 cache)	
<b>System memory<sup>7</sup></b>	2 or 4 GB DDR3 1600 MHz standard	
<b>Flash memory</b>	1 GB for configurations using HP ThinPro or HP Smart Zero Technology. 2 GB for configurations using Microsoft® Windows® Embedded Standard 2009 4 or 16 GB for configurations using Microsoft® Windows® Embedded Standard 7E 16 GB for configurations using Microsoft® Windows® Embedded Standard 7P	
<b>Graphics</b>	AMD Radeon HD 6320 <sup>2</sup> 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 output) available as factory-installed option on PLUS models only (4 GB RAM required for quad-head WES 7 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	
<b>Monitor support</b>	1 x DVI-I with DVI-to-VGA adapter included in packaging 1 x DisplayPort 1.1a (with optional quad-graphics configurations: 3 x DVI-I + 1 x DisplayPort 1.1a) Other configurations possible using optional DMS-59 to DisplayPort adapter	
<b>Audio</b>	Internal amplified speaker, 1/8-inch mini jack out, full 16-bit stereo, 44kHz sample rate, 1/8-inch mini jack microphone in	
<b>Communications<sup>3</sup></b>	10/100/1000 Mbps Ethernet (actual speeds may vary) 802.11 a/b/g/n Wi-Fi with dual internal antennas (certain models)	
<b>Ports and connectors</b>	<u>Standard models:</u> 4 USB 2.0 (2 front/2 rear), 2 USB 3.0 (rear), 1 DVI-I, 1 DisplayPort, 2 PS/2, 1 serial, 1 RJ-45 <u>PLUS models:</u> 4 USB 2.0 (2 front/2 rear), 2 USB 3.0 (rear), 1 DVI-I, 1 DisplayPort, 2 PS/2, 2 serial, 1 parallel, 1 RJ-45, 1 half-height PCIe x4 card slot <u>Quad-head video models:</u> 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).	
<b>Input devices</b>	Standard keyboard and 2-button optical scroll mouse included (USB or PS/2)	
<b>Power</b>	<u>Standard chassis:</u> 65W worldwide auto-sensing 100-240 VAC 50-60Hz surge-tolerant power supply <u>PLUS chassis:</u> 85W worldwide auto-sensing 100-240 VAC 50-60Hz surge-tolerant power supply	
<b>Environmental</b>	BFR/PVC-Free <sup>4</sup> , Post-Consumer Recycled Plastics > 20% (excluding PCB), and Energy Star® <sup>5</sup> qualified and EPEAT® Gold <sup>5</sup> registered where applicable/supported except for quad-head video configurations. See <a href="http://www.epeat.net">http://www.epeat.net</a> for registration status by country.	
<b>Dimensions (WxDxH)</b>	<u>Standard chassis (vertical orientation)</u> Without stand: 8.7x1.6x9.4 in (22x4x24 cm) With stand: 8.7x1.6x9.9 in (22x4x25.1 cm)	<u>PLUS chassis (vertical orientation)</u> Without stand: 8.7x2.6x9.4 in (22x6.5x24cm) With stand: 8.7x2.6x9.9 in (22x6.5x25.1 cm)
<b>Weight</b>	<u>Standard chassis</u> Without stand: 3.285 lbs (1.49 kg) With stand: 3.417 lbs (1.55 kg)	<u>PLUS chassis</u> Without stand: 4.365 lbs (1.98 kg) With stand: 4.497 (2.04 kg)
<b>Warranty</b>	Limited three-year hardware warranty	



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## Software Specifications

SPECIFICATIONS	Windows Embedded Standard 7E	Windows Embedded Standard 7P	Windows Embedded Standard 2009	HP ThinPro	HP Smart Zero Technology
<b>Client Protocol Support</b>					
Citrix ICA					
HDX MediaStream	•	•	•	•	•
VMware View 5.0					
PCoIP	•	•	•	4.6 client	4.6 client
RDP	•	•	•	•	•
Microsoft RDP/RFX	RDP 7.1 / RFX		RDP 7.0	rdesktop 1.6	rdesktop 1.6
HP Remote Graphics Software	•	•		•	
X Windows (X11R6)				•	
<b>Applications</b>					
HP TeemTalk Terminal Emulation	•	•	•	•	
Local browser	Microsoft Internet Explorer 8	Microsoft Internet Explorer 9		Firefox Web Browser	Add-on
Media player	•	•	•		
Multi-Touch touchscreen support		•			
BrancheCache		•			
Snipping tool		•			
Photo Viewer		•			
PDF Reader	•	•	Add-on	•	
ThinPrint .print client (TCP/IP)	Available directly from vendor			•	
Java Virtual Machine	Add-on	Add-on	Add-on		
Local app compatibility	Win32	Win32	Win32	Ubuntu Linux	
Multi-language support		•			
<b>Security</b>					
File protection	Enhanced Write filter or File-based Write Filter			Read only file system	Firmware downloaded at boot
Locked configuration/accounts	•	•	•	•	Configuration downloaded at boot
Firewall	Microsoft Firewall add-on		Symantec Endpoint Protection		
Smart Card support	•	•	•	•	•
AppLocker		•			
Windows Defender		•			
AntiMalware		•			
<b>Management</b>					
HP Device Manager	•	•	•	•	•
HP Easy Tools	•	•	•	•	
Microsoft SCCM / WEDM agent	•	•			



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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. 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.
4. HP t610 Flexible Thin Client series is brominated flame retardant and polyvinyl chloride-free (BFR/PVC-free); meeting the industry definition of 'BFR/PVC-free' per the iNEMI Position Statement on "Low Halogen" Electronics. Plastic parts incorporated into the chassis generally contain < 1000 ppm (0.1%) of bromine or chlorine. Printed circuit board and substrate laminates generally contain < 1500 ppm (0.15%) of total bromine and chlorine. Service parts after purchase may not be BFR/PVC-free. External power supply, power cords, keyboard, mouse, and DVI-to-VGA adapter may not be BFR/PVC free.
5. ENERGY STAR® qualified except for quad-head video configurations. EPEAT® Gold except for quad-head video configurations where HP registers commercial desktop products. See [www.epeat.net](http://www.epeat.net) for registration status in your country.
6. 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 [www.hp.com/go/lookuptool](http://www.hp.com/go/lookuptool). Additional HP Care Pack Services information by product is available at [www.hp.com/hps/carepack](http://www.hp.com/hps/carepack).
7. With standard pre-installed Windows and Linux (HP ThinPro and HP Smart Zero Service) 32-bit operating systems, memory above 3 GB may not all be available due to system resource requirements. Maximum memory capacities assume Windows 64-bit operating systems or Linux.

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