



# 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 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.

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 are available in select Windows-based thin clients.

### **HP Velocity for your network**

Prevent poor network connectivity in densely populated work environments with integrated HP Velocity, a new HP feature. As network conditions change, HP Velocity reacts to maintain the highest quality multimedia performance and remote protocol user experience.

### **Easy setup and management**

With HP Easy Tools, a new wizard-based set of utilities for t610, you can connect to a wide variety of remote applications and desktops with ease, including Microsoft, Citrix, and VMware. Similarly, for t610 running Smart Zero Core, the Smart Client Services provide the for “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 t610 running Smart Zero Technology to detect and install new software updates. The HP t610 provides an improved end-user performance, backed by the industry-standard reliability and design of HP Thin Client products.

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 Horizon View with PCoIP.

The HP t610 Flexible Series with WES 7 is RemoteFX certified and optimized for Microsoft RDP 8.0 as well.

## HP t610 Flexible Thin Clients

Hardware specification	
<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 <sub>2</sub> 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 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 <sub>2</sub> 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 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 configurations): Up to 6 x 1920x1200 simultaneous monitors
<b>Monitor support</b>	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)
<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>	Standard models: 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  PLUS models: 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  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)
<b>Input devices</b>	Standard keyboard and 2-button optical scroll mouse included (USB or PS/2)
<b>Power</b>	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
<b>Environmental<sup>5</sup></b>	Energy Star® qualified and EPEAT® Gold registered where applicable/supported except for quad-head or six-head video configurations. See <a href="http://epeat.net">epeat.net</a> for registration status by country.
<b>Dimensions (WxDxH)</b>	Standard chassis (vertical orientation) Without stand: 8.7x1.6x9.4 in (22x4x24 cm) With stand: 8.7x1.6x9.9 in (22x4x25.1 cm)  PLUS chassis (vertical orientation) Without stand: 8.7x2.6x9.4 in (22x6.5x24cm) With stand: 8.7x2.6x9.9 in (22x6.5x25.1 cm)
<b>Weight</b>	Standard chassis Without stand: 3.285 lbs (1.49 kg) With stand: 3.417 lbs (1.55 kg)  PLUS chassis Without stand: 4.365 lbs (1.98 kg) With stand: 4.497 (2.04 kg)
<b>Warranty<sup>6</sup></b>	Limited three-year hardware warranty

## HP t610 Flexible Thin Clients

Software 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 Receiver HDX MediaStream	•	•	•	•	•
VMware Horizon View PCoIP RDP	•	•	•	•	•
Microsoft RDP/RFX	RDP 8.0 / RFX		RDP 7.0	FreeRDP support for RDP 7.1/RFX	
HP Remote Graphics Software	•	•		•	
X Windows (X11R6)				•	
<b>Applications</b>					
HP TeamTalk Terminal Emulation	•	•	•	•	
Local browser	Microsoft Internet Explorer 9	Microsoft Internet Explorer 9	IE8	Firefox 15.0	Add-on
Media player	•	•	•		
Multi-Touch touchscreen support		•	Single touch only		
BrancheCache		•			
HP Universal Print Drivers	•				
PDF Reader	•	•	Add-on	•	
ThinPrint .print client (TCP/IP)		•			
API compatibility	Available directly from vendor			•	
Local app compatibility	Win32	Win32	Win32		
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				
Smart Card support	•	•	•	•	•
AppLocker		•			
Windows Defender		•			
<b>Management</b>					
HP Device Manager	•	•	•	•	•
HP Easy Tools	•	•	•	•	
Microsoft SCCM / WEDM agent	•	•			

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 or six-head configurations. EPEAT® Gold except for quad-head or six-head video configurations where HP registers commercial desktop products. See [epeat.net](http://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 [hp.com/go/lookuptool](http://hp.com/go/lookuptool). Additional HP Care Pack Services information by product is available at [hp.com/hps/carepack](http://hp.com/hps/carepack).
7. With standard pre-installed Windows (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.

**For more information visit**  
[hp.com/go/thincomputing](http://hp.com/go/thincomputing)

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