



Data sheet

HP t820 Flexible Thin Client

**Ignite your IT environment with HP's
most powerful thin client.**



HP's most powerful thin client is the full-featured solution to boost efficiency and performance. Get a responsive, smooth desktop experience from two Intel® 4th Generation high performance processors. Robust security options deliver superior data protection. Enable cost-effective, remote IT management—and simplify deployments—with the flexibility of a multi-protocol environment. Multiple monitors expand multitasking.

Fast or faster—your choice.

Propel performance with powerhouse processing. Work smoother and quicker, with two Intel® 4th Generation high performance processors to choose from and brilliant, seamless graphics.

Count on powerful performance fast enough for the most demanding applications – the Intel® Core™ i5-4570 with Intel HD 4600 Graphics (2.9 GHz, 6 MB cache, 4 cores) processor delivers accelerated graphic rendering and multimedia.¹

When demanding applications need strong performance and a seamless multimedia experience choose the Intel® Pentium® G3220 with Intel HD Graphics (3.0 GHz, 3 MB cache, 2 cores) processor.¹

Keep business classified.

Keep your business data safe—lock down sensitive information and meet compliance standards with robust encryption and security options, including fiber NIC, TPM, and Intel® vPro™* technology.^{2,9}

The versatility of virtual.

Give IT the advantage of flexibility with a multi-protocol environment. Simplify deployment and manageability—and enable a seamless desktop experience—with the versatility of client virtualization.

Accelerate network connectivity and streaming applications in densely populated work environments with integrated HP Velocity – it reacts to changing network conditions to maintain high-quality performance.

Count on a seamless IT experience with the flexibility of a multi-protocol environment – Citrix, Microsoft, VMware or HP Remote Graphics Software.³

Business productivity.

Outstanding multi-tasking efficiency. Expand up to seven monitors⁴ to seamlessly control large amounts of data and multiple applications—without reconfiguring open windows.

Don't stop with the thin client. Create a complete solution that's supported by HP. Choose from a full suite of HP displays, accessories, and software.

Realize real savings while reducing operating expenses. From less downtime and fewer automatic updates to decreased hardware and operating costs – it adds up to a lower total cost of ownership.

Manageability.

Make it simple to consolidate configurations and speed up deployments with HP Device Manager – the solution to get new locations up and running even faster.

Simplify remote device management – empower IT staff to make the most of their resources. Remotely control thousands of thin client devices to help reduce the need for hardware and software maintenance and upgrades.

Supported by HP.

Protect your investment with a 3-year worldwide limited warranty – select optional HP Care Pack Services to extend service contracts beyond the standard warranties.⁵

Create a complete solution that's supported by HP. Choose from a full suite of HP displays, accessories, and software.

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Specifications

| | |
|--|---|
| Operating Systems⁶ | Windows Embedded Standard (WES) 7E (32-bit) Windows Embedded Standard (WES) 7P (64-bit) Windows Embedded Standard (WES) 8 (64-bit)** |
| Chipset | Intel® Q87 Express |
| Processor | Intel® Core™ i5-4570S Processor; Intel® Pentium® G3220 with Intel HD Graphics (3.0 GHz, 3 MB cache, 2 cores) Processor ¹ |
| Storage | SATA Solid State Drive, 16 GB ⁷ MLC mSATA 6.0 Gb/s, 32 GB ⁷ MLC mSATA 6.0 Gb/s |
| Memory⁸ | DDR3 non-ECC Up to 1600 MT/s, 16 GB, 2 SODIMM |
| Networking/Communications⁹ | Ethernet (RJ-45): Intel 82579LM Gigabit Network Connection (standard) Wireless: Intel® Centrino Advanced-N 6205 PCI Express Mini Card Wireless Network Connection (optional); ¹⁰ Fiber NIC (optional 100 Mbps SC) |
| Audio/Multimedia¹¹ | HD audio with Realtek ALC221 codec (all ports are stereo), Microphone** and headphone front ports (3.5mm), Line-out and Line-In rear Ports** (3.5mm), Multi-streaming capable,** Internal Speaker (standard). |
| Display support | Maximum number of simultaneous displays: 4 DisplayPort Multistreaming and HBR2 supported. DisplayPort Audio supported for one audio stream. 7 x 1920x1080 or 4 x 2560x1600 |
| Security | Trusted Platform Module (TPM) 1.2, SATA port disablement (via BIOS), Drive lock, USB enable/disable (via BIOS), Optional USB Port Disable at factory (user configurable via BIOS), Removable media write/boot control, Power-On password (via BIOS), Setup password (via BIOS), Hood Sensor (case intrusion detection), Support for chassis padlocks and cable lock devices |
| Power | High efficiency, Integrated graphics: 135 W 87% efficient active PFC Discrete graphics: 180 W 87% efficient active PFC |
| Environmental and Regulatory | ENERGY STAR® qualified models available, EPEAT® registered where applicable/supported. See epeat.net for registration status by country. Low Halogen ¹² (chassis, all internal components and modules) Low Halogen ¹² (chassis, all internal components and modules), TAA compliant |
| Ports and connectors | USB 2.0: 4 each (front), 2 each (rear); USB 3.0: 4 each (rear), Video ¹³ : 1 each VGA and 2 each DisplayPort 1.2 (for integrated dual digital monitor support), Audio: Front – microphone & headphone Rear – line input, line out. All ports are 3.5mm in diameter. NIC: 1 each RJ-45 |
| Dimensions | 66 x 252 x 254 mm |
| Weight | 6.8 lb (3.1 kg) |
| Warranty | 3-year standard on-site warranty and service: This limited warranty and service offering delivers parts, labor and on-site repair. Optional terms available up to 5 years. Response time is next business day and includes free telephone support 24 x 7. Global coverage ensures any product purchased in one country and transferred to another non-restricted country will remain fully covered under the original warranty and service offering. Some countries/regions do not offer one-year onsite and labor. |

Software specifications

| Host environment | Protocols | WES8 | WES7E | WES7P |
|-----------------------------------|----------------|------|-------|-------|
| Microsoft Remote Desktop Services | RemoteFX (RFX) | • | • | • |
| | RDP | 8 | 8 | 8 |
| Citrix | ICA | 3.3 | 3.3 | 3.3 |
| | HDX | • | • | • |
| VMware Horizon View | RDP | 5.2 | 5.2 | 5.2 |
| | PCoIP | 5.2 | 5.2 | 5.2 |

Protocol Clients

| | | | |
|--------------------------------|------|------|------|
| Citrix Online Plugin | 13.3 | 13.3 | 13.3 |
| HP Teem Talk Terminal Emulator | 7.3 | 7.3 | 7.3 |

Browser Support

| | | | |
|-------------------|----|---|---|
| Internet Explorer | 10 | 9 | 9 |
|-------------------|----|---|---|

Security

| | | | |
|---|-----|------|------|
| Smart Card | • | • | • |
| Logon Manager | • | | • |
| Read-only Operating System | • | • | • |
| 802.1x | • | • | • |
| Enhanced/Unified Write Filter (EWF/UWF) | UWF | EWF | EWF |
| File-based Write Filter (FBWF) | | FBWF | FBWF |
| Microsoft Firewall | • | • | • |

Session brokers

| | | | |
|-------------------------------------|-----|------------------|------------------|
| VMware Horizon View | 5.2 | 5.2 | 5.2 |
| Legstream Desktop Connection broker | | From vendor site | From vendor site |

| Management Tools | WES8 | WES7E | WES7P |
|---|-----------------|--------------|--------------|
| HP Device Manager | • | • | • |
| HP Thin Slate | • | • | • |
| HP Easy Tools | | • | • |
| Microsoft SCCM/EDM Agent | | • | • |
| Additional Components | | | |
| HP Velocity | • | • | • |
| HP Connection Manager | • | • | • |
| Universal Print Driver | • | | • |
| Windows Media Player | 12 | 12 | 12 |
| Viewers for MS Office 2003: Excel, PowerPoint, Word | | • | • |
| Windows touch (multi-touch support) | • (Advanced) | | • (Multi) |
| Multi-language support | • | | • |
| Microsoft DirectAccess ¹⁴ | Via VL | | • |
| Microsoft BranchCache ¹⁴ | Via VL | | • |
| Microsoft AppLocker ¹⁴ | Via VL | | • |
| Microsoft AntiMalware and Windows Defender | • | | • |
| Imprivata OneSign** | • | • | • |
| HealthCast QwickAccess** | • | • | • |
| Audio CODECs included | | | |
| MP3 | • | • | • |
| WMA stereo | • | • | • |
| AAC stereo & HE AAC | | | |
| Microsoft AC3 encoder | • | • | • |
| Microsoft Dolby audio decoder (AC-3, E-AC-3) | • | | |
| 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 | • | • | • |

* vPro is available with Core i5 processor ONLY. Not available on Pentium.

** Not included in price. Available as an add-on service.

1. Multicore is designed to improve performance of certain software products. Not all customers or software applications will necessarily benefit from use of this technology. 64-bit computing on Intel® architecture requires a computer system with a processor, chipset, BIOS, operating system, device drivers, and applications enabled for Intel 64 architecture. Processors will not operate (including 32-bit operation) without an Intel 64 architecture-enabled BIOS. Performance will vary depending on your hardware and software configurations. Intel's numbering is not a measurement of higher performance.
2. Some functionality of this technology, such as Intel® Active management technology and Intel Virtualization technology, requires additional 3rd party software in order to run. Availability of future "virtual appliances" applications for Intel vPro technology is dependent on 3rd party software providers. Microsoft Windows required.
3. Remote Graphics Software requires Windows and Internet access.
4. The t820 Flexible Thin Client is factory equipped to simultaneously support up to 3 monitors utilizing the on-board Intel® HD 4600 Graphics card with 1xVGA and 2x Display Port connectors. Expansion options include support up to 7 Full HD monitors (1920x1080), 6 WUXGA monitors (1920x1200), or 4 WQXGA monitors (2560x1600). Using 4 or more monitors require a factory-installed AMD Radeon HD 7560A expansion video card, and also requires one or more HP Display Port Multi-Stream Hubs, or Display Port 1.2 monitors with daisy-chain capabilities.
5. Certain restrictions and exclusions apply. HP Care Pack Services extend service contracts beyond the standard warranties. Service levels and response times for HP Care Packs may vary depending on your geographic location. Service starts from date of hardware purchase. To choose the right level of service for your HP product, use the HP Care Pack Services Lookup Tool at hp.com/go/cpc. Additional HP Care Pack Services information by product is available at hp.com/hps/carepack.
6. The HP t820 platform ships with WES7E included; please contact the HP account manager on WES8 and WES7P availability.
7. For Solid State Drives, GB = 1 billion bytes. Actual formatted capacity is less. We may also need to add this, still confirming: Up to ??GB is reserved for system recovery software.
8. For systems configured with more than 3 GB of memory and a 32-bit operating system, all memory may not be available due to system resource requirements. Addressing memory above 4 GB requires a 64-bit operating system.
9. Either the integrated network connection or the Intel Centrino wireless NIC is required to support Intel vPro Technology features.
10. Wireless access point and Internet service required.
11. The front microphone port is re-taskable as a Line-in, Microphone-in or Headphone-out port. Rear audio input ports are re-taskable as a Line-in or Microphone-in port. External speakers must be powered externally. Multi-streaming can be enabled in the Realtek control panel to allow independent audio streams to be sent to/from the front and rear jacks. This allows for different audio applications to use separate audio ports on the system. For example, the front jacks could be used with a headset for a communications application while the rear jacks are being used with external speakers and a multimedia application.
12. External power supplies, power cords, cables and peripherals are not Low Halogen. Service parts obtained after purchase may not be Low Halogen.
13. When configured with an Intel Pentium only two of the available video output ports are active.
14. VL=Volume License

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