## **Essential business computing**

The HP Pro SFF 290 helps optimize business resources. Equipped with a powerful Intel® processor², essential tools, and security features for business, this affordably priced and easy to set up PC has a scalable and functional design that can grow with your business.

### Powered for performance

Choose up to a 13th Gen Intel® Core™ i7 processor² for effective performance. With up to 64GB of memory³, optional M.2 NVMe SSD³, and discrete graphics³ you can easily manage your daily business.

## Expansion for the future

Two bays and two full-height slots, including PCle x16 and PCle x1 slots, provide expandability for the future. Configurable USB ports<sup>3</sup> help ensure broad compatibility with existing technology.

## Help keep data safe

Help protect your investment and your data with firmware TPM, HP Drive Lock<sup>4</sup>, and a physical security lock slot.<sup>5</sup> Additional security is provided by an optional intrusion sensor<sup>6</sup> and an integrated cable lock system to secure your cabled devices.



\*Product image may differ from actual product

#### Sustainability in action

### Help protect our shared future

The outer box of the HP Pro SFF 290 G9 is 92 percent sustainably sourced and recyclable.<sup>7</sup>



## **Featuring**

#### **HP Recommends Windows 11 Pro for Business**

Work anywhere without compromising on performance with Windows 11 and HP collaboration, security, and connectivity technology.<sup>1</sup>

#### Latest Intel® multi-core processor

Configure your HP Pro SFF 290's CPU for the perfect combination of power, snappy performance, and value. With up to a 13th Gen Intel® Core™ i7 processor and up to 64GB memory, handle multiple work tasks smoothly and reliably.  $^{2,3}$ 

#### Peripheral support

Support two independent displays with VGA and HDMI connectivity. Make connections to peripherals with several USB ports, including four front USB 2.0 and four rear USB 2.0 ports.

#### Help secure your drive

Help keep unauthorized users from accessing data on your primary drive. Prevent your primary drive from running without entering a password using HP DriveLock.

#### Simple PC management made

Spend less time and get right to the updates you need with HP Support Assistant.<sup>9</sup>

#### Integrated security

Help secure your PC with a physical security lock slot, an optional intrusion sensor, and an integrated accessory cable lock to secure your cabled mouse and keyboard on the HP Pro SFF 290.  $^{5,6}$ 



## **Technical specifications**

Technical specifications	
Available Operating Systems	Windows 11 Pro <sup>1</sup> Windows 11 Home - HP recommends Windows 11 Pro for business <sup>1</sup> Windows 10 Pro (available through downgrade rights from Windows 11 Pro) <sup>1,2</sup> FreeDOS
Processor family	Intel® Pentium® processor Intel® Celeron® processor  13th Generation Intel® Core™ i7 processor  13th Generation Intel® Core™ i5 processor  13th Generation Intel® Core™ i3 processor  12th Generation Intel® Core™ i7 processor  12th Generation Intel® Core™ i5 processor  12th Generation Intel® Core™ i5 processor  12th Generation Intel® Core™ i5 processor
Available Processors <sup>3,4,5</sup>	Intel® Pentium® Gold G7400 with Intel® UHD Graphics (3.7 GHz P-core base frequency, 6 MB L3 cache, 2 P-cores, 4 threads) Intel® Celeron® G6900 with Intel® UHD Graphics (3.4 GHz P-core base frequency, 4 MB L3 cache, 2 P-cores, 2 threads) Intel® Core™ i5-12500 with Intel® UHD Graphics (3.0 GHz P-core base frequency, up to 4.6 GHz P-core Max Turbo frequency, 18 MB L3 cache, 6 P-cores, 12 threads), supports Intel® vPro® Technology Intel® Core™ i5-12400 with Intel® UHD Graphics (2.5 GHz P-core base frequency, up to 4.4 GHz P-core Max Turbo frequency, 18 MB L3 cache, 6 P-cores, 12 threads) Intel® Core™ i3-12100 with Intel® UHD Graphics (3.3 GHz P-core base frequency, up to 4.3 GHz P-core Max Turbo frequency, 12 MB L3 cache, 4 P-cores, 8 threads) Intel® Core™ i3-12700 with Intel® UHD Graphics (1.6 GHz E-core base frequency, 2.1 GHz P-core base frequency, up to 3.6 GHz E-core Max Turbo frequency, up to 4.8 GHz P-core Max Turbo frequency, up to 4.9 GHz with Intel® Turbo Boost Technology, 25 MB L3 cache, 8 P-cores and 4 E-cores, 20 threads), supports Intel® vPro® Technology Intel® Core™ i3-13100 (4.5 GHz P-core base frequency, up to 3.4 GHz P-core Max Turbo frequency, up to 3.5 GHz E-core Max Turbo frequency, up to 4.6 GHz P-core Max Turbo frequency, 20 MB L3 cache, 6 P-cores and 4 E-cores, 16 threads) Intel® Core™ i7-13700 (1.5 GHz E-core base frequency, 2.1 GHz P-core base frequency, up to 4.1 GHz E-core Max Turbo frequency, up to 5.1 GHz P-core Max Turbo frequency, 30 MB L3 cache, 6 P-cores and 8 E-cores, 24 threads), supports Intel® vPro® Technology Intel® Core™ i5-13500 (1.8 GHz E-core base frequency, 2.5 GHz P-core base frequency, up to 3.5 GHz E-core Max Turbo frequency, up to 4.8 GHz P-core Max Turbo frequency, 24 MB L3 cache, 6 P-cores and 8 E-cores, 20 threads), supports Intel® vPro® Technology Intel® Core™ i5-13500 (1.8 GHz E-core base frequency, 2.5 GHz P-core base frequency, up to 3.5 GHz E-core Max Turbo frequency, up to 4.8 GHz P-core Max Turbo frequency, 24 MB L3 cache, 6 P-cores and 8 E-cores, 20 thread
Chipset <sup>3</sup>	Intel® H670
Form factor	Small form factor
Maximum memory	32 GB DDR4-3200 SDRAM; <sup>6</sup> Transfer rates up to 3200 MT/s.
Memory slots	2 DIMM
Internal storage	500 GB up to 2 TB 7200 rpm SATA HDD <sup>7,20</sup> 256 GB up to 512 GB PCle® NVMe™ M.2 SSD <sup>7,20</sup> 128 GB up to 128 GB PCle® NVMe™ TLC M.2 SSD <sup>7,20</sup>
Available Graphics	Integrated: Intel® UHD Graphics 730; Intel® UHD Graphics 770; Intel® UHD Graphics 710 Discrete: NVIDIA® Quadro® T400 (4 GB GDDR6 dedicated); AMD Radeon™ RX 6300 Graphics (2 GB GDDR6 dedicated)
Audio	Realtek ALC3867 codec, universal audio jack with CTIA headset support, audio line-out rear ports (3.5 mm), multi-streaming capable
Wireless technologies	Realtek RTL8821CE 802.11a/b/g/n/ac (1x1) Wi-Fi® and Bluetooth® 4.2 wireless card; Realtek RTL8822CE 802.11a/b/g/n/ac (2x2) Wi-Fi® and Bluetooth® 5 wireless card; Realtek Wi-Fi 6 RTL8852BE 802.11a/b/g/n/ax (1x1) and Bluetooth® 5.3 wireless card
Expansion slots	2 M.2; 1 PCle 3 x1; 1 PCle 4 x16 9.10.11 (1 M.2 slot for WLAN and 1 M.2 2242/2280 slot for storage.)
Ports and connectors	Front: 4 USB Type-A 5Gbps signaling rate; 1 headphone/microphone combo; Rear: 4 USB 2.0 Type-A; 1 HDMl; 1 RJ-45; 1 VGA; 1 power connector; 1 line in; 1 line out; 1 Serial (optional) <sup>11</sup> ; Optional Ports: 1 4x serial; 1 parallel
Input devices	HP 125 Wired Keyboard; HP 125 Wired Mouse
Communications	LAN: Integrated 10/100/1000M GbE
Drive Bays	One 3.5" HDD
Environmental	Operating temperature: 0 to 40°C; Operating humidity: 10 to 90% RH
Software	Bing search for IE11; HP Audio Switch; HP Documentation; HP Support Assistant; McAfee LiveSafe™; Buy Office (sold separately); HP JumpStarts; HP Setup Integrated OOBE; Xerox® DocuShare® 30 day free trial offer 12,13
Security management	Padlock loop: Trusted Platform Module (TDM) 20: Integrated accessories cable lock: Slim cable lock

Padlock loop; Trusted Platform Module (TPM) 2.0; Integrated accessories cable lock; Slim cable lock



Security management

## **Technical specifications**

Power	180 W internal power supply, up to 90% efficiency, active PFC <sup>17</sup>
Dimensions	9.5 x 30.3 x 27 cm; (System dimensions may fluctuate due to configuration and manufacturing variances.); 19.6 x 49.8 x 34.6 cm (Package)
Weight	4.2 kg; (Configured with 1 HDD and 1 ODD. Weight will vary by configuration.)
Ecolabels	CECP; EPEAT® registered; SEPA <sup>18</sup>
Energy star certified	ENERGY STAR® certified
Sustainable impact specifications	15% post-consumer recycled plastic; 80 Plus® Bronze power supplies available <sup>19</sup>
Warranty	1 year (1/1/1) limited warranty includes 1 year of parts, labor and on-site repair. Terms and conditions vary by country. Certain restrictions and exclusions apply.



#### **Footnotes**

## **Messaging Footnotes**

- <sup>2</sup> Multicore is designed to improve performance of certain software products. Not all customers or software applications will necessarily benefit from use of this technology. Performance and clock frequency will vary depending on application workload and your hardware and software configurations. Intel's numbering, branding and/or naming is not a measurement of higher performance.
- <sup>3</sup> Optional feature that must be configured at the time of purchase.
- <sup>4</sup> HP Drive Lock is not supported on NVMe drives.
- <sup>5</sup> Solenoid lock and cable required and sold separately.
- $^{\rm 6}\,{\rm HP}\,{\rm Tamper}\,{\rm Lock}$  must be enabled by the customer or your administrator.
- <sup>7</sup>92 percent outer box packaging made from sustainably sourced certified and recycled fibers. Molded Pulp cushions made from 100% recycled wood fiber and organic materials.
- <sup>1</sup> Not all features are available in all editions or versions of Windows. Systems may require upgraded and/or separately purchased hardware, drivers, software or BIOS update to take full advantage of Windows functionality. Windows is automatically updated and enabled. High speed internet and Microsoft account required. ISP fees may apply and additional requirements may apply over time for updates. See http://www.windows.com.
- <sup>4</sup> HP DriveLock is not supported on NVMe drives.
- <sup>9</sup> Internet access required.

## **Specification Footnotes**

- <sup>1</sup>Not all features are available in all editions or versions of Windows. Systems may require upgraded and/or separately purchased hardware, drivers, software or BIOS update to take full advantage of Windows functionality. Windows is automatically updated and enabled. High speed internet and Microsoft account required. ISP fees may apply and additional requirements may apply over time for updates. See http://www.windows.com.
- <sup>2</sup> This system is preinstalled with Windows 10 Pro software and also comes with a license for Windows 11 Pro software and provision for recovery software. You may only use one version of the Windows software at a time. Switching between versions will require you to uninstall one version and install the other version. You must back up all data (files, photos, etc.) before uninstalling and installing operating systems to avoid loss of your data.
- <sup>3</sup> Intel vPro\* requires Windows 10 Pro 64 bit or higher, a vPro supported processor, vPro enabled chipset, vPro enabled wired LAN and/or Wi-Fi 6E WLAN and TPM 2.0. Some functionality requires additional 3rd party software in order to run. Features of vPro\* Essentials and Enterprise vary. See http://intel.com/vpro.
- <sup>4</sup> Multi-core is designed to improve performance of certain software products. Not all customers or software applications will necessarily benefit from use of this technology. Performance and clock frequency will vary depending on application workload and your hardware and software configurations. Intel's numbering, branding and/or naming is not a measurement of higher performance.
- <sup>5</sup> Intel® Turbo Boost technology requires a PC with a processor with Intel Turbo Boost capability. Intel Turbo Boost performance varies depending on hardware, software and overall system configuration. See www.intel.com/technology/turboboost for more information.
- <sup>6</sup> Full availability of 4 GB or more of memory requires a 64-bit operating system. With Windows 32-bit operating systems, the amount of usable memory is dependent upon your configuration, so that above 3 GB all memory may not be available due to system resource requirements. Memory modules support data transfer rates up to 3200 MT/s; actual data rate is determined by the system's configured processor. See processor specifications for supported memory data rate.
- <sup>7</sup> For storage drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 30 GB (for Windows) of disk is reserved for system recovery software.
- <sup>8</sup> Optical drives are optional or add on features. Duplication of copyrighted material is strictly prohibited. Actual speeds may vary. Double Layer media compatibility will widely vary with some home DVD players and DVD-ROM drives.
- <sup>9</sup> Card sold separately.
- $^{10}$  4 serial port: optional via PCle slot, and only available for specific region.
- 11 HDMI/VGA ports will be covered up when a non-internal graphics processor is configured on shipped machine.
- <sup>12</sup> McAfee LiveSafe™: subscription required.
- <sup>13</sup> Simply sign up and start using Xerox® DocuShare® Go. No credit card. No obligation. Data will become unavailable unless a subscription is entered before the end of the 90 day free trial period. See www.xerox.com/docusharego for details.
- . <sup>14</sup> Security cable lock supported (sold separately).
- 15 TPM feature will be supported on machine pre-configured with FreeDOS, and will be default set as enabled in BIOS setup menu if the machine is dTPM, but will be default set as disabled in BIOS setup menu if the machine is fTPM.
- <sup>16</sup> Physical cable lock for cable management.
- <sup>17</sup> All power supplies are not available in every region.
- 18 Based on US EPEAT® registration according to IEEE 1680.1-2018 EPEAT®. EPEAT® status varies by country. Visit www.epeat.net for more information.
- <sup>19</sup> Recycled plastic content percentage is based on the definition set in the IEEE 1680.1-2018 standard.
- <sup>20</sup> Starting November 1st, 2023, HP PCs with Windows require Windows to be installed on SSD. HDD can only be configured as additional data drives and not as the boot drive.

