Overview

HP ProDesk 2 SFF G2a Desktop PC



1. Slim-height Bay - supporting an optical disk drive (optional)
2. Power Button
3. Combo jack, Headphone/ Microphone
4. (3) SuperSpeed USB 5Gbps signaling rate Ports[1]
5. (1) USB-C 3.2 G2 (10G)

Not shown

Ryzen 240/260 processor
(1) PCI Express 4.0 x16
(1) PCI Express 3.0 x1
(1) M.2 for WLAN
(2) M.2 2280 for Storage

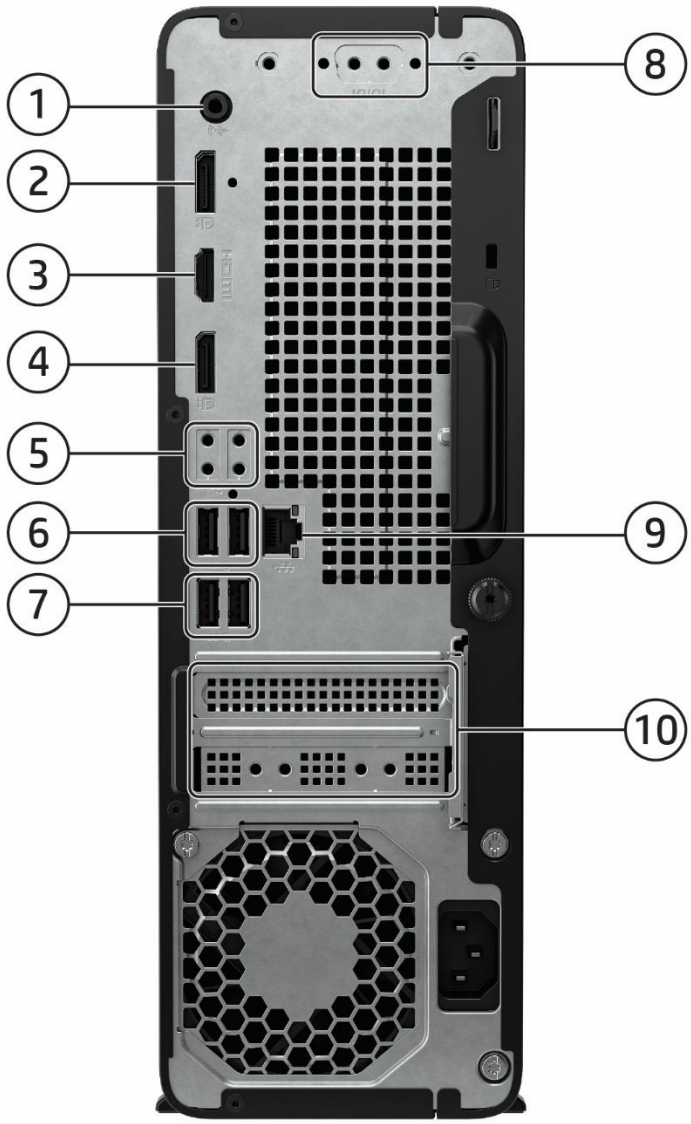
Ryzen 125/155 processor
(1) PCI Express 3.0 x1
(1) M.2 for WLAN
(1) M.2 2280 for Storage

Bays
(1) 3.5 internal HDD (optional)[2,3]
(1) 9.5mm internal optical drive bay (optional)[2,3]

1. SuperSpeed USB 5Gbps = USB3.2 Gen1.
2. The system does not come with HDD bay when the hard drive/ODD is not configured.
3. For Future HDD/ODD installation, the HDD expansion module must be added to support a single 3.5” HDD.

Overview

HP ProDesk 2 SFF G2a Desktop PC



1. Audio Line-out- retask as Line-in
2. DisplayPort 1.4a HBR2
3. HDMI 2.1 TMDS
4. DisplayPort 1.4a HBR2
5. (2) USB 2.0 ports(option)
6. (2) USB 2.0 ports
7. (2) USB3.2 5Gbps
8. Serial port (option)
9. RJ-45 Network Connector
10. Optional parts on expansion cards

Not Shown

Parallel Port (Optional via PCIex1 slot)
4 Serial Port (Optional via PCIe slot)
PS2 adapter

Overview

AT A GLANCE

- Windows 11 Pro 64, Win 11 Home 64, Windows 11 Home Single Language, or FreeDOS.
- AMD® Ryzen™ 100 and 200 series processors[1] featuring with Radeon™ Graphics.
- Integrated 10/100/1000 Ethernet Controller or Mediatek MT7920 Wi-Fi 6 +Bluetooth® 5.4 Wireless Card (802.11ax 2x2, supporting gigabit data rate), or Realtek 8922AE-VS Wi-Fi 7 +Bluetooth® 6.0 Wireless Card (802.11be 2x2, supporting gigabit data rate).
- Up to 64GB DDR5-5600 Small Outline Dual In-line Memory (SO-DIMM).
- Independent monitor support via DP and HDMI interfaces.
- TPM 2.0 support (hardware).
- Supports both Hard Disk Drives and SATA PCIe® NVMe™ M.2 SSD.
- 10 USB Ports (including 5 USB3.2 5Gbps ports, 1 USB-C 3.2 G2 (10G), and 4 USB 2.0 ports).
- 180W 90% HE power supply and 280W 92% HE power supply.
- Security cable lock supported (sold separately).
- Optional HP Care Packs available; terms and conditions vary by country; certain restrictions and exclusions apply[1].

1. HP Care Packs sold separately. Service levels and response times for HP Care Packs may vary depending on your geographic location. Service starts on date of hardware purchase. Restrictions and limitations apply. For details, visit http://www.hp.com/go/cpc. HP services are governed by the applicable HP terms and conditions of service provided or indicated to Customer at the time of purchase. Customer may have additional statutory rights according to applicable local laws, and such rights are not in any way affected by the HP terms and conditions of service or the HP Limited Warranty provided with your HP Product.

NOTE: See important legal disclosures for all listed specs in their respective features sections.

OPERATING SYSTEMS

Preinstalled

Windows 11 Pro[1]
Windows 11 Home - HP recommends Windows 11 Pro for Business[1]
Windows 11 Home Single Language - HP recommends Windows 11 Pro for Business[1]
FreeDOS

1. 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.
2. 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.

PROCESSORS*

AMD® Processors
AMD® Ryzen™ 5[1]
CPU AMD Ryzen™ 5 240 with AMD Radeon™ 760M Ryzen™ AI (16 NPU TOPS) (4.3GHz, Max up to 5.0GHz, 16MB cache, 6 cores, 12 threads).

CPU AMD Ryzen™ 5 125 (2.8GHz, Max up to 4.5GHz, 8MB cache, 4 cores, 8 threads)

AMD® Ryzen™ 7[1]
CPU AMD Ryzen™ 7 260 with AMD Radeon™ 780M, Ryzen™ AI (16 NPU TOPS) (3.8GHz, Max up to 5.1GHz, 16MB cache, 8 cores, 16 threads).

CPU AMD Ryzen™ 7 155 (3.0GHz, Max up to 4.7GHz, 16MB cache, 6 cores, 12 threads).

1. Your product does not support Windows 8 or Windows 7, In accordance with Microsoft's support policy, HP does not support the Windows® 8 or Windows 7 operating system on products configured with Intel 8th generation and forward processors or provide any Windows® 8 or Windows 7 drivers on http://www.support.hp.com.
***NOTE:** Not all processors are available; it varies by version.

GRAPHICS

Integrated[1,2]

AMD Radeon™
Radeon™ 660M
Radeon™ 760M
Radeon™ 780M

1. HD content required to view HD images.
2. Integrated Intel software is available on select models only and requires separately purchased projector, tv or computer monitor with an integrated or external receiver. External receivers connect to the projector, tv or computer monitor via a standard VGA, HDMI cable, also sold separately.

NOTE: HEVC (H.265) video driver is not available by default, and the HEVC (H.265) driver option can be configured at the time of purchase.

MEMORY

Both slots are customer accessible / upgradeable, Supports Dual Channel Memory

Form Factor	Type	Maximum	# of Slots
Small Form Factor	DDR5 5600	64 GB capacity	2 DIMM[1]

8GB DDR5-5600 SO-DIMM (1x8GB)
12GB DDR5-5600 SO-DIMM (1x12GB)
16GB DDR5-5600 SO-DIMM (1x16GB)
16GB DDR5-5600 SO-DIMM (2x8GB)
24GB DDR5-5600 SO-DIMM (1x24GB)
32GB DDR5-5600 SO-DIMM (1x32GB)
32GB DDR5-5600 SO-DIMM (2x16GB)
64GB DDR5-5600 SO-DIMM (2x32GB)

1. Memory modules supporting data transfer rates up to 5600/MTs require AMD® Ryzen™ 5 240 or Ryzen™ 7 260.

Standard Features and Configurable Modules

STORAGE AND DRIVES

NOTE: Starting from November 1st, 2023, all shipments will require Windows to be installed when selecting a SSD.
HDD can only be configured as additional data drives and not as the boot drive.

SATA3 - 3.5"

2TB 7200 RPM SATA Hard Disk Drive

1TB 7200 RPM SATA Hard Disk Drive

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36GB (for Windows) of system disk is reserved for the system recovery software.

M.2 Solid State Drives

256GB M.2 2280 PCIe NVMe Value SSD
512GB M.2 2280 PCIe NVMe Value SSD
1TB M.2 2280 PCIe NVMe Value SSD
2TB M.2 2280 PCIe NVMe Value SSD

1. Available on select skus only.
NOTE*: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows) of system disk is reserved for the system recovery software.

OPTICAL DISC DRIVES

DVD-ROM 9.5mm[2]

DVD-Writer 9.5mm[2]

2. Optical drives are optional or add on features. HD-DVD disks cannot be played on this drive. No support for DVD-RAM. Actual speeds may vary. Don't copy copyright-protected materials.

NETWORKING/COMMUNICATIONS

Networking

Integrated 10/100/1000M GbE LAN

Network Adapter Intel FoxPond2 I226-T1 2.5GbE

Wi-Fi® and Bluetooth®

Realtek 8922AE-VS Wi-Fi 7 +Bluetooth® 6.0 WW WLAN 802.11be 2x2 Wi-Fi 7 + Bluetooth® 6.0 Wireless Card (802.11be 2x2, supporting gigabit data rate)[1]
Mediatek MT7920 Wi-Fi 6 +Bluetooth® 5.4 WW WLAN 802.11ax 2x2 Wi-Fi 6E + Bluetooth® 5.3 Wireless Card (802.11ax 2x2, supporting gigabit data rate)[1]

1. Wireless cards are optional or add-on features and requires separately purchased wireless access point and internet service. Availability of public wireless access points limited. Wi-Fi 5 (802.11 ac) is backwards compatible with prior 802.11 specs.

AUDIO/MULTIMEDIA

Realtek ALC3602-CG codec

Integrated Hi-Definition Audio

Combo Jack, Headphone / Microphone

Audio Line-out- retask as Line-in

KEYBOARDS/POINTING DEVICES/BUTTONS AND FUNCTIONS KEYS

Keyboard

HP 175 Black Wired Keyboard

HP 175 Black AntiMic Wired Keyboard PRC(China only)

HP 275 Wireless Black Keyboard and Mouse

Mouse

HP 175 Black Backlit Wired Mouse

HP 175 Black Wired Mouse

NOTE: Keyboards and mouse are optional or add-on features. A keyboard and mouse are required for this device. If you do not already have a keyboard and mouse, please refer to a list of compatible keyboards on the “Recommended Accessories” page.

PORTS

Front

Slim-height Bay - supporting an optical disk drive (option)
(3) SuperSpeed USB 5Gbps signaling rate
Combo Jack Microphone/Headphone
Power Button
(1) USB-C© 10Gbps

Not Shown

Ryzen 240/260 processor
(1) PCI Express 4.0 x16
(1) PCI Express 3.0 x1
(1) M.2 for WLAN
(2) M.2 2280 for Storage

Ryzen 125/155 processor
(1) PCI Express 3.0 x1
(1) M.2 for WLAN
(1) M.2 2280 for Storage

Rear

Audio Line-out- retask as Line-in
(2) DisplayPort 1.4a HBR2
HDMI Port 2.1 TMDS
Standard lock slot
(2) SuperSpeed USB 5Gbps signaling rate
(2) USB 2.0 port
RJ-45 Network Connector
Power Cord Connector
Padlock loop
Integrated Accessories Cable Lock
Serial port (option)
(2) USB 2.0 port (option)

Not Shown

(1) Parallel Port (Optional via PCIex1 slot)
(1) 4x Serial port (Optional via PCIex1 slot)[1]
(1) PS/2 Port (Optional)

1. Available for selected regions

BAYS

(1) 3.5" internal storage optional
(1) 9.5mm internal optical drive bay optional

SOFTWARE COMPONENTS AND APPLICATIONS WITH WINDOWS

Security and Protection
McAfee – MLS

HP Utilities and Support
HP Documentation
HP Support Assistant

BTB
HP Setup Integrated OOBE (GDPR)

Hardware Enabling Drivers or software utility
HP System Event Utility

BIOS
Administrator Password
Self recovery
Hard drive utilities
HP Secure erase feature
Secure Boot
Cover Removal Sensor
UEFI Self Certification Level: 2.9
SVP (Supervisor/admin password)
Windows UEFI FW

1. Free 1-year subscription of McAfee LiveSafe service included. Internet access required and not included. Subscription required after expiration.

POWER

Power Supply

180 W

EPA90 Power Supply

280W

EPA92 Power Supply

WEIGHT AND DIMENSIONS

(configured with 1 HDD and 1 ODD)

Chassis (W x D x H)	3.94 x 11.95 x 11.61 in (100 x 303.5 x 295 mm) (w/bezel)
System Weight	8.99 lbs / 4.8 kg*

***NOTE**: Weight varies by configuration and component

UNIT ENVIRONMENTAL AND OPERATING CONDITIONS

General Unit Operating Guidelines

Environmental and Industry	• Keep the computer away from excessive moisture, direct moisture and the extremes of heat and cold, to ensure that unit is operated within the specified operating range. • Leave a 10.2 cm (4 in) clearance on all vented sides of the computer to permit the required airflow. • Never restrict airflow into the computer by blocking any vents or air intakes. • Do not stack computers on top of each other or place computers so near each other that they are subject to each other's re-circulated or preheated air. • Occasionally clean the air vents on the front, back, and any other vented side of the computer. Lint, dust and other foreign matter can block the vents and limit the airflow. • If the computer is to be operated within a separate enclosure, intake and exhaust ventilation must be provided on the enclosure, and the same operating guidelines listed above will still apply.	
Temperature Range	**Operating:**	5° to 35° C[1]
	Non-operating:	-30° to 60°[1]
Relative Humidity	**Operating:**	15% to 80% (non-condensing at ambient)
	Non-operating:	15% to 80% (non-condensing at ambient)
Maximum Altitude (unpressurized)	**Operating:**	5,000 m
	Non-operating:	50,000 ft (15240 m)

1. Operating temperature is de-rated 1.0 deg C per 300 m (1000 ft) to 3000 m (10,000 ft) above sea level, no direct sustained sunlight. Maximum rate of change is 10 deg C/Hr. The upper limit may be limited by the type and number of options installed.

Eco-Label Certifications & declarations	This product has received or is in the process of being certified to the following approvals and may be labeled with one or more of these marks: • IT ECO declaration • TUV ultra-low noise • US ENERGY STAR® • EPEAT Gold* or EPEAT Silver** registered in the United States. See http://www.epeat.net for registration status in your country. • TCO Certified • China Energy Conservation Program (CECP) • Clean Energy Certificates (CEL) • Minimum Energy Performance Standard (Korea/Vietnam/A/Z MEPS) • Ukraine energy • Commission Regulation (EC) No 617/2013 (ErP Lot 3)
System Configuration	The configuration used for the Energy Consumption and Declared Noise Emissions data for the Desktop model is based on a "Typically Configured Desktop".

Energy Consumption (in accordance with US ENERGY STAR® test method)	**115VAC, 60Hz**	**230VAC, 50Hz**	**100VAC, 50Hz**
Normal Operation (Short idle)	12.46W	12.51W	12.40W
Normal Operation (Long idle)	10.16W	10.22W	10.02W
Sleep	1.76W	1.75W	1.76W
Off	0.38W	0.41W	0.41W

NOTE: Energy efficiency data listed is for an ENERGY STAR® compliant product if offered within the model family. HP computers marked with the ENERGY STAR® Logo are compliant with the applicable U.S. Environmental Protection Agency (EPA) ENERGY STAR® specifications for computers. If a model family does not offer ENERGY STAR® compliant configurations, then energy efficiency data listed is for a typically configured PC featuring a hard disk drive, a high efficiency power supply, and a Microsoft Windows® operating system. Search keyword generator on HP's 3rd party option store for solar generator accessories at http://www.hp.com/go/options.

Heat Dissipation*	**115VAC, 60Hz**	**230VAC, 50Hz**	**100VAC, 50Hz**
Normal Operation (Short idle)	42.49 BTU/hr	42.66 BTU/hr	42.28 BTU/hr
Normal Operation (Long idle)	34.65 BTU/hr	34.85 BTU/hr	34.17 BTU/hr
Sleep	6.00 BTU/hr	5.97 BTU/hr	6.00 BTU/hr
Off	1.30 BTU/hr	1.40 BTU/hr	1.40 BTU/hr

NOTE: Heat dissipation is calculated based on the measured watts, assuming the service level is attained for one hour.

Declared Noise Emissions (in accordance with ISO 7779 and ISO 9296)	Sound Power (L_{WAd}, bels)	Sound Pressure (L_{pAm}, decibels)
Typically Configured – Idle	3.2	19.7
Fixed Disk – Random writes	3.3	20.7
Optical Drive – Sequential reads	4.5	38.2

Longevity and Upgrading	This product can be upgraded, possibly extending its useful life by several years. Upgradeable features and/or components contained in the product may include: Spare parts are available throughout the warranty period and or for up to "3" years after the end of production.
Batteries	This battery(s) in this product comply with EU Directive 2006/66/EC Batteries used in the product do not contain: Mercury greater the1ppm by weight Cadmium greater than 20ppm by weight Battery size: CR2032 (coin cell) Battery type: Lithium

Additional Information	• This product is in compliance with the Restrictions of Hazardous Substances (RoHS) directive - 2011/65/EC. • This HP product is designed to comply with the Waste Electrical and Electronic Equipment (WEEE) Directive – 2002/96/EC. • This product is in compliance with California Proposition 65 (State of California; Safe Drinking Water and Toxic Enforcement Act of 1986). • This product is in compliance with the IEEE 1680.1 (EPEAT) standard at the <Silver> level, see http://www.epeat.net • Plastics parts weighing over 25 grams used in the product are marked per ISO11469 and ISO1043. • This product contains 28.2% post-consumer recycled plastic (by wt.) • This product is 91.7% recycle-able when properly disposed of at end of life.		
Packaging Materials	**External:**	PAPER/Corrugated	540 g
	Internal:	PAPER/Molded Pulp	350 g
		PLASTIC/Polyethylene low density - LDPE	30 g
Material Usage	This product does not contain any of the following substances in excess of regulatory limits (refer to the HP General Specification for the Environment at http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/gse.pdf): • Asbestos • Certain Azo Colorants • Certain Brominated Flame Retardants – may not be used as flame retardants in plastics • Cadmium • Chlorinated Hydrocarbons • Chlorinated Paraffins • Formaldehyde • Halogenated Diphenyl Methanes • Lead carbonates and sulfates • Lead and Lead compounds • Mercuric Oxide Batteries • Nickel – finishes must not be used on the external surface designed to be frequently handled or carried by the user. • Ozone Depleting Substances • Polybrominated Biphenyls (PBBs) • Polybrominated Biphenyl Ethers (PBBEs) • Polybrominated Biphenyl Oxides (PBBOs) • Polychlorinated Biphenyl (PCB) • Polychlorinated Terphenyls (PCT) • Polyvinyl Chloride (PVC) – except for wires and cables, and certain retail packaging has been voluntarily removed from most applications. • Radioactive Substances • Tributyl Tin (TBT), Triphenyl Tin (TPT), Tributyl Tin Oxide (TBTO)		
Packaging Usage	HP follows these guidelines to decrease the environmental impact of product packaging: • Eliminate the use of heavy metals such as lead, chromium, mercury and cadmium in packaging materials. • Eliminate the use of ozone-depleting substances (ODS) in packaging materials. • Design packaging materials for ease of disassembly. • Maximize the use of post-consumer recycled content materials in packaging materials. • Use readily recyclable packaging materials such as paper and corrugated materials. • Reduce size and weight of packages to improve transportation fuel efficiency. • Plastic packaging materials are marked according to ISO 11469 and DIN 6120 standards.		

End-of-life Management and Recycling	HP Inc. offers end-of-life HP product return and recycling programs in many geographic areas. To recycle your product, please go to: http://www.hp.com/go/reuse-recycle or contact your nearest HP sales office. Products returned to HP will be recycled, recovered or disposed of in a responsible manner. The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard web site at: http://www.hp.com/go/recyclers. These instructions may be used by recyclers and other WEEE treatment facilities as well as HP OEM customers who integrate and re-sell HP equipment. Global Citizenship Report http://www.hp.com/hpinfo/globalcitizenship/gcreport/index.html Eco-label certifications http://www8.hp.com/us/en/hp-information/environment/ecolabels.html ISO 14001 certificates: http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/PC_GBU_Product_Design_ISO_14K_Certificate.pdf and http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/cert.pdf

SERVICE AND SUPPORT

On-site Warranty[1]: Available one-year (1-1-1) limited warranty (varies by country) delivers on-site, next business day[2] service for parts and labor and complimentary limited technical support[3]. Three-year onsite and labor are not available in all countries. Service offers terms up to 5 years by choosing an optional HP Care Service[4]. To choose the right level of service for your HP product, visit HP Care Pack Central: http://www.hp.com/go/cpc.

1. Terms and conditions may vary by country. Certain restrictions and exclusions apply. Other warranty variations may be offered in your region.
2. On-site service may be provided pursuant to a service contract between HP and an authorized HP third-party provider and is not available in certain countries. Global service response times are based on commercially reasonable best effort and may vary by country.
3. Technical support applies only to HP-configured and third-party HP qualified hardware and software.
4. HP Care Packs are sold separately. Service levels and response times for HP Care Packs may vary depending on your geographic location. Service starts on date of hardware purchase. Restrictions and limitations apply. For details, visit http://www.hp.com/go/cpc. HP services are governed by the applicable HP terms and conditions of service provided or indicated to Customer at the time of purchase. Customer may have additional statutory rights according to applicable local laws, and such rights are not in any way affected by the HP terms and conditions of service or the HP Limited Warranty provided with your HP Product.

GRAPHICS

GRAPHICS

AMD® Radeon graphics (integrated)	
Graphics Controller	Integrated
DisplayPort™ (on board)	Hawk point Supports DisplayPort 2.1 features including HDCP 2.3, DisplayPort Audio, HBR3, and Multi-Stream Technology for a maximum of 2 displays connected to any output controlled by AMD® Graphics. Rembrandt Supports DisplayPort 2.0 features including HDCP 2.3, DisplayPort Audio, HBR3, and Multi-Stream Technology for a maximum of 2 displays connected to any output controlled by AMD® Graphics.
HDMI (on board)	Supports HDMI 2.1 TMDS Supports HDCP 2.3 Supports audio over HDMI
Memory	Graphics memory is dynamically allocated from system memory based on workload requirements.
Maximum Color Depth	up to 8,10-bit
Graphics/Video API Support	HEVC 10b Enc/12b Dec HW VP9 10b Dec HW HDR Rec. 2020 DX12
Max. Resolution (HDMI)	7680x4320p @60Hz & 5120x2160p @120Hz
Max. Resolution (DP)	7680x4320p @60Hz & 5120x2160p @120Hz

Note: The actual amount of maximum graphics memory can be less than the amounts listed above depending upon your computer's configuration.
Note: Other resolutions may be available but are not recommended as they may not have been tested and qualified by HP
Only supported on displays connected to the external DisplayPort™ connector.

STORAGE

NOTE: Starting from November 1st, 2023, all shipments will require Windows to be installed when selecting a SSD.
HDD can only be configured as additional data drives and not as the boot drive.

HP 2TB* 7.2K rpm SATA 6.0Gb/s 3.5" Hard Disk Drive*

Capacity	2TB
Rotational Speed	7,200 rpm
Interface	SATA 6Gb/s NCQ
Buffer Size	64 MB
Logical Blocks	3,907,029,168
Seek Time	Read: <8.5 ms
	Write: <9.5 ms
Height	1.028 in/26.11 mm
Width	4.0 in/101.6 mm
Operating Temperature	32° to 140° F (0° to 60° C)

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36GB (for Windows) of system disk is reserved for the system recovery software.

1TB 7.2K rpm SATA 6.0Gb/s 3.5” Hard Disk Drive

Capacity	1TB
Rotational Speed	7,200 rpm
Interface	Serial ATA 3.0 (6.0 Gb/s)
Buffer Size	32 MB
Logical Blocks	1,953,525,168
Seek Time	Read: <8.5 ms
	Write: <9.5 ms
	Full-Stroke: 21 ms
Height	1 in/2.54 cm
Width	Media diameter: 3.5 in/8.89 cm Physical size: 4 in/10.2 cm
Operating Temperature	41° to 131° F (5° to 55° C)

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36GB (for Windows) of system disk is reserved for the system recovery software.

256GB M.2 2280 PCIe NVMe SSD

Drive Weight	< 10g
Capacity	256GB
Height	2.30mm
Length	80mm
Width	22mm
Interface	PCIE Gen4x4
Minimum Sequential Read	3100MB/s ±20%
Minimum Sequential Write	1200MB/s ±20%
Logical Blocks	500,118,192
Operating Temperature	0° to 70°C (32° to 158°F) [ambient temp]
Features	Pyrite 2.0; TRIM; L1.2

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36GB (for Windows) of system disk is reserved for the system recovery software.

512GB M.2 2280 PCIe NVMe SSD

Drive Weight	10g
Capacity	512GB
Height	2.30mm
Length	80mm
Width	22mm
Interface	PCIE Gen4x4
Minimum Sequential Read	3500MB/s ±20%
Minimum Sequential Write	1600MB/s ±20%
Logical Blocks	1,000,215,216
Operating Temperature	0° to 70°C (32° to 158°F) [ambient temp]
Features	Pyrite 2.0; TRIM; L1.2

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36GB (for Windows) of system disk is reserved for the system recovery software.

1TB M.2 2280 PCIe NVMe SSD

Drive Weight	10g
Capacity	1TB
Height	2.30mm
Length	80mm
Width	22mm
Interface	PCIE Gen4x4
Minimum Sequential Read	3500 MB/s ±20%
Minimum Sequential Write	2700 MB/s ±20%
Logical Blocks	2,000,409,264
Operating Temperature	0° to 70°C (32° to 158°F) [ambient temp]

Features	Pyrite 2.0; TRIM; L1.2

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36GB (for Windows) of system disk is reserved for the system recovery software.

2TB M.2 2280 PCIe NVMe SSD

Drive Weight	10g
Capacity	2TB
Height	2.30mm
Length	80mm
Width	22mm
Interface	PCIE Gen4x4
Minimum Sequential Read	3500 MB/s ±20%
Minimum Sequential Write	2700 MB/s ±20%
Logical Blocks	4,000,797,360
Operating Temperature	0° to 70°C (32° to 158°F) [ambient temp]
Features	Pyrite 2.0; TRIM; L1.2

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36GB (for Windows) of system disk is reserved for the system recovery software.

OPTICAL DISC DRIVES

HP 9.5mm Slim DVD-ROM Drive

Height	9.5 mm height
Orientation	Either horizontal or vertical
Interface type	SATA/ATAPI
Dimensions (W x H x D)	5.04 x 0.37 x 5.0 in (128 x 9.5 x 127 mm) without bezel
Weight (max)	Up to 0.31 lb (140g) without bezel
Read Speeds	DVD+R/-R/+RW/ -RW/+R DL /-R DL Up to 8X DVD-ROM Up to 8X CD-ROM, CD-R Up to 24X CD-RW Up to 24X
Access time (typical reads, including settling)	Random: DVD-ROM: 170 ms (typical), CD-ROM: 170 ms (typical) Full stroke: DVD-ROM: 320 ms (typical), CD-ROM: 320 ms (typical)
Power	Source Slimline SATA DC power receptacle DC Power Requirement 5 VDC ± 5%-100 mV ripple p-p DC Current 5 VDC (< 1000 mA typical, 1600 mA maximum)
Environmental conditions (operating - non-condensing)	Temperature 41° to 122° F (5° to 50° C) Relative Humidity 10% to 80% Maximum Wet Bulb Temperature 84° F (29° C)

HP 9.5mm Slim DVD Writer Drive

Height	9.5 mm height
Orientation	Either horizontal or vertical
Interface type	SATA/ATAPI
Dimensions (W x H x D)	5.04 x 0.37 x 5.0 in (128 x 9.5 x 127 mm) without bezel
Weight (max)	Up to 0.31 lb (140 g) Without bezel
Write Speeds	DVD-R DL - Up to 6X DVD+R - Up to 8X DVD+RW - Up to 8X DVD+R DL - Up to 6X DVD-R - Up to 8X DVD-RW - Up to 6X CD-R - Up to 24X CD-RW - Up to 10X
Read Speeds	DVD-RW, DVD+RW - Up to 8X DVD-R DL, DVD+R DL - Up to 8X DVD+R, DVD-R - Up to 8X DVD-ROM DL, DVD-ROM - Up to 8X CD-ROM, CD-R - Up to 24X CD-RW - Up to 24X
Access time (typical reads, including settling)	Random DVD-ROM: 170 ms (typical), CD-ROM: 170 ms (typical) Full Stroke DVD-ROM: 320 ms (typical), CD-ROM: 320 ms (typical) Stop Time 6 seconds (typical)

Power	Source Slimline SATA DC power receptacle DC Power Requirement 5 VDC ± 5%-100 mV ripple p-p DC Current 5 VDC (< 1000 mA typical, 1600 mA maximum)
Environmental conditions (operating - non-condensing)	Temperature 41° to 122° F (5° to 50° C) Relative Humidity 10% to 80% Maximum Wet Bulb Temperature 84° F (29° C)

HIGH DEFINITION AUDIO

Type	Integrated
HD Stereo Codec	Realtek ALC3602-CG codec
Audio I/O Ports	Support the combo jack for CTIA
Multi-streaming Capable	Playback multi-streaming can be enabled in the audio control UI to allow independent audio streams to output to the front and rear jacks.
HD Audio Codec	ALC3602-CG
Sampling	DAC supports 16bit ~ 24 bit, sampling rate 44.1K/ 48K/ 96K/ 192K Hz ADC supports 16bit ~ 24 bit, sampling rate 44.1K/ 48K/ 96K/ 192K Hz
Wavetable Syntheses	Yes
Analog Audio	Yes
# of Channels on Line-Out	Stereo
External Speaker Jack*	2W class D mono amplifier only. External speakers must be powered externally.

Technical Specifications - Power

POWER SUPPLY

Operating Voltage Range	90 – 264 VAC
Rated Voltage Range	100-240V AC
Rated Line Frequency	50/60 HZ
Operating Line Frequency	47 – 63 Hz
Rated Input Current	180 W: <2.3A 280W: <3.3A
Rated Input Current with Energy Efficient* Power Supply	**180W** active PFC / **Efficiency at 115Vac** 80PLUS Gold certified 87/90/87% at 20/50/100% load **Efficiency at 230Vac** 90/92/89% at 20/50/100% load Which meet 80PLUS Gold **280W** active PFC / **Efficiency at 115Vac** 80PLUS Platinum certified 90/92/89% efficient at 20/50/100% load **Efficiency at 230Vac** 91/93/90% at 20/50/100% load Which meet 80PLUS Gold
DC Output	+12 V
Current Leakage (NFPA 99: 2102)	Less than 500 microamps of leakage current at 120 Vac with the ground wire disconnected, as required for Non-patient Electrical Appliances and Equipment used in a patient care facility or that contact patients in normal use. Per section 10.3.5.1. Less than 100 microamps of leakage current at 120 Vac with the ground wire intact with normal polarity, as required for Non-patient Electrical Appliances and Equipment used in a patient care facility or that contact patients in normal use. Per section 10.3.5.1.
Power Supply Fan	180 W: 70x25mm (linear type) 280 W: 70x25mm (PWM type)

WEIGHTS AND DIMENSIONS

Chassis (W x D x H)	3.94 x 11.95 x 11.61 in (100 x 303.5 x 295 mm) (w/ bezel)
System Volume	9.36L
System Weight*	8.99 lbs / 4.08 kg
Packaged (H x W x D)	15.67 x 7.87 x 19.65 in 398 x 200 x 499 mm
Shipping Weight*	16.36 lb / 7.42 kg
Palletization Profile	12-units per layer 5 layer max 60 per pallet Footprint (HxWxD) 83.46 x 39.37 x 47.24 in (2120 x 1000 x 1200 mm)

***NOTE**: Weight varies by configuration and component

NETWORKING

10/100/1000 Integrated NIC	
Ethernet Features	10 Mbit/s operation (10BASE-T; IEEE 802.3i; IEEE 802.3 clauses 13-14) 100 Mbit/s operation (100BASE-TX; IEEE 802.3u; IEEE 802.3 clauses 21-30) 1000 Mbit/s operation (1000BASE-T; IEEE 802.3ab; IEEE 8023 clauses 40) Auto-Negotiation (Automatic Speed Selection) Full Duplex Operation at all Speeds, Half Duplex operation at 10 and 100 Mbit/s
Power Management	ACPI compliant – multiple power modes Situation-sensitive features reduce power consumption Advanced link down power saving for reducing link down power consumption
Performance Features	TCP/IP/UDP Checksum Offload (configurable) Protocol Offload (ARP & NS) Large send offload and Giant send offload Receiving Side Scaling Jumbo Frame 9K
Manageability	Wake-on-LAN from standby and hibernation (Magic Packet and Microsoft Wake-Up Frame); Wake-on-LAN from off (Magic Packet only) PXE 2.1 Remote Boot Statistics Gathering (SNMP MIB II, Ethernet-like MIB, Ethernet MIB (802.3x, clause 30)) Comprehensive diagnostic and configuration software suite Virtual Cable Doctor for Ethernet cable status

Intel I226-T1 2.5GbE Ethernet Network Adapter	
Connector	RJ-45
System Interface	PCI (Intel proprietary) + SMBus
Data rates supported	1. 10 Mbit/s operation (10BASE-T; IEEE 802.3i; IEEE 802.3 clauses 13-14) 2. 100 Mbit/s operation (100BASE-TX; IEEE 802.3u; IEEE 802.3 clauses 21-30) 3. 1000 Mbit/s operation (1000BASE-T; IEEE 802.3ab; IEEE 802.3 clauses 40) 4. 2.5 Gbit/s operation (2.5GBASE-T; IEEE 802.3bz Clause 126) 5. Auto-Negotiation (Automatic Speed Selection) Full Duplex Operation at all Speeds, Half Duplex operation at 10 & 100 Mbit/s
IEEE Compliance	IEEE 802.1p QoS (Quality of Service) Support IEEE 802.1q VLAN support IEEE 802.3x Flow Control (IEEE 802.3 clauses 31-32; configurable) IEEE 802.3az EEE (Energy Efficient Ethernet) IEEE 802.3i 10BASE-T IEEE 802.3u 100BASE-TX IEEE 802.3ab 1000BAE-T IEEE 802.3bz 2.5GBASE-T
Performance	TCP/IP/UDP Checksum Offload (configurable) Protocol Offload (ARP & NS) Large send offload and Giant send offload Receiving Side Scaling(Hash Mode Only) Jumbo Frame 9K
Power consumption	Cable Disconnection: 25mW 100Mbps Full Run: 450mW 1000Mbp Full Run: 1000mW 2500Mbp Full Run: 4500mW WoL Enable(S3/S4/S5): 50mW WoL Disable(S3/S4/S5): 25mW
Power	ACPI compliant – multiple power modes

Management	Situation-sensitive features reduce power consumption Advanced link down power saving for reducing link down power consumption
Management Interface	Auto MDI/MDIX Crossover cable detection
IT Manageability	Wake-on-LAN from modern standby or sleep state (Magic Packet and Microsoft Wake-Up Frame); Wake-on-LAN from off (Magic Packet only) PXE 2.1 Remote Boot Statistics Gathering (SNMP MIB II, Ethernet-like MIB, Ethernet MIB (802.3x, clause 30)) Comprehensive diagnostic and configuration software suite Virtual Cable Doctor for Ethernet cable status

Realtek 8922AE-VS 802.11be 2x2 Wi-Fi 7 + Bluetooth® 6.0 Wireless Card (802.11be 2x2, supporting gigabit data rate)	
Wireless LAN Standards[1]	IEEE 802.11a IEEE 802.11b IEEE 802.11g IEEE 802.11n IEEE 802.11ac IEEE 802.11ax IEEE 802.11be IEEE 802.11d IEEE 802.11e IEEE 802.11h IEEE 802.11i IEEE 802.11j IEEE 802.11k IEEE 802.11mc IEEE 802.11r IEEE 802.11v IEEE 802.11w
Interoperability	Wi-Fi certified
Frequency Bands	802.11b/g/n/ax • 2.402 – 2.482 GHz 802.11a/n/ac/ax 4.9-4.95GHz (Japan) 5.15-5.25GHz 5.25-5.35GHz 5.47-5.725GHz 5.825-5.850GHz 5.955-6.415GHz 6.435-6.515GHz 6.535-6.875GHz 6.895-7.115GHz 5.925-7.125GHz
Data Rates	• 802.11b: 1, 2, 5.5, 11 Mbps • 802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps • 802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps • 802.11n: MCS 0 ~ MCS 15, (20MHz, and 40MHz) • 802.11ac: MCS0 ~ MCS9, (20MHz, 40MHz, ,80MHz & 160MHz) • 802.11ax: MCS0 ~ MCS11, (20MHz, 40MHz, ,80MHz & 160MHz) • 802.11be: MCS0 ~ MCS11, (20MHz, 40MHz, ,80MHz & 160MHz)

Technical Specifications – Networking

Modulation	Direct Sequence Spread Spectrum OFDM, BPSK, QPSK, CCK, 16-QAM, 64-QAM, 256-QAM, 1024QAM
Security[2]	• IEEE and WiFi certified 64 / 128 bit WEP encryption for a/b/g mode only • AES-CCMP: 128 bit in hardware • 802.1x authentication • WPA, WPA2: 802.1x. WPA-PSK, WPA2-PSK, TKIP, and AES. • WPA2 certification • WPA3 (personal) certification • IEEE 802.11i • WAPI (by request) • EAP
Network Architecture Models	Infrastructure (Access Point Required)
Roaming	IEEE 802.11 compliant roaming between access points
Output Power	802.11b: +20dBm 802.11g: +20dBm 802.11a: +18dBm 802.11n HT20(2.4GHz): +20dBm 802.11n HT40(2.4GHz): +20dBm 802.11n HT20(5GHz): +18dBm 802.11n HT40(5GHz): +17dBm 802.11ac VHT80(5GHz): +16dBm 802.11ac VHT160(5GHz): +15dBm 802.11ax HE40(2.4GHz): +17dBm 802.11ax HE80(5GHz): +14dBm 802.11ax HE160(5GHz): +13dBm 802.11ax HE80(6GHz): +13dBm 802.11ax HE160(6GHz): +12dBm
Power Consumption	• Transmit mode 3.1 W • Receive mode 1.8 W • Idle mode (PSP) 180 mW (WLAN Associated) • Idle mode 50 mW (WLAN unassociated) • Connected Standby 10mW • Radio disabled 8 mW
Power Management	ACPI and PCI Express compliant power management 802.11 compliant power saving mode
Receiver Sensitivity	•802.11b, 1Mbps: -93.5dBm maximum •802.11b, 11Mbps: -85dBm maximum • 802.11a/g, 6Mbps: -90.5dBm maximum • 802.11a/g, 54Mbps: -72.5dBm maximum • 802.11n, MCS0(HT20): -90dBm maximum • 802.11n, MCS7(HT20): -71.5dBm maximum • 802.11n, MCS0(HT40): -88.5dBm maximum

	• 802.11n, MCS7(HT40): -68.5dBm maximum • 802.11ac, MCS9(VHT20): -88.5dBm maximum • 802.11ac, MCS9(VHT40): -65.5dBm maximum • 802.11ac, MCS9(VHT80): -60.5dBm maximum • 802.11ac, MCS9(VHT160): -58.5dBm maximum • 802.11ax, MCS11(HE20) (6GHz): -59.5dBm maximum • 802.11ax, MCS11(HE40) (6GHz): -56.5dBm maximum • 802.11ax, MCS11(HE80) (6GHz): -53.5dBm maximum • 802.11ax, MCS11(HE160) (6GHz): -51.5dBm maximum
Antenna type	High efficiency antenna with spatial diversity, mounted in the display enclosure Two embedded dual band 2.4/5 GHz antennas are provided to the card to support WLAN MIMO communications and Bluetooth communications
Form Factor	PCI-Express M.2
Dimensions	1. Type 2230: 2.3 x 22.0 x 30.0 mm
Weight	1. Type 2230: 2.8g
Operating Voltage	3.15 ~3.6V
Temperature	Operating: 14°to 158°F (– 10° to 70°C) Non-operating: – 40° to 176° F (– 40° to 80°C) Storage Temperature (– 55° to 125°C)
Humidity	Operating: 10% to 90% (non-condensing) Non-operating: 5% to 95% (non-condensing)
Altitude	Operating: 0 to 10,000 ft (3,048 m) Non-operating: 0 to 50,000 ft (15,240 m)
LED Activity	LED Amber – Radio OFF LED OFF – Radio ON
HP Integrated Module with Bluetooth® 4.0/4.1/4.2/5.0/5.1/5.2/5.3/5.4/6 Wireless Technology	
Bluetooth® Specification	4.0/4.1/4.2/5.0/5.1/5.2/5.3/5.4/6 Wireless Technology Compliant
Frequency Band	2402 to 2480 MHz
Number of Available Channels	Legacy: 0~79 (1 MHz/CH) BLE: 0~39 (2 MHz/CH)
Data Rates and Throughput	Legacy: 3 Mbps data rate; throughput up to 2.17 Mbps BLE: 1 Mbps data rate; throughput up to 0.2 Mbps Legacy: Synchronous Connection Oriented links up to 3, 64 kbps, voice channels Legacy: Asynchronous Connection Less links 2178.1 kbps/177.1 kbps asymmetric (3-DH5) or 864 kbps symmetric (3-EV5)
Transmit Power	The Bluetooth component shall operate as a Class I Bluetooth device with a maximum transmit power of +15.5 dBm for BR and +13dBm for EDR.
Power Consumption	Peak (Tx): 330 mW Peak (Rx): 230 mW Selective Suspend: 17 mW

Technical Specifications – Networking

Bluetooth® Software Supported Link Topology	Microsoft Windows Bluetooth Software
Power Management	Microsoft Windows ACPI, and USB Bus Support compliant power management 802.11 compliant power saving mode
Certifications	FCC (47 CFR) Part 15C/E, Section 15.247, 15.249, 15.407 ETSI 300 328, ETSI 301 893, ETSI 303 687
Bluetooth® Profiles Supported	Bluetooth 4.1-ESR 5/6/7 Compliance LE Link Layer Ping LE Dual Mode LE Link Layer LE Low Duty Cycle Directed Advertising LE L2CAP Connection Oriented Channels Train Nudging & Interlaced Scan BT4.2 ESR08 Compliance LE Secure Connection- Basic/Full LE Privacy 1.2 – Link Layer Privacy LE Privacy 1.2 – Extended Scanner Filter Policies LE Data Packet Length Extension FAX Profile (FAX) Basic Imaging Profile (BIP)2 Headset Profile (HSP) Hands Free Profile (HFP) Advanced Audio Distribution Profile (A2DP) Bluetooth 5.2 ESR9/10 Compliance LE Advertisement Extensions Channel Selection Algo Limited High Duty Cycle Non-Connectable Advertising 2Mbps LE LE Long Range Windows BT profiles support Bluetooth 5.3 Compliance to the latest errata spetipn 12.3 of bluetooth 5.3 specification ESR 9/10 compliance Host to controller Encryption key control enhancements

1. Wireless access point and Internet service required and sold separately. Availability of public wireless access points limited. Wi-Fi 7 (802.11BE) functionality requires compatible Windows 11 OS, compatible processor, and separately purchased Wi-Fi 7 router to support backwards compatibility with prior 802.11 specs. Available in countries where Wi-Fi 7 is supported. The specification for 802.11BE is a draft specification and is not final. If the final specification differs from the draft specification, it may affect the ability of the device to communicate with other 802.11BE devices.
2. Receiver sensitivity is measured at a packet error rate of 8% for 802.11b (CKK modulation) and a packet error rate of 10% for 802.11a/g (OFDM modulation).

Mediatek MT7920 802.11ax 2x2 Wi-Fi 6 + Bluetooth® 5.4 Wireless Card[1] (802.11ax 2x2, supporting gigabit data rate)	
Wireless LAN Standards[1]	IEEE 802.11a IEEE 802.11b IEEE 802.11g IEEE 802.11n IEEE 802.11ac IEEE 802.11ax IEEE 802.11d IEEE 802.11e IEEE 802.11h IEEE 802.11i IEEE 802.11k
Interoperability	Wi-Fi certified modules
Frequency Band	802.11b/g/n/ax • 2.402 – 2.482 GHz 802.11a/n/ac/ax • 4.9 – 4.95 GHz (Japan) • 5.15 – 5.25 GHz • 5.25 – 5.35 GHz • 5.47 – 5.725 GHz • 5.825 – 5.850 GHz
Data Rates	• 802.11b: 1, 2, 5.5, 11 Mbps • 802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps • 802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps • 802.11n: max 300Mbps • 802.11ac: max 866.7Mbps • 802.11ax: max 1201Mbps
Modulation	Direct Sequence Spread Spectrum BPSK, QPSK, CCK, 16-QAM, 64-QAM, 256-QAM, 1024QAM
Security	• IEEE and WiFi certified 64 / 128 bit WEP encryption for a/b/g mode only • AES-CCMP: 128 bit in hardware • 802.1x authentication • WPA, WPA2: 802.1x. WPA-PSK, WPA2-PSK, TKIP, and AES. • WPA2 certification • WPA3 certification • IEEE 802.11i • WAPI • EAP
Network Architecture Models	Ad-hoc (Peer to Peer) Infrastructure (Access Point Required)
Roaming	IEEE 802.11 compliant roaming between access points
Output Power	• 802.11b: +17dBm minimum • 802.11g: +16dBm minimum • 802.11a: +17dBm minimum • 802.11n HT20(2.4GHz): +14dBm minimum • 802.11n HT40(2.4GHz): +13dBm minimum

	• 802.11n HT20(5GHz): +14dBm minimum • 802.11n HT40(5GHz): +13dBm minimum • 802.11ac VHT80(5GHz): +10dBm minimum • 802.11ax HE40(2.4GHz): +12dBm minimum • 802.11ax HE80(5GHz): +10dBm minimum
Power Consumption	• Transmit mode:2.5 W • Receive mode:2 W • Idle mode (PSP) 180 mW (WLAN Associated) • Idle mode:50 mW (WLAN unassociated) • Connected Standby/Modern Standby: 10mW • Radio disabled: 8 mW
Power Management	ACPI and PCI Express compliant power management 802.11 compliant power saving mode
Receiver Sensitivity	802.11b, 1Mbps: -93.5dBm maximum 802.11b, 11Mbps: -84dBm maximum 802.11a/g, 6Mbps: -86dBm maximum 802.11a/g, 54Mbps: -72dBm maximum 802.11n, MCS07: -67dBm maximum 802.11n, MCS15: -64dBm maximum 802.11ac, MCS0: -84dBm maximum 802.11ac, MCS9: -59dBm maximum 802.11ax, MCS11(HE40): -57dBm maximum 802.11ax, MCS11(HE80): -54dBm maximum
Antenna type	High efficiency antenna. One embedded dual band 2.4/5 GHz antenna is provided to the card to support WLAN MIMO communications and Bluetooth communications
Form Factor	PCI-Express M.2
Dimensions	1. Type 2230: 2.3 x 22.0 x 30.0 mm
Weight	1. Type 2230: 2.8g
Operating Voltage	3.3v +/- 9%
Temperature	Operating: 14° to 158° F (– 10° to 70° C) Non-operating: -40° to 176° F (– 40° to 80° C)
Humidity	Operating: 10% to 90% (non-condensing) Non-operating: 5% to 95% (non-condensing)
Altitude	Operating: 0 to 10,000 ft (3,048 m) Non-operating: 0 to 50,000 ft (15,240 m)
LED Activity	LED Amber - Radio OFF; LED OFF - Radio ON
HP Integrated Module with Bluetooth® 4.0/4.1/4.2/5.0/5.1/5.2/5.3 Wireless Technology	
Bluetooth® Specification	4.0/4.1/4.2/5.0/5.1/5.2/5.3 Wireless Technology Compliant
Frequency Band	2402 to 2480 MHz
Number of Available Channels	Legacy: 0~79 (1 MHz/CH) BLE: 0~39 (2 MHz/CH)
Data Rates and Throughput	Legacy: 3 Mbps data rate; throughput up to 2.17 Mbps BLE: 1 Mbps data rate; throughput up to 0.2 Mbps Legacy: Synchronous Connection Oriented links up to 3, 64 kbps, voice channels Legacy: Asynchronous Connection Less links 2178.1 kbps/177.1 kbps asymmetric (3-DH5) or 864 kbps symmetric (3-EV5)
Transmit Power	The Bluetooth component shall operate as a Class II Bluetooth device with a maximum transmit power of + 4 dBm for BR and EDR.

Technical Specifications – Networking

Power Consumption	Peak (Tx): 330 mW Peak (Rx): 230 mW Selective Suspend: 17 mW
Bluetooth® Software Supported Link Topology	Microsoft Windows Bluetooth Software
Power Management	Microsoft Windows ACPI, and USB Bus Support
Certifications	FCC (47 CFR) Part 15C/E, Section 15.247, 15.249 ETSI 300 328, ETSI 301 893
Bluetooth® Profiles Supported	Bluetooth 4.1-ESR 5/6/7 Compliance LE Link Layer Ping LE Dual Mode LE Link Layer LE Low Duty Cycle Directed Advertising LE L2CAP Connection Oriented Channels Train Nudging & Interlaced Scan Bluetooth 4.2 ESR08 Compliance LE Secure Connection- Basic/Full LE Privacy 1.2 – Link Layer Privacy LE Privacy 1.2 – Extended Scanner Filter Policies LE Data Packet Length Extension FAX Profile (FAX) Basic Imaging Profile (BIP)2 Headset Profile (HSP) Hands Free Profile (HFP) Advanced Audio Distribution Profile (A2DP) Bluetooth 5.2 ESR9/10 Compliance LE Advertisement Extensions Channel Selection Algo Limited High Duty Cycle Non-Connectable Advertising 2Mbps LE LE Long Range Windows BT profiles support Bluetooth 5.3 Encryption key size control enhancements

1. Wi-Fi 6E requires a Wi-Fi 6E router, sold separately, to function in the 6GHz band. Availability of public wireless access points limited. Wi-Fi 6E is backwards compatible with prior 802.11 specs. And available in countries where Wi-Fi 6E is supported. Wi-Fi 6E is designed to support gigabit data rate when transferring files between two devices connected to the same router. Requires a wireless router, sold separately, that supports 80MHz and higher channels.

After-Market Options (availability may vary by region)

AFTER MARKET OPTIONS

Type	***Description***	***Part #***
Memory	HP 8GB DDR5-5600 SODIMM	B8CA1AA
	HP 16GB DDR5-5600 SODIMM	B8CA2AA
	HP 32GB DDR5-5600 SODIMM	B8CA3AA
Storage	HP PCIe Gen 4 NVME TLC M.2 512GB SSD	406L8AA
	HP PCIe Gen 4 NVME TLC M.2 1TB SSD	406L7AA
	HP 1TB 7200rpm SATA 6Gb/s 3.5” Hard Drive	QK555AA
Networking	Intel I226-T1 2.5GbE Ethernet Network Adapter	9P1U8AA
Security	HP Business PC Security Lock V3 Kit	3XJ17AA
	HP Keyed Cable Lock 10mm kit	T1A62AA
	HP Master Keyed Cable Lock 10mm	T1A63AA
	HP Combination Standard Cable Lock	T0Y15AA
	HP Essential Combination Lock	T0Y16AA
Cables/Adapters	HP HDMI Standard Cable Kit	T6F94AA
	HP USB to Serial Port Adapter	J7B60AA
	HP PCIe x1 Parallel Port Card	N1M40AA
Input	HP Business Slim v2 Smart Card USB Keyboard	A71J9AA
	HP 275K Wireless Keyboard	D4YK9AA
	HP 275M Wireless Mouse	D4YK4AA
	HP 275C Wireless Keyboard and Mouse Combo	D4YK6AA

Others	HP S101 Speaker bar	5UU40AA
	HP Z G3 Conferencing Speaker Bar wStand	647Y2AA
	HP 105 Sanitizable Mouse Pad	8X595AA
	HP 205 Sanitizable Desk Mat	8X597AA

Change Log

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Date of change:	Version History:		Description of change:
September 11, 2026	From v1 to v2	Addition	Note on Graphics table added
	From v2 to v3		
	From v3 to v4		
	From v4 to v5		
	From v5 to v6		
	From v6 to v7		
	From v7 to v8		
	From v8 to v9		
	From v9 to v10		
	From v10 to v11		
	From v11 to v12		