HP Smart Tank 5100 All-in-One Printer (9B2D1A)



Overview

Enjoy years of refillable, cartridge-free printing from America's most trusted printer brand.[1,4]

Refillable, cartridge-free printing from America's most trusted printer brand.[4] Perfect for affordable printing of everyday documents with up to 3 years of ink included.[1]

Up to 3 years of vibrant ink included.[1]

Up to 3 years of ink included so you can print what you want without constant supply runs.[1]

Best print quality.[3] Period.

Achieved print quality ratings 31% higher than the average of competing brands.[3]

The easiest tank printer you'll ever use.[2]

Fastest tank printer setup, with competitors taking 52% longer on average.[2]

Simplify tasks with HP AI.

Enhance productivity.

Features



Mobile-guided, seamless setup[5]



Smart buttons



Low-on-ink sensors



Self-healing Wi-Fi®[4]



HP Smart Advance[5]



HP Auto On/Auto Off technology[6]

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[1] 3 years of ink included for skus offering up to 8700 total pages based upon 240 pages per month of HP Smart Tank customers' usage. 3 years of ink included for skus offering up to 6500 total pages based upon 180 pages per month of HP Smart Tank customers' usage. Actual yield varies considerably based on content of printed pages and other factors. Average yield based on ISO/IEC 24711 or HP testing methodology and continuous printing. Some ink from included bottles is used to start up the printer. For details, see: www.hp.com/go/learnaboutsupplies .

[2] Compared to the majority of in-class 3:1 and 4:1 duplex, wireless A4 ink tank printers under $500 USD. Printers selected by market share as reported by IDC Quarterly Hardcopy Peripherals Tracker–Final Historical CYQ3 2025. Claim based on publicly available information as of December 2025 and Keypoint Intelligence hands-on testing and study commissioned by HP in December 2025. For details: keypointintelligence.com/HPEasiesttoUseTank .

[3] Commissioned by HP Inc., this Keypoint Intelligence consumer study determined that HP inkjet tank printers provide the best everyday print quality compared to competitive inkjet tank printers from Brother, Canon, and Epson. All devices are available in the market and are currently active. Prices range from $199 to less than $500 and all competitive products fall within the same category as the HP printers. The competitors were chosen because they represent the top 80% of the competitive landscape for 3:1 and 4:1 wireless A4 inkjet tank printers under $500 USD, as reported by the IDC Quarterly Hardcopy Peripherals Tracker-Final Historical CYQ3 2025. Samples were printed in the United States and then reviewed by consumers in the US, Mexico, the United Kingdom, and China. Details: www.keypointintelligence.com/hpbesteverydayprintquality .

[4] Based on 2025 semi-annual internal brand surveys commissioned by HP.

Specifications

Print quality black (best)	Up to 1200 x 1200 rendered dpi
Print quality color (best)	Up to 4800 x 1200 optimized dpi color (when printing from a computer and 1200 input dpi)
Print speed black (ISO, A4)	Up to 12 ppm
Print Speed Color (ISO)	Up to 5 ppm
Print speed	Print speed up to 12 ppm (black) and 5 ppm (color)
Bottom margin (A4)	3 mm
Left margin (A4)	3 mm
Right margin (A4)	3 mm
Top margin (A4)	3 mm
Functions	Print, copy, scan
Duplex printing	Manual (driver support provided)
Duty cycle (monthly, A4)	Up to 3,000 pages
Duty cycle (monthly, letter)	Up to 3,000 pages
Energy savings feature technology	HP Auto-Off Technology
Connectivity, standard	1 Hi-Speed USB 2.0 (device); 1 Wi-Fi 802.11b/g/n; 1 Wi-Fi Direct
Network capabilities	Yes (via WiFi)
Wireless capability	Yes, built-in Wi-Fi 2.4G, Wi-Fi Direct
Mobile printing capability	HP app; Apple AirPrint; Mopria Print Service; HP Print Service Plugin (Android printing); Wi-Fi® Direct Printing
Software included	HP Printer Software
Compatible Operating Systems	Windows 11; Windows 10; macOS 10.15 Catalina; macOS 11 Big Sur; macOS 12 Monterey; macOS 13 Ventura; macOS 14 Sonoma; macOS 15 Sequoia *(Microsoft Windows 11, 10; macOS v10.15 Catalina; macOS v11 Big Sur; macOS v12 Monterey; macOS v13 Ventura; macOS v14 Sonoma; macOS 15 Sequoia; Android; iOS)*
Sustainability specifications	45% post-consumer recycled plastic; ENERGY STAR® certified; EPEAT® registered
Energy star certified	Yes
Digital sending standard features	Scan to file (from software); HP Smart Tasks
Scan file format	JPG; PDF; PNG; TIFF; HEIF
Scan input modes	Copy; HP Software; EWS
Scan technology	Contact Image Sensor (CIS)
Scanner type	Flatbed only
Display	33 segments + 1.2-inch iCON LCD Display
Dimensions (W x D x H)	434.66 x 361.53 x 157.26 mm
Dimensions (W x D x H)	17.11 x 14.23 x 6.19 in
Weight	5.03 kg
Weight	11.09 lb
Power consumption	0.109 watts (manual-Off), 3.023 watts (ready), 1.096 watt (sleep)[2]
Power supply type	Internal built in

What's in the box	HP Smart Tank 5100 All-in-One Printer; HP 32XL Black Original Ink Bottle (135ml); HP 31 Cyan Original Ink Bottle (50ml); HP 31 Magenta Original Ink Bottle (50ml); HP 31 Yellow Original Ink Bottle (50ml); HP Black Printhead; HP Tri-color Printhead; Setup Guide, Reference Guide, Ink Caution flyer; Regulatory flyer; Warranty flyer; Power Cord; For more information about fill and yield, see http://www.hp.com/go/learnaboutsupplies .
Manufacturer Warranty	One-year or 30,000 pages limited hardware warranty, whichever is earlier from the date of purchase. For more info please visit us at http://support.hp.com

Additional specifications

Acoustic power emissions (active, printing)	6.4 B(A)
Acoustic pressure emissions	56.8 dBA
Additional information about HP	http://www.hp.com
Additional information about HP in the countries	hp.com
Automatic paper sensor	No
Bit depth	24-bit
Borderless printing	Yes (up to 8.5 x 11 in, 210 x 297 mm)
Cable included	No, please purchase USB cable separately
Cartons per layer	12
Color	Portobello
Color copy capability	Yes
Color or black	Color
Color scanning	Yes
Compatible Network Operating Systems	Windows 11; Windows 10; macOS 10.15 Catalina; macOS 11 Big Sur; macOS 12 Monterey; macOS 13 Ventura; macOS 14 Sonoma; macOS 15 Sequoia
Connection type	Wireless
Control panel	Power On/Off, Cancel, Resume, Color Copy, Black copy, ID copy, WI-FI and Info button
Copier settings	Actual size; Binding Margin; Color; Black; ID Copy; Resize; Quality (Draft/Normal/Best); Enhancement; Lighter/Darker; Number of Copies
Copies, maximum	Up to 99 copies
Copy reduce / enlarge settings	Via HP app
Copy resolution (black graphics)	Up to 600 dpi
Copy resolution (black text)	Up to 600 dpi
Copy resolution (color text and graphics)	Up to 600 dpi
Copy speed black (ISO)	Up to 10 cpm
Copy speed color (ISO)	Up to 2 cpm

Count of layers in pallet	5
Datasheet photo 1	https://hp.widen.net/content/m1hh6grspo/png/LEBI_WL_Portabello_Packaging_Front_M1806532.png?w=800&h=800&position=c&color=ffffff00&quality=80&u=monw3t
Dimensions with trays up (W x D x H)	434.66 x 361.53 x 157.26 mm
Duty cycle note	Duty cycle is the maximum number of pages that can be printed in a month, but this page volume is not recommended on an ongoing basis.
Electromagnetic compatibility	CISPR 32 2015+A1:2019 Class B/EN 55032:2015+A11:2020 Class B; CISPR 24:2010 +A1:2015/EN 55024:2010 +A1:2015; CISPR 35:2016/EN 55035:2017+A11:2020; EN IEC 61000-3-2:2019; EN 61000-3-2:2014; EN 61000-3-3:2013 +A1:2019; EN 301 489-1 V2.2.3; EN 301 489-17 V3.2.4; FCC CFR 47 Part 15; ICES-003, Issue 7; VCCI-CISPR32:2016
End of Life CO2e (kg)	2.333
Energy Usage CO2e (kg)	4.772
Enhanced scanning resolution	Up to 1200 dpi
Envelope Feeder	No
File Format Supported	JPG; PDF
Finished output handling	Sheetfed
First page out black (A4, ready)	As fast as 14 sec
First page out color (A4, ready)	As fast as 21 sec
First page out footnote	For details see: http://www.hp.com/go/printerclaims
Fonts and typefaces	None
Geographic availability	DM
Image scaling or enlargement range	25 to 150%
Ink types	Pigment-based (black); Dye-based (color)
Input capacity	Up to 100 sheets
Internal Storage	No
Junk fax barrier	No
Levels of grayscale	256
Mac compatible	Yes
Maximum Input Capacity (envelopes)	Up to 10 envelopes
Maximum Memory	64MB

Maximum dimensions (W x D x H)	434.66 x 580.65 x 259.37 mm
Maximum dimensions (W x D x H)	17.11 x 22.86 x 10.21 in
Maximum input capacity (10x15cm photos)	Up to 30 sheets
Maximum input capacity (4x6 photo)	Up to 30 sheets
Maximum input capacity (cards)	Up to 30 cards
Maximum input capacity (photo paper)	Up to 30 sheets
Maximum input capacity (sheets)	Up to 100 sheets
Maximum output capacity (cards)	Up to 30 cards
Maximum output capacity (envelopes)	Up to 10 envelopes
Maximum output capacity (photo paper)	Up to 30 sheets
Maximum output capacity (sheets)	Up to 30 sheets
Maximum print area	216 x 355 mm
Media sizes supported	A4; B5; A6; DL envelope, legal
Media sizes supported	Letter; legal; 4 x 6 in; 5 x 7 in; 8 x 10 in; No. 10 envelopes
Media sizes supported, key	10 x 15 cm; A4; Envelopes
Media sizes supported, key	4 x 6 in; Letter; Legal; Envelopes
Media sizes, custom	88.9 x 127 to 215.9 x 355.6 mm
Media sizes, custom	3.5 x 5 in to 8.5 x 14 in
Media types	Plain paper, Matte Brochure Papers, Glossy Brochure Papers, Photo papers, Envelopes, Other specialty inkjet papers
Media weight, recommended	75 g/m²
Media weight, recommended	20 lb
Media weight, supported	Plain paper: 60 to 90 g/m²; Envelopes: 75 to 90 g/m²; Cards: up to 200 g/m²; Photo paper: up to 300 g/m²

Media weight, supported	Plain paper: 16 to 24 lb; Envelopes: 20 to 24 lb; Cards: up to 110 lb; Photo paper: up to 80 lb
Memory	64 MB Integrated DDR1
Memory Slots	No
Minimum System Requirements	Windows 11, Windows 10, 1 GHz processor, 2 GB SSD, Internet
Minimum System Requirements for Macintosh	macOS Tahoe 26, macOS Sequoia 15, macOS Sonoma 14, 2 GB SSD, Internet
Multitasking supported	No
Non-Operating Humidity Range	5 to 90% RH (non-condensing)
Number of users	1-3 Users
Operating humidity range	15 to 80% RH (non-condensing)
Operating temperature range	5 to 40°C
Operating temperature range	41 to 104°F
Output capacity	Up to 30 sheets
Output file format	JPEG
Package dimensions (W x D x H)	495 x 198 x 478 mm
Package dimensions (W x D x H)	19.49 x 7.8 x 18.82 in
Package weight	7.2 kg
Package weight	15.89 lb
Page Yield in Draft Mode	(B1H)~8,000 pages Black, ~9,200 pages Color[8]
Page Yield in Draft Mode Footnote	Draft page yields are approximate and were measured using “Draft” print-quality settings in the Windows/Mac driver, based on HP Methodology from the simulation of continuous printing of ISO/IEC 24712 pages. Actual page yield varies significantly depending on content printed, ink levels maintained in all four reservoirs, and other factors. For more information about fill and yield, see https://hp.com/go/learnaboutsupplies .
Page yield (set-up/inbox cartridges)	~6300 pages black, ~6,500 pages cyan, magenta, yellow composite yield
Pallet dimensions	47.99 x 40 x 94.09 in
Pallet dimensions (W x D x H)	1200 x 1000 x 2390 mm
Pallet weight	432 kg
Pallet weight	950 lb
Paper handling input, standard	100-sheet input tray

Paper handling output, standard	30-sheet output tray
Paper trays, maximum	1
Paper trays, standard	1
Photo proofsheets supported	No
PictBridge description	No
PictBridge supported	No
Playbook TS icon 1	https://hp.widen.net/s/gkw2ff8fsq/easy-setup_m0304772
Playbook TS icon 2	https://hp.widen.net/s/tdlrx6rlsl/control-simplicity_m0305025
Playbook TS icon 3	https://hp.widen.net/s/wgwqp6chdj/low-ink_m0291956
Playbook TS icon 4	https://hp.widen.net/s/bfz9wjvjcv/self-healing-wifi_m0290115
Playbook TS icon 5	https://hp.widen.net/s/x5cdhbvjlh/print-from-anywhere_m0297620
Playbook TS icon 6	https://hp.widen.net/s/669m6sgcl9/function-key_m0299777
Playbook TS icon 7	https://hp.widen.net/s/pnpmnxvhlg/cmyk-ink-bottles_m0305014
Playbook TS icon 8	https://hp.widen.net/s/rvw8mpgr6l/spill-free_m0288132
Plug and play	Auto Wireless Connect
Power	Input voltage 100 to 240 VAC (+/- 10%), 50/60 Hz (+/- 3 Hz). High voltage: Input voltage 200 to 240 VAC (+/- 10%), 50/60 Hz (+/- 3Hz)
Print Cartridge/Bottle, Color(s)	Black; Cyan; Magenta; Yellow
Print Cartridges/Bottle, Number	4 (1 each black bottle, set of 3 color bottles)
Print Speed (Draft, A4 Memo) Footnote Number	[7]
Print Speed Black (Draft, A4 Memo)	Up to 30 ppm
Print Speed Color (Draft, A4 Memo)	Up to 24 ppm
Print Technology	Ink
Print colors	Yes
Print colors maximum	4
Print head nozzles	704 (Black), 588 (Tri-color)

Print heads	2 (1 each black, tri-color)
Print languages	HP PCL 3 GUI; HP PCLm (HP Apps/UPD); URF (AirPrint)
Print speed black (ISO)	Up to 12 ppm
Print speed black (draft, A4)	Up to 22 ppm
Print speed color (ISO)	Up to 5 ppm
Print speed color (draft, A4)	Up to 16 ppm
Print speed color (normal, 10x15 photo)	As fast as 76 sec
Print speed color (normal, 4x6 photo)	As fast as 76 sec
Print technology	HP Thermal Inkjet
Printer Management	No
Printer drivers included	HP PCL 3 GUI
Processor speed	980 MHz
Product color	OOV white with portobello accents
Product logos	Hi-speed USB certified; Mopria-certified; Wi-Fi certified; IPP Everywhere; AirPrint; App Store; Works with Android; Get it on google play; Get it from Microsoft; EnergyStar; PAP 20; SmartWay; Fragile; Keep out of Rain
Product long name specifications	HP Smart Tank 5100 All-in-One Printer, Color Printer for Home, Print, copy, scan, Wireless; High-volume printer tank; Print from phone or tablet; Scan to PDF
Product name (back)	Smart Tank 510x Wireless All-in-One
Product name (front)	Smart Tank 510x Wireless All-in-One
Product name (primary)	Smart Tank 510x Wireless All-in-One
Product name (secondary)	Smart Tank 510x Wireless All-in-One
Product short name specifications	HP Smart Tank Wireless All-in-One Color Printer, Up to 2 Years of ink included; Two-sided printing; Copier, Scanner
Production CO2e (kg)	36.757
Quantity per pallet	60
RMN number	SNPRC-2201-01
Recommended Macintosh system requirements	Apple® macOS 10.15 Catalina, macOS 11 Big Sur, macOS 12 Monterey; 2 GB HD; Internet required, macOS 13 Ventura; macOS 14 Sonoma; macOS 15 Sequoia
Recommended monthly page volume	400 to 800

Recommended monthly page volume note	HP recommends the number of pages printed not exceed the recommended monthly page volume for optimum device performance.
Recommended operating humidity range	20 to 80% RH
Recommended operating temperature range	15 to 30°C
Recommended operating temperature range	59 to 86°F
Replacement cartridges footnote	Black and composite color average per bottle (cyan/magenta/yellow) results based on HP methodology from the simulation of continuous printing of ISO/IEC 24712 test pages. Not based on ISO/IEC 24711 test process. An additional black ink bottle is required to print 8,000 color test pages. Actual yield varies based on content of printed pages and other factors. Some ink from included bottles is used to start up the printer. For more information about fill and yield, see http://www.hp.com/go/learnaboutsupplies .
Safety	IEC 62368-1 compliant; EU RED and EN 62368-1 compliant; NEMKO GS approved; CSA NRTL approved; Japan VCCI; Australia and New Zealand RCM.
Scan resolution, hardware	Up to 1200 x 1200 dpi
Scan resolution, optical	Up to 1200 dpi
Scan size, maximum	216 x 297 mm
Scan size, maximum	8.5 x 11.69 in
Scanning options (ADF)	Not Applicable
Security management	No
Segment (filter)	Home
Send to email capability	No
Service & support options	Protect your investment—HP Total Care offers a variety of extended warranties and services, go to http://www.hp.com/support
Standard input capacity (cards)	Up to 30 cards
Standard input capacity (envelopes)	Up to 10
Standard input capacity (legal)	Up to 100 sheets
Standard media sizes (duplex)	A4; B5
Standard media sizes (duplex, imperial)	Letter; Executive
Standard memory note	No

Standard output capacity (cards)	Up to 30 cards
Standard output capacity (envelopes)	Up to 10 envelopes
Standard output capacity (legal)	Up to 30 sheets
Storage altitude	4572 m
Storage altitude	15,000 ft
Storage device and direct print support	USB printing
Storage temperature range	-40 to 60°C
Storage temperature range	-40 to 140°F
Sub-brand name	Smart Tank
System requirements, recommended	Microsoft® Windows® 11, 10; 2 GB available hard disk space, Internet connection, Microsoft® Internet Explorer or Edge.
Target user and print volume	For teams up to 3 users; Prints up to 800 pages/month
Tariff numbers	NA/EMEA: 8443310000; AP China: 8443319010
Technology logo 1	Publication logos/Windows_11_BN.jpg
Technology logo 2	Publication logos/AMS_mac_hires.jpg
Technology logo 3	Publication logos/AMS_USB_hi speed.jpg
Technology logo 4	Publication logos/AMS_WiFi.jpg
Technology logo 5	Publication logos/AMS_ColorLok.jpg
Technology logo 6	Publication logos/WorksWithAirPrint_AMS.jpg
Technology logo 7	Publication logos/AMS_Mopria.jpg
Technology logo 8	Publication logos/AMS_EnergyStar.jpg
Technology logo 9	Publication logos/HP_APP_AMS.png
Telecom compliance (fax capability)	EN 300 328 V2.2.2; EN 301 893 V2.1.1; EN 300 440 V2.1.1
Top key features	Wireless; High-volume printer tank; Print from phone or tablet; Scan to PDF

Total CO2e (kg)	45.781 *(A product carbon footprint is defined as the total amount of greenhouse gases emitted directly and indirectly by a product over its lifetime. Greenhouse gas emissions are reported as global warming potential for 100-year time horizon (GWP-100) in units of CO2 equivalence. Calculations are done in accordance with ISO 14040 & ISO 14044. Individual values may not sum to total due to rounding.)*
Transportation CO2e (kg)	1.919
Twain version	Version 2.4
UNSPSC code	43212110
UPC number	199896172257
Vertical alignment accuracy	+/- 0.02 mm
Vertical alignment accuracy	+/- 0.0008 in
Video action printing supported	No
What is in the box footnote	For more information about fill and yield, see http://www.hp.com/go/learnaboutsupplies .
Wireless technologies	802.11b/g/n

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[2] Power requirements are based on the country/region where the printer is sold. Do not convert operating voltages. This will damage the printer and void the product warranty.

[8]Draft page yields are approximate and were measured using “Draft” print-quality settings in the Windows/Mac driver, based on HP Methodology from the simulation of continuous printing of ISO/IEC 24712 pages. Actual page yield varies significantly depending on content printed, ink levels maintained in all four reservoirs, and other factors. For more information about fill and yield, see https://hp.com/go/learnaboutsupplies .

Services

HP Care Pack Services

★ : Recommended

Imaging and Printing Consumer Care Pack Services

HP 2 year Next Business Day Exchange for Smart Tank Page Limit Service	U9NQ9E
HP 2 year Onsite Exchang Smart Tank Page Limit Service	U9NR2E
HP 3 year Next Business Day Exchange for Smart Tank Page Limit Service	UA5C0E
HP 3 year Onsite Exchange Smart Tank Page Limit Service	UA5C1E

Ink/Toner/Paper/Printer Supplies

Ink Supplies

★ : Recommended

HP Ink Bottles

HP 31 70-ml Cyan Original Ink Bottle	1VU26AN
HP 31 70-ml Magenta Original Ink Bottle	1VU27AN
HP 31 70-ml Yellow Original Ink Bottle	1VU28AN
HP 31 CMY Original Ink Bottle Combo 3-Pack	9C228AN
HP 31 CMY/32XL Black Bottled Ink Cartridge	7E6X7AN
HP 32XL 135-ml Black Original Ink Bottle	1VV24AN

HP Inkjet Printer Cartridges and Ink Supplies

HP X4E75A Black Inktank Printhead	X4E75AN

HP Photo Papers

HP Photo Papers for inkjet

HP Matte Photo Paper 48 lb 4 x 6 in. (101 x 152 mm) 25 sheets	6QH46A

HP Home & Office Papers

HP Home & Office Papers for laser and inkjet

HP MultiPurpose20TM 20 lb 11 x 17 in. (279 x 432 mm) 250 sheets	HPM1720P
HP MultiPurpose20TM 20 lb 8.5 x 11 in. (216 x 279 mm) 500 sheets	HPM1120R
HP MultiPurpose20TM 20 lb 8.5 x 14 in. (216 x 356 mm) 500 sheets	HPM1420P

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