Data sheet

HP Thermal Inkjet 2.5 Technology (TIJ) Family

Build your custom solutions on proven technology





Main applications

- Mail addressing
- Postage
- Product identification coding and marking
- Transaction

Key highlights

- Consistently superb image and text quality
- High-volume print applications
- Low cost per print
- Low intervention rates
- Lower total cost of ownership and market entry
- Minimum maintenance
- No warm-up cycle or downtime
- Print cartridges are designed for easy replacement
- Print cartridges have built-in authentication for accurate ink usage and parameter control

Get the design flexibility you need to build a wide range of products and gain a competitive advantage, with HP Thermal Inkjet 2.5 (TIJ) inks and components. The broad HP Thermal Inkjet 2.5 portfolio is based on field-proven HP TIJ technology. Chosen because it is clean, easy to use, reliable and odor-free, HP TIJ technology is used in a wide range of products in diverse manufacturing settings across the globe.

Experience high-quality, high-speed, and reliable printing

HP Thermal Inkjet 2.5 technology provides high-resolution bar codes, logos, and alphanumeric text with a reliable, no-maintenance, easy-to-use, snap-in and snap-out configuration. It prints superb text and image quality at high speeds across a wide range of substrates.

Enjoy easy use

Users can get to work immediately, and operate and maintain HP TIJ 2.5-based printers without any special training, and without warm-up cycles or downtime. When the ink in a cartridge is depleted, the empty cartridge is the only one that needs to be replaced. The special design enables easy snap-in and snap-out replacement.

Target customers

Ideal for companies that require high print quality with a reliable, maintenance-free solution that supports intermittent or continuous printing.

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Expanding portfolio of inks covering a broad range of substrates

HP's innovative aqueous and solvent inks have a proven track record of compatibility with a wide range of substrates. These inks produce sharp, crisp text and bar codes. Fast drying time provides high-quality output without transfer or smearing, and without compromising print speed.

Single-use cartridges

Product number	Product name	Smart Card	Aqueous/ Solvent	Ink color	lnk type	Avg. drop volume (pl)	Ink fill level (ml)	Maximum firin frequency (kH
B3F58A1	HP 2580 Black Solvent Smart Card Print Cartridge	\checkmark	\$	Black	Dye	36	50 ²	18
B3F58B ¹	HP 2580 Black Solvent Smart Card Print Cartridge	\checkmark	\$	Black	Dye	38	47 ³	18
W3T10B ¹	HP 2590 Black Solvent Smart Card Print Cartridge	\checkmark	\$	Black	Dye	29	474	18
 B3F36A	HP 1918 Black Smart Card Print Cartridge	\checkmark	۵	Black	Dye	26	48	12
B3F37A	HP 2531 Black Smart Card Print Cartridge	\checkmark	۵	Black	Dye	26	50	12
B3F38A	HP 45A Black Smart Card Print Cartridge	\checkmark	۵	Black	Pigment	33	47	12
C6128A	HP Non-Fluorescent Red Print Cartridge		۵	Red	Pigment	30	48	12
C6170A	HP Spot Blue Print Cartridge		۵	Blue	Dye	26	48	12
C6195A	HP Fast Dry Black Print Cartridge		۵	Black	Pigment	30	49	12
C8842A	HP Versatile Black Print Cartridge		۵	Black	Pigment	25	49	12
CG339A	HP 45A Black Print Cartridge 10-Pack		۵	Black	Pigment	33	47	12
CG378A	HP 2531 Black Print Cartridge		۵	Black	Dye	26	50	12
CQ849A	HP Durable Black Print Cartridge		۵	Black	Pigment	30	50	10
CQ866A	HP 2520 Black Print Cartridge		۵	Black	Pigment/dye	26	50	10
F0L36A	HP Versatile Black Smart Card Print Cartridge	~	۵	Black	Pigment	29	49	12
 F0L69A	HP 2520 Black Smart Card Print Cartridge	\checkmark	۵	Black	Pigment/dye	26	50	10
 F0L95A	HP 2510 Black Pigment Smart Card Print Cartridge	\checkmark	۵	Black	Pigment	26	47	12
Q2344A	HP 1918 Black Print Cartridge		۵	Black	Dye	26	48	12
Q2354A	HP 2242 Blue Print Cartridge		۵	Blue	Pigment	21	50	12
W3S87A	HP Fast Dry Black Smart Card Print Cartridge	\checkmark	۵	Black	Pigment	30	49	12

¹ Design and manufacture of HP2580 and HP2590 solvent inks are in compliance with Good Manufacturing Practice: Printing Inks for Food Contact Materials (Rev 4, 2016), published by the European Printing Ink Association (EuPIA). To receive a copy of the Statement of Composition, submit a request through HP SPS customer support request form hp.com/go/ spssupport.

² Average delivered ink is 35 ml (vertical) and 25 ml (horizontal).

³ Average delivered ink is 34 ml (vertical) and 31 ml (horizontal).

⁴ Average delivered ink is 34 ml (vertical) and 33 ml (horizontal).



Bulk supplies

Delivering high-volume solutions

HP bulk ink delivery systems are designed to meet the needs of long, high-volume printing applications:

- Large ink supplies minimize operator interventions.
- Advanced electronic functions enable designers to build in ink level monitors and signals to provide uninterrupted printing during long print runs.
- Ink cartridges and ink supplies can be changed independently.
- Ink supplies can be hot-swapped.

	Product number	Product name	Bulk cartridge	Bulk supply		Aqueous/ Solvent	Ink color	Ink type	Avg. drop volume (pl)	Ink fill Level (ml)	Maximum firing frequency (kHz)
٥	F0L89B	HP 2580 Black Solvent Smart Card Bulk Print Cartridge	√		\checkmark	\$	Black	Dye	38	30	18
٥	F0L91A	HP 2580 Black Solvent Smart Card Bulk Ink Cartridge		\checkmark	\checkmark	\$	Black	Dye	n/a	400	n/a
٥	3UB53B	HP 2590 Black Solvent Smart Card Bulk Print Cartridge	\checkmark		\checkmark	\$	Black	Dye	29	30	18
٥	3UB52A	HP 2590 Black Solvent Smart Card Bulk Ink Cartridge		~	~	\$	Black	Dye	n/a	400	n/a
۵	C6119A	HP 4500 Black Bulk Supply	\checkmark	\checkmark		۵	Black	Pigment	33	370	12
٥	Q2320A	HP Versatile Black Printhead and Connector Assembly	\checkmark			۵	Black	Pigment	29	39	12
٥	Q2321A	HP Versatile Black Bulk Ink Cartridge		~		۵	Black	Pigment	n/a	400	n/a
600	Q2382A	HP 2242 Blue Printhead and Connector Assembly	√			۵	Blue	Pigment	21	42	12
\$	Q2356A	HP 2242 Blue Bulk Ink Cartridge		~		۵	Blue	Pigment	n/a	400	n/a
6 60	Q2357A	HP Non-fluorescent Red Printhead and Connector Assembly	√			۵	Red	Pigment	29	38	12
	Q2358A	HP Non-Fluorescent Red Bulk Ink Cartridge		~		۵	Red	Pigment	n/a	400	n/a
۵	Q7456A	HP 4500 Black Printhead and Connector Assembly	~			۵	Black	Pigment	33	38	12
٥	Q7457A	HP 4500 Black Bulk Ink Cartridge		\checkmark		۵	Black	Pigment	n/a	400	n/a
۵	W3S26A	HP 2510 Black Bulk Smart Card Supply	~	~	~	۵	Black	Pigment	26	370	12
۵	W3S88A	HP 45A Black Bulk Smart Card Supply	~	~	~	۵	Black	Pigment	33	370	12

🔥 Color

Black Aqueous Solvent



1:1 configuration

2:4 configuration



Designing flexibility

HP engineers robust flexible bulk ink delivery systems with advanced features to meet the needs of high-volume print applications where superior print quality, low cost per copy, and minimal user intervention are required. HP components and design guides offer designers the opportunity to configure any combination of HP printheads and supplies.

Design features include:

- Printhead and ink cartridge authentication
- Easy mounting of printhead and ink cartridges
- Electronic interfacing to printhead and ink cartridges
- Flexible manifold design
- Flexible positioning of printhead and ink cartridges
- Out-of-ink notification
- Pressurized and gravity feed options

Enablers

Technical specifications

Product number		Product name	Single-use/ Bulk	Aqueous/ Solvent	Smart Card	Description
FOL93A	U	HP Bulk Print Cartridge Connector Protector	Bulk	\$		Provides a one-time removable connection of FOL72A to the bulk print cartridge; once attached, this component allows the FOL72A to be removed one time from the bulk print cartridge.
F0M03A	B	HP Bulk Print Cartridge 25-meter Tube	Bulk	\$		HP's solvent ink capable tubing will help establish secure connections between print cartridges.
FOM04A	Ó	HP Bulk Print Cartridge 50-meter Tube	Bulk	\$		HP's solvent ink capable tubing helps to establish secure connections between print cartridges.
5042-7013	÷	HP Insert Fluid Connector - Male	Bulk	۵		These ink connectors are specially designed to quickly disconnect for easy system operation. The no-drip design helps maintain a clean operating environment, and air-tight seals prevent air from entering the system when they are connected or disconnected.
5042-7014		HP Body - Fluid Connector - Female	Bulk	۵		These ink connectors are specially designed to quickly disconnect for easy system operation. The no-drip design helps maintain a clean operating environment, and air-tight seals prevent air from entering the system when they are connected or disconnected.
5042-7015		HP Panel Mounted Insert Fluid Connector	Bulk	۵		These ink connectors are specially designed to quickly disconnect for easy system operation. The no-drip design helps maintain a clean operating environment, and air-tight seals prevent air from entering the system when they are connected or disconnected.
Q2308-60001		HP Enclosed Regulator Assembly	Bulk	۵		Maintains the pressure and ink flow to the printhead. Its small size and enclosed design enables it to be mounted and incorporated easily into any design. With this regulator in place, the bulk ink cartridge can be mounted some distance from the printhead. Management of backpressure and ink flow is handled automatically.
1825-0057		HP ASIC Control Chip for Printers	Single	\$\$		Use when you want the flexibility to design your own driver board, while leveraging HP's tested firing parameters.
5182-6837		HP Pen Cartridge Wiper	Single	\$\$	~	The pen cartridge wiper is part of the service station and is used to wipe the nozzle plate to remove any debris that could obstruct the nozzles or affect the ink drop trajectory.
5182-6838	Ę	HP Pen Cartridge Cap	Single	\$ \$	√	Pen cartridge cap, used to cover the pen cartridge orifice plate when not in use to avoid evaporation.
C4557-60045		HP Pen Cartridge Latch	Single	A \$	\checkmark	Replacement latch for the CQ803A Print Cartridge Stall .
C4557-60105	No.	HP Pogo Pin Connectors	Single	\$\$	\checkmark	Pen cartridge cap, used to cover the pen cartridge orifice plate when not in use to avoid evaporation.
C6166-80001	6	HP Ribbon Cable	Single	\$ \$	\checkmark	Ribbon cable for interfacing the host printing system to the C8855M Driver Board.
C8855M	-CR	HP Print Cartridge Driver Board	Single/ Bulk	\$ \$		This printed circuit assembly (PCA) provides both the electrical and logical interface between the host printing system and the printhead. This component is designed to provide proper operation, proper firing, and protection of the printhead. Communicates with the host via a serial data interface.
CQ801B	EUZENNT CD K335	HP Host Printer Smart Card Component	Single	\$\$	\checkmark	Host printer smart card, used by the host printing system to provide authentication of genuine HP print and ink cartridges.
CQ802A	Line	HP Smart Card Print Crtrg Driver Board	Single	\$ \$	~	This printed circuit assembly (PCA) provides both the electrical and logical interface between the smart cart print head and the host printing system. This component is designed to provide proper operation, proper firing, and protection of the printhead.Communicates with the host via a serial data interface.
CQ803A	1	HP Smart Card Print Cartridge Stall	Single/ Bulk	\$\$	√	Supports of the stall for easy replacement a 0.5-inch swath width and 600 dpi. Suitable for varied printhead array configurations. Printheads can be snapped in and snapped out.
FOL72A	EDER	HP Valve for Bulk Print Cartridge	Single	\$ \$		Valve assembly used to attach the print cartridge to the tubing.
Q2308-60015		HP Modular Ink Supply Station	Single	\$		Includes connector assembly, ink seal assembly, and ink stall . Use with 350-400 ml ink cartridges.

Aqueous Solvent

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