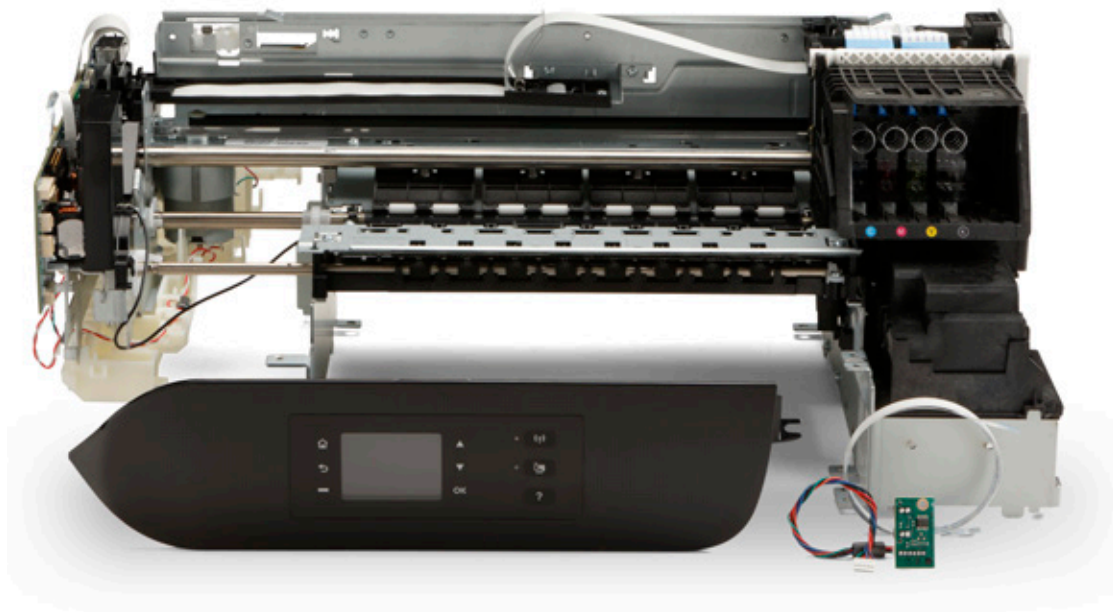


Data sheet

# HP OEM SI-1300 Print Engine

Fast, easy, capable



**215.9 mm (8.5 in) print width**

**HP TIJ4 4-color printhead**

**Gen 2 CMYK Individual Ink Cartridges (IIC)**

**Ink Options:** dye, pigment, third-party ink

**Print speed:**

Approximately 13.5 cm/sec (5.3 in/sec (ips)) when printing a 5.6 cm (2.2 in) wide image in plain paper draft mode

**Standard connectivity:**

One high-speed USB 2.0 device port plus one 10/100 Base-Tx Ethernet port

10 OEM GPIOs plus door, power and top of form signals, and a serial port for board-to-board communications

Three brushed DC auxiliary motor drivers with individual quadrature encoder inputs

**Decoupled service station to enable roll feed applications**

**Optional Class 1 external power supply**

**Customizable Windows software driver**

The HP OEM SI-1300 Print Engine offers OEMs a proven, versatile, color inkjet printer mechanism that minimizes development cost and effort, and speeds time-to-market.

## Fast

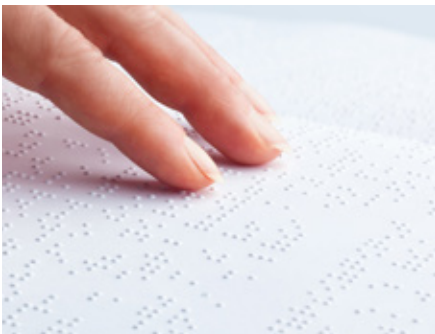
The HP SI-1300 produces high-quality prints quickly due to its large 3.33 cm (1.31 in) print swath. This speed helps end-users save time managing their business, as their prints can be ready when they are needed. It is capable of excellent print speeds across a variety of applications.

## Easy to use

Designed for OEMs, the HP SI-1300 comes with scripts that ease media control. The SI-1300 includes top of form, cover open, and power on/off inputs, 10 GPIOs, three brushed auxiliary DC motor drivers, and a serial port to customize the print engine for your applications. The SI-1300 OEM interface also provides 3.3V, 5.4V, and 32V power that you can use to power other devices. End-users will enjoy the snap-in ease of inserting and removing the individual CMYK ink supplies and the semi-permanent printhead – it's easy!

## Sample applications:

- Braille characters
- CDs and DVDs
- Fingernails
- Labels
- Passports
- Well-logging reports



## Globally Harmonized System (GHS)

The HP SI-1300 is GHS certified, which saves you the time and effort of applying for the certification. HP pigment inks adhere to porous media so well that they can pass the industry standard three-month salt water immersion test. Now that's permanence!

## A true workhorse

The HP SI-1300 offers a robust desktop color solution that can print continuously up to eight hours a day. This means less time between interventions and more time printing. The large-fill supplies also enable fewer interventions for ink replacement.

The SI-1300 is a proven print engine that uses advanced color thermal inkjet technology (TIJ). It provides a rugged platform with design specs that support a metal base plate. This allows you to mount the print mechanics in a variety of configurations to suit your needs.

This print engine is perfect for OEMs who:

- Need a system that can print long print jobs, such as 1000 or more 4x6 inch labels in a single print job
- Want a rugged development platform already tested and validated with HP's proven expertise
- Value the advantages of TIJ and the competitive edge that comes from partnering with a recognized technology leader

## Reliable

The HP SI-1300 is a print engine and front panel based on the HP OfficeJet Pro 8210 printer. It includes:

- Scanning printhead, with a paper-based media path
- One printhead stall for the user-replaceable, semi-permanent printhead
- Printhead service station
- Optional Class 1 external power supply

Fast and rugged, the SI-1300 is designed to provide easy access to the printhead and ink supplies.

## Wide-ranging print zone

The HP SI-1300 is designed with a 215.9 mm (8.5 in) print zone, which supports a wide range of media sizes. You can customize the media path down to a 127 mm (5 in) print zone for smaller-form factor applications such as small labels, fingernails, passports, braille characters, well-logging reports, and CDs/DVDs.

## Integration options

The HP SI-1300 print engine comes with a paper-based media path that can be used as-is for labels and other paper-based applications. For other applications, the SI-1300 has been designed to accommodate alternate layouts. This is accomplished by creating your own custom sheet metal base and media path.

## Customizable software driver

To facilitate quick integration, HP designed a Windows software driver for the HP SI-1300 that permits extensive customization. You can use the driver to define your media sets and route to whichever existing print mode is desired.

The driver can also be tailored to present a feature-rich user interface (with or without OEM brand identity) or a simplified driver that offers only the functions required for the application, such as:

- Print quality controls to balance speed versus resolution
- Media type and size selection
- Layout controls (orientation, size, and borderless printing)
- Printer status and ink status indicators

Mac driver development available through third-party partners. Linux software driver development available through open-source source code.



## Outstanding color print quality

The HP SI-1300 offers a four-color ink system to provide an optimal combination of print quality and performance suitable for most applications. This technology uses pigment or dye ink sets to produce high-quality, durable images and crisp, LaserJet-quality text.

Depending on the media, this system can achieve outstanding lightfastness and fade resistance.

HP photo-quality print cartridges offer:

- **Versatility** – Print on a wide range of media types.
- **Permanence** – HP pigment ink provides durability in both fade and scratch resistance.
- **Vibrancy** – HP dye ink provides high color pop especially on glossy media.
- **Superior photo quality** – The four-color ink system produces long-lasting, brilliant colors.
- **Compact design** – Low-profile packaging saves space so you can build smaller products.
- **Proven reliability** – HP’s worldwide recognition for product quality, reliability, and service creates a winning combination for you as an OEM partner.
- **Ease-of-use** – Simple, quick replacement minimizes downtime.
- **Economical output** – Efficient ink delivery system provides a low-cost-per-page advantage.



## Versatile, economic, high-quality ink cartridges

The HP SI-1300 is designed to work with generic OEM versions of the HP 956/952 ink supplies that can be purchased through licensed OEMs only.

Precise ink drop placement produces consistently superb image and text quality in color and black and white on a wide variety of media.

HP offers OEMs the tools to custom key their supplies in order to protect supplies annuity.

## HP engineering expertise and support

HP works with you to quickly adapt and customize this print engine to meet your particular market needs. These products provide a high return on investment compared to standard consumer printing platforms.



## Security

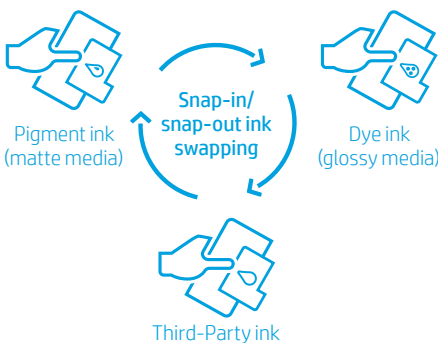
Dynamic security enabled printer intended for use with supplies using an HP original chip. Ink supplies using a non-HP chip may not work in the future.

More info on dynamic security can be found at [hp.com/go/learnaboutsups](http://hp.com/go/learnaboutsups)

## Inks!

The SI-1300 offers ink flexibility – pigment, dye, or approved third-party inks via HP-provided empty ink supplies. The HP pigment ink is a proven winner on a wide range of porous media, providing best-in-class permanence in harsh environmental conditions. HP has received the BS5609 certification using a readily available off-the-shelf media. The HP dye provides vivid color for those applications requiring high color vibrancy and works well on a wide range of glossy media. You have the option of working with an approved HP third-party ink filler to have empty ink supplies filled with the third-party’s ink. This allows you more flexibility in the ink solutions you offer your customers. You are fully responsible for the ink performance, servicing, and overall health of the print engine. HP can provide a list of the approved third-party ink fillers upon request.

### Your three-in-one printer



## Swappable Printhead Assembly

The SI-1300 firmware supports snap-in/ snap-out swapping between dye, pigment and approved third-party ink sets. This means a user can run both glossy and matte media print jobs in one printer. Just remove the printhead assembly, insert the other printhead assembly and run the print job that matches the media for that job. Users get three printers in one resulting in a substantial hardware savings! HP validated the printhead assembly swapping between the glossy and matte ink sets. OEMs need to validate third-party ink performance in both the filled empty-supplies and printhead reliability.

Dye ink (glossy media)

Pigment ink (matte media)

Third-Party ink

## HP OEM SI-1300 Print Engine Specifications

<b>Product offering</b>	Print engine and front panel based on HP OfficeJet Pro 8210 printer with custom firmware and software. CMYK printhead assembly included. Product of the United States (includes foreign contents).
<b>P/N</b>	W3S19A
<b>Print speed</b>	Approximately 13.5 cm/sec (5.3 in/sec) when printing a 5.6 cm (2.2 in) wide image in plain paper draft mode (based on HP OfficeJet Pro 8210 media path)
<b>Print quality</b>	Same as HP OfficeJet Pro 8210 (based on HP OfficeJet Pro 8210 media path)
<b>Connectivity</b>	One high-speed USB 2.0 device port, one 10/100 Base-Tx network port (Wi-Fi is not supported), 13 I/O interfaces (top of form, cover open, 10 OEM-defined GPIOs, power on/off) and one TTL level serial port using an ISO HDLC-based data link layer for board-to-board communications. Available via the OEM I/O connector on main the PCA. Three auxiliary brushed DC motor drivers with quadrature encoders available via three additional connectors on the main PCA. Unused quadrature encoder inputs can also be used as additional GPIOs.
<b>Printer ID customization</b>	Device ID 'CID' field mapped to configurable driver plus programmable serial number, manufacturer, brand name, model name, model number, and USB VID/PID (no USB device ID string status extensions)
<b>NVRAM customization</b>	Programmable OEM fields
<b>Supported image lengths</b>	2.54 cm - 121.92 cm (1 in - 48 in)
<b>Printer behavior customization</b>	<ul style="list-style-type: none"> <li>• Ability to customize the print engine's mechanical behavior via scripts</li> <li>• Ability to trigger printer actions via GPIOs</li> <li>• Ability to trigger printer actions via PC software over software-firmware interface from PC and over serial port</li> </ul>
<b>Available printer status</b>	<ul style="list-style-type: none"> <li>• Available via front panel/user interface (front panel not required for operation)</li> <li>• Available via software-firmware interface over USB, network (including embedded web server), and via serial port</li> <li>• Includes printer error codes and estimated print cartridge ink levels</li> </ul>
<b>Printhead alignment</b>	Manually triggered automatic alignment via carriage optical sensor supports A/A4 and 4"x11" media.
<b>Edge detection / top of form</b>	Via GPIO or via optical sensor on carriage 76.2 cm (30 in) maximum supported distance between top of form sensor and print zone
<b>Power supply</b>	<ul style="list-style-type: none"> <li>• Sold separately</li> <li>• Optional Class I (3-wire) LPS universal power supply, external, 32V / 50W nominal output (P/N F0L83A)</li> <li>• 3.3V (up to 100 mA), 5.4V (up to 500 mA) and 32V (up to 750 mA) power is provided via OEM connector on the Main PCA.</li> </ul>
<b>Operating environment</b>	<ul style="list-style-type: none"> <li>• Operating temperature range: 5° C to 40° C (41° F to 104° F), 15° C to 32° C (59° F to 90° F) recommended</li> <li>• Operating humidity range: 15% to 80% RH (non-condensing), 20% to 80% recommended</li> <li>• Storage temperature range: -40° C to 60° C (-40° F to 140° F)</li> <li>• Non-operating humidity range: 10% to 90% (non-condensing)</li> </ul>
<b>Software driver</b>	Localized, customizable Windows software driver and toolbox Windows 10, Windows 8/8.1, Windows 7, Windows Vista, Windows XP SP3 or greater (32-bit only), Windows Server 2003, Windows Server 2008 (including 64 bit R2), Windows Server 2012 (including R2)
<b>Dimensions</b>	(W x D x H) 460 mm x 320 mm x 200 mm (18.11 in x 12.6 in x 7.87 in)
<b>Weight</b>	4 kg (8.82 lb) print engine and supplies

## HP OEM SI-1300 Print Engine Print Cartridge Specifications

<b>P/N for pigment ink (matte media)</b>	W3S15A Black; W3S16A Cyan; W3S17A Magenta; W3S18A Yellow
<b>P/N for dye ink (glossy media)</b>	W3S67A Black; W3S68A Cyan; W3S69A Magenta; W3S70A Yellow
<b>P/N for empty</b>	W3S21A Black; W3S22A Cyan; W3S23A Magenta; W3S24A Yellow
<b>PHA Replacement</b>	W3S20A
<b>Ink cartridge type</b>	Individual ink supply
<b>Resolution</b>	1200 nozzles per inch, per color
<b>Nozzle count</b>	6272 (1568 x 4)
<b>Print swath</b>	3.33 cm (1.31 in)
<b>Average drop volume</b>	~11 pl K, ~7 pl CMY
<b>Printhead</b>	TIJ4 Individual Ink Cartridge (IIC) Gen 2, 4 color, semi-permanent, user-replaceable printhead
<b>Ink supplies</b>	OEM Generic HP 956 Black, HP 952 Cyan, Magenta, Yellow
<b>Ink fill level</b>	~26 ml CMY each and ~78.4 black
<b>Dimensions (L x W x H)</b>	Black 98 mm x 30 mm x 53 mm (3.86 in x 1.18 in x 2.09 in); CMY 98 mm x 14 mm x 53 mm (3.86 in x 0.55 in x 2.09 in)

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