



iPF710/610

COMPETITIVE BRIEF



imagePROGRAF iPF710/610 Printers Competitive Brief

Specifically designed for speed, quality, and ease-of-use, the new imagePROGRAF iPF710 printer and iPF610 printer are highly versatile large-format printing solutions that are ideal for architects, engineers, designers, schools, or businesses that need to produce a wide variety of output ranging from complex technical documents to full-color posters and presentations.

Ready for the rigors of Computer-Aided Design (CAD) and Geographic Information Systems (GIS) print applications, the 36"-wide iPF710 printer is Canon's premier solution for the technical documents market. Engineered for productivity and precision, this versatile printer can also produce high-quality, full-color graphics, drawings, renderings, and even photos!

The 24"-wide iPF610 printer is an all-purpose, large-format printing solution designed to enable all levels of users to produce full-color, large-format graphics. This easy-to-use printing system is great for anyone who wants to create, process, and print their own full-color presentations, signs, posters, renderings, CAD drawings, GIS maps, and other large-format output.



Now equipped for direct printing of HP-GL/2 and HP RTL documents, these new printers are built around proprietary Canon technologies, including 5-color dye/pigment Reactive Ink technology with two channels of Matte Black, a super-high-density long-life print-head, the L-COA processor, and advanced workflow solutions. Office-friendly, fast, and easy-to-use, these printers offer customers maximum productivity, excellent print quality, and optimum versatility.

What makes the iPF710 and iPF610 printers unlike other large-format printers?

These easy-to-use printers are powered by advanced Canon technologies, seamlessly integrated into a comprehensive large-format printing solution.

UNIQUE SELLING PROPOSITION	FEATURES	BENEFITS
Choosing the Size that Meets Your Needs	<ul style="list-style-type: none"> • 36"-wide iPF710 • 24"-wide iPF610 	<ul style="list-style-type: none"> • Large-format printing of GIS maps, CAD drawings, posters, photos, and more
High-quality Printing	<ul style="list-style-type: none"> • High-resolution up to 2400 x 1200 dpi output • Fine lines with a tiny 4pl ink droplet • Unique 5-color dye/pigment Reactive Ink technology • Colorfast, dye-based inks for bold, expressive colors • Pigment Matte Black ink for durable line drawings and text • Line accuracy +/- 0.10% • Minimum line weight 1/1200 of an inch 	<ul style="list-style-type: none"> • Full-color graphics look great on coated media <i>and</i> uncoated papers. • Precise details, solid fills, smooth curves, and fine lines • Easier to read text—even small fonts on colored backgrounds • Durable scratch-resistant prints hold up in busy work environments
Maximum Productivity	<ul style="list-style-type: none"> • Super-high-density print-head with 15,360 nozzles • Two channels of Matte Black ink increase output speed for text and line drawings • L-COA Processor • Print a high-resolution 6 ft.²* (D)-size line drawing in just 33 seconds! • Print speeds up to 659 ft.²/hr.* on plain paper and up to 118 ft.²/hr.* on glossy photo paper 	<ul style="list-style-type: none"> • Quickly produce multiple sets of documents • High-speed image processing means projects print faster • Increase output capacity • Print more in less time and meet tight deadlines
Versatile	<ul style="list-style-type: none"> • Direct printing support for HP-GL/2 and HP RTL • HDI Driver for direct printing from AutoCAD® • Canon Printer Driver 2007 • L-COA Processor • Digital Photo Front-Access** 	<ul style="list-style-type: none"> • One printer can handle both detailed technical documents and full color graphics • Software and workflow solutions help all levels of users get great results
Easy-to-use	<ul style="list-style-type: none"> • Quiet operation for a more comfortable working environment • Convenient media feed options for everyday use • Large LCD panel provides better visibility and more information • Easy access to user manuals, product information, and software applications • Network-ready 	<ul style="list-style-type: none"> • An out-of-the box large-format printing solution for all types of work environments
PosterArtist 2007** (Optional)	<ul style="list-style-type: none"> • Easy-to-use poster creation program • Auto Design feature • Includes print-ready clip-art, royalty-free images • Over 180 professionally designed customizable templates 	<ul style="list-style-type: none"> • Customers don't need to be professional graphic designers to create their own posters, signs, and banners.

* [SCID N5 ("bicycle")] OS: Windows® XP SP2, CPU: Pentium® 4 3.2GHz, RAM: 1GB, Application: Adobe® Photoshop® 7.0, Interface: USB 2.0 Hi-Speed, Output image size: A0 (827 x 1033.8mm); A1(580 x 724.9mm). Measured by Canon Inc. Each print time does not include data transfer time. The print speed may vary depending on the data volume and size, PC, application, software, and interface.

** PC only

Hewlett Packard (HP): New Products

HP DESIGNJET T1100

Pros: Available in two widths, 24" and 44", the DJ T1100 is an improvement over the DJ 1000 Series printers. Compared to its predecessor, the newer DJ T1100 is faster, less expensive, has a wider range of black/gray ink tones and prints in higher resolution. Equipped with a 40GB hard drive, the DJ T1100 also provides more room for data storage at the printer. The 44" width means that some general use printing applications can be printed in larger sizes; however, with the overwhelming majority of CAD documents being no more than 36" wide, the extra inches are of little use in most technical document applications. Priced at \$3,595 for the 24" model and \$5,395 for the 44" model, a PostScript® version of each printer is available for an additional \$1,000.

Cons: Speed and Cost. While the iPF710 and iPF610 printers are 40% to 50% faster than the DJ T1100, HP charges 20% to 35% more for its printer. With an MSRP that's \$1,400 lower than the 44" DJ T1100, the iPF710 printer is a better value right from day one.

And over time, Canon's total cost of ownership stays low. The imagePROGRAF printers' super-high-density print-head with 15,360 nozzles has 9,024 more nozzles (that's 142% more) than the HP T1100! This significant difference gives Canon a compounded technological advantage over the HP printers. While the high nozzle count contributes directly to the imagePROGRAF printers' faster speeds and better image quality—it also increases the longevity of the print-head. With more nozzles available, the burden on each is reduced, thus limiting the wear and tear on the print-head and increasing its functional life.

Print quality will also be higher with the imagePROGRAF printers. High-resolution 2400 x 1200 dpi output and tiny 4pl ink droplets mean that the Canon printers are able to produce small text fonts and intricate details more precisely than the HP printer, which uses much larger 6pl and 9pl ink droplets. By saturating the media with large ink droplets, HP increases the tendency for colors and text to bleed, making them harder to read. In addition to using smaller ink droplets, Canon's Reactive Ink technology further reduces the spread of black ink into colored areas, so small fonts and details are crisp and easy to read—even on uncoated technical papers. With two types of black ink (a pigment Matte Black and a dye-based Black), the imagePROGRAF printers produce dense blacks on coated glossy media, as well as durable prints on matte and uncoated stocks. Dye-based inks mean that posters, renderings, and photos will look great. Pigment Black means technical documents used in the field, such as construction or manufacturing plans, will be more durable.

Faster, less expensive, higher-image quality—add to this workflow and software solutions that enable all levels of users to print like a pro—and it's clear that imagePROGRAF printers are a better value for better technology than the DJ HP T1100.

HP DESIGNJET T610

Pros: Built around the same print-heads and technologies as the DJ T1100, the 44" and 24"-wide DJ T610 printers offer similar features, functions, and performance as the DJ T1100. The main difference is that the DJ T610 is lower priced, doesn't include a network card, doesn't have a 40GB hard drive and, unlike most other HP Designjet printers, a PostScript version of the DJ T610 is not available.

Cons: While the MSRP for a DJ T610 is about the same as a comparably sized iPF710 printer or iPF610 printer, this HP printer shares the same print speed and quality limitations as DJ T1100 described on the previous page. Without a network card, the usefulness of the DJ T610 as a departmental printer is also curtailed. This makes the decision to buy an imagePROGRAF printer easy. For relatively the same price, Canon offers a printer that produces higher-quality images faster, is network ready, and easy to use.

Hewlett Packard (HP): Upgrade Opportunities

A large installed base of older HP printers is in the field. As many of these devices wear out or become obsolete, customers will want to upgrade their printers. Look for opportunities to upgrade the following HP printers to either an iPF710 printer or iPF610 printer from Canon.

HP DESIGNJET 500

Pros: The DJ 500 offers basic large-format printing capabilities for both technical document applications and business color graphics. The low purchase price of this printer makes it attractive to customers with small budgets and low-end output requirements.

Cons: The iPF710 printer is 675% faster—there's simply no comparison on speed. Introduced to the market in 2000, DJ 500 printers are based on older technology and, therefore, are unable to match the print quality and speed of the iPF710/610 printers. With only 1,216 nozzles, the maximum print speed for the DJ 500 is only 85 ft.²/hr. With a top speed of 659 ft.²/hr. the iPF710 printer will print technical documents and graphics much faster than the DJ 500. At the same time, precision and detail are important to customers, yet the DJ 500 outputs a heavy 18pl droplet of black ink. When compared to the tiny 4pl ink droplet output by the iPF710/610 printers, it's easy to understand why the Canon printers are able to produce more accurate drawings and renderings. With a maximum resolution of 1200x600 dpi and only one type of black ink (matte) customers are likely to find that the DJ 500's overall image quality is lower than the 2400 x 1200 dpi of the iPF710/610 printers, especially on coated and glossy media. In the technical documents market where most standard output sizes are 36" or less (a "D" print—the most common size—is 24" x 36"), the 42" width of the DJ 500 doesn't have much practical application.

HP DESIGNJET 800

Pros: The DJ 800 is a network-ready printer for workgroups. Built on the same print-head technology as the DJ 500, this printer comes with a few additional features and is capable of attaining a higher maximum resolution (2400 x 1200 dpi on premium gloss paper only).

Cons: Though the base model costs \$1,000 to \$1,300 more than the iPF710/610 printers, the DJ 800 arguably doesn't beat the Canon printers in terms of productivity or performance. Because the DJ 800 uses the same print-heads as the DJ 500, it shares the same limitations when it comes to print speed, image quality, line accuracy, and overall performance. For customers who want to upgrade their DJ 800, the new Canon printers are an opportunity to spend less and get more.

HP DESIGNJET 1050C PLUS

Pros: Introduced in 2001, this 36"-wide printer has a list price of \$6,795 and is positioned by HP specifically for CAD and GIS applications. Faster than the DJ 500 and DJ 800, the DJ 1050c is network-ready and capable of printing more accurate line drawings than either of the previously mentioned HP printers. Optional upgrades include a multi-roll media feeder designed for unattended feeding of up to three rolls of media. For an additional \$2,000, the DJ 1055cm adds PostScript 3, a 7.5GB hard drive, and PANTONE® color certification.

Cons: While the DJ 1050c has been popular for technical document applications, compared to the new iPF710/610 printers, this HP printer is hard-pressed to offer good value for price and performance. With 15,360 nozzles and a large 1.07" print-head, the iPF710 printer is three times faster yet costs about 40% less. With 2400 x 1200 dpi and a tiny 4pl ink droplet the imagePROGRAF printers produce higher-quality images and more accurate line drawings than the 600 x 600 dpi DJ 1050c, which prints with a large 18pl droplet of pigment black ink. (Dye black ink is not available for this HP printer.) With the imagePROGRAF printer's unique 5-color Reactive Ink technology, both pigment Matte Black ink and a dye-based Black ink are available at all times. The imagePROGRAF printer's ability to auto-switch between the two blacks ensures best-quality output on a greater variety of uncoated and coated media with minimal operator intervention. For output capacity, productivity, versatility, print quality, and flexibility the iPF710/610 printers are, across the board, a far better value than the DJ 1050c.

HP DESIGNJET 4000

Pros: Available only in a 42" width, the DJ 4000 is intended for departmental and production printing. Network-ready with embedded print management functions to support remote output, this printer is capable of 2400 x 1200 dpi output and accurate line placement.

Cons: The maximum published print speed of the DJ 4000 is 1000 ft.²/hr.; however, when processing and print time are considered together, HP indicates that actual output in one hour of continuous printing will more likely be 600 ft.². This point underscores the importance of the L-COA processor built into the iPF710/610 printers which has been specifically developed by Canon to address the need for both mechanical and processing productivity. Even with eight print-heads this HP printer has only 4,192 nozzles, less than a third of the number found in the iPF710/610 printers. This puts more demand on each of the HP nozzles, thus increasing the possibility of nozzle failures. When failures occur in the HP, the cost and effort required to maintain all eight print-heads may be high. Like other HP printers in this category, the DJ 4000 offers only one type of black ink (pigment), which limits versatility and image quality on certain types of media. A heavy 15pl droplet of black ink means that the DJ 4000 will output thicker lines than the iPF710/610 printer, which may make reading complex drawings more difficult. Priced at \$8,995 for the base model and \$11,495 with a PostScript RIP, the DJ 4000 is two to three times more expensive than the iPF710/610 printers, yet the more versatile, more reliable Canon printer offers higher quality and better overall performance.

EPSON:

Less focused on the technical documents market than other competitors, Epson has historically positioned its printers for photography and graphic arts applications. As such, Epson printers typically include a variety of features oriented around high-end color applications with very few that address the specific needs of the technical documents customer. Because Epson has established a strong brand presence, you may find some customers with both technical and graphics printing requirements using an Epson printer. Because the iPF710/610 printers offer a broad range of features for both technical documents and graphic applications, you should be able to position the Canon printer as a better alternative—as one printer that can satisfy all the customer's needs.

EPSON STYLUS PRO 9800 AND 7800

Pros: Epson targets the 44"-wide 9800 and the 24"-wide 7800 printers primarily for use by graphic designers, prepress professionals, and photographers. However, customers in the technical documents market may be using an Epson printer to produce photo enlargements, GIS maps, and color graphics. Normal print mode for these Epson printers is 1440x720 dpi and the maximum is 2880x1440 dpi, making this a reasonably high-resolution printer. The eight-color ink set includes the standard CMYK combination as well as light cyan, light magenta, light black, and a choice of either photo black or matte black. Epson's pigment inks are durable—and color prints are estimated to last over 100 years without fading, while black-and-white prints are claimed not to fade for up to 200 years.

Cons: If a customer is accustomed to using one of these Epson printers, they may be surprised by the speed of an imagePROGRAF printer. With only 180 nozzles per color for a total of 1,440, **these Epson printers print at only 21 ft.²/hr.!** The Epson printer's relatively low number of nozzles also increases demand on each, thereby shortening print-head life, and increasing the opportunities for mis-prints and errors. Unlike the iPF710/610 printers, these Epson printers also require manual switching between matte black and photo black which wastes both ink and operator time. By Epson's own estimates (www.epson.com Stylus Pro FAQs) the total ink wasted is about 88ml to 117ml per switch, and switching from one black mode to another wastes a significant amount of ink, money, and time.

FEATURE COMPARISON CHART

Brand	Canon	HP	HP	HP	HP	HP	HP	Epson
Model	iPF710/610	DJ T1100	DJ T610	DJ 4000	DJ 1050c plus	DJ 800	DJ 500	Stylus Pro 9800/7800
Width	36"/24"	44"/24"	44"/24"	42"/24"	36"/24"	42"/24"	42"/24"	44"/24"
MSRP	\$3,995/\$2,995	\$3,595/\$5,395	\$3,995/\$2,595	\$8,995/NA	\$6,795/NA	\$4,995/\$4,295	\$2,995/\$2,095	\$4,995/\$2,995
Maximum Resolution	2400 x 1200	1200 x 1200 (2400 x 1200 optimized)	1200 x 1200 (2400 x 1200 optimized)	2400 x 1200	600 x 600	2400 x 1200	1200 x 600	2880 x 1440
Maximum Speed—Color Print	659 ft. ² /hr.	445 ft. ² /hr.	445 ft. ² /hr.	1000 ft. ² /hr.	200 ft. ² /hr.	85 ft. ² /hr.	85 ft. ² /hr.	21 ft. ² /hr.
Ink Tank Size	130ml	69/130ml	69/130ml	225/400ml	175/350ml	69ml	69ml	110/220ml
Ink Type	Pgmt./Dye	Pgmt./Dye	Pgmt./Dye	Pgmt./Dye	Pgmt./Dye	Pgmt./Dye	Pgmt./Dye	Pgmt.
Number of Colors	5	6	6	4	4	4	4	8
Ink Colors	C, M, Y, K, MBK	C, M, Y, K, mK Pk, GY	C, M, Y, K, mK Pk, GY	C, M, Y, mK	C, M, Y, mK	C, M, Y, mK	C, M, Y, mK	C, M, Y, K, Lk Lc, Lm, LLk, +Pk or Mk
Total Nozzle Count	15360	6336	6336	4192	2048	1216	1216	1440
Black Nozzle	5120	3168	3168	1048	512	304	304	180
Ink Drop Size	4pl	6pl (C,M,PK,GY) 9pl (Y,Mk)	6pl (C,M,PK,GY) 18pl (Y,Mk)	15pl (Mk) 18pl (C,M,Y)	18pl (Mk) 18pl (C,M,Y)	18pl (Mk) 18pl (C,M,Y)	18pl (Mk) 18pl (C,M,Y)	Variable; smallest is 3.5pl
Number of Rolls	1	1	1	1	1	1	1	1
Line Accuracy	0.10%	0.10%	0.10%	0.10%	0.20%	0.50%	0.50%	N/A
Maximum Line Weight	1/1200"	2/1000"	1/200"	1/600"	1/600"	1/600"	1/600"	3/1000"
Workflow Solutions	Std. Software	Opt. Software	Opt. Software	Opt. Software	Opt. Software	Opt. Software	Opt. Software	Opt. Software

COLOR LEGEND

C = Cyan	K = Black	Pk = Photo Black	GY = Gray
M = Magenta	MBK = Matte Black	Lk = Light Black	Lc = Light Cyan
Y = Yellow	MK/mK = Matte Black	LLk = Light, Light Black	Lm = Light Magenta

Want to learn more or have a big idea for using Canon imagePROGRAF Large-Format Printers?

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