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# Abridged Print Quality Comparison

## HP Officejet Pro L7000 Series vs. Laser All-in-Ones

**Monochrome Laser AiOs:** Brother MFC-7820N & Samsung SCX-4521F

**Color Laser AiOs:** Brother MFC-9420CN & Epson AcuLaser CX11NF

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# Abridged Print Quality – Methodology

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## Competitive products tested — All-in-Ones

HP Officejet Pro L7000 Color Inkjet AiO series

Monochrome Laser AiOs: Brother MFC-7820N, Samsung SCX-4521F

Color Laser AiOs: Brother MFC-9420CN, Epson AcuLaser CX11NF

## Test parameters

Documents from *SpencerLab* Printer Test Suite

◦ *Range of tests – variety of Black & White and Color*

Printed in default print mode for Plain Paper

◦ *Printed using Adobe Acrobat Reader 7.0.8*

Printed on single printer of each manufacturer

◦ *Assumed to be representative; HP OJ Pro L7780 tested*

## Results based on element types

◦ *Text*

◦ *Lines*

◦ *Tints & Blends*

◦ *Images*



# Enhanced Black



# Abridged Print Quality Analysis – Black & White Print

## Black & White Print Tests on Color AiOs

### HP Officejet Pro L7000 series

- *Images are smooth and consistent*
- *Tints & Blends are smooth with occasional minor band lines*
- *Thin Curved and Radial Lines are sharp and produced at their called thicknesses*
- *Text is well defined and fairly smooth*

### Brother MFC-9420CN

- *Images are comparable to those on HP Officejet Pro L7000 series, but minor contouring*
- *Neutral Tints and Blends are rendered with noticeable varying color casts*
- *Lines are even and sharp, comparable to those on HP Officejet Pro L7000 series*
- *Text is well defined and fairly smooth; reverses not quite up to Officejet Pro*

### Epson AcuLaser CX11NF

- *Images, though smooth, are flat and dark*
- *Tints & Blends are smooth with occasional banding*
- *Lower Resolution – Thin Black Lines are rendered too thick with visible stepping*
- *Lower Resolution – Text outlines appear jagged, especially smaller font sizes*
- *Xerographic edge effects visible around Text, Lines, and Dark Tints on background Tints*

## Black & White Print Tests on Monochrome AiOs

### Brother MFC-7820N

- *Images show visible contouring and shadow regions are completely plugged resulting in loss of detail*
- *Text and Lines rendered with sufficient sharpness and clarity*

### Samsung SCX-4521F

- *Images lack saturation and appear washed out*
- *Visible machine banding*

*Enhanced Black*



Print quality generalizations apply to default modes on plain paper  
Independent testing by *SpencerLab* Digital Color Laboratory, commissioned by Hewlett-Packard Company



# Abridged Print Quality Analysis – Black & White Print

## Black & White Print Tests on Color AiOs

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Enhanced Black



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# Abridged Print Quality Analysis – Color Print

## Color Print Tests on Color AiOs

### HP Officejet Pro L7000 series

- *Color Images are realistic, vibrant and smooth*
- *Color Line rendition is excellent as seen on the car drawing*
- *Text is well defined and fairly smooth*

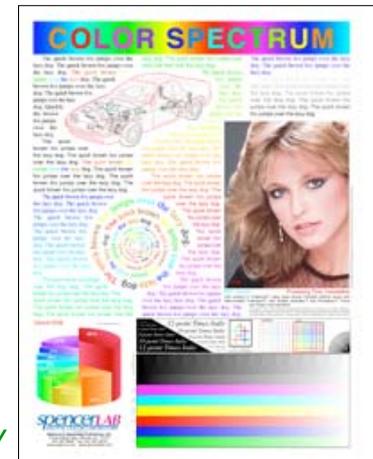
### Brother MFC-9420CN

- *Color Images are grainy*
- *Thin Color Lines show visible screening and are dotted*
- *Has well formed characters with very crisp edges*

### Epson AcuLaser CX11NF

- *Comparable to HP Officejet Pro L7000 series in image smoothness and color fidelity*
- *Tints and Blends are well saturated*
- *Black Lines are thicker, overwhelming Color Line rendition*

Color Spectrum



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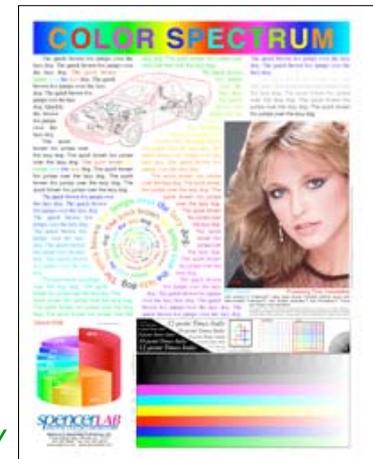
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# Abridged Print Quality – Print Analysis Scorecard

			Black & White Print	Color Print
Color AiOs	Hewlett-Packard		Officejet Pro L7000 Series	
			✓	✓
	Laser	Brother	MFC-9420CN	
			✓	✗
Epson		AcuLaser CX11NF		
		✗	✓	
Monochrome AiOs	Brother	MFC-7820N		
		✗		
	Samsung	SCX-4521F		
		✗		

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# Abridged Print Quality – Summary Analysis

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## HP Officejet Pro L7000 series rated higher in both comparisons

Images, Tints & Blends, and Lines

Black & White and Color Print tests ..... ✓ ✓

## Brother MFC-9420CN

Rated comparable to HP in Black & White Print test

...but lower in Color Print test ..... ✓

## Epson AcuLaser CX11NF

Rated nearly comparable to HP in Color Print test

...but lower in Black & White test ..... ✓

## Brother MFC-7820N and Samsung SCX-4521F

Rated lower on Black & White Print tests ..... ✗

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# HP Officejet Pro L7000 AiO Series

## Office Inkjet/Laser Comparison Tests



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