

Inkjet Print Speed Methodology

Print Speeds, stated as pages per minute or PPM, reflect measured values based on Brother's particular testing conditions and are for reference only. Actual print speed may vary depending on printing conditions such as computer configuration, operating system, document complexity, printing frequency, connection method, application software and other factors. Print speed testing does not take into account processing time and data transfer time.

1. Maximum Print Speed on Fast Mode

Testing Conditions:

Print speed testing is conducted with the sample pages portrayed below created in Microsoft Word. The printer runs in Draft mode using A4/letter size plain paper. System configuration for testing utilizes a Dell Pentium M, 1.8 GHz, 512 MB RAM Note Book PC running Windows XP Professional with a USB connection to the printer. Print speeds are calculated based on making a continuous printing of the test page with measurement commencing upon the completion of the first page.

Test Pages:



Mono



Color

2. ISO/IEC 24734 Print Speed and ISO/IEC 24735 Digital Copy Speed

The Brother advertised ISO/IEC 24734 ppm print speeds are based on averages of the ESAT print speed test in default single side mode.

Terms and Methodologies

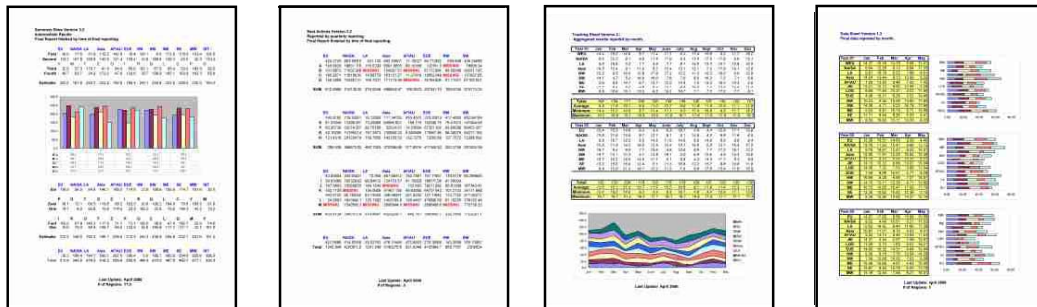
- Test Patterns

<ISO/IEC 24734 – For Print Speed Measurements>

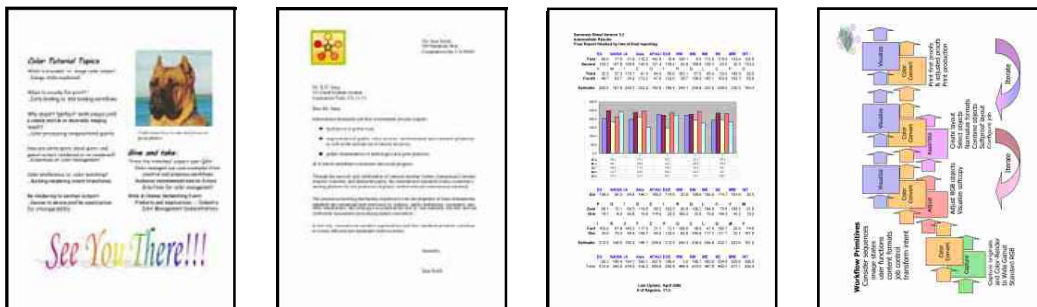
Word® File Set



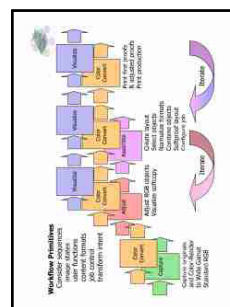
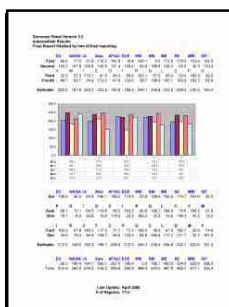
Excel® File Set



Adobe® PDF File Set



<ISO/IEC 24735 – For Copy Speed Measurements >



- Definitions

FSOT - First Set Out Time (sec)

Number of seconds between the initiation of the job to the complete exit of the last page of the first test set.

EFTP - Effective Throughput (ipm/ppm)

Average speed at which a device produces pages measured from the initiation of the job through the complete exit of the last page of the last test set.

1 set - Average print speed for one set of typical office documents.

1 set + 30 sec - Average print speeds for multiple set of documents (one set of typical documents plus 30 seconds).

1 set + 4 min - Average print speeds for multiple set of documents (one set of typical documents plus 4 minutes).

ESAT - Estimated Saturation Throughput (ipm/ppm)

Rate at which a device produces pages measured from the complete exit of the last page of the first test set through the complete exit of the last page of the last test set.

- Test Reports

ISO/IEC 24734 Print Speed

Printing Device & Test Settings

Test Date	2010/12/20
Tested by	Chunjie, Yang
Temperature and Humidity	20.9°C 62%

Model	MFC-J6510DW(US)	
Serial Number	M0F428058, M0F428059, M0F429649, M0F429648, M0F410326	
Firm	Boot	1007191318:101D
	Main	1011290915:8BEC FF8E

Color or BW	Color
Simplex/Duplex	Duplex
PrintDriver ver.	Version 1.04
I/F	USB

Paper	Paper Manufacturer	XEROX
	Weight	75g/m ²
	Size	LTR
	Type / Name	XEROX Business 4200

Test system	Computer	lenovo ThinkCentre M6100T
	Processor	intel Pentium E5500 @ 2.80GHz
	System Chip Set	intel 4 series chipset
	System Board	lenovo To be filled by O.E.M
	System Memory	1GB (DDR3 1067MHz)
	Hard Drive and Subsystem	Western Digital WDC WD1600AAJS-08L7A0(160GB)
	Video system	intel G41 Express chipset (512MB)
	Optical Drive	-
	I/O Subsystem	-
Software	USB Subsystem	USB 2.0
	Operating System	windows XP Professional (32bit/SP3/DirectX 9.0C)
	Printing Application	Adobe Reader 9
		Microsoft office Excel 2003
		Microsoft office Word 2003
	Test Files Location	Hard drive

Summary Report

	mode	FSOT	ESAT
color	Simplex	30.29	11.20
	Duplex	66.17	4.07
mono	Simplex	27.47	12.24
	Duplex	66.03	4.06

Full Report

	S/D	File	FSOT	EFTP			ESAT
				1set	+30sec	+4min	
color	Simplex	PDF	31.66	7.58	8.01	9.63	10.56
					2 sets	5 sets	
		Word	26.63	9.01	10.62		14.17
					2 sets		
	Duplex	Excel	32.59	7.36	8.32		8.87
					2 sets		
		Ave.	30.29				11.20
		PDF	65.07	3.69	3.54	3.86	4.06
					2 sets	5 sets	
		Word	56.93	4.22	4.20		4.78
					2 sets		
		Excel	76.52	3.14	3.25		3.37
					2 sets		
		Ave.	66.17				4.07
mono	Simplex	PDF	28.61	8.39	9.71	11.65	12.10
					2 sets	5 sets	
		Word	23.82	10.07	12.04		15.02
					2 sets		
	Duplex	Excel	29.99	8.00	9.01		9.61
					2 sets		
		Ave.	27.474				12.24
		PDF	64.96	3.69	3.52	3.86	4.04
					2 sets	5 sets	
		Word	56.66	4.24	4.22		4.77
					2 sets		
		Excel	76.46	3.14	3.25		3.38
					2 sets		
		Ave.	66.03				4.06

ISO/IEC 24735 Copy Speed

Printing Device & Test Settings

Model	MFC-J6510DW(6710DW)	
Firm	Boot	1007191318:101D
	Main	1011290915:8BEC FF8E
Tested by	Chunje, Yang	
Test Date	2010/12/20	
Colour/B&W	Colour	
DuplexPrint	No	
DuplexScan	No	
Paper Size	LTR	
Paper Type / Name	Xerox Business 4200	

Summary Report

Copying mode		FSOT(sec)	ESAT(ipm)
Colour	1:1	52.28	7.50
	1:2	104.67	3.44
	2:2		
B&W	1:1	58.48	7.87
	1:2	96.04	3.46
	2:2		

Full Report

Copying mode		FSOT(sec)	EFTP(ipm)			ESAT(ipm)
			240 seconds / FSOT	1set +30sec	1set +4minutes	
Colour	1:1	52.28	4.58	4.31	6.29	7.50
				2 sets	9 sets	
				2.74	3.13	
	1:2	104.67	2.29	2 sets	5 sets	3.44
B&W	1:1	58.48	4.10	3.76	6.27	7.87
				2 sets	5 sets	
				2.88	3.18	
	1:2	96.04	2.49	2 sets	5 sets	3.46
	2:2					