

Lab Test Report

A Comprehensive BLI Laboratory Evaluation | December 2010

Kyocera FS-3140MFP

42 PPM Monochrome Print • Copy • Scan • Fax





Excellent
Very Good
Very Good
Very Good
Very Good
Good
Excellent
Good
Good/Very Good
Good
Very Good
Very Good
Not Rated
Not Rated
Good
0.577¢
Good

BLI RECOMMENDATION

With a robust design suitable for numerous environments, the 42-ppm Kyocera FS-3140MFP, which gave a very good overall performance in BLI's two-month lab evaluation, proved highly reliable, with not a single misfeed during its 100,000-impression durability test. Providing standard print, copy, scan and fax functionality, this device comes equipped with an RADF and a USB port that allows for direct printing of files from a flash drive. Exhibiting above average ease of use, the unit is easy to manage using KMnet Viewer, which can assign specific alerts to different recipients, while the Kyocera Command Center provides users with a very good level of detail about device status, paper size, approximate percentage of paper remaining and toner supplies. Output produced by the FS-3140MFP was rated good overall, with crisp and cleanly formed text and above-average production of closely spaced fine lines and circles in both print and copy modes. Although productivity was below average with both PCL and PostScript drivers, the unit's first-page-out times and first-copy out times were well above average. The models's first-page time from energy-save mode was the fastest in its competitive group. The FS-3140MFP also offers a low cost per page (Kyocera's ECOSYS technology employs long-life consumables to minimize the total cost of ownership and environmental waste). BLI highly recommends the Kyocera FS-3140MFP for large workgroups with monthly print volumes of up to 6,000 impressions.

Test duration:

Two months, including a 100,000-impression durability test.

Maximum monthly duty cycle¹:

Up to 200,000 impressions.

Manufacturer's recommended monthly volume:

Information not available.

BLI's recommended monthly volume for optimum performance:

Up to 6,000 impressions.

More information on the Kyocera FS-3140MFP is available through bliQ (www.buyerslab.com/bliQ).

¹ The maximum monthly duty cycle is the maximum volume, as specified by the vendor, that the unit is capable of producing in a month; however, it is not recommended that the unit be run at this volume on a regular basis.



STRENGTHS

- · Highly reliable
- Fastest first-page time from energy-save mode
- Faster than average first-page out times with all five file types used in testing
- KMnet Viewer provides alerts to different recipients for specific events, either on a device-bydevice basis or for an entire group of devices
- Kyocera Command Center provides users with detailed administrative utilities
- Kyocera's PRESCRIBE page design and control language lets users create graphics, logos and forms independently of the system, and save and update them on the unit
- Pop-up messages, icons and audible alerts keep users well informed about status and error conditions
- Above average media-handling ability through the bypass
- RAM Disk feature allocates a portion of RAM for form printing, storage and secure entry
- USB port below the control panel allows users to print files from a flash drive
- Standard security features include network user authentication, IP address filtering, secure print, IPsec, SSL/TLS, SNMPv3, IPv4 and IPv6 support
- Kyocera's ECOSYS technology employs long-life consumables to reduce TCO and minimize environmental impact

WEAKNESSES

- Below average efficiency with both the PCL and PostScript drivers
- Low maximum memory capacity
- Below average maximum paper capacity
- Control panel is positioned at an awkward angle and cannot be tilted



TEST RESULTS AND OBSERVATIONS

+, − and ○ represent positive, negative and neutral attributes, respectively.



Reliability

EXCELLENT

- + The Kyocera FS-3140MFP is certified highly reliable by BLI, completing a 100,000-impression durability test with no misfeeds and no service calls required.
- + The maintenance kit (the drum and developer unit) is rated for 300,000 impressions, which far exceeds the drum life of most competitive units.
- O While most models in this class let users change all consumables themselves, the FS-3140MFP requires a service technician to change the drum and developer during scheduled preventive maintenance visits.

PMs/Malfunctions	Service Required	Meter Count (Impressions)	Impressions Between Service
Meter count (beginning of test)		0	
End of test period		100,000	
Total misfeeds/misfeed rate	2/1 per 50,000 impressions		
Total Service Calls	0		

Multitasking

VERY GOOD

- + The unit has very good multitasking capabilities overall, with no delay between jobs.
- + The number of print jobs that can be sent to the unit is limited only by memory, with jobs residing on the device rather than being fed one at a time over the network, as is common with devices in this class.
- + The number of copy jobs that can be programmed ahead while a copy or print job is in progress is limited only by memory capacity; some devices enable users to reserve fewer jobs.
- O Programming of the next copy job can begin as soon as all the pages of the current copy job have been scanned.
- O The device automatically clears the settings when a user places documents in the feeder, and does not require users to press any keys.
- O Faxes can be sent while the device is printing. Fax receptions will be held in memory until print jobs are complete.

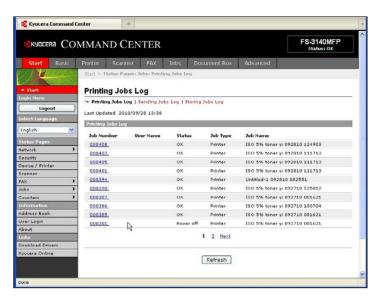


O Jobs are normally treated on a first-in, first-out basis, but a 'Priority Copy' mode can be assigned for urgent copy jobs. If a copy job is interrupted to perform a print job, the Copy button must be pressed to resume the interrupted job.

Multitasking Evaluation

Secondary Function Primary Function	PRINT	SCAN	СОРҮ
PRINT	Yes	Yes	Yes
SCAN	Yes	1	1
СОРУ	Yes	Yes	Yes

¹ As soon as document feeder was free, the primary job was already complete. (2)
(X) indicates the number of occurrences. A "Yes" indicates that the user can initiate the secondary function while the primary function is taking place and that no further user intervention will be required for the secondary function to take place.



Printing jobs log on Kyocera Command Center



Administrative Utilities

VERY GOOD

- + Kyocera's administrative utility suite includes KMnet Viewer, Printer Status Monitor and Kyocera Command Center, the embedded Web page.
- + KMnet Admin is a unified solution for network device management for Kyocera and competitive network printing devices. The utility allows the administrator to view page counts and device status, and configure alerts for groups of output devices on the network. Administrators can also access detailed information on individual devices such as amount of toner remaining, configuration settings and event logs.



+ KMnet Viewer enables device discovery and management of all printers and MFPs on the network, including Kyocera and non-Kyocera models. The utility allows administrators to sort devices by name or IP address and specify which information on monitored devices is shown.



Printer Status Page in Kyocera Command Center

- + An office map can be downloaded, and each device can be dragged and dropped to its specific location, allowing for faster navigation for technical support.
- + Kyocera Command Center, the embedded Web page, provides administrators with information about the FS-3140MFP and lets them handle administrative tasks such as changing device settings, viewing device status and monitoring toner and paper supplies.
- + The embedded Web page allows administrators to send e-mail alerts to three recipients for error conditions, including for paper jams, when the cover is open and when toner or paper need to be added.
- + KMnet Viewer allows administrators to create groups of products based on reporting or error notification requirements.
- + Within a "report group" on KMnet Viewer, an administrator can receive e-mail reports outlining a wide variety of device statistics, including printed page volumes and consumable levels, at defined time intervals.
- + The embedded Web page allows for direct printing of PDF files, without requiring the application. Also included is a software utility that enables direct printing of PDF, PostScript, PRN and Kyocera's PRESCRIBE files without having the respective applications installed on the PC. With this utility, users can send multiple files at one time and change settings such as quantity, duplexing, N-up printing and resolution.



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Feedback to Workstations

VERY GOOD

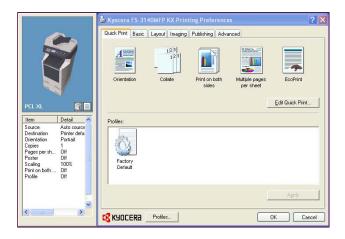
- + Kyocera Command Center provides users with a very good level of detail regarding the FS-3140MFP, including device status, paper size, percentage of remaining paper and toner supplies in 1% increments.
- O The pop-up status monitor provides a link to the Kyocera Command Center as well as a color-coded icon that resides on the Windows toolbar and an audible alert for events such as cover open, paper jam, add paper/toner and printing/print completed.
- + KMnet Viewer allows administrators to assign specific alerts or events to different recipients, on a device-by-device basis or for an entire group of devices.
- Each alert must be set up separately, which is more time consuming than doing so for a group.

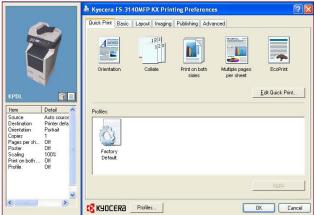
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Ease of Network Setup

VERY GOOD

- + Two people can easily lift the FS-3140MFP out of its box, which does not use excessive packaging, allowing users to be up and running in a few minutes. A starter cartridge with a 7,500 rated yield is preinstalled, and no packing strips have to be removed.
- + Installation of the drivers is highly automated. The CD, which contains the drivers and utilities, auto-launches upon insertion in the drive. When selected, the install software option launches a menu-driven installation routine.
- + The IP address is automatically assigned using DHCP. In addition, the port is created automatically during installation of the drivers. The installation of all three drivers and the utilities requires only eight clicks.





Quick Print Tab in PCL XL driver / Quick Print Tab in KPDL driver



O Administrators can't clone device settings from one device to another, and they can't simultaneously install the drivers at multiple workstations on the network. Kyocera advises that SMS packages can be prepared on request for customers, facilitating fleet distribution and setup of drivers across the network.



Print Drivers

GOOD

- O The FS-3140MFP ships with Kyocera's KX driver for Windows 98, NT 4.0, XP, Vista and Windows 7 operating systems, as well as Mac OS X. Other supported environments include Novell NPDS and Linux. The KX driver combines three drivers in one: PCL XL (PCL 6 emulation), PCL 5e and KPDL (the company's Post-Script emulation). The KX driver facilitates a more streamlined installation procedure than installing multiple drivers and uses fewer resources on the network.
- + All the features used for typical print jobs are accessible on the main screen, eliminating the need to navigate multiple tabs.
- + The layout of the PCL and PostScript drivers is the same, which makes use easier for those who switch between them. The drivers offer a good feature set, including booklet printing, collation, N-up printing and custom watermarks.
- Note that users cannot switch between emulations from within applications. Users have to close or minimize the application and then open the driver properties screen to switch from one driver to the other. Kyocera recommends that customers who regularly need to switch between the emulations install the driver twice with different configuration settings—one for PCL and one for the KPDL for PostScript emulation.
- + The well-designed drivers are graphical and include a summary list of features and a graphical display which indicates which paper trays to use, or can also be used to view different document types.
- + The PCL XL and KPDL drivers feature PRESCRIBE—Kyocera's page design and control language—that enables graphics, logos and forms, including multi-part forms, to be created independently of the system and saved and updated on the unit.
- + File size remained the same when printing multiple sets, regardless of whether collate was selected from the properties screen of the driver or from the print screen within an application. Output was properly collated.



Kyocera FS-3140MFP PRINT DRIVER FEATURE

Features	PCL XL PostScript		
Auto Feature/Device Detection	Yes	Yes	
Booklet Printing	Yes	Yes	
Collate Sets	Yes	Yes	
Max Paper Sources per Job	5	5	
Mirror Image	No	Yes	
Negative Image	No	Yes	
N-up Printing	2 to 25	2 to 25	
Overlays	No	No	
Paper Gauge	No	No	
Print and Hold	Yes Yes		
Proof Print	Yes	es Yes	
Quantity Selection	Up to 999	Up to 999	
Reduction/Enlargement	20% to 500%	20% to 500%	
Resolution Modes (dpi)	300 x 300; 600 x 600; 1200 x 1200 300 x 300; 600 x 600; 1200 x		
Save Settings	Yes Yes		
Secure Print	Yes Yes		
Watermarks/Custom Watermarks	Yes/Yes Yes/Yes		

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Applications Compatibility

EXCELLENT

+ No problems were experienced with any of the test files used in the applications compatibility tests. Units are tested for compatibility on the Windows XP platform with Microsoft Word 2000, PowerPoint 2000 and Excel 2000, as well as Adobe PageMaker 7.0, Photoshop 6.0 and Acrobat 8.0, using 25 application test files that contain text, graphics, halftone images, tables, etc., enabling BLI technicians to evaluate memory usage, file processing, font rendering and grayscale capability.

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Scan Functions

GOOD

- + Like most competitive models, the FS-3140MFP offers color scanning via network or USB standard, with a maximum resolution of 600 x 600 dpi and a rated speed of 25 ipm in color and 35 ipm in monochrome.
- O The device, which supports LDAP, allows users to scan to e-mail, FTP and SMB. File formats supported include TIFF, PDF, JPEG and XPS.



- BLI technicians noted that entering e-mail addresses via the alphanumeric keypad was a more cumbersome process than with most rival models. The keyboard's awkward angle made this process more difficult.
- O The scan driver is TWAIN compliant.



Print/Copy Quality

GOOD/VERY GOOD

- + Text in print mode was characterized by cleanly formed characters, with above average darkness and sharpness. A more-than-average amount of toner overspray and a minimal amount of haloing was visible, but only when output was viewed under magnification. Vertical and horizontal lines were smooth, circles were fully formed and diagonal lines showed only average stair-stepping. Closely spaced fine lines remained distinct and line weight consistency was above average. No haloing or toner overspray was visible in a visual examination, though a minimal amount of haloing and a more-than-average amount of overspray was visible when output was viewed under magnification. Solids in print mode were also good, with smooth, dark fill areas, consistent toner coverage and average density readings.
- O Halftones were visible over a good range, from the 2 to 94 percent dot-fill levels; however, distinct transitions were not visible at the higher end of the scale. Halftone pattern was rated good, with no graininess and only a minimal amount of banding.
- + In copy mode text had above-average smoothness of curves, serifs and lines, and above-average darkness and sharpness. An average amount of toner overspray and a minimal amount of haloing was visible, but only when output was viewed under magnification. Vertical and horizontal lines were smooth, circles were fully formed and diagonal lines showed very little stair-stepping. Closely spaced fine lines remained distinct but line weight consistency was average. A minimal amount of haloing and an average amount of overspray was visible, but only when output was viewed under magnification.
- O Solids in copy mode had average boldness and consistency of coverage, and average density readings.
- O Halftone pattern in copy mode showed a minimal amount of banding and some graininess.
- + Halftones were visible over a very good range (from the 10 to 100 percent dot-fill levels), with distinct separations between all levels.



Print Quality

Text	Good
Line Art	Very Good
Halftone Pattern	Good
Halftone Range	Good
Solids	Good

Copy Quality

Text	Very Good
Line Art	Very Good
Halftone Pattern	Good
Halftone Range	Very Good
Solids	Good

Black print density

Print density for the Kyocera FS-3140MFP	Density for units in this class tested to date
1.26 to 1.34	1.15 to 1.55

Black copy density

Copy density for	the Kyocera FS-3140MFP	Density of original
1	.24 to 1.35	1.62 to 1.69

Print halftone range

	Visible halftone range		
Kyocera FS-3140MFP	2% to 97%		
Typical range for competitive units	3% to 93%		

The printed halftone test target consists of blocks of increasing dot-fill levels (1% to 100% in 1% increments).

Copy halftone range

	Visible halftone range		
Kyocera FS-3140MFP	10% to 100%		
Increments on test original	10%, 20%, 30%, 40%. 50%, 60%, 70%, 80%, 100%		

The printed KATUN halftone test target consists of blocks of increasing dot-fill levels.



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Print/Copy Productivity

GOOD

- O When printing multiple sets of a 10-page document from the PCL driver, the FS-3140MFP's overall simplex print productivity is competitive with comparable models in this speed range tested to date, while its duplex speed is below average.
- + First-print times for the TIFF and PDF files used in testing are faster than average when compared to those of comparable models tested. The first-page times for the Word, PowerPoint and JPEG files are competitive.
- + First-page time from energy-save mode is the fastest in the group.
- O When using the PCL driver to print BLI's job stream, which simulates that type of traffic experienced in a multi-user environment, the unit's productivity is competitive with the average for comparable monochrome printers tested. Performance from the PostScript driver is the slowest in its competitive group.
- O When producing multiple sets in copy mode, the FS-3140MFP's running speed and efficiency is competitive in 1:1 mode, and below average in 1:2 and 2:2 modes.
- + First-copy out times from both the document feeder and the platen were among the fastest in the group.

First-Print Time from Energy-Save Mode in Seconds

Kyocera FS-3140MFP	Average for units in this class tested to date
18.06	37.36

Device sits idle overnight; a single-page black Word document is sent to the device; first-print time indicates the time it took to RIP, image and deliver the first page of the test document to the output tray.

Tested First-Print Times in Seconds

Windows XP	Word	PowerPoint	Photoshop	Acrobat	Photoshop
File type	Black Text	Color Graphic /Text	Color Graphic	Black Graphic /Text	Color Graphic
File extension	DOC	PPT	TIF	PDF	JPG
Pre-Raster File Size	114 KB	99 KB	20 MB	426 KB	248 KB
Post-Raster File Size	34.7KB	97.4 KB	597 KB	565 KB	741 KB
First-Page Time	8.81	9.5	9.93	10.97	9.03
Tested Competitive Average	9.95	10.84	26.35	14.22	11.48

The Kyocera FS-3140MFP's print speeds were tested at the default 600 dpi using the PCL XL driver.

First-print time indicates the time it took to RIP an image and deliver the first page of the test document set to the output tray.

Kyocera FS-3140MFP's rated speed:

42 ppm

Job Stream Evaluation

Job Stream

PostScript	Kyocera FS-3140MFP	COMPETITIVE AVERAGE
BLACK		
PPM	11.2	22.27
Percent of Rated Speed	28.0	50.84
PCL	Kyocera FS-3140MFP	COMPETITIVE AVERAGE
BLACK		
PPM	32.5	31.12
Percent of Rated Speed	77.4	73.06

BLI's job stream includes Word documents, Outlook e-mail messages, Excel spreadsheets, PowerPoint, HTML and Acrobat PDF files, totaling 19 pages. This test simulates the type of traffic a typical device might experience in a real-world, multi-user environment. All of the files are sent to the printer as a group, at which time the stopwatch begins; timing ends when the last page of the last file exits the device. Job stream efficiency is determined by the percentage of the rated speed at which the unit operates when producing real-world jobs. The closer the rate is to 100%, or if it exceeds 100%, the more efficient the unit.

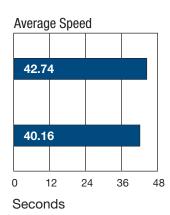
Problems encountered:

None

BLI's Tested Print Speeds



Including First Page



Print speed is tested using BLI's Monochrome Test Original with 6% page coverage. The test page is printed in a quantity equal to double the vendor's rated print speed for the device in each mode tested (e.g., if the vendor's rated print speed is 20 ppm, 40 pages are printed). The unit's print speeds were tested using the PCL driver.



Average Productivity

SPEED IN PPM PERCEN		PERCENT OF	RATED SPEED	
	Kyocera FS-3140MFP	COMPETITIVE AVERAGE	Kyocera FS-3140MFP	COMPETITIVE AVERAGE
PRINT				
1:1	34.5	36.70	82.2	84.71
1:2	22.5	27.25	53.6	62.54
COPY				
1:1	37.8	36.41	90.0	84.01
1:2	23.4	27.12	55.7	62.13
2:2	23.0	26.67	54.8	61.33

Efficiency is tested using a 10-page full-color document and a 10-page black document. BLI obtains the overall efficiency for each mode by averaging the efficiency ratings (derived by dividing the tested speed of the device by the rated speed and then multiplying by 100) for each run length (1, 5, 10 and 20 sets). The unit's efficiency was tested using the PCL driver at 600 dpi.

Scan Functions

Scan speed (200-dpi, TIFF):

Black 1:1 mode: 24.99 seconds for the 10-page set; 24.0 opm Black 2:2 mode: 85.06 seconds for the 10-page set; 14.1 opm Color 1:1 mode: 25.72 seconds for the 10-page set; 23.3 opm Color 2:2 mode: 86.53 seconds for the 10-page set; 13.9 opm

Scan file size:

300-dpi PDF, black, no compression: 1.1 MB.

300-dpi Compact PDF: 429 KB.

\triangle Ease of Use VERY GOOD

+ The control panel was quite easy to use, with hard keys on the left for copy, scan and fax functions, and on the far left for Document Box, System Menu and Job



Kyocera FS-3140MFP Control Panel.

Queue Status. Next to these keys is an array of one-touch fax keys enabling 22 one-touch numbers and 100 address book entries. A five-line monochrome LCD displays the current function, paper size selected and current status. To the right of the display are up/down/ and left/right arrow keys for menu navigation, four keys for programming copy jobs, and power and logout hard keys. Navigating the menu system was intuitive.

- BLI technicians found the angle of the control panel, which cannot be tilted, awkward to use while seated when the unit is placed on a desktop.
- + Procedures for replacing toner are easy. The cartridge is accessible from the front and lifts out easily, after a lever at the side has been released. Changing the waste toner bottle is easy, with a new bottle now being included with each new toner cartridge.
- O Although users are required to remove the toner cartridge and drum unit to acess some misfeed areas, the surface of the drum is not exposed during removal.
- O BLI technicians noted that loading paper trays is easy, with sliding paper guides that move in sync. Though users do not have to set paper size in the control panel menu, they must use a rotating dial on the side of the drawer to set the paper size.



Clear instructions are provided for removing misfeeds.



Kyocera FS-3140MFP paper tray with rotating dial

+ KM-NET for Direct Printing is a user friendly utility allowing for simple submission of PDF files to the device without opening the PDF; users can choose one or multiple PDF files and submit them to the direct print workflow by dragging-and-dropping or right clicking them or by browsing. Users can also set up print profiles that further simplify the submission process and is ideal for users operating the device as a short run print-on-demand resource.



△ Feature Set VERY GOOD

- O The unit's standard memory capacity of 256 MB is competitive with that of most models in its class.
- Maximum memory of 768 MB is lower than the average offered by competitive units.
- O Automatic duplexing is standard, as is an RADF, like the majority of models in this group.
- + Color scanning with support for TIFF, PDF, JPEG and XPS file formats is standard.
- + A RAM Disk feature can be enabled that allocates a portion of RAM for form printing, job storage and secure printing without purchasing an additional hard drive; as RAM is volatile memory it can only retain data while connected to a power supply or a device.
- + Kyocera's PRESCRIBE PDL offers custom print programming features for specialized printing.
- O The FS-3140MFP offers a competitive standard paper capacity that consists of one 500-sheet drawer plus a 100-sheet multi-purpose tray.
- The unit's maximum paper capacity of 2,100 sheets via three optional 500-sheet paper feed units, is below average.
- + The 100-sheet bypass tray handles up to 120 lb. index, which is heavier media than can be accommodated by most of its peers.
- + A USB port beneath the control panel allows users to print files from and scan files to a flash drive.
- + An ID card copy feature enables both sides of an ID or business card to be copied on to a single-sided copy.
- + Features of the unit's standard fax functionality includes an ITU.T Super G3 modem with a speed of 33.6 Kbps, 22 speed dial destinations and an address book that holds up to 100 entries.
- + Standard security features include network user authentication, IP address filtering, secure print, IPsec, SSL/TLS, SNMPv3, and IPv6 support.
- + Kyocera's ECOSYS technology employs long-life consumables to reduce TCO and minimize toner waste.





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Security Features

NOT RATED

Security Features	
Administrator password length (characters)	24
Authentication	Yes
Network user authentication	Yes
Windows	INA
Novell NetWare NDPS	INA
Kerberos protocol support	INA
Authentication via department or user ID codes that are registered on the machine	INA
Number of codes	INA
Restrict usage of color	Not applicable
Restrict usage of other features	INA
802.1x wireless authentication	INA
Authenticated printing	NA
Common Criteria Certification	INA
Control panel lock/disablement	INA
Digital user signature	INA
Encrypted secure print	INA
Hard drive encryption	NA
Hard drive lock	NA
Hard drive overwrite	NA
Max number of overwrites after every job	NA
Overwrite method	NA
IP address filtering	Yes (up to 10 addresses)
IPsec	Yes
Job logs (e.g., activity monitoring, compliance auditing)	INA
MAC address filtering	No
Password-protected mailboxes	INA
Password-protected Web page	Yes
Port disablement	INA
Protocol disablement	INA
Removable hard drive	NA
Secure print	Standard
Secure Sockets Layer (SSL)	Yes
SNMPv3 support	Yes
Third-party security features	INA
Transport layer security	Yes
Unauthorized copy prevention (secure watermark)	INA
USB block	INA
Additional security features	RAM Disk feature.

INA: Information not available

NA: Not applicable



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Environmental Features

NOT RATED

Specified capable of running 30% post-consumer recycled paper	Yes
Specified capable of running 50% post-consumer recycled paper	Yes
Specified capable of running100% post-consumer recycled paper	Yes
Instant/Quick Fusing	Yes
Duplexing	Yes
Toner-save mode	Yes
Energy-save mode/modes	Yes
Eco-Label Certifications	
Germany Blue Angel	Yes
ENERGY STAR	Yes
IT Eco Declaration	INA
WEEE Directive compliant	INA
RoHS compliant	Yes
Recycled materials/parts used in the product	Fixing frame, fuser guide
Product designed for recycling (easily disassembled, no binding agents)	Yes
Hardware remanufacturing program for this product	INA
Toner cartridge recycling program for this product	INA
Pre-paid label for return of toner cartridges/bottles for this unit	No
Toner recycling system	No
Ability to program features such as duplexing and auto shut-off, over entire fleet	Yes
Polyvinyl Chloride used in any aspect of the product or its packaging	INA
Recyclable packaging materials for the product	Yes
Recyclable packaging materials for its consumables	Yes
Packaging materials used: Corrugated Paper; Expanded Polystyrene Foam (EPS); Expanded Polypropylene Foam board/mold-made cushion	(EPP); LDPE (bag); card-
Tested energy consumption levels of the device (in watts):	
Ready/Idle	97.9
Energy-save	74.8
Sleep mode	10.6
During Printing	677.4
How fast can this product be programmed to go into the following modes (seconds):	
Ready/Idle	0
Energy-Save	2 minutes
Sleep mode	15 minutes
Can the above settings be programmed by a walkup user?	No
First-print time out of sleep mode (seconds)	24.5
Emissions output from this device for the following substances (in mg/h) (Per Blue procedures):	e Angel RAL UZ 122 test



Ozone	Below detectable limits
Styrene	0.210
Benzene	0.020
TVOC (Print/Stand-by)	10.0
Dust	1.00
Other	None

INA: Information not available



Toner Yield

GOOD

- Based on an average of three cartridges, tested toner yield is below average for monochrome MFPs in this speed range tested to date.
- O Tested impressions per gram are competitive compared to models in this class tested to date.
- + In BLI's testing, the three cartridges tested exceeded their rated yield by an average of 3,351 impressions.

Tested Toner Yield (ISO 19752)

	Black
Manufacturer's Rated Toner Yield (Impressions)	15,000
COMPETITIVE AVERAGE	23,375
BLI's Tested Yield (Impressions) ¹	18,351
COMPETITIVE AVERAGE	25,962
Net Weight (Grams)	442.9
Impressions per Gram	41.43
COMPETITIVE AVERAGE	43.26
Manufacturer's Rated Drum Yield (Impressions) ²	300,000
COMPETITIVE AVERAGE	75,250

¹ Based on BLI's testing of two high-yield print cartridges using the ISO 19752 toner yield test original.

² Some devices in the competitive group employ an all-in-one cartridge that includes the toner and drum in a single component. In those cases, rated toner yield is used as the rated drum yield in calculating the average.



△ **Value** GOOD

- The Kyocera FS-3140MFP is priced slightly higher than the average compared with similarly equipped legal-size LED printers in this class. Note that pricing for some models in the group is based on street price, which is typically lower than SRP.
- + Supplies cost per page is significantly lower than the average for similarly equipped legal-size printers in this speed range and class tested to date.

Tested Supplies Cost per Page (ISO 24712)

	TOTAL
Toner Cost per Page ¹	0.441¢
Supplies Cost per Page ²	0.577¢
COMPETITIVE AVERAGE	1.333¢

¹ Based on Kyocera's suggested retail pricing and BLI's tested toner yields using the ISO 24712 toner yield test original.

² Based on Kyocera's suggested retail pricing for the toner cartridges and the rated yield of the maintenance kit, as well as BLI's tested toner yields.



SUPPORTING TEST DATA

Test Environment

Testing was conducted under ambient conditions of 22°C (+/-2.7°C) and 45% RH (+/-10%); monitored daily by Dickson Seven-Day Temperature/Humidity Chart Recorder, in Buyers Lab's test facility at Unit 1 Station Industrial Estate, Wokingham, Berkshire RG41 2YQ. All products lab tested by BLI are powered by dedicated circuits that are protected by ESP (Electronic Systems Protection, Inc.) surge protectors to prevent transient power and communication disturbances from affecting equipment under test.

Test Equipment

BLI's dedicated test network, consisting of Windows NT 4.0, 2000 and Microsoft Exchange servers, Windows XP workstations, 10BaseT/100BaseTX network switches and CAT5 cabling. BLI's daily test usage is designed to replicate real-world use over an eight-hour workday, and as such includes a mix of various-size documents, simplex and duplex modes, and a mix of short, moderate and long run lengths, and on/off cycles, throughout the day.

Test Duration

Products are tested for two months, three weeks of which consists of a durability test during which the product is run at half of its manufacturer-rated maximum monthly volume. BLI's daily test usage is designed to replicate real-world use over an eight-hour workday, and as such includes a mix of various-size documents, simplex and duplex modes, and a mix of short, moderate and long run lengths, and on/off cycles, throughout the day.

Tested Configuration

Base unit, plus one optional 500-sheet paper drawer.

Test Procedures

The test methods and procedures employed by BLI in its lab testing include BLI's proprietary procedures and industry-standard test procedures, including a BLI-developed variation of ASTM's 1318-90 Test Method for Determination of Productivity using Electrostatic Copy Machines. In addition to a number of proprietary test documents, BLI uses an industry-standard KATUN test original for evaluating black image quality and test suites from Quality Logic to evaluate applications compatibility. In addition to a visual observation, gamut size and stability are tested using a 1,400 color test target, which is read using an EFI ES-1000 color spectrophotometer and assessed using Chromix Color Think Pro v3.0 software. In addition, density of black and color output is measured using an X-Rite 508 Densitometer.

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CERTIFICATE OF RELIABILITY

Awarded to

KYOCERA MITA AMERICA

for the performance of the

Kyocera FS-3140MFP

in BLI's in-house durability test.



DECEMBER 2010

Date

ANTHONY F. POLIFFONE MANAGING DIRECTOR

This is to certify that when subjected to a 100,000-impression Buyers Lab durability test in a networked environment, the Kyocera FS-3140MFP proved to be a highly reliable product.

BUYERS LABORATORY INC.

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