

Lab Test Report

A Comprehensive BLI Laboratory Evaluation | MARCH 2014

Copystar CS 5551ci

50 PPM Color • 55 ppm Black Copy • Print • Scan • Fax





Reliability	Excellent
Multitasking	
Administrative Utilities	Very Good
Feedback to Workstations	Good
Ease of Network Setup	Excellent
Print Drivers	Very Good
Scan Functions	Very Good
Color Print/Copy Quality	Good/Very Good
Black Print/Copy Quality	Very Good
Color Print/Copy Productivity	Good
Black Print/Copy Productivity	Very Good/Good
Ease of Use	Very Good
Feature Set	Very Good
Security Features	Excellent
Accessibility Features	Not Rated
Environmental Features	Not Rated
Toner Yield	
Value	Very Good

BLI RECOMMENDATION

Excellent reliability and above average black print productivity and image quality output are just a few of the attributes of the Copystar CS 5551ci, which gave a very good overall performance in BLI's tests. Offering speeds of 50 ppm in color and 55 ppm in black, the device completed an exhaustive 225,000-impression durability test with just four misfeeds, for a misfeed rate of 1 per 56,250 impressions, and without requiring any service calls. Noteworthy is that rated black and color drum and developer yields are the highest for competitive models. Contributing to the high marks that the device received for black print output is its excellent halftones. Black print productivity was also very good, with fast speeds when printing BLI's job stream with the PCL driver and copying booklets. The device was very easy to use from its logically organized control panel and re-designed print drivers, which maintain the same very good functionality provided by the previous drivers while offering a more graphical, easier-to-use interface. Contributing to ease of use is the drivers' Quick Print tab, which enables users to create and save custom profiles stored as graphical icons that allow them to program complex jobs in one touch. The device also offers above average scan capabilities, including small compressed color scan file sizes and faster than average scan speeds in duplex mode. BLI's

Test duration: Two months, including a 225,000-impression durability test.

Maximum monthly duty cycle¹: 225,000 impressions.

Average optimum monthly volume for models in this speed range: 38,000 impressions².

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 isn't recommended that the unit be run at this volume on a regular basis.

²Based on a survey conducted by BLI. When comparing models, note that this optimum volume was instituted in May 2012. Optimum monthly volumes for models tested prior to May 2012 may be lower or higher.



pricing analysis shows that the CS 5551ci is priced lower than average for comparably equipped models, while providing a very good feature set that includes among the highest standard memory and hard drive capacities, as well as the highest maximum paper capacity, for competitive models. BLI highly recommends the Copystar CS 5551ci for environments with monthly volumes of up to 38,000 impressions.

Strengths

- · Highly reliable
- Low price
- Tested toner yields exceeded rated yields for all four colors; above average tested yields for most colors; high rated drum and developer yields
- Above average standard memory and hard drive, as well as maximum paper and bypass capacities
- Above average productivity when printing BLI's job stream with the PCL driver in black mode and copying booklets
- Excellent rating for halftones in print mode
- The drivers' Quick Print tab enables users to create and save custom profiles stored as graphical icons to allow programming of complex jobs in one click
- Faster than average scan speeds in duplex mode; small scan file size with compression in color mode
- Six shortcuts can be created on the control panel for easy access
- · Convenient USB access
- Support for printing on tab extensions

Weaknesses

- · Below average cyan toner yield
- No paper gauge in the drivers
- Users cannot specify different features for different page ranges within a document
- . The drivers lack a point-and-click interface for paper selection



TEST RESULTS AND OBSERVATIONS

+, - and O represent positive, negative and neutral attributes, respectively.



RELIABILITY

EXCELLENT

- + Over the course of its 225,000-impression durability test, the CS 5551ci experienced four misfeeds for a misfeed rate of one per 56,250 impressions and did not require any service calls.
- + The device's rated black and color drum yields, at 600,000 impressions, are the highest for competitive models. Its black and color developer yields, also at 600,000 impressions, are tied with two other models for highest.
- + The CS 5551ci's preventive maintenance interval coincides with that of the drum and developer yields, which reduces the number of service calls required, compared with devices whose components' yields are of varying intervals that don't coincide.

MULTITASKING

VERY GOOD

- + The unit experiences virtually no delays between jobs, and the number of print jobs that can be sent to the device is limited only by memory capacity.
- During testing, it took 3 minutes, 2 seconds to download 15 jobs, which is longer than with most devices tested.
- O While the device is outputting a copy job, nine copy jobs can programmed ahead.
- O A priority mode for one of the unit's functions cannot be set. Copy and print jobs are output in the order in which they are received.
- + From within the copy menu, "Priority Override" can be used for copy jobs prior to scanning the originals. This feature will immediately halt the current job outputting to output the override job immediately, essentially allowing copying to take precedence for a walk-up user. If the current job required finishing, the override job will output after the current set. Note that once "Priority Override" is selected, it becomes the default setting.
- O Secure print jobs can be released while printing or copying but not scanning.
- O Programming of the next copy or scan job can begin only after all of the pages of the current copy or scan job have been scanned and the document feeder is free; access to the control panel menu is blocked while the document feeder is scanning. Some devices allow programming of a job while the pages are still being scanned.
- + Users do not have to press a key before programming the next copy job.



- O The Interrupt key can be used to interrupt either copy or print jobs to perform an immediate copy job. Jobs are interrupted immediately in the middle of a set. A more productive way of handling the interrupt functionality is for the current job to keep running until the user has finished programming the interrupt job and presses the Start button. During testing, this unit automatically returned to non-interrupted mode within approximately one minute and restarted the job that was interrupted without user intervention.
- O If a misfeed occurs, scan jobs can be sent to a destination and copy jobs can be scanned to memory but print jobs cannot be downloaded from the device to the network.
- + If the device is out of paper, scan jobs can be sent to a destination and print jobs can be downloaded from the device to the network and copy jobs can be scanned to memory.
- O The settings of a previous job are auto-purged 1 minute and 47 seconds after scanning to a destination, whereas a user accessing the copy menu to program a copy job must wait about 1 minute for settings of the previous job to automatically clear. Technicians would prefer that settings from the previous copy job clear immediately.

△ ADMINISTRATIVE UTILITIES

VERY GOOD

+ The CS 5551ci's Command Center web utility was found to offer above average overall ease of use. In addition, administrators can log onto the Web utility while the device is printing.



Command Center, the web utility



- + The embedded web utility offers a good amount of detail for users and administrators, including a gauge detailing toner levels remaining in 1 percent increments and error messages for misfeeds. The amount of paper in each drawer is provided in 10 percent increments. Waste toner gauge and the staple cartridge gauge are indicated as ok or empty.
- O Gauges for the drums are not provided in the web utility.
- + E-mail alerts can be set up for up to three separate addresses—a dealer, key operator and administrator, for example. In addition, the alerts, which include messages such as add paper, add toner, paper jam, low toner, and cover open, can be different for each recipient. The alerts can be sent within 10 minutes by default. The alerts can also be set to be sent on a monthly, weekly, daily, hourly and/or immediate basis and can include counter information.
- + The embedded web utility also offers status information on currently running as well as pending jobs, and completed print, copy and scan jobs. Print and copy jobs appear in one queue and scan jobs appear in a separate queue.
- Any user can access the device's address book and program destinations from the embedded web utility, and can also delete addresses or box users. BLI feels this is a capability that should be able to be locked down if so desired, requiring a user name and password to access.
- + Access codes can be assigned so that print, copy and scan usage can be restricted and tracked by user and group.
- + Active job lists are available for print, scan and copy jobs, as is a job history log.
- O Details available on the job list include user name/ID; number of output pages in a print job; number of originals in print and copy jobs; number of sets programmed for print and copy jobs; complete and incomplete jobs; file name for print jobs; and time of job submission.
- Administrators cannot export job history as a CSV file, a capability available on many competitive machines.
- + An electronic meter counter available from the web utility includes information on page counts for color and black copies and prints, as well as scanned pages, and total pages. This counter cannot be printed.
- + PDF Direct Print supports direct printing of PDF files without the need to open the application. Features supported include duplex, staple, media source, output tray, paper size, quantity (up to 9,999), resolution, punch and staple.
- O Direct printing of PCL, PostScript, TIFF and JPEG files is not supported.
- O While the utility allows for sending multiple jobs to the device in one session, each file has to be added one at a time using the browsing tool. Once the files are added, they can be moved either up or down in the list or deleted.



- O The web utility does not enable programming of destinations via LDAP searches, so administrators cannot remotely add or edit destinations from the LDAP servers. Such a capability, while rare, is a valuable time saver, and also prevents errors in destinations that must be entered manually.
- + Net Viewer enables device discovery and management of Copystar and compatible hardware on the network. Administrators can sort devices by name or IP address and specify which information on monitored devices is shown.
- + Net Viewer allows administrators to create groups of products based on reporting or error notification requirements. Within a "report group" an administrator can receive reports via e-mail outlining a variety of device statistics, including printed page volumes and consumables levels, at defined time intervals.
- + KMnet Admin is a free server-based solution that gives network administrators and help-desk staff control of all network-enabled printers and MFPs. It allows users to remotely configure and automate the distribution of print drivers, monitor their status, manage individual or groups of devices, clone settings to like devices and check on the level of consumables. Optional plug-ins offer print queue management, print job reporting and full-featured print accounting. It installs in minutes, and is particularly easy to navigate, with well-marked tabs and support for drag-and-drop actions.
- KMnet Admin does not support capture of copy, scan or send meter data, and there is no mechanism to limit end-user access to devices.
- O While job history and status reports can be generated in HTML, PDF, or CSV formats and saved to the network via KMnet Admin, these reports cannot be set to run at set intervals and automatically e-mailed to a list of recipients.

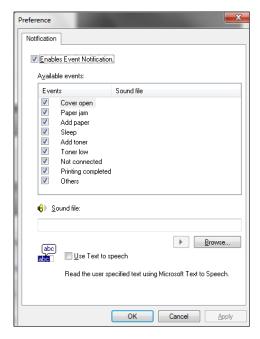
\triangle

FEEDBACK TO WORKSTATIONS

GOOD

O Job Status Monitor, an icon of the device that can be placed on the desktop via the driver, provides toner and device status information, as well as audible alerts. Device status, which is also displayed graphically, includes printing complete, add paper, add toner, sleep, toner low, not connected, paper jam and cover open. However, the messages appear on all PCs that have the utility actively running, which may be inconvenient to users (for example, who may not care that the unit is out of toner if they aren't currently or imminently printing to it). The icon also provides a link to the web page. The icon can be placed anywhere on the screen, enlarged and adjusted for various degrees of opacity.





Job Status Monitor

- The web utility provides information on the amount of remaining toner in 1% increments.
 The amount of remaining paper is indicated in 10% increments. Staple and punch are indicated only as OK.
- While the print drivers provide a link to the web utility, accessing it is a multi-step process.
- E-mail alerts indicating completed print, copy or scan jobs are not supported.

\triangle

EASE OF NETWORK SETUP

EXCELLENT

- + Network setup is simple, as the drivers and utilities are all bundled on one DVD, which auto-launches when inserted into the drive. The DVD for installation supports up to 12 languages, including English. Installation of the drivers and the Status Monitor Utility requires 8 clicks, during which the port is automatically created. The drivers do not autodetect configured accessories.
- + During installation there is a selection to choose the host name for the printer name as an option, unlike with most other vendors that assign the host name by default and do not give the user the option to select the name.
- + An SMTP test button is available from the web utility, which allows users to validate the results of the network server setup.



+ Manuals are available for download the company's public web site.



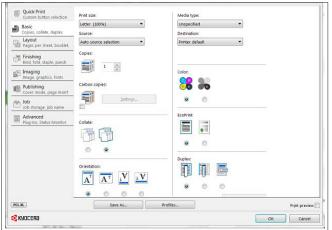
PRINT DRIVERS

VERY GOOD

Apply

OK Cancel

- + The KX driver has been redesigned to provide the same very good functionality offered on the previous drivers but presented in a more graphical, easier-to-navigate layout. The new drivers employ the same function tabs as the previous driver—Quick Print, Basic, Layout, Finishing, Imaging, Publishing, Job and Advanced - but they now run down the upper left side of the screen instead of across the page. Each tab now also includes an icon that represents the function, as well as a text description (for example, the Finishing tab says, "Bind, fold, staple, punch"). In addition, some selections now appear just as icons rather than text selections. For example, on the Basic tab, users can select Orientation (portrait, landscape, rotated portrait, rotated landscape) just by clicking on the button under the appropriate icon. Hovering the mouse over the selection button under each icon displays a text description of the icon (for example, off, flip on long edge and flip on short edge for duplex).
- O The KX driver encompasses three different PDLs-PCL XL, PCL 5c and a PostScript emulation—that are nearly identical in appearance and layout. However, while selecting one of these PDLs requires fewer steps than previously, the process still may initially be confusing to the user. For example, if users want to print in PostScript, they must click the device in "Devices and Printers" in Windows and select "Printer" and then "Printing Preferences." In the lower left-hand corner of the screen is a graphic of the device with a selection for PDL. Clicking on this selection brings up the PDL Settings dialog box; users click on the drop-down menu and select the driver they wish to print with and click OK. Also within the PDL Settings dialog box is a selection for GDI-compatible mode.





PCL XL Driver Quick Print Tab

 $\mathbf{A}^{^{\uparrow}}$

PCL XL Driver Basic Tab



- + Overall, the Microsoft-certified KX driver was found to be simple to use. The driver offers a job review selection that allows users to review settings for jobs at all times, and graphical changes indicate selected features.
- While a print preview feature displays the job on screen at the PC, there is no option to eliminate pages or move or merge pages, for example, which is offered by some competitive drivers.
- + The Quick Print tab, which allows users to select commonly used print features from one tab, has also been redesigned. Users must now click on the Edit Quick Print box to choose print features. Features available are staple, orientation, collate, duplex, pages per sheet, EcoPrint, punch and color. Once users click okay, the features selected appear as icons on the main screen. (Note, however, that only five of the eight selections can be chosen at one time.) Under each feature icon is a small blue box for each option available for that feature and a right arrow. Users can click on the arrow key and rotate through the selections. As they click on each selection, a text description for that option appears. The icon changes to reflect the option selected. Unlike with some other vendors, features cannot be added to the Quick Print tab. User can save custom profiles that are stored as graphical icons allowing programming of complex jobs in one click.
- + Most of the features required for a typical print job are also available from the Basic tab, including paper type and source, duplex, collate sets, quantity and EcoPrint.
- The drivers do not feature a point-and-click interface for paper selection. In addition, neither a job history tab nor a job status tab that shows a list of pending jobs is available.
- + Eco Print (Basic tab) allows users to reduce the amount of toner per job. Eco Print can also be set as the default setting.
- The Finishing tab includes staple settings. The Imaging tab allows users to set the print quality to High Quality or Custom. Color reproduction printer settings include Text and Graphics, Text and Photos, Vivid Colors, Publications, Line Art and Advanced.
- O From the driver's Publishing tab, users can select cover mode and insert a front cover or both front and back covers. Users can also select to print onto the outside or inside of the front or back cover. One paper source can be used when including covers.
- + Envelope feeding is supported from the multi-purpose tray.
- Users cannot specify different features for different page ranges within a document, such as setting specific page ranges for duplex printing.
- + Custom box on the Job tab allows users to type a job name up to 16 characters for job storage, making it easy for users to identify their job from their desktop or at the device. The Advanced tab features selections for watermarking and Prologue/Epilogue, which allows users to insert one or more printing system language command files into specific locations of a print job. For example, a command file may contain a macro (series of commands to accomplish a specific task), settings for printing system emulation, an electronic form, or a graphic object such as a logo or signature.



- + Printing a typical job (two sets, duplex, stapled) from either print driver takes eight mouse clicks, which is fewer than most competitive devices in the group.
- O Available job types include proof and hold and secure print.
- Technicians noted that accessing secure print jobs can initially be confusing, requiring multiple keystrokes. Secure print jobs are accessed via the Box hard key, which is for job storage. BLI would prefer having the ability to access secure print jobs from the job list in the job queue, or via an assigned key. Five clicks are required for accessing a secure print job. One additional click is required to release two secure print jobs with the same PIN, with each job having to be selected on the fly.
- Users can release secure print jobs while the device is printing or copying, but not scanning.
- + Multiple secure print jobs with the same PIN can be released simultaneously.
- O After a job is released, users can delete jobs without entry of a passcode.
- + Printing onto tab extensions is supported.



SCAN FUNCTIONS

VERY GOOD

- + Black, full-color, auto-color and grayscale scan modes are supported. Users can scan at resolutions from 200 to 600 dpi. File formats include PDF, TIFF, JPEG, XPS and high-compression PDF. PDF/A for archiving is also available.
- + Compact and searchable PDF are supported.
- + Available through authorized dealers, DMS Link is a business application that serves as middleware enabling users to scan a document from a Copystar MFP to a document management system, entering index data in the process. DMS Link can also OCR documents as they are being scanned to produce a searchable PDF.
- + The scan menu can be customized by adding up to six short-cuts from other menus to the main menu where they will be more easily accessible.
- O The unit's on-screen QWERTY keyboard features small comfortably spaced keys. There are dedicated "@" and "." keys for use in e-mail addresses. An optional keyboard is not available.
- O Three short messages can be stored for the body of e-mails.
- Scan presets are not available.
- O A blind carbon copy field cannot be set for an e-mail.



- + A monochrome or color scan preview is available that allows users to zoom but not delete or rotate pages. Scan preview has a "pinch and zoom" feature but users must know to press the Details key to access the image.
- O Scan destinations include e-mail, FTP, USB memory device and folder; users can scan to folder and e-mail in a single session.
- A test button that allows users to see if a connection can be established with a new network folder location is available.
- + Users can scan to any USB drive in PDF, JPEG, TIFF, XPS, PDF/A and high-compression and searchable PDF file formats and print from USB in PDF, JPEG and TIFF file formats. When a USB device is inserted into the port, which is conveniently located on the right side of the control panel, a pop-up box asks users to verify that a memory device has been inserted into the drive by selecting yes. In contrast, with some other systems, users must navigate through several menus to locate the USB scanning and printing capabilities. When printing to USB users can select and print multiple file types, apply duplex settings, specify finishing features, choose color or monochrome mode and print multiple sets. When scanning to USB, users can name files; job build is also supported. When scanning to and printing from USB users can browse into subfolders, but only three levels.
- O Three clicks are required to release a single print from a USB job at the main folder level in default settings. Just one more click is required to release two jobs.
- + LDAP support enables the user to enter the first few characters of the recipient's address at the control panel, upon which the device automatically searches an address book on the network and displays a list of matching names. Up to four LDAP server are supported.
- + Destination addresses entered manually at the control panel can be added to the deviceresident address book on the fly by end-users. Destinations accessed via LDAP can be added to the device-resident address book by the end-user.
- + Sending a 300-dpi PDF scan job to one e-mail destination via an LDAP search required eight keystrokes, which is fewer than that of most models tested, and sending to a second destination adds just one button press to the process.
- + Job Box provides long-term job storage, allowing users to securely print and store jobs on the device and output them when needed.
- + Simplex scan speeds in color and black modes are competitive; duplex scan speeds in color and black are faster than average.
- + Color scan file size (with compression) is smaller than the average for models tested. Although compression is not available in black mode, file size is significantly smaller than the average.
- O Background suppression is supported but blank-page removal is not available with the device.



+ Continuous scan job build allows for the feeding of an original that exceeds the document feeder capacity in batches. In addition, different sections of the job can have different features, such as mixplex (simple and duplex) and image quality settings.



IMAGE QUALITY

Color Print/Copy Quality

GOOD/VERY GOOD

- O Color business graphics in print mode were good overall with above average sharpness of fine detail and background reproduction and competitive consistency of colors and reproduction of pastel shades. Colors, however, were not bright enough.
- O Although flesh tones were slightly redish, color photographic output in print mode was good overall, with an above average halftone range and competitive smoothness.
- O Color photographic output in copy mode was also good overall, with natural flesh tones and competitive smoothness and halftone range.
- + Color business graphics in copy mode were very good, with bright colors and above average production of pastel shades and backgrounds, while consistency of colors and sharpness of fine detail were competitive.
- + The unit's color gamut increased slightly in the red region of the spectrum at all points after the start of testing. Additionally, there was a slight gamut increase in the cyan, green and orange regions at the 56,250, 112,500 and 225,000 test points.

Black Print/Copy Quality

VERY GOOD

- + Text in print mode was rated very good, with fully formed characters, above average sharpness and competitive darkness and smoothness; no toner overspray was visible.
- + Line art in print mode was also very good. Circles were fully formed, line thickness was consistent and fine lines remained distinct; an average amount of stair-stepping was evident in diagonal lines and no toner overspray was visible with or without magnification.
- + Halftone fill in print mode was excellent, with above average smoothness and no banding.
- + Grayscale in print mode was visible over an excellent range (10% to 100%), with distinct separation between all levels.
- + Solids in print mode were very good, with above average darkness and average consistency of coverage.



- With fully formed characters and competitive darkness, sharpness and smoothness and no toner overspray visible with or without magnification, text in copy mode was rated good.
- O Line art in copy mode was good as there was an average amount of stair-stepping visible in diagonal lines, while line thickness was consistent and fine lines remained distinct; no toner overspray was evident with or without magnification.
- + Halftones in copy mode were visible over an excellent range, with grayscale visible from 15% (the minimum coverage level on the original) to 100%, with distinct separation between all levels.
- + Halftone fill in copy mode was very good, with above average smoothness and minimal banding.
- + Solids in copy mode were very good, exhibiting above average darkness and competitive consistency of coverage.



PRODUCTIVITY

Color Print/Copy Productivity

GOOD

- O When using the PCL driver to print BLI's job stream, which replicates typical traffic in a multi-user environment, running speed was competitive and efficiency was above average. When using the PostScript driver to print BLI's job stream, productivity was competitive.
- + When printing sets in simplex mode, productivity was competitive; in duplex mode it was above average.
- When copying sets, productivity was competitive in 1:1 and 1:2 mode; in 2:2 mode, running speed was competitive and efficiency (the percentage of rated speed) was above average.
- O First-copy time was competitive from both the document feeder and the platen.
- + When copying booklets, productivity is above average.
- O When printing booklets, running speed is competitive and efficiency is above average.



Black Print/Copy Productivity

VERY GOOD/GOOD

- + When using the PCL driver to print BLI's job stream, productivity was above average.
- O When using the PostScript driver to print BLI's job stream, running speed was competitive but efficiency was below average.
- O When printing sets in simplex mode, running speed was competitive, while efficiency was above average. In duplex mode, productivity was competitive.
- O When copying sets, productivity was competitive in all modes evaluated (1:1, 1:2 and 2:2).
- O First-copy time was competitive from both the document feeder and the platen.
- + When copying booklets, productivity is above average.
- O When printing booklets, running speed is competitive and efficiency is above average.

△ EASE OF USE

VERY GOOD

- + The Copystar CS 5551ci features a very well designed color LCD display control panel that is logically organized, with well-labeled buttons. Although there is no contrast dial, contrast adjustment can be made from the control panel touch screen. Pressing the Accessibility key enlarges the display.
- + The control panel can be titled in two locking positions, allowing users to view it from various lighting conditions, and also providing easy access for individuals with disabilities.
- + The control panel is customizable via the System Menu hard key, with users able to change the default screen to any of the available functions.





Copystar CS 5551ci Control Panel

- + Hard keys for Status/Job Cancel, Copy, Send and Fax allow users to easily switch between the different functions of the device.
- + Six shortcuts can be added to the main screen of each core function (Copy, Send, Document Box), for 18 total, and the procedure for doing so is extremely intuitive: after selecting a feature from one of the sub-menus, the prompt "Add Shortcut" is displayed. If users select OK, they then select one of the six shortcut slots available and type a name for the function. The same six user-programmable features will be displayed for all users; some devices enable the control panel display to be different according to user log-in.
- + The settings for up to 50 frequently used copy or scan jobs can be saved as job programs.
- + By default, most of the selections for a typical copy job can be accessed from the Quick Setup tab. There are buttons for paper selection, zoom, density, duplex, combine and staple/punch, with the currently selected mode listed directly above the button (for example, if auto paper selection is on, "Auto" will appear above the Paper selection). Unlike many other devices that take users to another screen when a copy function is selected, with this model, the additional selections available when one of the above features is selected are displayed on the same Quick Setup screen, above the other main selections, which remain in view and accessible. For example, after selecting duplex, selections for specific modes (1:1, 1:2, 2:2 and 2:1)—well labeled with both text and easy to understand icons—appear on the screen. After a selection is made, the screen automatically closes, eliminating the need to select OK. This design reduces the need for users to navigate through many menus and reduces the number of button presses required to program jobs, without cluttering up the display.



- + A panel on the left side of the screen displays the selections for the job currently being programmed, including paper size, color, finishing and reduction/enlargement.
- + When a misfeed occurs, text and graphics provide users with step-by-step instructions on how to clear it. When accessing misfeeds, drums are not exposed.
- O The help function features an index of features that when clicked on explains to users the capability but it is not dynamic in terms of bringing up specific information related to the current selection users are programming.
- Quick copy/proof copy is not available.
- + Information on the amount of toner available is provided on the main screen.
- + When users select the Status/Job Cancel hard key and then the Paper/Supplies tab, detailed information on toner and paper supplies is provided. Details include percent full for toner and paper in 1 percent increments, as well as the status of the waste toner container and size and type of paper loaded in each tray. Details on staples are also provided.
- + Flashing LED indicators notify users of device status. Green indicates printing, copying, or scanning, and red indicates a misfeed.
- + The job queue accessible via the Status/Job Cancel key is highly detailed and includes a job history. Copy, print, scan and fax jobs can be viewed together or separately.
- O Users can move copy and print jobs up in the queue. They are prompted at the control panel when deleting a job but can only delete one job at a time.
- O Via the counter key, any user can print a page that includes a great deal of information not only on clicks for copy, print and fax, but also breakdowns for paper size and color and black. However, the page is printed in color and there is not a black and color breakdown for scans.
- O Adjusting paper drawers is simple overall. Automatic paper sensors automatically detect changes in paper size and the length guides slide.





Loading paper

+ Replacing toner is very simple overall. Each cartridge has a release lever that users lift up to pull out the cartridge. Instructions for replacing toner are provided on the box. The waste tank is also user-replaceable.



Replacing toner

O Toner cannot be be loaded on the fly while the device is running.



△ FEATURE SET

VERY GOOD

- + The device's standard, non-upgradable memory (3.5 GB) and hard drive (2 X 160 GB) capacities are among the highest for competitive models.
- + Users can choose from two optional document feeders—a 175-sheet single-pass duplexing document feeder or a 100-sheet reversing automatic document feeder, capacities that are above average and competitive, respectively.
- + The DSPF can accommodate paper weights up to 120-lb. index, which is tied for highest when compared to competitive models; the RADF can accommodate paper weights up to 90-lb. index, which is competitive for the group.
- The device's standard 1,150-sheet paper capacity (including the 150-sheet bypass) is slightly below average for the group.
- + Maximum paper capacity of 7,650 sheets is the highest for competitive models.
- O The paper drawers accommodate weights up to 140-lb. index, which is competitive.
- + The 150-sheet capacity of the bypass tray is above average.
- O The bypass accommodates paper weights up to 110-lb. cover, which is competitive.
- O Finishing options include a 1,000-sheet finisher that staples up to 50 sheets and a 4,000-sheet finisher that staples up to 65 sheets, both in three positions. An optional seven-bin mailbox that supports up to 100 sheets per bin and an optional booklet folder are available for the 4,000-sheet finisher. Optional 2-/3-hole punch is available for both finishers.
- + An optional EFI Fiery controller is available for users in graphics-intensive environments.
- O An optional card authentication kit is also available.
- O Users can select multi-copy runs of up to 999, which is competitive with other models in the group.
- O Up to 1,000 copy control codes are available, which is competitive with other models in the group.
- O Other copy features include reduction and enlargement from 25 to 400 percent in 1 percent increments, image rotate, 2-in-1, photo mode, mixed-size originals, border erase, form overlay, poster mode, split copy, prevent bleed through, skip blank page, Bates and Text Stamping and covers (front, front and back).
- + ID card copy allows users to copy both sides of an ID card onto a single sheet of paper.
- + Kyocera Mobile Print is a free download that allows users to print files, web pages and images from their mobile devices to select Copystar MFPs and printers.
- + HyPAS, Kyocera's platform for the integration of third-party software solutions with the device, can help to control costs and simplify administration, heighten security and ease



- burdens associated with document capture, routing and management. Internally-developed applications include Capture2Go, DMS Link, Color Lock and Access Lock.
- O Kyocera's document workflow solutions such as KYOcapture and KYOcapture Express integrate with many of the industry's leading document management systems, including OnBase, LaserFiche, Documentum, and Microsoft SharePoint.
- O The Copystar CS 5551ci integrates with several third-party solution providers, such as Equitrac, docSTAR's Eclipse, Drivve | Image and Pcounter from A.N.D. Technologies.
- O The fax option includes a 33.6-Kbps modem with JBIG compression, 12 MB of dedicated fax memory that can be upgraded to 128 MB, smoothing, timers, broadcasting to 500 destinations, 1,000 one-touch keys, including 50 speed-dial destinations, and duplex transmissions/receptions. A dual-line option that would allow simultaneous transmissions and/or receptions is also available.

\triangle

SECURITY FEATURES

EXCELLENT

AUTHENTICATION	
Network user authentication at control panel	Standard
Windows	Yes
Novell NetWare NDPS	NA
LDAP	No
Kerberos	Yes
802.1x wireless	Yes, optional
SMTP	Yes
POP before SMTP	Yes
Biometric	No
ID Card	Optional
HID	Yes
Common Access	Yes
Other	None
Registered department or user ID codes	Standard
Number	1,000
ACCESS CONTROL	
Restrict color	Standard
Control panel lock/disablement	Standard
Restrict access to address book	Standard
Restrict USB port	Standard
Restrict direct printing	Standard
Restrict other	Any function using User ID
HARD DRIVE	
Encryption	Optional
Maximum level	AES 256 bit



Optional 1X or 3X
3
3
No No
No No
Standard
Standard
Standard
Standard
No
NA NA
NA NA
IVA
Chandoud
Standard Standard
Standard
Standard
AES 128 bit
Yes
Optional
Yes
No
Standard
Standard
Standard
No
Standard
Yes
Yes
Standard
Standard
Standard
INA
Standard
Standard
INA
Pending
EAL3
Based on IEEE2600
Yes, optional
Level 2
Pending
Up to 64 alphanumeric characters
Yes
NA
NA NA

INA: The vendor declined to provide this information

NA: Not applicable



ACCESSIBILITY FEATURES

NOT RATED

Accessibility Features	
Accessibility handle	No
Braille label kit	No
Enlarged display mode	Yes
Remote operator software	No
Tilting control panel	Yes
Voice guidance (audible instructions)	No
Voice operation (responds to voice commands)	No

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 running 100% post-consumer recycled paper	Yes
Instant/Quick Fusing	No
Duplexing	Yes
Toner-save mode	Yes
Energy-save mode/modes	Yes
RoHS compliant	Yes
Percentage of this product that is made with recycled materials/parts	0.4%
Are recycled materials taken from previous devices that have been returned by your customers	No
Are recycled materials taken from post-consumer materials	Yes
Are recycled materials taken from pre-consumer materials	No
Are recycled materials taken from bio-based materials	No
Product designed for recycling (easily disassembled, no binding agents)	Yes
Hardware remanufacturing program for this product	No
Toner cartridge recycling program for this product	Yes
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
What tool can be used to do this?	INA
Green packaging materials for the product	Yes
Green packaging materials for its consumables	Yes
Packaging materials used	Cardboard



Eco-Label Certifications	
ENERGY STAR	Yes
Other	Canada EcoLogo; ECMA-370/The Eco Declaration; Germany Blue Angel; Japan Eco Mark; Nordic Swan Label
Tested energy consumption levels of the device (watts):	
Ready/Idle	Less than 200
Energy-save	Less than 130
Sleep mode	Less than 1.9
During Printing	1,130 (Black) 1,220 (Color)
How fast can this product be programmed to go into the following	g modes:
Ready/Idle	Immediately after warm-up
Energy-save	5 minutes (1 to 240)
Sleep mode	60 minutes (1 to 240)
Can the above settings be programmed by a walkup user	Yes
First-print time after being in sleep mode (seconds)	25.94 seconds (Black); 25.36 seconds (Colo
Emissions output from this device for the following substances (n	ng/h):
Ozone	INA
Styrene	0.67
Benzene	Limit of detection
TVOC	7.4
Dust	INA
Other	NA

INA: The vendor declined to provide this information



TONER YIELD

VERY GOOD

- + Tested toner yield exceeded rated yield for all four colors. In fact, black tested yield exceeded rated yield by more than 16,000 impressions.
- + Black, magenta and yellow tested toner yields are above average, while the cyan yield is below average.

 \triangle

VALUE

VERY GOOD

+ The Copystar CS 5551ci is priced lower than the average when compared with comparably equipped models in its speed range.



SUPPORTING TEST DATA

Test Environment: This product was tested in BLI's 10,000-square-foot U.S. test lab, in an environment monitored by an Extech RH S20 Digital RH/Temperature Recorder and Honeywell Model 61 Seven-Day Temperature/Relative Humidity Chart Recorder. 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 2003 and Microsoft Exchange servers, Windows 7 and XP workstations, 10BaseT/100BaseTX network switches and CAT5 cabling.

Test Duration: Products are tested for two months, five weeks of which consists of a durability test during which the product is run at its manufacturer-rated maximum monthly duty cycle, with 25 percent of the test volume comprised of copy jobs and 75 percent comprised of print jobs. 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. The durability evaluation also includes testing of the document feeder/scanner in simplex and duplex modes for an additional 20 percent of the monthly maximum volume, evenly divided over the course of the test. Imaging media includes 20-lb. virgin letter, legal and ledger multi-use paper with up to 80 percent of the volume generated on letter, 10 percent on legal and 10 percent on ledger. Recycled multi-use paper comprised of 30, 50 and 100 percent post-consumer waste is also tested for up to 10 percent usage of each of the recycled media types.

Tested Configuration: Base model with optional 500-sheet finisher.

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. Besides a visual observation, color print quality is tested using the ANSI standard IT8 Color Test Target, which is read using the Minolta CM503i Spectrophotometer, and samples are analyzed using the CIE XY Chromaticity Diagram. Furthermore, density of black and color output is measured using an X-Rite 428 Densitometer. Georgia-Pacific Spectrum Multi-Use 20-lb. bond is used in the tests, 30 percent of which is recycled paper containing 30, 50 and 100 percent post-consumer content. Image quality is tested using Georgia-Pacific Printing Paper (95 brightness, 22-lb. bond). Units are tested for compatibility on Windows 7 with Microsoft Office Suite 2010, as well as Adobe Acrobat Reader 10.0.

BUYERS LABORATORY LLC • North America • Europe • Asia

John Lawler, CEO

Anthony F. Polifrone, Managing Director

Gerry O'Rourke, Managing Director, BLI International

Joe Douress, Chief Marketing Officer

Daria Hoffman, Managing Editor

Dr. Simon Plumtree, European Managing Editor Lynn Nannariello, Assistant Managing Editor

Tracie Hines, Senior Editor, Competitive Analysis Reports

Jamie Bsales, Senior Product Editor, Solutions

George Mikolay, Senior Product Editor, A3 MFPs

Marlene Orr, Senior Product Editor, Printers and A4 MFPs

Lisa Reider, Senior Product Editor, Scanners and Environmental Carl Schell, Associate Editor

Dan DiGiacomo, Associate Editor

Priya Gohil, Senior Editor

Jessica Schiffenhaus, Research Editor

David Sweetnam, Head of European Research and Lab Services Pete Emory, Manager of Laboratory Testing

Martin Soane, European Lab Manager

Pia Beddiges, Manager of Competitive Services

T.R. Patrick, Art Director

Anthony Marchesini, IT Director



RELIABILITY

Test Duration	225,000 impressions and 45,000 scans
Service Calls/PMs	0/0
Misfeeds	4
Misfeed Rate	1 per 56,250 impressions

\triangle

IMAGE QUALITY

Print Quality

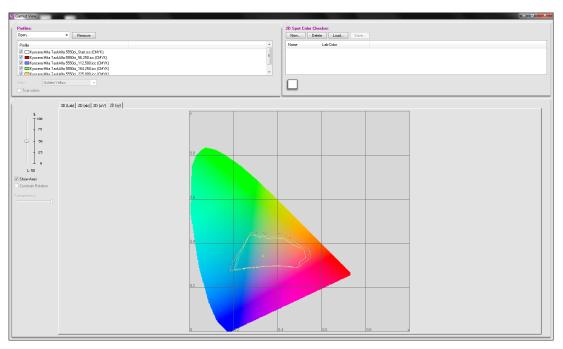
Text	Very Good
Line Art	Very Good
Halftone Pattern	Excellent
Halftone Range	Excellent
Solids	Very Good
Color Business Graphics	Good
Color Photographic Images	Good
Color Shift	Very Good

Color Shift Readings

Test Point	Delta E	BLI Rating
56,250	1.86	Excellent
112,500	1.97	Excellent
164,250	4.06	Very Good
225,000	2.24	Very Good

Delta E is a colorimetric measurement assessing the distance between colors. The readings above reflect the average shift of the color gamut from the previous measured point.





Copystar CS 5551ci Color Gamut

Color Density Readings

Color	Yellow	Magenta	Cyan
Print Density	0.99	1.32	1.33
Competitive Average	0.90	1.18	1.09

Density of a printed image with blocks of all solid colors (based on the average of two readings for each color).

Print Density Range

Copystar CS 5551ci	1.52 to 1.58
Density for devices in this class tested to date	1.23 to 1.82

Measurements are based on four readings corresponding to four different solid black locations on output. The higher the density reading, the darker the image.

Print Density Average

Copystar CS 5551ci	1.55
Average density for devices in this class tested to date	1.48

The higher the density reading, the darker the image.

Halftone range:

Halftone output was visible from the 10% to 100% dot-fill levels, with distinct transitions between all levels.



Copy Quality

Text	Good
Line Art	Good
Halftone Pattern	Very Good
Halftone Range	Excellent
Solids	Very Good
Color Business Graphics	Very Good
Color Photographic Images	Good

Color Copy Density Readings

Color	Yellow	Magenta	Cyan
Original Density	1.07	1.43	1.52
Copy Density	0.94	1.19	1.30
Competitive Average	1.84	1.23	1.28

Density of copied image when tested in "Full Color" copy mode using a KATUN test original containing blocks of all solid colors (based on the average of two readings for each color).

Color Fidelity Readings

Color	Yellow	Magenta	Cyan	Red	Green	Blue	Black
Fidelity	6.08	7.77	4.40	10.37	5.36	20.09	3.19
Competitive Average	5.33	6.26	5.98	8.60	9.42	14.34	3.28

Color fidelity of a copy to its original (using a KATUN test original containing blocks of all solid colors: tested in walk-up mode using the machine default settings in "Full color" mode and auto exposure settings); average of two readings for each color. Measurements are taken with a Minolta CM-503i spectrophotometer. The closer the number is to 0, the closer the copy's color fidelity is to the test original (based on the average of two readings for each color).

Copy Density Range

Original	1.79 to 1.79
Copystar CS 5551ci	1.43 to 1.44
Density for devices in this class tested to date	1.15 to 1.80

Measurements are based on two readings corresponding to two different solid black locations on the output. The higher the density, the darker the image.

Copy Density Average

Copystar CS 5551ci	1.44
Average density for devices in this class tested to date	1.51

The higher the density reading, the darker the image.



Visible Halftone Range

Copystar CS 5551ci	15% to 100%
Halftone increments on test original	15, 29, 53, 77, 83, 91, 95, 100%

\triangle

PRODUCTIVITY

Print Productivity

Average Print Productivity | Competitive Average

	SPEED IN PPM		PERCENT OF	RATED SPEED
AUTO COLOR				
1:1	37.0	37.2	74.1	71.5
1:2	34.1	32.8	68.3	63.2
BLACK				
1:1	45.1	41.5	81.9	73.7
1:2	39.2	36.0	71.3	64.7

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 and 10 sets). The unit's efficiency was tested using the PCL driver at 600 dpi.

Job Stream | Competitive Average

	SPEED IN PPM		PERCENT OF	RATED SPEED
PostScript				
AUTO COLOR	25.4	25.1	50.7	48.8
BLACK	26.2	31.3	47.7	56.2
PCL				
AUTO COLOR	33.5	29.7	67.0	58.7
BLACK	42.5	36.0	77.3	64.9

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 device 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 device operates when producing real-world jobs. The closer the rate is to 100%, or if it exceeds 100%, the more efficient the device.



Copy Productivity

Average Copy Productivity | Competitive Average

	SPEED IN PPM		PERCENT OF	RATED SPEED
AUTO COLOR				
1:1	35.7	36.7	71.5	70.7
1:2	33.0	32.3	66.0	61.7
2:2	38.1	35.4	76.2	68.3
BLACK				
1:1	45.1	43.9	82.0	79.0
1:2	38.3	36.5	69.6	65.7
2:2	43.2	39.2	78.5	70.6

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 and 10 sets). The unit's efficiency was tested using the PCL driver.

First-Copy Time in Seconds | Competitive Average

AUTO COLOR		
Platen	8.90	8.73
Document Feeder	10.40	9.50
BLACK		
Platen	5.80	5.91
Document Feeder	5.80	6.86

Productivity in Booklet Mode

	SPEED	IN PPM	PERCENT OF	RATED SPEED
Auto-Color Print	39.4	36.9	78.9	69.9
Black Print	43.0	39.7	79.3	72.3
Auto-Color Copy	40.6	37.8	81.2	69.8
Black Copy	43.5	40.1	79.2	72.9

Productivity is tested by having the device fold, saddle-stitch and output 10 sets of a 16-page PDF file. Testing in print mode is conducted using the PCL driver at 600 dpi. The closer the efficiency rate is to 100%, or if it exceeds 100%, the more efficient the device.



SCAN FUNCTIONS

Tested Scan Speed in IPM | Competitive Average

AUTO COLOR		
1:1	65.3	62.4
2:2	110.6	82.4
BLACK		
1:1	65.3	64.6
2:2	110.6	86.7

Files are scanned at 300 dpi in PDF format. Competitive averages represent the average scan speed for devices in this speed range tested to date.

Tested Scan File Size in KB | Competitive Average

Full Color (default compression)	640	1,107
Full Color (compact PDF)	113	331
Black	50	298
Black (compact PDF)	Not applicable	48

Testing is conducted with single-page files scanned at 300 dpi in PDF format.

\triangle

PRINT DRIVERS

Copystar CS 5551ci Print Driver Features

Windows XP	PCL 6	PostScript 3
Auto Feature/Device Detection	Yes	Yes
Booklet Printing	Yes	Yes
Collate Sets	Yes	Yes
Consumables Gauge	No	No
Delayed Print	No	No
Max Paper Sources Per Job	5	5
Blank Page Removal	Yes	No
Carbon Copy Mode	Yes	Yes
Cover Mode	Yes	Yes
Exception Programming	No	No



Windows XP	PCL 6	PostScript 3 2 to 25		
N-up Printing	2 to 25			
Tab Printing	Yes	Yes		
Envelope Selection	Yes	Yes		
Point and Click Output Source	No	No		
Point and Click Paper Source	No	No		
Overlay	No	No		
Paper Gauge	No	No		
Poster Mode	Yes	Yes		
Print Text as Black	Yes	Yes		
Default Duplex	No	No		
Toner Save Mode	Yes	Yes		
Print and Hold	Yes	Yes		
Proof Print	Yes	Yes		
Quantity Selection	999	999		
Reduction/Enlargement	20% to 500%	20% to 500%		
Resolution Modes (dpi)	High quality Custom	High quality Custom		
Save Settings	Yes	Yes		
Secure Printing	Yes	Yes		
Watermarks/Custom Watermarks	Yes/Yes	Yes/Yes		

\triangle

TONER YIELD

Tested Toner Yield | Competitive Average

	Black		Cyan		Magenta		Yellow	
Tested Impressions	46,723	40,788	26,453	29,982	27,761	26,818	22,511	21,899
Rated Yield	30,000	34,038	20,000	24,490	20,000	24,490	20,000	24,490

Based on an average of two cartridges per color using BLI's toner yield test original with 5% page coverage.

CERTIFICATE OF RELIABILITY

Awarded to

COPYSTAR, A DIVISION OF KYOCERA DOCUMENT SOLUTIONS AMERICA, INC.

for the performance of the

Copystar CS 5551ci

in BLI's in-house durability test.



March 2014

DATE

This is to certify that when subjected to a 225,000-impression Buyers Lab durability test,

ANTHONY F. POLLERONE

Managing Director

BUYERS LABORATORY LLC

the Copystar CS 5551ci proved to be a highly reliable product.

THE LEADING INDEPENDENT OFFICE PRODUCTS TEST LAB AND BUSINESS CONSUMER ADVOCATE

North America

Europe

Asia

www.BuyersLab.com

COPYRIGHT © 2014 BUYERS LABORATORY LLC. REPRODUCED WITH THE WRITTEN PERMISSION OF BLI.