

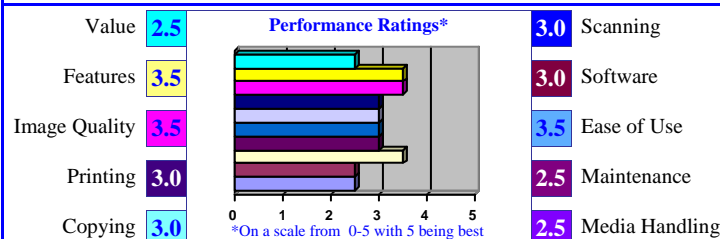
Wirth Consulting - Office ©Head2Head Comparison

Make	Canon	Imaging	Laser
Model	imageRUNNER 3245i/3245	Functions	Print/Copy/Scan/Fax
Base Price	\$12,000.00		
Monthly Duty Cycle (pages)	N/A		
BW/Color Print Speed (ppm)	45		
Max Media Width (inches)	11.00		
Classification	A3 B/W 40-49 PPM MFPs		



Background Information

Canon's imageRUNNER 3245i/3245 feature standard network print and copy. The "i" model (\$12,000) features standard color network scanning (Color Universal Send); PCL and PostScript printing, scan security features, and an Advanced Feature Set (enhances document-transmission capabilities). This report is for the "i" version (base version lists at \$10,500). Both systems feature a standard 100-sheet DADF and support MEAP, which enables creation of embedded applications for Canon MFPs, and can be accessed via the touch screen. Both systems may also be extensively customized with options for document scanning and distribution, security options, document finishing, and options for the disabled.



Total Ratings Score	Black Consumables Cost Per Page	Color Consumables Cost Per Page
30.0	\$0.00292	

Total Cost of Ownership*	Black	Color	Mixed
1,000 pages per month	\$12,175.00		
2,000 pages per month	\$12,350.00		
3,000 pages per month	\$12,525.00		
4,000 pages per month	\$12,700.00		
5,000 pages per month	\$12,875.00		

*Base Price

Strengths	Limitations
<ul style="list-style-type: none"> •Low cost per page of 0.4 cents; standard 100-sheet duplexing automatic document feeder. •Color scan to: e-mail (supports 5 LDAP servers), Internet fax, SMB, File Server (FTP, IPX, WebDAV), hard-drive memory, and optional Super Group 3 Fax (\$950). Network TWAIN scan driver and Color Network ScanGear utility. •USB convenience port for print from and scan to USB memory drives. •imageWARE Enterprise Management Console for network management; Remote UI for client device monitoring/management. •Security includes IPv6, hard-drive erase and encryption •Supports MEAP (Multifunctional Embedded Application Platform) for creating embedded applications for Canon MFPs that can be accessed via the touch screen. •imageWARE Document Workgroup/Enterprise Manager (provides document retrieval, archival, records management and sharing) <p>OPTIONS: IPsec (\$600); Encrypted Secure Print Software; Digital User Signature Kit \$(1,000); Bar Code Printing (\$800); Remote Operator's Kit (\$300;operate control panel/touch screen from a computer workstation); Voice Guidance Kit (\$300) and Voice Operation Kit (\$1,800); Web Access (\$1,000; access and navigate the Web from touch screen); document finishing/stapling (\$1,230); Saddle-Stitch Finisher (\$4,000); Document Hole-Punch (\$670/\$850; one for Internal Fin. And one for External Finisher and Booklet Finisher); SG 3 fax (\$950); Workflow Composer (\$900;compresses complex touch-screen workflows into a single key); eCopy PaperWorks (N/A desktop software application that complements standard scan and capture technology).</p>	<p>Wirth Consulting has determined that this device does not have any notable limitations and should provide good functionality.</p>

Best Use
Offices and mid- to large-size workgroups, and enterprises that require an A3 office MFP and have monochrome network print, copy, and color scan applications (optional fax), and who may also require custom workflows, including advanced workflow and document-scanning/routing capability.

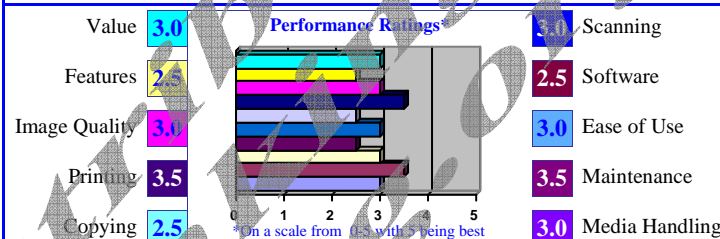
Wirth Consulting - Office ©Head2Head Comparison

Make	Hewlett-Packard	Imaging	Laser
Model	LaserJet M9040	Functions	Print/Copy/Scan/Fax
Base Price	\$9,999.00		
Monthly Duty Cycle (pages)	300,000		
BW/Color Print Speed (ppm)	40		
Max Media Width (inches)	11.70		
Classification	A3 B/W 40-49 PPM MFPs		



Background Information

Based on Hewlett-Packard's tried-and-true LaserJet platform, the M9040 incorporates network print and scan, copy and optional analog fax. Customers must select a document output/finishing option: an 8-bin mailbox, 3,000-sheet stapler/stacker or saddle-stitch booklet maker. Standard paper capacity is 3,100 sheets, and of note is a single-pass 100-sheet DADF for color scan/copy (simultaneously scans both sides of a two-sided original in a single pass). Of note is HP's industry-standard Web Jetadmin network management and remote monitoring software and Universal Print Driver (print to HP printers and MFPs with a single print driver).



Total Ratings Score	Black Consumables Cost Per Page	Color Consumables Cost Per Page
29.5	\$0.01000	



Total Cost of Ownership*	Black	Color	Mixed
1,000 pages per month	\$10,472.67		
2,000 pages per month	\$10,946.34		
3,000 pages per month	\$11,420.01		
4,000 pages per month	\$11,893.67		
5,000 pages per month	\$12,367.34		

*Base Price

Strengths	Limitations
<ul style="list-style-type: none"> •Single-pass color scanner simultaneously scans both sides of a two-sided original in a single pass at a resolution of 600 dpi for enhanced productivity and less wear-and-tear on originals. •Fast Ethernet (Gigabit) network interface, and broad range of optional HP Jetdirect network interfaces. •Industry-standard Web Jetadmin network-management and remote-monitoring software. •HP Universal Print Driver for Microsoft Windows (a single print driver to deploy for printing to HP printers and MFPs). •Security includes secure print, hard-drive erase, network authentication, SNMPv3, SSL/TLS (HTTPS), 802.1X Authentication (EAP-PEAP, EAP-TLS), IPSec/Firewall with Kerberos, Certificate, and PreShared Key Authentication. •Print on up to 120 lb. index stock (58 lb. bond) via bypass tray. •All-in-one toner cartridge--no need to replace separate toner, developer and image drum. •Optional third-party document-capture, job accounting, and security solutions. <p>OPTIONS: Hard Drive with Advanced Encryption Standard (\$599); Analog fax (\$348); document finisher (\$2,020); 8-bin Mailbox (\$1,499); HP Network Install (\$399); Jetdirect EIO Print Servers: 620n IPV6 (\$349.99); 630 IPV6 Gigabit (\$389.99); 635n Fast Ethernet (\$399); Digital Sending Software 4 (N/A).</p>	<ul style="list-style-type: none"> •In general, printer-based MFPs have fewer advanced copier features (such as characterization, positive/negative print, etc.) when compared to copier-based MFPs. However, note that most users will not likely require these advanced functions.

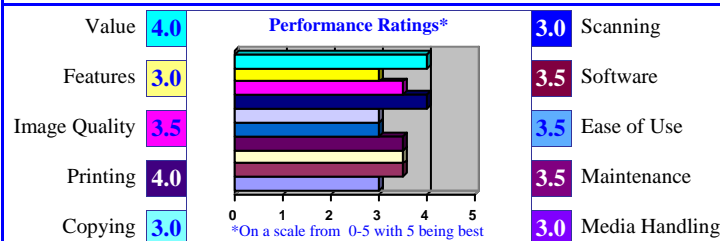
Best Use
Offices and mid- to large-size businesses and workgroups, as well as enterprises, that require an A3 office MFP with monochrome network print, copy, and color scan applications (optional fax). Industry-leading Web Jetadmin makes the system suitable for virtually any application or environment.

Wirth Consulting - Office ©Head2Head Comparison

Make	InfoPrint	Imaging	Laser
Model	1968 MFP	Functions	Print/Copy/Scan/Fax
Base Price	\$8,156.00	 	
Monthly Duty Cycle (pages)	200,000		
BW/Color Print Speed (ppm)	45		
Max Media Width (inches)	11.70		
Classification	A3 B/W 40-49 PPM MFPs		

Background Information

The 1968 MFP is marketed by InfoPrint Solutions, a joint venture between Ricoh and IBM, and is part of the monochrome A3 series that includes the 1948 MFP (\$5,918) and 1988 MFP (\$11,044). The 1968 MFP features a standard 75-sheet DADF and incorporates network print, copy, color network scan and printing on heavier media weight (up to 110 lb. index or 53 lb. bond). Also available are a V34 Fax Card, IPDS & SCS/Tne Card and barcode coding solutions. Finishing options include stapler/sorter finisher and saddle-stitch booklet-making both with hole-punching. Users can print from and scan to USB memory drives.



Total Ratings Score	Black Consumables Cost Per Page	Color Consumables Cost Per Page
34.0	\$0.00750	

Total Cost of Ownership*	Black	Color	Mixed
1,000 pages per month	\$8,525.94		
2,000 pages per month	\$8,895.89		
3,000 pages per month	\$9,265.83		
4,000 pages per month	\$9,635.77		
5,000 pages per month	\$10,404.71		

*Base Price

Strengths

- Capable MarkVision network management and remote monitoring solution.
- Print on up to 120 lb. index stock (58 lb. bond).
- Microsoft Windows 7 ready; also supports a broad range of alternative/legacy platforms.
- Print from and scan to USB memory drives.
- Security provisions include SSL, SNMPv3, TCP/IP, 802.1x, IPsec, secure print, etc. Administrators can configure and manage devices by using authenticated and encrypted network communications. Encryption and decryption enable secure printing to network printers and protect electronic files stored in hard-drive memory. Digitally signed firmware can verify the source and authenticity of updated code.
- Standard 75-sheet DADF is rated at 55 (B/W)/27.5 (color) opm.
- Print on up to 110 lb. index stock.
- Color network scan to: e-mail, FTP, LDSS, and PC. Network TWAIN driver.
- Supports a very wide range of operating environments--from Microsoft Windows platforms, to Apple Macintosh, Linux, Citrix, Unix, and legacy platforms such as IBM AS/400.

OPTIONS: Wireless 802.11g/n networking (\$479); 75-sheet 50-sheet stapling finisher (\$1,465); 2,570-sheet Booklet Finisher (\$2,879); 2,000-sheet LCT (\$4,920); V34 Fax Card (\$371); IPDS & SCS/Tne Card (\$599); and barcode printing (\$401).

Limitations

- In general, printer-based MFPs have fewer advanced copier features (such as characterization, positive/negative print, etc.) when compared to copier-based MFPs.
- However, note that most users will not likely require these advanced functions.



Notes

- Maintenance Kit includes fuser transfer roller, pick rollers and separator pad.
- ADF Maintenance Kit includes pick roller and separation-guide assemblies.

Best Use

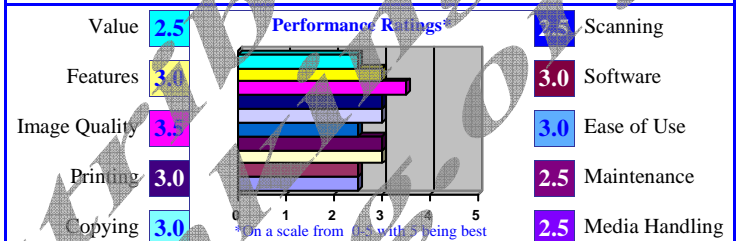
Offices and mid- to large-size workgroups, and enterprises, that require an A3 office MFP for monochrome network print, copy, and color scan applications (optional fax), and may require extensive support for alternative/legacy platforms, and that may also benefit from advanced custom applications that can be created with the Embedded Solutions Framework open-development platform.

Wirth Consulting - Office ©Head2Head Comparison

Make	Konica Minolta	Imaging	Laser
Model	bizhub 421	Functions	Print/Copy/Scan/Fax
Base Price	\$10,206.00	 	
Monthly Duty Cycle (pages)	150,000		
BW/Color Print Speed (ppm)	42		
Max Media Width (inches)	11.00		
Classification	A3 B/W 40-49 PPM MFPs		

Background Information

Konica Minolta introduced this B/W office MFP in September 2008. In its standard configuration, it features an 80-sheet RADF and supports copy and network scan. Customers may add the IC-207 Image Controller with Emperor Print System (\$1,500) for network printing. The IC-207 controller includes PCL 6 and PostScript 3 print drivers, as well as XPS (XML Page Specification) printing, and is powered by a 600 MHz CPU. The bizhub 421 also supports the company's open-development platform, bizhub Extended Solution Technology (bEST), for custom integration with third-party software for advanced applications accessible at the touch screen.



Total Ratings Score	Black Consumables Cost Per Page	Color Consumables Cost Per Page
28.5	\$0.00357	

Total Cost of Ownership*	Black	Color	Mixed
1,000 pages per month	\$10,420.29		
2,000 pages per month	\$10,634.57		
3,000 pages per month	\$10,848.86		
4,000 pages per month	\$11,063.14		
5,000 pages per month	\$11,277.43		

*Base Price

Strengths

- Low cost per page of 0.5 cents.
 - USB convenience port for print from and scan to USB memory drives.
 - With Konica Minolta's Universal Print Driver, there is only a single print driver to deploy for printing to Konica Minolta and third-party networked devices.
 - PageScope Suite for network management and remote-monitoring, etc.
 - Standard 80-sheet reversing automatic document feeder (RADF) rated at 70 opm.
 - Print on up to 56 lb. bond (approximately 120 lb. index) via bypass tray.
 - Scan to: e-mail (supports LDAP), FTP, SMB, WebDAV, and optional hard drive; Network TWAIN (HDD TWAIN) and WS-Scan. bizhub Send for scanning to multiple destinations in a single operation.
 - bizhub Secure Print, Encrypted Network Printing, IP Filtering, SSL/TLS Encryption, S/MIME Encryption, HDD Lock, User Authentication, Job Erase and HDD Sanitizing.
- SECURITY OPTIONS: Network authentication; Biometric Authentication option (reads finger-vein patterns and is used to restrict access--\$480); HID Card Reader option; account tracking; hard-drive erase (up to 7 times) and HDD encryption.
- OPTIONS: 120-GB hard drive (\$699); Image Panel (view thumbnail pages on touch screen, access and manage files stored in hard-drive memory); stapling/finishing (\$3,255); saddle-stitch booklet-making; document hole-punching; Super Group 3 fax (includes PC fax); i-Option for accessing the Web via the touch screen; enhanced PDF encryption.

Limitations

- Network printing is optional (\$1,500).


Notes

- Toner yield is at 6-percent page coverage.
- Consumables' pricing and yields shown are for OEM Konica Minolta supply items ordered online via the Web.

Best Use

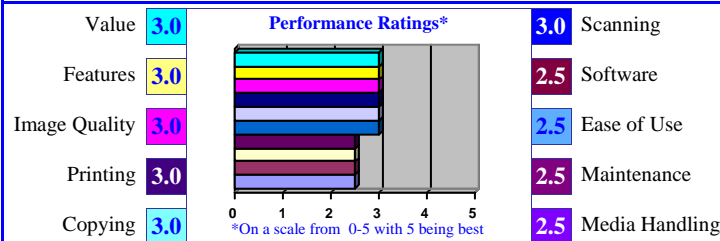
Offices and mid- to large-sized workgroups that require an A3 office MFP and have monochrome network print, copy and scan applications (optional fax), and may also benefit from the system's advanced workflow capability.

Wirth Consulting - Office ©Head2Head Comparison

Make	Kyocera Mita	Imaging	Laser
Model	TASKalfa 420i	Functions	Print/Copy/Scan/Fax
Base Price	\$9,845.00		
Monthly Duty Cycle (pages)	150,000		
BW/Color Print Speed (ppm)	42		
Max Media Width (inches)	11.00		
Classification	A3 B/W 40-49 PPM MFPs		

Background Information

Kyocera Mita's TASKalfa 420i is a 42-ppm monochrome MFP that features the company's unique long-life image drum technology--image-drum life is rated at up to 500,000 pages. The TASKalfa 420i also incorporates the company's HyPAS (Hybrid Platform for Advanced Solutions) open-development platform for creating custom applications accessible at the touch screen. Customers choose from either an optional 100-sheet ADF or 100-sheet duplexing ADF (pricing is not available for either document finisher). Finishing options include Internal Finisher (staple up to 20-sheets); 1,000-Sheet Finisher (staple up to 50 sheets); 3,000-Sheet Finisher (staple up to 50 sheets); and Booklet Folder for the 3,000-Sheet Finisher.



Total Ratings Score	Black Consumables Cost Per Page	Color Consumables Cost Per Page
28.0		

Total Cost of Ownership*	Black	Color	Mixed
1,000 pages per month			
2,000 pages per month			
3,000 pages per month			
4,000 pages per month			
5,000 pages per month			

*Base Price


Strengths	Limitations
<ul style="list-style-type: none"> •8.5" color touch screen •Includes Adobe PDF compression and encryption for sending files. •KMnet Admin for network management and remote printing; KMnet for Accounting (job accounting and cost recovery); and KMnet Viewer for document management. •PRESCRIBE PDL with PCL 5e/6, PS2, PS3, XPS and fax drivers. •Amorphous Silicon image drum rated to last up to 500,000 pages. •Color network scanning to: SMB, FTP sites, e-mail addresses, USB memory cards; TWAIN scan driver. 	<ul style="list-style-type: none"> •Document feeder is optional (100-sheet ADF [\$/N/A] or 100-sheet duplexing ADF [\$/N/A]).

Options	Notes
OPTIONS: 100-sheet ADF [\$/N/A]; 100-sheet DADF [\$/N/A]; KYOCapture/Express [\$/N/A]; Fax/Network Fax System (\$1,155); Data Security Kit (hard-drive overwrite and encryption-\$580); Internal Finisher (20-sheets-\$1,095); 1,000 Sheet Finisher (50 sheets-\$1,540); 3,000 Sheet Finisher (50 sheets-\$2,167); and Booklet Folder for 3,000 Sheet Finisher (\$1,500).	<ul style="list-style-type: none"> •Pricing for toner and image drum not available; toner yield also not available.

Best Use

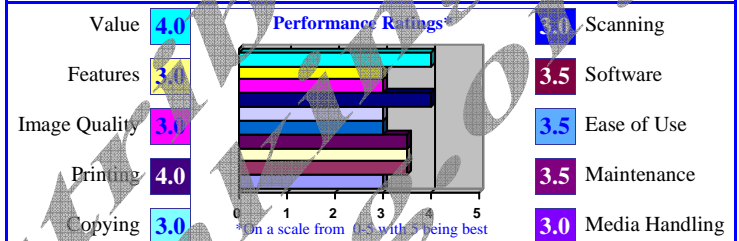
Offices and mid- to large size workgroups that require an A3 office MFP with monochrome network print, copy and color scan applications (optional fax). Optional HyPAS solutions also make the system suitable for environments that require advanced automation of scanning tasks, including integration with Microsoft SharePoint for automatic routing and distribution of scanned files.

Wirth Consulting - Office ©Head2Head Comparison

Make	Lexmark	Imaging	Laser
Model	X862dte 3	Functions	Print/Copy/Scan/Fax
Base Price	\$8,249.00		
Monthly Duty Cycle (pages)	200,000		
BW/Color Print Speed (ppm)	45		
Max Media Width (inches)	11.00		
Classification	A3 B/W 40-49 PPM MFPs		

Background Information

Introduced in October 2009, Lexmark's next-generation X862dte 3 is available in two versions (both with Gigabit Ethernet): the X862dte 3 includes copy, network print and color network scan; while the X862dte 4 adds Super Group 3 fax. The system features a new 9" color e-TASK touch screen, new system architecture, and Gigabit Ethernet network interface, as well as Lexmark's Embedded Solutions Framework (eSF) development platform, which enables creation of custom workflows accessible from the touch screen, for instance, for automating the processing of scanning and routing documents to a network storage folder. A 75-sheet DADF is standard. Optional document finishing includes stapling, saddle-stitch booklet making and document hole-punch.



Total Ratings Score	Black Consumables Cost Per Page	Color Consumables Cost Per Page
33.5	\$0.00740	

Total Cost of Ownership*	Black	Color	Mixed
1,000 pages per month	\$8,636.31		
2,000 pages per month	\$9,023.61		
3,000 pages per month	\$9,580.12		
4,000 pages per month	\$10,023.83		
5,000 pages per month	\$10,467.53		

*Base Price

Strengths	Limitations
<ul style="list-style-type: none"> •New 9" color touch screen; users may preview scanned images on the touch screen. •Microsoft Windows 7 ready; also supports a broad-range of alternative/legacy platforms. •Print on up to 120 lb. index stock (58 lb. bond). •Capable MarkVision network-management and remote-monitoring solution. •USB convenience port for print from and scan to USB memory devices. •Security include SNMPv3, IPSec, 802.1x Authentication, TLS, TTLS, IPSec, hard-drive erase, network authentication. Optional Print Cryption card and integrated card reader. •Standard 75-sheet duplexing automatic document feeder; Color scan to e-mail, USB memory cards, PC desktop, network folders at 55 (B/W)/27.5 (color) opm. •Supports Lexmark's Embedded Solutions Framework (eSF) open-development platform for creating custom workflows accessible from the touch screen. •Optional 3,500-sheet finisher (staple and document hole-punch) and Booklet Finisher (adds saddle-stitch booklet making). •My MFP enables users to save and then re-access their personal settings on a flash-memory device. Users can store and then display on the touch screen local address books, individual job-settings, etc., XPS and XHTML PDLs. 	<ul style="list-style-type: none"> •In general, printer-based MFPs have fewer advanced copier features (such as characterization, positive/negative print, etc.) when compared to copier-based MFPs. However, note that most users will not likely require these advanced functions.

Options	Notes
OPTIONS: Super Group 3 fax; 2,000-sheet LCT; Ethernet 10BaseFX/FL; wireless 802.11 b/g/n; 802.g.11; 802.11g Wireless Networking; Fiber Fast Ethernet network interface; finisher/stapler, saddle-stitch booklet-maker, document hole-punch; PRESCRIBE Emulation Card (print Kyocera PRESCRIBE data streams); Bar Code Card; IPDS/SCS/TNE	<ul style="list-style-type: none"> •ADF Maintenance Kit (\$141) is rated for 150,000 pages •Maintenance Kit (\$347.96) is rated for 300,000 pages

Best Use

Offices and mid-size to large workgroups and enterprises that require an A3 office MFP for monochrome network print, color scan and copy and fax applications, and may require Lexmark's extensive support for alternative/legacy platforms, and that also may benefit from advanced custom applications that can be created with Lexmark's Embedded Solutions Framework open-development platform.

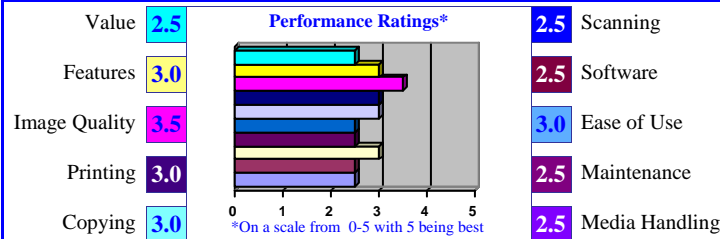
Wirth Consulting - Office ©Head2Head Comparison

Make Océ	Imaging Laser
Model VarioLink 4222	Functions Print/Copy/Scan/Fax
Base Price	\$9,720.00
Monthly Duty Cycle (pages)	150,000
BW/Color Print Speed (ppm)	42
Max Media Width (inches)	11.00
Classification A3 B/W 40-49 PPM MFPs	



Background Information

Introduced in December 2008, the VarioLink 4222 A3 B/W MFP provides standard copy and network scan. It may be equipped with an optional controller, as well as a Super Group 3 fax option. The optional controller includes PCL 6 and PostScript 3 print drivers, as well as XPS (XML Page Specification) printing capability, and is powered by a 600 MHz CPU. An 80-sheet automatic reversing document feeder (ARDF) is standard. Finishing options include inner and floor stapler/finishers, saddle-stitch booklet maker, and document hole punch.



Total Ratings Score	Black Consumables Cost Per Page	Color Consumables Cost Per Page
28.0	\$0.00359	

Total Cost of Ownership*	Black	Color	Mixed
1,000 pages per month	\$9,935.63		
2,000 pages per month	\$10,151.25		
3,000 pages per month	\$10,366.88		
4,000 pages per month	\$10,582.50		
5,000 pages per month	\$10,798.13		

*Base Price

Strengths	Limitations
<ul style="list-style-type: none"> Low cost per page of 0.5 cents. 80-sheet reversing automatic document feeder rated at 70 opm. Print on up to 110 lb. index stock via bypass tray. Scan to: e-mail (supports LDAP), FTP, SMB, WebDAV, and optional hard drive. Network TWAIN (HDD TWAIN) driver and WS-Scan. Scan to multiple destinations in a single operation. USB convenience port for print from and scan to USB memory cards. Security features include SMTP and LDAP authentication, IP address filtering, SSL HDD encryption, and HDD data erase. 	<ul style="list-style-type: none"> Network printing is optional (\$1,500).

SECURITY OPTIONS: Biometric Authentication (reads finger-vein patterns and is used to restrict access), HID Card Reader; account-tracking software.

OPTIONS: Print controller (\$1,500) provides PCL and PostScript print drivers; Inner Finisher (50 sheets); Floor Finisher (50-sheets); Saddle Finisher (15 sheets); 2/3 hole document punch; Super Group 3 walk-up fax; i-Option for accessing the Web via the touch screen and for enhanced encryption of Adobe PDFs.

Notes

- Toner yield is at 6-percent page coverage.

Best Use

Offices and mid-size to large workgroups, and enterprises, that require an A3 office MFP for monochrome network print, copy, and scan applications (and may require optional fax).

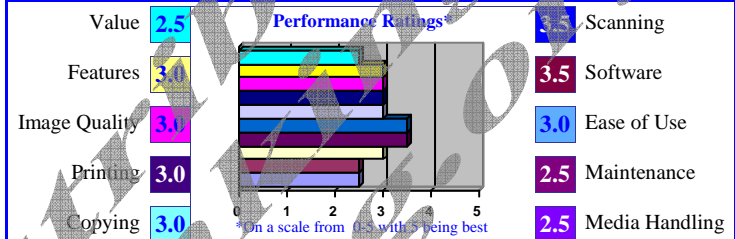
Wirth Consulting - Office ©Head2Head Comparison

Make Ricoh	Imaging Laser
Model Aficio MP 4000SP	Functions Print/Copy/Scan/Fax
Base Price	\$11,200.00
Monthly Duty Cycle (pages)	N/A
BW/Color Print Speed (ppm)	40
Max Media Width (inches)	11.00
Classification A3 B/W 40-49 PPM MFPs	



Background Information

Ricoh's Aficio MP 4000 (soon to be replaced by the Aficio MP 4001) is available in three different configurations. The MP 4000B (\$9,300) is a digital copier with B/W network scanning and optional 40-GB hard drive, network print and Super Group 3 fax. This "SP" version (\$11,200) adds standard network print, copy, 40-GB hard drive and color network scan with optional Super Group 3 fax. The MP 4000SPF (\$12,350) adds Super Group3/Internet/LAN/IP fax to the SP configuration. All feature a standard 100-sheet ARDF, and may be equipped with optional document finishing and management/workflow solutions. The also support Ricoh's Embedded Software Architecture, a Java (J2ME) compatible software development platform for creating custom applications.



Total Ratings Score	Black Consumables Cost Per Page	Color Consumables Cost Per Page
29.5	\$0.00243	

Total Cost of Ownership*	Black	Color	Mixed
1,000 pages per month	\$11,346.00		
2,000 pages per month	\$11,492.00		
3,000 pages per month	\$11,638.00		
4,000 pages per month	\$11,784.00		
5,000 pages per month	\$11,930.00		

*Base Price

Strengths	Limitations
<ul style="list-style-type: none"> 8.5" color touch screen Scan to e-mail (supports LDAP), folder (SMB, FTP, Novell), and URL. Network TWAIN scan driver. Network management and remote monitoring includes SmartDeviceMonitor and Web Image Monitor. DeskTopBinder V2 Lite for document management is also included. Hewlett-Packard LaserJet-compatible. Supports Ricoh's Embedded Software Architecture, a Java (J2ME) compatible software development platform for creating custom applications accessible at the touch screen. Security features include Windows/LDAP/Kerberos Authentication; optional Copy Data Security unit; optional Hard Drive with DataOverwriteSecurity; Encrypted Address Book; Secure Internet Protocol (IP) with IPsec; Encrypted PDF Transmission; Hard Drive Encryption; Sample/Locked/Hold/Stored Print (hard drive required); S/MIME; SSL Secure Socket Layer; Encryption of Password PDF 	<p>Wirth Consulting has determined that this device does not have any notable limitations and should provide good functionality.</p>

SECURITY OPTIONS: Unauthorized Copy Control (\$710); Hard Drive Data Overwrite Security System (\$420); HDD Encryption (\$510).

OPTIONS: 1,000-Sheet Finisher (50 sheets - \$1,480); 3,000-Sheet Finisher (50 sheets - \$2,860); Saddle-Stitch Booklet-Maker (15 sheets - \$4,110); 2/3 hole document punch (\$920); Adobe PostScript 3 and PDF Direct printing (\$875); Super Group 3 fax (\$1,150); 802.11a/g Wireless LAN interface (\$565); Bluetooth interface (\$378); Gigabit Ethernet (\$340).

Best Use

Offices and mid-size to large workgroups, and enterprises, that require an A3 office MFP with monochrome network print, copy and scan applications (optional fax), and who may also require a wide range of advanced workflow and print-management solutions.

Wirth Consulting - Office ©Head2Head Comparison

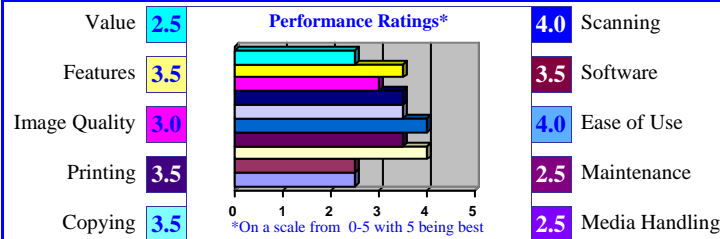
Make Sharp	Imaging Laser
Model MX-M453N	Functions Print/Copy/Scan/Fax
Base Price	\$11,390.00
Monthly Duty Cycle (pages)	80,000
BW/Color Print Speed (ppm)	45
Max Media Width (inches)	11.00
Classification A3 B/W 40-49 PPM MFPs	

Well Worth Consideration!



Background Information

Sharp launched this system earlier in 2009 as part of its MX-M503/M453/M258 Frontier Series. N models' standard features include: a retractable keyboard; 8.5" color touch screen; ImageSEND scan/distribute; 100-sheet automatic document feeder with colorScan2 (automatically scans both sides of a two-sided original in a single pass); 1,200 x 1,200 dpi color scanning; and Sharp's OSA open-development platform, the last of which provides network protocols such as XML and SOAP for creating network applications that can be accessed from the touch screen. A broad range of document workflow and finishing options are available.



Total Ratings Score	Black Consumables Cost Per Page	Color Consumables Cost Per Page
32.5		

Total Cost of Ownership*	Black	Color	Mixed
1,000 pages per month			
2,000 pages per month			
3,000 pages per month			
4,000 pages per month			
5,000 pages per month			

Strengths	Limitations
<ul style="list-style-type: none"> Windows 7 (32/64-bit) PCL 5e, PCL 6, PC FAX and PostScript 3/PPD print drivers 100-sheet, 70-opm duplexing automatic document with colorScan2 technology for automatically scanning both sides of a two-sided original in a single pass. USB convenience port for print from and scan to USB memory devices. Color scan to: FTP, e-mail (supports LDAP), desktop, Internet fax, network folder, fax. With ImageSend, users can scan and send documents to up to seven different destination types in a single operation. Preview scanned images and files stored in hard-drive memory on the 8.5" touch screen. Supports Sharp's OSA platform for creating custom workflow and device management applications accessible from the touch screen (supports XML and SOAP standards). OSA also supports integration of Web-based HTML, JAVA and Flash clips for integrating moving video on the touch screen. Documents stored in hard-drive memory may also be accessed and printed via the system's embedded Web page at the user's computer workstation. Sharp Administration Utility Suite for network management. Security includes hard-drive erase and encryption (encrypt data up to 7 times), network authentication, IPSec, SSL Encryption, etc. 	<p>Wirth Consulting has determined that this device does not have any notable limitations and should provide good functionality.</p>
Notes	Notes
<ul style="list-style-type: none"> Sharp does not publish consumables' pricing or yields. 	<ul style="list-style-type: none"> Pricing cannot be obtained for consumables, so consumables' cost per page cannot be calculated.

Best Use

Offices and mid-size to large workgroups that require an A3 office MFP and that have monochrome print, color scan, document-distribution and copy applications (optional fax), and who may also require state-of-the-art customized workflow and print-management solutions via Sharp's OSA open-development platform.

Wirth Consulting - Office ©Head2Head Comparison

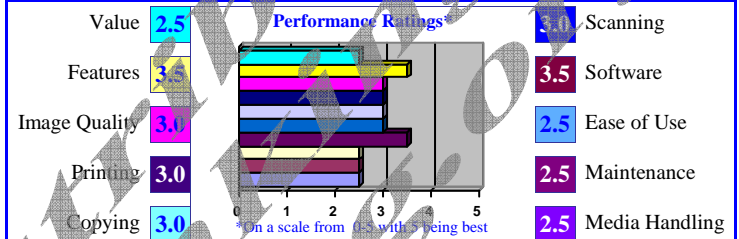
Make Toshiba	Imaging Laser
Model e-STUDIO455	Functions Print/Copy/Scan/Fax
Base Price	\$10,799.00
Monthly Duty Cycle (pages)	150,000
BW/Color Print Speed (ppm)	45
Max Media Width (inches)	11.00
Classification A3 B/W 40-49 PPM MFPs	

Worth Consideration!



Background Information

Introduced in June 2009, the e-STUDIO205L/255/305/355/455 Series is equipped with Toshiba's 3rd-generation e-BRIDGE controller and is designed for mid-size to large workgroups and offices. The e-STUDIO 455 is the fastest A3 MFP in the series at 45 ppm. Toshiba's Open Platform architecture enables the integration of third-party software applications, such as Microsoft SharePoint and Exchange, which can be accessed at the touch screen. Options include a 100-sheet automatic reversing document feeder (\$1,595), Super Group 3 walkup fax and document-finishing equipment



Total Ratings Score	Black Consumables Cost Per Page	Color Consumables Cost Per Page
29.0		

Total Cost of Ownership*	Black	Color	Mixed
1,000 pages per month			
2,000 pages per month			
3,000 pages per month			
4,000 pages per month			
5,000 pages per month			

Strengths	Limitations
<ul style="list-style-type: none"> TopAccess network management and remote monitoring. e-BRIDGE controller with Open Platform architecture with 1.2GHz CPU and XPS print driver. Open Platform architecture allows integration of third-party software applications, such as Microsoft SharePoint and Exchange, which can be accessed at the touch screen. Color network scan (includes scan to e-mail with LDAP support) and erasing outside edges of scanned files. USB convenience port for print from and scan to USB memory drives. Tilttable 8.5" color touch screen. Print on up to 110 lb. index via bypass tray, and add paper while the system is operating. Optional Advanced Scanning option provides direct file routing to Microsoft Word and Excel applications and creation of searchable Adobe PDF files. Standard Scrambler Board applies 128-bit AES encryption to electronic data stored in the hard drive, and standard network authentication (users must log in to access device functions). Standard Internet fax. 	<ul style="list-style-type: none"> Optional automatic document feeder (\$1,595.00).
Notes	Notes
<p>SECURITY OPTIONS: Disk-Overwrite Kit (\$590) exceeds Department of Defense (DoD) security standards.</p> <p>OPTIONS: Super Group 3 walkup fax (\$1,025 - includes PC LAN fax); Hanging Finisher (\$1,525); Console Finisher (\$2,195); Saddle-Stitch Finisher (\$3,395); Document Hole Punch (\$850); wireless LAN adapter (\$599); Bluetooth Networking (\$325); IPSec Enabler (\$799); Advanced Scanning (\$2,695); Data Overwrite (\$590); SmartCard Authentication (\$1,200).</p>	<ul style="list-style-type: none"> Pricing cannot be obtained for consumables, so consumables' cost per page cannot be calculated.

Best Use

Offices and mid-size to large workgroups that require a customizable A3 office MFP for monochrome network print, copy, and color scan applications (optional fax), as well as for advanced scanning applications. The system's open-development platform makes it particularly suitable for use in digital-document creation/management and integration with software applications such as Microsoft SharePoint.

Wirth Consulting - Office ©Head2Head Comparison

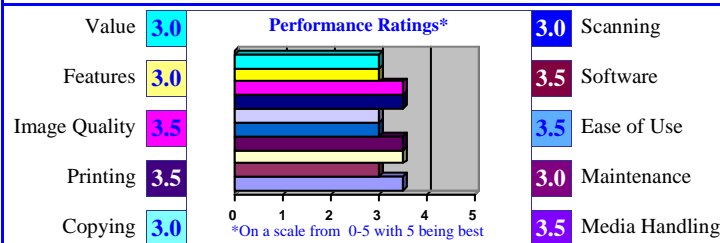
Make	Xerox	Imaging	Laser
Model	WorkCentre 5645	Functions	Print/Copy/Scan/Fax
Base Price	\$9,899.00		
Monthly Duty Cycle (pages)	175,000		
BW/Color Print Speed (ppm)	45		
Max Media Width (inches)	11.00		
Classification	A3 B/W 40-49 PPM MFPs		

Well Worth Consideration!



Background Information

Xerox's WorkCentre 5645 incorporates a 1.2 GHz CPU and supports the company's open-development Extensible Interface Platform (EIP) that enables the creation of custom applications accessible from the touch screen. One such application, for instance, is a digital repository for files, enabling users to easily browse among stored files and print as needed. A 75-sheet duplexing automatic document feeder is standard. Document-finishing options include the usual stapling, saddle-stitch booklet-making and document hole-punch, but also include V/C/Z-folding and post-process sheet insertion.



Total Ratings Score	Black Consumables Cost Per Page	Color Consumables Cost Per Page
32.5	\$0.00422	

Total Cost of Ownership*	Black	Color	Mixed
1,000 pages per month	\$10,152.00		
2,000 pages per month	\$10,405.00		
3,000 pages per month	\$10,658.00		
4,000 pages per month	\$10,911.00		
5,000 pages per month	\$11,164.00		

*Base Price

Strengths

- Low cost per page of 0.5 cents.
- Capable CentreWare network-management and remote-monitoring solution.
- Open-development Extensible Interface Platform (EIP) for creating custom workflow and management applications that can be accessed at the touch screen.
- Scan to: e-mail (Notes/Exchange; supports LDAP), home, network server/directory, hard drive, Windows XP client via WIA. Scan templates are also provided, as is a TWAIN driver.
- Optional SMARTSend document-routing software, and optional Scan to PC Desktop Workgroup software for document management, archiving, and organization and for OCR.
- Print on up to 110 lb. index stock via two standard paper drawers; print on up to 80 lb. cover via bypass tray. 75-sheet duplexing automatic document feeder rated at 60 ppm.
- Mobile Express print driver (automatically locate Xerox and non-Xerox devices, eliminating having to install multiple print drivers). Global Print Driver (enables IT to qualify, deploy and manage all print devices on the network using a single driver).
- OPTIONS (SN/A): 10BaseT and 10Base2 Ethernet via adapter; Copier Assistant Software (operate touch screen/control panel from a computer workstation); Super Group 3 walkup fax; LAN fax, Internet fax; SMARTSend document-routing software; Scan to PC Desktop.
- FINISHING OPTIONS (SN/A): Basic Office Finisher (30-sheet stapler); Office Finisher (50-sheet multi-position stapler); High-Volume Finisher with Booklet Making option (15-sheets); 2/3 hole document punch; V/Z/C-folding; Convenience Stapler; post-process inserting.

Limitations

Wirth Consulting has determined that this device does not have any notable limitations and should provide good functionality.

Notes

- Consumables' pricing and yields shown are for OEM Xerox supply items ordered online via the Web.
- Toner is sold as a two-pack (30,000 pages each) and includes a waste toner bottle.

Best Use

Offices and mid to large-size workgroups, and enterprises, that require an A3 office MFP and have monochrome print, scan, and copy applications (optional fax), and who may also require the advanced workflow and print management capabilities provided by the EIP open-development platform. Also suitable for light production B/W output with its ability to print on up to 80 lb. cover (120 lb. index) and optional advanced document finishing.