Scanners

Types of Scanners

Flatbed Scanners

Flatbed scanners come in models that just scan reflective material such as photos and artwork, as well as models that can scan transparency material such as film slides and negatives. These models have a light source built into the lid and usually come with several frames for holding different sized film. Flatbeds usually come in two sizes, able to handle A4/US-letter size or A3 size material, whereas a dedicated slide scanner can only cope with negatives and slides.

Portable Document Scanners

A document scanner can help dramatically cut down on paper clutter in the office. If a user just starting out on the paperless trail, a portable scanner may be the best first purchase. They're smaller and more affordable than full-sized desktop models.

Size and portability can vary considerably when talking about portable document scanners. Some models detach from the auto document feeder (ADF) or sheet feeder for an easy-to-carry option, and some even come apart to provide a smaller, handheld scanner. Handheld scanners can be very useful for scanning sections of bound books without cutting or removing pages.

Things to be considered

Size

Flatbed scanners can commonly scan up to A4 or US Letter size, but some scan up to A3 size. Transparencies can be several sizes, most commonly 35mm, and negatives come in a range of common sizes.

Resolution

The higher the scan resolution, the more detail can capture from the original image and the larger the file size created. For scanning text, even a 200 pixels per inch (ppi) scan is good enough for most purposes, and 300 ppi is standard (at a one-to-one size ratio) for pictures. If a user wants to enlarge the original though, a higher resolution is recommended. Most scanners handle at least 600 ppi, which is usually sufficient. Film scanning usually requires much higher resolution, because the original size of some media such as photo negatives and 35mm slides is so small.

'Interpolated' – which listed as a feature on some scanners. It means the resolution has been increased digitally by using a software technique called interpolation, which creates extra pixels to make an image larger, based on calculations involving the surrounding pixels.

Compatibility

It is important to making sure the selected scanner is compatible with the computer system. However, some ultra-portable scanners don't require a computer connection to work, instead scanning

directly to a storage card that can be used with any PC. Many scanners come with software for Windows and Mac (OS X), but some only offer basic features in the Mac-compatible models.

Software

The software supplied with the scanner will vary, but it should include drivers for Windows and Mac operating systems and possibly others such as Linux. Some models include programs for document management; online (cloud) integration; and OCR (optical character recognition) to convert scanned text into Word or Excel files and searchable/editable PDFs, and for business card and receipt scanning. In addition to scanning software, the scanner may also come with software for editing and cataloguing your images.

Capacity

This can be very important, depending on the volume of documents need to scan. The portable scanners can scan either 10 or 20 pages, but many of the more portable units are single-sheet only and have to be hand-fed page by page. Desktop document scanners will often handle 50 sheets or more.

Speed

Speed is measured in pages per minute (ppm), but check if the manufacturer's definition includes double-sided or just single-side pages. Speed will vary according to the resolution set, paper size and whether the scan is mono (black), greyscale or colour. Speed of scanning on a model without a paper feeder depends to some extent on how fast a user can manually feed in the paper.

Duplex Scanning

Also known as double-sided scanning, duplex scanning allows automatic scanning of both sides of a sheet. Duplex scanning is common among desktop scanners but may not feature on portable scanners. Flatbed scanners typically need two passes for duplex scanning, with a duplexing unit pulling the paper through, turning it over and feeding it back for the second scan. This is significantly slower than upright scanners that scan both sides at once in a single pass.

Multi-Feed Detection

Some scanners may alert user when it detects two or more pages being fed through together.

Duty Cycle

This is the manufacturer's rating for how many pages per day a scanner is designed to handle.

Auto-Size Detection

Scan more quickly and keep file sizes down by only scanning the image area needed.

Auto-Skew Correction

Some scanners can detect and digitally straighten crooked documents.

One-Touch Scanning

It is possible to configure the scanner to provide standard scans with the single press of a button.

Carrier Sheet Supplied

A carrier sheet is a transparent plastic envelope to hold small, irregular or odd-shaped documents for sheet-fed scanning on a document scanner, either alone or

along with regular paper documents. It can protect originals and help avoid paper jams, and also help scan documents that are either wider or longer than the scanner width (such as A3). It can be useful for clippings, receipts, photos, valuable documents and folded or wrinkled paper.

Specification for a Duplex Scanner

Criteria	Required Specification
Make	(Specify)
Model	(Specify)
Country of Origin	(Specify)
Country of Manufacture	(Specify)
Year of Manufacture	(Specify)
Scanner Type	ADF (Automatic Document Feeder)
Scanning Modes	Simplex / Duplex / Gray scale / Monochrome
Image Sensor Type	(Specify)
Light Source	LED
Optical Resolution	1200 dpi or better
Scanning Speed	Simplex: 35 ppm,
	Duplex: 70 IPM
Paper Chute Capacity (A4 Landscape)	50 sheets (A4: 80 g/m2 or 20 lb.)
Scanning Mode	Simplex and Duplex
Daily Duty Cycle	2,000 Pages
Interface	USB2.0 or above
Power Requirements	AC 100 to 240 V ±10%
Power Consumption	Operating: 17 W or less Sleep mode: 1.1 W or less Auto standby (OFF) mode: 0.15 W or less
Included Software / Drivers	TWAIN/ISIS Driver
Compatible Operating System	Microsoft Windows 10, Windows 8, Windows 7, Windows Server 2012, Windows Server 2008 (all 32bit – 64bit version) Linux, Ubuntu
Software Included	Driver CD
Manufacture Experience	Manufacturer should have minimum of ten years' experience in manufacturing of the same brand. (Proof document should be attached)
Bidders Experience	The bidder should have successfully sold same similar product for last 3 years (Bidder should provide documentary evidence to support the above)

Manufacturer Authorization Certificate	Manufacturer Authorization Certificate should be provided (Originals should be provided on request)
Warranty	Comprehensive on-site manufacturer authorized warranty for 36 months (Labor & Parts) Excluding Consumes. Bidder or its parent company or its subsidiary should have Island wide owned branch network Documentary evidence to be provided of the following under bidders' name. (a) Address, Contact Details & Date of Commencement of each branch/regional office (Should have completed minimum of 5 years from the Date of Commencement of each Branch/Regional Office)
Warranty Information	A sticker with -Suppler name -Contact Numbers -Date of Commissioning of Hardware -Warranty Period On all scanners
Brochure	Supplier should provide brochure of make/model quoted as per above specification

Specification for a Flat Bed Scanner with Automatic Document Feeder (ADF)

Item	Minimum Specification
Brand	(Specify)
Model	(Specify)
Country of Origin	(Specify)
Country of Manufacture / Assembled	(Specify)
Year of Manufacture	(Specify)
Type	Desktop Type Flatbed Scanner with ADF
Optical Resolution	ADF/1200 DPI Scanning
Light Source	RGB LED
Scanning Side	Front / Back / Duplex
Interface	High speed USB 2.0
Power Requirement	AC220-240V
Environmental Compliance	RoHS and ENERGY STAR
Black and White Scanning Speed (A4,200dpi)	ADF:20ppm / 36ipm 25ppm
Colour Scanning Speed (A4,200dpi)	ADF 10ppm / 18ipm/15ppm
Output resolution	150*150dpi, 200*200dpi,240*240dpi,300*300dpi,400*400dpi,600*600dpi

Output Mode	Black & White, Error Diffusion, Advanced Text Enhancement, Advanced Text Enhancement II, 8-bit Grayscale (256-Level), 24-bit Colour
Duty Cycle	Approx. 800 scans/day
Feeder Capacity	50 sheets (80g/m²)
Features	- Specify
Manufacture Experience	Manufacturer should have minimum of ten years' experience in manufacturing of the same brand. (Proof document should be attached)
Bidders Experience	The bidder should have successfully sold same similar product for last 3 years (Bidder should provide documentary evidence to support the above)
Manufacturer Authorization Certificate	Manufacturer Authorization Certificate should be provided (Originals should be provided on request)
Warranty	Comprehensive on-site manufacturer authorized warranty for 36 months (Labor & Parts) Excluding Consumes. Bidder or its parent company or its subsidiary should have Island wide owned branch network Documentary evidence to be provided of the following under bidders' name. (a) Address, Contact Details & Date of Commencement of each branch/regional office (Should have completed minimum of 5 years from the Date of Commencement of each Branch/Regional Office)
Warranty Information	A sticker with -Suppler name -Contact Numbers -Date of Commissioning of Hardware -Warranty Period On all scanners
Brochure	Supplier should provide brochure of make/model quoted as per above specification

Specification for a Portable Document Scanner

Criteria	Minimum Specification
Brand	(Specify)
Model	(Specify)
Country of Origin	(Specify)
Country of Manufacture / Assembled	(Specify)
Year of Manufacture	(Specify)
Type	Portable
Optical Resolution	150 x 150dpi, 200 x 200dpi, 300 x 300dpi, 400 x 400dpi, 600 x 600dpi
Light Source	RGB LED
Scanning Side	Simplex/Duplex
Interface	High speed USB 2.0
Power Requirement	AC220-240V
Environmental Compliance	RoHS and ENERGY STAR
Black and White Scanning Speed (A4,200dpi)	ADF:12ppm / 14ipm 15ppm or above
Colour Scanning Speed (A4,200dpi)	ADF 10ppm / 10ipm 12ppm or above
Output resolution	150*150dpi, 200*200dpi,240*240dpi,300*300dpi,400*400dpi,600*600dpi
Output Mode	Black & White, Error Diffusion, Advanced Text Enhancement, Advanced Text Enhancement II, 8-bit Greyscale (256-Level), 24-bit Colour
Feeder capacity	20 sheets (80g/m²)
Features	Please Specify
Manufacture Experience	Manufacturer should have minimum of ten years' experience in manufacturing of the same brand. (Proof document should be attached)
Bidders Experience	The bidder should have successfully sold same similar product for last 3 years (Bidder should provide documentary evidence to support the above)
Manufacturer Authorization Certificate	Manufacturer Authorization Certificate should be provided (Originals should be provided on request)
Warranty	Comprehensive on-site manufacturer authorized warranty for 36 months (Labor & Parts) Excluding Consumes. Bidder or its parent company or its subsidiary should have Island wide owned branch network. Documentary evidence to be provided of the following under bidders' name. (a) Address, Contact Details & Date of Commencement of each branch/regional office (Should have completed minimum of 5 years from the Date of Commencement of each ranch/regional)

Warranty Information	A sticker with -Suppler name -Contact Numbers -Date of Commissioning of Hardware -Warranty Period On all scanners
Brochure	Supplier should provide brochure of make/model quoted as per above specification

Specimen Bidder's Compliance Check Sheet

Important:

It is compulsory to use the most recent version of the ICTA Specifications at the time of the Bidding Document Publication. The purchaser should mention the particular version of the specification in the Technical Specification section of the bidding document in the following format:
Example: If the purchaser refers the Portable Document Scanner of this Scanner Specification Version

ICTA Version: Scanners | ICT-ES-1.1V-F | Portable Document Scanner

Features	Required Minimum Specification	Bidder's Compliance	
		Yes/No	If "No", Bidder's Response
Brand			
Model			
Country of Origin & Country of Manufacture / assembly			
Processor			
Base Frequency			
Cache			
Form Factor			
Chassis			
Chipset			
Motherboard			
Memory			
Maximum memory			
Memory Dims			
Hard disk			
Keyboard			
Mouse			
Optical drive			
Expansion slots			
Video controller			
Network interface			
I/O ports			
Power Supply			
Operating system			
Application Software			
Product certifications of the quoted Model			
Display			
Manufacturer Experience			
Bidders Experience			
Manufacturer Authorization Certificate			
Warranty			
Warranty Information			
Brochure			

Content References

- *https://byte-notes.com*
- *https://pcpartpicker.com*
- *https://www.choice.com.au*
- *https://www.cnet.com*
- *http://www.globusinfocom.com*
- *https://www.icta.lk*
- *https://www.itbusiness.ca*
- *https://www.pcworld.com*
- *https://www.streetdirectory.com*

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