

DiIMAGE Scan Multi PRO Technical Specifications

* with the optional Multi Format Set

Usable films

35mm film

(Including 24 x 65mm panorama format*):

Color/B&W, Negative/positive

Medium-format film (120/220): 6 x 4.5 cm, 6 x 6 cm, 6 x 7 cm, 6 x 8 cm, 6 x 9 cm

Color/B&W, Negative/positive

16mm film:*

Color/B&W, Negative/positive

Minox film:*

Color/B&W, Negative/positive

TEM film:*

5.9 x 8.15 cm, 5.9 x 16.3 cm, 8.3 x 10.2 cm, 8.2 x 11.8cm

Color/B&W, Negative/positive

Microfilm in aperture cards:*

Film frame: 3.55 x 4.85 cm or smaller

Card size: 8.25 x 18.7 cm or smaller

Color/B&W, Negative/positive

Microscope slides*

Optical resolution (main-scanning direction x feed direction):

35mm film: 4,800 x 4,800 dpi

Medium-format film (120/220): 3,200 x 4,800 dpi

Maximum input resolution (main-scanning direction x feed direction):

35mm: 4,800 x 4,800 dpi

Medium format film (120/220): 4,800 (by interpolation) x 4,800 dpi

Scan size:

35mm film: 25.02 x 37.08mm

Medium-format film (120/220):

6 x 4.5: 56.58 x 42.67mm

6 x 6: 56.58 x 56.58 mm

6 x 7: 56.58 x 70.10 mm

6 x 8: 56.58 x 77.15 mm

6 x 9: 56.58 x 83.82 mm

Multi formats:* 35mm film (24 x 65mm panorama format), 16mm film, Minox film, TEM film, microfilm in aperture cards, and microscope slides can be scanned within the following sizes:
 Multi-format 35mm: 25.02 x 83.82 mm
 Multi-format 6 x 9: 56.58 x 83.82 mm

Maximum input pixels (at 4,800 dpi):

35mm film: 4,728 x 7,008

Medium-format film (120/220):

6 x 4.5: 10,692 x 8,064

6 x 6: 10,692 x 10,692

6 x 7: 10,692 x 13,248

6 x 8: 10,692 x 14,580

6 x 9: 10,692 x 15,840

Multi formats:* 35mm film (24 x 65mm panorama format), 16mm film, Minox film, TEM film, Microfilm on aperture cards, Microscope slides can be scanned within the following number of pixels:
 Multi-format 35mm: 4,728 x 15,840
 Multi-format 6 x 9: 10,692 x 15,840

Scan method: Fixed film, moving sensor, 1-pass scan

Sensor type: 3-line color CCD

Number of pixels: 7,260 pixels per line

Filter: RGB primary-color filter

Scan time: Approximate time with positive film, 4800 dpi input resolution, 8-bit output color depth, no Digital ICE³, no cropping, no autoexposure, no color matching:

* Scanning time will increase when using any of the Digital ICE³.

Macintosh:

	<u>Pre-scan</u>	<u>Final scan</u>	<u>Index scan (6 frames)</u>
<u>35mm film:</u>	<u>10 s</u>	<u>50 s</u>	<u>35 s</u>

6x9 film: 15 s 250 s --

System environment:

CPU: PowerPC G4 533 MHz

RAM: 1.5 GB

Hard disk space: 35GB

Operating system: Mac OS 9.1

Application: Adobe Photoshop 6.0

Memory allocated to application: 1.2 GB

Interface: FireWire (IEEE 1394) as standard

Windows: Pre-scan Final scan Index scan (6 frames)

35mm film: 9 s 45 s 30 s

6x9 film: 13 s 230 s --

System environment:

CPU: Pentium IV 1.5 GHz

RAM: 1 GB

Hard disk space: 19 GB

Operating system: Windows 2000 Professional

Application: Adobe Photoshop 6.0

Memory allocated to application: 800 MB

Interface: Adaptec AFW-4300

Multi-sample scanning:

2X, 4X, 8X, 16X, Off

Continuous scan:

35mm-film Holder: 6 frames (max.)

Slide Mount Holder: 4 frames (max.)

A/D conversion:

16 bits

Output data:

8 bits, 16 bits (per color channel)

Dynamic range:

4.8

PC interface:

Ultra SCSI: D-sub half-pitch 50p x2

IEEE 1394: IEEE 1394 6p x2

Focus:

Autofocus (Point AF available), Manual focus

Light source:

3-wave fluorescent lamp

Power requirements:

Voltage: 100-240V AC

Frequency: 50/60Hz

Dimensions:

168(W) x 128(H) x 377(D) mm

Weight (Scanning unit only):

4 kg (approx.)

Standard accessories:

35mm-film Holder FH-P1
Slide Mount Holder SH-P1
Universal Holder UH-P1
Standard Attachment HA-P1
Glassless Attachment HA-P2
Film Mask Set FM-P1 (6x4.5, 6x6, 6x7, 6x8, 6x9
medium-format masks)
SCSI Cable SC-P1
IEEE1394 Cable FC-P1
CD-ROM for DiMAGE Scan Multi PRO

Optional accessories:

Multi Format Set (Multi Format Attachment HA-P3,
Multi-Format Mask FM-P2, Pins PI-1[†])

[†] not sold in every country

Specifications and accessories are based on the latest information available at the time of printing and are subject to change without notice.

Specification figures are based on Minolta's standard test method.

System Requirements

MACINTOSH – FireWire (IEEE 1394)

- Computer:** Apple Macintosh[†] with a FireWire (IEEE 1394) port as standard interface
- CPU:** PowerPC G3 or later (PowerPC G4 is recommended for scanning with ICE, ROC, GEM, and 16-bit output.)
- Operating system:** Mac OS 8.6 – 9.1
- Memory:** A minimum of 64MB free memory in addition to the requirements for the Mac OS and applications (256MB or more for scanning with ICE, ROC, GEM, and 16-bit output. 512MB or more is recommended.)
- Hard disk space:** 20MB for installation
4 times or more the size of the image is required for scanning.*
* Example: an average medium-format 6x9 image at 4,800 dpi, with 8-bit output, and without the use of Digital ICE, ROC or GEM is approximately 500 MB. The required space will be approximately 2 GB.
- Monitor:** 1024 x 768 pixels or greater with 32,000 colors or more is recommended.
A monitor with 640 x 480 pixels can also be used.
- Other:** Photoshop plug-in driver software has been fully tested for use with Adobe Photoshop ver. 5.0.2, 5.5, 6, and 5.0LE. ColorSync profile is included in the CD-ROM for DiMAGE Scan Multi PRO.

[†] Excludes notebook PCs

MACINTOSH – Ultra SCSI

- Computer:** Apple Macintosh models[†] ~~with SCSI Manager ver. 4.3~~
- CPU:** PowerPC 604 or later (PowerPC G3 or later ~~PowerPC G4 is recommended~~ for scanning with ICE, ROC, GEM, and 16-bit output. PowerPC G4 is recommended.)
- Operating system:** Mac OS 8.6 – 9.1
- Memory:** A minimum of 64MB free memory in addition to the requirements for the Mac OS and applications (256MB or more for scanning with ICE, ROC, GEM, and 16-bit output. 512MB or more is recommended.)
- Hard disk space:** 20MB for installation
4 times or more the size of the image is required for scanning.*
- * Example: an average medium-format 6x9 image at 4,800 dpi, with 8-bit output, and without the use of Digital ICE, ROC or GEM is approximately 500 MB. The required space will be approximately 2 GB.
- Monitor:** 1024 x 768 pixels or greater with 32,000 colors or more is recommended.
A monitor with 640 x 480 pixels can also be used.
- Recommended SCSI board:**
Adaptec PowerDomain 2940UW, 2940U2W, 2930U, 29160N
- Other:** Photoshop plug-in driver software has been fully tested for use with Adobe Photoshop ver. 5.0.2, 5.5, 6, and 5.0LE.
ColorSync profile is included in the CD-ROM for DiIMAGE Scan Multi PRO.

[†] Excludes notebook PCs

PC/AT – IEEE 1394

Computer: IBM PC/AT compatible models^{†1†2} ~~equipped with an OHCI-compliant IEEE 1394 port~~

CPU: Intel Pentium II or later. Pentium III or later is recommended.

Operating system: Windows 2000 Professional or Windows Me

Memory: A minimum of 96MB of RAM (256 MB or more for scanning with ROC, GEM, and 16-bit output. 512MB or more is recommended.)

Hard disk space: 20MB for installation
4 times or more the size of the image is required for scanning.*

* Example: an average medium-format 6x9 image at 4,800 dpi, with 8-bit output, and without the use of Digital ICE, ROC or GEM is approximately 500 MB. The required space will be approximately 2 GB.

Monitor: 1024 x 768 pixels or greater with ~~32,000~~ 16-bit high colors or more is recommended.

A monitor with 640 x 480 pixels can also be used.

Recommended IEEE1394 ~~board interface:~~

Adaptec ~~FireConnect~~ ~~4300~~ AFW-4300
OHCI-compliant IEEE 1394 port as standard interface^{†3}

Other: Adobe Photoshop ver. 4.0.1, 5.0.2, 5.5, 6, and 5.0LE have been fully tested for use with the TWAIN driver software.

^{†1} Only for PCs with pre-installed operating systems

^{†2} Excludes notebook PCs

^{†3} Non-DV-dedicated IEEE 1394 port guaranteed by PC manufacturers

PC/AT – Ultra SCSI

- Computer:** IBM PC/AT compatible models^{†1†2}
- CPU:** Intel Pentium 166 MHz processor or later (Pentium II or later for scanning with ROC, GEM, and 16-bit output. Pentium III or later is recommended.)
- Operating system:** Windows 98, Windows 98 Second Edition, Windows 2000 Professional, Windows Me, or Windows NT 4.0
- Memory:** A minimum of 96MB of RAM (256 MB or more for scanning with ROC, GEM, and 16-bit output. 512MB or more is recommended.)
- Hard disk space:** 20MB for installation
4 times or more the size of the image is required for scanning.*
* Example: an average medium-format 6x9 image at 4,800 dpi, with 8-bit output, and without the use of Digital ICE, ROC or GEM is approximately 500 MB. The required space will be approximately 2 GB.
- Monitor:** 1024 x 768 pixels or greater with ~~32,000~~ 16-bit high colors or more is recommended.
A monitor with 640 x 480 pixels can also be used.
- Recommended SCSI board:**
Adaptec SCSI Card 19160, SCSI Card 29160, SCSI Card 29160N
- Other:** Adobe Photoshop ver. 4.0.1, 5.0.2, 5.5, 6, and 5.0LE have been fully tested for use with the TWAIN driver software.

^{†1} Only for PCs with pre-installed operating systems

^{†2} Excludes notebook PCs

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- * Digital ICE³ and Digital ICE/ROC/GEM are trademarks or registered trademarks of Applied Science Fiction.
- * Windows is either a registered trademark or trademark of Microsoft Corporation in the United States and/or other countries.
- * Macintosh and FireWire are trademarks or registered trademarks of Apple Computer Inc.
- * Other corporate and product names are trademarks or registered trademarks of their respective companies.

Appendix

*¹ McNamara, Michael J. "Film scanner roundup: What's the best way to get photos into a computer? Use a film scanner!" Popular Photography, September 1998: 88-95.

*² Wiener Grotta, Sally. "Minolta Dimâge Scan Multi II." PC Magazine, September 2000.