

Nikon

LS-1000

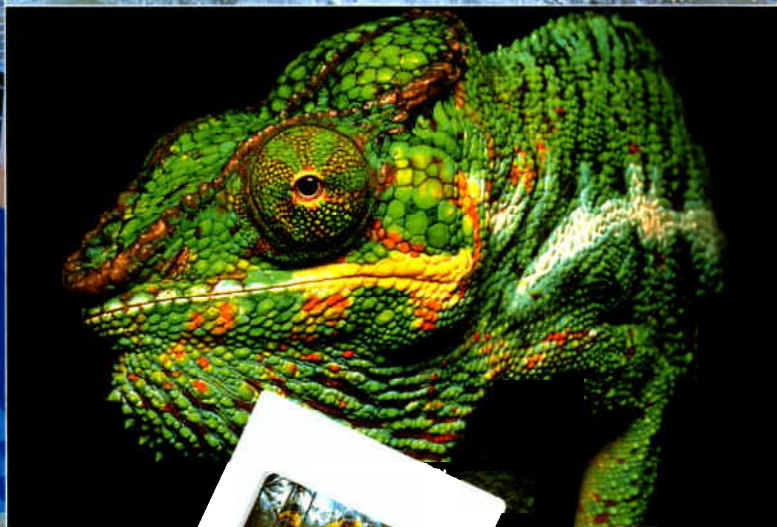
35mm Desktop Film Scanner

- Fast 40-second scan times for 2,592 x 3,888 pixels
- Advanced LED illumination for speed, reliability and color accuracy
- Precision 12-bit A/D conversion for wide dynamic range
- Autofocus ensures consistently sharp scans
- Special optics preserve definition and overcome problems of geometric distortion
- Optional automatic slide feeder for high-speed archiving

SUPER COOLSCAN

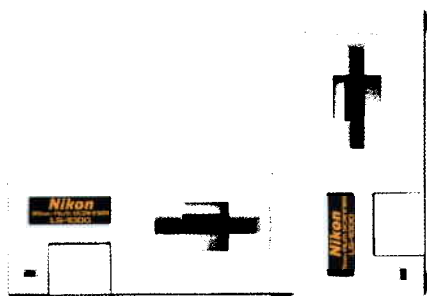
Nikon High Performance Meets Professional Needs





Example photos shown here are scanned images reproduced by SUPER COOLSCAN.

Blazing Speed



Fast-fast-fast, and high quality too

Get full-color scans at 2,700 dpi in less than 40 seconds! SUPER COOLSCAN is fast without sacrificing the high quality you expect from Nikon. This single-pass high-performance scanner delivers accurate color, superb shadow detail

Speed without accuracy is nothing.

Nikon scanners combine exceptional speed with uncompromised accuracy, to provide unsurpassed Nikon quality.

and razor sharp definition. Nikon's exclusive high-power LED illumination yields ultra-fast CCD integration, and for the first time ever, SUPER COOLSCAN combines the advantages of solid-state illumination with the speed attainable with traditional lamp designs.

Brilliant output quality

Nikon has combined its experience in professional photography with advanced digital imaging technologies, for professional-quality results with SUPER COOLSCAN.

The advanced LED block design achieves accurate color rendition, uniform edge-to-edge brightness, rock-steady color calibration, low power consumption and heat, and never needs a lamp replacement! The patented coaxial illumination path reduces space requirements, making it the most compact 35mm film scanner in the industry.

The 12-bit A/D conversion assures wide dynamic range and fidelity, and intelligent hardware autocalibration, autoexposure and color balance help you achieve consistently high-quality results.

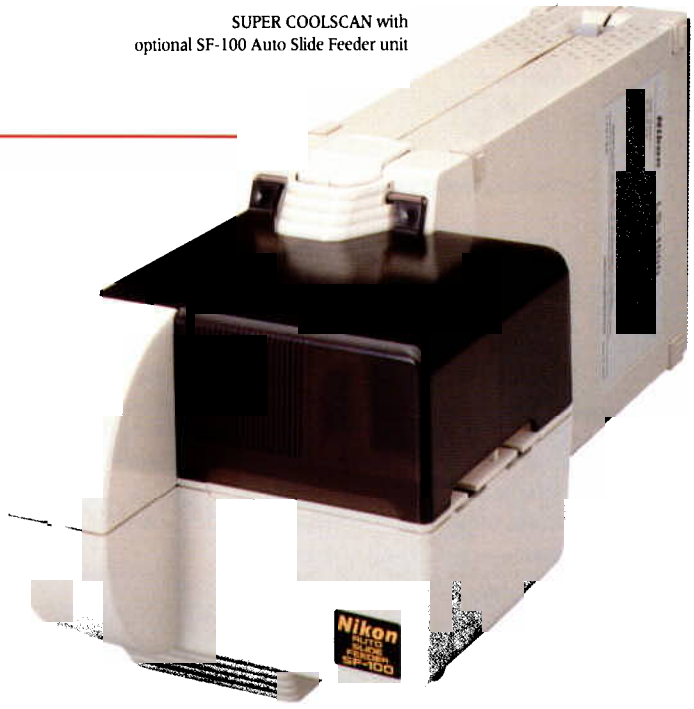
Quality



FH-2 Strip Film Holder

Productivity

SUPER COOLSCAN with optional SF-100 Auto Slide Feeder unit



Performance, reliability and productivity

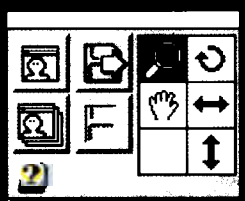
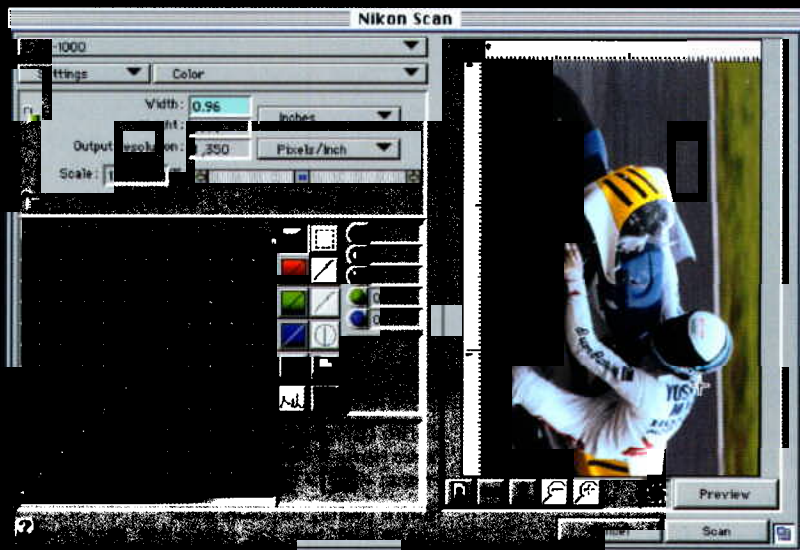
Nikon leads in performance once again, giving you fast turnaround on tight deadlines. SUPER COOLSCAN's DSP processing delivers the fastest data throughput in this class — an astonishing 3 Megabytes per second!

In addition to servo-controlled manual focus, SUPER COOLSCAN's Autofocus capability produces sharp scans without user intervention, an enhancement that really boosts archiving productivity, and reduces re-scans.

In combination with the optional Auto Slide Feeder SF-100, you can scan up to 50* mounted slides without standing by to change them individually. This convenient feeder mounts on the front of the slim-design scanner, without the need for cables. With the SF-100, SUPER COOLSCAN can produce 50 sharp, color and density-correct scans in less than 60 minutes, completely unattended. That's over 1.5 Gigabytes of high-quality scanning per hour!

*Assumes normal slide mount thickness of 1.6mm

Amazing Accuracy



Easy-to-use Nikon software

The LS-1000 is also an easy scanner to use, giving you the comprehensive control you need for professional results. Bundled with the scanner, Nikon introduces a completely re-architected PhotoshopTM plug-in for Mac OS[®], and TWAIN source for Windows[®] users. The new **Nikon Scan** driver runs with any PhotoshopTM or TWAIN-compatible image editing software, or stand-alone, using the Nikon Control image archiving applications. Nikon Control enables unattended high-speed batch scanning when used in conjunction with the optional Autofeeder accessory.

Nikon Scan Driver Software Requirements

Operating System	Mac OS [®] / Macintosh [®]	Windows [®]
Computer Platform	68xxx CPU without FPU, or PowerPC [™] CPU	IBM [®] PC-AT compatibles (386, 486, or Pentium [™] CPU)
RAM	Plug-in requires a minimum of 2MB free RAM. Virtual Memory and Modern Memory Manager compatible. Image editing applications typically require a minimum of 5 - 8MB RAM. With system memory requirements exceeding 2MB, total recommended RAM should be greater than 16MB for productive scanning.	TWAIN module requires a minimum of 2MB free RAM. Virtual Memory compatible. Image editing applications typically require a minimum of 5 - 8MB RAM. With system memory requirements exceeding 2MB, total recommended RAM should be greater than 16MB for productive scanning.
Hard Disk	Installation requires a minimum of 1MB free space. 300MB or larger disk is recommended for scanning operation.	1MB free space. 300MB or larger disk is recommended for scanning operation.
Display	640 x 400 (or larger) full-color (24-bit) display recommended	640 x 480 VGA (or larger) full color (24-bit) display recommended
Interface	SCSI-II	ASPI compliant board supporting WINASPI.DLL
OS Version	System 7.0 or later, in English, German, French versions	<ul style="list-style-type: none"> • MS-DOS[®] version 5.0 or later (requires enhanced mode) • IBM[®] -DOS version 5.0 or later (requires enhanced mode) • MS[®] -Windows[®] version 3.1 or later (Win16 environment), English, German, French versions

Nikon Scan Driver Software Features**

Scanner source selection, source image type selection, resizable dialog box, resizable preview, autoexposure, autofocus, manual focus, crop, zoom, resolution, resize, fiducial reference scale, pixel address coordinate display, on-screen densitometer, sharpening, analog exposure, analog color balance, contrast, brightness, color balance, white point, gamma curve edit, histogram, black point, final scan, eject, instant screen update on density and color adjustment, interactive help

**These features apply to both PhotoshopTM plug-in and TWAIN versions for Mac OS[®] and Windows[®].

Specifications

LS-1000 35mm Desktop Film Scanner

Reading system/Optics

Film type	35mm film (positive or negative, color or monochrome)
Reading resolution	2,592-pixel monochrome linear CCD 2,700 dpi
No. of pixels	2,592 x 3,888 (max.) 2,496 x 3,777 (with strip film holder) 2,393 x 3,648 (with slide mount aperture)
Reading area	24.3 x 36.5mm
Effective scanning area	23.4 x 35.4mm (with strip film holder) 22.5 x 34.3mm (with slide mount aperture)
Light source	RGB LED array
Color separation	RGB line sequential
Film holder	No holder needed for mounted slides Strip film holder for up to six frames
Imaging optics	6 lenses in 4 groups
Autofocus	Contrast detection by CCD, focusing area selectable, manual focusing by software-controlled servo

Scanning/Signal processing

Image scanning	Single-pass RGB Main scan: 2,592-pixel monochrome linear CCD Sub-scanning: Stepper-driven film stage
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Scan time	Pre-scan: 15 seconds or less Final scan: Approximately 40 seconds for positive and 60 seconds for negative at 2,700 dpi, 2,592 x 3,888pixels (approx. 28.8MB)
Scanning spatial density	Pixel density: 2,700 dpi Pixel size: 9.4µm square
A/D conversion	12 bits per color channel
Output data	8 bits per color channel

Data transfer

Panel indicators	READY, BUSY and ERROR states indicated by LED
Scanning software	Photoshop™ plug-in for Mac OS™ and TWAIN source for Windows®. Nikon Scan application supports Photoshop™ plug-in and TWAIN source on both Mac OS™ and Windows® platforms.
Interface	SCSI-II
Image transfer	Single-pass RGB line sequential
Maximum transfer rate	3MB/sec.

Operating conditions

Power requirements	100 - 240VAC, 0.3 - 0.2A, 50/60Hz
Environmental	Temperature: 10°C - 35°C (50°F - 95°F) Relative Humidity: 20 - 85% (non-condensing)
Dimensions (W x D x H) and weight (approx.)	151 x 268 x 63.5mm; 1,900g (5.9 x 10.6 x 2.5 in.; 4.2 lb.)

SF-100 Auto Slide Feeder

Slide type	35mm film in mounts ranging in thickness from 1.1 - 3.2mm
No. of slides	50 slides in 1.6mm thick mounts
Feed time	Approximately 10 seconds
Eject time	Approximately 10 seconds
Panel indicators	POWER, BUSY, and ERROR status indicated by LED; double as indicators for the LS-1000 scanner

Docking method	Mounts to the front of the LS-1000 scanner in vertical orientation
Power supply	Connected to the LS-1000 scanner
Dimensions (W x D x H) and weight (approx.)	130 x 154.5 x 194mm; 800g (5.1 x 6.1 x 7.6 in.; 1.8 lb.)

All products indicated by trademark symbols are trademarked and/or registered by their respective companies.

Specifications and equipment are subject to change without any notice or obligation on the part of the manufacturer. September 1995

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