

NanoZoomer[®] S540MD

Slide scanner system

C17400-01MD **For USA**

High-throughput model for reliable digital pathology



*The NanoZoomer S540MD is designed for use with a dedicated cart. Images above shown without the dedicated cart.

High-speed scanning

Approx. 30 s/slide
(20×/40× mode)

*When it scans an area of
15 mm × 15 mm square with 5 focus points.

High throughput

82 slides/h
(20×/40× mode)

Rack compatibility

540 slides
Rack for 30 slides
360 slides
Rack for 20 slides

Continuous loading

Load racks
without interrupting
scanning

Intuitive touchscreen interface

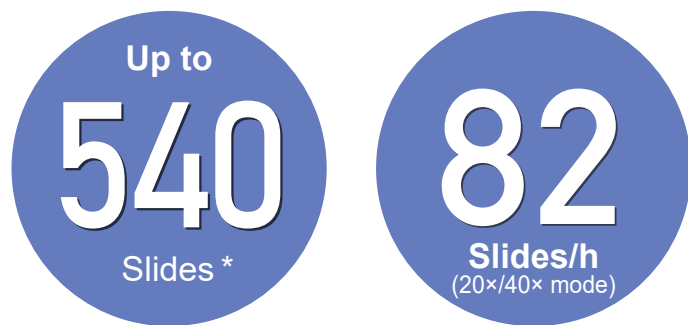
User-friendly design
supporting efficient
workflows

HAMAMATSU
PHOTON IS OUR BUSINESS

Reliable Scanning for Workflow Efficiency

The NanoZoomer S540MD by Hamamatsu is engineered with the lab in mind for a seamless workflow.

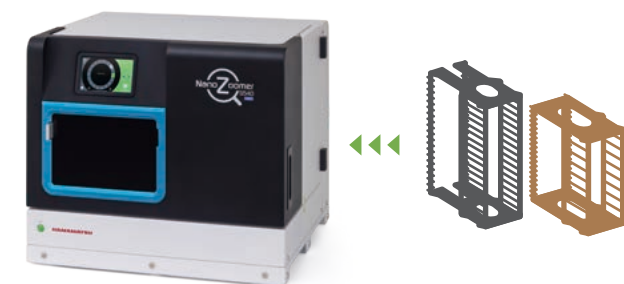
Featuring compatibility with stainer rack, fast slide scanning, exceptional image quality, and an intuitive touchscreen interface—making it a high-capacity scanner ready to meet the needs of the clinical pathology laboratory.



* Maximum capacity: 540 slides with a rack for 30 slides and 360 slides with a rack for 20 slides.

Rack compatibility

The NanoZoomer S540MD accommodates both 30-slide and 20-slide racks, including simultaneous use of both rack types. Users have the flexibility to configure the system based on their workflow needs. Standard delivery includes 20-slide racks.



*The NanoZoomer S540MD is designed for use with a dedicated cart. Images above shown without the dedicated cart.

Selectable scanning modes

Fully-Automatic scanning

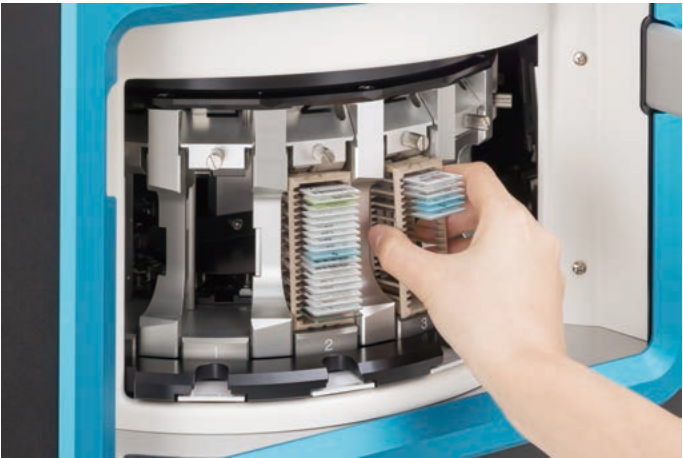
All scanning processes can be fully automated. Scanning begins immediately upon loading the rack, and the scanner's touch screen interface provides a clear visual indication of scan progress.

Semi-Automatic scanning

Set-up scanning conditions such as the scan area, focus point placement, Z-stacking, and resolution and to assign bespoke profiles to each slide or rack.

Continuous loading

Insert or exchange racks anytime—scanning continues without interruption. Set rack priority directly on the touchscreen or via the software.



Touch screen interface

Operate and monitor key scanning functions directly from the touchscreen.

- Start or stop scans and remove racks
- Set scan priority for racks
- View current scanning status



Start or stop scans and remove racks



Set scan priority for racks



View current scanning status

Profile functions

Scan profile

Save scan conditions such as scan area and sample size threshold for tissue recognition.

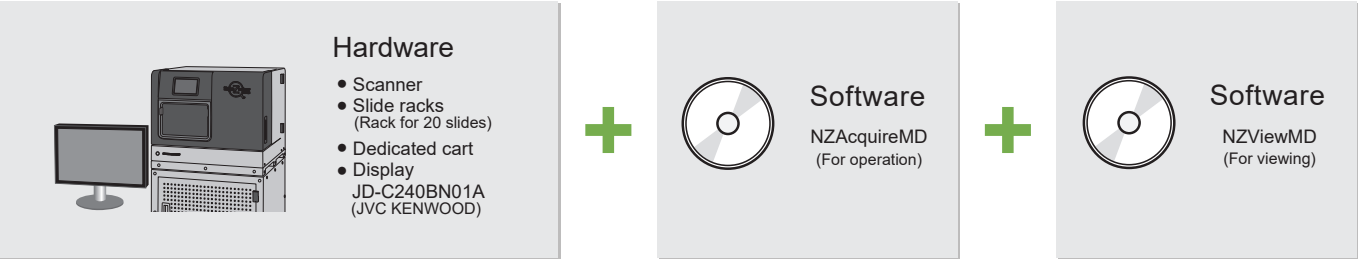
Output profile

Assign output file conditions, such as save location and file type parameters.

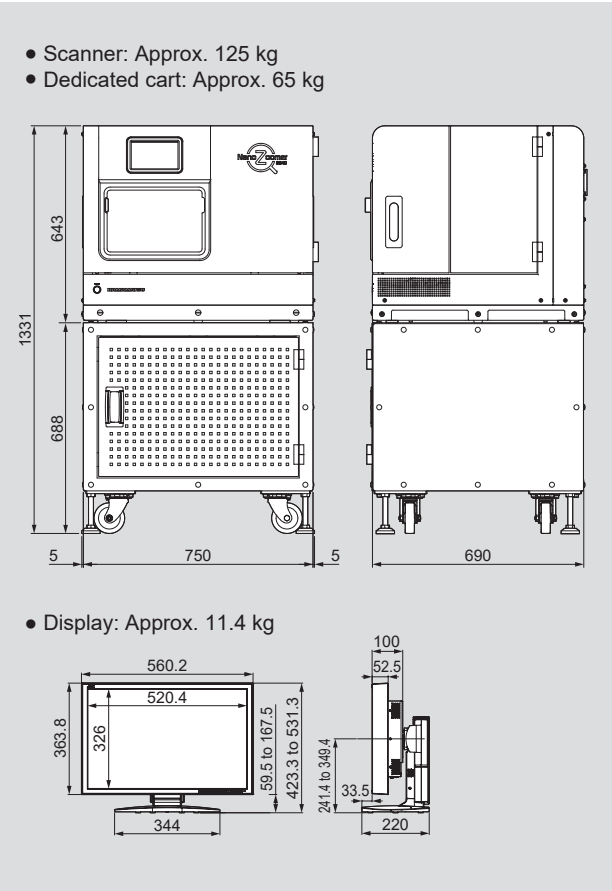
Quality check

QC (Quality check) mode is available to allow users to check image quality before finalizing whole slide image.

System configuration



Dimensional outlines (Unit: mm)



Specifications

Product name	NanoZoomer S540MD Slide scanner system	
Product number	C17400-01MD	
Scanning speed *1 (20× mode/40× mode)	Approx. 30 s/slide	
Throughput *1 (20× mode/40× mode)	More than 82 slides/h	
Objective lens	20× NA 0.75 User can select 20× or 40× mode at start of scanning	
Compatible glass slides	25.0 mm to 26.0 mm × 75.0 mm to 76.0 mm (Thickness 0.9 mm to 1.2 mm)	
Slide loader	Rack for 20 slides	Max. 360 slides (20 slides × 18 cassettes)
	Rack for 30 slides *2	Max. 540 slides (30 slides × 18 cassettes)
Scanning resolution	20× mode	Approx. 0.46 μm/pixel
	40× mode	Approx. 0.23 μm/pixel
Focusing method	Pre-Focus map	
Z-stack function	Included	
Image compression	JPEG compression	
Readable barcodes	1D Barcodes	Code 39, Code 128, Interleaved 2 of 5, Codabar, EAN-8 and UPC-E
	2D Barcodes	DataMatrix (ECC200)
Power supply	AC 100 V to AC 240 V	
Power consumption (Scanner only)	Approx. 200 VA	

*1 When scanning, it scans an area of 15 mm × 15 mm square with 5 focus points.
*2 This configuration is provided with the rack for 20 slides.

LASER SAFETY

The NanoZoomer S540MD is a Class 2 laser product. Hamamatsu Photonics classifies laser diodes and provides appropriate safety measures and labels according to the classification required for manufacturers by IEC 60825-1. When using this product, follow all safety measures as specified by the IEC.



Intended Use

The NanoZoomer S540MD Slide scanner system ("NanoZoomer System") is an automated digital slide creation, viewing, and management system. The NanoZoomer System is for creation and viewing of digital images of scanned glass slides that would otherwise be appropriate for manual visualization by conventional light microscopy. The NanoZoomer System is intended for in vitro diagnostic use as an aid to the pathologist to review and interpret digital images of surgical pathology slides prepared from formalin-fixed paraffin embedded ("FFPE") tissue. The NanoZoomer System is not intended for use with frozen section, cytology, or non-FFPE hematopathology specimens. It is the responsibility of a qualified pathologist to employ appropriate procedures and safeguards to assure the validity of the interpretation of images obtained using NanoZoomer System.

- NanoZoomer is a registered trademark of Hamamatsu Photonics K.K.
 - The product and software package names noted in this brochure are trademarks or registered trademarks of their respective manufacturers.
 - Subject to local technical requirements and regulations, availability of products included in this brochure may vary. Please consult your local sales representative.
 - The product described in this brochure is designed to meet the written specifications, when used strictly in accordance with all instructions.
- © 2026 Hamamatsu Photonics K.K.