APERIO GT 450
SLIDE SCANNER

BROCHURE

Fast forward
to next
generation imaging

Integrating innovation and
automation for research labs

For research use only. Not for use in diagnostic
procedures.

*International patent families including patent applications
and granted patents.

More than 30
Patents SMARTER*

**Accelerate Your Journey
Imagine The Possibilities**

Leica
BIOSYSTEMS

High resolution
Image quality   Confident Diagnosis
Limited rescans
Faster turnaround time Integrated work-flow   Craftsmanship   State-of-the-art   Fast viewing speeds
Next generation imaging for Scientists Peace of mind   Contrast
Resolution   Precision   Ease of use   DICOM

Designed to rapidly deliver images with excellent image quality for Scientists.

"I am really impressed with the sharpness and contrast of the images. It is definitely next-generation image quality."

– W. Dean Wallace M.D., Professor, Pathology and Laboratory Medicine, David Geffen School of Medicine at UCLA

Aperio GT 450 utilizes a high performance 40x objective manufactured by Leica, the company that has engineered world class optics since 1841.

- Excellent image quality using Leica optics.
- Automated image quality check and slide calibration during each scan.
- Small footprint, large capacity.
- No-touch continuous rack loading during scanning.

- Assign priority slides.
- Z-Stack Multiplane scanning that produces a composite, 3D image.**
- Automated Narrow Stripe enabling a rescan when the system detects image.

32 SEC — 32 sec scan speed at 40x*.

20x magnification available**

81 PER HR — 81 slides per hour at 40x*.

**120,000 PER YEAR** — Scan 120,000 slides per year operating the Aperio GT 450 for around 5 hours/day*.

*15mm x 15mm scan area @ 40x; assumes 5 hr. scan time per day for 300 work days per year

Aperio GT 450 open face design allows you to continuously load racks while scanning is in progress to maximize productivity.

Featuring automatic image quality control, so you have image quality confidence before your scans reach the Scientist.
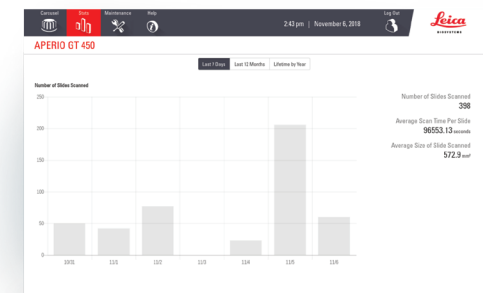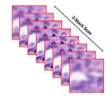
Stats page allows you to view slides scanned/day/month/year, average scan area and average scan speed.

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Aperio GT 450 illuminates tissue from both sides of the slide resulting in a 99.5% accurate tissue finder that recognizes faintly-stained tissue while excluding:

> Pen marks
> Stain residue
> Scratches
> Dust

Z-stacking enables scientists to review slide samples at varied levels of thickness, similar to a traditional microscope.**
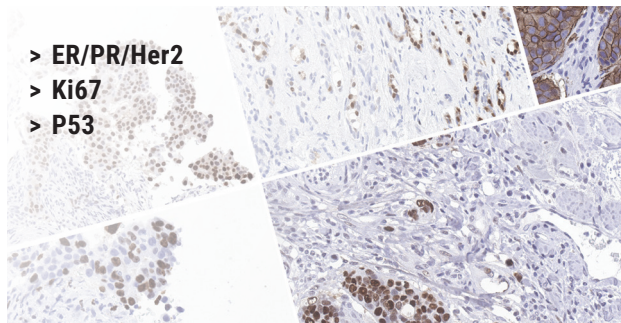
View and share images at multiple locations.
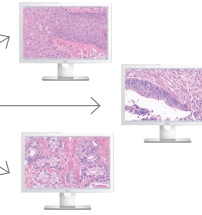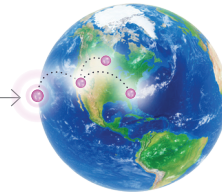
Aperio GT 450 applications:

> Cancer research
> Toxicology research
> Basic cell biology research
> Immunology research
> Digital archiving
> Drug development studies

"Good cellular details at high power and good focus throughout the tissue." – Sally Agersborg, MD, PhD, Medical Director, NeoGenomics Laboratories, Inc.

Access and organize your cases with Aperio eSlide Manager integrated into an LIS.
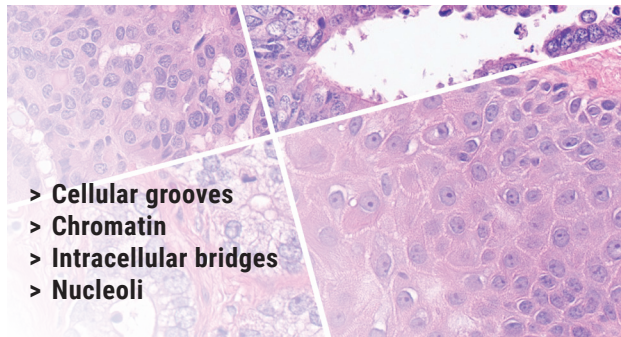
> **Cellular grooves**
> **Chromatin**
> **Intracellular bridges**
> **Nucleoli**

> **ER/PR/Her2**
> **Ki67**
> **P53**

> **Lung Cilia**
> **H Pylori**

Aperio Viewer or
Aperio ImageScope**

Integrated LIMS/LIS

Fast scans No shipping Confidence

Next generation imaging for Researchers Auto QC Fast-paced

First-time scan success Be more productive
Be on time

Cross-training Easy to use Continuous loading

Designed to deliver rapid results with confidence for researchers.

"The Aperio GT 450 is very easy to use and a companion in the lab."

– Brittney Hosac - Lab Assistant, NeoGenomics

Directly load racks from coverslipper to scanner.

HistoCore
SPECTRA CV

Leica

Leica

The products shown above, the HistoCore SPECTRA Workstation, in combination with the Aperio GT 450, are for Research Use Only (RUO).

For research use only. Not for use in diagnostic procedures.
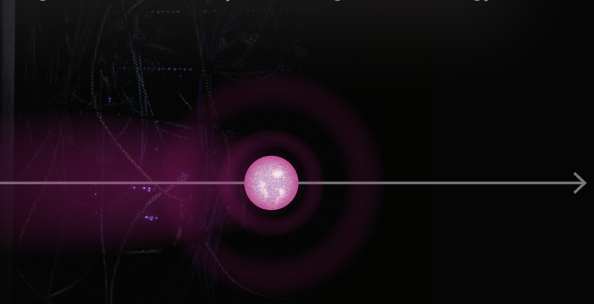
Login controls **Security** Store and forward Easy setup

High speed data transfer DICOM or SVS compatible

Next generation imaging for IT Professionals Flexibility

Large storage Encryption

Designed to deliver fast, secure, and scalable IT architecture for IT Professionals.

"The IT architecture for the Aperio GT 450, including the SAM central hub, is a gigantic leap forward to scale and support digital pathology IT operations."

– Chris Khacherian, UCLA Program Manager, Service Delivery, DGIT | Digital Technology

A secure, flexible and fast IT solution to scale up your Digital Pathology operations.

Cyber security including encryption and login controls.

HL7 and PACS ready, for **integration** into LIS, LIMS or PACS.
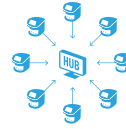
Securely scan slides at a **spoke** location and store images at a **Hub** location for all sites to log in and view images.

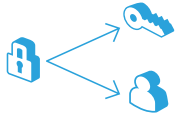**Store and forward:** store images temporarily then transfer during low IT traffic times.
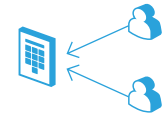
Set up user-specific **log in** for each Aperio GT 450.

A centralized Scanner Admin Manager (SAM) will allow IT professionals to scale up Digital Pathology operations securely and efficiently.

No more workstations needed. SAM server and software allow IT managers to set up and monitor GT 450 scanners via the network, including dashboard status views, PIN controls and log out times.

IT OFFICE
SAM APPLICATIONS SOFTWARE

IT ROOM
SAM SERVER

LAB

GT 450   GT 450   GT 450   GT 450

7
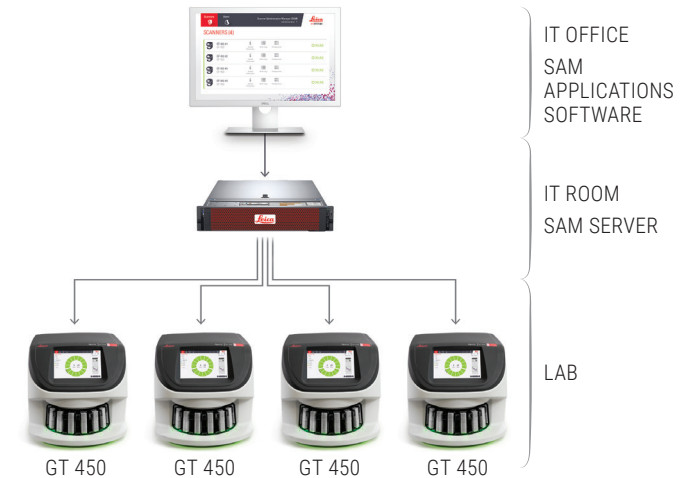
From the lab to the IT room the Aperio GT 450 was designed for **Scientists, Researchers,** and **IT Professionals**

Pathology Lab

IT Room

IT Manager's Office

Pathologist's Office

Aperio GT 450s

SAM server connected to multiple Aperio GT 450s.

DSR server stores images and runs eSlide manager.

SAM applications software connected to SAM server to set up and monitor scanners.

Aperio ImageScope / *Integrated LIS*

Aperio Viewing Station with calibrated monitor connected to DSR server.

**The Aperio GT 450 Release 1.3 consists of three upgrades that improve image quality and flexible scanning solutions in research settings: 20x magnification, Automated Narrow Stripe Scanning, and Z-Stack Scanning.

Aperio GT 450 Summary of Specifications

Maximum Slide Capacity	450
Rack capacity	15 racks of 30 slides, 15 racks of 20 slides
Racks compatible with Leica HistoCore SPECTRA Workstation	Yes
Continuous rack loading while scanning	Yes
Priority rack scanning	Yes
Z-stacking	Yes
Magnification	20x, and 40x
Resolution	0.26 µm/pixel at 40x
Scan speed (15mm x 15mm area at 40x)	32 sec
Sustained throughput (15mm x 15mm area at 40x)	81 slides/hr
Automated Image Quality Check	Yes
Slide sizes accepted	1x3
Field of View (FOV)	1mm
Bar code engines	1D and 2D symbology
Dimension	20.8" (52.83 cm) W x 28" (71.12 cm) L x 19.5" (49.53 cm) H
Weight	140 lbs (63.5 kg)

*Parts shown are each sold separately.

Part Number	Description
23GT450	Aperio GT 450 Scanner
23GT450SAM	Aperio GT450 Scanner Admin Manager (SAM) Server
23GT450SAMSW	Aperio GT450 Scanner Admin Manager (SAM) Applications Software
23Dell740XD21TB	Dell 740 XD image storage DSR 21 Terabytes
23Dell740XD42TB	Dell 740 XD image storage DSR 42 Terabytes
23Dell740XD85TB	Dell 740 XD image storage DSR 85 Terabytes
23Dell740XD138TB	Dell 740 XD image storage DSR 138 Terabytes
23VS101	Aperio viewing station (includes calibrated monitor, workstation, Aperio ImageScope viewer and optimized ICC file)
23GT450ZSTACKSW	Feature Pack

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Leica Biosystems is a global leader in workflow solutions and automation. As the only company to own the workflow from biopsy to diagnosis, we are uniquely positioned to break down the barriers between each of these steps. Our mission of "Advancing Cancer Diagnostics, Improving Lives" is at the heart of our corporate culture. Our easy-to-use and consistently reliable offerings help improve workflow efficiency and diagnostic confidence. The company is represented in over 100 countries. It has manufacturing facilities in 9 countries, sales and service organizations in 19 countries, and an international network of dealers. The company is headquartered in Nussloch, Germany. Visit LeicaBiosystems.com for more information.