

REVEALING THE INVISIBLE



INTRODUCTION

WORK FASTER, SMARTER AND EASIER

The Grundium Ocus is a game changing enabler of personal digital microscopy. The portable scanner enables any practice the capacity to scan slides in-house and acquire secondary consultations from external partners to improve their healthcare level.

The Grundium Ocus converts traditional glass slides into high resolution digital images enabling collaboration both on and off the lab. There is no need to prepare samples for shipping, or budget time for the availability of a specialist at the microscope when the samples arrive.

Small and affordable

Grundium Ocus is small and affordable enough be on every medical professional's desk, lab or medical school. Scanned high resolution digital slides can be viewed and analyzed on a big screen or shared for second opinion. With wireless connectivity and the time saved pathologists are free to work on far more cases at once.

A SMART PIECE OF TECH



*Unbeatable performance-price ratio
No wearing parts – no maintenance cost
Easy to deploy – installation in 5 minutes*



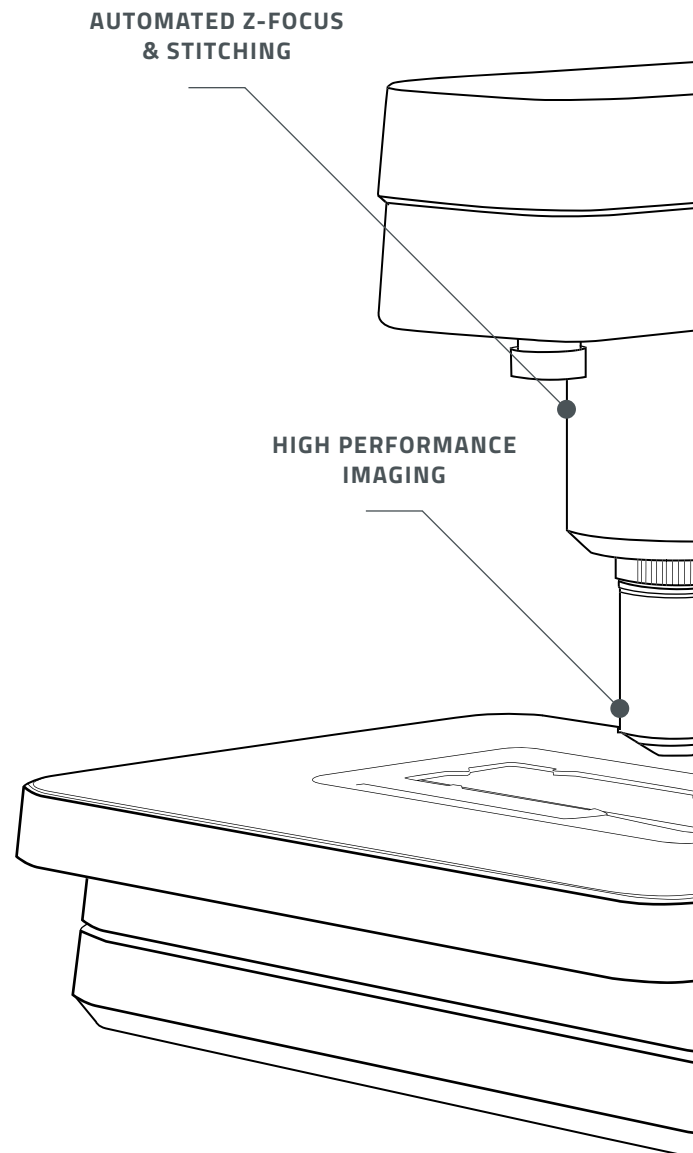
*Portable and durable device with premium materials
Automatic calibration, focus and scanning
Fits anywhere –small footprint (8" x 8" x 8")*



*Wireless connection – unlimited number of users
Easy to move – setup in 1 minute*



*Easy to use – web based user interface
Easy to train – e.g. technician in lab
Works with any device (desktop / laptop / tablet)*



APPLICATION AREAS

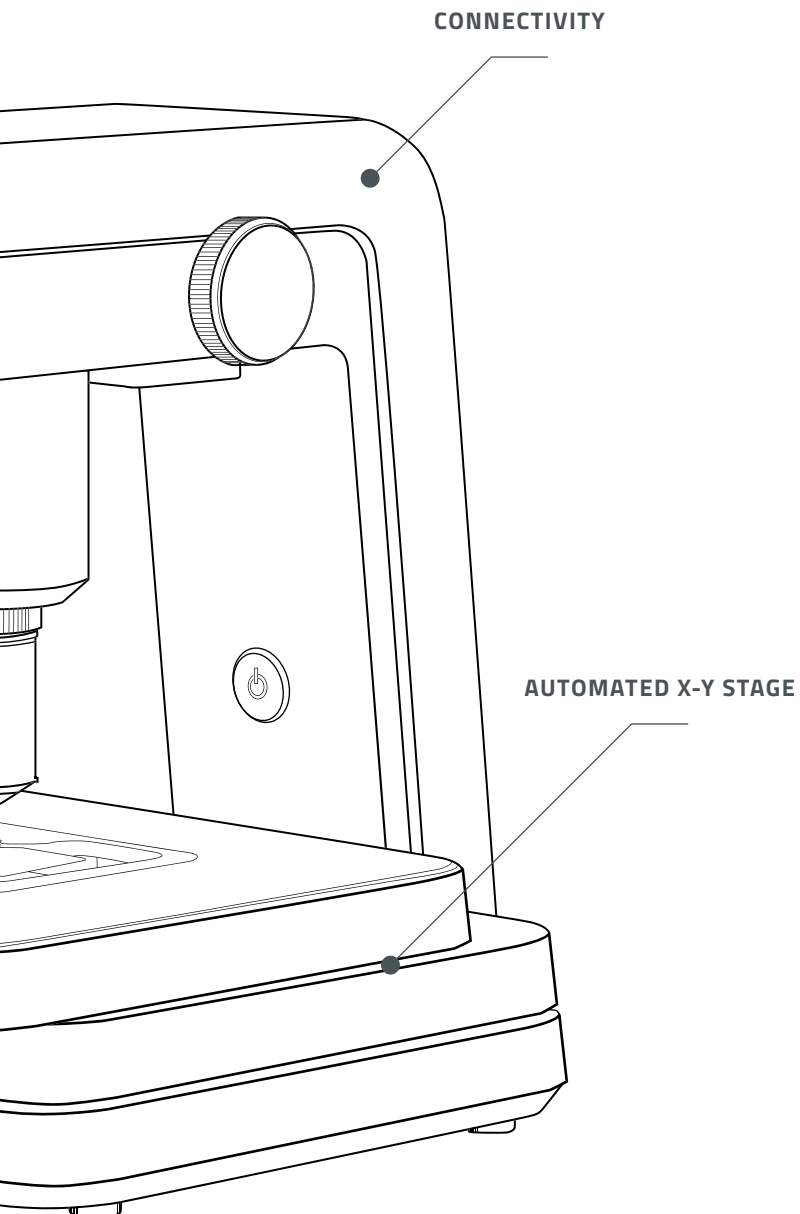
The portability of the Grundium Ocus is advancing digital microscopy in various fields of science.

MEDICAL

Remote Frozen Section
Rapid Onsite Evaluation
MOHS Surgery
Second Opinion
On-Demand Telepathology
Education
Veterinarian Pathology

OTHER

Material QC
Air Quality
Genomics



PORTABLE DEVICE WITH CRAFTED DESIGN

DIGITIZE MICROSCOPE SLIDES ANYWHERE

The Grundium Ocus removes the entry barrier for going digital. It removes the need for physical slide transfers between the clinic and the lab enabling live telepathology consultations between surgeons, pathologists and researchers on and off the lab.

Compact and Light Weight

A compact size, battery pack and wireless connectivity make the Grundium Ocus truly portable. Weighing only 3.5 kilograms it fits comfortably in carry-on luggage traveling conveniently to even remote locations with no medical facilities. Grundium Ocus is vibration resistant and can read even less than perfect frozen sections.

Smart and Connected

The Grundium Ocus can be easily connected locally to a laptop, tablet or smartphone. The images are stored in the internal 500 Gb memory and can be immediately shared with colleagues with any device. Independent Wi-Fi and Ethernet support enables direct internet connection, cloud support and remote access. The scanner can be used off-line as well.



KEY BENEFITS

Fits into carry-on luggage

100 % wireless

Vibration resistant

Deployment and setup in 5 min

Automatic focus and scan

Practically maintenance free

A close-up photograph of the Grundium microscope. The top part is a dark grey cylindrical head with 'GRUNDIUM' printed on it. Below it is a black cylindrical body. A silver objective lens is visible, with 'GRUNDIUM' and '20x/0.40' printed on it. The microscope is mounted on a dark grey base. A hand is visible at the bottom, holding the base.

GRUNDIUM

**Take
your lab
anywhere.**

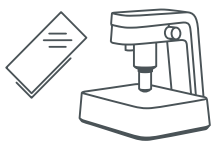
REMOTE LIVE VIEW – OPTIMIZED FOR FROZEN SECTION

ACCESS SLIDES REMOTELY IN REAL TIME

The Grundium Ocus enables pathologists to access slides remotely and view them in real time. It finds a place in every lab and can be operated by the lab personnel, removing the need for pathologist to travel to the lab to view the physical slide. The digital slide can be viewed in live view mode, which means there's no need for pre-scanning the slide, but the pathologist can view the slide and control the operation of the Ocus from a distant location.

LIVE REMOTE

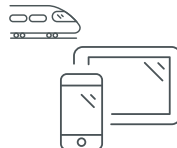
THE GRUNDIUM OCUS connects to internet from a lab. Technician, who prepares the slide, operates Ocus locally. i.e. places the slide to scanner.



WEB BROWSER



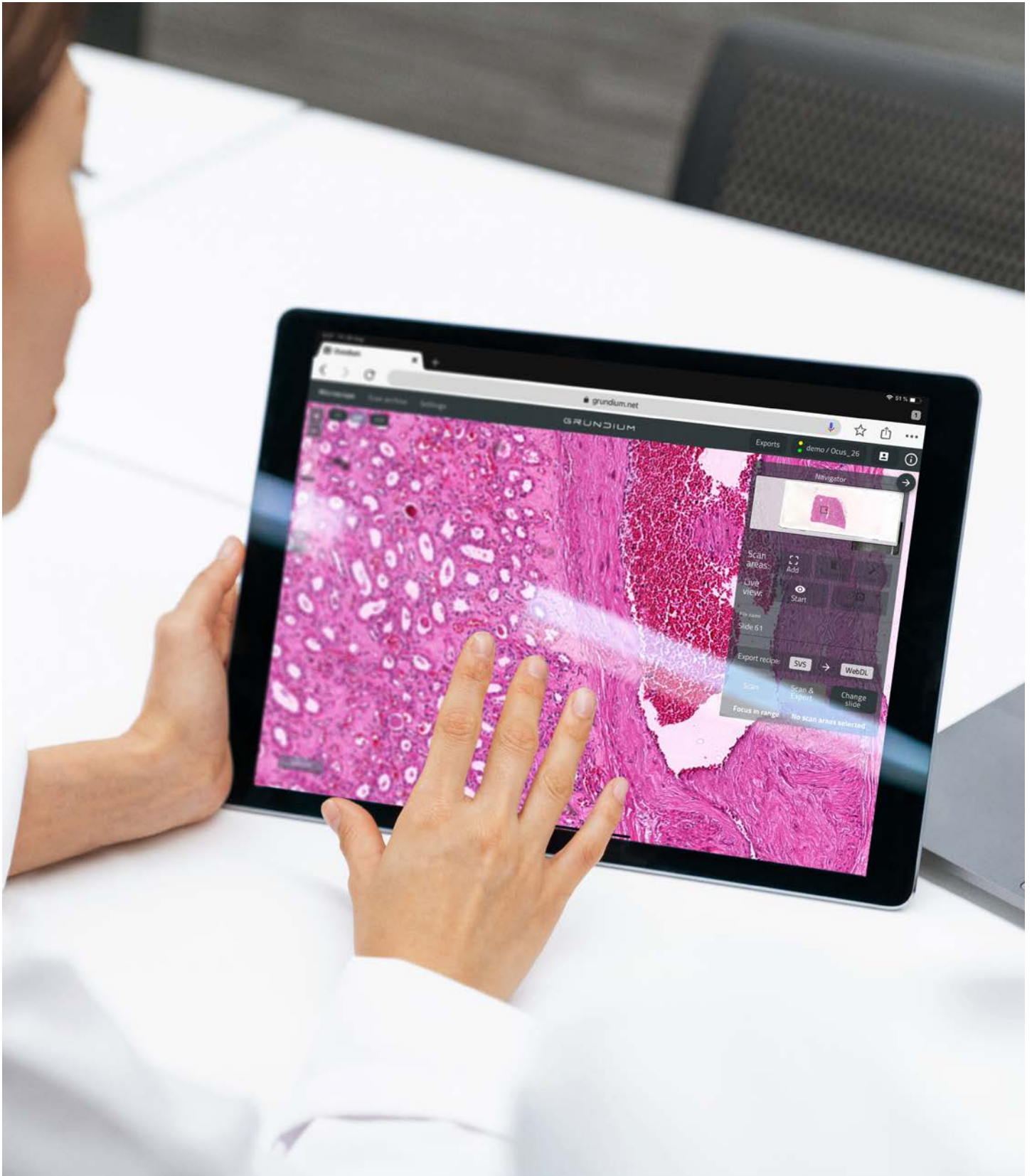
A PATHOLOGIST LOGS in to the Ocus software in their browser from a distant location, views the slide and gives report to the surgeon.



MULTIPLE PATHOLOGISTS can access the same Ocus from different locations.



**View in
live mode.**



KEY BENEFITS FOR FROZEN SECTION

No need to have pathologist on site
 Remote live view from anywhere
 Small footprint – finds its place in every lab
 Continuous autofocus in live view

100% focus and high depth of field (can handle variable quality slides)
 Latest state of the art security protocol for data transfer
 Open design – easy to clean
 Robust and easy to use

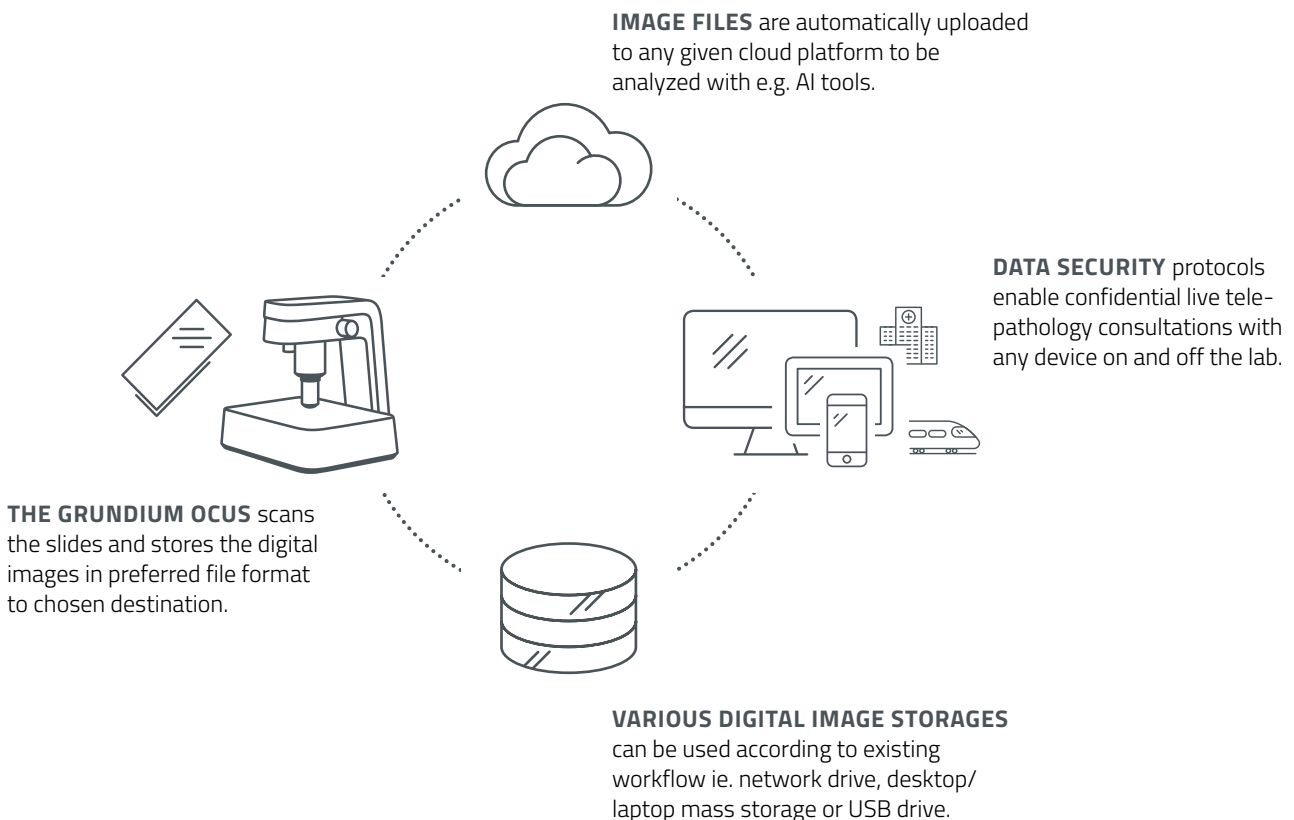
COMPATIBLE WITH ANY WORKFLOW AND SOFTWARE

DIGITALIZE & IMPROVE THE EXISTING WORKFLOW

The Grundium Ocus is designed to solve the biggest problems in digital pathology with full compatibility. The browser-based software supports all existing systems, software and file formats enabling full use of current workflow and eliminating the need to change the preferred workflow. The Grundium Ocus is compatible with all digital pathology workflows and platforms.

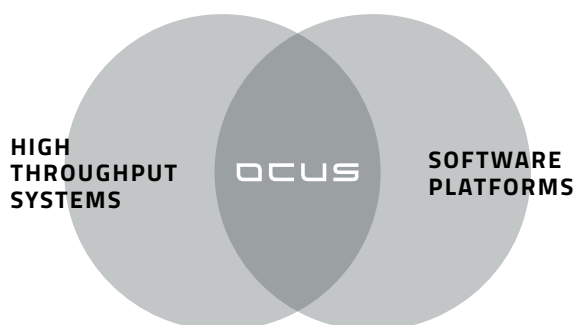
Quick and Simple

Thanks to its powerful embedded computer all processing takes place inside the scanner. First time deployment with setup is ready in five minutes. The scanning can be performed by any lab technician with 15 minutes of training.





FULL COMPATIBILITY



KEY BENEFITS

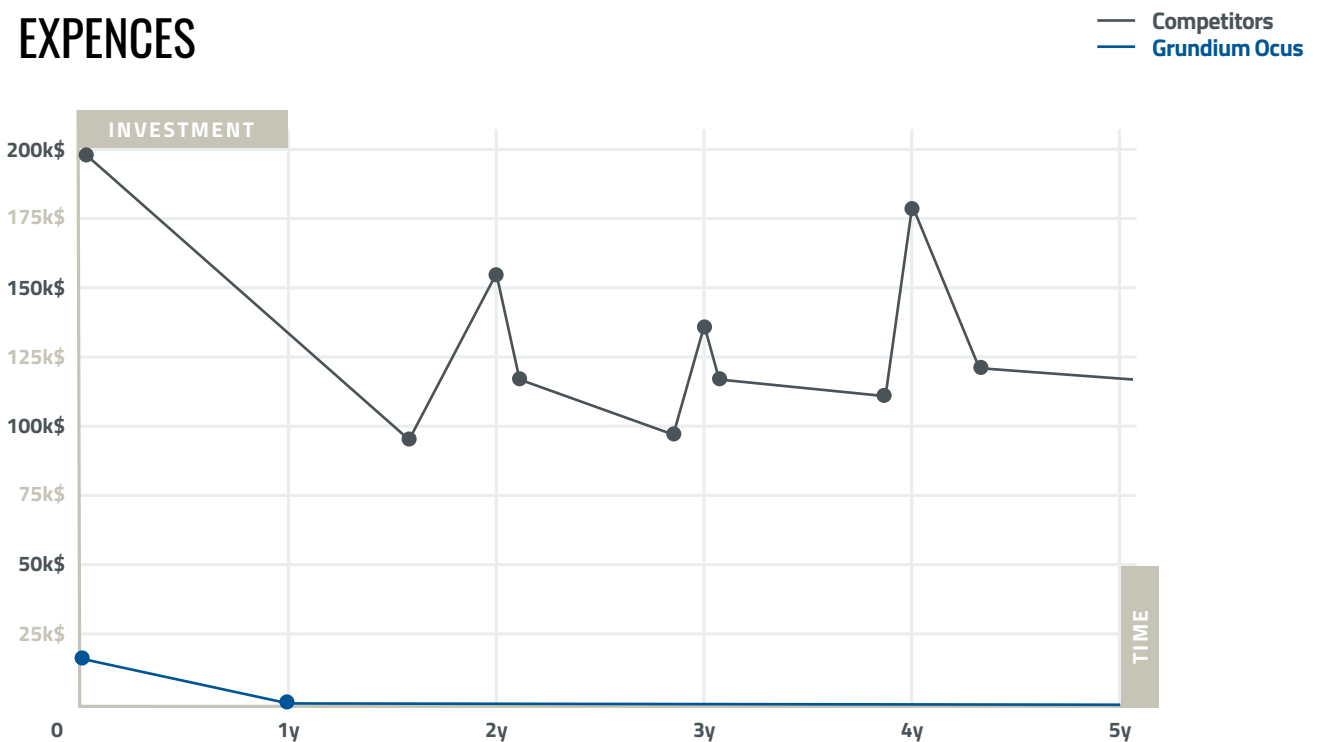
- State of the art data security protocols
- Supports major image formats and work flows
- No impact on the existing workflow
- First time setup in 5 minutes
- Moving and starting up in 1 minute
- Automatic focus and scan

AFFORDABLE AND CAREFREE

ADVANCE THE CURRENT LEVEL OF MEDICINE

With a price point matching its compact size, Grundium Ocus has what it takes to bring digital microscopy on every pathologist's desk anywhere in the world. As it operates from internet browser there's no need for specific computers or additional software. With no wearing parts or need for calibration Grundium Ocus is practically maintenance free. Thanks to the intuitive and simple user interface Grundium Ocus is easy to learn and use without IT support.

EXPENCES



ACQUISITION AND OPERATIONAL COSTS compared to Grundium Ocus and traditional pathology scanners.



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**No auxiliary costs,
software or
maintenance.**

KEY BENEFITS

- Competitive acquisition cost
- Minimum operating cost
- Unlimited number of users
- Easy to learn and use
- No auxiliary costs or software
- Remote user support

TECHNICAL SPECIFICATIONS

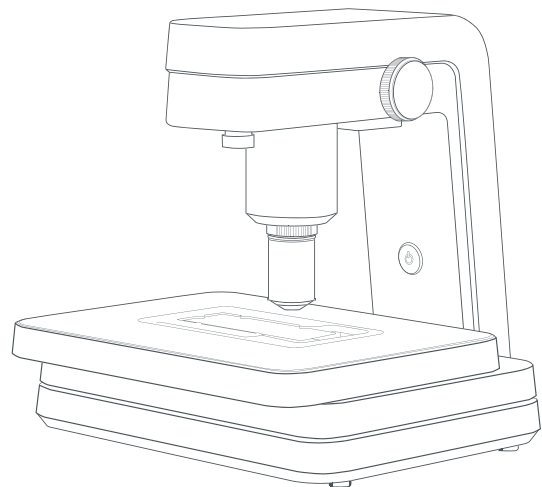
GRUNDIUM OCUS

The OCUS software runs on embedded powerful Nvidia CPU/GPU computer, which also acts as a web server. The user interface is web application and runs on Chrome, Firefox and Safari – there's no need to install additional SW application. You don't need to buy another computer, use your PC laptop/desktop, Surface, iPad, MacBook to access Ocus from anywhere.

Scanning a single slide is fully automated. The user selects the scan area and OCUS handles the rest. Scanning, continuous autofocus, stitching and saving the image all happens after a single press of a button.

The OCUS connects to network via 801.11ac WiFi or 1GigE ethernet and can be accessed anywhere through secure internet connection.

Grundium 20x objective produces sharp, high depth of field images, which are ideal especially for histopathology.



TECHNICAL INFORMATION

| | | | |
|-------------------------------|---|-------------------------|---|
| Slide capacity | 1 | Focusing | Automatic focus for each field in scanning, fine-tune in live mode, manual coarse |
| Objective / resolution | 20x: 0.48 μm / pix, 1x overview: 10 μm / pix | Stage | Motorized, automatic |
| Slide format | 75mm x 25mm | Scan area selec. | Freely selectable |
| Scan speed, 15x15mm | ~2 min | Memory | 500GB internal and USB memory support |
| Connectivity | 1GigE, 802.11ac WLAN | Computer | Embedded Nvidia visual computer |
| Image formats | TIFF, SVS | User interface | Major web browsers, touch screen support |
| W x D x H (cm) | 18 x 18 x 19 | Image viewer | Included + major 3 rd party viewers supported |
| Weight (kg) | 3.5 kg | | |
| Image sensor | 6M pixel | | |
| Illumination | Koehler LED | | |



ABOUT GRUNDIUM

REVEALING THE INVISIBLE

Grundium is a global leader in advanced imaging technology. Established in 2015 by ex-Nokia engineers, the Tampere-based company is democratizing digital pathology with the Ocus personal scanning microscope. The cutting-edge imaging solutions are based on over 20 years of experience in optics, sensors and processing. Grundium serves various industries and businesses enhancing quality and processes, protecting human life and safeguarding a clean environment.

READ MORE

www.grundium.com



GRUNDIUM

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