

The uScopeGX-20 is a digital, whole slide scanner designed for use with geological section slides. It connects to your desktop PC or laptop and captures images from standard glass slides using brightfield or polarized (0° – 90°) illumination. You can interactively browse slides with full control of focus, illumination, image processing, and location. You can scan regions of interest creating fully focused image sets.

The industry-standard USB interface makes it simple to plug in and get started. It easily interfaces with a high-performance desktop or laptop PC and captures whole slide images in a wide variety of environments and formats.

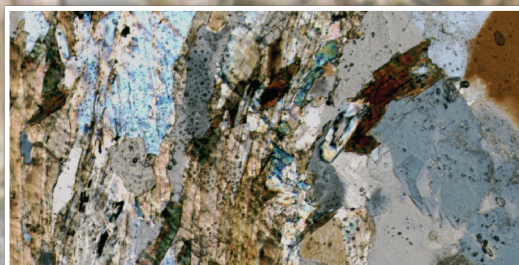
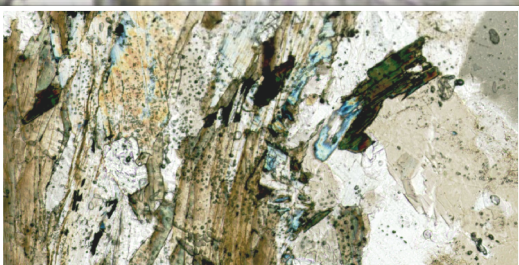
The uScopeGX is highly portable and easy to setup at work, in your home office, or on the road.

User-defined filter sequences enable you to apply multi-step image enhancement filters (brightness, contrast, gamma, look-up tables, sharpness, smoothing, and flat field correction) to captured images or image sets.

Whole Scan Images contain the entire scanned region of interest and allow you to navigate and zoom in and out. They are easy to create and may be saved in Deep Zoom or SVS file formats.

Every uScopeGX comes with a one year warranty and includes one year of software updates which you may extend annually.

The uScopeGX is manufactured in the United States.



Slide Tray Options

Geological slides come in a variety of sizes and each requires special consideration when it comes to scanning. We offer a number of different slide trays to accommodate customer slides.

1in×3in Slide Tray (Part No. SS2575R15)

A standard 1in×3in Slide Tray is included with each uScopeGX. This slide tray accommodates 1in×3in glass slides. Many (but not all) geological slides are prepared using slides of this size.

Parameters

Minimum Slide Width: 25.0mm
Maximum Slide Width: 27.25mm
Nominal Slide Length: 75.0mm

Maximum Slide Thickness: 1.6mm
Viewable Area: 24.9mm×54.5mm

1in×3in Thick (Deep) Slide Tray (Part No. ST2575R15)

The 1in×3in Thick Slide Tray is an optional tray that accommodates 1in×3in glass slides up to 2.6mm thick. This is an uncommon size that is sometimes used for geological slides. Some antique slides are very thick and require this slide tray.

Parameters

Minimum Slide Width: 25.0mm
Maximum Slide Width: 27.25mm
Nominal Slide Length: 75.0mm

Maximum Slide Thickness: 2.6mm
Viewable Area: 24.9mm×54.5mm

1in×2in Slide Tray (Part No. SS2550R15)

The 1in×2in Slide Tray is an optional tray that accommodates 1in×2in glass slides which are commonly used for geological slides.

Parameters

Minimum Slide Width: 25.0mm
Maximum Slide Width: 27.25mm
Nominal Slide Length: 50.0mm

Maximum Slide Thickness: 1.6mm
Viewable Area: 24.9mm×45.0mm

2in×3in Slide Tray (Part No. SS5075R15)

The 2in×3in Slide Tray is an optional tray that accommodates 2in×3in glass slides which are sometimes used for large geological and cement/agregate slides.

Parameters

Minimum Slide Width: 49.5mm
Maximum Slide Width: 51.75mm
Nominal Slide Length: 75.0mm

Maximum Slide Thickness: 1.6mm
Viewable Area: 47.1mm×60.5mm

1in Round Slide Tray (Part No. SS25CLR15)

The 1in Round Slide Tray is an optional tray that accommodates 1in round glass slides which are sometimes used for geological slides.

Parameters

Minimum Slide Diameter: 24.75mm
Maximum Slide Diameter: 27.00mm

Nominal Slide Thickness: 1.6mm
Viewable Area: 22.75mm diameter

30mm×45mm Slide Tray (Part No. SS3045R10)

The 30mm×45mm Slide Tray is an optional tray that accommodates thick, 30mm glass slides which are typically used for European geological slides.

Parameters

Minimum Slide Width: 29.5mm
Maximum Slide Width: 30.25mm
Nominal Slide Length: 45.0mm

Maximum Slide Thickness: 2.6mm
Viewable Area: 28.25mm×45.25mm

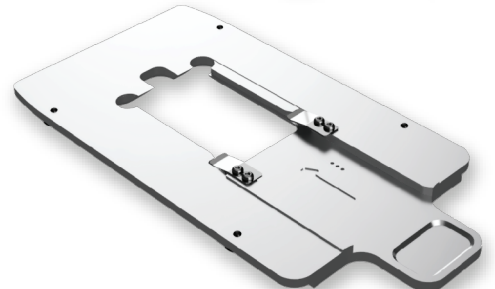
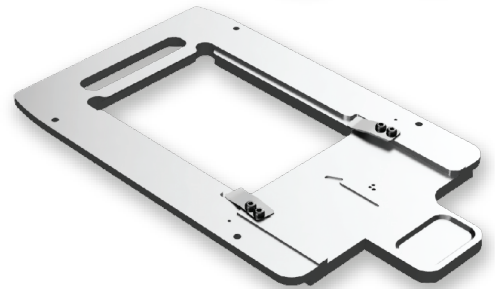
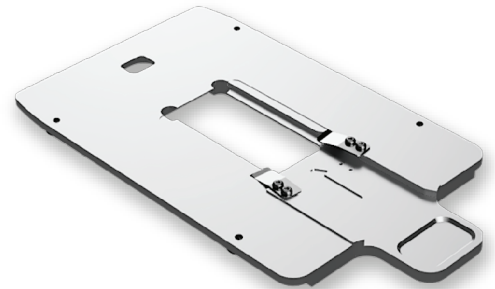
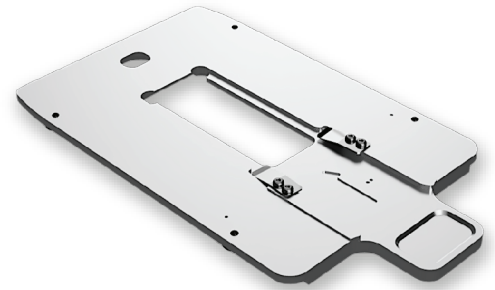
28mm×45mm Slide Tray (Part No. SS2845R15)

The 28mm×45mm Slide Tray is an optional tray that accommodates thick, 28mm glass slides which are typically used for European geological slides.

Parameters

Minimum Slide Width: 27.5mm
Maximum Slide Width: 29.25mm
Nominal Slide Length: 45.0mm

Maximum Slide Thickness: 2.6mm
Viewable Area: 24.5mm×45.25mm



Features & Benefits

Overview and Objective Cameras

The uScopeGX has two objective cameras for scanning (brightfield and polarized) and an overview camera for navigating.

Automatic Focus

Images are automatically focused using configurable focus algorithms.

Portability

At a weight of 15.5 lbs., the uScopeGX is highly portable.

Easy to Use

The uScope Navigator software simplifies scanning and browsing.

Self-Contained

The uScopeGX is self-contained and includes the electronics, cameras, stage, and optics.

Optional Slide Trays

Various slide tray sizes (1in×3in Deep, 1in×2in, 28mm×45mm, 30mm×45mm, 1in Round, and 2in×3in) are available.

Full Imaging Control

User defined filters provide control of image processing and image correction.

Configurations

Model	Description
uScopeGX-10	uScopeGX Digital Microscope 10x (0.25NA) 160mm Conjugate Objectives Brightfield and Polarizing
uScopeGX-20	uScopeGX Digital Microscope 20x (0.40NA) 160mm Conjugate Objectives Brightfield and Polarizing
uScopeGX-1020	uScopeGX Digital Microscope 10x (0.25NA) & 20x (0.40NA) Objectives 160mm Conjugate, Polarizing Only (No Brightfield)

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Technical Specifications

Dimensions

- Width: 7.75 in. (196 mm)
- Height: 6.57 in. (167 mm)
- Depth: 10.63 in (270 mm)
- Weight: 15.5 lbs. (7.0 kg)

Connectors

- Power: 2.0A, 24VDC
- Communications: USB 2.0

Operating Parameters

- Slide Capacity: Single Slide
- Illumination: Dual LED (White) Brightfield/Polarizing
- Analyzer Control: 0°–90° in increments of 5°
- Overview Camera: 1920×1080
- Objective Cameras: 960×540 (SD) or 1920×1080 (HD)
- Objective Camera Pixel Resolution:
 - 10x (0.25NA)
≈ 1.00µm/pixel @ 960×540
≈ 0.50µm/pixel @ 1920×1080
 - 20x (0.40NA)
≈ 0.50µm/pixel @ 960×540
≈ 0.25µm/pixel @ 1920×1080
- Field Image Format: JPEG (Q90) or PNG (lossless)
- Scanned Image Capture: Single Field, Tiled Fields, Deep Zoom Image
- Export Formats: JPG (Q90), BMP, PNG, TIFF, SVS

Operating Requirements

- Line Voltage: 100VAC – 240VAC
- Line Frequency: 50Hz – 60Hz
- Operating Temperature: 50° – 95° F (10° – 35° C)
- Storage Temperature: 10° – 105° F (-12° – 40° C)
- Relative Humidity: 0% – 80% non-condensing

PC Requirements

- High Performance PC Running Windows 7/8/10
- At Least 8GB RAM / 20GB Hard-Disk Space (SSD is Recommended)
- 1920×1080 or Higher Resolution Monitor
- Several Available USB Ports

Front View

7.75 in. / 196 mm



Side View

10.63 in. / 270 mm

