

# tech guide

## Anatomic and Digital Pathology Instruments and Tools

1. What is the brand name of your company's product for anatomic or digital pathology?

2. What is the latest version of your named product for anatomic and digital pathology; what year was this version first released to market?

3. What is the intended use or primary function of the product?

4. What types of specimen/sample does the product employ?

5. What types of diseases, conditions, or analytes does the product detect?

6. What level of magnification can be achieved; what level of image resolution is captured?

7. Under ideal conditions, what is the time to first result; how are the test results made available?

8. What are the product's maximum capacity and throughput under ideal conditions?

9. Briefly describe any automation or connectivity features or options that pertain to the product.

10. What is the typical training time for the product?

11. What types of technical support are available?

12. What capabilities, features, or accessories distinguish this product from others on the market?

### Aiforia

Helsinki, Finland  
www.aiforia.com

### Aurora mScope

Montreal, Canada  
www.aurorainteractive.com

### BioGenex

Fremont, CA  
Tel: 510-824-1400  
www.biogenex.com

The Aiforia Platform	Aurora mScope	NanoVIP
Released 2018	The latest version of mScope is 4.2. The first version was released in 2004.	FDA IVD Class I, 2019
Primary diagnosis	The product provides a cloud-based, vendor-neutral (agnostic to scanner and AI manufacturer) platform for digital pathology image management and workflow, with a highly customizable interface, and an ultra-fast image viewer.	Fluorescence in situ hybridization (FISH), in situ hybridization (ISH), immunohistochemistry, Multiplex immunofluorescence staining - OPAL Protocol & RNA Scope.
Any digitized 2D image for digital pathology, including but not limited to WSI, IF, serial sample sections and more.	DICOM images are supported, as well as the proprietary image formats of all major scanner manufacturers.	FFPE blocks, cyto-preparations, cytopins and smear slides.
All (Aiforia supports the analysis of any 2D image from any field)	Pathologists can use Aurora mScope to detect any disease they would through traditional pathology processes.	Mapping genetic abnormalities in tissue and cells, spatialtemporal patterns of protein-biomarkers, multi-omics with spatial proteomics & genomics
All levels of magnification and resolution (depending on the user's device can be achieved with Aiforia's software)	Any magnification level supported by the chosen scanner is supported in mScope.	N/A
Aiforia automates time-consuming image analysis tasks from 45 minutes per section with traditional methods to 5 seconds with Aiforia	Digital slides are available within mScope within minutes of the slide being output by the WSI scanner.	Execution of protocol in 2.5 hours to 24 hours with display device. Support for printing or LIMS.
There is no maximum capacity. An unlimited number of slides or images can be stored and analyzed in the Aiforia Platform.	Maximum capacity is limited only by available server storage space. Aurora mScope can support 100s of simultaneous users.	Maximum 10 slides with STAT or Continuous protocols.
The Aiforia Platform offers cloud-based software and tools for image-agnostic slide management and sharing as well as deep learning AI-powered analysis, which automates time-consuming and manual applications such as neuron body counting, tumor grading, and more.	Automated digital slide ingestion, automatic assignment of cases to pathologist (or group), automatic case prioritization (based on workflow rules), integration with LIS and health record systems.	Fully automated slide staining including hybridization and stringency wash.
This varies according to the complexity of analysis the customer wishes to perform. Onboarding typically takes a few weeks and is done remotely at the customer's convenience.	Online training is typically done over 2-3 hours.	1-3 days.
Each customer is assigned their own customer support scientist from Aiforia's team of experts, as well as: phone & email support, technical & user manuals. The Aiforia Platform is cloud-based therefore real-time support can be provided effectively and remotely.	Online support portal is available 24/7. Since the product is cloud-based, support is remote.	User manual, onsite, phone, and email support, product demo, training and protocol optimization.
The Aiforia Platform increases the speed, accuracy, and consistency of image analysis across any field in pathology. The Platform consists of a patented active learning tool and access to deep-learning AI through an intuitive tool that requires only an internet connection and the user's own domain knowledge to begin training AI models.	The vendor-neutral aspect of the product alleviates the need to train users on multiple software platforms. Aurora mScope is cloud-based, has virtual multi-headed microscope and other collaboration/consultation capabilities, contains an ultra-fast viewer with many types of tools and annotations, and supports highly customizable workflow.	Fully automated only benchtop system for FISH technique. Accurate temperature control over individual slides. Runs Spatial proteomics and genomics inclusive of OPAL protocol, and RNA Scope.

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BioView

Rehovot, Israel  
www.bioview.com  
978-670-4741

General Data Healthcare

Cincinnati, OH  
844-643-1129  
www.general-data.com

Gestalt Diagnostics

Spokane, WA  
509-492-4912  
www.gestaltiagnostics.com

1. What is the brand name of your company's product for anatomic or digital pathology?

Duet

LaserTrack Cassette Printers

PathFlow

2. What is the latest version of your named product for anatomic and digital pathology; what year was this version first released to market?

Latest version 3.8.1. Released in 2017.

LaserTrack PH1, PH6, PH8, JBY1, PH1 released in 2017

V3, released in 2020

3. What is the intended use or primary function of the product?

Diagnosis and reporting.

Diagnostics

Primary diagnosis, remote consultations, tumor boards, research, and education

4. What types of specimen/sample does the product employ?

Formalin fixed paraffin embedded, touch-preps and cell suspension

Tissue & biopsy specimen

Whole slide images

5. What types of diseases, conditions, or analytes does the product detect?

Detection and diagnosis of cancer and genetic aberrations.

Cancer

N/A

6. What level of magnification can be achieved; what level of image resolution is captured?

100x

Positive patient identification

Any any level of magnification can be supported, as defined by scanner.

7. Under ideal conditions, what is the time to first result; how are the test results made available?

Scan may last several minutes. Results are readily available upon scan completion to be reviewed and analyzed on satellite stations or via BioView's FDA-cleared & HIPAA web platform.

Prints cassettes every 3-12 seconds, depending on how much is being printed

Dependent upon the pathologist; diagnosis/findings are reported through final report and distributed via PathFlow or back to the LIS

8. What are the product's maximum capacity and throughput under ideal conditions?

System maximum capacity of 120 slides at a single batch. Supports unlimited and continuous loading and scanning of samples.

PH1: up to 320 cassettes; PH6: up to 480 cassettes; PH8: up to 480 cassettes; JBY1: up to 70 each magazine, 1-5 magazines

Unlimited scalability in number of cases, pathologist worklists, and whole slide images associated with cases.

9. Briefly describe any automation or connectivity features or options that pertain to the product.

BioView's platform offers advanced capabilities in FISH analysis for cancer and genetic abnormalities, detection of circulating tumor cells, whole slide imaging of histological sections, digital matching of H&E/IHC with FISH and computer-aided quantitative IHC scoring.

LaserTrack cassette printers use laser printing technology that consistently produces permanent, crisp text and 2D barcodes and delivers nearly perfect scan rates.

PathFlow's universal viewer and image management system allows for tight integration with any scanner vendor, laboratory information system, electronic medical record, etc.

10. What is the typical training time for the product?

Varies per test portfolio. A typical on-site initial installation and training lasts about 1 week. BioView closely works with the lab through onboarding and validation.

1-2 hours

3 - 3 1/2 days

11. What types of technical support are available?

Remote & On-site support

Software and technical support, depot and on-site service, nationwide repair, and customized service plans

5x9, 5x12, 24/7

12. What capabilities, features, or accessories distinguish this product from others on the market?

DUET offers whole slide imaging, FISH, tissue matching, computer-aided quantitative IHC scoring and detection of CTCs. Our users leverage offline analysis and Web-based applications to collaborate with their colleagues, work off-site and explore new business opportunities.

PH1 is capable of printing as fast as one cassette every 3 seconds. PH6 meets high-volume needs without manual changing of magazines; PH6 Sorter has built-in cassette management system; PH8 can print on 1, 2, or 3 sides of a cassette, PH8 Duo chute cassette management system moves cassettes to right or left for workflow efficiency.

PathFlow is a full digital pathology platform, providing a single, unified workflow for both glass and digital cases. It integrates with any scanner vendor, and multiple simultaneously, and can intergrade seamlessly with any, and multiple, ordering applications.

## Mikroskan

Carlsbad, Calif.  
(760) 893-8095  
www.mikroskan.com

## Milestone Medical Technologies

Kalamazoo, MI; Bergamo, Italy  
(866) 995-5300  
www.milestonemed.com

## Motic Digital Pathology

San Francisco, CA  
1-800-275-3716  
moticdigitalpathology.com

## NovoPath

Princeton, NJ  
Dayna Carlin, 734-658-0973  
www.novopath.com

Mikroskan L5	MacroPath	MoticEasyScan	NovoPath
Mikroskan L5 live-only remote robotic microscope, March 2017.	MacroPath QX, 2019	MoticEasyScan One, Pro and Infinity; January 2016.	V9; X20 cloud version is to be released in Q1 2021
Supports routine surgical pathology and cytology.	Documentation of gross images.	Whole slide imaging for international consultations, clinical research, tumor boards, and education.	Anatomic pathology and molecular LIS
Biopsy specimens, including fine needle aspiration biopsies, frozen sections, hematoxylin and eosin stained tissues, immunohistochemistry specimens, needle core biopsies, smears, and touch-preps.	Gross specimens.	Biopsy specimens including H&E stained tissues, IHC specimens, needle core biopsies, smears, and touch-preps.	N/A
Broad-based use, not disease specific.	Does not detect; used only for documentation.	Applicable for the majority of anatomic and clinical pathology use cases, including cancer and other pathological disease.	N/A
Device includes a suite of 5 Olympus objectives of 2x, 4x, 10x, 20x, 40x, with an optional 60x upgrade replacement. Equivalent optical magnification up to 120x.	30x optical zoom digital camera with autoiris and autofocus; resolution up to 20 megapixels.	Device includes 4x, 10x, and 20x objectives providing up to 80X imaging and up to 4K resolution.	N/A
Real-time assessment by a pathologist.	Instantaneous picture, audio, and video capturing.	100 scans for a 40x imaging	N/A
Low throughput (2 to 4 slide capacity) and medium throughput option (20-slide autoloader); intended for specific high-value applications where bench space is limited.	N/A	MoticEasyScan One: 1-slide capacity; MoticEasyScan Pro: 6-slide capacity; MoticEasyScan Infinity: 60 & 100-slide capacity	N/A
Autocalibration, auto sample detection, automated focusing and scanning. Accurate color representation software ensures the integrity of the sample is preserved. Can be remotely and securely accessed via any network worldwide.	Touchscreen monitor, autoiris, autofocus, connectivity via teamviewer, laboratory information system integration, network capabilities, onscreen annotations, audio/video capabilities, foot-pedal controlled, onscreen keyboard, various levels of licensing.	Autocalibration, tissue autodetection, LIS integration, z-stack scanning, z-stack snapshot, built-in barcode reader and metadata tagging, direct connectivity to the MotiCloud platform and our Digital Slide Server programs	NovoPath can interface with any EHR as well as most standard AP and molecular instruments.
Training and product setup are typically completed in less than 4 hours.	1 day.	Set up and training takes less than three hours	1-2 days per user
Annual warranty and support contracts, with the first year included. Mikroskan has a support hotline, onboard system diagnostics, and depot service.	Milestone offers 24/7 technical support with the ability to remotely connect and troubleshoot.	24-7 live support, with remote-connected troubleshooting available	Different levels are available including 24/7 support
Full illumination control, wide range of samples, use of non-coverslipped objectives for cytology, small footprint suited for histology vehicles and mobile transport carts between biopsy suites, real-time response for live robotic microscopy, rapid automated scanning for archival and retrieval.	A user-friendly system that provides high-resolution images, video, and audio files; can be mounted to fit any grossing station or used as a stand-alone system; remotely connects to outside facilities for telepathology consultations.	Designed for pathologists. Motic has 30+ years of technical innovation and optics expertise in microscopy: our products are simple to operate, effective and reliable.	Comprehensive specimen tracking; auto-case assignment; Integrated clinical, AP & molecular reports; ISO 9001: 2015 certified

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Paige

New York, NY  
646-849-5088  
www.paige.ai

Primer Technology

Plymouth, MN  
763-475-6676  
www.primera.com

Proscia

Philadelphia, PA  
215-608-5411  
http://proscia.com

1. What is the brand name of your company's product for anatomic or digital pathology?	Digital Pathology	Signature Cassette Printer	Concentriq Dx
2. What is the latest version of your named product for anatomic and digital pathology; what year was this version first released to market?	FullFocus	2015	The fourth generation was released in 2021.
3. What is the intended use or primary function of the product?	Digital Slide Viewing for primary diagnosis (CE marked for all digital pathology scanners. FDA cleared with images scanned on the PIPS Ultrafast scanner)	Prints barcodes and patient identification information directly onto cassettes.	Concentriq Dx is CE-marked for primary diagnosis and available for remote use in clinical practice in the United States during the COVID-19 public health emergency.
4. What types of specimen/sample does the product employ?	Digitally scanned slides	N/A	Whole slide images of formalin-fixed, paraffin-embedded specimens.
5. What types of diseases, conditions, or analytes does the product detect?	N/A	N/A	Not disease specific
6. What level of magnification can be achieved; what level of image resolution is captured?	As high as the native image	N/A	2x, 5x, 10x, 20x, 40x, 60x, 100x
7. Under ideal conditions, what is the time to first result; how are the test results made available?	Seconds after the image is uploaded. FullFocus is accessed via a web browser	N/A	N/A
8. What are the product's maximum capacity and throughput under ideal conditions?	FullFocus displays one case at a time, but has unlimited storage and user capacity as its cloud based-architecture scales based on need	Cassettes can be printed at up to 8 per minute.	N/A
9. Briefly describe any automation or connectivity features or options that pertain to the product.	Viewer designed for fast performance and real-time delivery of AI results. Options include automated case upload, case assignment based on LIS system, native AI system processing and results display	N/A	Automated image upload and scanner integration, automated case assembly, bi-directional laboratory information system integration, automated image analysis integration, support for third-party AI integration, automated tissue microarray de-array.
10. What is the typical training time for the product?	45 minutes	Approximately 1 hour.	30 minutes
11. What types of technical support are available?	Clinical and technical support personnel available	Phone and email support, Monday through Friday 8 am to 5 pm CST.	Phone and email 5x9 standard; additional support levels available upon request.
12. What capabilities, features, or accessories distinguish this product from others on the market?	Only FDA-cleared cloud-based viewer on the market. Designed for the delivery of AI results. Offers monitor flexibility and requires no on-premises hardware to be deployed	Offers color printing to help reduce inventory and purchasing activity for multiple color cassettes by printing colors directly onto white cassettes. Can print on 35- to 45-degree angles with lid on or off, no adjustments needed.	Enterprise scalability supporting large pathology networks & remote teams; pathologist-centric user experience; seamless AI integration for Proscia & third-party applications; intuitive consults and collaboration; best-of-breed interoperability with scanners, image analysis & LIS; digital transformation consulting services to guide your lab

**Spot Imaging/Diagnostic Instruments Inc.**

Sterling Heights, MI  
866-604-SPOT  
www.spotimaging.com

**Sunquest Information Systems**

Tucson, AZ  
520-570-2000  
www.sunquestinfo.com

**TRIBUN Health**

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Spot/PathSuite	Sunquest CoPathPlus	CaloPix
PathSuite 2.0.83 released 2021; PathCast 1.0.1 released 2020	v7.1, 2020	CaloPix 4.1.0, January 2021
Pathology image acquisition and management with secure telepathology software suite including grossing and microscopy cameras.	Sunquest CoPathPlus goes beyond a traditional anatomic pathology (AP) LIS to offer a highly customizable user experience aimed at satisfying the needs of even the most complex AP lab operations, while also enabling cost and resource savings, interoperability, and improved outcomes. Sunquest CoPathPlus includes Sunquest VUE to enable a streamlined and customizable workflow management for pathologists.	Diagnosis
Primary and frozen section biopsy specimens, frozen section microscopy, cytology fine needle aspiration smears, primary diagnostic slide examination, as well as, non-diagnostic sample tracking and documentation.	Configurable to support common anatomic pathology sample types such as surgical, cytology, autopsies, etc.	Primary diagnostic slide examination; frozen section microscopy; formalin-fixed, paraffin-embedded tissue; biopsies.
Used to investigate and document neoplasms.	N/A	Different pathologies and more particularly cancer disease.
Instrument dependent-grossing and microscopy	N/A	4x, 20x, and 40x objectives
Images are captured, autoprocessed, and autoarchived in 3 to 7 seconds	N/A	N/A
Central image archive is limited only by server storage capacity; image save times are typically between 3 and 12 seconds.	N/A	N/A
Autoannotation, autosave/archive, direct laboratory information system connectivity, autocalibrated images, and telepathology interface.	<ul style="list-style-type: none"> <li>Automate ordering tasks with advanced protocols</li> <li>Configure tracking locations &amp; automate routing</li> <li>Automated report generation from templates</li> </ul>	N/A
Less than 30 minutes	Varies by user role. In person and online training available	2 to 3 hours to learn the basic features
Online/phone help desk 9 to 6 EST.	Phone, chat, online knowledgebase and user forum	A helpdesk team is on hand to answer all your queries by email or phone. You can also access video tutorials available on our e-learning platform.
Central shared image archive, autoimage copy, autosave by case number, direct laboratory information system connection, secure telepathology module, streamlined workflow, common interface across each solution. Supports grossing, microscopy, and sample tracking	<ul style="list-style-type: none"> <li>Utilize voice recognition for gross and report dictation</li> <li>Navigate, edit, and compile reports following electronic Cancer Checklists (eCCs)</li> <li>Review and integrate clinical, molecular, and genetic reports into one AP report with PDF merge capabilities</li> <li>Integration with Digital Pathology scanners and software</li> </ul>	Our 360° Digital Pathology suite is fully integrated to the pathologists' workflow around CaloPix IMS. It covers the management, AI analysis and remote sharing of pathology cases, as well as cost-effective storage. Its uniqueness rests in the presence of many integrated modules that constitute a support at every stage of the pathologist's workflow.