

Midascan™ and Midascan-IR™ dual-channel scanner, Research Use Only

Midascan™ and Midascan-IR™ dual-channel scanner Products for imaging tissues, cells, and microarrays

MidaScan-IR™ is a dual channel (700 nm and 800 nm) near-infrared (NIR) confocal microscope scanner for imaging tissues, cells, and microarrays on standard glass or plasmonic slides.

- Provides NIR (700-800 nm) imaging and detection system with unprecedented high signal-to-background ratio (~ 4.5 logs)

MidaScan™ is a confocal imager for Cy3 and Cy5 channels in the visible spectrum.

MidaScan-IR™ combined with MidaScan™ provides high performance, large area confocal imaging in the 570 nm (Cy3), 670 nm (Cy5), 700 nm, and 800 nm fluorescence emission channels.

Combined with pGOLD™ slides, the platform affords 5-100 fold enhancement in signal/noise in the 500-900 nm range compared to conventional glass based slides.

Key benefits of the OptiMidas™ Microarray Scanner Platform include:

- Excellent detection sensitivity for cytokines, cell/tissue imaging, antibodies and antigens, protein microarray assays, and DNA/RNA
- Custom Assay development for high-sensitivity assays
- Requires ultra-low sample volume (<5 ul)
- Suitable for different sample matrices (whole blood, serum, and saliva)
- Reverse-phase protein assays
- Test up to 14 samples on one slide, 10-20 biomarkers per sample simultaneously
- Broad dynamic range (6 logs or larger)

Midascan™ and Midascan-IR™ Technical Specifications are listed below.



Nirmidas MidaScan-IR™ Dual Channel Scanner for imaging tissues, cells, and microarrays

OPTIMIDAS™ PGOLD™ Applications with Midascan™

Application areas include DNA, RNA, and Protein Microarrays, cell/tissue imaging, Immunohistochemistry (IHC), Single Molecule Imaging, and ELISPOT

Nirmidas provides all-inclusive kits, which may include dye-labeled detection antibodies, standard controls, diluents, and pGOLD™ biochips.

Other Applications

Fluorescence In Situ Hybridization (FISH), Förster resonance energy transfer (FRET), Fluorescence Recovery After Photobleaching (FRAP), Immunofluorescence Assays, Cellular Assays and more.

Available to purchase

Nirmidas MidaScan™ and MidaScan-IR™ are available to purchase today. Email us at sales@nirmidas.com

MidaScan™ and MidaScan-IR™ Specifications

Optical Specifications	MidaScan-IR™	MidaScan™
Resolution	3 µm max- Other values: 4,5,6,7,8,9,10,15,20,25,30,35 and 40 µm	3 µm max- Other values: 4,5,6,7,8,9,10,15,20,25,30,35 and 40 µm
Optical Resolution	2-7 µm 670 nm – spot diameter FWHM)	2-7 µm 670 nm – spot diameter FWHM)
Excitation	2 laser diodes with temperature and current-controlled: 670 nm and 785 nm	2 laser diodes with temperature and current-controlled: 635 nm and 532 nm
Fluorophores*	Compatible with 670 nm: Alexafluor 680, Alexafluor 700, DyLight 680, IRDye 680; Compatible with 785 nm: Alexafluor 790, IRDye 800, DyLight 800	Compatible with 635 nm: Cy5, Alexa 647, Alexa 660; Compatible with 532 nm : Cy3, Alexa 546, Alexa 555
Detection mode	Simultaneous / sequenRal / single channel	Simultaneous / sequenRal / single channel
Detection type	Real confocal with 2 digital photomultipliers (PMT)	Real confocal with 2 digital photomultipliers (PMT)
PMT gain	Linear from 0 to 100%; Real-time adjustable during a preview	Linear from 0 to 100%; Real-time adjustable during a preview
Focus	Realtime autofocus / Manual focus Manual focus offset adjustment 300µm range, 1µm increment approximately)	Realtime autofocus / Manual focus Manual focus offset adjustment 300µm range, 1µm increment approximately)
Laser power	2 fixed Laser Power 5mW/10mW)	2 fixed Laser Power 5mW/10mW)

Photometric Characteristics	MidaScan-IR™	MidaScan™
Dynamic range	>4 orders of magnitude > 6 orders of magnitude in dynamic range extension mode	>4 orders of magnitude > 6 orders of magnitude in dynamic range extension mode
Non-Uniformity	CV< 5%	CV< 5%

Software and Interface	MidaScan-IR™	MidaScan™
Interface	Ethernet	Ethernet
Image format	TIFF 16-bit and 20-bit grey scale	TIFF 16-bit and 20-bit grey scale
OS System compatibility	Windows XP, XP x64, Vista et 7, Linux	Windows XP, XP x64, Vista et 7, Linux
PC minimum config-	Please contact us	Please contact us
Supplied Software	MidaScan Software	MidaScan Software
Software Characteristics	Auto-PMT settings, Auto gridding and Auto-flagging, Scanning and analysis batch mode, Quality control module, Image analysis. Data normalization (Global and Lowess Smooth). Standard files format, Powerful plug-in capabilities.	Auto-PMT settings, Auto gridding and Auto-flagging, Scanning and analysis batch mode, Quality control module, Image analysis. Data normalization (Global and Lowess Smooth). Standard files format, Powerful plug-in capabilities.
Image sizes	Approximately 256Mb for a Tiff- file image of the whole slide at 5µm	Approximately 256Mb for a Tiff- file image of the whole slide at 5µm
Image File Format	.tif (a .jpeg file can be saved with result files)	.tif (a .jpeg file can be saved with result files)
Gridding tool	Use of .gal file or if unavailable possibility to create manually a grid	Use of -gal file or if unavailable possibility to create manually a grid
Data File Export Format	.gpr, .txt compatible with almost all data analysis software)	.gpr, .txt compatible with almost all data analysis software)
Work File	At any moment, image analysis processes can be saved as a work file (.mwk file)	At any moment, image analysis processes can be saved as a work file (.mwk file)

Other functionalities	MidaScan-IR™	MidaScan™
Barcode reader	Automatic barcode reading- Compatible with: CodaBar; Code39; Interleaved 2 of 5; code93; code2 of 5; iata code 2 of 5; matrix 2 of 5; code11; code128; telepen; upcA-E0-E1; eanJAN13/JAN8/UCC; msi; plessey; rss-14/limited/expanded; china post code; pdf417- we recommend to use labelled sticker, the quality of the barcode can influence the reading- do not hesitate to contact for any additional information)	Automatic barcode reading- Compatible with: CodaBar; Code39; Interleaved 2 of 5; code93; code2 of 5; iata code 2 of 5; matrix 2 of 5; code11; code128; telepen; upcA-E0-E1; eanJAN13/JAN8/UCC; msi; plessey; rss-14/limited/expanded; china post code; pdf417- we recommend to use labelled sticker, the quality of the barcode can influence the reading- do not hesitate to contact for any additional information)
Scanning area	Adjustable up to 22 x 74 mm ²	Adjustable up to 22 x 74 mm ²
Scanning time	3-55 min- per slide at 10µm, 2 colors) In manual setting standard mode), scanning time proportional to resolution and the scanning speed : 7min at 5µm, 12min at 3µm for a speed of 35 lines/sec- In autosetting mode, scanning time depends on the slide quality	3-55 min- per slide at 10µm, 2 colors) In manual setting standard mode), scanning time proportional to resolution and the scanning speed : 7min at 5µm, 12min at 3µm for a speed of 35 lines/sec- In autosetting mode, scanning time depends on the slide quality
Scanning speed	Adjustable from 10 to 35 lines/sec.	Adjustable from 10 to 35 lines/sec.
Preview	For the whole slide or for a scan area at 40, 30, 20 or 10µm with an adjustable speed from 20 to 35 lines/s	For the whole slide or for a scan area at 40, 30, 20 or 10µm with an adjustable speed from 20 to 35 lines/s
Scanning display	Real time display of the 2 colors	Real time display of the 2 colors
Scanner validation	Automatic with a validation slide (InnoSlide with 1 year of validity)	Automatic with a validation slide (InnoSlide with 1 year of validity)

General Specifications	MidaScan-IR™	MidaScan™				
Sample	All Standard microscope slides 25x75 mm ² / 1"x3" ISO standard 8037/1), Width: 25-26 mm Length: 75-76 mm Thickness: 0-9-1-2 mm	All Standard microscope slides 25x75 mm ² / 1"x3" ISO standard 8037/1), Width: 25-26 mm Length: 75-76 mm Thickness: 0-9-1-2 mm				
Weight	15-5 kg / 34-2 lbs	15-5 kg / 34-2 lbs				
Dimensions (LxDxH)	278 x 457 x 369 mm ³ 10.8 x 18.0 x 14.5 "	278 x 457 x 369 mm ³ 10.8 x 18.0 x 14.5 "				
Autoloader	Manual insertion of the slide.	Manual insertion of the slide.				
Power supply	100-240 VAC - / 47-63 Hz	100-240 VAC - / 47-63 Hz				
Fuse	1A at 110V / 500mA at 220V	1A at 110V / 500mA at 220V				
Consumption	Power	220V	110V	Power	220V	110V
	Initialization	41 W	30 W	Initialization	41 W	30 W
	Stand-by	30 W	20W	Stand-by	30 W	20W
	Connected	32 W	24 W	Connected	32 W	24 W
	Barcode Reading	35 W	26 W	Barcode Reading	35 W	26 W
	Scan	33 W	25 W	Scan	33 W	25 W

Standards	MidaScan-IR™	MidaScan™
General	RUO - Research Use Only Instrument Class I Laser Product	RUO - Research Use Only Instrument Class I Laser Product
Compliant with	CC 47 CFR part 15 class A radiated & conducted EN 61326-1, UL/CAN/CSA-C22.2 61010-1 UL/CAN/CSA-C22.2 61010-2-81 EN 61010-1 / EN 61010-2-81 CDRH title 21 CFR 1040.10 & 1040.11 class I Laser product EN 60825-1	CC 47 CFR part 15 class A radiated & conducted EN 61326-1, UL/CAN/CSA-C22.2 61010-1 UL/CAN/CSA-C22.2 61010-2-81 EN 61010-1 / EN 61010-2-81 CDRH title 21 CFR 1040.10 & 1040.11 class I Laser product EN 60825-1
Operating conditions	Temperature: From 18 °C to 26°C Humidity: 40 – 95% HR Altitude: 0 - 2300 m	Temperature: From 18 °C to 26°C Humidity: 40 – 95% HR Altitude: 0 - 2300 m