

## FLEXMAP 3D® System Specifications



### General

*Indoor laboratory and professional use only*

Physical dimensions:	58.4 cm Width (W) x 65.3 cm Depth (D)* x 54.7 cm Height (H) (23.0 in. W x 25.7 in. D x 21.5 in. H) Additional space required for the arm, monitor, keyboard, mouse and optional bar-code scanner does not exceed 64.8 cm (25.5 in) W by 61 cm (24.0 in) D. *Include the required 1.25 inches for proper cooling
Weight:	Up to 91 kg (200 lbs), including the instrument, monitor arm, monitor and accessories such as the keyboard, mouse, and barcode scanner
Operating Temperature:	15°C to 30°C (59°F to 86°F)
Operating Humidity:	20% to 80%, non-condensing
Altitude:	Operation up to 2400 m (7874 ft.) above mean sea level
Shipping and Storage Temperature:	0 to 50°C (32° F to 122° F)
Shipping and Storage Humidity:	20% to 80%, non-condensing
System Warmup Time:	30 minutes Systems that remain inactive for at least four hours will require a warmup to restart the lasers. The system resets the four-hour internal clock after acquiring the sample, running system calibrators, running system controls, or warming up the instrument.
System Initialization:	< 45 minutes (Including laser warmup and weekly calibration)
System Verification:	5 minutes
Temperature Control:	Maintains samples using the heater block at a constant temperature from 35°C to 60°C (95°F to 131°F), +/- 1°C of set point.

### Electronics

*USB 2.0-compatible communications link for fast data transfer*

Input Voltage Range:	100 - 120 V ~, 6.0 A, 50/60 Hz or 200-240 V~, 3.0 A, 50/60 Hz
UL Installation Category:	II - As defined in Annex J of the UL 61010A-1
UL Pollution Degree:	2 - As defined in Section 3.7.3.2 of the UL 61010A-1

## Optics

Reporter Channel Detection:	A/D resolution 16 bits
Reporter Channel Dynamic Range:	≥ 4.5 decades of detection (verified with beads dyed with high levels of organic dyes)
Reporter Laser:	532 nm, nominal output 15.0+5%/-0% mW, diode pumped; mode of operation, continuous wave (CW); maximum output 50 mW
Classification Laser:	638 nm, nominal output 12.0 to 12.5 mW, diode; mode of operation, continuous wave (CW); maximum output 15 mW
Reporter Detector:	Photomultiplier tube, detection bandwidth of 565 to 585 nm
Classification Detector:	Avalanche photodiodes with temperature compensation
Doublet Discrimination Detector:	Avalanche photodiodes with temperature compensation

## Fluidics

Cuvette:	200 micron square flow channel
Sample Injection Rate:	2 µL/second
Sample Uptake Volume:	10 to 200 µL
Sheath Flow Rate:	7.9 (± 0.9) mL/min
Sheath Pressure:	8 to 13 PSI for normal operations; 15 PSI maximum

## Microspheres

*Distinguish 1 to 500 unique xMAP® microspheres in a single sample*

Classification of xMAP microspheres:	≥ 80%
Total System Misclassification of xMAP microspheres:	≤ 4%
Internal Sample Carryover:	< 1.5 %

Detects a minimum of 500 fluorochromes of phycoerythrin (PE) per xMAP microspheres

Soluble background fluorescence emissions at 575 nm automatically subtracted from fluorescence intensity values

## PC and Monitor Specifications

Processor:	2.66 GHz Dual Core or higher ( 2.8 GHz recommended)
Main Memory:	4 GB RAM
Hard Disk Drive:	80 GB Hard Drive Space (160 GB recommended)
Ports:	Four USB version 2.0 compatible high speed ports DVD-RW drive
Operating System:	Windows® 7 Professional SP1 US English 32-bit or Windows® XP Professional SP3 US English 32-bit
Screen Resolution and number of colors:	SVGA 1280 x 1024 with 32-bit color
Screen Size:	43 cm (17 in)

All Luminex instrumentation is CE and Safety Agency marked (MET and/or UL and/or TUV and/or NEMKO) to electrical/safety device standards. For details on approvals and standards compliance please contact Luminex.

The FLEXMAP 3D is a Class 1 Laser Product

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