Luminex

xMAP® INTELLIFLEX System Specifications

General

Physical Dimensions	58.4 cm (23 in.) W x 61 cm (24 in.) D x 76.2 cm (30 in.) H Note: Allow an additional 3.18 cm (1.25 in.) clearance to all dimensions for proper cooling
Weight	54.4 kg (120 lbs)
Operating Temperature	15 to 30°C (59 to 86°F)
Operating Humidity	20 to 80%, non-condensing
Altitude	Operation up to 2,400 m (7,874 ft.) above mean sea level
Shipping and Storage Temperature	0 to 50°C (32 to 122°F)
Shipping and Storage Humidity	20 to 80%, non-condensing
System Warmup Time	30 min • Systems that remain inactive for at least 4 hours will require a warmup to restart the lasers • The system resets the 4-hour internal clock after acquiring the sample, running system calibrators, running system controls, or warming up the instrument
System Initialization	<45 min (including laser warmup and weekly calibration)
System Verification	5 min
Temperature Control	Samples are maintained at a constant temperature when using the heater block (from 35 to 60°C (95 to 131°F), +/- 1°C of set point)
Plate Run Time	96-well plate in ~20 min 384-well plate in ~75 min
Side Eject Door *DR-SE Model Only*	For automation control only

Electronics

USB for data transfer and connection to optional peripherals (keyboard, mouse, and/or printer)

Input Voltage Range	100–120 V, 6.0 A, 50/60 Hz or 200-240 V, 3.0 A, 50/60 Hz
Installation Category	II - As defined in IEC 61010-1:2017
Pollution Degree	II - As defined in IEC 61010-1:2017

Fluidics

Cuvette	200 µm square flow channel
Sample Injection Rate	2 µL/sec
Sample Uptake Volume	10 to 200 µL
Sheath Flow Rate	7.9 ± 0.9 mL/min, temperature viscosity compensated
Sheath Pressure	8 to 13 psi for normal operations; 15 psi maximum
Piercing Probe Capability	Yes
Auto-Adjusting Capability	Yes

Optics

Classification Laser	638 nm, nominal output 30 mW, diode; mode of operation, continuous wave (CW)
Classification Detector	Avalanche photodiodes with temperature compensation
Reporter Channel Detection	A/D resolution 16 bits
Reporter Channel Dynamic Range (RP1)	≥5.5 decades of detection (verified with beads dyed with a high concentration of organic dye)
Reporter Channel Dynamic Range (RP2) *DR-SE Model Only*	≥4.5 decades of detection (verified with beads dyed with a high concentration of organic dye)
Reporter Laser (RP1)	532 nm diode-pumped solid-state laser (DPSS); mode of operation, continuous wave (CW); output power varies based on mode with maximum output power of 50 mW
Reporter Laser (RP2) *DR-SE Model Only*	405 nm diode laser; mode of operation, continuous wave (CW); nominal output power of 50 mW
Reporter Detector (RP1)	Photomultiplier tube, detection bandwidth of 565 to 585 nm
Reporter Detector (RP2) *DR-SE Model Only*	Photomultiplier tube, detection bandwidth of 421 to 441 nm
Doublet Discrimination Detector	Avalanche photodiodes with temperature compensation

Microspheres
Distinguish 1 to 500 unique xMAP® Microspheres in a single sample.

Classification of xMAP® Microspheres	≥80%
Total System Misclassification of xMAP® Microspheres	≤2%
Well-to-Well Carryover	<4%

RP1 detects a minimum of 50 fluorochromes of phycoerythrin (PE) per xMAP® microsphere.
RP2 detects a minimum of 500 fluorochromes per xMAP® microsphere.
Soluble background fluorescence emissions are automatically subtracted from fluorescence intensity values.

Integrated PC and Integrated Barcode Reader

Ports	USB – 1 port on front of system, 4 ports in rear Ethernet – 1 port in rear of system (CAT5 10/100/1,000 Mbps)
Operating System	Microsoft® Windows® 10 IoT Enterprise LTSC
Screen Resolution	1,366 x 768 pixels
Screen Size	39.6 cm (15.6 in.)
Barcode Reader	For importing target values from the xMAP® INTELLIFLEX Calibration and Performance Verification Kits

The xMAP® INTELLIFLEX System has been tested and complies with the safety requirements for the United States and Canada and is marked with the TUV label. The xMAP® INTELLIFLEX System complies with the European Union (EU) safety requirements and therefore may be marketed in the Europe Single Market. For details on approvals and standards compliance, please contact Luminex Corporation.

Luminex®
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