

OVERVIEW

The LightDeck MINI is an automated, fluorescence-based multiplexed microarray analysis system intended for the rapid quantitative measurement of analytes within a fluidic sample. The reader utilizes LightDeck's proprietary LightDeck® technology to capture images of the fluorescence generated by the microarray. The LightDeck-T software, running on an external host computer, controls the reader. The software analyzes images of the array taken by the reader and displays the test results to the user.



The LightDeck MINI works with a single use, disposable, cartridge which contains the printed microarray. A small sample volume (100 µL) is introduced into the cartridge. The cartridge is then placed in the reader, the sample flows into a fluidic channel over the printed microarray, and all instrument functions and analysis are performed by the LightDeck®-T software, presenting quantitative results to the user. Upon completion, the cartridge is removed and discarded.

The LightDeck MINI is designed to be simple to use and is intended for use by a broad user base, specifically any individuals trained in the proper handling of the samples that are added to the cartridge.

SPECIFICATIONS

Compatible Cartridges	LightDeck A-series
Detection method	Fluorescence-based microarray imaging with excitation at 635-645 nm and detection at 655-720 nm
Imaging area	0.16" x 0.79" (4 mm x 20 mm)
Laser Safety Class	Class 1
Analysis Time	<20 seconds
Software	LightDeck-T
Software Requirements	Windows 7 or higher and USB 2.0 or higher interface
Supplied Peripheral Components	<ul style="list-style-type: none"> • USB 2.0 A to B cable • Power supply and cord for use in the United States of America • USB Flash Drive containing LightDeck-T Installer • LightDeck MINI User Manual • Fixed volume 100 µL pipette • 30 disposable pipette tips
Dimensions	6.5" W x 8" D x 6.5" H (16 cm W x 20 cm D x 16 cm H) When shipped 12.3" W x 9.3" D x 8.2" H (31 cm W x 24 cm D x 21 cm H)
Weight	2.5 lbs (1.1 kg) When shipped 4.5 lbs (2.0 kg)
Electrical Power	<ul style="list-style-type: none"> • Input to power supply 100-240 V, 50-60 Hz, 180-220 VA • Output from power supply 12 V, 2.5 A DC
IP Rating	Designed to IP5X
Operating Environment	<ul style="list-style-type: none"> • 10-32 °C (50-90 °F) • 10-85% relative humidity, <2000 m altitude
Storage Environment	<ul style="list-style-type: none"> • 0-45 C (32-113 °F) • 10-85% relative humidity,
Expected Lifetime	>10,000 cartridges
Calibrations	Factory calibrated with no further calibration or verification needed
Design Standards	<p>The LightDeck MINI has been tested to and complies with the following standards:</p> <ul style="list-style-type: none"> ○ 2014/35/EU Low Voltage Directive, 2014/30/EU Electromagnetic Compatibility Directive, Harmonized standards: EN 61010-1:2010, EN 60825-1:2014, EN 61326-1:2013, EN 55011:2009 +A1:2010 <p>The LightDeck MINI complies with Part 15 of FCC regulations and FDA regulations 21 CFR 1040.10 and 1040.11, except for deviations pursuant to Laser Notice No. 50.</p>



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