

**Colorlight**

# Mica 310B

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**Ink Color Sorting System**

**Specification v2.4**

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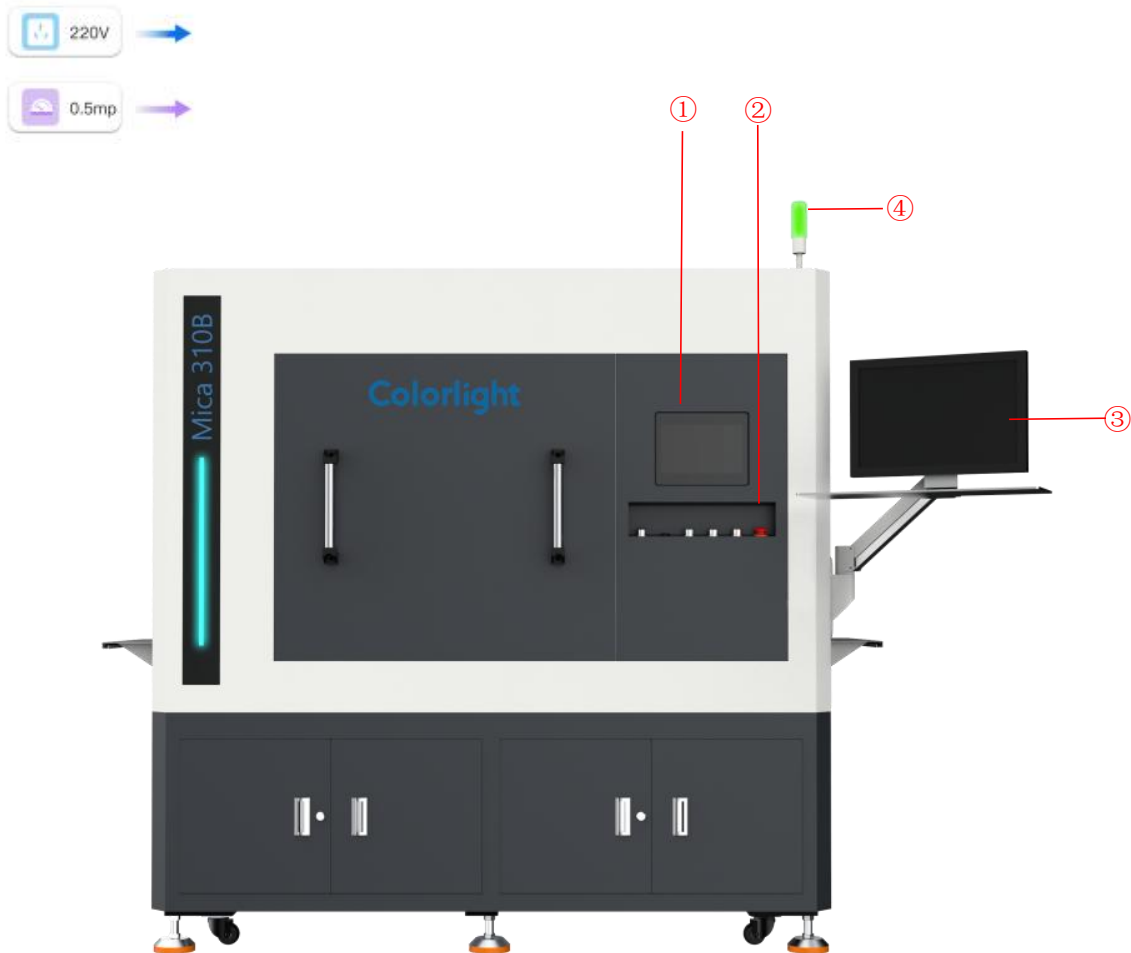
# 01 Introduction

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The Mica 301B Ink Color Sorting System is Colorlight's self-developed solution for detecting and sorting MLED modules, PCBs, and masks based on the ink color.

The system operates with simulated daylight and integrates multiple scientific-grade image capture devices to collect and analyze data from various angles. This allows it to accurately detect the reflections of ink color on finished modules, PCBs, and masks across different wavelengths and angles. Based on the preset thresholds and detection results, the system performs automatic sorting, greatly enhancing quality control and production efficiency.

## 02 Appearance



No.	Name	Description
1	Touch screen	Displays current status and user interfaces for setting parameters and functional operations.
2	Switches	Include buttons: E-Stop, Start, Stop, Reset, USB, and Power On/Off.
3	PC peripherals	Include monitor, mouse, and keyboard.
4	Indicator light	Features red, green, and blue lights.

### NOTE

- **220V:** Indicates that a 220V power supply is required.
- **0.5mp:** Indicates that a 0.5MPa air pressure is required.

## 03 Features

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### Automatic detection of various modules

- Automatic detection and sorting of MLED modules ink color:
  - COB module
  - SMD module
  - GOB module
- Automatic detection and sorting of solder mask on PCBs
- Automatic detection and sorting of masks

### Precisely collecting data from multiple angles

- Simulated daylight for natural visual environment
- Three-angle image capture for complete data collection
- Automatic dust removal ensuring data accuracy
- Interior darkroom for various production lines

### Controllable sorting standards

- Based on CIEDE standard
- Automatic threshold training for precise sorting
- Adjustable threshold to meet diverse sorting requirements

### Easy and convenient operations

- One-click start, real-time display of sorting results
- Automatic track width adjustment to match up with different product sizes ranging from 125×125mm to 375×375mm
- Supporting integration with MES, ERP, and other production management systems

## 04 Software Highlights

- Threshold settings for precise control

CIEDE			
标准种类	全部		
Det E	45°	90°	135°
	0.30	0.30	0.30

- One-click category sorting and statistics



- Auto assembly for easy screen configuration

拼装图示

按ID显示 按类显示 当前分类 2类

行	列	1	2	3	4	5	6
1		013	013	014	015	016	017
2		022	023	024	025	026	027
3		022	023	024	025	026	027
4		012	013	014	015	016	017
5		012	013	014	015	016	017
6		012	013	014	015	016	017
7		012	013	014	015	016	017
8		012	013	014	015	016	017

- Code scanning to identify product category and position

分类查找

当前分类 3

扫码枪  
 启用  
 端口号 COM1   
 分类数据文件 C:\Users\Administrator\Do...   
 查产品所属类  
 产品编号 A0001

临界产品: 1、2、其他类

拼装图示

按ID显示 按类显示 当前分类 2类

行	列	1	2	3
1		013	013	014
2		022	023	024

## 05 Specifications

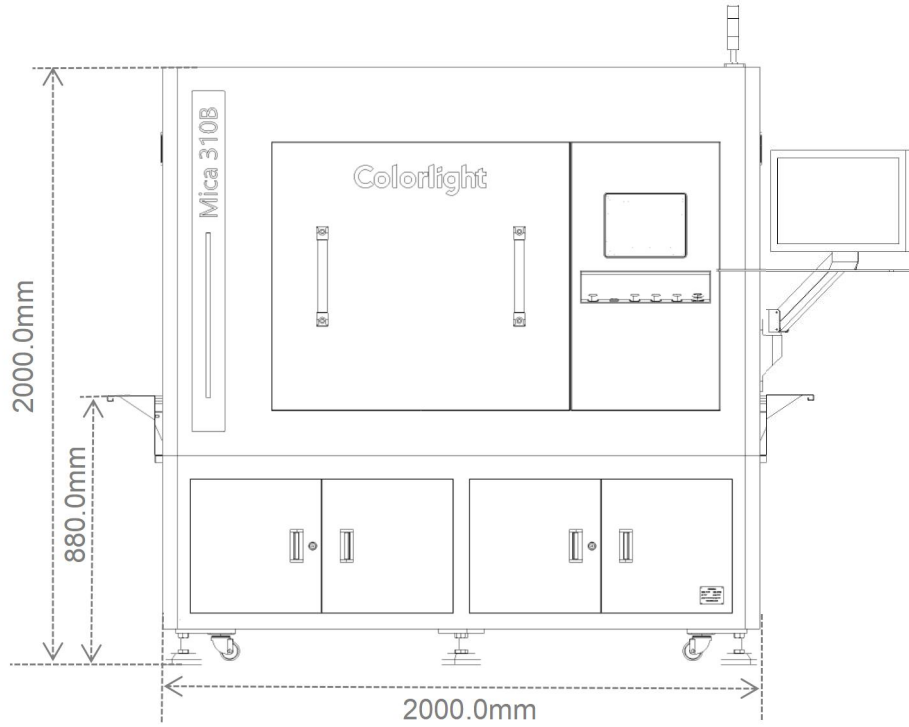
Properties	
Series	Mica
Model	310B
System Accuracy	
Luminance (Y)	±1%
Chrome (x, y)	±0.003
Repeatability	
Luminance (Y)	±0.15%
Chrome (x, y)	±0.0005
Efficiency	
UPH	≈220 pcs/h
Dimensions (L×H×W)	
Equipment	2000.0mm(78.7")×2000.0mm(78.7")×1000.0mm(39.4")
Package	2400.0mm(94.5")×2400.0mm(94.5")×1400.0mm(55.1")
Weight	
Net	≈1200kg (2645.55lbs)
Electrical Parameters	
Power supply	AC 200-240V, 50/60Hz
Max. power	1.2kW
Input air pressure	0.5MPa~0.7MPa
Indoor vibration	≤1μm/s
Operating Environment	
Temperature	5°C~40°C(41°F~104°F)
Humidity	25%RH-50%RH, non-condensing
Storage Environment	
Temperature	-10°C~60°C (14°F~140°F)
Humidity	25%RH-50%RH, non-condensing
Placement	
The equipment must be placed horizontally. Do not turn it over or place it vertically.	

Others			
Noise level (typical at 25°C/77°F)	<45 dB(A)		
Packing list	No.	Items	Quantity
	1	Assembly line equipment (Mica 310B)	1
	2	Camera	3
	3	Light source	2
	4	Industrial PC	1
	5	Monitor	1
	6	Keyboard & mouse	1
	7	Color correction card	1
	8	Hex key set	1
	9	Safety door key	1

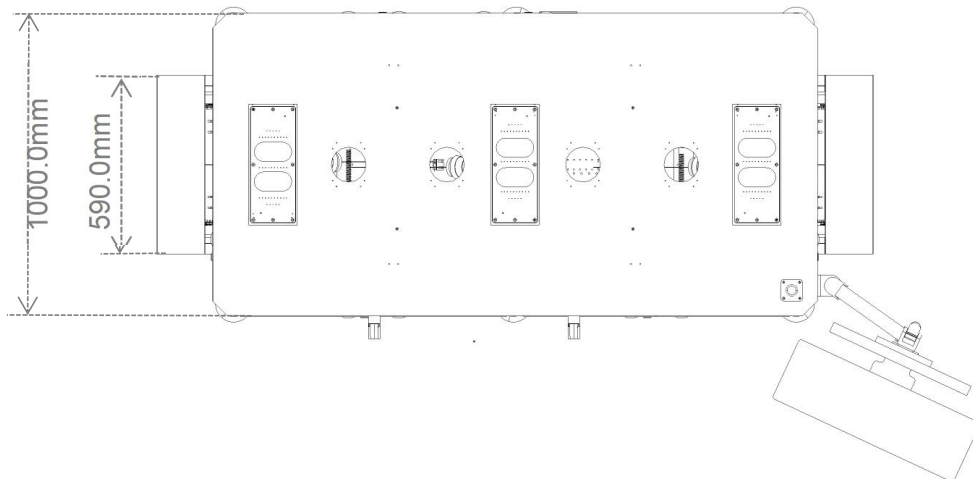
# 06 Reference Dimensions

Unit: mm

Front



Top



## 07 Statement

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# Colorlight

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