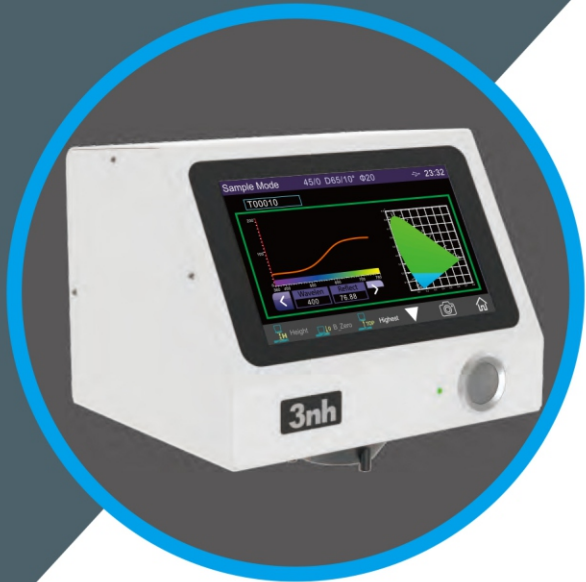




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# YL4568L

The online desktop spectrophotometer YL4568L is a color measurement instrument using the 45/0° (45° annular uniform illumination 0° reception) standard. The test probe and the tested sample are non-contact tested to achieve non-contact precision color measurement of liquids, sauces, powders, and other materials. The simple probe design allows this product to be placed anywhere on an automated production line for accurate color measurement and color quality control. It is widely used in cosmetics, fruits and vegetables, food hygiene, plastic electronics, paint and ink, printing, ceramics, and other industries, and can be used for fluorescence sample measurement. Its unique innovative design not only provides non-contact measurement solutions directly from the production line, but also ensures stable and high-precision measurement results.



## ONLINE DESKTOP SPECTROPHOTOMETER



7in Color touch screen



USB/Bluetooth®



Measurement wavelength  
400-700nm



Camera viewfinder  
positioning

# Online desktop Spectrophotometer YL4568L



## Powerful

- Suitable for color difference quality control in plastic electronics, paint and ink, textile and clothing printing and dyeing, printing, ceramics, and other industries
- Supports WI (ASTM E313, CIE/ISO, AATCC, Hunter), YI (ASTM D1925, ASTM 313), Metachromatic index MI, color fastness to staining, color fastness to discoloration, Measurement of force, covering degree, etc

## Durable

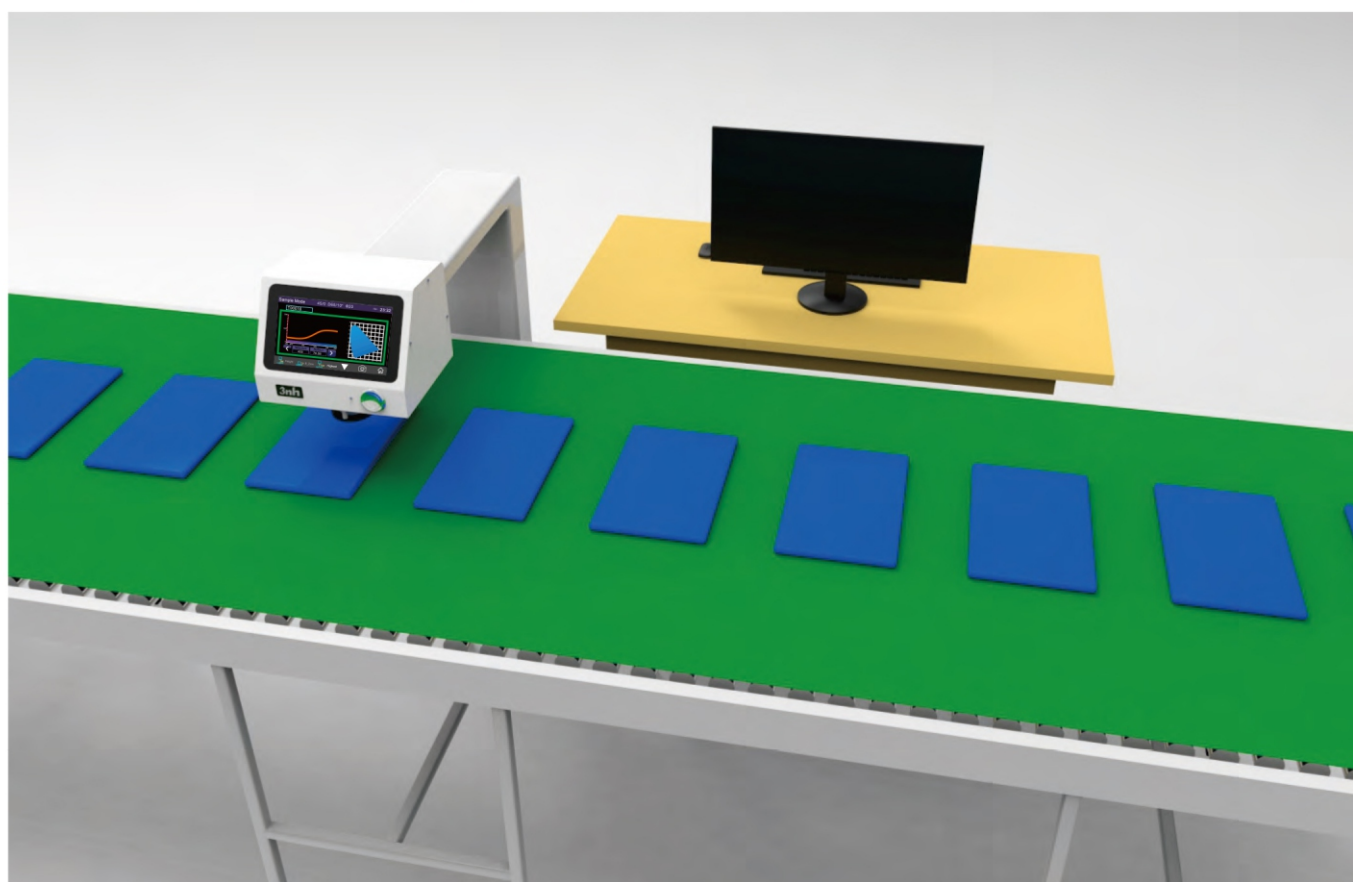
- Lightweight, impact resistant, dirt resistant, storage resistant
- Operating temperature range: 0~40 °C, 0~85% RH (no condensation), Altitude: below 2000m
- Storage temperature range: - 20~50°C, 0~85% RH (no condensation)

## Efficient

- Ideal for color monitoring in production lines
- 20mm large caliber, capable of quickly obtaining the object under test
- Supports USB wired and Bluetooth wireless transmission, data instant measurement and transmission, convenient and fast
- The measurement is fast and accurate, with a maximum of 0.2 times/second

## Accurate reading

- Supports camera viewfinder positioning with high measurement accuracy
- The repeatability standard deviation is within 0.1%
- Support multiple national and international standard measurements





# Online desktop Spectrophotometer YL4568L

## Product features



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### 1. Non-contact measurement

Accurate color data measurement can be achieved with a distance of 7.5mm from the measured plane

### 2. Multiple color spaces and Observation light source

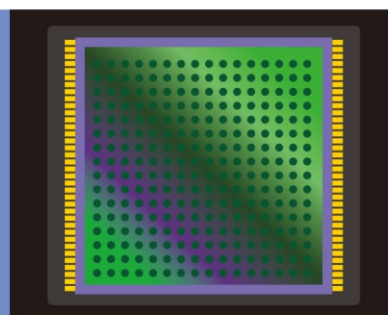
Provide more than ten color spaces and more than twenty observation light sources to meet different measurements

### 3. Efficient

A complete measurement cycle only takes 200 milliseconds and can measure over 400000 samples per day

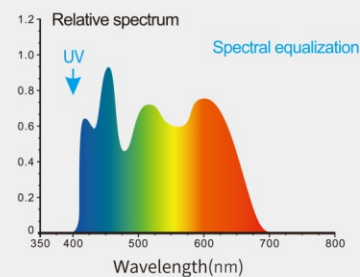
### 4. 256 pixel dual array CMOS image sensor

The higher optical resolution ensures the speed, accuracy, stability, and consistency of the instrument's measurement, mastering core technologies, and achieving complete compatibility with international standards on the same platform



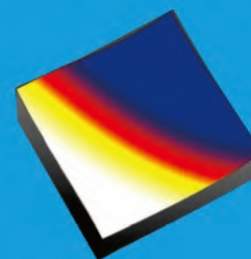
### 5. Adopt full spectrum LED light source

Full spectrum LED light sources ensure sufficient spectral distribution within the visible light range, avoid spectral loss of LEDs in specific wavelengths, and ensure the accuracy of instrument measurement results and low-cost maintenance



### 6. Concave grating spectroscopic technology

The use of concave grating spectroscopic technology, with higher resolution, allows for more accurate color measurement



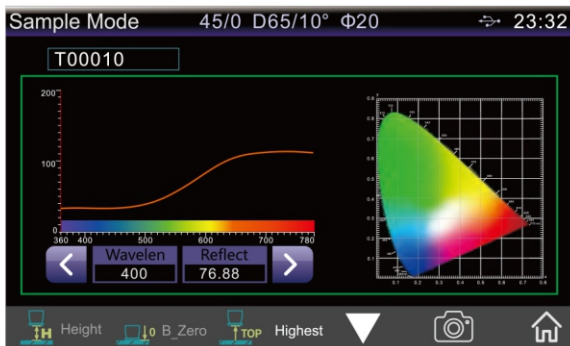
### 7. Higher quality

Using an industrial grade real-time processing MCU, supporting Bluetooth transmission is more stable and reliable



# Online desktop Spectrophotometer YL4568L

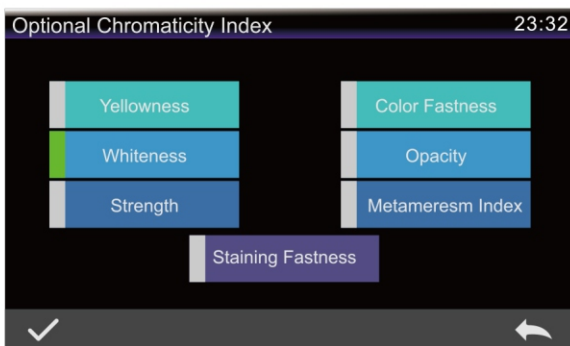
## Analyze main functions



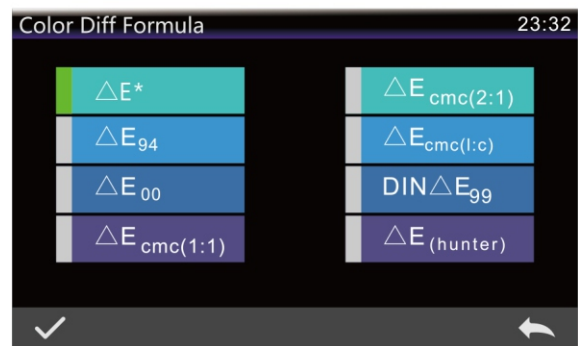
Sample measurement



View measurement records



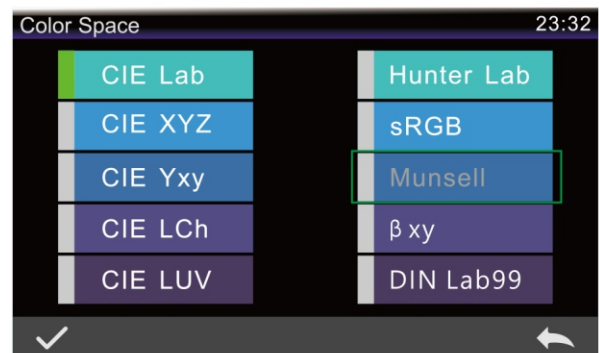
Measurement index selection



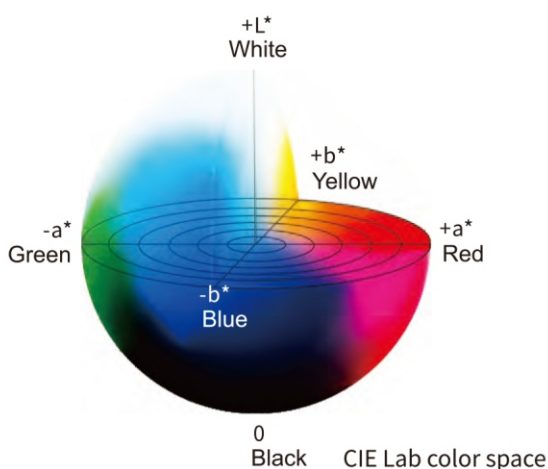
Color difference formula selection



Sample measurement



View measurement records



CIE LAB, XYZ, Yxy, LCh, CIE LUV, s-RGB, HunterLab, Bxy, DIN Lab99 and other color spaces can, For example, the common CIE Lab color space: L \* indicates black and white, and the greater the L \* value, the higher the brightness; A \* represents red and green, +a \* represents red, and - a \* represents green; B \* represents yellow and blue, +b \* represents yellow, and - b \* represents blue.

Through color bias display, we can easily adjust the color.



# Online desktop Spectrophotometer YL4568L

## Color quality management software



### SQCX

Connect devices for powerful expansion  
 Creating instant reports using SQCX

Output



### Color quality management software



Send



Printing



USB cable connection

or



Bluetooth connectivity

SQCX can be connected via USB cable, Bluetooth (only limited to Bluetooth enabled instruments) connected for spectral color measurement  
 Instrument, control instrument for measurement, change instrument configuration  
 Set to operate on instrument data. And it also  
 Extensive expansion of instrument functions, supporting multiple  
 Various surface color systems, light sources, and more complex data tubes  
 Color management, color detection, report generation, etc  
 A competent assistant in quality management.

Whether you are on-site or in the company, use SQCX quality management

The software can achieve:

1. Save the sample values measured on site directly to the storage device.
2. View the color chart in real time during the test.
3. You can view historical data and personal saved data, and modify the name.
4. It can be transferred to a printer for printing output.
5. Detection data can be managed, transmitted, and color matched through the network.

# Product application

Colorimeter is widely used in plastic, electronics, paint and ink, textile and clothing printing and dyeing, printing paper, automobile, medical treatment, cosmetics, food and other industries. The instrument is equipped with high-end color management software, which can be used by connecting computers to achieve more function expansion.



Printing and packaging industry



Textile dyeing industry



Leather industry



Ink and paint industry



Plastic industry



Automobile coating and accessories

# AP PLICATION



Plastic industry



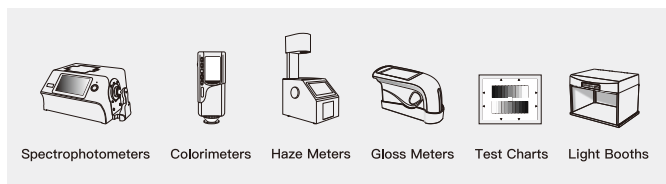
Scientific research/experiment



## Parameter specifications

<b>Model:</b>	YL4568L
<b>Optical Geometry:</b>	45/0 (45 circular uniform illumination 0 ° reception)
<b>Comply with standard:</b>	CIE No.15, GB/T 3978, GB 2893, GB/T 18833, ISO7724-1, ASTM E1164, DIN5033 Teil7
<b>Light Source:</b>	Full spectrum LED light source, UV light source
<b>Spectrophotometric Mode:</b>	Concave grating spectroscope
<b>Sensor:</b>	256-pixel dual-array CMOS image sensor
<b>Wavelength Range:</b>	400~700nm, 10nm output
<b>Measured Reflectance Range:</b>	0-200%
<b>Measuring Aperture:</b>	Φ20mm (Φ10mm can be customized)
<b>Non-contact distance:</b>	7.5mm (±0.2mm)
<b>Sample height:</b>	Unlimited thickness, using only test probes
<b>Distance adjustment method:</b>	Fix the height according to the actual sample
<b>Measurement mode:</b>	Software customization functions (additional customization functions need to be evaluated)
<b>Locating:</b>	Camera locating
<b>Color Space:</b>	CIE LAB,XYZ,Yxy,LCh,CIE LUV,Musell,s-RGB,HunterLab,βxy,DIN Lab99
<b>Color Difference Formula:</b>	$\Delta E^*ab, \Delta E^*94, \Delta E^*cmc(2:1), \Delta E^*cmc(1:1), \Delta E^*00, \Delta E$ (Hunter), $DIN\Delta E99$
<b>Other Colorimetric Index:</b>	WI(ASTM E313, CIE/ISO,AATCC,Hunter), YI(ASTM D1925, ASTM 313), Metamerism index MI, Staining Fastness, Color Fastness, Strength, Opacity
<b>Observer Angle:</b>	2°/10°
<b>Illuminant:</b>	D65,A,C,D50,D55,D75,F1,F2(CWF),F3,F4,F5,F6,F7(DLF),F8,F9, F10(TPL5),F11(TL84),F12(TL83/U30)
<b>Displayed Data:</b>	Spectrogram/Values, Samples Chromaticity Values, Color Difference Values/Graph, Color simulation, pass/fail result, display tolerance can be set
<b>Measuring Time:</b>	Fastest 0.2S
<b>Data Storage:</b>	Sample mode + quality control mode 18,000 ,Continuous statistical mode 30,000, totaling no more than 48,000
<b>Repeatability:</b>	In the optimal measurement mode (when a single measurement time is 1.5 seconds): Spectral reflectance: within 0.1% of standard deviation: Chromaticity value: $\Delta E^*ab$ within 0.03 (After the instrument is warmed up and calibrated, measure the average value of the whiteboard 30 times at an interval of 5s)
<b>Inter-instrument Error:</b>	Within $\Delta E^*ab$ 0.2(Measured average value of 12 tiles of BCRA series II)
<b>Measurement method:</b>	Single measurement, average measurement (2~99 times)
<b>Dimension:</b>	200 * 200 * 160mm (test probe)
<b>Weight:</b>	About 3Kg
<b>Power:</b>	AC24V, 3A Power adapter power supply
<b>Illuminant Life Span:</b>	5 years, more than 3 million times measurements
<b>Display:</b>	7-inch TFT color LCD, Capacitive Touch Screen
<b>Data Port:</b>	USB,Bluetooth®
<b>Language:</b>	Simplified Chinese, Traditional Chinese, English
<b>Operating Environment:</b>	0~40°C, 0~85%RH (no condensation), altitude: less than 2000m
<b>Storage Environment:</b>	-20~50°C, 0~85%RH (no condensation)
<b>Standard Accessory:</b>	Power adapter, manual, data cable, standard calibration board, black calibration box
<b>Notes:</b>	Technical parameters are for reference only, subject to the actual products sold

## GUANGDONG THREENH TECHNOLOGY CO., LTD.



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