

# 二维彩色分析仪 2D Color Analyzer



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# 二维彩色分析仪 2D Color Analyzer

## 特点 Main Features

1. 可测量二维色度、辉度信息  
**Quantitative measurement of 2D chromaticity and brightness information**
2. 内建光谱仪，可测量频谱信息  
**Internal spectrometer can measure frequency spectrum information**
3. 内建多片衰减片，可测量高亮度光源  
**Built-in multi-chip attenuation, measures high-brightness light sources**



# 二维彩色分析仪

## 2D Color Analyzer



### 比较

### Comparison

	量测方式 Measurement Method	数据处理 Data Processing	量测视角 Measurement Angle	动态范围 Dynamic Range
二维彩色分析仪 2D Color Analyzer	一次量几百万点以上 One time measurement of more than several million pixels.	极快,几个按键即可完成进阶运算 Extremely fast, only a few steps required to operate.	极小,可以ROI合并至大视角 Minimum, Can combine ROI and a large view angle	单一影像可至1000以上 A single image can be up to over 1000
传统式彩色分析仪 Conventional Style Color Analyzer	一次量一个点的亮度色度 Can only measure of single pixel brightness and chromaticity.	慢,进阶运算繁杂 Slow, too many operational steps required.	少数几种,距离远时太大 With a few types, the distance is far and too big	高,但为单点 High, but for a single pixel

## 二维彩色分析仪 2D Color Analyzer

应用范围

Range of Applications



Applications for Industrial FPD, LCD,  
LED, OLED, Display Panel Inspection

1. 被动\主动显示器色彩与均匀性检测

Passive-active monitor chromaticity and uniformity inspection

2. LED晶粒\LED light bar色度与辉度检测

LED \ Light Bar Chromaticity and brightness inspection

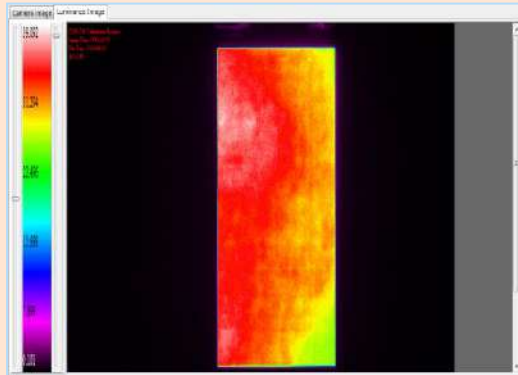
3. 光源色度与辉度检测

Light Source Chromaticity and brightness inspection

# 二维彩色分析仪 2D Color Analyzer

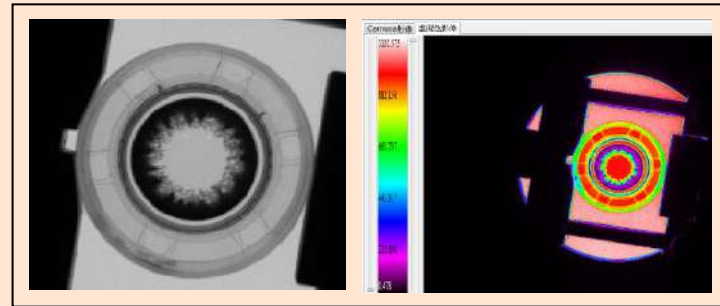
量测实例  
Example Applications

OLED



LED 光条  
LED Light Stripe

隐形眼镜 (瞳孔放大片)  
Contact lenses (mydriasis)



原始影像      量测影像  
Original Image      Measurement Image



原始影像      量测影像  
Original Image      Measurement Image

发光键盘  
Illuminated Keyboard





# 二维彩色分析仪

## 2D Color Analyzer

### 规格 Specifications

CCD resolution CCD 分辨率	1392×1040 pixels
CCD A/D dynamic range CCD A/D 动态范围	12 bits = 4096 gray scale levels
Units 单位	nits 尼特
Luminance range 辉度范围	0.5~10 <sup>7</sup> nits (with optional ND filters)
System accuracy 系统准确度	辉度 Luminance(Y) ± 3% 色度坐标 Chromaticity coordinates(x,y) < 0.0035
Short-term repeatability 短期重复性	辉度 Luminance(Y) ± 0.5% 色度坐标 Chromaticity coordinates(x,y) <0.0003
Interface 界面	USB 2.0

Working distance (cm) 工作距离	Field of view (cm) 视野
45	12.2
55	14.7
65	17.2



# 二维彩色分析仪 2D Color Analyzer

## 软件功能

### Software Function

- 可连接电源驱动器  
Connect the power driver
- 设定电压与电流  
Set up the voltage and current
- 进行单次量测或连续量测  
Choose a single measurement  
or continuous measurement

The screenshot displays the software interface for the 2D Color Analyzer. It features a top navigation bar with tabs for 'Parameter Setting', 'Measurement', 'Analysis and Output', and 'Information'. The 'Measurement' tab is active, showing the following settings:

- Measurement Method:** Radio buttons for 'Single Measurement' (unselected) and 'Continuous Measurement' (selected).
- Power Supply Selection:** A dropdown menu showing 'KEITHLEY\_2400' and a 'Connect Instrument' button.
- Power Mode:** A dropdown menu set to 'Constant Current' and a 'Connection Status' indicator (a grey circle).
- Limited Power Setting:** Input fields for 'Voltage [V]' (0) and 'Current [A]' (0).
- Mode Selection:** Radio buttons for 'Time Mode' (selected) and 'L-I-V Mode' (unselected).
- Buttons:** 'Time Measurement Setting', 'L-I-V Mode Setting', 'Measurement Execution', and 'Stop Measurement'.
- Results:** Three digital displays showing 'Voltage [V]: 0.000000', 'Current [A]: 0.000000', and 'Power [Watts]: 0.000000'.

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Power Supply

時間間隔	5	單位	秒[sec]	电流设定 Current Setting			
起始電流(A)	0.0001	電流間隔(A)	0.0001	終止電流(A)	0.0002		
						OK	Cancel

Power Supply

時間間隔	5	單位	秒[sec]	电压设定 Voltage Setting			
起始電壓(V)	1	電壓間隔(V)	0.5	終止電壓(V)	2		
						OK	Cancel



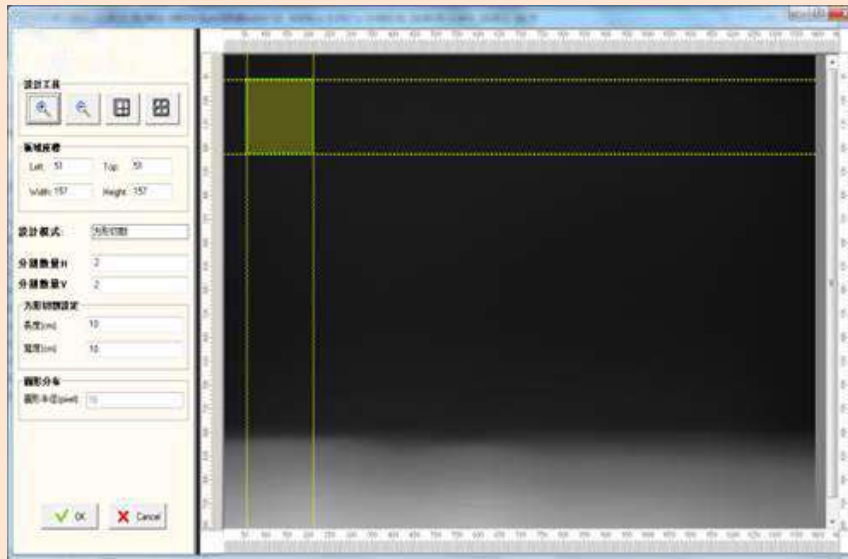
# 二维彩色分析仪 2D Color Analyzer

软件功能

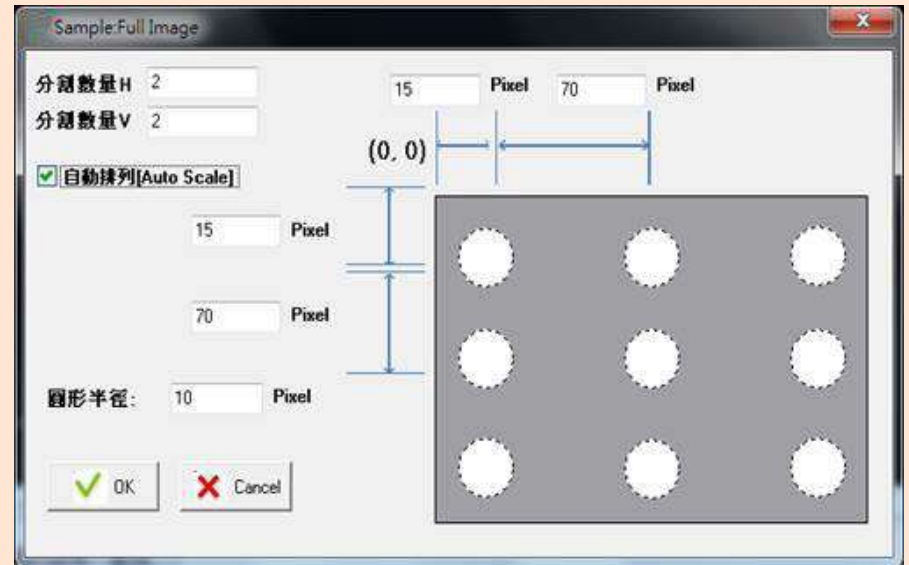
Software Function

多种量测模式

Measurement Modes



自选待测区域  
Optional test area



圆形分布  
Circular distribution

# 二维彩色分析仪 2D Color Analyzer

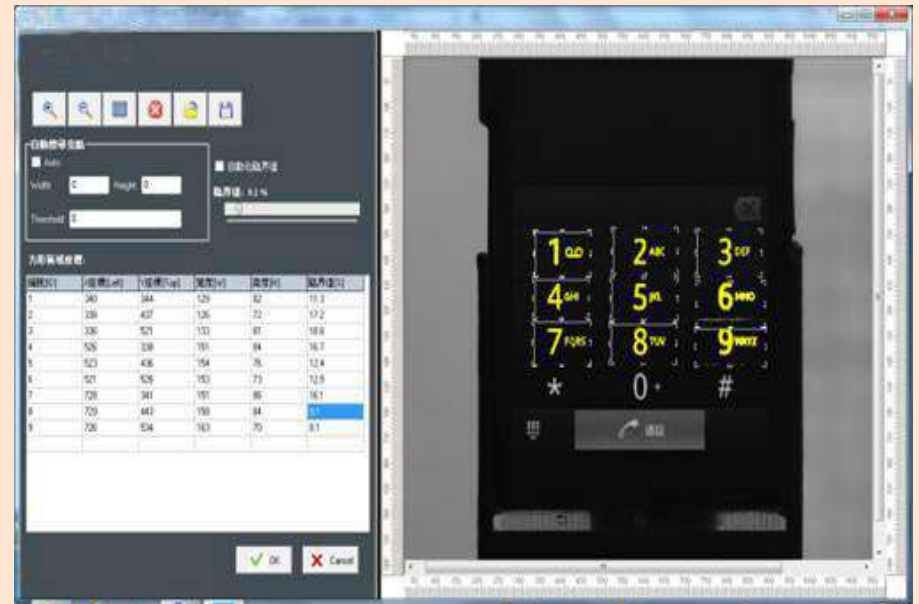
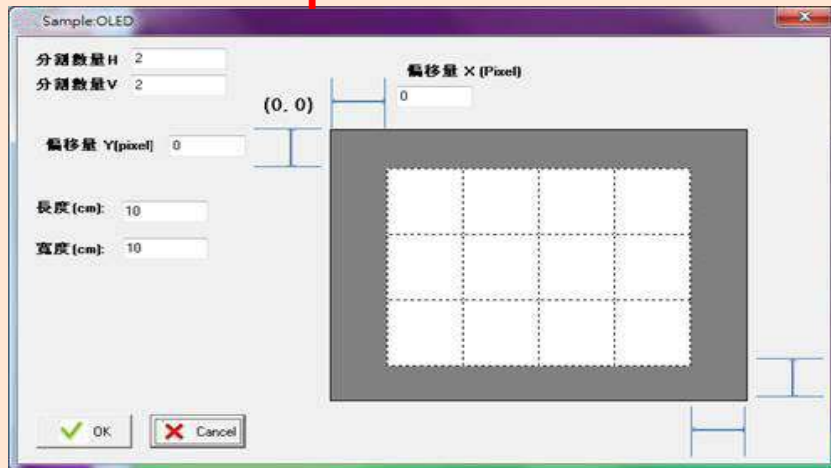


软件功能  
Software Function

多种量测模式  
Measurement Modes

设定量测临界值，过滤背景值干扰  
Setting measurement thresholds & Filtering background interference

方形切割  
Square-cut



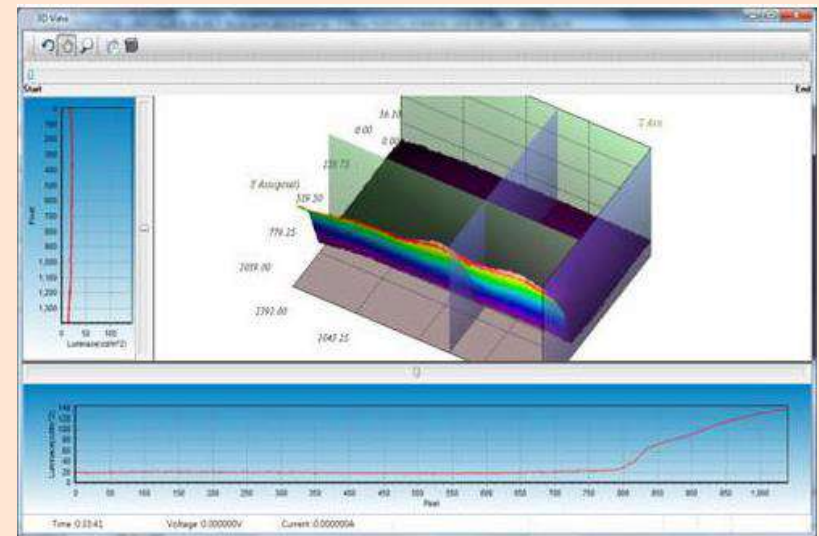
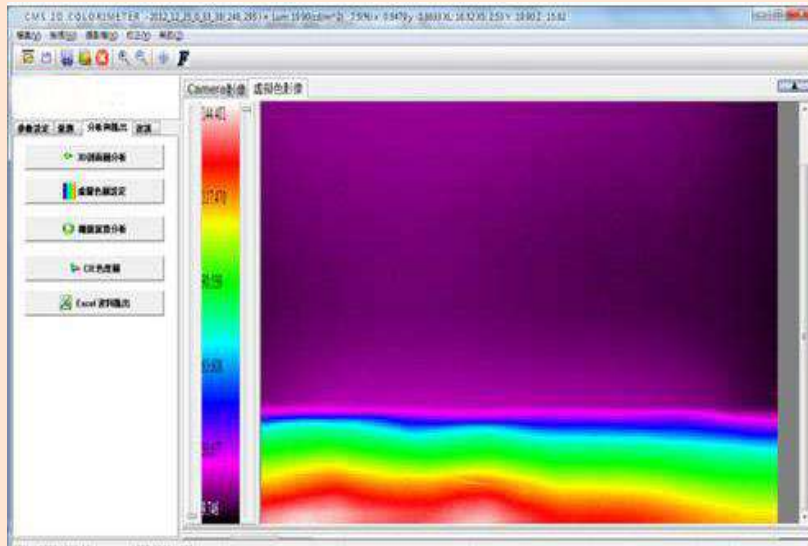
# 二维彩色分析仪 2D Color Analyzer

软件功能  
Software Function

2D\3D 显示模式  
2D\3D Display Mode

2D虚拟色(辉度与色度均匀性)  
2D virtual color  
(Luminance & Chromaticity uniformity)

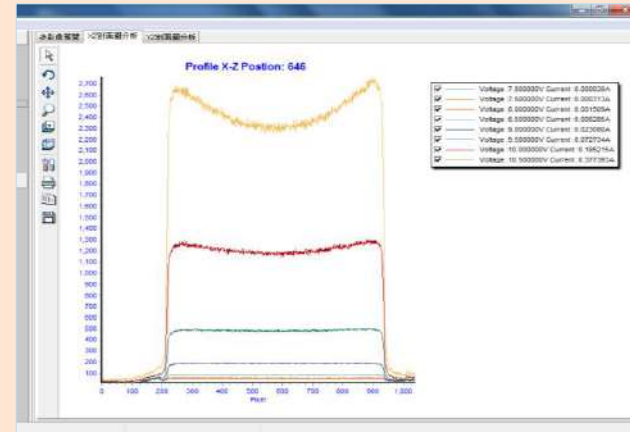
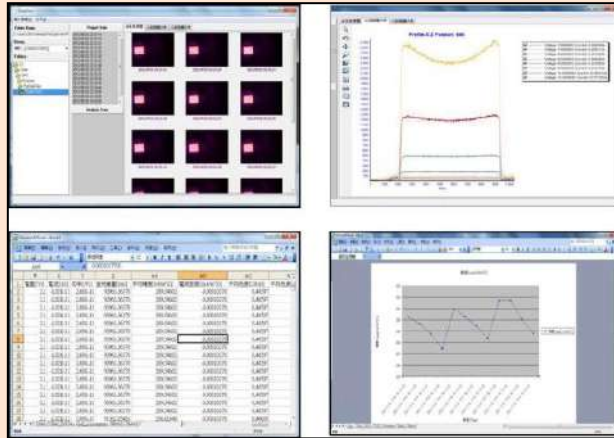
3D剖面分析  
3D profile analysis





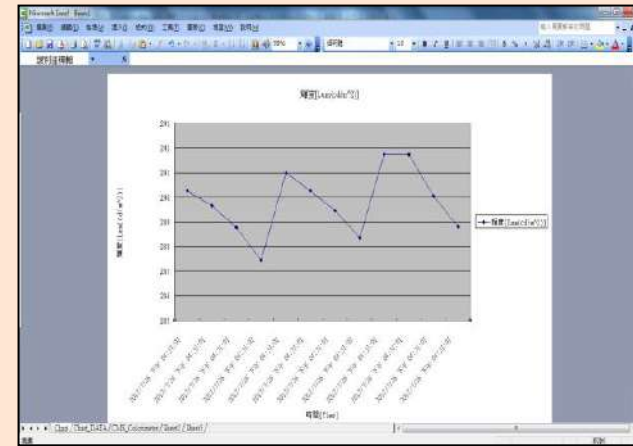
# 二维彩色分析仪 2D Color Analyzer

- 直接显示量测图檔，选择要分析的档案，并储存成图表  
Directly displays measurement image file, chooses important files for analysis, and stores all your completed images.



Microsoft Excel - Book1

W	X	Y	Z	AA	AB	AC	AD
电压(V)	电流(A)	功率(W)	光强通量(lm)	平均照度(cd/m <sup>2</sup> )	最高照度(mA/m <sup>2</sup> )	平均色度(CIE(u,v))	平均色度
2.1	-1.028E-11	2.68E-11	90963.56378	289.54602	-0.00010178	0.44597	
3	2.1	-1.028E-11	2.68E-11	90963.56378	289.54602	-0.00010178	0.44597
4	2.1	-1.028E-11	2.68E-11	90963.56378	289.54602	-0.00010178	0.44597
5	2.1	-1.028E-11	2.68E-11	90963.56378	289.54602	-0.00010178	0.44597
6	2.1	-1.028E-11	2.68E-11	90963.56378	289.54602	-0.00010178	0.44597
7	2.1	-1.028E-11	2.68E-11	90963.56378	289.54602	-0.00010178	0.44597
8	2.1	-1.028E-11	2.68E-11	90963.56378	289.54602	-0.00010178	0.44597
9	2.1	-1.028E-11	2.68E-11	90963.56378	289.54602	-0.00010178	0.44597
10	2.1	-1.028E-11	2.68E-11	90963.56378	289.54602	-0.00010178	0.44597
11	2.1	-1.028E-11	2.68E-11	90963.56378	289.54602	-0.00010178	0.44597
12	2.1	-1.028E-11	2.68E-11	90963.56378	289.54602	-0.00010178	0.44597
13	2.1	-1.028E-11	2.68E-11	90963.56378	289.54602	-0.00010178	0.44597
14	2.1	-1.028E-11	2.68E-11	90963.56378	289.54602	-0.00010178	0.44597
15	2.1	-1.028E-11	2.68E-11	90963.56378	289.54602	-0.00010178	0.44597
16	2.1	-1.028E-11	2.68E-11	90963.56378	289.54602	-0.00010178	0.44597
17	2.1	-1.028E-11	2.68E-11	90963.56378	289.54602	-0.00010178	0.44597
18	2.1	-1.028E-11	2.68E-11	91362.05463	290.81446	-0.00010178	0.44609



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