

Table Top Spectrophotometer LTS-A16



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Table Top Spectrophotometer LTS-A16 works on dual optical path spectrum analysis technology with full wavelength range for color and transmittance measurement. It adopts reflectance $D/8^\circ$ and transmittance $D/0^\circ$ geometry to measure both opaque and transparent materials. Four types of UV modes are used for fluorescence material measurement. Equipped with touch screen rotatable display screen and android operating system. It is ideal used for color measurement in textile, chemical, petroleum, oil industries.

Features

- Dual optical paths spectrum analysis technology
- Four type of UV test modes
- Compatibility with SCI/SCE measurement system
- Adopts $D/8$ geometry to meet color measurement
- Android operating system with rotating 7 inch touch display screen
- Open transmittance measurement are without specific sample size
- Switchable reflectance apertures
- Large storage memory

Applications

Widely used in the color and transmittance measurement in the industrial samples like plastic plate, powder material, petroleum and oil, textile and yarn, pellet materials, printing ink and packing material.

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Specification

Model No	LTS-A16
Wavelength Range	360 nm to 780 nm
Wavelength Pitch	10 nm
Sensor	Silicon Photodiode Array
Grating Method	Concave Grating
Sphere Diameter	152 mm
Half Band Width	5 nm
Reflectance Range	0 to 200 %
Resolution	0.01 %
Light Source	Pulse Xenon Lamp
	LED
UV Measurement	Include UV, 400nm cut, 420nm cut, 460nm cut
Operating Temperature	5 °C to 40 °C
Storage Temperature	-20 °C to 45 °C
Relative Humidity	80 % RH (at 35 °C)
Measurement Time	SCI/SCE < 2s
	SCI+SCE < 4s
Measurement Aperture	Reflectance: XLAV Φ30mm
	LAV 18mm,MAV Φ11mm
	SAV Φ6mm
	Transmittance:Φ25mm
	(Auto aperture size recognition)

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Viewing Angles	2° and 10°
Transmittance Sample Size	No limit on sample width and height
	Thickness ≤ 50mm
Repeatability	XLAV Spectrum Reflectance/Transmittance: standard deviation within 0.1%
	XLAV Chromaticity value: Standard deviation within ΔE^*ab 0.015 * When a white calibration plate is measured 30 x at 5-second intervals after white calibration
Inter-Instrument Agreement	XLAV ΔE^*ab 0.15 (BCRA Series II, Average measurement of 12 tiles, at 23°C)
Illuminants	A,C,D50,D55,D65,D75,F1,F2,F3,F4,F5,F6,F7,F8,F9,F10,F11, F12,CWF,U30,DLF,NBF,TL83,TL84
Display	Reflectance and Transmittance graph/value, color value, color difference values, pass/fail, color simulation,color assessment, haze, liquid chromaticity values, color tendency
Color Spaces	L*a*b, L*C*h, Hunter Lab, Yxy, XYZ
Color Difference	ΔE^*ab , ΔE^*CH , ΔE^*uv , ΔE^*cmc , ΔE^*94 , ΔE^*00 ,
	ΔE^*ab (hunter),555 shade sort

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Other Indices	WI(ASTM E313-00,ASTM E313-73,CIE/ISO, AATCC,
	Hunter, Taube Berger, Stensby),YI(ASTM D1925,ASTM
	E313-00,ASTM E313-73),Tint(ASTM E313-00),Metamerism
	index milm, stain fastness, color fastness, ISO brightness,
	R457, A density, T density, E density, M Density, APHA/Pt-
	Co/Hazen, Gardner, Saybolt, ASTM color, Haze, Total
	Transmittance, Opacity, Color Strength
Other Functions	1. Camera to view measurement area
	2. Support horizontal, vertical and downward measurement
	method (need optional accessories to support for downward
	measurement)
3. Auto humidity and temperature compensation function	
Illumination/ Viewing System	Reflection: d/8(Diffused illumination, 8 degree viewing)
	Simultaneous measurement of SCI/SCE (ISO7724/1, CIE No.15,
	ASTM E1164, ASTM-D1003-07, DIN5033 Teil7,
	JIS Z8722 Condition C standard)
	Transmittance d/0(Diffused illumination, 0 degree viewing)
Interface	USB
	USB-B
	RS-232
Screen Size	7 Inches Touch Screen
Storage Memory	8 GB U Disk for data storage and transfer

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Specification

Power	12V/3A
Dimensions (L × W × H)	430 × 240 × 260 mm
Weight	10.8 kg

Standard Accessories

No	Accessory name	Remarks
1.	Power Adaptor	
2.	USB Cable	
3.	fixture for transmittance	
4.	U disk	PC software
5.	Black Calibration Cavity	
6	White and Green Calibration Tile	
7.	0% Calibration Tile	Measure transmittance
8.	Reflectance Test Support	
9.	30mm,18mm,11mm and 6mm apertures	
10.	reflectance sample fixture	
11.	Glass Cell	Size: 40 mm × 10mm

Optional Accessories

No	Accessory name
1.	Heating Fixture for Transmittance
2.	Vertical Support and Pneumatic ram for downward measurement
3.	Reflectance fixture for small size sample
4.	Reflectance Glass Cell Support
5.	Corrosion-Resistant Protective Plate (non-removable),
6.	Sample Holder for Fiber
7.	Film Fixture
8.	Transmittance Fixture for Small Aperture
9.	Trolley Case
10.	European Standard Plug
11.	American Standard Plug