

Portable Spectrophotometer

Portable Spectrophotometer



Portable spectrophotometer LSP-A10 is adopted with every test calibration ETC technology, where the standard white board is included in the optical system for great accuracy of every measurement. Equipped with automatic gloss compensation technology to ensures the accuracy of the color measurement data for the surface of different gloss. The measurement of the color of the powder, granules & other materials can be done by adding the powder accessories to this spectrophotometer.

Features:

- 2.8 inch TFT touch screen
- Built-in camera to view measured area
- High capacity rechargeable lithium-ion battery
- CLED light source for measurement accuracy
- SCS system for measurement repeatability
- Simultaneous measurement of SCI & SCE
- Equipped with gloss compensation technology
- USB & Bluetooth data transmission
- Customized for PANTONE color matching technology
- Large storage capacity
- Connection to mini printer for printing

Applications:

Portable spectrophotometer has applications in textile, plastic, food, paint, printing, automobile industries, laboratories & on-site applications for quality control purpose.

Specifications:

Model no.	LD-LSP-A10
Sensor	Blue light enhanced sensor array
Weight	550 g
Display	True color TFT touch screen
Interface	USB
Color space	CIE- L*a*b, L*C*h, L*u*v, XYZ, Yxy, Reflectance
Data storage	100 test samples , 200 measurement records for each sample
Light source	A, C, D50, D65, D75, F1, F2, F3, F4, F5, F6, F7, F8, F9, F10, F11, F12, DLF, TL183, TL184, NBF, U30, CWF
UV light source	Not included
Battery capacity	Rechargeable, 10000 continuous tests, 7.4V/6000 mAh

Measurement time	2 seconds
Wavelength range	400-700 nm
Dimension (L*W*H)	181 × 73 × 112 mm
Observation angle	2°/10°
Measuring aperture	8 mm
Half spectral width	5 nm
Wavelength interval	10 nm
Data being displayed	SPD distribution/data□sample's color values□color difference values/graph□pass/fail results,color error tendency□color simulation display measurement area□history data color simulation□manual input standard sample generate measurement report
Color matching system	Not match
Light source longevity	5 years, 1.5 million tests
Work temperature range	0 to 45°C, relative humidity 80% or below(at 35°C),no condensation
Color difference formula	ΔE^*ab , ΔE^*CH , ΔE^*uv , $\Delta E^*cmc(2:1)$, $\Delta E^*cmc(1:1)$, ΔE^*94 , ΔE^*00
Illumination light source	CLED
Measurement time interval	2 seconds
Size of integrated sphere	40 mm, alvan diffused reflection surface coating
Storage temperature range	25°C to 55°C relative humidity 80% or below(at 35°C),no condensation
Reflectivity range & resolution	0 to 200%, 0.01%

Portable spectrophotometer LSP-A11 is adopted with every test calibration ETC technology, where the standard white boards included in the optical system for great accuracy of every measurement. Equipped with automatic gloss compensation technology to ensures the accuracy of the color measurement data for the surface of different gloss. The measurement of the color of the powder, granules & other materials can be done by adding the powder accessories to this spectrophotometer.

Features:

- 2.8 inch TFT touch screen
- Built-in camera to view measured area
- High capacity rechargeable lithium-ion battery
- CLED light source for measurement accuracy
- SCS system for measurement repeatability
- Simultaneous measurement of SCI & SCE
- Equipped with gloss compensation technology
- USB & Bluetooth data transmission
- Customized for PANTONE color matching technology
- Large storage capacity
- Connection to mini printer for printing

Applications:

Portable spectrophotometer has applications in textile, plastic, food, paint, printing, automobile industries, laboratories & on-site applications for quality control purpose.

Specifications:

Model no.	LD-LSP-A11
Sensor	Dual light path sensor array
Weight	550 g
Display	True color TFT touch screen
Interface	USB, Bluetooth
Color space	CIE- L*a*b, L*C*h, L*u*v, XYZ, Yxy, Reflectance, hunterlab, munsell Mi, CMYK, RGB, HSB
Data storage	100 test samples , 200 measurement records for each sample
Light source	A, C, D50, D65, D75, F1, F2, F3, F4, F5, F6, F7, F8, F9, F10, F11, F12, DLF, TL183, TL184, NBF, U30, CWF
UV light source	Not included

Battery capacity	Rechargeable, 20000 continuous tests, 7.4V/6000 mAh
Measurement time	2 seconds
Wavelength range	400-700 nm
Dimension (L*W*H)	181 × 73 × 112 mm
Observation angle	2°/10°
Measuring aperture	8 mm
Half spectral width	5 nm
Wavelength interval	10 nm
Data being displayed	SPD distribution/data□sample's color values□color difference values/graph□pass/fail results,color error tendency□color simulation display measurement area□history data color simulation□manual input standard sample generate measurement report
Color matching system	Matches
Light source longevity	10 years, 3 million tests
Work temperature range	0 to 45°C, relative humidity 80% or below(at 35°C),no condensation
Illumination light source	CLED
Measurement time interval	0.5 seconds
Size of integrated sphere	40 mm, alvan diffused reflection surface coating
Storage temperature range	25°C to 55°C relative humidity 80% or below(at 35°C),no condensation
Reflectivity range & resolution	0 to 200%, 0.01%

Portable spectrophotometer LSP-A12 is adopted with every test calibration ETC technology, where the standard white boards included in the optical system for great accuracy of every measurement. Equipped with automatic gloss compensation technology to ensures the accuracy of the color measurement data for the surface of different gloss. The measurement of the color of the powder, granules & other materials can be done by adding the powder accessories to this spectrophotometer.

Features:

- 2.8 inch TFT touch screen
- Built-in camera to view measured area
- High capacity rechargeable lithium-ion battery
- CLED light source for measurement accuracy
- SCS system for measurement repeatability
- Simultaneous measurement of SCI & SCE
- Equipped with gloss compensation technology
- USB & Bluetooth data transmission
- Customized for PANTONE color matching technology
- Large storage capacity
- Connection to mini printer for printing

Applications:

Portable spectrophotometer has applications in textile, plastic, food, paint, printing, automobile industries, laboratories & on-site applications for quality control purpose.

Specifications:

Model no.	LD-LSP-A12
Sensor	Photoelectric diode sensor
Weight	550 g
Display	True color 2.8 inch TFT touch screen
Interface	USB
Color space	CIE-L*a*b, L*C*h, L*u*v, XYZ, Yxy, Reflectance, hunterlab, munsell Mi, CMYK, RGB, HSB
Data storage	100 test samples , 200 measurement records for each sample
Light source	A, C, D50, D65, D75, F1, F2, F3, F4, F5, F6, F7, F8, F9, F10, F11, F12, DLF, TL183, TL184, NBF, U30, CWF
UV light source	Not included

Battery capacity	Rechargeable, 10000 continuous tests, 7.4V/6000 mAh
Measurement time	2 seconds
Wavelength range	400-700 nm
Dimension (L*W*H)	181 × 73 × 112 mm
Observation angle	2°/10°
Measuring aperture	8 mm
Half spectral width	5 nm
Wavelength interval	10 nm
Data being displayed	SPD distribution/data□sample's color values□color difference values/graph□pass/fail results,color error tendency□color simulation display measurement area□history data color simulation□manual input standard sample generate measurement report
Color matching system	Not match
Light source longevity	10 years, 3 million tests
Work temperature range	0 to 45°C, relative humidity 80% or below(at 35°C),no condensation
Illumination light source	CLED
Measurement time interval	0.5 seconds
Size of integrated sphere	40 mm, alvan diffused reflection surface coating
Storage temperature range	25°C to 55°C relative humidity 80% or below(at 35°C),no condensation
Reflectivity range & resolution	0 to 200%, 0.01%

Portable spectrophotometer LSP-A13 is adopted with every test calibration ETC technology, where the standard white boards included in the optical system for great accuracy of every measurement. Equipped with automatic gloss compensation technology to ensures the accuracy of the color measurement data for the surface of different gloss. The measurement of the color of the powder, granules & other materials can be done by adding the powder accessories to this spectrophotometer.

Features:

- 2.8 inch TFT touch screen
- Built-in camera to view measured area
- High capacity rechargeable lithium-ion battery
- CLED light source for measurement accuracy
- SCS system for measurement repeatability
- Simultaneous measurement of SCI & SCE
- Equipped with gloss compensation technology
- USB & Bluetooth data transmission
- Customized for PANTONE color matching technology
- Large storage capacity
- Connection to mini printer for printing

Applications:

Portable spectrophotometer has applications in textile, plastic, food, paint, printing, automobile industries, laboratories & on-site applications for quality control purpose.

Specifications:

Model no.	LD-LSP-A13
Sensor	Photoelectric diode sensor
Weight	550 g
Display	True color 2.8 inch TFT touch screen
Interface	USB, Bluetooth
Color space	CIE-L*a*b, L*C*h, L*u*v, XYZ, Yxy, Reflectance, hunterlab, munsell Mi, CMYK, RGB, HSB
Data storage	100 test samples , 200 measurement records for each sample
Light source	A, C, D50, D65, D75, F1, F2, F3, F4, F5, F6, F7, F8, F9, F10, F11, F12, DLF, TL183, TL184, NBF, U30, CWF
UV light source	Not included

Battery capacity	Rechargeable, 20000 continuous tests, 7.4V/6000 mAh
Measurement time	2 seconds
Wavelength range	400-700 nm
Dimension (L*W*H)	181 × 73 × 112 mm
Observation angle	2°/10°
Measuring aperture	11 mm (can be customized to 4 mm,6 mm,8 mm)
Half spectral width	5 nm
Wavelength interval	10 nm
Data being displayed	SPD distribution/data□sample's color values□color difference values/graph□pass/fail results,color error tendency□color simulation display measurement area□history data color simulation□manual input standard sample generate measurement report
Color matching system	Matches
Light source longevity	10 years, 3 million tests
Work temperature range	0 to 45°C, relative humidity 80% or below(at 35°C),no condensation
Illumination light source	CLED
Measurement time interval	0.5 seconds
Size of integrated sphere	40 mm, alvan diffused reflection surface coating
Storage temperature range	25°C to 55°C relative humidity 80% or below(at 35°C),no condensation
Reflectivity range & resolution	0 to 200%, 0.01%

Portable spectrophotometer LSP-A20 is adopted with every test calibration ETC technology, where the standard white boards included in the optical system for reliable, accuracy of every measurement. The pulse xenon lamp is used for measurement of UV samples with wide wavelength range. Its Built-in camera helps to view measured area precisely. The automatic gloss compensation technology helps in measurement data for the surface of different gloss.

Features:

- 2.8 inch TFT touch screen
- Built-in camera to view measured area
- High capacity rechargeable lithium-ion battery
- CLED light source for measurement accuracy
- SCS system for measurement repeatability
- Simultaneous measurement of SCI & SCE
- Equipped with gloss compensation technology
- USB & Bluetooth data transmission
- Customized for PANTONE color matching technology
- Large storage capacity
- Connection to mini printer for printing

Applications:

Portable spectrophotometer has applications in textile, plastic, food, paint, printing, automobile industries, laboratories & on-site applications for quality control purpose.

Specifications:

Model no.	LD-LSP-A20
Sensor	Dual light path sensor array
Weight	550 g
Display	True color TFT touch screen
Interface	USB, Bluetooth
Color space	CIE-L*a*b, L*C*h, L*u*v, XYZ, Yxy, Reflectance, hunterlab, munsell Mi, CMYK, RGB, HSB
Data storage	100 test samples , 200 measurement records for each sample
Light source	A, C, D50, D65, D75, F1, F2, F3, F4, F5, F6, F7, F8, F9, F10, F11, F12, DLF, TL183, TL184, NBF, U30, U35, CWF
UV light source	Included
Measurement time	2 seconds

Wavelength range	360-740 nm
Dimension (L*W*H)	181 × 73 × 112 mm
Observation angle	2°/10°
Measuring aperture	8 mm
Half spectral width	5 nm
Wavelength interval	10 nm
Data being displayed	Reflective graph/value□sample's color values □color difference values/graph□pass/fail results,color error tendency□color simulation display measurement area□history data color simulation□manual input standard sample generate measurement report
Color matching system	Matches
Light source longevity	10 years, 3 million tests
Work temperature range	0 to 45°C, relative humidity 80% or below(at 35°C),no condensation
Illumination light source	Pulse Xenon Lamp
Measurement time interval	2 seconds
Size of integrated sphere	40 mm, alvan diffused reflection surface coating
Storage temperature range	25°C to 55°C relative humidity 80% or below(at 35°C),no condensation
Reflectivity range & resolution	0 to 200%, 0.01%

Portable Spectrophotometer LSP-A30 is adopted with 45/0 geometry (45 ring shaped illumination, 0 observe degree), where the standard white board is included in the optical system for great accuracy of every measurement. Large data storage space up to 20000 samples measurement records. The measurement of the color of the powder, granules and other materials can be done by adding the powder accessories to this spectrophotometer.

Features:

- 2.8 inch TFT touch screen
- High capacity rechargeable lithium-ion battery
- LED light source for measurement accuracy
- Pre-locating panel design for instrument calibration
- SCS system for measurement repeatability
- Simultaneous measurement of SCI & SCE
- USB & Bluetooth data transmission
- Large storage capacity
- Connection to mini printer for printing

Applications:

Used in textile, plastic, food, paint, printing, automobile industries, laboratories & on-site applications for quality control purpose.

Specifications:

Model no.	LD-LSP-A30
Sensor	High sensitivity silicon photodiode
Weight	800 g (without battery)
Display	True color TFT touch screen
Dimension	181 × 73 × 112 mm
Interface	USB
Test area	-
Test angle	-
Test range	-
Color space	CIE- L*a*b, L*C*h, L*u*v, XYZ, Yxy, Reflectance, Hunter-lab, Munsell MI, CMYK
Data storage	20000 samples
Illumination	45/0 (45 ring shaped illumination, 0° observation angle)

Light source	A, C, D50, D55, D65, D75, F1, F2, F3, F4, F5, F6, F7, F8, F9, F10, F11, F12, CWF, NBF, TL83, TL184, NBF, U35
Reproducibility	-
UV light source	Not included
Battery capacity	Rechargeable Lithium battery, 20000 continuous measurement tests, 7.4V/600 mAh
Wavelength range	400 nm to 700 nm
Observation angle	2°/10°
Measuring aperture	11 mm
Test repeatability	-
Wavelength interval	10 nm
Color matching system	Not included
Light source longevity	10 years, 3 million test
Work temperature range	0 to 45°C, relative humidity 80% or below(at 35°C),no condensation
Color difference formula	ΔE^*ab , ΔE^*CH , ΔE^*uv , $\Delta E^*cmc(2:1)$, $\Delta E^*cmc(1:1)$, ΔE^*94 , ΔE^*00 , ΔEab (Hunter), 555 shade sort
Illumination light source	LED
Inter instrument agreement	0.2 ΔE^*ab (BCRA II color tiles, average test value of 12 tiles)

Portable Spectrophotometer LSP-A31 is adopted with 45/0 geometry (45 ring shaped illumination, 0 degree observation angle), where the standard white board is included in the optical system for great accuracy of every measurement. Equipped with automatic gloss compensation technology ensures the accuracy of the color measurement data for the surface of different gloss. Large data storage space up to 20000 samples measurement records. The measurement of the color of the powder, granules and other materials can be done by adding the powder accessories to this spectrophotometer.

Features:

- 2.8 inch TFT touch screen
- Simultaneous gloss and color measurement
- High capacity rechargeable lithium-ion battery
- LED light source for measurement accuracy
- Pre-locating panel design for instrument calibration
- SCS system for measurement repeatability
- Simultaneous measurement of SCI & SCE
- USB & Bluetooth data transmission
- Large storage capacity
- Connection to mini printer for printing

Applications:

Used in textile, plastic, food, paint, printing, automobile industries, laboratories & on-site applications for quality control purpose.

Specifications:

Model no.	LD-LSP-A31
Sensor	High sensitivity silicon photodiode
Weight	800 g (without battery)
Display	True color TFT touch screen
Dimension	181 × 73 × 112 mm
Interface	USB
Test area	5 × 10 mm
Test angle	60°
Test range	0 to 1000 GU
Color space	CIE- L*a*b, L*C*h, L*u*v, XYZ, Yxy, Reflectance, Hunter-lab, Munsell MI, CMYK
Data storage	20000 samples

Illumination	45/0 (45 ring shaped illumination, 0° observation angle)
Light source	A, C, D50, D55, D65, D75, F1, F2, F3, F4, F5, F6, F7, F8, F9, F10, F11, F12, CWF, NBF, TL83, TL184, NBF, U35
Reproducibility	1.0 GU (0 to 100 GU), 1.0% (100 to 1000 GU)
UV light source	Not included
Battery capacity	Rechargeable Lithium battery, 20000 continuous measurement tests, 7.4V/600 mAh
Wavelength range	400 nm to 700 nm
Observation angle	2°/10°
Measuring aperture	11 mm
Test repeatability	0.2 GU (0 to 100 GU), 0.2% (100 to 1000 GU)
Wavelength interval	10 nm
Color matching system	Not included
Light source longevity	10 years, 3 million test
Work temperature range	0 to 45°C, relative humidity 80% or below(at 35°C), no condensation
Color difference formula	ΔE^*ab , ΔE^*CH , ΔE^*uv , $\Delta E^*cmc(2:1)$, $\Delta E^*cmc(1:1)$, ΔE^*94 , ΔE^*00 , ΔEab (Hunter), 555 shade sort
Illumination light source	LED
Inter instrument agreement	0.2 ΔE^*ab (BCRA II color tiles, average test value of 12 tiles)

LD-LSP-B10 Portable Spectrophotometer is designed for accurate color measurement across various materials and applications. It combines spectral measurement technology, automatic calibration, multiple measurement apertures, and digital connectivity to support reliable color evaluation and quality control.

Features:

- Full-band LED and UV illumination enables measurement of fluorescent materials
- High-precision CMOS sensor provides stable measurement performance
- Grating spectroscopy delivers accurate spectral analysis
- Automatic calibration simplifies routine operation
- Interchangeable apertures accommodate different sample sizes
- Camera positioning facilitates accurate targeting of the measurement area
- Multiple connectivity options support convenient data transfer and analysis
- Wide selection of measurement parameters and illuminants supports diverse color evaluation needs
- Large data memory allows storage of standards and measurement records
- Rechargeable battery enables extended portable operation

Applications:

Suitable for color quality control and comparison in industries such as paints and coatings, printing, textiles, plastics, automotive components, household products, and research laboratories.

Specifications:

Model no.	LD-LSP-B10
Sensor	Dual-column high-precision CMOS array sensor
Battery	3.7 V / 3000 mAh; up to 8,000 continuous measurements
Display	3.5-inch IPS full-color screen
Calibration	Smart automatic calibration
Connectivity	USB and Bluetooth
Data Storage	100 standard samples and 10,000 samples
Light Source	Full-band balanced LED + UV
Repeatability	$\Delta E^*_{ab} \leq 0.025$
Display Accuracy	0.01
Measurement Time	Approx. 1.5 seconds
Software Support	Android, iOS, Windows

Wavelength Range	400–700 nm
Reflectance Range	0–200%
Standard Observer	2° and 10°
Integrating Sphere	Ø40 mm
Wavelength Interval	10 nm
Optional Accessories	Powder measuring jig, liquid measuring jig, and Bluetooth printer
Spectroscopic Method	Grating
Standard Accessories	Calibration base, USB drive, charger, USB data cable, measurement apertures
Measurement Apertures	MAV: Ø8 mm / Ø11 mm; SAV: Ø4 mm / Ø6 mm; MINI: 1 × 3 mm
Reflectance Resolution	0.01%
Inter-Instrument Difference	$\Delta E^*_{ab} \leq 0.25$
Illumination / Viewing Geometry	d/8, SCI + SCE