

LS108D lens transmission meter

Instruction manual V4.1

Test principle of LS108D is to illuminate the tested transparent substance with 850nm infrared light source, 940nm infrared light source and 550nm visible light source. Then, the sensors respectively detect incident light intensity of three light sources and transmission light intensity at which they transmit the tested substance. The ratio between incident light intensity and transmission light intensity is the light transmittance, expressed as a percentage.

I: LS108D parameter

1. Instrument size: length 200mm × width 180mm × height 106mm
2. Test hole diameter: \varnothing 0.5mm
3. Gross weight: about 1.5Kg
4. Resolution: 0.1%
5. Measuring accuracy: $\pm 2\%$
6. Infrared ray: peak wavelength of 850nm and peak wavelength of 940nm
7. Visible light: peak wavelength of 550nm
8. Power supply: 5V AC/DC power adapter



II: Operations

1. Power-on self-test

Plug into the power supply and turn the power switch to the ON position. The LS108D will firstly test and calibrate itself. After completion of self-calibration, values displayed on three displays are all "100", which means 100% transmittance in case of no tested

substance. During **Power-on self-test** process, if not all of the displayed values are “100”, and characters such as “EEE”, “88.8” or “000” appear, it means the **Power-on self-test** fails, which may caused by:

A: The test slot is placed with tested material before powering on the instrument. Remove the material and then power on the instrument.

B: There may be dust in test holes. Blow the dust with air guns.

C: Ambient light is too strong

D: Instrument malfunction. Please return the instrument to the factory.

2. Instrumental measurements

Align holes for Light and distance sensors on cell phone lens with beam hole of the light wavelength to be tested. The transmittance parameter of tested material will be shown on the display of corresponding wavelength.

3. Counting statistics function of PC software

With USB interface and PC software to count the quantity, qualified rate and Judge whether the sample is good. Please refer to the PC software and instruction manual in USB flash disk for details.



The screenshot shows the LENS Transmission Meter V1.0 software interface. It features a top menu bar with '系统菜单' (System menu) and '参数设置' (Parameter setting). The main display area is divided into three sections: '实时显示' (Real-time display) on the left, a central '测试' (Test) area, and '统计' (Statistics) on the right. The real-time display shows an upper limit of 85.0%, a real-time value of 83.3% (550nm), and a lower limit of 80.0%. The central test area displays a large green 'PASS' message. The statistics section shows 8 unqualified items, 29 qualified items, and a total of 37 items. Below the statistics are buttons for 'Export to Excel' and 'Re-count'. At the bottom, there is a table with columns for 'Serial Number', 'Transmittance', 'Be qualified or not', 'Time', and '操作' (Operation).

Serial Number	Transmittance	Be qualified or not	Time	操作
序列号	透射率	是否合格	Time	操作
22	82.7%	合格 Qualified	2017-12-13 10:50:15	Delete 删除
23	83.9%	合格 Qualified	2017-12-13 10:50:28	Delete 删除
24	82.2%	合格	2017-12-13 10:50:33	删除
25	83.8%	合格	2017-12-13 10:50:39	删除
26	82.7%	合格	2017-12-13 10:50:45	删除
27	85.2%	不合格 Unqualified	2017-12-13 10:50:50	删除
28	85.4%	不合格 Unqualified	2017-12-13 10:50:57	删除
29	83.8%	合格	2017-12-13 10:51:03	删除
30	84.7%	合格	2017-12-13 10:51:25	删除
31	87.5%	不合格	2017-12-13 10:51:34	删除
32	84.1%	合格	2017-12-13 10:51:41	删除
33	84.1%	合格	2017-12-13 10:51:46	删除
34	83.8%	合格	2017-12-13 10:51:52	删除
35	84.3%	合格	2017-12-13 10:51:56	删除
36	81.9%	合格	2017-12-13 10:52:01	删除
37	83.2%	合格	2017-12-13 10:55:09	删除

4. Switch quick measurement and standard measurement mode

Quick measurement is suitable for batch inspection on the production line with lens positioning device, which can greatly improve the production efficiency.

Standard measurement is suitable for manual alignment of the lens. The green light flashes relatively slowly, so the test holes can be seen clearly and more easily to align.

The factory default is the standard measurement. First press the "Count" button and then turn on the power switch. In this way, we can switch “quick” to “standard” measurement, or switch “standard” to “quick” measurement. The change of the green light flashing speed can be clearly seen after switching the measurement speed.

III: Features

1. Three test holes are equipped with alignment LEDs, which are used for holes alignment on cellphone lens during testing.
2. The instrument is specially designed for testing of infrared transmittance and visible light transmittance of cell phone lens.
3. The instrument provides real-time dynamic self-calibration and self calibrates to 100% transmittance after being powered on.
4. The minimum size of test hole is $\varnothing 0.5\text{mm}$.
5. Stainless steel work surface design, dedicated outlook, convenient for placement of the tested material and easy to operate.

IV: Precautions

1. When the instrument tests and calibrates itself after being powered on, there should be no tested materials in testing position. Or else, self-calibration of the instrument fails.
2. Avoid contacting corrosive substance and keep away from high temperature and high humidity environment.
3. When continuously in use for a long time, data on three displays may be not "100", At this point, power off the instrument, and reboot it for self-testing and self-calibration. Measuring accuracy and normal use will not be influenced.
4. Occasionally in case the displayed data cannot be returned to "100" when there is no tested material on the testing position, power off and reboot the instrument.
5. Please power off the instrument when not in use.

V: Standard packing list

No.	Description	Quantity	Unit
1	LS108D lens transmission meter	1	pcs
2	DC5V Adapter	1	pcs
3	User Manual	1	pcs
4	Certificate / warranty card	1	pcs
5	USB flash disk with PC software	1	pcs

VI: Service

1. The meter has one-year warranty. If the meter works abnormally, please send the whole meter to the company for maintenance
2. Provide users with spare parts and lifelong maintenance services
3. Provide the users with the meter inspection service for free
4. Free technical support for long term

Manufacturer: Shenzhen Linshang Technology Co.,Ltd.

Website: www.linshangtech.com

Service hotline: 086-755-86263411

Email: sales21@linshangtech.com