

PSS CHIP12806-P

Visible Laser CHIP tester ▶▶▶



Product Introduction

This equipment is used for visible laser CHIP normal temperature PIV test, spectrum test and classification screening of different test results. Chips use blue film loading, automatic material seeking, Identify and locate, chips are stripped by the blue film thimble, sucked by the suction nozzle, manipulator completed the transport, visual identify and calibrate the position, automatically power on, collect luminescent parameters, test PIV/spectrum, analyze and screening, chips are classified and transported to different blue film positions by manipulator.

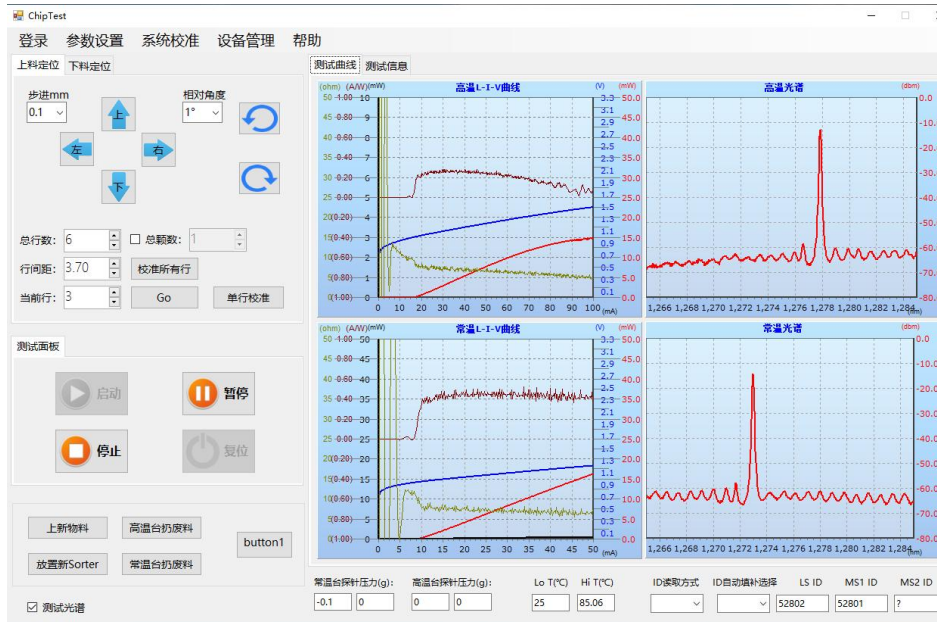
This equipment has the characteristics of high speed and high precision, and achieves the process of complex timing and strict logic. The equipment adopts linear motor, high-precision module movement, cam and other mechanisms, cooperates with multi-axis movement, visual positioning, ORC identification and other technologies, and has mass production capacity.

Product application

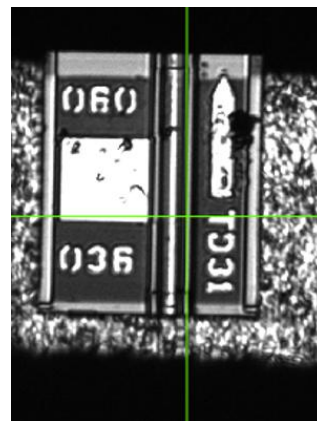
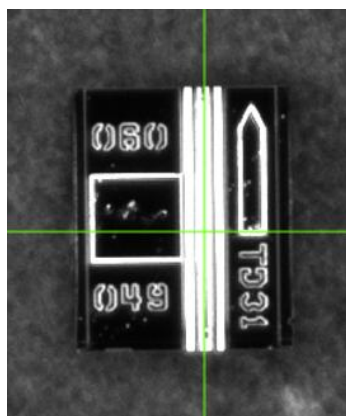
- The equipment is used for automatic test and classification of visible laser bare chips, it achieves the spectrum and LIV parameter testing of edge-emitting chips under normal temperature and high temperature conditions

Product features

- Support Chip LIV, spectrum related parameter test, draw test curve



- Chips use blue film automatic loading, and automatic identify chip ID through vision system. The test bench supports automatic secondary positioning of the chip under the camera, and precisely controls the power-on test of the probe



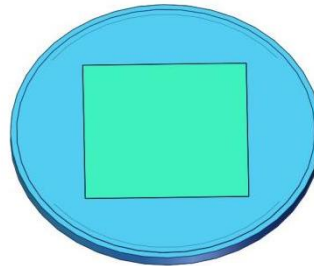
Loading camera focusing Test bench camera focusing

- The probe is automatic pressing down to power-on, probe's press down intensity is adjustable, support real-time display of the probe intensity

- Unloading configuration includes 8 blue film disks and 4 2-inch GelPak boxes

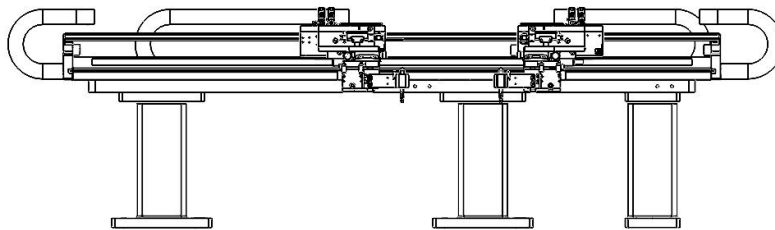


2 "vacuum release box

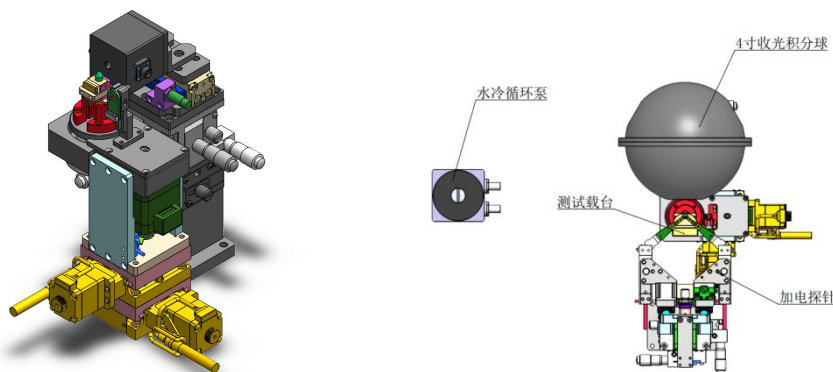


6 "blue film ring

- Picking and handling mechanism (composed of loading and unloading suction nozzle, the handling axis is controlled by high-precision linear motor), with good stability and high motion precision



- Achieve low-power test and high-power test: low-power test system (air cooling + TEC temperature control; 1-inch integrating sphere to collect light, measure PIV, spectrum), (reserved) high-power test system (water cooling + TEC temperature control; 3-inch integrating sphere to collect light, measure PIV, spectrum)



Technical parameters

Parameters	Description/Value
Suitable chip size	L x W : 200-2000 μm x 120-300 μm Other sizes can choose customized test platforms
Instrument model	(Keithley) 2601B-PULSE
Measurement parameter	LIV curve, Ith, Po, Vf, Im, Rs, SE, Kink Etc.
LD driving current	The low-power chip range 0~300mA, accuracy 0.1%FS \pm 0.5mA The high-power chip range 0~5A ,accuracy 0.1%FS \pm 5mA
Current mode	CW/Pulse
P-I-V	Pulse 0.1ms (ON) Duty1%
Forward voltage test	The low-power chip range 0 ~15.0V, accuracy 0.1% FS \pm 50mV The high-power chip range 0 ~10.0V , accuracy 0.1% FS \pm 50mV
Reverse current test	0 ~ 100nA, accuracy 1% FS \pm 1.0nA, @<50%RH 0 ~ 1uA, accuracy 0.1% FS \pm 10nA, @<50%RH 0 ~ 10uA, accuracy 0.1% FS \pm 0.1uA, @<50%RH 0 ~ 100uA, accuracy 0.1% FS \pm 1uA, @<50%RH 0 ~ 1mA, accuracy 0.1% FS \pm 10uA, @<50%RH
Reverse voltage test	range 0 ~ 30.0V, accuracy 0.1% FS \pm 0.3V
Optical power test	The low-power chip ranges : 0-300mW; accuracy 0.1% FS \pm 50uW; wavelength range 380-700nm The high-power chip ranges : 0-10W; accuracy 0.1% FS \pm 10mW; wavelength range 380-700nm
Temperature control	range:20~85 $^{\circ}$ C; stability \leq \pm 0.5 $^{\circ}$ C
Equipment size	2050mm \times 1800mm \times 2090mm(L \times W \times H)
Air supply requirements	Positive pressure: >0.6MPa Negative pressure: <-80KPa
Power supply	AC 220V/8A 50Hz