

# PSS WT-VL602

High power VCSEL tester ▶▶▶

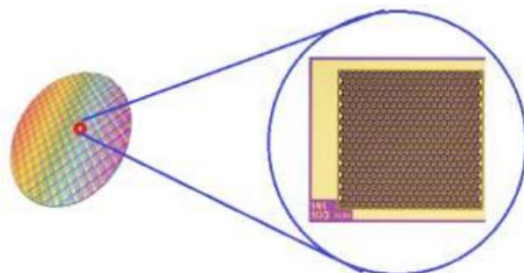


## Product Introduction

PSS high power VCSEL tester is used for Wafer testing of vertical cavity surface emission laser chips, supporting the testing of LIV, spectrum, near field and far field parameters with 100ns level pulse width up to 30A current, visual automatic recognition, and fully automatic testing of each chip. Chuck can test the temperature between 25 ° C and 85 ° C. Standard 6inch Wafer test, compatible with 2, 4inch wafers and broken wafers testing, open measurement database to users for subsequent screening process.

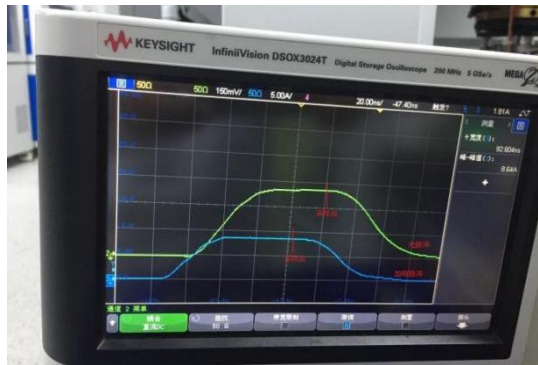
## Product application

- VCSEL chip testing for 3D sensing, lidar, high-power laser and other applications
- Verification test of high-power surface transmitter chip

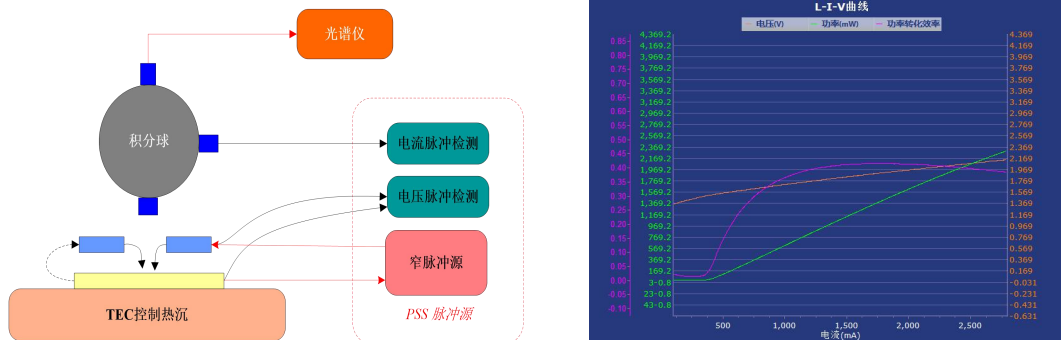


## Product features

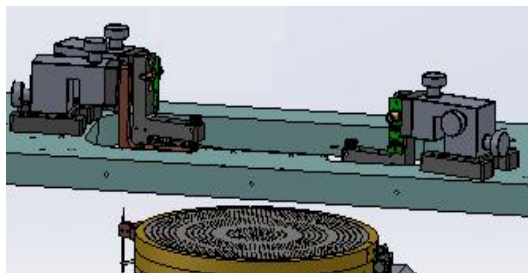
- Integrates self-made ultra-narrow pulse SMU, minimum pulse to 100ns, maximum current 30A



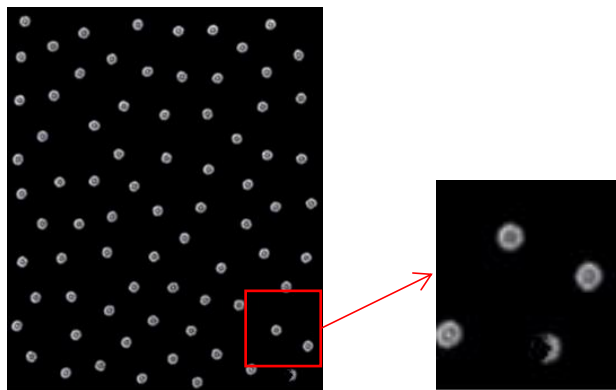
- Integrating ball synchronous light collection, support LIV test and spectrum test



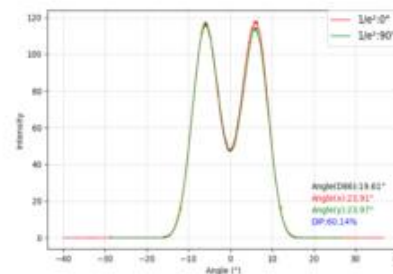
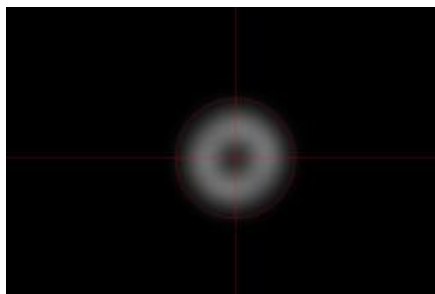
- The probe has small inductance coefficient, supports narrow pulse high current (minimum pulse 100ns, maximum current 30A) test, double probe four-wire method test, probe pressure is adjustable; The probe is controlled by electric slide table to realize addressable test and multi-channel test.



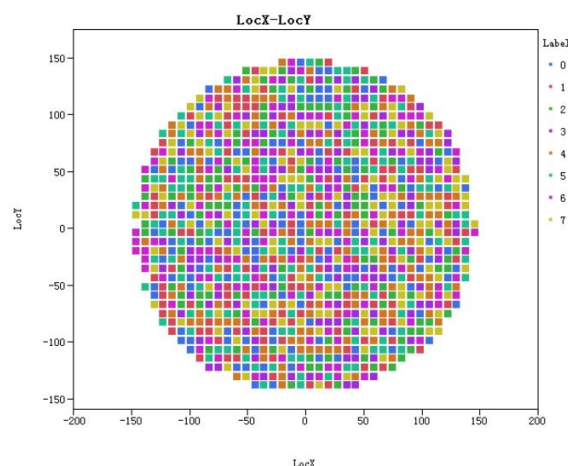
- Supports wafer position identification and automatic adjustment
- The test platform is made of high thermal conductivity material, TEC temperature control, the temperature range can support 25~85°C
- Supports fast spectrum testing
- Supports NF uniformity and bad spot detection and M2 factor, waist girdling



- Support FF test divergence Angle test



- Software supports accurate positioning map, coordinate data generation, database automatically store data and pictures



## Technical parameters

Parameters	Description/Value
Suitable Wafer size	2inches、4inches and 6inches
Chip power-on mode	Support the same and different face type of VCSEL power up
Pulse current output	Range 0-30A, accuracy 0.5%rdg ± 250mA, minimum pulse width 100ns, Duty cycle: more than or equal to 1A current <0.1%, less than 1A current <50%
Voltage measurement	range : 0-40V, accuracy : 0.5%rdg±250mV
Optical power	Integrating sphere to collect light, range :0-200W, accuracy : 0.5% FS ±10mW
Wavelength range	400-1100 nm, Other wavelength support custom service
Output characteristic curve	(1)LIV Characteristic curve (2) Spectral curve
LIV parameters	I <sub>th</sub> , V, I <sub>r</sub> , SE, R <sub>s</sub> , P, PCE, Wavelength, FWHM Etc.
Near-field parameters	The number of luminous holes, dark bad points, consistency, can also be customized M2, hole divergence Angle, waist test function
Far-field parameters	Divergence Angle(1/e <sup>2</sup> , D86,D50)、DIP
Spectral parameter	λ <sub>p</sub> Peak wavelength
Addressable function	The probe is controlled by electric slide table to realize addressable test
Laser ranging	Laser ranging is used to leveling Chuck and wafers with an accuracy of less than 1um.
Temperature control range	25 ~ 85°C, stability<±1°C
Equipment size	1250mm(L)×1100mm(W)×1750mm(H)(this size not contain lights and displays)
Air supply requirements	Positive pressure: None, Negative pressure: ≤ -80KPa
Power supply	AC 220V/16A 50Hz