VAT-2000 VCSEL光电性能自动在线测试系统

VAT-2000 VCSEL Optoelectronic Performance Automatic On line Testing System

- VAT-2000 VCSEL光电性能自动在线测试系统为VCSEL的全自动在线测试系统，能在线测试光形分布、FOV、辐射及电参数，并自动评价人眼安全等级；软件功能强大，可以对产品进行合格判定和自动分级，对测试结果进行追溯，也可以根据客户要求特殊定制。

VAT-2000 VCSEL optoelectronic performance automatic online testing system is a fully automatic online testing system of VCSEL, which can online test light shape distribution, FOV, radiation and electrical parameters, and automatically evaluate the safety level of human eyes; The software has powerful functions. It can judge and automatically grade products, trace test results, or customize according to customer requirements.



技术参数 Specifications

- **测试线总体描述：**
  General description of test line:
- 设备尺寸：1800mm(L)*1600mm(W)*2000mm(H)（不含接驳台或自动送板/收板机）
  Equipment size: 1800mm (L) * 1600mm (W) * 2000mm (H) (excluding connecting platform or automatic plate feeding/receiving machine)
- 系统主要功能：
  Main functions of the system:
- 1）性能综合分析测试功能
  1) Comprehensive performance analysis and test function
- 光形分布：FOV、光斑尺寸、强度分布；
  Light shape distribution: FOV, spot size, intensity distribution;
- 光电参数：光谱曲线、辐射功率、光电转换效率、峰值波长和电参数等等；
  Photoelectric parameters: spectral curve, radiation power, photoelectric conversion efficiency, peak wavelength, electrical parameters, etc;
- PD测量：暗电流和光电流；
  PD measurement: dark current and photocurrent;
- 人眼安全：自动评价人眼安全等级；
  Human eye safety: automatically evaluate the level of human eye safety;
- 2）产品合格判定和自动分级
  2) Product qualification judgment and automatic grading
- 按照客户需求，设定合格阈值，系统根据测试结果，可将产品进行分级和合格评判，对合格品进行分拣。
  Set the qualification threshold according to the customer's requirements. The system can grade and judge the products according to the test results, and sort the qualified products.
- 3）测试结果可追溯：每个VCSEL与测试数据一一对应，可追溯。
  3) Traceability of test results: each VCSEL corresponds to the test data one by one and is traceable.
- 4）测量速度：500样品/h
  4) Measuring speed: 500 samples/h

技术参数 Specifications

- **关键指标：**
  Key indicators:
- 1）测量光谱范围：800-1000nm;
  1) Measuring spectrum range: 800-1000nm;
- 2）半峰带宽： 0.2nm;
  2) Half peak bandwidth: 0.2 nm;
- 3）波长准确度：0.05nm;
  3) Wavelength accuracy: 0.05nm;
- 4）VCSEL测量专用脉冲电源，可实现程控脉冲输出，脉冲宽度、占空比均可调;
  4) VCSEL special pulse power supply for measurement can realize programmed pulse output, and the pulse width and duty cycle can be adjusted;
- 5）脉冲宽度：100μs~30ms;
  5) Pulse width: 100 μ s~30ms;
- 6）占空比：1%~10%;
  6) Duty cycle: 1%~10%;
- 7）脉冲恒流测量范围：0~5A;
  7) Pulse constant current measurement range: 0~5A;
- 8）脉冲电压测量范围：0~5V;
  8) Pulse voltage measurement range: 0~5V;
- 9）最大输出能力：5A/5V;
  9) Maximum output capacity: 5A/5V;
- 10）电压电流测量准确度：0.2%读数+0.1%量程.
  10) Voltage and current measurement accuracy: 0.2% reading+0.1% measuring range
- 11）FOV角度范围：（±75°）*（±75°）;
  11) FOV angle range: (± 75 °) * (± 75 °);
- 12）测量距离：250mm.
  12) Measuring distance: 250mm