



High-power components, light-engines or LED-arrays can be tested on the AT100. The design incorporates a sphere for absolute optical measurements of all components of the lead frame or product carrier. The design is optimised for full optical isolation, ensuring accurate and repeatable analysis results. The AT100 Test System runs a variable test optical and electrical test programme, including dim test (power-up and evenness) and extensive optical (peak/dominant wavelength, CIE x/y, CRI, Luminous Flux and Efficacy, etc.) and electrical tests. An optional heating element allows temperature dependent tests from 25° to 100°C (77°F to 212°F).

The results are mapped and provided to upstream processes, like our AB 330 singulation and sorting machine or to manufacturing data systems. We can also incorporate camera measurement solutions for relative value analysis. An optional ID reader can determine the lead-frame or unit ID before test. A post-test laser marker would be used to mark test results or product IDs onto every single product of the carrier or lead frame. We can also add our singulation module pre-test to test singulated units.

The system processes ca. 100 substrates per hour, depending on number of LEDs on the substrate and the test time.

- Turnkey-Solution for fully automated LED-Array Test
- Conveyor or Magazine Input, compliant to SMEMA standard
- Automatic magazine orientation and jamming detection
- Automatic Substrate-Oriented and ID check
- Optional High-Temperature Test between 25
- Quick & Easy Conversion in under 1 hour by Changing Probe Card for different products

|                        |                  |   |
|------------------------|------------------|---|
| Products               | LEDs in Arrays   |   |
| Process Specifications | input            | Substrate from Magazine or Conveyor (SMEMA)   |
|                        | Tests            | Dim Test (power-up and evenness)<br>Functional LED Test (optical & electrical parameters above) |
|                        | Temperature Test | optional, 25°C to 100°C   |
|                        | Output           | Magazine or Conveyor (SMEMA)  |
| UPH                    | 100 substrates   |   |
| MTBA                   | 100 substrates   |   |

|                   |  |
|-------------------|--|
| Footprint (WxLxH) | 2180 x 1150 x 2000                                 |
| Power             | Single Phase 110VAC, 30A (other options available) |
| Air Pressure      | 0.5 - 0.6 MPa                                      |
| Air Consumption   | 4.5 m <sup>3</sup> /hr                             |

### Test Parameters:

#### Electrical

1. Open / Short test
2. Forward Voltage / Current
3. Reverse Voltage / Current

#### Optical

1. Peak Wavelength
2. Dominant Wavelength
3. CIE x/y and CIE u'/v'
4. CRI
5. CCT
6. Luminous Flux and Efficacy
7. Color Purity
8. FWHM