

LaserVision Systems

SYSTEM VERSIONS

LaserVision 6 Standalone

Standalone-System equipped with color sensor module in GigE Vision technology and telecentric lenses, automatic drawer with flexible adapter for PCBs as well as a lighting unit consisting of 9 independently programmable modules (top + 8 sides)

LaserVision 6 Inline

Inline-System equipped as LV6 Standalone but with a transport system, adjustable PCB support, indicator light and SMEMA interface

SYSTEM COMPONENTS, HARDWARE

Image Processing Computer

- | 19" Rack PC with Microsoft Windows OS
- | LCD monitor

XY-Positioning Unit

- | Working area
- | SMD configuration inline (over 2 stop positions): 650 x 450 mm
- | Standard configuration inline (over 2 stop positions): 550 x 400 mm
- | Standard configuration standalone: 350 x 400 mm

Orthogonal Color Sensor Modul with Mega Pixel Technology

| Resolution | Sensor/Pixel | Field of Vision/mm | Component size |
|---------------|-----------------|--------------------|--------------------|
| 55,3 µm (THT) | 1024 x 768 | 56,63 x 42,47 | THT < 65 mm height |
| 15,7 µm (SMD) | 2048 x 2048 | 32,15 x 32,15 | pitch 0.4 0402 |
| 8,6 µm (FINE) | 2448 x 2448(4M) | 17,60 x 17,60 | pitch 0.3 01005 |

Option Angled-view Module

Four lateral cameras in addition to the main camera are integrated into the lighting

Option Height Measurement by Laser Triangulation

- | Laser: safty class 2; red 675 nm
- | Working area: 0 - 70 mm accuracy 0,2 mm
- (Accuracy depending on test surface reflection)

Vertical Clearance

- | Top: 65 mm
- | Bottom: 55 mm

Test Speed

| Depending on board design and configuration:

General Data

- | Power supply 230V / 3A o. 110V / 6A
- | Certificat CE (EU-standarts, Machine directive incl. EMC etc.)
- | Dimensions in mm 1550 x 1000 x 1040 (H xW x D)
- | Weight (Standalone/Inline) ca. 350 kg/370 kg
- | Operating temperature 10°C to 35°C
- | Operating humidity < 80 %, non-condensing

Inline-System

- | Compressed air 4 bar
- | Assembly line height 840 mm +/- 25 mm
- 890 mm +/- 25 mm
- 940 mm +/- 25 mm
- (other heights possible)

Communication with assembly line via SMEMA interface

SOFTWARE

Standard Routines for Image Processing

- | Component angel 0 – 360° supported
- | Presence and polarity verification on all THT and SMD components
- | Measurement of component position (offset, angle)
- | Solder joint inspection on SMD and THT components
- | Solder joint inspection on ICs
- | Short-circuit tests (solder bridges)
- | Solder paste inspection (2-D)
- | Initial sample test

Options

- | Offline programming, remote station
- | Further licenses for LVRepair, LVBoard, LVStat
- | Monitor arm
- | Keyboard for repair station aid

Production Tools, Documentation

- | Automatic storage of test results
- | Barcodes readable with camera
- | User definable result messages
- | CAD data conversion tool, license for LVCad
- | Fault statistic, yield-meter, SPC (LVStat)
- | Graphical repair station (LVRepair)
- | Graphical board view (LVBoard)
- | Offline-serial debugg
- | Remote service - debug via internet
- | OCV-Software-Modul (optical character verification) - (also for laser engraved components)

