

LaserVision 6

System Versions

High Speed Stand-Alone-System, LV6/HS

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 composed of 5 independently programmable modules (top + 4 sides)

High Speed Inline-System, LV6/HI

equipped as LV6/HS but with a transport system, adjustable PCB support, indicator light, SMEMA

System Components, Hardware

Image Processing Computer

- | 19" Rack PC with Microsoft Windows OS
- | Matrox image processing card
- | LCD monitor

XY-Positioning Unit

Working area
 SMD configuration HI (over 2 stop positions): 550 x 430 mm
 Standard configuration HI(over 2 stop positions): 550 x 400 mm
 Standard configuration HS: 350 x 400 mm

Orthogonal Sensor Modul with Mega Pixel Technology

Resolution	Sensor/Pixel	Field of vision	Component size
55,3 µm (THT)	920x720	50,9x39,8 mm	THT < 65 mm height
15,7 µm (SMD)	2200x1730 (4MP)	34,5x27,2 mm	pitch 0.4 0402
8,6 µm (FINE)	2448x2050 (4MP)	21,1x17,6 mm	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: safety 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:
 Typ. 180.000 components/h

General Data

Power supply	230V / 3A o. 110V / 6A
Certificat	CE (EU-standarts, machine-directives incl. EMC etc.)
Dimensions in mm	1550 x 1000 x 1040 (H x W x D)
Weight	(Stand-alone/Inline) ca. 240 kg/270 kg
Operating temperature	10°C bis 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 SMEMA

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
- | Short-circuit tests (solder bridges)
- | Solder paste inspection (2-D)
- | Initial sample test

Standard Routines for Laser Height Measurement

- | Height difference measurement to measure presence and height of components
- | Height profile measurement in a specific region
- | Coplanarity measurement

Production Tools, Documentation

- | Automatic storage of test results
- | Barcodes readable with camera
- | User definable result messages
- | CAD data conversion tool, license for LVCAD
- | Test result output (configurable ASCII Format), transfer to external QMS
- | 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)

