

# **MicroVision** Model 882 PLCC Mark/Lead Inspector

Microvision introduces the next-generation of automated PLCC inspection, featuring high-speed tube-to-tube/tape device handling at rates of up to 4,500 UPH



**UST Technology Pte Ltd**  
998 Toa Payoh North, #05-25  
Singapore 318993  
Tel (65) 6252272 Fax (65) 62538773  
Website: <http://www.ust.com.sg>

#### **Oversea offices:**

- UST Philippines
- UST Kuala Lumpur
- UST Penang
- UST Bangkok
- UST USA

Microvision's new Model 882 is an automated device handling and vision platform engineered to perform PLCC mark / lead inspection at unparalleled speeds and levels of accuracy in an extremely compact footprint.

Destined to take its place as the industry PLCC inspection Standard, this modular next-generation platform can be deployed as a basic tube-to-tube handling platform with speeds of up to 4,500 UPH.

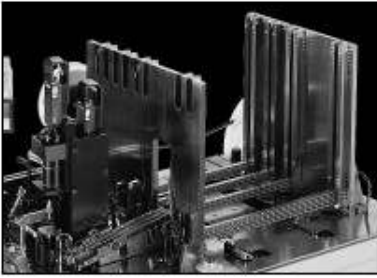
The Model 882 employs the field-proven modular technology of our Model 881, such as completely adjustable input / output hardware that enables quick and easy changeover among 20 to 84 lead devices, as well as numerous next-generation enhancements to maximize throughput, efficiency and economical operation.

#### **System Features:**

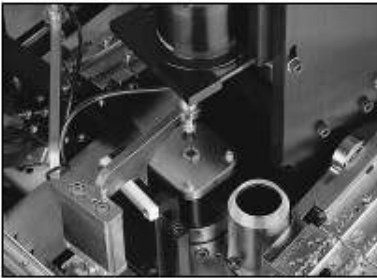
- High-throughput of up to 4,500 UPH in tube-to-tube mode;
- Windows XP Based Operating System & System Software;
- SEMI-Compliant Graphical User Interface;
- User-definable quad reject to tubes;
- High-Speed Tape & Reel Module with Auto-Cut;
- On-line SPC;
- Mark Inspection - missing, incomplete, incorrect character, logo or mark; smeared, blurred, scratched, low-contrast mark; angled, misaligned, reversed, double, extra mark;
- True Coplanarity and Standoff Lead Measurement;
- Device leads can be inspected for spacing, spread, tweeze, skew, standoff, sweep, coplanarity, broken or missing areas.
- 3 sigma accuracy  $\pm .5$  mils;
- 3 sigma repeatability  $\pm .3$  mils.

#### **Optional System Features:**

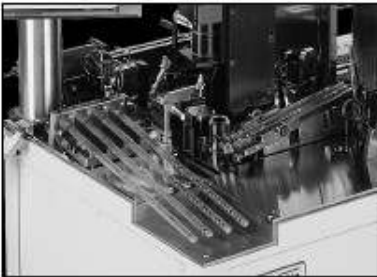
- 2-D In-Pocket Mark Inspection



A dual-function tube shuttle (above) provides precise, yet adjustable, input in a small footprint. Changeover among device sizes is fast and easy.



Devices are transported to a rotating inspection nest (above) where solid state cameras log a digital mark and lead image profile of each device, which is then analyzed for compliance with user-defined inspection tolerances.



Failed devices are automatically output to an array of user-classified reject tubes (above).



Passed devices are output to tubes or the high-speed tape & reel module (above). Changeover among device sizes is fast and easy. Lot data and SPC reports can be output to disk or the included printer.

### Inspection Capabilities:

The Model 882 employs a sophisticated machine vision system with three digital cameras to digitally capture strobe images of each PLCC device, and then inspect them for defects and compliance with dimensional tolerances.

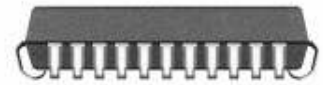
**Mark Inspection:** Laser or ink marks can be inspected for quality, contrast, correctness, proper orientation and other characteristics.

**Lead Inspection:** Device leads can be inspected for spacing, spread, tweeze, standoff, sweep, coplanarity, broken or missing leads.

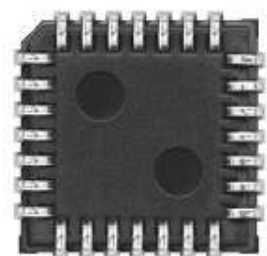
Bottom Camera:  
Mark & Lead Inspection



Side Camera:  
Lead Inspection



Top Camera:  
Lead Inspection



### Facilities Requirements:

#### System Dimensions:

34" (w) x 75" (l) x 72" (h)

#### System Power:

110 -240 V AC  $\pm$  10%,  
50/60 Hz @ 2kW

#### Compressed Air:

80psi  $\pm$  10psi @ 12 SCFM

#### Temperature:

5°C (41° F) to 40°C (104°F)

#### Humidity:

10% to 90% non-condensing

#### System Classification:

< Class 10K clean room environment

