

# YTX-3000 X-Ray

## High Resolution X-Ray System

- High Performance
- Maintenance Free
- Cost Effective
- Superior Software

The YTX-3000 x-ray system offers EMS providers and semiconductor packagers a superior yield enhancement solution to reduce costs, improve quality and increase throughput.

The YESTech YTX-3000 provides users with a high-resolution x-ray capability in a flexible, compact maintenance free configuration. The YTX-3000 is available with a 4 or 5 axis sample manipulator and a 15" x 20" (380mm x 508mm) x-y travel for samples up to 5 pounds in weight. Full 360 degrees of rotation and 30 degrees of tilt are available. Stepper motor drives provide a wide range of motion from ultra-slow use at high magnifications, to high speed for travel over large distances. All systems come with a unique control module and programmable motion for automated inspection.

The YTX-3000 comes with YESTech's proprietary machine vision technology for fully automated inspection of BGA and flip chip devices. Other optional inspections include die attach, bond wire and correct assembly verification.



### X-Ray Inspection for:

- BGA / Flip Chip
- Solder joint quality
- Voids
- Bond wires
- Electronic and sealed assemblies

## Y T X - 3 0 0 0 S p e c i f i c a t i o n s

### X-Ray Tube:

Maintenance free  
Sealed reflection target  
130 Kv, 5 micron spot size  
39-watt max. output

### Sample Manipulator:

15"x 20"x 18" (380mm x 508mm x 457mm) x-y-z-theta programmable indexing table with control module. Optional tilt available.  
Variable zoom magnification to 120x.

### Cabinet:

49"x 48" x 80" (1245mm x 1220mm x 2032mm) cabinet with  
18" x 18" (457mm x 457mm) door and viewing window

### Facilities:

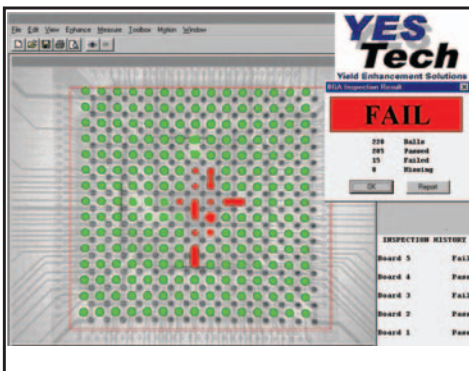
Power: 110 VAC (220 optional) 50 / 60 Hz 15amps  
Weight: 2,000 lbs. (907Kg)  
Machine installation: < 1 hour

### Software:

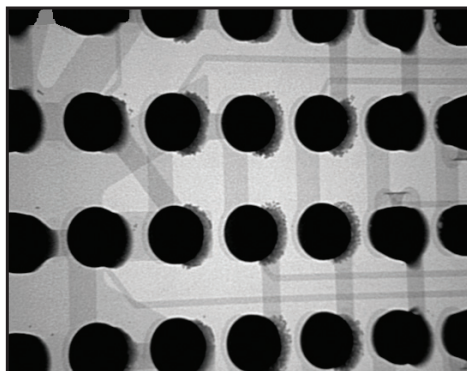
BGA, Void, Wire Sweep, Off-set, 3-D

### Safety:

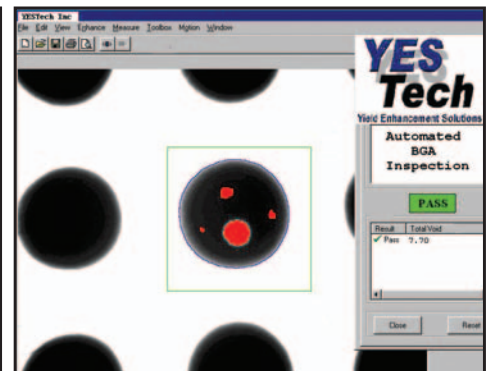
YESTech x-ray systems are manufactured to comply with the federal standard for cabinet x-ray equipment as established in Title 21, Subchapter J of the code of federal regulation sections 1020.40. Lead is used to line the cabinet and door, with lead doped glass for the viewing window. Interlock switches ensure that x-ray radiation can not be generated with any part of the cabinet open or removed.



Automated BGA inspection and SPC software.



Rotated view of micro-BGA showing unreflowed solder joints.



Automated void calculation.

