

# YTX-3000 HXR

## Extremely High Resolution X-Ray System

- Open Tube Low Maintenance Design
- Sub-micron Resolution
- High Magnification
- Superior Software
- Cost Effective

YESTech's YTX-3000 HXR x-ray system combines extremely high resolution and magnification with the proven power and ease of use of the YTX-3000, to provide SMT and semiconductor manufacturers the most cost-effective high resolution x-ray inspection solution available.

Featuring an open-tube transmission target x-ray source with integral high-voltage power supply and computer-controlled operation, the HXR system easily resolves sub-micron features with zoom magnifications up to 2400 x. The source is designed for minimum maintenance, with easily replaceable filament and target assembly.

The 3000 HXR is available with a 4 or 5 axis sample manipulator and a 15" x 20" (380 mm x 500 mm) x-y travel for samples up to 5 pounds in weight. Full 360 degrees of rotation and 30 degrees of tilt are available. Computer-controlled 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.

Each YTX system is equipped 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.

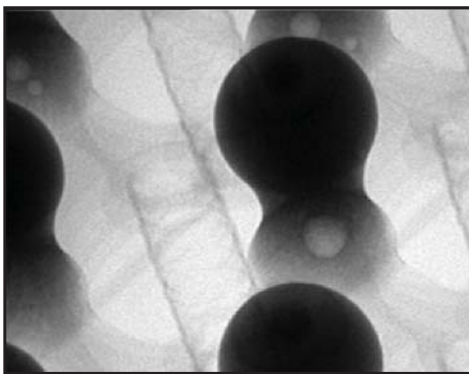


### X-Ray Inspection for:

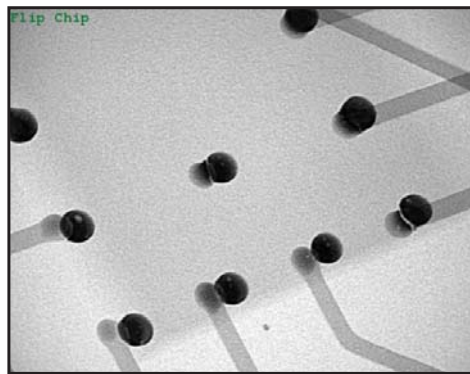
- BGA / Flip Chip
- Solder joint quality
- Voids
- Bond wires
- Electronic and sealed assemblies

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

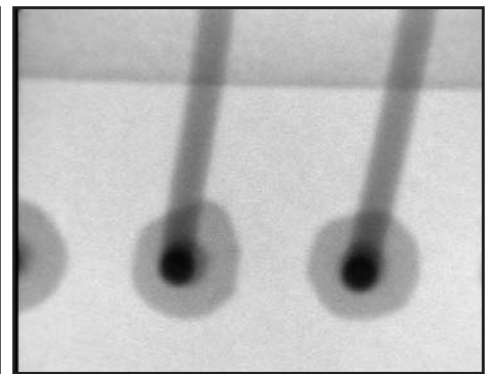
<b>X-Ray Tube:</b>	<p>&lt; 1 micron feature recognition</p> <p>Open tube design</p> <p>Integral high voltage power supply</p> <p>Transmission target</p> <p>20-110 Kv</p> <p>2 w to 22 w</p>
<b>Sample Manipulator:</b>	<p>15"x 20"x 18" (380mm x 508mm x 457mm) x-y-z-theta programmable indexing table with control module. 360° rotation and manual tilt.</p> <p>Variable zoom magnification to 2400x.</p>
<b>Cabinet:</b>	<p>49"x 48" x 80" (1245mm x 1220mm x 2032mm) cabinet with</p> <p>18" x 18" (457mm x 457mm) door and viewing window</p>
<b>Facilities:</b>	<p>Power: 110 VAC (220 optional) 50 / 60 Hz 15amps</p> <p>Weight: 2,300 lbs. (1043Kg)</p> <p>Machine installation: &lt; 1 hour</p>
<b>Software:</b>	<p>BGA, Void, Wire Sweep, Off-set, 3-D</p>
<b>Safety:</b>	<p>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.</p>



Lifted BGA ball



Open flip chip joints



25 micron diameter bond wires

