

# The RTX Backplane Real Time X-ray Inspection System

The RTX Backplane X-ray System has enormous capacity. It can accommodate multilayer and assembled pc boards up to 36" x 42" weighing up to 40 lbs. The standard model employs an 80 kv, 30 micron focal spot x-ray tube. An optional 80 kv, 10 micron focal spot x-ray tube is also available.



The RTX Backplane is ideal for inspecting backplane pc boards and assembled boards with BGA, micro BGA, QFN, LED and other devices.

The MicroTech feature allows up to 100x geometric and 225x optical magnification for inspection of small packages and drilled holes down to 4 mil.

The cabinet includes a hinged lead acrylic shield with interlock for operator safety. The operator can use the joystick controlled motorized x-y positioner to quickly and easily scan the panel.

The x-ray tube is PC Adjustable from 40 kv to 80 kv. The system employs our patented XRTV x-ray camera enhanced with Crystal X for superior resolution and contrast.

A number of image processing software packages are available for drill offset measurement and Auto-BGA analysis to measure BGA ball size, ball roundness and void size.

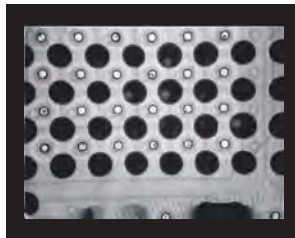
The machine is on wheels for easy movement within the production area.

## APPLICATIONS



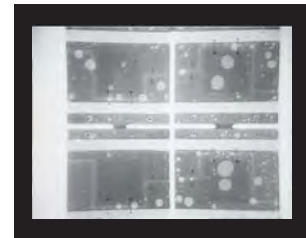
### Small Hole Drilling of PC Boards

Now inspect drilled holes as small as 4 mil. using geometric and optimal magnification up to 225x. The x y drill offset can be accurately measured using our GTI-3000 image processing software.



### BGA Inspection

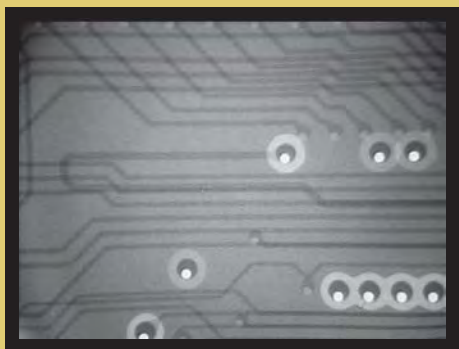
Check for voids, opens, shorts and insufficient reflow. BGA ball Size, Ball Roundness and Void Size can be measured using the advanced features of our GTI-5000 image processing software. It's ideal for quick process inspection for more advanced image analysis.



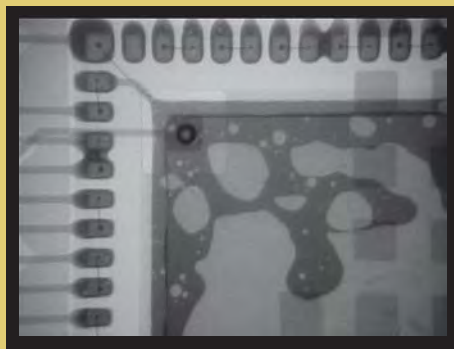
### LED Inspection

Quickly and easily inspect LED's for voids. Additional void measurement is available by using our GTI-5000-our image processing software for superior image analysis.

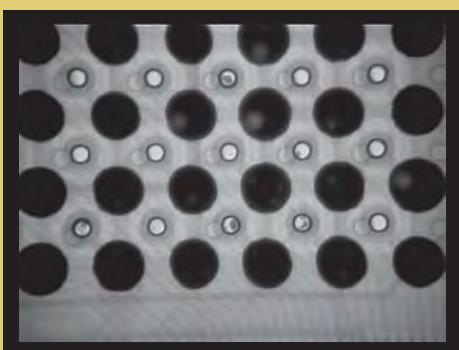




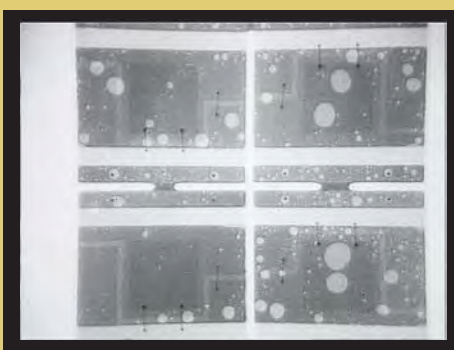
Small Hole Drilling of Multilayer PC Board:  
Misregistration on 6mil hole to pad



QFN Inspection: Shortx on QFP Package



BGA Inspection: Voids in BGA Package



Voids in LED Device

## SPECIFICATIONS

- Magnification up to 100x geometric + 225x optical
- Manual x-y positioning with linear glide
- Voltage: Auto switching 120v or 220v
- Contrast Resolution: Can resolve .001 gold wire
- Spatial Resolution: 20lp/mm up to 100lp/mm
- Anode Voltage: 40Kv-80Kv (PC Controlled)
- Anode Current: 20-150 microamps
- X-ray Tube Focal Spot: 30 micron standard, 10 micron optional
- Machine Dimensions: 71" L x 73" W x 58" H.
- Tray Size: 27.5" x 32".



Available with GTI-2000, 3000 or 5000 Image Processing Software

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