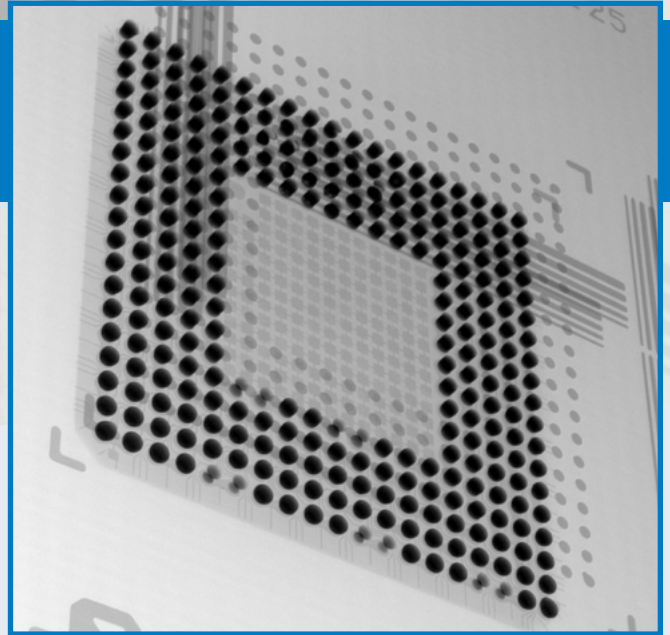


## The Solution for Large Board Applications



BGA with Open Joints

### Advantages

- DAGE NT500 Maintenance-Free, Sealed-Transmissive X-ray Tube
- < 0.5  $\mu\text{m}$  Feature Recognition
- 160 kV Tube with Up to 10 W Target Power - Always Retains Sub-Micron Ability
- DAGE 3 Mpixel @ 25fps Long Lifetime CMOS Flat Panel Detector with Real Time Image Enhancements
- Geometric Magnification 1,800 X, System 7,800 X for Total 23,400 X with Digital Zoom
- 33" x 24.2" (840 x 615mm) Tray Size
- 47" x 26.4" (1205 x 672 mm) Maximum Board Size with reduced Magnification
- 70° Oblique Views without Loss of Magnification
- Two 24" TFT LCD Monitors
- AXiS - Active X-ray Image Stabilization
- No Programming Skills Required for Automated Inspection Tasks
- Options: X-Plane®; Joysticks

DAGE, the only x-ray company whose focus is on x-ray electronics inspection, offers the DAGE XD7800NT Ruby XL x-ray inspection system as the DAGE NT maintenance-free, sealed-transmissive x-ray tube, providing 0.5  $\mu\text{m}$  feature recognition and up to 10 W of target power, together with the 3 Mpixel long lifetime CMOS flat panel detector makes this jewel of a system cover all the failure analysis and manufacturing tasks required in the production environment.

The vertical system configuration, with the x-ray tube sitting below the isocentric 'move and tilt' of the detector,

all controlled through simple, joystick-free, 'point and click' operation, provides the safe, collision-free and high magnification inspection required for production applications. All these tasks can be simply and quickly automated from within the DAGE Image Wizard software without the need for programming skills. Optional upgrades include X-Plane™ and joystick control.

**Crystal Clear X-ray Inspection. DAGE.**

# XD7800NT Ruby XL X-ray Inspection System

## Specifications

- DAGE NT500 sealed-transmissive, filament-free x-ray tube:
  - < 0.5 µm feature recognition 30 - 160 kV for < 4 W target power
  - < 0.95 µm feature recognition when above 4 W target power
  - 10 W max. target power above 110 kV
    - automated tube stabilisation
- 1,800 X geometric magnification (7,800 X system magnification)
- 23,400 X total magnification including digital zoom
- Easy, collision-free, high magnification inspection:
  - even at oblique angle views
  - joystick-free, ‘point and click’ operation
- Tray size: 33” x 24.2” (840 x 615mm)
- Maximum board size: 47” x 26.4” (1205 x 672 mm) with reduced magnification  
\*Please refer to Dage for clarification for larger boards
- Maximum inspection area: 33” x 24.2” (840 x 615mm)
- 70° oblique angle views (over 30” x 24”, 762 x 610 mm):
  - for 360° around a point of interest
  - isocentric manipulator configuration keeps features in field of view
- Long Lifetime CMOS digital detector with 1940 x 1530 pixels (3 Mpixels)
  - 25 fps full-frame ‘real time’ image acquisition
  - real time image enhancements
- 16-bit digital image processing
- AXiS - Active X-ray Image Stabilisation - anti-vibration control
- Two off 24” TFT LCD operator display monitors
- DAGE Image Wizard operating software including:
  - automated and manual component fault analysis including BGA & QFN
  - simple to create and use robust automated inspection routines
  - plated through hole (PTH) fill percentage calculation
  - accurate measurement functions
  - automated and manual die attach / area void calculation
  - patented<sup>1</sup> X-ray navigation map for easy fault location
  - simple to use, no complicated joysticks required
- Fully lead-shielded system safety cabinet
  - providing < 1 µSv/hr x-ray leakage
  - meets all international standards
- 1 years system warranty

## Options

- Patented X-Plane®<sup>2</sup>
- Joystick control (X,Y or X,Y & Z)
- Barcode reader
- 2nd Year warranty

## System

- Approximate Size: 94.5” x 98.5” x 81.5” (w x d x h)
- Approximate Size: 2400 x 2500 x 2070 mm (w x d x h)
- Approximate System Weight: 3000 kg (6600 lbs)
- Maximum Sample Weight: 10 kg (22 lbs)
- Power: Single Phase 200 - 230Vac, 16A
- Max.Power Consumption: 1000 W Max.
- Air: 4-6 bar of clean dry air for anti-vibration
- Operating Temp. Range: 10 - 30°C
- Humidity: < 85% (non-condensing)

**For more information,  
speak with your Nordson  
representative or contact  
your Nordson regional office**

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