

Technical Data Sheet

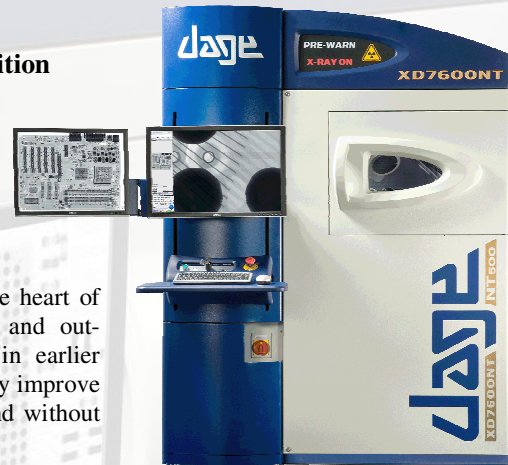
Dage X-ray Inspection System – XD7600NT₅₀₀

Dage NT500 X-ray Tube

- ✓ High Resolution – 500nm (0.5µm) feature recognition
- ✓ Power – up to 3W, no loss of resolution
- ✓ High Magnification – 1500X geometric mag.
- ✓ Sealed-Transmissive Tube – filament-free
- ✓ Guaranteed Minimum Tube Lifetime¹

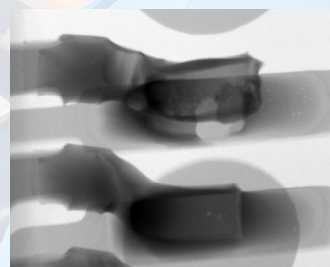
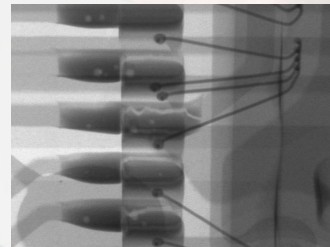
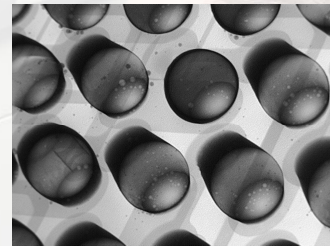
The unique Dage NT sealed-transmissive type of X-ray tube, the heart of the Dage XD7600NT₅₀₀ X-ray inspection system, supersedes and outperforms the closed and open tube types that are available in earlier systems. The sealed-transmissive tube is the only way to genuinely improve X-ray image resolution whilst still providing true high power and without compromising the resolution and magnification:

Up to 3 W of power at 500 nm feature recognition over 30 – 160 kV



Dage XD7600NT₅₀₀ X-ray Inspection System

- 1,500 X Geometric Magnification (7,000 X system magnification)
- Easy Collision-Free, High Magnification Inspection – even at oblique angle views
- Maximum Board Size / Inspection Area – 20” x 17.5” (508 x 444 mm) without oblique views
- Maximum Inspection Area – 18” x 16” (458 x 407 mm) with oblique views
- 70° Oblique Angle Views – for any location 360° around entire inspection area
- χ iDAT Digital Detector – 4” diameter digital image intensifier
- 2.0 Mpixel Digital CCD Camera – 30 frames per second ‘real time’ image acquisition
- 16-bit Image Processing
- A χ iS - Active X-ray Image Stabilisation – external vibration isolation down to 4 Hz
- 24” Digital Colour Flat Panel, Wide-Screen, LCD Operator Display
- Second 24” Monitor – for extended desktop and Dage Image Wizard software functions
- Fully Lead-Shielded System Safety Cabinet – providing < 1 µSv/hr X-ray leakage

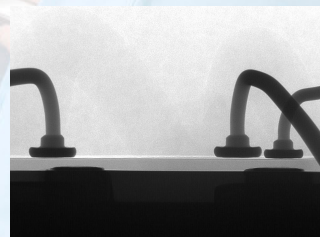
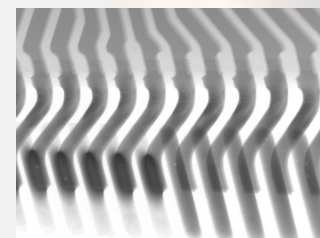
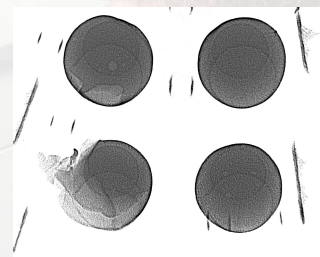
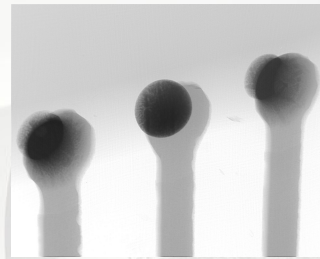
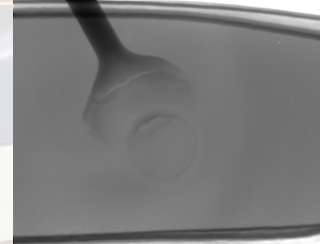


A vertical system configuration with the X-ray tube sitting below the isocentric ‘move and tilt’ of the detector, provides the collision-free, high magnification inspection required for today’s inspection tasks. A secondary monitor is also available for additional software functionality, such as automated Head in Pillow (HiP) analysis and a large navigation map display, or used as an extended desktop for displaying work instructions and many other applications.

¹ simple, maintenance-free, low cost of ownership, tube exchange policy
Specification subject to change without notice

Dage Image Wizard Operating Software

- **Easiest to Use X-ray Systems in the Industry**
 - intuitive 'Point and Click' operation
- **No Complicated Joystick Controls**
 - giving quick analysis without collision risk
- **Patented X-ray Navigation Map²**
 - for easy location, identification and repair of faults
- **Automated Inspection Routines**
 - simple creation and use through the Dage Inspection Wizard
- **Automated and Manual BGA Analysis**
 - diameters, void percentage, area, roundness
- **Automated QFN Analysis**
 - void percentages, open joints
- **Automated and manual Die Attach / Area Void Percentage Calculation**
- **HTML Report Generation of Automated Results**
- **Pin-in-Hole (Barrel) Fill Calculation**
- **Automated and Manual Wire Sweep Calculation**
- **Distance Measurement Facilities**
- **Image Contrast and Enhancement Functions**
- **Saving of Images in JPG, BMP or TIFF Formats**
- **Video Capture**
- **Dage Image Wizard – simplifies system operation**
- **Multi-Language Capability**
- **Full System Control – tube, optimisation, maintenance**
- **Integrated PC runs Windows XP and offering full network availability**



Options

- **Automated Head in Pillow (HiP) Analysis for BGA inspections**

System Specification

- **Footprint – 1450 (W) x 1700 (D) x 1970 (H) mm (57" x 67" x 77.5")**
- **Weight – 1950 kg (4300 lbs)**
- **Maximum Sample Weight – 5 kg (11 lbs)**
- **Power – Single phase 200 – 230 Vac, 16 A maximum**
- **Air – 4 – 6 bar clean, dry for anti-vibration control**
- **Power Consumption – 1000 W maximum**
- **Operating Temperature Range – 10 – 30°C**
- **Operating Humidity – Below 85% (non-condensing)**

For more information: www.dage-group.com

² EP 2063261
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