Technical Data Sheet

# Dage X-ray Inspection System – XD7500NT$_{950}$HP

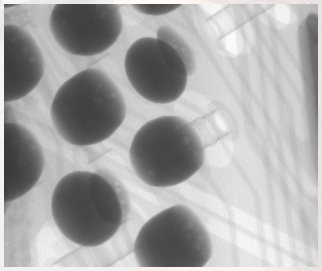

## Dage NT950HP X-ray Tube

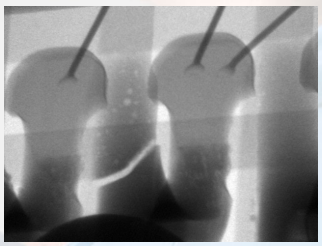
- ✓ **High Resolution – 950nm (0.95µm) feature recognition**
- ✓ **High Power – up to 10W, no loss of resolution**
- ✓ **High Magnification – 1500X geometric mag.**
- ✓ **Sealed-Transmissive Tube – filament-free**
- ✓ **Guaranteed Minimum Tube Lifetime**[1]

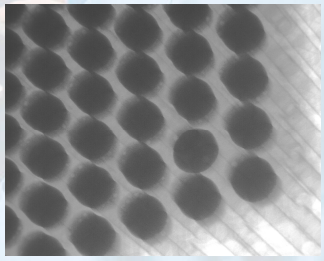
The unique Dage NT sealed-transmissive type of X-ray tube, the heart of the Dage XD7500NT$_{950}$HP X-ray inspection system, supersedes and out-performs the closed and open tube types that are available in earlier systems. The sealed-transmissive tube is the only way to genuinely improve X-ray image resolution whilst still providing true high power and without compromising the resolution and magnification:

**4 – 9 W of power at 950 nm feature recognition over 40 – 100 kV**
**Up to 10 W of power at 950 nm feature recognition over 110 – 160 kV**

## Dage XD7500NT$_{950}$HP X-ray Inspection System





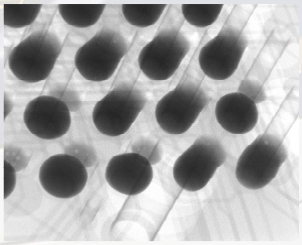


- ➢ **1,500 X Geometric Magnification (7,000 X system magnification)**
- ➢ **Easy Collision-Free, High Magnification Inspection**
  **– even at oblique angle views**
- ➢ **Maximum Board Size / Inspection Area**
  **– 20" x 17.5" (508 x 444 mm) without oblique views**
- ➢ **Maximum Inspection Area**
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

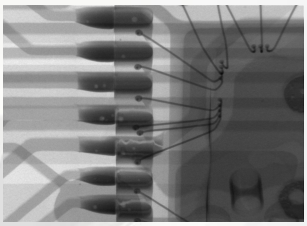
A vertical system configuration with the X-ray tube sitting below the isocentric 'move and tilt' of the detector, provides the collision-free, high magnification inspection required for today's inspection tasks. An optional upgrade to a 2.0 Mpixel camera is available. A secondary monitor is also optionally 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

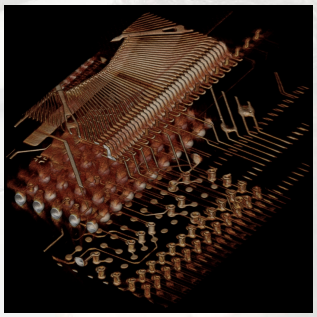
## Dage Image Wizard Operating Software



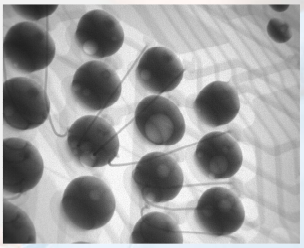
- **Easiest to Use X-ray Systems in the Industry**
  **– intuitive 'Point and Click' operation**
- **No Complicated Joystick Controls**
  **– giving quick analysis without collision risk**
- **Patented X-ray Navigation Map[2]**
  **– for easy location, identification and repair of faults**
- **Automated 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**

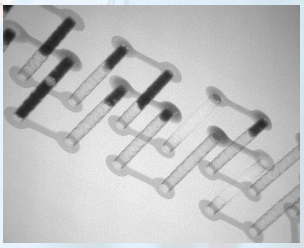


## Options



- **Full CT Functionality**
  **– with system order or as a retro-fit (see separate data sheet)**
- **2.0Mpixel camera / 24" monitor (8,700 X system magnification)**
- **Secondary monitor**
- **Automated Head in Pillow (HiP) Analysis for BGA inspections[3]**

## 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**
- **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

[3] Requires secondary monitor