

XD7600NT

XIDAT 2.0 X-ray Inspection System

250nm Feature Recognition

XIDAT 2.0 Digital Imaging System – 2 Mpixels @ 30fps

AXIS – Unique Image Stabilisation System

70° Isocentric Angular View



dage



XD7600NT

X-ray Integrated Digital Acquisition Technology

The Dage XD7600NT provides the highest resolution and largest X-ray images for failure analysis with oblique angles up to 70°, displayed at full 2 Mpixel resolution on-screen

This performance is available with the ease of use for which Dage systems have become universally acclaimed making this superior functionality readily available for the most demanding X-ray inspection tasks

Dage X-ray systems provide

- The easiest to use X-ray systems in the industry
- No complicated joystick controls
- Intuitive Point-and-Click operation
- Oblique angle views without compromising the high magnification
- Collision-free sample movement
- Dage Image Wizard
- Real-time digital X-ray inspection

Standard on the XD7600NT

- Enhanced resolution X-ray images from the next generation XIDAT 2.0 imaging chain
- 16-bit image processing with live images at 30fps
- 2 Mpixel images with > 65,000 greyscale levels
- 24" widescreen monitor presenting the full X-ray image at full size resolution

XD7600NT FEATURES:

- 250nm (0.25 micron) feature recognition
- Revolutionary 'filament-free' Dage NT X-ray Tube
- Guaranteed minimum tube operating lifetime
- AXIS – Active X-ray Image Stabilisation
- XIDAT 2.0 imaging chain
- Up to 70° oblique angle views over the entire inspection area
- 24" widescreen digital LCD monitor
- Enhanced automated inspection routines
- Automatic BGA and die-void measurements
- Comprehensive data logging and reporting facilities
- Uninterrupted rotating live oblique views 360° around any point in the sample
- Windows XP operating system
- CT option available



Achieving the best X-ray image quality for current and future needs within the semiconductor and PCB industries has challenged Dage to consider and improve all aspects of the X-ray inspection system.

Initially, our research and development focus resulted in the launch of our range of XiDAT digital X-ray systems, which have provided the best image quality in the industry, as standard.

Now this has been dramatically improved for the XD7600NT by the inclusion, as standard, of the XiDAT 2.0 digital imaging system. This provides 16-bit greyscale resolution with 2 Mpixel images acquired at 30 frames per second that are presented at full resolution on-screen (1600 x 1200 pixels) all without any compromise to system operation and functionality to give the optimum analytical capabilities through improved image quality acquired in less time. The XD7600NT has therefore opened up entirely new levels of inspection, not only within failure analysis laboratories but also within the production environment.

At the heart of the Dage XD7600NT, to provide the best X-ray image quality for inspecting the smallest and most demanding features affecting product quality, is the revolutionary new Dage NT

X-ray tube. When this is coupled with the XiDAT 2.0 imaging chain, the AXIS (integrated anti-vibration system), oblique angle views of up to 70° and the ease of use and sophistication of the Dage Image Wizard operating software this takes X-ray inspection to the next level.

With the first totally new X-ray tube in the industry for many years, the revolutionary Dage NT X-ray tube provides minimum feature recognition down to 250 nm (0.25 microns) at the highest magnifications. The patent applied for 'filament-free' design of the NT tube improves upon the best features of both open and closed styles of X-ray tubes by giving substantially better performance than traditional open X-ray tubes but with all the benefits of the 'fit and forget', maintenance-free nature of closed X-ray tubes. All this is guaranteed by an extended lifetime warranty.

At the highest magnifications and the smallest resolutions, any vibrational interference can affect the image quality, especially when operating within production environments. To counteract this, the XD7600NT incorporates AXIS, as standard.

This active image stabilisation control, through air suspension, results in

vibrational isolation of the system down to 4 Hz.

All the features within the Dage XD7600NT have been developed and integrated together to provide superb image quality and low cost of ownership that can be maintained for the most demanding of applications and working environments.

When you need the best, the XD7600NT provides it. Always. As standard.

To further enhance the viewing capabilities of the XD7600NT, a CT option is available as an upgrade providing:

- Real time CT model manipulation
- Ability to make multiple cross-sections (MPR) at any orientation
- Image manipulation – rotate, pan and zoom
- Ability to make multiple cross section (MPR) at any orientation
- Ultra-quick 512³ voxel default CT reconstructions with 1024³ available
- Rapid switching in-system between 2D and 3D analysis
- Ultra fast image reconstruction times

Please consult the CT brochure for further specification details.



XD7600NT | Specifications

Specifications	XD7600NT
System footprint (W x D x H)	1450mm x 1700mm x 1970 mm
Gross weight	1700 kg
Minimum feature recognition	250 nm (0.25 microns)
Tube voltage	30 – 160 kV from 'filament-free' X-ray tube
Maximum board size	20" x 17.5" (508 x 444 mm)
Maximum inspection area	18" x 16" (458 x 407 mm)
Maximum sample weight	5 kg
Facilities requirements	Power: Single phase, 200 – 230 Vac, 16 A Max. Air: 4–6 bar clean, dry for anti-vibration control
Oblique angle view	0 – 70° for any view, 360 degrees around any position over entire inspection area
System magnification (geometric)	Up to 9200 X (1600 X)
System monitor	24" widescreen digital LCD flat panel (1920 x 1200 pixels) displaying at full resolution the XiDAT 2.0 X-ray images of 1600 x 1200 pixels
Safety	X-ray leakage < 1 µSv/hr
CT	Option - Please consult CT brochure for details

GLOBAL PRESENCE, GLOBAL SUPPORT, LOCAL CARE

With 6 direct offices and representatives world wide, Dage can support you locally as well as internationally. Please contact your nearest Dage office if you require any further information or would like a demonstration of our XD7600NT system.

Our website: www.dage-group.com will also give additional details on Dage and its range of products as well as the contact details for your local Dage representative.

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